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Product Name	Main Technical Indicators	Page
J63A Series Ultramicro-rectangular Electrical Connector	It conforms to MIL-DTL-32139. The contact adopts flexible twist pins, the contact spacing is 0.635 mm, and the overall dimension is small. It has nine types of spectrum specifications of 9, 15, 21, 25, 31, 37, 51, 65 and 69. The tail termination includes crimping wire, PCB, surface-mount, crimping connector and other forms. It is suitable for military systems and other electronic equipment systems with lightweight and miniaturization requirements such as aerospace, aviation and weapons.	1
J30J Series Micro-rectangular electrical connector	It conforms to MIL-C-83513. It adopts in-line connection, which is small in size, light in weight, easy to use and reliable in performance. The contact adopts flexible twist pins and rigid Jack structure. It has eleven types of spectrum specifications of 9, 15, 21, 25, 31, 37, 51, 66, 74, 100 and 144. According to the tail termination form, it can be divided into crimping, welding, in-line PCB and bent PCB, etc.; according to the structural form, it can be divided into ordinary type, quick-lock type, reverse-mounted type, glue sealing type, glass-sintered sealing type and stainless steel series variant type. It is suitable for electrical connection between various electrical equipment.	38
J30JZ Series Micro-rectangular electrical connector	It conforms to MIL-C-83513. It is an in-line micro-rectangular electrical connector with trapezoidal housing positioning; the contact adopts flexible twist pins and rigid Jack structure; the size is only about 40% of J30J products with the same number of cores, without tail cover. The spectrum is the same as J30J, with ten types of spectrum specifications of 9, 15, 21, 25, 31, 37, 51, 66, 74 and 100. It is suitable for internal electrical connection of various small instruments and equipment.	109
HJ30J Series High-speed transmission micro-rectangular electrical connector	It conforms to MIL-C-83513. It is an in-line micro-rectangular electrical connector with trapezoidal housing positioning and the same structural dimensions as J30J series products; it has high-speed transmission: 1.65 Gbps, high-density contacts, spacing $1.27 \text{ mm} \times 1.27 \text{ mm}$, and more differential pairs per unit length. It has seven specifications of 12, 18, 24, 30, 36, 55 and 100 cores. It is suitable for 100M, Gigabit Ethernet or other high-speed data transmission environment.	125
J30J Series Micro-rectangular Electrical Connector with Large and Small Current Mixed	It conforms to MIL-C-83513. It adopts in-line connection, which is small in size, light in weight, easy to use and reliable in performance. The large and small current mixed can meet different current requirements. The small-current contact adopts flexible twist pins and rigid Jack structure with a rated current of 3A; the large-current contact adopts rigid pins and elastic jacks structure with a rated current of 20A. According to the tail termination form, it can be divided into crimping, welding, in-line PCB and bent PCB, etc. It is suitable for electrical connection between various electrical equipment.	144
MDMA Series Micro-rectangular Electrical Connector with Detachable Contact	It conforms to MIL-C-83513. The contact adopts flexible twist pins and rigid Jack, which is small in size and light in weight. The contact is detachable, flexible in use and can be repaired at a single point. It has six types of spectrum specifications of 9, 15, 21, 25, 31 and 37. It is suitable for electrical connection between various electrical equipment.	164
J30 Series Micro-rectangular Electrical Connector	It conforms to the requirements of equivalent to MIL-C-83513. It has seven specifications of 9, 15, 21, 25, 31, 37 and 51 cores. It adopts stranded elastic pins (twist pins) with high contact density. The product adopts plastic housing and provides a variety of locking assemblies and tail termination forms.	169
J29A Series Micro-rectangular Electrical Connector	With reference to MIL-C-83513, it has eight specifications of 9, 15, 21, 25, 31, 37, 51 and 66 cores. It adopts stranded elastic pins (twist pins) and provides a variety of locking assemblies and tail covers. There are many kinds of terminations such as crimping, welding, in-line PCB and bent PCB, which are widely used in the circuit connection of aerospace, aviation, electronic computers and other electronic equipment.	192
J64 Series Micro-rectangular Electrical Connector	With reference to MIL-C-83513, it adopts in-line connection, which is small in size, light in weight, easy to use and reliable in performance. The contact adopts flexible twist pins and rigid Jack structure. It has nine types of spectrum specifications of 10, 16, 22, 25, 31, 37, 52, 64 and 70 cores. According to the tail termination form, it can be divided into crimping, welding, in-line PCB and bent PCB, etc. It is suitable for electrical connection between various electrical equipment.	230

Micro-rectangular Cable Network (DL-308)	According to the user's requirements, the single-branch cable, multi-branch cable, large three-dimensional cable network, rigid-flex PCB and other cable assemblies have been produced. The micro-rectangular cable assemblies have superior performance indexes and can adapt to the special requirements of various complex natural environments and mechanical environments, such as low temperature, high temperature, lead shielding, and 360° shielding, etc.	243
Y34M Series Micro-circular Electrical Connector	With reference to MIL-C-83513, the Y34M series micro-circular electrical connector adopts stranded elastic pins (twist pins), with two locking modes of thread locking and push-pull locking, and seven specifications of 4, 7, 11, 19, 37, 55 and 85 cores. It is small in size, light in weight, easy to use and reliable in performance, and is suitable for military electronic systems and circuit connections between various electrical and electronic equipment.	245
Fuzz Button	It is specially wound by a single metal wire, with elastic contact and free of welding, which is suitable for interconnection applications of ultra-small space. It has small size, light weight, long life, and reliable contact. It can transmit high-frequency, high-speed and other signals, and is widely used in aerospace, military fighters, phased radar arrays, satellites, missiles and other military fields.	253

Disclaimer

Note: This product manual is only for reference before model selection and contract signing, and cannot be used as the basis for product design and acceptance by the user. Please refer to the actual consultation, contract or relevant technical specifications. In case of any discrepancy between this manual and the previous manual, this manual should prevail.

Size comparison chart of various types of products, taking the 15-core (J64 is 16-core) plug as an example



J63A Ultramicro-rectangular Electrical Connector

Product Overview

- Comply with MIL-DTL-32139 General Specification for Ultramicro-rectangular Electrical Connectors with Housing Positioning
- Adopt stranded elastic ultramicro pins (commonly known as twist pins)
- Contact spacing is 0.635 mm
- There are nine types of spectrum

specifications of 9, 15, 21, 25, 31, 37, 51, 65 and 69

- The plug is installed with the pin and the socket is installed with the Jack
- The conventionally mated connectors at the free end and the fixed end are screwed and butted by the locking screw and the connecting nut
- Tail termination includes crimping wire, PCB, surface-mount, crimping connector and other forms
- The sectional area of the suitable crimping wire is 0.035 mm², and the wire gauge number is AWG32
- It is suitable for military systems and other electronic equipment systems with lightweight and miniaturization requirements such as aerospace, aviation and weapons
- Execute enterprise standard: Q/Ag 1.262 Detailed Specification for J63A Series Rectangular Electrical Connectors

Product Performance

Relative humidity

98% at 40 °C

Mechanical Pro	perties					
Housing	Aluminum alloy	Vibration	Sinusoidal vibration	Frequency 10 ~ 2000 Hz,		
Plating	Nickel plating			Acceleration 196 m/s ²		
Insulator	Thermoplastic		Random vibration	Power spectral density 0.4		
Contact Gold-plated copper alloy, crimping type, PCB typ		e,		g²/Hz		
	surface-mount type			Total acceleration RMS		
Mechanical life	200 plugging and unplugging cycles			23.1G		
		Impact Peak sawtooth wave after 6 ms, peak acceleration 9 m/s ²				
Electrical Perfo	rmance					
Contact rated cu	rrent 1A	Withstand voltage (under normal atmospheric conditions) 250 Vrms				
Contact resistant	$ce \le 21 m\Omega$	Under wet conditions, 100 Vrms				
Insulation resista	$ \begin{array}{ll} \text{(under normal conditions)} \geq 5000 \text{ M}\Omega \\ \text{Under wet conditions,} \geq 1 \text{ M}\Omega \end{array} $		Under low pressu	rre (4.39 kPa), 100 Vrms		
Environmental	Performance					
Temperature ran	ge $-55 ^{\circ}\text{C} \sim +125 ^{\circ}\text{C}$	Liquid impregnation Hydraulic fluid, diluent, refrigerant				
Salt spray 48h		Working height \leq 21336 m				



Model Designation

Basic Ser	rial Number	J63A	-	2	1	2	-	02	-	1	1	-	J C	(Additio
								5		0			C	Informat
Number of	of contact rows	2 - Two rows of a	contacts											ion)
Туре	1 - Straight plug (crimping/straddli	ng type)											
	2 - Straight socket	t/straight verticall	y-mounted	socket (cr	imping/straddling									
	type)		1 4 7	· · · · · · ·										
	3 - Horizontally in	istalled crimping	plug 4 - I	Horizontall	y installed									
	5 - Crimping socket	with a tail cover												
	6 - Crimping sock	et with a tail cover	er/Verticall	v-mounted	crimping socket									
	with a tail cover) 1110 u 110 0 u	eninping seemer									
	7 - Horizontally in	nstalled crimping	plug with a	tail cover										
	8 - Horizontally in	nstalled crimping	socket with	n a tail cov	er									
	9 - Vertically-mou	unted crimping pl	ug 0 - V	ertically-n	nounted crimping									
			plug	with a tail	cover									
	A - Vertical surface	ce-mount plug	B - V	ertical sur	face-mount socket									
	C - Horizontal sur	face-mount plug	D - F	Iorizontal	surface-mount									
		1	sock	et	1 4									
	E - Bent PCB-type	e plug	F-В Ц	ent PCB-t	ype socket									
	L - Crimping conj	ope plug	п-п		s-type socket									
	U - Floating-mou	nted crimping plu	o with a ou	ide nost										
	W - Flange-mount	ted crimping soch	tet with a g	uide hole										
Housing	2 - Nickel plating	18	8											
plating														
Number	009; 015; 021; 02:	5; 031; 037; 051;	065; 069	· · · · ·										
of	(The number of co	ontacts is represent	nted by $3 di$	gits, and the	ne corresponding									
contacts	spectrum chart is	detailed in Cont	act Arrange	(ment)										
Termina	t12 - Vertical/horiz	zontal/straddling	surface-mo	unt type pi	n; 22 -									
ion form	Vertical/horizonta	l/straddling surfa	ce-mount t	ype Jack	,									
	13 - In-line PCB-t	type pin with 2.77	/ mm lead l	ength; 23 -	In-line PCB-type									
	Jack with 2.77 mm	n lead length												
	14 - In-line PCB-t	type pin with 3.56	5 mm lead l	ength; 24 -	In-line PCB-type									
	Jack with 3.56 mm	n lead length		1 05	I I' DOD									
	15 - In-line PCB-t	type pin with 4.3	mm lead l	ength; 25 -	In-line PCB-type									
	Jack with 4.57 mi	n lead length	ack											
	32 - Bent PCB-tyr	, 20 - Chinping J ne nin with 2 77 r	aux nm lead ler	oth: 43 - F	Rent PCR-type									
	Jack with 2.77 mm	n lead length		igui, +5 - 1	Jent I CD-type									
	33 - Bent PCB-typ	pe pin with 3.56 r	nm lead ler	ngth; 44 - E	Bent PCB-type									
	Jack with 3.56 mm	n lead length		0 /	51									
	34 - Bent PCB-typ	pe pin with 4.37 r	nm lead ler	ngth; 45 - E	Bent PCB-type									
	Jack with 4.37 mm	n lead length												
	PP - The plug is c	orrespondingly c	onnected w	ith the plug	g; PS - The plug is									
	correspondingly c	onnected with the	e socket; SS	S - The soc	ket 1s									
Contact	Correspondingly c	connected with the	e socket											
nlating	i - Oold plating													
plating														
Locking	JC - Slotted locking	ng screw; JC1 - H	lexagon soc	ket lockin	g screw; TH-									
parts	connecting nut; T	H1 - Connecting	nut with we	elding insta	Illation function;									
	DZ - guide post; I	DK - guide hole; S	SH-guide h	ole with w	elding installation									
	function; NH - nu	t-mounted guide	hole;											
Addition	Crimping connect	art.	wided with	additional	information on the									
al	wire such as wire	color length sp	ecification	etc. as she	wn in Table 1									
Informat	the, such as whe	color, lengui, sp	controllition,	etc., as site										
ion														

No.	Classification feature	Classification content	Mark code
1	Wire color	R: red; W: white; M: purple; G: green; A: gray; U: blue; Y: yellow; B: black; N: orange;	R, W, M, G, A, U, Y, B, N
2	L	Connector with wires	L
3	Wire length	200, wire length value in mm	200
4	Wire specification	A: 0.035 mm ² AF-1, etc.	A, etc.
5	Additional requirements	No indication: no additional requirements 1: Wire jacket nylon sleeve 2: Wire jacket anti-wave sleeve, etc.	1, 2, etc.

Table I wire naming rules	Table 1	Wire nami	ng rules
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Model naming example: J63A-212-069-161-JC (RL200A): J63A crimping type 69-core plug, two rows of contacts, chemical nickel plating on the housing, crimping pins on the contacts, gold plating on the surface, and slotted locking screws on the locking parts. (Additional information: 200 mm red AF-1 wires with a sectional area of 0.035 mm² should be crimped to each hole.)

Classification Table of J63A Series

Connector Type	Basic Identification	Structural Features		
	Plug J63A-212-XXX-161-JC(JC1)	With locking screw, crimping pin		
	Socket J63A-222-XXX-261-JC(JC1)	With locking screw, crimping Jack		
	Socket J63A-222-XXX-261-TH	With connecting nut, crimping Jack, vertical mounting		
	Plug J63A-292-XXX-161-TH	With connecting nut, crimping pin, vertical mounting		
	Plug J63A-232-XXX-161-TH	With connecting nut, crimping pin, horizontal mounting		
	Socket J63A-242-XXX-261-TH	With connecting nut, crimping Jack, horizontal mounting		
Crimping type	Crimping conjoined type J63A-2J2-XXX- PS1	The plug is connected with the socket		
	Crimping conjoined type J63A-2J2-XXX- PP1	The plug is connected with the plug		
	Crimping conjoined type J63A-2J2-XXX- SS1	The socket is connected with the socket		
	Plug J63A-2U2-XXX-161-00	No locking part, crimping pin, floating-mounted with a guide post		
	Socket J63A-2W2-XXX-261-00	No locking part, crimping Jack, flange-mounted with a guide hole		
	Socket J63A-222-XXX-261-NH	Guide hole with nut mounting, crimping Jack, vertical mounting		
	Plug J63A-252-XXX-161-JC(JC1)	With a shielding tail cover, compared with J63A-212-XXX-161- JC(JC1) products		
	Socket J63A-262-XXX-261-JC(JC1)	With a shielding tail cover, compared with J63A-222-XXX-261- JC(JC1) product		
	Socket J63A-262-XXX-261-TH	With a shielding tail cover, compared with J63A-222-XXX-261-TH products		
	Plug J63A-202-XXX-161-TH	With a shielding tail cover, compared with J63A-292-XXX-161-TH product		
	Plug J63A-272-XXX-161-TH	With a shielding tail cover, compared with J63A-232-XXX-161-TH product		
	Socket J63A-282-XXX-261-TH	With a shielding tail cover, compared with J63A-242-XXX-261-TH product		
	Plug J63A-2A2-XXX-121-TH	With connecting nut, vertical surface-mount type pin, vertical mounting		
	Plug J63A-2A2-XXX-121-DZ	The connecting nut is replaced by the guide post, compared with J63A-2A2-XXX-121-TH products		
Vertical surface-	Socket J63A-2B2-XXX-221-TH	With connecting nut, vertical surface-mount type Jack, vertical mounting		
mount type	Socket J63A-2B2-XXX-221-NH	The connecting nut is replaced by the nut-mounted guide hole, compared with J63A-2B2-XXX-221-TH products		
-	Socket J63A-2B2-XXX-221-TH1	With welding connecting nut, vertical surface-mount Jack, vertical welding mount		
	Socket J63A-2B2-XXX-221-SH	The locking part is replaced by the welding guide hole, compared with J63A-2B2-XXX-221-TH1 products		
	Plug J63A-2C2-XXX-121-TH	With connecting nut, horizontal surface-mount pin, horizontal mounting		

Table 2 Classification of J63A Series

Horizontal surface- mount type	Socket J63A-2D2-XXX-221-TH	With connecting nut, horizontal surface-mount Jack, horizontal mounting		
	Plug J63A-2E2-XXX-32(33)(34)1-TH	With connecting nut, bent PCB pin, horizontal mounting		
	Plug J63A-2E2-XXX-32(33)(34)1-DZ	The connecting nut is replaced by the guide post, compared with J63A-2E2-XXX-32(33)(34)-TH products		
Bent PCB type	Plug J63A-2E2-XXX-32(33)(34)1- JC(JC1)	With locking screw, bent PCB pin		
	Socket J63A-2F2-XXX-43(44)(45)1-TH	With connecting nut, bent PCB Jack, horizontal mounting		
	Socket J63A-2F2-XXX-43(44)(45)1-DK	The connecting nut is replaced by the guide hole, compared with J63A-2F2-XXX-43(44)(45)-TH products		
	Plug J63A-2G2-XXX-13(14)(15)1-TH	With connecting nut, in-line PCB pin, vertical mounting		
In-line PCB	Plug J63A-2G2-XXX-13(14)(15)1-DZ	The connecting nut is replaced by the guide post, compared with J63A-2G2-XXX-13(14)(15)1-TH products		
type	Socket J63A-2H2-XXX-23(24)(25)1-TH	With connecting nut, in-line PCB Jack, vertical mounting		
	Socket J63A-2H2-XXX-23(24)(25)1-DK	The connecting nut is replaced by the guide hole, compared with J63A-2H2-XXX-23(24)(25)1-TH products		
Straddling	Plug J63A-212-XXX-121-JC(JC1)	With locking screw, straddling type surface-mount pin		
type	Socket J63A-222-XXX-221-TH	With connecting nut, straddling type surface-mount Jack		

Instructions for User Selection

J63A series products are screwed by threads, and the process of plugging and unplugging should be gentle, without impact on the product, which is conducive to protecting the product and peripheral components. Therefore, in general, when the mating connector is selected, one end shall be provided with connecting nuts (TH), and the other end shall be provided with locking screws (JC). In addition, the following matters should be known when selecting J63A products:

1. Crimping connectors are delivered with wires, and the user shall confirm the specification, color and length of the wires when selecting them. See Table 1 for the naming rules of the wires;

2. The tail cover can only be used for crimping connectors and cannot be disassembled. It is mainly used with the wire treatment method with shielding requirements;

3. When the plug is connected with the socket, it is necessary to alternately screw the locking screws at both ends while inserting, and it is not allowed to insert forcefully without screwing the locking screws, so as not to damage the product;

4. The default locking part mating of the crimping conjoined type is: the plug is provided with locking screws, the socket is provided with connecting nuts, and the serial numbers of the contacts are in one-to-one correspondence. The models of both ends of the connector shall be identified according to the order mark. If J63A-2J2-025-PS1 is ordered, the plug and socket models should be identified as J63A-2J2-025-PS1. If other forms of conjoined products are ordered, please contact our technical staff to clarify the product model.



Overall and Installation Dimensions

[Insertion Dimension of Plug and Socket]

When the electrical connector is completely inserted, the clearance between the plug flange face and the end face of the socket housing shall not be greater than 0.2 mm.



[J63A-212-XXX-161-JC(JC1) crimping plug with locking screws]

		4-R0.5
Number of cores	Α	3.48 B
9	9.63	6.86
15	11.53	8.76
21	13.44	10.67
25	14.71	11.94
31	16.61	13.84
37	18.52	15.75
51	22.96	20.19
65	27.41	24.64
69	28.68	25.91

Suitable for the free-end connector, not mounted, and butted with the socket with connecting nuts;

Locking parts include: JC - Slotted locking screw, C = 1.5 mm; JC1 hexagon socket locking screw, C = 2.1 mm.

[J63A-222-XXX-261-JC(JC1) crimping socket with locking screws]



Suitable for the free-end connector, not mounted, and butted with the plug with connecting nuts;

Locking parts include: JC slotted locking screw, C = 1.5 mm; JC1 hexagon socket locking screw, C = 2.1 mm.

[J63A-222-XXX-261-TH vertically-mounted crimping socket with connecting nuts]



Suitable for the fixed-end connector, vertically mounted, and butted with the plug with locking screws.





Suitable for the fixed-end connector, vertically mounted, and butted with the socket with locking screws.

[J63A-232-XXX-161-TH horizontally-mounted crimping	g plug with connecting nuts]

		4.75 • • • • • • • • • • • • • • • • • • •	Mounting panel and mounting screw
Number of cores	А	В	С
9	9.63	6.86	4.31
15	11.53	8.76	6.22
21	13.44	10.67	8.13
25	14.71	11.94	9.4
31	16.61	13.84	11.3
37	18.52	15.75	13.21
51	22.96	20.19	17.65
65	27.41	24.64	22.1
69	28.68	25.91	23.37

Suitable for the fixed-end connector, with the long-row end of the contact horizontally mounted against the mounting plate and butted with the socket with locking screws.



[J63A-242-XXX-261-TH horizontally-mounted crimping socket with connecting nuts]

Suitable for the fixed-end connector, with the long-row end of the contact horizontally mounted against the mounting plate and butted with the plug with locking screws.

[J63A-2J2-XXX-PS(PP) (SS)1 crimping conjoined type]

		F direction	Plug	Socket	E direction 4-R0 5	
		1.61	9:LM-2 2.67 6.8	L (leggh is castomized requirements) 6.5	 <!--</td-->	
Number of cores		А	i i	В		
9		9.63		6.86		
15		11.53		8.76		
21		13.44		10.67		
25	14.71			11.94		
31		16.61		13.84		
37		18.52		15.75		
51		22.96		20.19		
65		27.41		24.64		
69		28.68		25.91		

Conjoined type: PP plug is connected with the plug; PS plug is connected with the socket; SS socket is connected with the socket;

Default form of locking parts: plug with JC locking screws and socket with TH connecting nuts;

The contact numbers of the conjoined connector are in one-to-one correspondence.

		4.1 2.67 2.67 0.5	if hole position become of the position become of the position become of the position becom	$2 - \emptyset 1.8$
Number of cores	Α	В	С	D
9	17.6	13.6	6.86	4.2
15	19.5	15.5	8.76	6.1
21	21.4	17.4	10.67	8
25	22.7	18.7	11.94	9.3
31	24.6	20.6	13.84	11.2
37	26.5	22.5	15.75	13.1
51	30.9	26.9	20.19	17.6
65	35.4	31.4	24.64	22
69	36.7	32.7	25.91	23.3

[J63A-2U2-XXX-161-00 floating-mounted crimping plug with a guide post, no locking part]

Suitable for the blind-insertion connector, floating-mounted with a guide post, and butted with the socket with a guide hole.

[J63A-2W2-XXX-261-00 flange-mounted crimping socket with a guide hole, no locking part]

			Mounting panel and mounting screw				
				2-Ø1.8	$2-\emptyset 1.8$ 0 0 0 0 0 0 0 0		
Number of cores	А	В	С	D	Е		
9	17.6	13.6	6.86	4.2	9.63		
15	19.5	15.5	8.76	6.1	11.53		
21	21.4	17.4	10.67	8	13.44		
25	22.7	18.7	11.94	9.3	14.71		
31	24.6	20.6	13.84	11.2	16.61		
37	26.5	22.5	15.75	13.1	18.52		
51	30.9	26.9	20.19	17.6	22.96		
65	35.4	31.4	24.64	22	27.41		
69	36.7	32.7	25.91	23.3	28.68		

Suitable for the fixed-end connector, flange-mounted with a guide hole, and butted with the plug with a guide post.





Suitable for the fixed-end connector, nut-mounted with a guide hole, and butted with the plug with a guide post.

[J63A-252-XXX-161-JC(JC1) crimping plug with locking	screws and a tail cover]
	, , , , , , , , , , , , , , , , , , , ,	

			Binding wire Shielding under shielding under s	R0.9 nesh and leeve
Number of cores	А	В	С	D
9	10.5	6.86	4.2	3.7
15	12.4	8.76	6.1	5
21	14.3	10.67	8	6.6
25	15.6	11.94	9.3	7.8
31	17.5	13.84	11.2	9.4
37	19.4	15.75	13.1	11.2
51	23.8	20.19	17.55	15.7
65	28.3	24.64	22	20.1
69	29.5	25.91	23.25	21.4

Suitable for the free-end connector, not mounted, and butted with the socket with connecting nuts;

Locking parts include: JC - Slotted locking screw, E = 1 mm; JC1 hexagon socket locking screw, E = 1.6 mm;

Integrated tail cover, non-detachable.

			Binding wire Binding wire Shield and ny A.2 3.1 E 1 0.2	ing mesh fon sleeve
Number of cores	А	В	С	D
9	10.5	6.86	4.2	3.7
15	12.4	8.76	6.1	5
21	14.3	10.67	8	6.6
25	15.6	11.94	9.3	7.8
31	17.5	13.84	11.2	9.4
37	19.4	15.75	13.1	11.2
51	23.8	20.19	17.55	15.7
65	28.3	24.64	22	20.1
69	29.5	25.91	23.25	21.4

[J63A-262-XXX-261-JC(JC1) crimping socket with locking screws and a tail cover]

Suitable for the free-end connector, not mounted, and butted with the plug with connecting nuts;

Locking parts include: JC slotted locking screw, E = 1 mm; JC1 hexagon socket locking screw, E = 1.6 mm;

Integrated tail cover, non-detachable.

[J0J/1-202-74747-201-1	i ii vertiealiy-mounted e	imping socket with cor	inceting nuts and a tail of	Loverj			
			Screwing depth of mounting screw				
			/ Mounting panel ar 4 5mm	ıd			
			T.JIIIUX	4-R0.9	0.11.0		
			Binding wire		2-01.8		
				Shielding			
				mesh and			
					02		
					° — + — ♀́		
C.C.		N (880) /		2			
C Alter				position			
- Anthe had a			42				
					4-R0.75		
	*		3.1	2.22	8min (
			7.1 10.2	4.7	Reference hole size of		
					mounting plate		
Number of cores	А	В	С	D	E		
9	10.5	6.86	4.2	3.7	4.3		
15	12.4	8.76	6.1	5	6.2		
21	14.3	10.67	8	6.6	8.1		
25	15.6	11.94	9.3	7.8	9.4		
31	17.5	13.84	11.2	9.4	11.3		
37	19.4	15.75	13.1	11.2	13.2		
51	23.8	20.19	17.6	15.7	17.65		
65	28.3	24.64	22	20.1	22.1		
69	29.5	25.91	23.3	21.4	23.35		

[J63A-262-XXX-261-TH vertically-mounted crimping socket with connecting nuts and a tail cover]

Suitable for the fixed-end connector, vertically mounted, and butted with the plug with locking screws;

Integrated tail cover, non-detachable.





Suitable for the fixed-end connector, vertically mounted, and butted with the socket with locking screws;

Integrated tail cover, non-detachable.

	zontanij mounteu erimping p	rug with connecting nuts e		N (; 1 1]	
		A.75 Binding wire Shielding mesh and nylon sleeve position 2.67 6.5 10.2 4.7 Binding wire Shielding mesh and nylon sleeve 4.7 Control of the loc the			
Number of cores	А	В	С	D	
9	10.5	6.86	4.2	3.7	
15	12.4	8.76	6.1	5	
21	14.3	10.67	8	6.6	
25	15.6	11.94	9.3	7.8	
31	17.5	13.84	11.2	9.4	
37	19.4	15.75	13.1	11.2	
51	23.8	20.19	17.55	15.7	
65	28.3	24.64	22	20.1	
69	29.5	25.91	23.25	21.4	

[J63A-272-XXX-161-TH horizontally-mounted crimping plug with connecting nuts and a tail cover]

Suitable for the fixed-end connector, with the long-row end of the contact horizontally mounted against the mounting plate and butted with the socket with locking screws;

Integrated tail cover, non-detachable.

		5.5	Binding wire shielding mesh and wion sleeve 2-M1.6 10.2	Nouring panel and RO.9
Number of cores	A	В	С	D
9	10.5	6.86	4.2	3.7
15	12.4	8.76	6.1	5
21	14.3	10.67	8	6.6
25	15.6	11.94	9.3	7.8
31	17.5	13.84	11.2	9.4
37	19.4	15.75	13.1	11.2
51	23.8	20.19	17.55	15.7
65	28.3	24.64	22	20.1
69	29.5	25.91	23.25	21.4

[J63A-282-XXX-261-TH horizontally-mounted crimping socket with connecting nuts and a tail cover]

Suitable for the fixed-end connector, with the long-row end of the contact horizontally installed against the mounting plate and butted with

the plug with locking screws;

Integrated tail cover, non-detachable.

[J63A-2A2-XXX-121-TH(DZ) vertically-mounted surface-mount plug]



Suitable for vertically-mounted connector. J63A-2A2-XXX-121-TH is butted with the socket with locking screws, and J63A-2A2-XXX-

121-DZ is butted with the socket with a guide hole;

Locking parts include: TH connecting nut;

DZ guide post;

Use SMT welding technology;



[J63A-2B2-XXX-221-TH(NH) vertically-mounted surface-mount socket]



Suitable for vertically-mounted connector. J63A-2B2-XXX-221-TH is butted with the plug with locking screws, and J63A-2B2-XXX-

221-NH is butted with the plug with a guide post;

Locking parts include: TH connecting nut;

NH nut-mounting guide hole;

Use SMT welding technology;



[J63A-2B2-XXX-221-TH1(SH) welding-mounted surface-mount socket]



Suitable for the connector which cannot be provided with mounting holes on PCB, adopting welding installation. J63A-2B2-XXX-221-TH1 is butted with the plug with locking screws, and J63A-2B2-XXX-221-SH is butted with the plug with a guide post;

Locking parts include: TH1 welding-mounted connecting nut;

SH welding-mounted guide hole;

Use SMT welding technology;







Suitable for the connector with the long-row end of the contact horizontally mounted against the mounting plate and butted with the socket with locking screws;

Use SMT welding technology, not applicable to manual welding;





[J63A-2D2-XXX-221-TH horizontally-mounted surface-mount socket with connecting nuts]

Suitable for the connector with the long-row end of the contact horizontally mounted against the mounting plate and butted with the plug

with locking screws;

Use SMT welding technology, not applicable to manual welding;



[J63A-2E2-XXX-32(33) (34)1-TH(DZ) horizontally-mounted bent PCB plug]



Suitable for the connector with the long-row end of the contact horizontally mounted against the mounting plate. J63A-2E2-XXX-321-TH is butted with the socket with locking screws, and J63A-2E2-XXX-321-DZ is butted with the socket with a guide hole;

The lead has three length specifications: the termination form 32 represents the lead length of 2.77 mm;

The termination form 33 represents the lead length of 3.56 mm;

The termination form 34 represents the lead length of 4.37 mm;

Locking parts include: TH connecting nut;

DZ guide post;



[J63A-2E2-XXX-32(33) (34)1-JC(JC1) flexible bent PCB plug with locking screws]



Suitable for the flexible PCB free-end connector, and butted with the socket with connecting nuts;

The lead has three length specifications: the termination form 32 represents the lead length of 2.77 mm;

The termination form 33 represents the lead length of 3.56 mm;

The termination form 34 represents the lead length of 4.37 mm;

Locking parts include: JC slotted locking screw, D = 1.5mm;

JC1 hexagon socket locking screw, D = 2.1mm;



[J63A-2F2-XXX-43(44) (45)1-TH(DK) horizontally-mounted bent PCB socket]



Suitable for the connector with the long-row end of the contact horizontally mounted against the mounting plate. J63A-2F2-XXX-431-TH is butted with the plug with locking screws, and J63A-2F2-XXX-431-DK is butted with the plug with a guide post; The lead has three length specifications: the termination form 43 represents the lead length of 2.77 mm;

The termination form 44 represents the lead length of 3.56 mm;

The termination form 45 represents the lead length of 4.37 mm;

Locking parts include: TH connecting nut;

DK guide hole.



[J63A-2G2-XXX-13(14) (15)1-TH(DZ) vertically-mounted in-line PCB plug]



Suitable for vertically-mounted connector. J63A-2G2-XXX-131-TH is butted with the socket with locking screws, and J63A-2G2-XXX-131-DZ is butted with the socket with a guide hole;

The lead has three length specifications: the termination form 13 represents the lead length of 2.77 mm;

The termination form 14 represents the lead length of 3.56 mm;

The termination form 15 represents the lead length of 4.37 mm;

Locking parts include: TH connecting nut;

DZ guide post;



[J63A-2H2-XXX-23(24) (25)1-TH(DK) vertically-mounted in-line PCB socket]



Suitable for vertically-mounted connector. J63A-2H2-XXX-231-TH is butted with the plug with locking screws, and J63A-2H2-XXX-231-DK is butted with the plug with a guide post;

The lead has three length specifications: the termination form 23 represents the lead length of 2.77 mm;

The termination form 24 represents the lead length of 3.56 mm;

The termination form 25 represents the lead length of 4.37 mm;

Locking parts include: TH connecting nut;

DK guide hole.



[J63A-212-XXX-121-JC(JC1) straddling flexible surface-mount plug with locking screws]



Suitable for the flexible PCB free-end connector with a thickness of not more than 0.25 mm, and butted with the socket with connecting nuts;

Locking parts include: JC slotted locking screw, C = 1.5mm;

JC1 hexagon socket locking screw, C = 2.1mm.




[J63A-222-XXX-221-TH Straddling flexible surface-mount socket with connecting nuts]

Suitable for the flexible PCB fixed-end connector with a thickness of not more than 0.25 mm, and butted with the plug with locking screws.



J30J Series Micro-rectangular Electrical Connector

Product Overview

- Trapezoidal housing positioning, in-line micro-rectangular electrical connector;
- The contact adopting flexible twist pins and rigid Jack structure;
- Small in size, light in weight, easy to use and reliable in performance;
- Number of cores: 11 specifications of 9, 15, 21, 25, 31, 37, 51, 66, 74, 100 and 144 cores;
- Execute enterprise standard:

Q/Ag 1.296 Detailed Specification for J30J Micro-rectangular Electrical Connectors

(conforming to MIL-C-83513, equivalent to MIL-C-83513)



 $90\% \sim 95\%$ at 40 °C

101.33 kPa ~ 4.39 kPa

Q/Ag 1.296.2 Detailed Specification for J30J Micro-rectangular Electrical Connectors (conforming to aerospace standard Q/QJA 20113/24-2018)

Product Performance

Mechanical Properties

Housing	Aluminum alloy, stainless steel	Impact	490m/s^2		
Plating	Nickel plating, passivation	Vibration	Sinusoidal	vibration	Frequency 10 ~ 2000 Hz
Insulator	Thermoplastic				Acceleration 196 m/s ²
Contact	Gold-plated copper alloy, crimping type,	Random vi	bration	Power spectr	al density 0.4G ² /Hz,
	welding type, PCB type			Total acceler	ation RMS 23.1G
Mechanical life	500 plugging and unplugging cycles				

Electrical Performance

Contact resistance and rated current of contacts				Magnetic permeability	Not more than 2.0				
Contact Specification	Contact res Before lifetime	istance mΩ After lifetime	Rated current A	Insulation resistance Withstand voltage	under normal conditions $\geq 5000 \text{ M}\Omega$; under damp and hot conditions $\geq 1 \text{ M}\Omega$ under normal conditions $\geq 600 \text{ Vrms}$; under damp and hot conditions $\geq 360 \text{ Vrms}$				
Twist pins	≤10	≤20	3		Under low pressure conditions > 150 Vrms				
Environmental Performance									

Relative humidity

Working air pressure

Temperature range $-55 \text{ °C} \sim +125 \text{ °C}$

48h

Salt spray

Model Designation

Code of main designation	J30J J30J: Nickel-plated aluminum alloy housing 30JS: Stainless steel housing passivation	А	-	9	TJ	W	P42	-	J	(Additional Information)
Series variant	No indication: basic type A - Quick-lock type; R - Reverse-mounted type D - Mounting hole is changed to M2-6H M - Glue seal; M1 - Glass-sintered seal									
Number of contacts	9, 15, 21, 25, 31, 37, 51, 66, 74, 100, 144									
Contact type	TJ – plug installed with the pin, ZK – socket insta TK - plug installed with the Jack, ZJ - socket inst (reverse-mounted type)	alled with t alled with	he Jack the pin							
Tail type	See Table 1									
Locking assembly type	Free end: L, L7, L9, K, K2 Fixed end: P, P0, P2, P3, P4, P5, P7, P8, P9, P10,	etc.								
Basic variant	See Table 2. The blank of this item means no vari order, such as -AD	ant; if there	e are mul	tiple iten	ns, they sl	nall be writte	en in alph	abetica	al	
Additional Information	Wire requirements: See Table 3, for crimping typ	e products	only							

	Table 1		
Contact tail form	Mark code	Contact tail form	Mark code
Crimping wire type No in		Welding	S
In-line PCB, lead length 5.7	Ν	In-line PCB, lead length 6.7	N3
In-line PCB, lead length 7.2	N4	In-line PCB, lead length 8	N8
Bent PCB, height exposed the mounting surface 3	W	Bent PCB, height exposed the mounting surface 2.6	W2.6
Bent PCB, height exposed the mounting surface 3.5	W3.5	Bent PCB, height exposed the mounting surface 4.5	W4.5

Table 2

Basic variant	Mark code	Basic variant	Mark code
Shielding mesh clamp at tail end of housing	А	A1 clamp assembly	A1
A2 clamp assembly	A2	A3 clamp assembly	A3
The outgoing direction of the product is vertical to the axial direction of the contact	of the product is vertical to tion of the contact C Curved short-side outgoing, shielded		C1
Curved long-side outgoing, shielded	C2	Flange length, width and mounting hole spacing are increased	Q
Flange length, width and mounting hole spacing are increased	Q8	The abutting end of the socket housing flange is provided with an anti-rotation groove	D
Combination of variant A and variant Q8	AQ8	Combination of variant A and variant D	AD
PCB grid spacing 1.27×2.54 (column × row)	J		

Table 3

No.	Classification feature	Classification content	Mark code
1	Wire color	R: red; W: white; M: purple; G: green; A: gray; U: blue; Y: yellow; B: black: N: orange:	R, W, M, G, A, U, Y, B,
2	L	Connector with wires	L
3	Wire length	1000: wire length value in mm	1000
4	Wire specification	A: 0.15mm ² AFR-250 B: 0.12mm ² AFR-250 D: 0.15mm ² AFRP-250 F: 0.15mm ² AF-250 etc.	A, B, D, F etc.
5	Additional requirements	No indication: no additional requirements 1: Wire jacket nylon sleeve 2: Wire jacket anti-wave sleeve 3: Wire jacket anti-wave sleeve and nylon sleeve 4: Marker at the end of wire, etc.	1, 2,3, 4, etc.

Model example: J30J-31ZKP-A (WL200A3)

The above marks indicate that the number of contacts is 31 cores, the socket is installed with the Jack, the end of the contact is crimped, with a P-type locking assembly, and the end of the housing is equipped with a shielding mesh clamp; the specification of the wire is AFR-250, the cross-sectional area of the wire core is 0.15 mm², the length is 200 mm, and the color is white; the whole wire harness is covered with a anti-wave sleeve and a nylon sleeve.



144 cores

Note: The positions of the above contacts are arranged as viewed from the butt end of the plug, and the socket end is opposite to it.

Classification of J30J Series Plug and Socket

Type of Plug and Socket		Basic Identification	Structural Features			
	Basic type	Plug J30J-TJ Socket J30J-ZK	Metal housing, electroless nickel plating, wire crimping, straight outgoing			
		Plug J30J-TJ-A Socket J30J-ZK-A	Compared with J30J-TJ/ZK, a straight cable clamp is added at the tail of the product			
Crimping type Varian		Plug J30J-TJ-C Socket J30J-ZK-C	Compared with J30J-TJ/ZK, the wire is 90° bent outgoing			
		Plug J30J-TJ-C1 Socket J30J-ZK-C1	Compared with J30J-TJ/ZK, the curved clamp is added, with short-side outgoing			
		Plug J30J-TJ-C2 Socket J30J-ZK-C2	Compared with J30J-TJ/ZK, the curved clamp is added, with long-side outgoing			
	Variant	Plug J30J-TJ-D Socket J30J-ZK-D	Compared with J30J-TJ/ZK, an anti-rotation groove is added on the flange			
		Plug J30J-TJ-AD Socket J30J-ZK-AD	Compared with J30J-TJ/ZK-A, an anti-slip groove is added on the side of the housing, and an anti-rotation groove is added on the flange			
		Plug J30J-TJ- Q Socket J30J-ZK-Q	Compared with J30J-TJ/ZK, the housing flange and installation dimensions are increased to the corresponding dimensions			
		Plug J30J-TJ-Q8 Socket J30J-ZK-Q8	Compared with J30J-TJ/ZK, the housing flange and installation dimensions are increased to the corresponding dimensions			
		Plug J30J-TJ-AQ8 Socket J30J-ZK-AQ8	Compared withJ30J-TJ/ZK-A, the housing flange and installation dimensions are increased to the corresponding dimensions			
Welding type		Plug J30J-TJS Socket J30J-ZKS	Compared with J30J-TJ/ZK, the contact termination is welding cup type			
In-line PCB type		Plug J30J-TJN	In-line PCB type; the PCB grid spacing is 2.54×2.54 , and the lead length is 5.7			

	Socket J30J-ZKN	
	Plug J30J-TJN3	
	Socket J30J-ZKN3	Compared with J30J-1JN/ZKN, the lead length is extended to 6.7
	Plug J30J-TJN4	Commendation 1201 TIN/7KN the local location of the sector ded to 7.2
	Socket J30J-ZKN4	Compared with J30J-1JN/ZKN, the lead length is extended to 7.2
	Plug J30J-TJN8	Commerced with 1201 TIN/ZKN the load longth is automoded to 8
	Socket J30J-ZKN8	Compared with J50J-1J10/ZKIN, the lead length is extended to 8
	Plug J30J-TJN-J	In line DCD types the DCD and encourse is 1.27 × 2.54 and the load langth is 5.7
	Socket J30J-ZKN-J	in-line FCB type, the FCB grid spacing is 1.27×2.34 , and the lead length is 5.7
	Plug J30J-TJN3-J	Compared with 1301-TIN/7KN-1 the lead length is extended to 6.7
	Socket J30J-ZKN3-J	
	Plug J30J-TJN4-J	Compared with I30I-TIN/ZKN-I the lead length is extended to 7.2
	Socket J30J-ZKN4-J	
	Plug J30J-TJN8-J	Compared with J30J-TJN/ZKN-J, the lead length is extended to 8
	Socket J30J-ZKN8-J	1
	Plug J30J-TJW	Bent PCB type; the PCB grid spacing is 2.54×2.54 , and the lead length is 3
	Socket J30J-ZKW	
	Plug J30J-1JW2.6	Compared with J30J-TJW/ZKW, the lead length is reduced to 2.6
	Socket J30J-ZK W 2.0	
	Flug J50J-1JW5.5 Socket J201 7VW2 5	Compared with J30J-TJW/ZKW, the lead length is extended to 3.5
	Dlug 1201 TIWA 5	
	Socket I30L7KW4.5	Compared with J30J-TJW/ZKW, the lead length is extended to 4.5
Bent PCB type	Plug I30LTIW-I	
	Socket I30I-7KW-I	Bent PCB type; the PCB grid spacing is 1.27×2.54 , and the lead length is 3
	Plug I30I-TIW2 6-I	
	Socket J30J-ZKW2.6-J	Compared with J30J-TJW/ZKW-J, the lead length is reduced to 2.6
	Plug J30J-TJW3.5-J	
	Socket J30J-ZKW3.5-J	Compared with J30J-TJW/ZKW-J, the lead length is extended to 3.5
	Plug J30J-TJW4.5-J	
	Socket J30J-ZKW4.5-J	Compared with J30J-1JW/ZKW-J, the lead length is extended to 4.5
0 1 1 1 4	Plug J30JA-TJ	Both sides of the product are directly inserted by a locking piece to realize quick
Quick-lock type	Socket J30JA-ZK	locking
	Plug J30JA-TK	Compared with J30JA-TJ/ZK, the plug is installed with the Jack and the socket
	Socket J30JA-ZJ	is installed with the pin
	Plug J30JR-TK	The plug is installed with the lack and the socket is installed with the pin
	Socket J30JR-ZJ	The plug is instance with the steek and the socket is instance with the plu
	Plug J30JR-TK-A	Compared with J30JR-TK/ZJ, a straight cable clamp is added at the tail of the
	Socket J30JR-ZJ-A	product
D . 1 !	Plug J30JR-TKS	Compared with J30JR-TK/ZJ, the contact termination is welding cup type
Reverse-mounted pin	Socket J30JR-ZJS	
and Jack type	Plug J30JR-1KN	The contact termination is in-line PCB type; the PCB grid spacing is 2.54×2.54
	Socket J30JK-ZJN	
	Socket 1201P 7 IN I	The contact termination is in-line PCB type; the PCB grid spacing is 1.27×2.54
	Plug I30IR-TKW	
	Socket 130IR-ZIW	The contact termination is bent PCB type; the PCB grid spacing is 2.54×2.54
	Plug I30IR-TKW-I	
	Socket J30JR-ZJW-J	The contact termination is bent PCB type; the PCB grid spacing is 1.27×2.54
M	Plug J30JD-TJ	
Mounting note variant	Socket J30JD-ZK	Mounting hole is changed to M2-6H
Glue-sealed type	Socket J30JM-ZK	The air leakage rate index is $5 \times 10^{-2} Pa \cdot cm^3/s$
Glass-sintered sealing type	Socket J30JM1-ZKS	The air leakage rate index is $1 \times 10^{-3} Pa \cdot cm^{3}/s$
Stainless steel series	Main designation of the	The housing and locking device are all made of stainless steel, and the rest are
variant	series is J30JS	the same as the ordinary products

Instructions for Product Selection

J30J series products are in-line micro-rectangular electrical connectors with trapezoidal housing positioning, and the contacts are flexible pin and rigid Jack structure. The products are available in various forms such as crimping type, welding type and PCB type, which can be used together. Any type of plug and socket with the same number of cores can be used together.

When J30J products are selected, the plug assembly, socket assembly, clamp assembly and locking assembly shall be selected at the same time, so that the plug or socket with locking function can be selected. The clamp assembly is not necessary. The clamp assemblies include type A, type A1, type A2 and type A3. The type A clamp assembly is formed by lengthening the housing and adding a clamping plate, which is not removable, and its maximum length and width shall not exceed the length and width of the flange. Type A1, A2 and A3 clamp assemblies are two-clasp type clamp assemblies, and their overall dimensions exceed the flange width. Type A3 clamp assembly can only be used with the free-end locking assembly; it can be selected as required.

In addition, since not all plug and socket assemblies, locking assemblies and clamp assemblies can be combined and matched arbitrarily, the following items should be known when selecting J30J products:

1. The plug and socket assemblies equipped with the clamp assembly should not be equipped with the locking assembly installed in front of the board (that is, the mounting screw is suitable for the locking assembly installed in front of the board), because the existence of the clamp will make the mounting plate unable to be installed; if the plug and socket assemblies equipped with the clamp assembly are to be equipped with the locking assembly installed behind the board, the thickness of the mounting plate must be considered as "mounting plate + 0.7";

2. The plug and socket assemblies with a capital letter "D" in the model cannot be equipped with locking assemblies such as L, $L1 \sim L8$, K, K1, etc.

3. If the plug and socket assemblies with the capital letter "D" in the model are to be equipped with the locking assembly installed behind the board, the thickness of the mounting plate must be considered as "mounting plate + 0.6".

4. The J30J-TJ/ZK-Q plug (socket) assembly is equipped with a flange-interface rubber pad by default, but the rubber pad is meaningful only when the plug (socket) assembly is equipped with a fixed-end locking assembly, and the rubber pad is not required if the plug (socket) assembly is assembled with a free-end locking assembly. If the plug (socket) assembly is equipped with a special locking assembly, it is necessary to determine whether to use a flange-interface rubber pad according to whether the locking assembly needs to be fixed with the mounting plate. However, considering the uniformity of the product status, no matter what kind of locking assemblies are equipped, the rubber pad will leave the factory with the product.

5. When selecting the crimping connector, it is necessary to determine the color and length of the wire, whether the wire harness needs to be shielded, and whether the nylon sleeve is needed. If the user has other special requirements for the wire brand and wiring mode of the product, he should confirm with the company's technicians and confirm the product model before ordering.

6. If most of the holes of the product need to be connected with wires with thicker outer diameter, it should be considered whether the gluefilling cavity and clamp assembly of the product have enough accommodation space, and the conclusion can only be drawn after trial assembly.

7. For the treatment of empty points in the product, if there is no technical agreement or no consensus has been reached before, the empty points shall be blocked with jacks or pins that are not crimped with wires.

Operation Precautions

The specific operation process of the product: install the connector on the panel with the mounting screws, and then insert the plug and socket in place and screw the two locking screws into the corresponding locking screw holes to complete the connection.

The product is strictly prohibited to contact with acid, alkali and other polar solvents during transportation, storage and use.

When the product is not connected for a long time, it is necessary to cover the dust cover.

The welding temperature shall be no more than 280 °C and the welding time shall be no more than 3s when wire welding is performed on the welded product.

Instructions for Ordering Double-ended Cable Assembly

J30J series double-ended cable assembly is composed of two J30J products with the same core number. The same hole positions of the products at both ends of the cable assembly are butted one by one through AFR-250 wires. The cable can be covered with anti-wave sleeve and nylon silk sleeve. The type of the products at both ends of the cable, the locking assembly and the length of the cable, the specification and color of the wire, and whether the cable is covered with anti-wave sleeve or nylon sleeve can be selected. Withstand voltage of the cable assembly AC 600Vrms, insulation resistance \geq 5000M Ω . See the diagram below:

J30J Double-ended Cable Assembly:



30J-A Double-ended Cable Assembly:



Model Designation

	J30J	-9	TJ	L	-	/	J30J	-9	TJ	L	-	(Wire)
Code of main	J30J: basic type				А						А	
designation	30JS: Stainless steel housing											
Number of contacts	9, 15, 21, 25, 31, 37, 51, 74, 100, 144											
Contact type	TJ – plug installed with the pin, ZK – socket installed with the Jack TK - plug with a Jack, ZJ - socket with a pin											
Type of												
locking	See J30J model designation for details											
assembly												
Identification	No identification - Ordinary J30J crimping products;											
of variants	A - Shielding mesh clamp at tail end of housing	ng										
Code of main designation	Same as above											
Number of contacts	Same as above, and the number of cores at both ends shall be consistent											
Contact type	Same as above											
Locking assembly type	See J30J model designation for details											
Identification of variants	Same as above											
Detailed description of wires	See J30J model designation for details											

Overall and Installation Dimensions

J30J crimping wire type J30J-TJ/ZK



J30J Extended J30J-TJ/ZK-A (with shielding clamp assembly)



J30J crimp extended J30J-TJ/ZK-C

Crimping product where the wire-throwing direction of the tail end wire is perpendicular to the butt joint direction of the product.



Note: Note that the outgoing direction of J30J-TJ-C plug is opposite to that of J30J-ZK-C socket.

J30J crimp extended J30J-TJ/ZK-C1

On the basis of the original J30J series crimping products, a curved clamp is added and the wire harness is covered with metal anti-wave sleeve. The outlets of the plug and socket are on the narrow side of the housing. The height of the plug and socket is only $16.5 \sim 19$ mm, which is especially suitable for the occasions with limited space and shielding requirements. The clamping plate and the housing are fixed by screws.



J30J crimp extended J30J-TJ/ZK-C2

The direction of outlet of plug and socket is opposite to that of J30J-C1.



J30J crimp extended J30J-TJ/ZK-D

Crimping product where the housing flange is grooved to prevent the mounting screws from turning.



J30J extended J30J- TJ/ZK-AD

Crimping product where the tail end of the housing is provided with a shielding mesh clamp, and the housing flange is grooved to prevent the mounting screws from turning.



J30J crimp extended J30J-TJ/ZK-Q

The length, width and the mounting hole spacing of the housing flange are increased, and the flange-interface gasket (thickness of 1.5mm) is provided.



J30J crimp extended J30J-TJ/ZK-Q8

The length, width and the mounting hole spacing of the housing flange are increased.



J30J extended J30J-TJ/ZK-AQ8

Crimping product where the tail end of the housing is provided with a shielding mesh clamp, and the length, width and the mounting hole

spacing of the flange are increased.



J30J Basic Welding J30J-TJS/ZKS



J30J in-line PCB J30J-TJN (N3/N4/N8)/ZKN (N3/N4/N8) (grid spacing 2.54 × 2.54)



Where H is the lead height and the dimensions are as follows:

	21	210	214	210
Туре	N	N3	N4	N8
Н	5.7	6.7	7.2	8



Hole size of J30J series in-line PCB plug (grid spacing 2.54×2.54): J30J-XXXTJN/N3/N4/N8;

The hole size of the pin is $\Phi 0.9_0^{+0.1}$, and the size of the mounting hole is $\Phi 2.3_0^{+0.1}$ (viewed from the threading direction of the PCB contact).



Hole size of J30J series in-line socket (grid spacing 2.54×2.54): J30J-XXXZKN/N3/N4/N8;



The hole size of the pin is $\Phi 0.9_0^{+0.1}$, and the size of the mounting hole is $\Phi 2.3_0^{+0.1}$ (viewed from the threading direction of the PCB contact).





J30J in-line PCB J30J-TJN (N3/N4/N8)/ZKN (N3/N4/N8)-J (grid spacing 1.27 × 2.54)



Hole size of J30J series in-line PCB plug (grid spacing 1.27 × 2.54): J30J-XXXTJN/N3/N4/N8-J;



Hole size of J30J series in-line socket (grid spacing 1.27 × 2.54): J30J-XXXZKN/N3/N4/N8-J;



The hole size of the pin is $\Phi 0.7_0^{+0.1}$, and the size of the mounting hole is $\Phi 2.3_0^{+0.1}$ (viewed from the threading direction of the PCB contact).





J30J bent PCB J30J-TJW (W2.6/W3.5/W4.5)/ZKW (W2.6/W3.5/W4.5) (grid spacing 2.54 × 2.54)

 Type
 W2.6
 W3.5
 W4.5

 H
 3
 2.6
 3.5
 4.5



Hole size of J30J series bent PCB plug (grid spacing 2.54×2.54): J30J-XXXTJW/W2.6/W3.5/W4.5;

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Hole size of J30J series bent socket (grid spacing 2.54 × 2.54): J30J-XXXZKW/W2.6/W3.5/W4.5;









Where H is the height exposed the mounting surface, and the dimensions are as follows:

0 1	8			
Туре	W	W2.6	W3.5	W4.5
Н	3	2.6	3.5	4.5

Hole size of J30J series bent PCB plug (grid spacing 1.27 × 2.54): J30J-XXXTJW/W2.6/W3.5/W4.5-J;



The hole size of the pin is $\Phi 0.7_0^{+0.1}$, and the size of the mounting hole is $\Phi 2.3_0^{+0.1}$ (viewed from the threading direction of the PCB contact).



Hole size of J30J series bent socket (grid spacing 1.27 × 2.54): J30J-XXXZKW/W2.6/W3.5/W4.5-J;



The hole size of the pin is $\Phi 0.7_0^{+0.1}$, and the size of the mounting hole is $\Phi 2.3_0^{+0.1}$ (viewed from the threading direction of the PCB contact).J30J-9ZKW/W2.6/W3.5/W4.5-JJ30J-15ZKW/W2.6/W3.5/W4.5-J


J30JD crimp extended J30JD-TJ/ZK

The mounting hole is changed to M2-6H threaded hole based on J30J-TJ/ZK



J30J quick-lock J30JA-TJ/ZK

The plug adopts the crimping form, and is provided with a clamping plate to compress the wire, and is quickly locked with the socket



J30JM adhesive seal crimping type J30JM-ZK

J30JM adhesive sealing product, with an air leakage rate index added, which is 5.0×10^{-2} Pa \cdot cm³/s. The thickness of the rubber pad installed

on the flange of the product is 1.5mm.



J30JM1 glass-sintered J30JM1-ZKS

J30JM1 glass-sintered product, with alloy wire bonded at the tail end of the contact. Except that the insulation resistance ($\geq 1000M\Omega$) is different from that of J30J-TJ/ZK basic type, the performance indexes are the same as those of J30J-TJ/ZK basic type, and an air leakage rate index is added, which is1.0×10⁻³Pa·cm³/s. The thickness of the rubber pad installed on the flange of the product is 1.2mm.



J30JR series with reverse-mounted pin and Jack

J30JR series product with reverse-mounted pin and Jack; that is, the plug is installed with the jack and the socket is installed with the pin. Corresponding to J30J type, J30JR reverse-mounted type can be extended to welding type, PCB in-line type, PCB bent type, etc. J30JR reverse-mounted plug and socket are the same as the plug and socket of the corresponding J30J product in the dimensions of the housing and the hole on the mounting plate.



J30JR extended J30JR-TK/ZJ-A (with shielding clamp assembly)



50JK III-	())) K in-inte i eb 3505K-i Kiu(13/144/146)/2314(145/144/146) (grid spacing 2.54 ^ 2.54)											
	Plug: J30JR-9, 15, 21, 25, 31, 37, 51, 66, 74, 100, 144TKN/N3/N4/N8							Socket: J30JR-9, 15, 21, 25, 31, 37, 51, 66, 74, 100, 144ZJN/N3/N4/N8				
	1441KN/N3/N4/N8											
	2053.2	D E B A A 3GUR-XXXTKN/N3/N	r cores 51. 66 cc	$rac{1}{5}$		2xe32 2xe32 2xe32 y=32 y=30 x=3 x=30			$rac{1}{\sqrt{2}}$			
Numb er of	А	В	С	D Plug	Socket	Е	-	F	Socket	G		
cores	10.6	14.25		0.2	0.9	0.0						
9 15	19.0	14.55		0.5	9.8 13.7	9.9						
21	23.5	21.97		12.5	17.4	17.6			6.1			
25	27.4	24.51	7.6	18.6	20	20.2		4.7		6.8		
31	33.6	28.32		22.4	23.8	20.2						
37	37.4	32,13		26.3	27.7	27.8		-				
51	36.4	30.86	~ -	25	26.5	26.6		• •				
66	42.9	37.3	8.7	31.4	32.9	33		5.8	7.2	7.9		
74	38.8	33.5		27.5	29	29.1			8.3			
100	54.7	45.72	9.7	35	36.6	36.6		6.8	8 2	9.1		
144	66.6	58.6		49 50.6 50.6		50.6			8.2			

J30JR in-line PCB J30JR-TKN(N3/N4/N8)/ZJN(N3/N4/N8) (grid spacing 2.54 × 2.54)

Where H is the lead height and the dimensions are as follows:

Туре	Ν	N3	N4	N8
H (plug/socket)	5.1/6.3	6.1/7.3	6.6/7.8	7.2/8.6



Hole size of J30JR series in-line PCB plug (grid spacing 2.54 × 2.54): J30JR-XXXTKN/N3/N4/N8;

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Hole size of J30JR series in-line socket (grid spacing 2.54 × 2.54): J30JR-XXXZJN/N3/N4/N8;



The hole size of the pin is $\Phi 0.9_0^{+0.1}$, and the size of the mounting hole is $\Phi 2.3_0^{+0.1}$ (viewed from the threading direction of the PCB contact).





J30JR in-line PCB J30JR-TKN(N3/N4/N8)/ZJN(N3/N4/N8) (grid spacing 1.27 × 2.54)



Hole size of J30JR series in-line PCB plug (grid spacing 1.27 × 2.54): J30JR-XXXTKN/N3/N4/N8-J;











J30JR bent PCB J30JR-TKW(W2.6/W3.5/W4.5)/ZJW(W2.6/W3.5/W4.5) (grid spacing 2.54 × 2.54)

 Type
 W
 W2.6
 W3.5
 W4.5

 H
 3
 2.6
 3.5
 4.5



Hole size of J30JR series bent PCB plug (grid spacing 2.54 × 2.54): J30JR-XXXTKW/W2.6/W3.5/W4.5

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Hole size of J30JR series bent PCB plug (grid spacing 2.54×2.54): J30JR-XXXZJW/W2.6/W3.5/W4.5







Plug: J30JR-9, 15, 21, 25, 31, 37, 51, 66, 74, 100.						Socket: 130	Socket: J30JR-9, 15, 21, 25, 31, 37, 51, 66, 74, 100,			
144TKW/W2.6/W3.5/W4.5-J						1442	144ZJW/W2.6/W3.5/W4.5-J			
2263.2 2263.2 2 3 3 3 3 3 3 3 3					74、100、144 core cores	2×#3.2	2003.2 $\frac{1}{1}$ \frac			
Numbe				Ι)			F		
r of cores	А	В	С	Plug	Socket	E	Plug	Socket	G	
9	19.6	14.35		8.3	9.8	9.9				
15	23.5	18.16		12.3	13.7	13.8				
21	27.4	21.97	7.6	16	17.4	17.6	4.7	6.1	6.8	
25	29.8	24.51		18.6	20	20.2				
31	33.6	28.32		22.4	23.8	24				
37	37.4	32.13		26.3	27.7	27.8				
51	36.4	30.86	8.7	25	26.5	26.6	5.8	7.2	7.9	
66	42.9	37.3		31.4	32.9	33				
74	38.8	33.5		27.5	29	29.1		8.3		
100	54.7	45.72	9.7	35	36.6	36.6	6.8	8.2	9.1	
144	66.6	58.6		49	50.6	50.6				
Where H is the height exposed the mounting surface, and the dimensions are as follows:										

J30JR bent PCB J30JR-TKW(W2.6/W3.5/W4.5)/ZJW(W2.6/W3.5/W4.5) (grid spacing 1.27 × 2.54)

TypeW.100TypeWW2.6W3.5W4.5H32.63.54.5



Hole size of J30JR series bent PCB plug (grid spacing 1.27 × 2.54): J30JR-XXXTKW/W2.6/W3.5/W4.5-J



Hole size of J30JR series bent socket (grid spacing 1.27 × 2.54): J30JR-XXXZJW/W2.6/W3.5/W4.5-J





J30JS stainless steel extended type

On the basis of J30J product, the housing is changed to stainless steel. J30JS and J30J products are the same except for the color difference due to different housing materials, so its overall dimensions and mounting plate hole dimensions are the same as those of J30J products with corresponding core number and structural form.



A1/A2 clamp assembly

Type A1 clamp assembly can be used with J30J basic crimping and welding series products, and the locking assembly assembled with the product shall generally be the free-end locking assembly. Type A2 clamp assembly can only be used with J30J-TJ/ZK-Q8 products. The A1/A2 clamp assembly can also be ordered separately, and the code for separate ordering is shown in the table below.



A3 clamp assembly

A3 clamp can be used together with J30J basic crimping type and welding type, and can also be ordered separately. The code for separate ordering is shown in the following table. The free-end locking assembly is usually selected for products equipped with A3 clamps.
Plug/Socket: J30J-009, 015, 021, 025, 031, 037, 051, 066, 074, 100, 144-963



J30J locking assembly/J30J free-end locking assembly

The free-end locking assembly should only be combined with J30J products to form a free-end connector, and the locking end butted with it is usually the fixed-end locking assembly.





L7-type locking assembly

The L7-type locking assembly is installed in the J30J-TJ/ZK basic product, and the tail end of the screw is not higher than the end face of the tail end of the housing after tightening.



L9-type locking assembly

The L9-type locking assembly can only be used in J30JD products.



K, K2 type locking assembly



J30J locking assembly/J30J fixed-end locking assembly

The fixed-end locking assembly is suitable for fixing the connector on a mounting plate or a PCB. Most of the fixed-end locking assemblies can be butt-jointed and locked with the free-end locking assembly; a few of the fixed-end locking assemblies are only applicable to the use occasions where the free-end locking assembly is not locked with it.

P, P8, P9 type locking assembly

For installation in front of the board only.



P0, P3, P4, P11, P45, P50, P52 type locking assembly

For installation behind the board only; the thickness of the mounting plate needs to be increased by 0.7 mm when the clamp assembly is selected.



P2, P14 type locking assembly

Only applicable to the 90° bent PCB products installed behind the board.



P7, P42 type locking assembly

Only applicable to the 90° bent PCB products installed in front of the board.



V1-type locking assembly

Only applicable to products with 90° bent PCB and without locking of plug and socket.

7.6



9.7

P5, P10, P23, P25, p53, P54, P55 type locking assembly

Applicable to the in-line PCB mounted products

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P17-type locking assembly

Applicable to the in-line PCB mounted products



P29, P36, P37, P43 type locking assembly

Applicable to J30JM sealed products and installed in front of the board.



P46-type locking assembly

Applicable to J30JD products and installed in front of the board. It can be equipped with L, L7, L9 and K type locking assemblies.



P32, P41 type locking assembly

Applicable to in-line PCB products installed behind the board. The PCB thickness is $1.6 \sim 2.5$.



P44-type locking assembly

Applicable to the installation in front of or behind the board that is not locked with the free-end locking assembly. The allowable thickness of the mounting plate shall be determined according to the use condition of the product.



V-type locking assembly

Applicable to in-line PCB products without locking between plugs and sockets; the thickness of PCB is not more than 2.5mm.



Distance dimension of mounting surface



Plugs are installed in front of the board, and sockets are installed behind the board

Opening size of mounting plate

J30J-TJ/ZK; J30J-TJS/ZKS; J30J-TJ/ZK-D; J30JM-ZK; J30JM1-ZKS										
			J30J—9	∾74	J30J-100~144					
$\begin{array}{c} A \\ \hline B \\ \hline B \\ \hline B \\ \hline C \hline \hline C \\ \hline C \\ \hline C \hline \hline$					2-ø3.2 Not more than R1.5	A B + rd				
Hole	size for installation	on in front of the	board	Hol	e size for installa	tion behind the bo	oard			
Number of contact cores	А	В	С	Number of contact cores	А	В	D			
9	14.3	10.2		9	14.3	10.2				
15	18.2	14.1		15	18.2	14.1				
21	22	17.9	7	21	22	17.9	63			
25	24.5	20.5	/	25	24.5	20.5	0.5			
31	28.3	24.3		31	28.3	24.3				
37	32.2	28.1		37	32.2	28.1				
51	30.86	26.9	8.1	51	30.86	26.9	7.4			
66	37.3	33.4	8.1	66	37.3	33.4	7.4			
74	33.5	29.4	9.3	74	33.5	29.4	8.6			
100	45.7	37	9.3	100	45.7	37	8.6			
144	58.6	51	9.3	144	58.6	51	8.6			

Note: As J30JM-ZK and J30JM1-ZKS are sealed products, although the mounting plate holes can be installed as shown above, the sealing

effect may be lost because the mounting plate is a through-hole plate. Therefore, the mounting plate holes of these products should be blind

threaded holes when they are installed in front of the board.

J30J-TJ/ZK-Q;										
J30J-9~74 J30J-100 ~										
2-#2.3 Not more than R1.5 In	A B 	2-83		A B C C C C C C C C C C C C C						
Hole	size for installation	on in front of the	board	Hol	e size for installa	tion behind the bo	oard			
Number of contact cores	А	В	С	Number of contact cores	А	В	D			
9	21	10.2		9	21	10.2	6.3			
15	24.9	14.1		15	24.9	14.1				
21	28.7	17.9	7	21	28.7	17.9				
25	31.2	20.5	/	25	31.2	20.5				
31	35	24.3		31	35	24.3				
37	38.9	28.1		37	38.9	28.1				
51	37.6	26.9	8.1	51	37.6	26.9	7.4			
66	44	33.4	8.1	66	44	33.4	7.4			
74	40.2	29.4	9.3	74	40.2	29.4	8.6			
100	52.4	37	9.3	100	52.4	37	8.6			
144	73	51	9.3	144	73	51	8.6			






	J30JA-ZK						
A 2.8 2-R 2.8 Not more than R1.5 A 2.8 A D A A D A A A A A A A A A A A A A A A							
	Installed	in front of the board		Installe	ed behind the board		
Hole	size for installation	on in front of the	board	Hol	e size for installa	tion behind the bo	oard
Number of contact cores	А	В	С	Number of contact cores	А	D	Е
9	18.6	10.1		9	18.6	14.6	
15	22.6	14		15	22.6	18.4	
21	26.3	17.8	7	21	26.3	22.3	67
25	28.9	20.4	/	25	28.9	24.9	0.7
31	32.7	24.2	_	31	32.7	28.6	
37	36.6	28		37	36.6	32.4	
51	35.3	26.8	81	51	35.3	31.3	7.8
66	41.7	33.3	0.1	66	41.7	37.7	7.0
74	37.8	29.3		74	37.8	33.8	
100	45.3	38	9.3	100	45.3	41.3	9
144	59.3	51		144	59.3	55.3	

J30JZ Series Micro-rectangular Electrical Connector

Product Overview

- Trapezoidal housing positioning, in-line micro-rectangular electrical connector;
- The contact adopting flexible twist pins and rigid Jack structure;
- The size is only about 40% of that of J30J products with the same core number, and the spectrum is the same as that of J30J;
- Number of cores: 9, 15, 21, 25, 31, 37, 51, 66, 74, and 100 cores;
- Execute enterprise standard: Q/Ag 1.306 Detailed Specification for J30JZ Series Micro-rectangular Electrical Connectors (in accordance with MIL-C-83513);

Product Performance

Mechanical Properties

Housing	Aluminum alloy, stainless steel				Mechanical life	500 plugging and unplugging cycles
Plating	Nickel p	Nickel plating, passivation			Sinusoidal vibration	Frequency 10 ~ 2000 Hz, Acceleration 196
Insulator	Thermo	plastic				m/s^2
Contact	Gold-pl	ated copper all	oy, crimping ty	pe, welding typ	pe,Random vibration	0.4G ² /Hz 23.1G
	PCB typ	pe			Impact	490m/s ²
Electrical	Perform	ance				
Contact res	sistance a	and rated curren	t of contacts		Magnetic permeability	Not more than 2.0
Cont	act	Contact res	istance m Ω	Rated	Insulation resistance	under normal conditions \geq 5000 MΩ; under down and hat conditions \geq 1 MΩ
Specific	ation	Before	After	current A	Withstand voltage	under normal conditions ≥ 600 Vrms: under
1		lifetime	lifetime		withstand voltage	damp and hot conditions ≥ 360 Vrms
Twist	pins	≤10	≤20	3		Under low pressure conditions ≥ 150 Vrms
	·					$c_{100} = 150 \times 1100$

Environmental Performance

Temperature range	-55 °C ~ +125 °C	Working air pressure	101.33 kPa ~ 4.39 kPa
Salt spray	48h	Relative humidity	$90\%\sim95\%$ at 40 $^\circ\!\mathrm{C}$

Model Designation

Code of main designation	J30JZ J30JZ: Socket with rigid hole as the contact J30JZ/X: Plug with twist pin as the contact	PE	Ν	51	ZK	CA	000	(Additional Information)
Housing structure	No indication - Free-end plug housing and vert mounted socket housing P - Vertically-mounted plug housing L - Horizontally-mounted plug and socket hou PE - Vertically-mounted socket-variant housin	tically- sing g						
Materials and	N Aluminum allow abortraplated with nightal							
surface	S - Stainless steel passivation							
treatment	•							
Number of contacts	9, 15, 21, 25, 31, 37, 51, 66, 74, and 100 cores	i -						
Types of connectors and contacts	TJ - Plug installed with pins ZK - Socket installed with jacks (TJ and ZK	are fixed collo	cation)					
Contact Tail type	CA - Crimping; SA - Welding; NA - In-line P	CB; WA - Bent	PCB					
Locking assembly type	000 - without locking assembly; P01, P02 - loc locking screws	king assembly	with mount	ting screws; L()1, L02 - v	vith		
Additional Information	Wire requirements: See Table 1, for crimping	type products o	nly					



		Table 1	
No.	Classification feature	Classification content	Mark code
1	Wire color	R: red; W: white; M: purple; G: green; A: gray; U: blue; Y: yellow; B: black; N: orange;	R, W, M, G, A, U, Y, B, N
2	L	Connector with wires	L
3	Wire length	1000: wire length value in mm	1000
4	Wire specification	A: 0.15mm ² AFR-250 B: 0.12mm ² AFR-250 D: 0.15mm ² AFRP-250 F: 0.15mm ² AF-250 etc.	A, B, D, F etc.
5	Additional requirements	No indication: no additional requirements 1: Wire jacket nylon sleeve 2: Wire jacket anti-wave sleeve 3: Wire jacket anti-wave sleeve and nylon sleeve 4: Marker at the end of wire, etc.	1, 2,3, 4, etc.

Note: 1. J30JZPENXXXZKCA000 socket is mainly applicable to the use environment of free-end wire throwing that needs to be butted and locked;

2. The 74 and 100-core leads of J30JZ in-line PCB series are Φ 0.4mm to reduce the diameter of PCB pad (Φ 0.55mm) and reduce the difficulty of PCB layout process for users.

Example of Model:

J30JZ/XN37TJCAL01(WL150A3)

The above marks indicate that the connector adopts the plug with twist pin as the contact, the free-end plug housing, nickel-plated aluminum alloy housing as the housing material, 37 cores, the crimping contact tail, and the L01-type locking assembly; each hole is crimped with 150mm white AFR-250 wire with a cross-sectional area of 0.15mm². The wire harness is covered with an anti-wave sleeve and a nylon sleeve.

J30JZ Spectrum Arrangement (View of Pin-mounted Insulator Insertion Surface)



100 cores

Classification of J30JZ Series Plug and Socket

Plug and socket type	Basic Identification	Structural Features		
	Plug J30JZ/XNXXXTJCAL01 (wire)	Free-end, wire welding, with locking screws		
	Plug J30JZ/XPNXXXTJCAP01 (wire)	Vertical installation, wire crimping, with mounting screws		
Crimping	Socket J30JZNXXXZKCA000 (wire)	Vertical installation (optional), wire crimping, without locking assembly		
type	Socket J30JZPENXXXZKCA000 (wire)	The overall dimensions are the same as those of J30JZNXXXZKCA000 series products, and L02 locking screw shall be selected when it needs to be connected and locked with the plug		
	Socket J30JZLNXXXZKCA000 (wire)	Horizontal installation, wire crimping, without locking assembly		
	Plug J30JZ/XNXXXTJSAL01	Free-end, wire welding, with locking screws		
Welding type	Plug J30JZ/XPNXXXTJSAP01	Vertical installation, wire welding, with mounting screws		
	Socket J30JZNXXXZKSA000	Vertical installation (optional), wire welding, without locking assembly		
	Socket J30JZLNXXXZKSA000	Horizontal installation, wire welding, without locking assembly		
	Plug J30JZ/XPNXXXTJNAP01	Vertical installation, in-line PCB, with mounting screws, PCB thickness of 2.5mm (max)		
In-line PCB type	Plug J30JZ/XPENXXXTJNAL04	Vertical installation, in-line PCB, with locking screws, PCB thickness of 2mm (max)		
	Socket J30JZPNXXXZKNA000	Vertical installation, in-line PCB, without locking assembly, PCB thickness of 2.5mm (max)		
Bent PCB	Plug J30JZ/XLNXXXTJWA000	Horizontal installation, bent PCB, without locking assembly, PCB thickness of 2mm (max)		
type	Socket J30JZLNXXXZKWA000	Horizontal installation, bent PCB, without locking assembly, PCB thickness of 2mm (max)		

Overall and Installation Dimensions

Basic plug J30JZ/X crimping type: J30JZ/XNXXXTJCAL01

Product with free-end housing structure



Basic socket J30JZ crimping type: J30JZNXXXZKCA000

Vertical installation (optional)

CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC		4.7 1 0 0 9~37 cores	5.8 1 51, 66 cores	6.9 1 0000 74, 100 cores
Order Mark	A	В		
J30JZN9ZKCA000 (wire)	14	10.6		
J30JZN15ZKCA000 (wire)	17.8	14.4		
J30JZN21ZKCA000 (wire)	21.6	18.2		
J30JZN25ZKCA000 (wire)	24.2	20.8		
J30JZN31ZKCA000 (wire)	28	24.6		
J30JZN37ZKCA000 (wire)	31.8	28.4		
J30JZN51ZKCA000 (wire)	30.5	27.1		
J30JZN66ZKCA000 (wire)	36.9	33.5		
J30JZN74ZKCA000 (wire)	33.1	29.7		
J30JZN100ZKCA000 (wire)	40.7	37.3		

Basic socket J30JZ crimping type: J30JZPENXXXZKCA000

Vertically-mounted modified housing structure; the L02 locking screw shall be selected when it needs to be locked with the plug



Basic socket J30JZ crimping type: J30JZLNXXXZKCA000

Horizontal installation structure

		$\begin{array}{c} 2-M2-6H \\ \hline \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $
Order Mark	A	В
J30JZLN9ZKCA000 (wire)	14	10.6
J30JZLN15ZKCA000 (wire)	17.8	14.4
J30JZLN21ZKCA000 (wire)	21.6	18.2
J30JZLN25ZKCA000 (wire)	24.2	20.8
J30JZLN31ZKCA000 (wire)	28	24.6
J30JZLN37ZKCA000 (wire)	31.8	28.4
J30JZLN51ZKCA000 (wire)	30.5	27.1
J30JZLN66ZKCA000 (wire)	36.9	33.5
J30JZLN74ZKCA000 (wire)	33.1	29.7
J30JZLN100ZKCA000 (wire)	40.7	37.3

Basic plug J30JZ/X crimping type: J30JZ/XPNXXXTJCAP01

Vertically-mounted housing structure



Welding plug J30JZ/X: J30JZ/XNXXXTJSAL01

Free-end housing structure

	→ M2-6h → M2-6h → → → → → → → → → → → → → → → → → → →	$\begin{array}{c} 4.7 \\ 4.7 \\ 9 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ $		
Order Mark	A	В		
J30JZ/XN9TJSAL01	14	10.6		
J30JZ/XN15TJSAL01	17.8	14.4		
J30JZ/XN21TJSAL01	21.6	18.2		
J30JZ/XN25TJSAL01	24.2	20.8		
J30JZ/XN31TJSAL01	28	24.6		
J30JZ/XN37TJSAL01	31.8	28.4		
J30JZ/XN51TJSAL01	30.5	27.1		
J30JZ/XN66TJSAL01	36.9	33.5		
J30JZ/XN74TJSAL01	33.1	29.7		
J30JZ/XN100TJSAL01	40.7	37.3		

Welding socket J30JZ: J30JZNXXXZKSA000

Free-end housing structure (Vertical installation (optional))



Welding socket J30JZ: J30JZLNXXXZKSA000

Horizontal installation structure

C. S. C.		$\begin{array}{c} -\underline{M2-6H} \\ \hline & & & & & & \\ \hline & & & & & \\ \hline & & & &$
Order Mark	A	В
J30JZLN9ZKSA000	14	10.6
J30JZLN15ZKSA000	17.8	14.4
J30JZLN21ZKSA000	21.6	18.2
J30JZLN25ZKSA000	24.2	20.8
J30JZLN31ZKSA000	28	24.6
J30JZLN37ZKSA000	31.8	28.4
J30JZLN51ZKSA000	30.5	27.1
J30JZLN66ZKSA000	36.9	33.5
J30JZLN74ZKSA000	33.1	29.7
J30JZLN100ZKSA000	40.7	37.3

Welding plug J30JZ/X: J30JZ/XPNXXXTJSAP01

Vertically-mounted housing structure



In-line plug J30JZ/X: J30JZ/XPNXXXTJNAP01

Vertical installation, suitable for PCB thickness: 2.5mm (max), grid spacing (spacing × row spacing): 1.27 mm × 1.1mm



Hole size of J30JZ series in-line PCB plug: J30JZ/XPNXXXTJNAP01 (grid spacing 1.27 mm × 1.1mm)





In-line plug J30JZ/X: J30JZ/XPENXXXTJNAL04

Vertical installation, suitable for PCB thickness: 2mm (max), grid spacing (spacing × row spacing): 1.27 mm × 1.1mm





Hole size of J30JZ series in-line PCB plug: J30JZ/XPENXXXTJNAL04 (grid spacing 1.27 mm × 1.1mm)

In-line socket J30JZ: J30JZPNXXXZKNA000

Vertical installation, suitable for PCB thickness: 2.5mm (max), grid spacing (spacing × row spacing): 1.27 mm × 1.1mm



Hole size of J30JZ series in-line PCB socket: J30JZPNXXXZKNA000 (grid spacing 1.27 mm × 1.1mm)





Bent plug J30JZ/X: J30JZ/XLNXXXTJWA000

Suitable for PCB thickness: 2mm (max), grid spacing (spacing \times row spacing): 1.27 mm \times 2mm

		$9 \sim 37 \qquad 51, 66 \qquad 74, 100 \\ cores \qquad $
Order Mark	A	В
J30JZ/XLN9TJWA000	14	10.6
J30JZ/XLN15TJWA000	17.8	14.4
J30JZ/XLN21TJWA000	21.6	18.2
J30JZ/XLN25TJWA000	24.2	20.8
J30JZ/XLN31TJWA000	28	24.6
J30JZ/XLN37TJWA000	31.8	28.4
J30JZ/XLN51TJWA000	30.5	27.1
J30JZ/XLN66TJWA000	36.9	33.5
J30JZ/XLN74TJWA000	33.1	29.7
J30JZ/XLN100TJWA000	40.7	37.3



Hole size of J30JZ series bent PCB plug: J30JZ/XLNXXXTJWA000 (grid spacing 1.27 mm × 2mm)

Bent socket J30JZ: J30JZLNXXXZKWA000

Suitable for PCB thickness: 2mm (max), grid spacing (spacing × row spacing): 1.27 mm × 2mm



Hole size of J30JZ series bent PCB socket: J30JZLNXXXZKWA000 (grid spacing 1.27 mm × 2mm)





J30JZ Series Locking Assembly/Free-end Mounting Accessories

J30JZ-L01 Mounting Accessories

This accessory is only applicable to J30JZ plug end locking.





J30JZ-L02 Mounting Accessories

This accessory is only applicable to J30JZPENXXXZKCA000 socket end locking.



J30JZ-L04 Mounting Accessories

This accessory is only applicable to the locking and installation of J30JZ/XPENXXXTJNAL04 plug end, and the thickness of PCB is 2mm (max).



J30JZ Series Locking Assembly/Fixed-end Mounting Accessories

J30JZ-P01 Mounting Accessories

This accessory is only applicable to the fixed installation of J30JZ plug end. When drilling holes on the mounting plate, a Φ 2.8mm (min) counterbore with a depth of 0.5mm (min) shall be drilled on the mounting plate. The thickness of the mounting plate used is 2.5mm (max).



J30JZ-P02 Mounting Accessories

This accessory is only applicable to the fixed installation of J30JZ plug end. When drilling holes on the mounting plate, a Φ 2.8mm (min) counterbore with a depth of 0.5mm (min) shall be drilled on the mounting plate. The thickness of the mounting plate used is 5mm (max).



J30J Series High-speed Transmission Micro-rectangular Electrical Connector

Product Overview

- Trapezoidal housing positioning, in-line micro-rectangular electrical connector
- High-speed transmission: 1.65 Gbps
- High-density contact, spacing 1.27mm × 1.27mm
- Number of cores: seven specifications of 12, 18, 24, 30, 36, 55 and 100 cores
- Execute enterprise standard: Q/Ag 1.313 Detailed Specification for HJ30J Series Micro-rectangular Electrical Connectors (conforming to MIL-C-83513, equivalent to MIL-C-83513)

Product Performance

Mechanical Properties

Housing	Aluminum alloy	Mechanical life
Plating	Nickel plating	Vibration
Insulator	Thermoplastic	Impact
Contact	Gold-plated copper alloy, crimping type, we	elding type,
	PCB type, vertical surface-mount type	

Electrical Performance

Contact resistance and rated current of contacts

Contact	Contact resista	ance m Ω	Rated			
Specification	Before	After	current A			
	lifetime					
Twist pins	≤20	≤30	3			

Environmental Performance

Temperature range $-55 \text{ °C} \sim +125 \text{ °C}$ Salt spray 48h

Model Designation

	НЈЗОЈ		-12	TJ		L	-A	(1L200C3)		
Code of main designation	НЈЗОЈ									
Series variant	No identification - Basic type; M - Glue-sealed type									
Number of contacts	12, 18, 24, 30, 36, 55, 100									
Type of Electrical Connector	TJ – plug installed with the pin, ZK – soch the Jack	TJ – plug installed with the pin, ZK – socket installed with the Jack								
Tail type	No identification - Crimping type; S - Welding type; N - In-line PCB type, with the grid spacing of PCB 1.27 × 1.27; NB - Surface-mount type;									
Type of locking and mounting assembly	For L, K, and P type, etc., see the locking company for details	assembly o	f J30J serie	s products of	f our					
Identification of variants	No identification - No variant; A - Shielding mesh clamp at tail end of ho J - PCB grid spacing 1.27 × 1.27 (surface-	No identification - No variant; A - Shielding mesh clamp at tail end of housing I - PCB grid spacing 1.27 × 1.27 (surface-mount products only)								
Wire Requirements (Crimping products only)	The wire is marked with (1LXXXCX), and table of crimping HJ30J series wired produ length of the wire; C represents Cat5e cabl with nylon wire sleeve, the wire is covered wire sleeve. When there is no identification	d 1 in the br acts below : e; When th l with anti- n, it is bare	racket repre for details) e last digit wave sleeve wire.	Exerts the col L represents X is 1, 2 and e, and the win	or of the co 3, they re is co	ne conver onnector v respectivered wi	ntional ha with wire vely that th anti-w	rness (see the wiring ; XXX represents the the wire is covered ave sleeve and nylon		



500 plugging and unplugging cycles Frequency 10 \sim 2000 Hz, Acceleration 196 m/s^2 490m/s²

Insulation resistance

Withstand voltage (under normal conditions) Characteristic impedance Transmission characteristics

Relative humidity Working air pressure under normal conditions $\geq 5000~M\Omega;$ under damp and hot conditions $\geq 1~M\Omega$

 $\begin{array}{l} 600Vrms \\ 100\pm15\ \Omega \\ Transmission\ rate\ 1.65\ Gbps \end{array}$

90% ~ 95% at 40 °C 101.33 kPa ~ 4.39 kPa

Model example: HJ30J-12TJL-A(1L200C3)

The above marks indicate that the number of contacts is 12 cores, the plug is installed with the pin, the end of the contact is crimped, with a L-type locking assembly, and the tail end of the housing is equipped with a shielding mesh clamp; the specification of the wire is Cat5e cable, with the length 200mm and conventional harness color, and the whole wire harness is covered with an anti-wave sleeve and a nylon sleeve.

HJ30J Series Spectrum Arrangement (View of Pin-mounted Insulator Insertion Surface)



Signal definition is recommended. For bent PCB products, PCB wiring needs to be compensated.

Wiring Table of Crimping HJ30J Series Wired Products

The colored wire in the wiring table is the core wire of Cat5e cable, which transmits differential signals. The softer white high-temperature wire in each bundle of wires is the ground wire. The black heat-shrinkable sleeve is used to shrink a pair of differential pairs and the corresponding ground wire into a bundle.

Corresponding Table of 12-core wire color, connector hole position and harness number after thermal shrinkage									
Harness identification	Wire color	Connector hole position No.	Harness identification	Wire color	Connector hole position No.				
	Green, Cat5e	1		Blue, Cat5e	4				
1#	White, Cat5e	8	3#	White, Cat5e	11				
1#	White, high- temperature wire	9	5#	White, high-temperature wire	12				
	Orange, Cat5e	7		Red, Cat5e	10				
2#	White, Cat5e	2	4#	White, Cat5e	5				
2#	White, high- temperature wire	3	4 #	White, high-temperature wire	6				

Corre	sponding Table of 18-core	wire color, connector hole p	osition and harnes	s number after therm	al shrinkage	
Harness identification	Wire color	Connector hole position No.	Harness identification	Wire color	Connector hole position No.	
	Green, Cat5e	1		Red, Cat5e	13	
1#	White, Cat5e	11	4#	White, Cat5e	5	
1#	White, high-	12	4#	White, high-	6	
	temperature wire	12		temperature wire	0	
	Orange, Cat5e	10		Green, Cat5e	7	
2#	White, Cat5e	2	5#	White, Cat5e	17	
2#	White, high-	2	5#	White, high-	10	
	temperature wire	3		temperature wire	10	
	Blue, Cat5e	4		Orange, Cat5e	16	
2#	White, Cat5e	14	6#	White, Cat5e	8	
3#	White, high-	15	0#	White, high-	0	
	temperature wire	13		temperature wire	9	

Corre	Corresponding Table of 24-core wire color, connector hole position and harness number after thermal shrinkage								
Harness identification	Wire color	Connector hole position No.	Harness identification	Wire color	Connector hole position No.				
	Green, Cat5e	1		Green, Cat5e	7				
1#	White, Cat5e	14	5#	White, Cat5e	20				
1#	White, high- temperature wire	15	5#	White, high- temperature wire	21				
	Orange, Cat5e	13		Orange, Cat5e	19				
2#	White, Cat5e	2	6#	White, Cat5e	8				
2#	White, high-	3	0#	White, high-	0				
	temperature wire	5		temperature wire	7				
	Blue, Cat5e	4		Blue, Cat5e	10				
3#	White, Cat5e	17	7#	White, Cat5e	23				
5#	White, high-	18	1#	White, high-	24				
	temperature wire	18		temperature wire	24				
	Red, Cat5e	16		Red, Cat5e	22				
4#	White, Cat5e	5	Q #	White, Cat5e	11				
' †#	White, high-	6	0#	White, high-	12				
	temperature wire	0		temperature wire	12				

Corre	Corresponding Table of 30-core wire color, connector hole position and harness number after thermal shrinkage									
Harness	Wire color	Connector hole position	Harness	Wire color	Connector hole					
identification		No.	identification		position No.					
	Green, Cat5e	1		Orange, Cat5e	22					
1#	White, Cat5e	17	6#	White, Cat5e	8					
1#	White, high-	10	0#	White, high-	0					
	temperature wire	18		temperature wire	9					
	Orange, Cat5e	16		Blue, Cat5e	10					
2#	White, Cat5e	2	7#	White, Cat5e	26					
Δ#	White, high-	3	/#	White, high-	27					
	temperature wire	5		temperature wire	27					
	Blue, Cat5e	4		Red, Cat5e	25					
3#	White, Cat5e	20	Q #	White, Cat5e	11					
5#	White, high-	21	0#	White, high-	12					
	temperature wire	21		temperature wire	12					
	Red, Cat5e	19		Green, Cat5e	13					
1#	White, Cat5e	5	0#	White, Cat5e	29					
4 <i>1</i> 7	White, high-	6	2#	White, high-	30					
	temperature wire	0		temperature wire						
	Green, Cat5e	7		Orange, Cat5e	28					
5#	White, Cat5e	23	10#	White, Cat5e	14					
5#	White, high-	24	10#	White, high-	15					
	temperature wire	24		temperature wire						

Corresponding Table of 36-core wire color, connector hole position and harness number after thermal shrinkage							
Harness identification	Wire color	Connector hole position No.	Harness identification	Wire color	Connector hole position No.		
	Green, Cat5e	1		Blue, Cat5e	10		
1#	White, Cat5e	20	7#	White, Cat5e	29		
1#	White, high- temperature wire	21	/#	White, high- temperature wire	30		
	Orange, Cat5e	19		Red, Cat5e	28		
2#	White, Cat5e	2	Q #	White, Cat5e	11		
2#	White, high- temperature wire	3	0#	White, high- temperature wire	12		
	Blue, Cat5e	4		Green, Cat5e	13		
2.4	White, Cat5e	23	0#	White, Cat5e	32		
5#	White, high- temperature wire	24	9#	White, high- temperature wire	33		
	Red, Cat5e	22		Orange, Cat5e	31		
4#	White, Cat5e	5	10#	White, Cat5e	14		
4#	White, high- temperature wire	6	10#	White, high- temperature wire	15		
	Green, Cat5e	7		Blue, Cat5e	16		
5#	White, Cat5e	26	11#	White, Cat5e	35		
Jπ	White, high- temperature wire	27	1177	White, high- temperature wire	36		
	Orange, Cat5e	25		Red, Cat5e	34		
6#	White, Cat5e	8	12#	White, Cat5e	17		
0#	White, high- temperature wire	9	12#	White, high- temperature wire	18		

Corre	Corresponding Table of 55-core wire color, connector hole position and harness number after thermal shrinkage							
Harness identification	Wire color	Connector hole position No.	Harness identification	Wire color	Connector hole position No.			
	Green, Cat5e	1		Green, Cat5e	34			
1#	White, Cat5e	13	0#	White, Cat5e	46			
1#	White, high-	14	9#	White, high-	22			
	temperature wire	14		temperature wire	25			
	Orange, Cat5e	2		Orange, Cat5e	35			
2#	White, Cat5e	12	10#	White, Cat5e	45			
2#	White, high-	2	10#	White, high-	24			
	temperature wire	3		temperature wire	24			
	Blue, Cat5e	4		Blue, Cat5e	37			
3#	White, Cat5e	16	11#	White, Cat5e	49			
5#	White, high-	17	11#	White, high-	26			
	temperature wire	17		temperature wire	50			
	Red, Cat5e	5		Red, Cat5e	38			
1#	White, Cat5e	15	12#	White, Cat5e	48			
	White, high-	16	12π	White, high-	17			
	temperature wire	10		temperature wire	· · ·			
	Green, Cat5e	7		Green, Cat5e	40			
5#	White, Cat5e	19	13#	White, Cat5e	52			
511	White, high-	20	15//	White, high-	30			
	temperature wire	20		temperature wire	55			
	Orange, Cat5e	8		Orange, Cat5e	41			
6#	White, Cat5e	18	14#	White, Cat5e	51			
011	White, high-	9	1 1//	White, high-	50			
	temperature wire	,		temperature wire	50			
	Blue, Cat5e	10		Blue, Cat5e	43			
7#	White, Cat5e	22	15#	White, Cat5e	55			
7.11	White, high-	33	1.5//	White, high-	42			
	temperature wire			temperature wire	42			
	Red, Cat5e	11		Red, Cat5e	44			
8#	White, Cat5e	21	16#	White, Cat5e	54			
On	White, high-	32	10//	White, high-	53			
	temperature wire	52		temperature wire	55			

Corresponding Table of 100-core wire color, connector hole position and harness number after thermal shrinkage							
Harness	Wire color	Connector hole position	Harness	Wire color	Connector hole position		
identification	whe color	No.	identification	whe color	No.		
	Green, Cat5e	1		Blue, Cat5e	61		
	White, Cat5e	22		White, Cat5e	82		
1# Wi ter	White, high-		15#	White, high-			
	temperature	23		temperature	41		
	wire			wire			
	Orange, Cat5e	2		Red, Cat5e	62		
	White, Cat5e	21		White, Cat5e	81		
2#	White, high-		16#	White, high-			
	temperature	3		temperature	42		
	wire			wire			
	Blue, Cat5e	4		Green, Cat5e	64		
	White, Cat5e	25		White, Cat5e	85		
3#	White, high-		17#	White, high-			
	temperature	26		temperature	63		
	wire			wire			
	Red, Cat5e	5		Orange, Cat5e	65		
	White, Cat5e	24		White, Cat5e	84		
4#	White, high-		18#	White, high-			
	temperature	6		temperature	83		
	wire			wire			
	Green, Cat5e	7		Blue, Cat5e	67		
	White, Cat5e	28		White, Cat5e	88		
5#	White, high-		19#	White, high-			
	temperature	29		temperature	66		
	wire			wire			

	Orange, Cat5e	8		Red, Cat5e	68
	White, Cat5e	27		White, Cat5e	87
6#	White, high-		20#	White, high-	
	temperature	9		temperature	86
	wire		$\begin{array}{c c c c c c c c c c c c c c c c c c c $	wire	
	Blue, Cat5e	10		Green, Cat5e	70
	White, Cat5e	31		White, Cat5e	91
7#	White, high-		21#	White, high-	
	temperature	32		temperature	69
	wire			wire	
	Red, Cat5e	11		Orange, Cat5e	71
	White, Cat5e	30		White, Cat5e	90
8#	White, high-		22#	White, high-	
	temperature	12		temperature	89
	wire			wire	
	Green, Cat5e	13		Blue, Cat5e	73
	White, Cat5e	34		White, Cat5e	94
9#	White, high-		23#	White, high-	
	temperature	35		temperature	72
	wire			wire	
	Orange, Cat5e	14		Red, Cat5e	74
	White, Cat5e	33		White, Cat5e	93
10#	White, high-		24#	White, high-	
	temperature	15		temperature	92
	wire			wire	
	Blue, Cat5e	16		Green, Cat5e	76
	White, Cat5e	37		White, Cat5e	97
11#	White, high-		25#	White, high-	
	temperature	38		temperature	75
	wire			wire	
	Red, Cat5e	17		Orange, Cat5e	77
	White, Cat5e	36		White, Cat5e	96
12#	White, high-		26#	White, high-	
	temperature	18		temperature	95
	wire			wire	
	Green, Cat5e	19		Blue, Cat5e	79
	White, Cat5e	40		White, Cat5e	100
13#	White, high-		27#	White, high-	
	temperature	60		temperature	78
	wire			wire	a :
	Orange, Cat5e	20		Red, Cat5e	80
	White, Cat5e	39		White, Cat5e	99
14#	White, high-		28#	White, high-	
	temperature	59		temperature	98
	wire			wire	
	Other	holes are connected with a wir	e AFR-250-0.15 25	0V 250V White	

Classification of HJ30J Series Plug and Socket

Type of Plug and Socket	Basic Identification	Structural Features	Remarks
Crimping type	Plug HJ30J-TJ Socket HJ30J-ZK	Metal housing, electroless nickel plating, wire crimping, straight outgoing	The type of locking assembly can be selected according to specific requirements
	Plug HJ30J-TJ-A Socket HJ30J-ZK-A	Equipped with -A accessories, compared with HJ30J-TJ/ZK products	Same as above
Welding type	Plug HJ30J-TJS Socket HJ30J-ZKS	Compared with HJ30J-TJ/ZK product, the contact termination is welding cup type	Same as above
In-line PCB type	Plug HJ30J-TJN Socket HJ30J-ZKN	The contact termination is in-line PCB type; the PCB grid spacing is 1.27×1.27	Same as above
Bent PCB type	Plug HJ30J-TJW Socket HJ30J-ZKW	The contact termination is bent PCB type; the PCB grid spacing is 1.27×1.27	When the PCB is terminated, ensure that the differential wiring is of equal length
Vertical surface- mount type	Plug HJ30J-TJNB-J Socket HJ30J-ZKNB- J	The contact termination form is vertical surface-mount type	Same as above
Glue-sealed type	Socket HJ30JM-ZK	The air leakage rate index 5.0×10 ⁻² Pa·cm ³ /s	Whether the sealing gasket is conductive or not can be selected according to requirements

Instructions for Product Selection

1. Order instructions for product locking assemblies and accessories

When HJ30J product is selected, the locking assembly shall be selected according to the use requirements. When selecting the locking assembly, it shall be ensured that the locking assemblies of the selected plug and socket are matched with each other, otherwise it cannot be used normally. See the introduction of locking assemblies of J30J series products of our company for the installation of locking assemblies and their mutual use.

2. Order model description of wired products

For wired HJ30J series crimping products, the wires for transmitting differential signals are the core wires of 26 # aviation Cat5e cables, and the ground wires are AFR-250-0.15 high-temperature wires. The length of the wires is the length extending out of the end face of the housing, and the unit is mm. The outside of the wires can be bare wires, or protected by nylon sleeves and anti-wave sleeves.

If the user has other requirements for wiring, it is necessary to communicate with our technicians to confirm the wire, and our technicians will provide a new order model.

Operation Precautions

The specific operation process of the product: install the connector on the panel with the mounting screws, and then insert the plug and socket in place and screw the two locking screws into the corresponding locking screw holes to complete the connection.

For PCB products, the leads of the products shall be protected during use to avoid collision and deformation; the welding temperature shall be controlled within 280 °C and the welding time shall be within 3s.

The product is strictly prohibited to contact with acid, alkali and other polar solvents during transportation, storage and use.

When the product is not connected for a long time, it is necessary to cover the dust cover.

Instructions for Ordering Double-ended Cable Assembly

HJ30J series double-ended cable assembly is composed of two HJ30J products with the same core number. The same hole positions of the products at both ends of the cable assembly are butted one by one. The cable can be covered with anti-wave sleeve and nylon silk sleeve. The type of the products at both ends of the cable, the locking assembly and the length of the cable, and whether the cable is covered with anti-wave sleeve or nylon sleeve can be selected. Withstand voltage of the cable assembly AC 600Vrms, insulation resistance \geq 5000M Ω . See the diagram below:

HJ30J Double-ended Cable Assembly:



HJ30J-A Double-ended Cable Assembly:



Model Designation

	HJ30J	-12	TJ	L	-A	/	HJ30J	-12	TJ	L	-A	(Wire)
Code of main designation	НЈЗОЈ											
Number of contacts	12, 18, 24, 30, 36, 55, 100											
Contact type	TJ – plug installed with the pin installed with the Jack	n, ZK – socket										
Locking assembly type	See HJ30J model designation	for details										
Identification of	No identification - Ordinary J.	30J crimping product	s;									
variants	A - Shielding mesh clamp at ta	ail end of housing										
Code of main	Same as above											
designation	Same as above											
Number of	Same as above, and the number	r of cores at both en	de chol	1 be c	ancieta	nt						
contacts	Same as above, and the number	I of cores at both ch	15 511ai	10000	51151510	m						
Contact type	Same as above											
Locking assembly	See HI301 model designation	for details										
type	See 115505 model designation											
Identification of	Same as above											
variants	Same as above											
Detailed												
description of	See HJ30J model designation	for details										
wires												

Overall and Installation Dimensions

38.8

HJ30J crimping wire type HJ30J-TJ/ZK



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HJ30J Extended HJ30J-TJ/ZK-A (with tail cover for shielding)











<u>Hole size of HJ30J series in-line</u> PCB plug: HJ30J-XXXTJN (grid spacing 1.27×1.27)

Hole size of HJ30J series in-line PCB socket: HJ30J-XXXZKN (grid spacing 1.27×1.27)









Hole size of HJ30J series bent PCB plug: HJ30J-XXXTJW (grid spacing 1.27×1.27)

Hole size of HJ30J series bent PCB socket: HJ30J-XXXZKW (grid spacing 1.27×1.27)



HJ30J Vertical surface-mount HJ30J-TJNB/ZKNB-J





Hole size of HJ30J series surface-mount plug: HJ30J-XXXTJNB-J

Hole size of HJ30J series surface-mount socket: HJ30J-XXXZKNB-J



HJ30JM adhesive seal crimping type HJ30JM-ZK

HJ30JM adhesive sealing product, with an air leakage rate index added, which is $5.0 \times 10^{-2} Pa \cdot cm^3/s$. The thickness of the rubber pad installed



on the flange of the product is 1.5mm.

Distance dimension of mounting surface



sockets are installed behind the board
Hole size of mounting plate



J30J Micro-rectangular Electrical Connector with Large and Small Current Mixed

Product Overview

- Trapezoidal housing positioning, in-line micro-rectangular electrical connector;
- The small-current contact adopts flexible pins and rigid Jack structure; the large-current contact adopts rigid pins and elastic jacks
- Small in size, light in weight, easy to use and reliable in performance;
- Number of cores: nineteen specifications of 02P02, 03P03, 04P04, 05P05, 06P06, 07P07, 08P08, 09P09, 10P10, 09P02, 11P04, 12P05, 13P06, 16P03, 21P02, 23P06, 25P02, 27P02 and 39P02-core;



• Execute enterprise standard: Q/Ag 1.296.1-2020 Detailed Specification for J30J Series Micro-rectangular Electrical Connector with Large and Small Current Mixed (conforming to MIL-C-83513, equivalent to MIL-C-83513);

Product Performance

Mechanical Properties

Housing	Aluminum alloy, stainless steel	Sinusoidal vibration	Frequency 10 ~ 2000 Hz, Acceleration 196
Plating	Nickel plating, passivation		m/s ²
Insulator	Thermoplastic	Random vibration	Power spectral density 0.4G ² /Hz,
Contact	Gold-plated copper alloy, crimping type, weld	ling	Total acceleration RMS 23.1G
	type, PCB type	Impact	490m/s ²
Mechanical life	500 plugging and unplugging cycles		

Electrical Performance

Contact resistance and rated current of contacts			acts	Magnetic permeability	Not more than 2.0			
		Large-current contact	Small-current contact	Insulation resistance	under normal conditions \geq 5000 MΩ; under damp and hat conditions \geq 1 MΩ			
Contact Specification Rigi ela: Rated current A		Rigid pins and elastic jacks	Twist pins	Withstand voltage	under normal conditions ≥ 600 Vrms; und			
		20	3		damp and hot conditions > 360 Vrms.			
Contact	Before lifetime	≤10 ≤20	≤ 10 ≤ 20		Under low pressure conditions ≥ 150 Vrms			
resistance m Ω	After lifetime	≤20	≤20					
Environment	al Perform	ance						

Temperature range	-55 °C ~ +125 °C	Relative humidity	90% ~ 95% at 40 °C
Salt spray	48h	Working air pressure	101.33 kPa ~ 4.39 kPa

Model Designation

	1201	09P02	J	S	C00	C0	L00	0	-	A3	(Additional
Code of main designation	1201										Information)
Contact Arrangement	See Table 2										
	0 - No small-current contact;										
Small-current contact type	J - Small-current pin										
	K - Small-current Jack										
Large-current contact type	S - Large-current Jack										
	P - Large-current pin										
Small-current contact type	000 - No small-current contact;										
· · · · ·	For others, see Table 2										
Large-current contact type	000 No looking assembly										
Locking assembly type	000 - NO IOKING ASSENIOTY										
Locking assembly type	Fixed end: P00 P01 P02 P03	P04 P05 P06 P07	208 209 2	10 P11 P12	and P13						
	0 - Standard nickel-plated alum	inum allov	00,109,1	10, 111, 112	, and 115						
Housing Variant	1 - Stainless steel	inani ano y									
Tell Assessments	No indication - Without tail acc	essories									
1 all Accessories	A3 - Two-piece wire clamp (we	lded only)									
Additional Information	Other descriptions, such as wire	type, color, connecti	on relation	ship, etc.							

Table 1 Contact Arrangement

		U	
Code	Contact Arrangement	Code	Contact Arrangement
02P02	2-core 20A contact	09P02	7-core 3A contact +2-core 20A contact
03P03	3-core 20A contact	11P04	7-core 3A contact +4-core 20A contact
04P04	4-core 20A contact	12P05	7-core 3A contact +5-core 20A contact
05P05	5-core 20A contact	13P06	7-core 3A contact +6-core 20A contact
06P06	6-core 20A contact	16P03	13-core 3A contact +3-core 20A contact
07P07	7-core 20A contact	21P02	19-core 3A contact +2-core 20A contact
08P08	8-core 20A contact	23P06	17-core 3A contact +6-core 20A contact
09P09	9-core 20A contact	25P02	23-core 3A contact +2-core 20A contact
10P10	10-core 20A contact	27P02	25-core 3A contact +2-core 20A contact
		39P02	37-core 3A contact +2-core 20A contact

Table 2 Contact tail form

Contract toil form	Mark code			
Contact tail form	Small-current contact	Large-current contact		
Crimping type	C00	C0		
Welding type	S00	SO		
In-line PCB thickness: 2mm, lead length: 5.7mm	N01	N1		
In-line PCB thickness: 3mm, lead length: 6.7mm	N02	N2		
In-line PCB thickness: 4mm, lead length: 7.7mm	N03	N3		
In-line PCB thickness: 5mm, lead length: 8.7mm	N04	N4		
Bent PCB 2mm, height exposed the mounting plate 3mm	W01	W1		
Bent PCB 3mm, height exposed the mounting plate 4mm	W02	W2		
Bent PCB 4mm, height exposed the mounting plate 5mm	W03	W3		
Bent PCB 5mm, height exposed the mounting plate 6mm	W04	W4		

No.	Classification feature	Classification content	Mark code
1	Wire color	R: Red; W: White; M: Purple; G: Green; A: Grey; U: Blue; Y: Yellow; B: Black; N: Orange; 1: Custom; etc.	R, W, M, G, A, U, Y, B, N, 1 etc.
2	L	Connector with wires	L
3	Wire length	1000: wire length value in mm	1000
4	Wire specification	S (Cross-sectional area of wires adapted to small-current contact $0.1 \text{mm}^2 \sim 0.15 \text{mm}^2$; Cross-sectional area of wires adapted to large-current contact 2mm ²)	S
5	Additional requirements	No indication: no additional requirements 10, 11, 12, etc.: Customized (Additional requirements: there are no additional requirements outside the wire; the wire is covered with nylon sleeve, the wire is covered with anti-wave sleeve, and the end of the wire is covered with wire marker, etc.)	10, 11, 12, etc.

Table 3 Wire specification

Only AFR-250 with a cross-sectional area of $2mm^2$ can be used as the adapter wire for crimping the high-current contact; AFR-250 with a cross-sectional area of $2mm^2 \sim 3mm^2$ can be used as the adapter wire for welding.

Code	Locking assembly type	Code	Locking assembly type
L00	Free-end locking assembly	P08	Installed behind the board, with the panel thickness 3.4mm
K00	Free-end locking assembly (hand-screwable)	P09	Installed behind the board, with the panel thickness 2mm
P00	Installed in front of the board, with the panel thickness ≤ 2.5 mm	P10	Bent PCB 2mm, installed behind the board
P03	Installed on in-line PCB, with thickness of adapted PCB ≤ 2.5 mm	P11	Installed in front of the board, with M3 threaded hole drilled for installation
P04	Bent PCB	P12	Installed in front of the board, with the panel thickness \leq 5.5mm
P05	Installed behind the board, with the panel thickness 0.6mm	P13	Installed on in-line PCB, with thickness of adapted PCB ≤ 4.5 mm
P06	Installed behind the board, with the panel thickness 1.4mm	P111	Installed on in-line PCB, with thickness of adapted PCB \leq 3.5mm
P07	Installed behind the board, with the panel thickness 2.2mm	P54	Installed on in-line PCB, with thickness of adapted PCB \leq 5.5mm

Table 4 Locking assembly type

Model example: J30J02P020S000C0L000 (WL400S10)

The above marks indicate 2-core 20A contact, no small-current contact, large-current Jack, and large-current crimping type; the locking assembly is free-end L00 type, the housing is standard, each hole is crimped with white AFR-250 wire with sectional area of 2mm² and length of 400 mm, and additional customization requirements are required outside the wire.

J30J Series Spectrum Arrangement (View of Plug Insertion Surface)



Classification of J30J Series Plug and Socket

Type of Plug and Socket	Basic Identification	Structural Features
Crimping type	Plug J30JXXPXXXSXXXC0 Socket J30JXXPXXXPXXXC0	Metal housing, electroless nickel plating, wire crimping, straight outgoing
Welding type	Plug J30JXXPXXXSXXXS0 Socket J30JXXPXXXPXXXS0	The contact termination is welding cup type
	Plug J30JSN1 Socket J30JKN1	In-line PCB thickness: 2mm, lead length: 5.7mm
In-line PCB type	Plug J30JSN2 Socket J30JKN2	In-line PCB thickness: 3mm, lead length: 6.7mm
	Plug J30JSN3 Socket J30JKN3	In-line PCB thickness: 4mm, lead length: 7.7mm
	Plug J30JSN4 Socket J30JKN4	In-line PCB thickness: 5mm, lead length: 8.7mm
	Plug J30JSW1 Socket J30JKW1	Bent PCB thickness: 2mm, lead length: 5.7mm
Dant DCD tame	Plug J30JSW2 Socket J30JKW2	Bent PCB thickness: 3mm, lead length: 6.7mm
Bent PCB type	Plug J30JSW3 Socket J30JKW3	Bent PCB thickness: 4mm, lead length: 7.7mm
	Plug J30JSW4 Socket J30JKW4	Bent PCB thickness: 5mm, lead length: 8.7mm

Instructions for Product Selection

J30J series micro-rectangular electrical connector with large and small current mixed is the in-line micro-rectangular electrical connector with trapezoidal housing positioning. The small-current contacts are flexible pins and rigid jacks, and the large-current contacts are rigid pins and elastic jacks. The products are available in various forms such as crimping type, welding type and PCB type, which can be used together. Any type of plug and socket with the same number of cores can be used together.

1. When J30J products with large and small-current mixed are selected, the plug assembly, socket assembly, clamp assembly and locking assembly shall be selected at the same time, so that the plug or socket with locking function can be selected. The clamp assembly is not necessary. Type A3 clamp assembly is a two-petal snap-fit clamp assembly, and its overall dimension exceeds the flange width; Type A3 clamp assembly can only be used with the free-end locking assembly; it can be selected as required.

2. When selecting the crimping connector, it is necessary to determine the color and length of the wire, whether the wire harness needs to be shielded, and whether the nylon sleeve is needed. If the user has other special requirements for the wire brand and wiring mode of the product, he should confirm with the company's technicians and confirm the product model before ordering.

3. If most of the holes of the product need to be connected with wires with thicker outer diameter, it should be considered whether the gluefilling cavity and clamp assembly of the product have enough accommodation space, and the conclusion can only be drawn after trial assembly.

4. For the treatment of empty points in the product, if there is no technical agreement or no consensus has been reached before, the empty points shall be blocked with jacks or pins that are not crimped with wires.

Operation Precautions

The specific operation process of the product: install the connector on the panel with the mounting screws, and then insert the plug and socket in place and screw the two locking screws into the corresponding locking screw holes to complete the connection.

The product is strictly prohibited to contact with acid, alkali and other polar solvents during transportation, storage and use.

When the product is not connected for a long time, it is necessary to cover the dust cover.

The welding temperature shall be no more than 280 °C and the welding time shall be no more than 3s when wire welding is performed on the welded product.

Overall and Installation Dimensions

Crimped wire type J30JXXPXXXSXXXC0/J30JXXPXXXPXXXC0



Welded wire type J30JXXPXXXSXXS0/J30JXXPXXXPXXXS0



In-line PCB type J30JXXPXXXSXXXNX/J30JXXPXXXPXXXNX

Plug: J30JXXPXXXSXXX	NX		Socket: J30	JXXPXXXPXXXNX			
Number of cores	A	B	DI	C (mm)	D		
02002	(mm)	(mm)		g Socket	(mm)		
02P02	23.2	18.8	12.9	9 14.4	14.3		
03P03	27.5	1/	18.0	18.5	18.0		
04P04	31.4	27	21.	1 22.6	22.7		
05P05 11P04 21P02 25P02 27P02	36.3	30.9	25	26.5	26.6		
06P06 12P05	39.6	35.2	29.3	3 30.8	30.9		
07P07 13P06	43.7	39.3	33.4	4 34.9	35		
08P08 23P06	47.8	43.4	37.5	5 39	39.1		
09P09	51.9	47.5	41.0	6 43.1	43.2		
10P10	56	51.6	45.7	7 47.2	47.3		
09P02	29.7	24.5	18.0	5 20.1	20.2		
16P03	34.8	29.3	23.4	4 24.9	25		
39P02	42.8	37.3	31.4	4 32.9	33		
Where H is the lead height a	nd the dimensions ar	e as follows:			1 22		
Туре	N1		N2	N3	N4		
			<		0.7		

Recommended hole size of in-line PCB plug: J30JXXPXX0S000NX/J30JXXPX XJSN0XNX;







Recommended hole size of in-line PCB socket: J30JXXPXX0S000NX/J30JXXPXXKPN0XNX;



Contact	т	n	v	Contact	т	n	v
arrangement	L	п	1	arrangement	L	п	1
J30J02P02	18.8	2	В	J30J07P07	39.3	7	G
J30J03P03	22.9	3	С	J30J08P08	43.4	8	Н
J30J04P04	27	4	D	J30J09P09	47.5	9	Ι
J30J05P05	30.9	5	Е	J30J10P10	51.6	10	J
J30J06P06	35.2	6	F				



Bent PCB type J30JXXPXXXSXXXWX/J30JXXPXXXPXXXWX

Plug: J30JXXPXXXSXXX	WX		Socket: J30	JXXPXXXPXXXV	VX	
						7.9 7.9
Number of cores	A	В	DI	C (mm)	1 1 /	D
02002	(mm)	(mm)	Plug 12 ((mm)
02P02	23.2	18.8	12.9)	14.4	14.5
03P03	27.5	17	18.0)	18.5	18.0
04P04	31.4	27	21.		22.6	22.1
05P05 11P04 21P02 25P02 27P02	36.3	30.9	25		26.5	26.6
06P06 12P05	39.6	35.2	29.3	3	30.8	30.9
07P07 13P06	43.7	39.3	33.4	1	34.9	35
08P08 23P06	47.8	43.4	37.5	5	39	39.1
09P09	51.9	47.5	41.0	5	43.1	43.2
10P10	56	51.6	45.7	7	47.2	47.3
09P02	29.7	24.5	18.0	5	20.1	20.2
16P03	34.8	29.3	23.4	1	24.9	25
39P02	42.8	37.3	31 4	1	32.9	33
Where H is the lead height a	nd the dimensions are	s follows:	51	T	52.7	55
Trees		. as tonows.	W2	11/2		W/A
1 ype	W 1	V	N Z A	W 3		6
П	3		4	5		0

Recommended hole size of bent PCB plug: J30JXXPXX0S000WX/J30JXXPXXJSW0XWX;







Recommended hole size of bent socket: J30JXXPXX0P000WX/J30JXXPXXKPW0XWX;

			A (n-1)x L±0.	4.1 1	2xø2.3 ^{+0.1}		
			J30JXXP2	XX0P000WX			
Contact arrangement	L	n	Х	Contact arrangement	L	n	Х
J30J02P02	18.8	2	В	J30J07P07	39.3	7	G
J30J03P03	22.9	3	С	J30J08P08	43.4	8	Н
J30J04P04	27	4	D	J30J09P09	47.5	9	Ι
J30J05P05	30.9	5	Е	J30J10P10	51.6	10	J
J30J06P06	35.2	6	F				



Clamp Assembly of J30J with Large and Small-current Mixed

A3 clamp assembly

A3 clamp can be used together with basic crimping type and welding type, and can also be ordered separately. The code for separate ordering is shown in the following table. The free-end locking assembly is usually selected for products equipped with A3 clamps.



Locking Assembly/Free-end Locking Assembly of J30J with Large and Small-current Mixed

The free-end locking assembly should only be combined with J30J products with large and small-current mixed to form a free-end connector, and the locking end butted with it is usually the fixed-end locking assembly.

L00-type locking assembly



K00-type locking assembly



Locking Assembly of J30J with Large and Small-current Mixed/J30J Fixed-end Locking Assembly

The fixed-end locking assembly is suitable for fixing the connector on a mounting plate or a PCB. The fixed-end locking assemblies can be butt-jointed and locked with the free-end locking assembly.

Locking assemblies of type P00, P12 are suitable for installation in front of the board only.



Locking assemblies of type P05, P06, P07, P08 and P09 are suitable for installation after the plate only.



Locking assemblies of type P11 are suitable for thicker mounting panels with their own threads.





Locking assemblies of type P03 are suitable for in-line PCB only.





P04-type locking assembly

Only applicable to the 90° bent PCB products installed in front of the board.



P10-type locking assembly

Only applicable to the 90° bent PCB products installed behind the board.



Distance dimension of mounting surface



sockets are installed behind the board

Opening size of mounting plate

10P10

09P02

16P03

39P02

51.6

24.5

29.3

37.3

J30JXXPXX0S/J30JXXPXXJS/J30JXXPXX0P/J30JXXPXXKP Hole size for installation behind the board Hole size for installation in front of the board A A С В 2XR1.6 2xR1.6 3.2 œ 4xR2.4 AL 116 B Not more than R1.5 Hole size for installation in front of the Hole size for installation behind the board board Number of С В Α В А contact cores 02P02 18.8 14.8 18.8 14.8 12.6 03P03 22.9 22.9 18.9 18.9 16.7 04P04 29 23 29 23 20.8 05P05 11P04 24.7 21P02 30.9 26.9 30.9 26.9 25P02 27P02 06P06 29 35.2 31.2 35.2 31.2 12P05 07P07 33.1 39.3 35.3 39.3 35.3 13P06 08P08 37.2 43.4 39.4 43.4 39.4 23P06 09P09 47.5 43.5 47.5 43.5 41.3

51.6

24.5

29.3

37.3

47.6

20.5

25.3

33.3

45.4 18.3

3

23.1

31.1

47.6

20.5

25.3

33.3

MDMA Micro-rectangular Electrical Connector with Detachable Contact

Product Overview

- Execute MIL-C-83513 General Specification
- Elastic pin and rigid Jack is adopted for the contact
- Detachable contact
- 6 types of spectrum specifications. See the figure of Contact Spectrum for details
- Small in size, light in weight, flexible in use, with single-point maintenance
- Execute enterprise standard: Q/Ag1.253 Detailed Specification for MDMA Micro-rectangular Electrical Connector with Detachable Crimped Contact



Product Performance

Mechanical Properties

Housing	Aluminum alloy	Sinusoidal vibration	Frequency 10Hz ~ 2000 Hz, Acceleration			
Plating	Electroless nickel plating		196 m/s ²			
Mechanical life	500 plugging and unplugging cycles	Random vibration	Frequency 20Hz ~ 2000 Hz,			
Maintenance aging	Disassembly force of contact ≤ 10 N		Power spectral density 0.2g ² /Hz, To RMS 16.4G			
		Impact	Peak sawtooth wave after 11 ms, peak acceleration 490 m/s ²			
		Contact arrangement	Center spacing 1.27 mm, Row spacing 1.1			

Electrical Performance

Operating voltage at room temperature 150Vrms Contact resistance and rated current of contacts

Contact Specification	Adapted wire	Contact resistance	Rated current				
24#	AWG 26, 28	$\leq 10 m \Omega$	2.5A				
(nonlation resistance) (under standard strangehenic conditions)							

Insulation resistance (under standard atmospheric conditions) \geq 5000 M Ω Under wet conditions \geq 1 M Ω

Environmental Performance

Operating temperature	-55 °C ~ + 125 °C
Salt spray	48h

Withstand voltage

Altitude	Initial value	After getting wet			
Sea level	600Vrms	360 Vrms			
21336m(4.39kPa)	150 Vrms	—			

Relative humidity 98% at 40°C

Working height (at low air pressure) 21336m (4.39 kPa)

mm

Model Designation

Basic Serial No.	MDMA -		Р	L
Number of	9 15 21 25 31 37 (See the figure of Contact Spectrum for details)			
cores				
Contact type	P - Pin S - Jack (the plug is installed with the pin and the socket is installed with the Jack, which is the fixed collocation)			
Locking	Locking accessories - L, L7, L9, K, K2			
Mounting	Mounting Accessories - P, P0, P3, P4, P8, P9, P11, P45, P50, P52			
Accessories	(See the figure of J30J locking mounting accessories in this sample for details)			

`````````````````````````````````	
9 cores	©000 ©000
15 cores	©00000 ©000000
21 cores	(10000000 (100000000) (100000000)
25 cores	®000000000 ®0000000000
31 cores	©©©©©©©©©©©©©©©©©©©©©©©©©©©©©©©©©©©©©©
37 cores	(B000000000000000000000000000000000000

## Contact Spectrum (View of Pin-mounted Insulator Insertion Surface)

#### Instructions for Selection and Ordering

1. Each set of electrical connector is provided with 1 spare contact and 1 set of removal tool;

2. The contact of the electrical connector is crimping type, and the user can crimp the adapted wire according to the use needs. It is recommended to use special crimping pliers and locators for crimping;

3. Special tools and spare contacts for this product can be ordered separately according to the following table.

5	Jack	Removal tool	Crimping plier	Pin locator	Jack locator		
MDMA-00-01	MDMA-00-02	MDMA-00-10	YJQ-W1A	HD-MDMA-P	HD-MDMA-S		

## **Overall and Installation Dimensions**

[MDMA-XXP Plug with detachable contact]



#### [MDMA-XXS Socket with detachable contact]



Refer to the J30J plug-and-socket insertion dimension section in the sample for the plug-and-socket insertion dimension. See opening dimensions of J30J mounting plate in this sample for the opening dimensions of mounting plate.

#### **Operation Method**

1. Inspection of electrical connectors before use

a) The model and appearance of the electrical connector shall meet the relevant requirements, and the contact word sequence on the plug and socket of the electrical connector shall be one-to-one correspondence;

b) The housing and interface of the electrical connector shall be free of notch and crack;

c) Accessories such as contacts, removal tools and interface rubber pads packed with the product shall be free of defects or stains.

2. Contact and wire crimping

The terminated wire adopts the stranded wire in accordance with GJB 773A/23-2000, with the wire gauge number (AWG): 26 or 28; crimp the contact and conductor according to the following steps:

a) Cut a wire with a certain length according to actual use requirements and allowance;

b) Strip the insulation at the crimping end of the wire as shown in the figure, and check whether the conductor is damaged or worn;



c) Completely install the stripped wire core into the crimping hole of the contact, use the crimping plier M22520/2-01 (or YJQ-W1A), gear 2, and use the pin or socket special locator (HD-MDMA-P/MDMA-S) for crimping;



d) Check whether the crimp connection between the wire and the contact is reliable, the crimp connection is symmetrical and uniform, and the contact is free from damage.

3. Installation of contact

a) Push the pin or Jack with qualified crimping into the corresponding hole of the insulator from the non-plugged end of the plug or socket (the plug is installed with the pin, the socket is installed with the Jack);



b) Lightly pull the wire (the pulling force is not more than 22.2 N), and confirm that the contact has been correctly installed in the hole and fixed well.

#### 4. Interface rubber pad

After confirming that the Jack contact is installed in place, install the interface gasket from the insertion surface of the socket.



#### 5. Insertion

Install the connector on the panel with the mounting screws, and then insert the plug and socket in place and screw the two locking screws into the corresponding locking screw holes to complete the connection.

#### 6. Separation

Loosen the locking screws and locking screw holes on both sides, and separate the plug from the socket with axial force.

#### 7. Removal of contact

a) Insert the tip of the removal tool (MDMA-00-10) from the outer gap between the contact and the insulator (where the gap is large) to the bottom, and spread the fixed claw;



b) Hold the wire and the removal tool, and withdraw them together with the contact from the insulator hole; note that the insertion and withdrawal of the removal tool shall be carried out along the vertical direction of the contact without obvious deflection.

#### J30 Series Micro-rectangular Electrical Connector

#### **Product Overview**

- Product performance compliant with the requirements of equivalent to MIL-C-83513
- Number of cores: seven specifications of 9, 15, 21, 25, 31, 37 and 51 cores
- Adopt stranded elastic pins (twist pins) with high contact density
- The product is made of plastic housing, which is equivalent to MD series in the United States
- Available in a variety of locking assemblies and tail terminations
- Cross-sectional area of wire core  $0.12mm^2 \sim 0.15mm^2$



#### **Product Performance**

#### **Mechanical Properties**

Housing	Thermoplastic (insulator)	Vibration
Contact	Gold-plated copper alloy, crimping type, PCB t	ypeImpact
Mechanical life	500 plugging and unplugging cycles	

#### **Electrical Performance**

Contact resistance and rated current of contacts				Insulation resistance	under normal conditions $\geq 5000 \text{ M}\Omega$ ; under
Contact	Contact resistance m $\Omega$		Rated	Withstand valtage	damp and hot conditions $\geq 100 \text{ M}\Omega$
Specification	Before	After	current A	withstand voltage	(under normal conditions) 000 vinis
-1	lifetime	lifetime			
Twist pins	≤10	≤20	3		

#### **Environmental Performance**

Temperature range	-55 °C ~ +125 °C	Relative humidity	90% ~ 95% at 40 °C		
Salt spray	48h	Working air pressure	101.33 kPa ~ 4.39 kPa		

#### Model Designation

Code of main designation	J30	А	-37	TJ	W	L1	-	J	(Additional
Housing change	Basic type (unmarked), A, B								Information)
Number of contacts	9; 15; 21; 25; 31; 37; 51								
Types of connectors and	TJ – plug installed with the pin, Zl	K – socket instal	led with th	ne Jack					
contacts									
	Unmarked - Crimping, N - In-line	PCB,							
Tail type	N1 - In-line PCB (2.54 × 2.54),								
	W - Bent PCB (2.54 × 2.54)								
	Free-end: L, L1, L2								
Locking assembly type	Fixed-end: P1, P2, P3, P4								
Basic variant	Unmarked - Unmodified; J - PCB	grid spacing 1.2	7 × 2.54						
Additional Information	Wire requirements: See Table 1, for	or crimping type	products of	only;					



Frequency 10  $\sim 2000$  Hz, Acceleration 196 m/s²

 $490 \text{m/s}^2$ , 11ms

Table 1				
No.	Classification feature	Classification content	Mark code	
1	Wire color	R: red; W: white; M: purple; G: green; A: gray; U: blue; Y: yellow; B: black; N: orange; R, W, M, G, A, U, Y, B, N		
2	L	Connector with wires L		
3	Wire length	1000: wire length value in mm 1000		
4	Wire specification	A: 0.15mm ² AFR-250 B: 0.12mm ² AFR-250 D: 0.15mm ² AFRP-250 F: 0.15mm ² AF-250 etc.		
5	Additional requirements	No indication: no additional requirements1: Wire jacket nylon sleeve2: Wire jacket anti-wave sleeve3: Wire jacket anti-wave sleeve and nylon sleeve4: Marker at the end of wire, etc.		

## Example of Marks

#### J30-37TJL1(WL500A1)

The above marks indicate that the number of contacts is 37 cores, the plug is installed with the pin, and the end of the contact is crimped, with a L1-type locking assembly; the specification of the wire is AFR-250, the cross-sectional area of the wire core is 0.15 mm², the length is 500 mm, and the color is white; the whole wire harness is covered with a nylon sleeve.

## J30 Series Spectrum Arrangement (View of Pin-mounted Insulator Insertion Surface)



# Classification of J30 Series Plug and Socket

Type of Plug and Socket	Basic Identification	Structural Features
Crimping type	Plug J30-TJ Socket J30-ZK	Plastic housing, wire crimping, straight outgoing
	Plug J30-TJN Socket J30-ZKN	In-line PCB type; the PCB grid spacing is $2.54 \times 1.6$ , and the lead length is $9.2$
In-line PCB type	Plug J30-TJN-J Socket J30-ZKN-J	In-line PCB type, with the grid spacing of PCB $1.27 \times 2.54$
	Plug J30-TJN1 Socket J30-ZKN1	In-line PCB type, with the grid spacing of PCB 2.54 × 2.54
	Plug J30-38TJN	In-line PCB type, with center screw locking
	Plug J30-TJW Socket J30-ZKW	Bent PCB type, with the grid spacing of PCB $2.54 \times 2.54$
Bent PCB type	Plug J30-TJW-J Socket J30-ZKW-J	Bent PCB type, with the grid spacing of PCB $1.27 \times 2.54$
	Socket J30-38ZKN	In-line PCB type and surface-mount, with center screw locking

## **Overall and Installation Dimensions**



## J30 In-line PCB N type

37

37.5



32.2

5.4



Hole size of J30 series in-line PCB plug: J30-XXTJN; viewed from the threading direction of PCB contact.



Hole size of J30 series in-line PCB socket: J30-XXZKN; viewed from the threading direction of PCB contact.

## J30 In-line PCB N1 type

The connection between the tail end of the contact and the PCB is in-line type, and the spacing between adjacent columns is  $2.54 \times 2.54$ 

#### $(column \times row)$





Hole size of J30 series in-line PCB plug: J30-XXTJN1 (grid spacing  $2.54 \times 2.54$ ); viewed from the threading direction of PCB contact.



Hole size of J30 series in-line PCB socket: J30-XXZKN1 (grid spacing  $2.54 \times 2.54$ ); viewed from the threading direction of PCB contact.
# J30 In-line PCB N-J type

The connection between the tail end of the contact and the PCB is in-line type, and the spacing between adjacent columns is  $1.27 \times 2.54$ 





Hole size of J30 series in-line PCB plug: J30-XXTJN-J (grid spacing  $2.54 \times 2.54$ ); viewed from the threading direction of PCB contact.



Hole size of J30 series in-line PCB socket: J30-XXZKN-J (grid spacing  $1.27 \times 2.54$ ); viewed from the threading direction of PCB contact.

# J30 bent PCB W type



The connection between the tail end of the contact and the PCB is bent type, and the grid size is  $2.54 \times 2.54$  (column  $\times$  row).



Hole size of J30 series bent PCB plug: J30-XXTJW (grid spacing  $2.54 \times 2.54$ ); viewed from the threading direction of PCB contact.





J30 bent PCB W-J type



The connection between the tail end of the contact and the PCB is bent type, and the grid size is  $1.27 \times 2.54$  (column × row).



Hole size of J30 series bent PCB plug: J30-XXTJW (grid spacing  $1.27 \times 2.54$ ); viewed from the threading direction of PCB contact.



Hole size of J30 series bent PCB socket: J30-XXZKW (grid spacing  $1.27 \times 2.54$ ); viewed from the threading direction of PCB contact.

#### J30-38TJN/ZKN

The product adopts the center screw for locking, mainly used for PCB connection. The product installation method is: the plug is used for in-line PCB installation, and the socket is used for bent PCB installation and surface-mount.



#### **J30** Accessories

J30 accessories are available in various forms to meet the installation and locking of products. Users can order separately according to their needs.

J30 accessories are divided into two types according to different applications: locking assembly and mounting assembly.

The locking assembly is generally used when reliable locking is required for product butt-joint. It is usually installed at the free end of the wire-throwing connector and can be used in the basic crimping series products.

The mounting assembly is used to fix the product and the mounting panel or PCB together. It is usually installed in the fixed end of the wire-throwing connector and the PCB-mounted series products.





# L1-type locking assembly



# L2-type locking assembly



P1-type mounting assembly







P3-type mounting assembly







Note: The P1 mounting assembly is included in the above fixed bracket locking assembly, but it is not shown in the figure.

# Mounting hole size of J30 series product

Hole size of J30 crimping series mounting plate installed in front of the board

Hole size drawing of crimping series mounting plate installed in front of the board								
4-R1 A   2-R C								
Spectrum	А	В	С	D				
9 cores	10.1	4.6	14.3	2.3				
15 cores	14.2	4.6	18.2	2.3				
21 cores	17.9	4.6	22	2.3				
25 cores	20.8	4.6	24.5	2.3				
31 cores	24.2	4.6	28.3	2.3				
37 cores	28.2	4.6	32.2	2.3				
51 cores	26.9	5.9	30.8	2.3				

#### J29A Series Micro-rectangular Electrical Connector

### **Product Overview**

- Number of cores: eight specifications of 9, 15, 21, 25, 31, 37, 51 and 66 cores
- Adopt stranded elastic pins (twist pins), with contact spacing of 1.905mm and row spacing of 1.65mm
- $\bullet$  Cross-sectional area range of wire core:  $0.15 mm^2 \sim 0.3 mm^2$
- Plugs and sockets are divided into ordinary type (wide), -A type (narrow), -A1 type (width between ordinary type and -A type) and -A2 type (width between -A type and -A1 type) according to the width of the housing mounting plate, with three types of crimping, welding, in-line PCB and bent PCB and other termination forms
- Widely used in the circuit connection of aerospace, aviation, electronic computers and other electronic
- Execute enterprise standard: Q/Ag 1.275 Detailed Specification for J29A Series Micro-rectangular Electrical Connectors

#### Product Performance

### **Mechanical Properties**

		a:	E 10 0000 H 1 1 100	
Housing	Aluminum alloy	Sinusoidal vibration	Frequency $10 \sim 2000$ Hz, Acceleration 196	
Plating	Nickel plating		m/s ²	
Insulator	Thermoplastic	Random vibration	Power spectral density 0.4g ² /Hz;	
Contact	Gold-plated copper alloy		Total acceleration RMS 23.1G	
Mechanical life	500 plugging and unplugging cycles	Impact	1200m/s ² , 6ms	
Electrical Perforn	nance			
Contact rated curre	nt 5A; Contact resistance $\leq 10 \text{ m}\Omega$	Magnetic permeability Not more than 2.0		
Withstand voltage	(under normal conditions) DC 1500V	Insulation resistance (under normal conditions) $\geq$ 5000 MC		

#### **Environmental Performance**

Temperature range	-55 °C ~ +125 °C	Relative humidity	$40 \pm 2$ °C, relative humidity 90% ~ 95%, 96h;
Salt spray	48h	Working air pressure	101.33KPa ~ 4.39KPa



#### Model Designation

Code of main designation	J29	А	-	9	TJ	Н	L	-	А	D	(Additional Information)
Series variant	A - Basic type M - Glue-sealed type										
Number of contacts	9, 15, 21, 25, 31, 37, 51, 66										
Contact type	9, 13, 21, 23, 31, 37, 31, 00 TJ – plug installed with the pin, ZK – socket installed with the Jack (TI and ZK are fixed collocation)										
Form of contact tail end	Unmarked - Crimping, H - Welding, N - In-line PCB W - Bent PCB $(1.905 \times 2.54 \text{ grid})$ WI - Bent PCB $(3.82 \times 2.54)$										
Locking assembly type	See "J29A Locking Assembly" for details. Note: P3, P4, P6, P13 and P15 locking assemblies are specially used for J29A-XXTJW/ZKW/TJWI/ZKWI products; P5 type parts are specially used for sealing products.										
			0.								
Housing Type	Unmarked - Normal type (flat counterbore at the butt end of the housing flange) A - The width of housing flange is the same as the tail end A1 - The width of the housing flange is between the ordinary type and type A A2 - The width of the housing flange is between type A and type A1										
Type off tail cover	D, D1, D2, D3										
Additional Information	Wire requirements: See Table	1, for crit	nping t	ype produc	ets only						

#### Table 1

No.	Mark code	Contact tail form	Mark code
1	Wire color	R: red; W: white; M: purple; G: green; A: gray; U: blue; Y: yellow; B: black; N: orange;	R, W, M, G, A, U, Y, B, N
2	L	Connector with wires	L
3	Wire length	1000: wire length value in mm	1000
4	Wire specification	A: 0.3mm ² AFR-250 B: 0.2mm ² AFR-250 C: 0.15mm ² AFR-250, etc.	A, B, C etc.
5	Additional requirements	No indication: no additional requirements 1: Wire jacket nylon sleeve 2: Wire jacket anti-wave sleeve, etc.	1, 2, etc.

#### Model example: J29A-25ZKL4-A1D2 (WL200A1)

The above marks indicate that the number of contacts is 25, the socket is installed with the Jack, and the end of the contact is crimped, with A1-type housing, L4-type free-end locking assembly and D2-type tail cover; the specification of the wire is AFR-250, the cross-sectional area of the wire core is 0.3 mm², the length is 200 mm, and the color is white; the whole wire harness is covered with a nylon sleeve.

# J29A Series Spectrum Arrangement (View of Pin-mounted Insulator Insertion Surface)



Note: The positions of the above contacts are arranged as viewed from the butt end of the plug, and the socket is opposite to it

# Classification of J29A Series Plug and Socket

Type of Plug and Socket	Basic Identification	Structural Features
Crimping type	Plug J29A-TJ Socket J29A-ZK	Metal housing, electroless nickel plating, wire crimping, straight outgoing
	Plug J29A-TJ-A Socket J29A-ZK-A	Compared with J29A-TJ/ZK, the width of the housing flange is equal to that of the tail end
	Plug J29A-TJ-A1 Socket J29A-ZK-A1	Compared with J29A-TJ/ZK, the width of the housing flange is reduced to the corresponding size
	Plug J29A-TJH Socket J29A-ZKH	Compared with J29A-TJ/ZK, the contact termination is welding cup type
Walding tons	Plug J29A-TJH-A Socket J29A-ZKH-A	Compared with J29A-TJ/ZKH, the width of the housing flange is equal to that of the tail end
weiding type	Plug J29A-TJH-A1 Socket J29A-ZKH-A1	Compared with J29A-TJ/ZKH, the width of the housing flange is reduced to the corresponding size
	Plug J29A-TJH-A2 Socket J29A-ZKH-A2	Compared with J29A-TJ/ZKH, the width of the housing flange is reduced to the corresponding size
In-line PCB type	Plug J29A-TJN Socket J29A-ZKN	In-line PCB type, with the grid spacing of PCB 1.91 × 1.65
	Plug J29A-TJW Socket J29A-ZKW	Bent PCB type, with the grid spacing of PCB $1.91 \times 2.54$
	Plug J29A-TJW-A Socket J29A-ZKW-A	Compared with J29A-TJ/ZKW, the width of the housing flange is equal to that of the tail end
Bent PCB type	Plug J29A-TJWI Socket J29A-ZKWI	Bent PCB type, with the grid spacing of PCB $3.82 \times 2.54$
	Plug J29A-TJWI-A Socket J29A-ZKWI-A	Compared with J29A-TJ/ZKW, the width of the housing flange is equal to that of the tail end
Glue-sealed type	Socket J29M-ZK Plug J29M-TJ	The potting height at the tail end is increased, and the leakage rate of helium mass spectrum detection is $\leq 1 \times 10^{-1} \text{ Pa.cm}^3$ /s (1 atmospheric pressure difference; the insertion end is the high pressure end);
	Socket J29M-ZKH Plug J29M-TJH	Compared with J29M-TJ/ZK, the contact termination is welding cup type

#### Instructions for Product Selection

J29A series products are in-line micro-rectangular electrical connectors with trapezoidal housing positioning, and the contacts are flexible pin and rigid Jack structure. The products are available in various forms such as crimping type, welding type and PCB type, which can be used together. Any type of plug and socket with the same number of cores can be used together.

When J29A product is selected, the plug assembly, socket assembly, tail cover and locking assembly shall be selected at the same time, so that the plug or socket with locking function can be selected. The tail cover is not necessary. The tail cover includes D type, D1 type, D2 type and D3 type. The D type tail cover is of a two-petal structure, including a built-in clamping plate, and the overall dimension exceeds the flange width; D1 type tail cover is applicable to ordinary crimping series products. D1 type tail cover is of a two-petal structure and does not include clamping plate. D2 type tail cover is applicable to -A1 crimping and welding series products. D2 type tail cover has a two-petal structure and includes a built-in clamping plate. D3 type tail cover is a two-petal snap-fit clamp assembly with the same overall dimensions as the flange width. it can be selected as required.

In addition, since not all plug and socket assemblies, locking assemblies and tail covers can be combined and matched arbitrarily, the following items should be known when selecting J29A products:

1. The plug and socket assemblies equipped with the tail cover should not be equipped with the locking assembly installed in front of the board (that is, the mounting screw is suitable for the locking assembly installed in front of the board), because the existence of the tail cover will make the mounting plate unable to be installed; if the plug and socket assemblies equipped with the tail cover are to be equipped with the locking assembly installed behind the board, the thickness of the mounting plate must be considered as "mounting plate + 0.7";

2. When selecting the crimping connector, it is necessary to determine the color and length of the wire, whether the wire harness needs to be shielded, and whether the nylon sleeve is needed. If the user has other special requirements for the wire brand and wiring mode of the product, he should confirm with the company's technicians and confirm the product model before ordering.

3. If most of the holes of the product need to be connected with wires with thicker outer diameter, it should be considered whether the gluefilling cavity and clamp assembly of the product have enough accommodation space, and the conclusion can only be drawn after trial assembly.

4. For the treatment of empty points in the product, if there is no technical agreement or no consensus has been reached before, the empty points shall be blocked with jacks or pins that are not crimped with wires.

#### **Operation Precautions**

The specific operation process of the product: install the connector on the panel with the mounting screws, and then insert the plug and socket in place and screw the two locking screws into the corresponding locking screw holes to complete the connection.

The product is strictly prohibited to contact with acid, alkali and other polar solvents during transportation, storage and use.

When the product is not connected for a long time, it is necessary to cover the dust cover.

The welding temperature shall be no more than 280 °C and the welding time shall be no more than 3s when wire welding is performed on the welded product.

### Overall and Installation Dimensions





J29A in-line PCB type J29A-TJN/ZKN





Hole size of J29A series in-line PCB plug (grid spacing  $1.91 \times 1.65$ ): J29A-XXTJN;

The hole size of the pin is  $\Phi 0.9_0^{+0.1}$ , and the size of the mounting hole is  $\Phi 2.7_0^{+0.12}$  (viewed from the threading direction of the PCB contact).



Hole size of J29A series in-line socket (grid spacing  $1.91 \times 1.65$ ): J29A-XXZKN;

The hole size of the pin is  $\Phi 0.9_0^{+0.1}$ , and the size of the mounting hole is  $\Phi 2.7_0^{+0.12}$  (viewed from the threading direction of the PCB contact).

J29A bent PCB type J29A-TJW/ZKW

# PCB hole spacing $1.91 \times 2.54$ grid





Hole size of J29A series bent PCB plug (grid spacing 1.91 × 2.54): J29A-XXTJW;



Hole size of J29A series bent socket (grid spacing  $1.91 \times 2.54$ ): J29A-XXZKW;

J29A bent PCB type J29A-TJWI/ZKWI

# PCB hole spacing $3.82 \times 2.54$ grid

Plug: J29A-9, 15, 21, 25, 31, 37, 51, 66TJWI					Socket: J29A-9, 15, 21, 25, 31, 37. 51, 66ZKWI				
					22.54				
$9 \sim 37$ 51, 66 cores cores					есссссссссссссссссссссссссссссссссссс	9~37 cores	51, 66 cores		
Number of	А	B	C	D	(mm)	Е	F	(mm)	G
cores	(mm)	(mm)	(mm)	Plug	Socket	(mm)	Plug	Socket	(mm)
9	26.1	20.1	-	11.6	12.9	14	5.5		
15	31.6	25.6	-	1/.1	18.4	19.5	5.5	6.8	
25	42	36	13	27.2	28.8	29.9			8.8
31	47.8	41.8	4	32.7	34.5	35.6	5.9	7.7	
37	53.5	47.5		38.5	40.3	41.4			
51	52	46	14.6	37	38.8	39.9	7.55	9.35	10.4
66	61.5	55.5		46.5	48.3	49.4			



Hole size of J29A series bent PCB plug (grid spacing  $3.82 \times 2.54$ ): J29A-XXTJWI;

The hole size of the pin is  $\Phi 0.9_0^{+0.1}$ , and the size of the mounting hole is  $\Phi 3.2_0^{+0.12}$  (viewed from the threading direction of the PCB contact).



Hole size of J29A series bent socket (grid spacing  $3.82 \times 2.54$ ): J29A-XXZKWI;

# J29A-A crimping type J29A-TJ/ZK-A



#### J29A-A welding type J29A-TJH/ZKH-A

Plug: J29A-9, 15, 21, 25 37, 51, 66TJH-A Socket: J29A-9, 15 31, 37, 51, 66ZKH-A D 6.1 6.9 s<del>t s</del> 7 2.4 5 ΔĮĮĽ 65 WZ <u>J.J</u> W Ε G E  $9 \sim 37$ 51,66 9~37 2xø3.7 cores cores 51,66 2xø3.7 cores cores B А J29A-XXZKH-A J29A-XXTJH-A С G Number of А В D (mm) Е F (mm) Plug (mm) Plug (mm) (mm) Socket (mm) Socket (mm) cores 9 26.1 20.1 11.6 12.9 14 15 31.6 25.6 17.1 18.4 19.5 5.5 6.8 21 37.3 31.3 22.8 24.1 25.2 8.8 8.8 29.9 25 42 36 27.2 28.831 47.8 41.8 32.7 34.5 35.6 5.9 7.7 37 53.5 47.5 38.5 40.3 41.4 51 46 38.8 39.9 52 37 10.7 7.55 9.35 10.4 61.5 66 55.5 46.5 48.3 49.4

The product housing is changed, and the width of housing flange is the same as the tail end

# J29A-A bent PCB type J29A-TJW/ZKW-A





Hole size of J29A series bent PCB plug (grid spacing 1.91 × 2.54): J29A-XXTJW-A (same as J29A-XXTJW);

210



# Hole size of J29A series bent socket (grid spacing $1.91 \times 2.54$ ): J29A-XXZKW-A (same as J29A-XXZKW);



# J29A-A bent PCB type J29A-TJ WI/ZKWI-A



### Hole size of J29A series bent PCB plug (grid spacing 3.82 × 2.54): XXTJWI-A (same as XXTJWI);

213



Hole size of J29A series bent PCB socket grid spacing  $3.82 \times 2.54$ ): XXZKWI-A (same as XXZKWI);

The hole size of the pin is  $\Phi 0.9_0^{+0.1}$ , and the size of the mounting hole is  $\Phi 3.2_0^{+0.12}$  (viewed from the threading direction of the PCB contact).
## J29A-A1 crimping type J29A-TJ/ZK-A1



#### J29A-A1 welding type J29A-TJH/ZKH-A1



The product housing is changed, and the width of the housing flange is between the ordinary type and type A

## J29A-A2 welding type J29A-TJH/ZKH-A2

The product housing is changed, and the width of the housing flange is between type A and type A1



#### J29M crimping type J29M-TJ/ZK

The sealing-type product and the ordinary type product are only changed in the height of the glue-filling cavity at the tail end; the tail end of the contact is in a crimping form;

The leakage rate of helium mass spectrum detection is  $\leq 1 \times 10$  Pa.cm/s (1 atmospheric pressure difference; the insertion end is the high pressure end).



#### J29M welding type J29M-TJH/ZKH

The sealing-type product and the ordinary type product are only changed in the height of the glue-filling cavity at the tail end; the tail end

#### of the contact is in a welding form



D-type tail cover

D-type tail cover is suitable for ordinary crimping and welding series products, with a two-petal structure, including a built-in clamping

plate. The D-type tail cover can also be ordered separately, and the code for separate ordering is shown in the table below.



## D1-type tail cover

D1-type tail cover is suitable for ordinary crimping series products. D1-type tail cover is of a two-petal structure and does not contain clamping plate. The D1-type tail cover can also be ordered separately, and the code for separate ordering is shown in the table below.
Plug/Socket: J29A-009, 015, 021, 025, 031, 037, 051, 066-961



## D2-type tail cover

D2-type tail cover is suitable for A1-type crimping and welding series products. The D2-type tail cover is of a two-petal structure and includes a built-in clamping plate. The D2-type tail cover can also be ordered separately, and the code for separate ordering is shown in the table below.



## D3-type tail cover

D3-type tail cover is suitable for A2-type crimping and welding series products. The D3-type tail cover is of a two-petal structure and includes a built-in clamping plate. The D3-type tail cover can also be ordered separately, and the code for separate ordering is shown in the table below.



## J29A Locking Assembly/J29A Free-end Locking Assembly

The free-end locking assembly should only be combined with J29A products to form a free-end connector, and the locking end butted with it is usually the fixed-end locking assembly.





## L1, L2-type locking assembly

J29A free-end locking assembly	А	Available tail cover	Available fixed-end locking assembly	
L1 type	M2.5	D $D1$ $D2$ $D2$ turns	Type P, P1, P3, P4, P5, P8, P9, P11 ~ P16	
L2 type	0.099-48UNC-2A	D, D1, D2, D3 type	P6	

## L3-type locking assembly



#### L4-type locking assembly



## J29A Locking Assembly/J29A Fixed-end Locking Assembly

The fixed-end locking assembly is suitable for fixing the connector on a mounting plate or a PCB. Most of the fixed-end locking assemblies can be butt-jointed and locked with the free-end locking assembly; a few of the fixed-end locking assemblies are only applicable to the use occasions where the free-end locking assembly is not locked with it.

P-type locking assembly

The P-type locking assembly is used for the edge mounting of the bent PCB series products with the housing of "-A" type, and there is no mounting plate.



P15-type locking assembly

The P15-type locking assembly is only used for the edge mounting of J29A-XXTJW/ZKW/TJWI/ZKWI bent PCB series products, and there is no mounting plate.



P1-type locking assembly

P1-type locking assembly is mainly used for the rear-plate installation of the crimping and welding series products that need to be equipped with the tail cover, and the thickness of the mounting plate is 2.3mm



P3, P6 type locking assembly

The P3, P6 type locking assembly is only used for the rear-plate edge mounting of J29A-XXTJW/ZKW/TJWI/ZKWI bent PCB series products, and the thickness of the mounting plate is 0.8mm.



P4, P13 type locking assembly

The P4 type locking assembly is only used for the rear-plate edge mounting of J29A-XXTJW/ZKW/TJWI/ZKWI bent PCB series products, and the thickness of the mounting plate is 2.5mm.

The P13 type locking assembly is only used for the rear-plate edge mounting of J29A-XXTJW/ZKW/TJWI/ZKWI bent PCB series products, and the thickness of the mounting plate is 2mm.



The P4 and P13 type locking assemblies are provided with rubber pads.

P5-type locking assembly

The P5 type locking assembly is used for the front-plate installation of the J29M sealed product. The thickness of the mounting plate is  $\leq$  4 mm, with a conductive rubber pad.



P8-type locking assembly

P8-type locking assembly is mainly used for the front-plate installation, and the thickness of the mounting plate is  $\leq$  4.5mm.



#### P9, P11 type locking assembly

P9 type locking assembly is suitable for in-line PCB series products, with PCB thickness  $\leq 2.5$ mm, 8mm long support sleeve and no mounting plate.

P11 locking assembly is suitable for in-line PCB series products, with PCB 2.5mm ~ 3.5mm, 7.2mm long support sleeve and no mounting plate.



#### P12-type locking assembly

P12-type locking assembly is mainly used for front-plate installation, with interface sealing function and thread depth  $\geq$  5 mm.



#### P14, P16 type locking assembly

P14-type locking assembly is used for the rear-plate installation of the crimping and welding series products, and the thickness of the mounting plate is  $2\text{mm} \sim 2.5\text{mm}$ 

P16-type locking assembly is used for the rear-plate installation of the crimping and welding series products, and the thickness of the mounting plate is  $1 \text{ mm} \sim 1.5 \text{ mm}$ 



## Opening size of J29A mounting plate



Note: As J29M-ZK and J29M-ZKH are sealed products, although the mounting plate holes can be installed as shown above, the sealing effect may be lost because the mounting plate is a through-hole plate. Therefore, the mounting plate holes of these products should be blind threaded holes when they are installed in front of the board.

#### J64 Series Micro-rectangular Electrical Connector

## **Product Overview**

- Comply with MIL-C-83513 General Specification for Microrectangular Electrical Connectors with Housing Positioning
- Adopt stranded elastic micro-pins (commonly known as twist pins)
- Contact spacing is 1 mm
- Number of cores: nine specifications of 10, 10, 16, 22, 25, 31, 37, 52, 64 and 70 cores
- The plug is installed with the pin and the socket is installed with the Jack



- The conventionally mated connectors at the free end and the fixed end are screwed and butted by the locking screw and the connecting nut
- Tail termination includes crimping wire, PCB, surface-mount and other forms

Under wet conditions  $\geq 1 \text{ M}\Omega$ 

- The sectional area of the suitable crimping wire is generally 0.1mm²
- It is suitable for military systems and other electronic equipment systems with lightweight and miniaturization requirements such as aerospace, aviation and weapons
- Compared with J63A, the product with the same specifications is 1mm larger in appearance, larger in rated current and better in installation operation than J63A; compared with J30J, the product has higher mechanical strength, smaller size, lighter weight and lower cost, and meets the development requirements of miniaturization and lightweight.

#### **Product Performance**

#### **Mechanical Properties**

Housing	Aluminun	n alloy	Mechanical life	500 plugging and unplugging cycles
Plating	Nickel pla	ating	Contact	Gold-plated copper alloy, crimping type, PCB
Insulator	Thermopl	astic		type, surface-mount type
			Vibration	10Hz ~ 2000 Hz, $196$ m/s ²
Electrical Pe	rformanc	e		
Contact rated	current	2A	Withstand voltage	(under normal atmospheric conditions) 600Vrms
Contact resist	tance	$\leq 10 m\Omega$		Under low pressure (4.39 kPa), 150Vrms
Insulation res	istance	(under normal conditions) $\geq$ 5000 M $\Omega$		

#### **Environmental Performance**

Temperature range	-55 °C ~ +125 °C	Liquid impregnation	Hydraulic fluid, diluent, refrigerant
Salt spray	48h	Working air pressure	101.33KPa ~ 4.39KPa
Relative humidity	98% at 40°C		

# Model Designation

Basic Serial Number Product Category	J64 No description - Nickel-plat aluminum alloy S - Stainless steel passivatio M - Glue-sealed	S - ed n	1	-	10	-	16	-	JC	(Additional Information)
Туре	<ol> <li>Free-end crimping plug</li> <li>Horizontally installed</li> <li>crimping plug</li> <li>Vertically installed crimplug</li> <li>Bent PCB-type plug</li> <li>G - In-line PCB-type plug</li> </ol>	2 - Free 4 - Hor crimpin 6 - Ver crimpir F - Ben H - In-	-end crimping socket izontally installed ng socket tically installed g socket t PCB-type socket ine PCB-type socket							
Number of contacts	10; 16; 22; 25; 31; 37; 52; 64 (The number of contacts is r chart is detailed in "Contact	4; 70 epresented by 2 Arrangement")	digits, and the correspon	ding	spectrum					
Contact type	<ul> <li>13 - In-line PCB type pin, le</li> <li>14 - In-line PCB type pin, le</li> <li>15 - In-line PCB type pin, le</li> <li>16 - Crimping pin;</li> <li>33 - Bent PCB type pin, lead</li> <li>34 - Bent PCB type pin, lead</li> <li>35 - Bent PCB type pin, lead</li> <li>35 - Bent PCB type pin, lead</li> <li>PP - The plug is corresponding</li> <li>plug;</li> <li>PS - The plug is corresponding</li> <li>socket;</li> </ul>	ad length 2.8mn ad length 3.6mn ad length 4.4mn I length 2.8mm; I length 3.6mm; I length 4.4mm; ngly connected	$\begin{array}{rrrr} & 23 & - & \text{In-line F} \\ a; & 24 & - & \text{In-line F} \\ a; & 25 & - & \text{In-line F} \\ & 26 & - & \text{Crimpin} \\ & 43 & - & \text{Bent PC} \\ & 44 & - & \text{Bent PC} \\ & 45 & - & \text{Bent PC} \\ & \text{with the SS} & - & \text{The soch with the soch } \end{array}$	CB t CB t CB t g Jac B typ B typ ket is	ype Jack, le ype Jack, le ype Jack, le k; we Jack, lead e Jack, lead correspond	ad leng ad leng ad leng l lengtl l lengtl l lengtl ingly c	gth 2.8mm; gth 3.6mm; gth 4.4mm; 1 2.8mm; 1 3.6mm; 1 4.4mm; sonnected			
Locking assembly	JC - Slotted locking screw;	JC1 - Hexagon	socket locking screw; Tl	H-cor	necting nut	; 00 - 1	No locking part	;		
Additional Information	Crimping connectors shoul shown in Table 1	d be provided w	ith additional informatio	n on 1	the wire, su	ch as v	vire color, lengt	h, speci	fication	, etc., as

Table 1 Wire naming rules
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		6	
No.	Classification feature	Classification content	Mark code
1	Wire color	R: red; W: white; M: purple; G: green; A: gray; U: blue; Y:	R, W, M, G, A, U, Y, B,
	wire color	yellow; B: black; N: orange;	Ν
2	L	Connector with wires	L
3	Wire length	200, wire length value in mm	200
4	Wire specification	A: $0.1 \text{ mm}^2 \text{ AFR-250}$ , etc.	A, etc.
		No indication: no additional requirements	
5	Additional requirements	1: Wire jacket nylon sleeve	1, 2, etc.
		2: Wire jacket anti-wave sleeve, etc.	

Example of model designation: J64-1-10-16-JC (RL200A): J64 housing, nickel-plated aluminum alloy, free-end crimping plug, 10 cores, product with locking screw JC. (Additional information: 200 mm red AFR-250 wires with a sectional area of 0.1 mm² should be crimped to each hole.)

## **Classification Table of J64 Series**

Connector Type	Basic Identification	Structural Features
	Plug J64-1-XX-16-JC(JC1)	With locking screw, crimping pin
-	Socket J64-2-XX-26-JC(JC1)	With locking screw, crimping Jack
Crimping	Plug J64-3-XX-16-TH	With connecting nut, crimping pin, horizontal mounting
type	Socket J64-4-XX-26-TH	With connecting nut, crimping Jack, horizontal mounting
	Plug J64-5-XX-16-TH	With connecting nut, crimping pin, vertical mounting
	Socket J64-6-XX-26-TH	With connecting nut, crimping Jack, vertical mounting
	Plug J64-G-XX-13-TH	With connecting nut, in-line PCB type pin, vertical mounting, lead length 2.8mm
	Socket J64-H-XX-23-TH	With connecting nut, in-line PCB type Jack, vertical mounting, lead length 2.8mm
In-line PCB	Plug J64-G-XX-14-TH	With connecting nut, in-line PCB type pin, vertical mounting, lead length 3.6mm
type	Socket J64-H-XX-24-TH	With connecting nut, in-line PCB type Jack, vertical mounting, lead length 3.6mm
	Plug J64-G-XX-15-TH	With connecting nut, in-line PCB type pin, vertical mounting, lead length 4.4mm
	Socket J64-H-XX-25-TH	With connecting nut, in-line PCB type Jack, vertical mounting, lead length 4.4mm
	Plug J64-E-XX-33-TH	With connecting nut, bent PCB type pin, horizontal mounting, lead length 2.8mm
	Socket J64-F-XX-43-TH	With connecting nut, bent PCB type Jack, horizontal mounting, lead length 2.8mm
Bent PCB type	Plug J64-E-XX-34-TH	With connecting nut, bent PCB type pin, horizontal mounting, lead length 3.6mm
	Socket J64-F-XX-44-TH	With connecting nut, bent PCB type Jack, horizontal mounting, lead length 3.6mm
	Plug J64-E-XX-35-TH	With connecting nut, bent PCB type pin, horizontal mounting, lead length 4.4mm
	Socket J64-F-XX-45-TH	With connecting nut, bent PCB type Jack, horizontal mounting, lead length 4.4mm

#### Table 2 Classification of J64 Series

#### Instructions for User Selection

J64 series products are screwed by threads, and the process of plugging and unplugging should be gentle, without impact on the product, which is conducive to protecting the product and peripheral components. Therefore, in general, when the mating connector is selected, one end shall be provided with connecting nuts (TH), and the other end shall be provided with locking screws (JC, JC1). In addition, the following matters should be known when selecting J64 products:

1. Crimping connectors are delivered with wires, and the user shall confirm the specification, color and length of the wires when selecting them. See Table 1 for the naming rules of the wires;

2. When the plug is connected with the socket, it is necessary to alternately screw the locking screws at both ends while inserting, and it is not allowed to insert forcefully without screwing the locking screws, so as not to damage the product;

3. If other forms of products are ordered, please contact our technical staff to clarify the product model.



#### J64 Series Contact Arrangement (View of Pin-mounted Insulator Insertion Surface)

#### **Overall and Installation Dimensions**

#### [Insertion Dimension of Plug and Socket]



## [J64-1-XX-16-JC crimping plug with locking screws]

Number of cores	A	В
10	10.25	7.79
16	12.25	9.79
22	14.25	11.79
25	15.25	12.79
31	17.25	14.79
37	19.25	16.79
52	24.25	21.79
64	28.25	25.79
70	30.25	27.79

Suitable for the free-end connector, not mounted, and butted with the socket with connecting nuts;

Locking parts include: JC slotted locking screw;

JC1 hexagon socket locking assembly.





Suitable for the free-end connector, not mounted, and butted with the plug with connecting nuts;

Locking parts include: JC slotted locking screw;

JC1 hexagon socket locking assembly.

## [J64-3-XX-16-TH horizontally-mounted crimping plug with connecting nuts]

Number of cores	A	В
10	10.25	7.79
16	12.25	9.79
22	14.25	11.79
25	15.25	12.79
31	17.25	14.79
37	19.25	16.79
52	24.25	21.79
64	28.25	25.79
70	30.25	27.79

Suitable for the fixed-end connector, horizontally mounted, and butted with the socket with locking screws.

[J64-4-XX-26-TH horizontally-mounted crimping socket with connecting nuts]

	2-M1.6		
Number of cores	A	В	
10	10.25	7.79	
16	12.25	9.79	
22	14.25	11.79	
25	15.25	12.79	
31	17.25	14.79	
37	19.25	16.79	
52	24.25	21.79	
64	28.25	25.79	
70	30.25	27.79	

Suitable for the fixed-end connector, horizontally mounted, and butted with the plug with locking screws.

#### [J64-5-XX-16-TH vertically-mounted crimping plug with connecting nuts]



Suitable for the fixed-end connector, vertically mounted, and butted with the socket with locking screws.





Suitable for the fixed-end connector, vertically mounted, and butted with the plug with locking screws.

## [J64-G-XX-13 (14) (15) - TH in-line PCB-end plug]

	$\frac{N-20.4}{2-M1.6}$	2-M1.6 2×1=2 000 000 000 000 000 000 000 000 000 0
Number of cores	A	В
10	10.25	7.79
16	12.25	9.79
22	14.25	11.79
25	15.25	12.79
31	17.25	14.79
37	19.25	16.79
52	24.25	21.79
64	28.25	25.79
70	30.25	27.79

The lead has three length specifications: the termination form 13 represents the lead length of 2.8 mm;

The termination form 14 represents the lead length of 3.6 mm;

The termination form 15 represents the lead length of 4.4 mm;

[J64-H-XX-23 (24) (25) - TH in-line PCB-end socket]



The lead has three length specifications: the termination form 23 represents the lead length of 2.8 mm;

The termination form 24 represents the lead length of 3.6 mm;

The termination form 25 represents the lead length of 4.4 mm;



The hole size of the pin is  $\Phi 0.5_0^{+0.1}$ , and the size of the mounting hole is  $\Phi 1.8_0^{+0.12}$  (viewed from the threading direction of the PCB contact).

Hole size of J64 series in-line PCB plug (grid spacing  $1 \times 1$ ): J64-G-XX-13 (14) (15)-TH;



The hole size of the pin is  $\Phi 0.5_0^{+0.1}$ , and the size of the mounting hole is  $\Phi 1.8_0^{+0.12}$  (viewed from the threading direction of the PCB contact).

Hole size of J64 series in-line PCB socket grid spacing  $1 \times 1$ ): J64-H-XX-13 (14) (15)-TH;

## [J64-E-XX-33 (34) (35) - TH bent PCB-end plug]

	61			
Number of cores	А	В		
10	10.25	7.79		
16	12.25	9.79		
22	14.25	11.79		
25	15.25	12.79		
31	17.25	14.79		
37	19.25	16.79		
52	24.25	21.79		
64	28.25	25.79		
70	30.25	27.79		

The lead has three length specifications: the termination form 33 represents the lead length of 2.8 mm;

The termination form 34 represents the lead length of 3.6 mm;

The termination form 35 represents the lead length of 4.4 mm;

[[]J64-F-XX-43 (44) (45) - TH bent PCB-end socket]

Number of cores	А	В
10	10.25	7.79
16	12.25	9.79
22	14.25	11.79
25	15.25	12.79
31	17.25	14.79
37	19.25	16.79
52	24.25	21.79
64	28.25	25.79
70	30.25	27.79

The lead has three length specifications: the termination form 43 represents the lead length of 2.8 mm;

The termination form 44 represents the lead length of 3.6 mm; The termination form 45 represents the lead length of 4.4 mm;



Hole size of J64 series bent PCB plug (grid spacing  $1 \times 1$ ): J64-E-XX-33 (34) (35)-TH;

Hole size of J64 series bent PCB socket grid spacing  $1 \times 1$ ): J64-F-XX-43 (44) (45)-TH;

The hole size of the pin is  $\Phi 0.5_0^{+0.1}$ , and the size of the mounting hole is  $\Phi 1.8_0^{+0.12}$  (viewed from the threading direction of the PCB contact).



#### Micro-rectangular Cable Network

Since 2006, the company has developed and produced cable assembly products based on connector development technology. In terms of micro-rectangular cable network, the company produces single-branch cable, multi-branch cable, large three-dimensional cable network and other cable assembly products according to the needs of users. The company's cable assembly products have superior performance indexes and can adapt to the special requirements of various complex natural environments and mechanical environments, such as low temperature, high temperature, lead shielding, and 360° shielding, rainproof, watertight, flame proof, etc.

Micro-rectangular cable network assembly products are widely used in high-end customers in aerospace, aviation, electronics, ships, weapons and other fields, mainly for the development and matching of spacecraft, satellites, launch vehicles, missiles, radar and other types of weapons products.







Perfect cable network development, production and testing platform



Micro-rectangular multi-branch cables

#### **Rigid-flex PCB cable network**

Due to the trend and reality of miniaturization of models, the traditional cable network can not fully meet the interconnection requirements within and between single machines. Our company makes use of the characteristics of flexible and rigid board, such as bending in space and thin thickness of flexible board, so that signals can be transmitted along the inner wall of the bomb and in a narrow space. According to the requirements of module interface, we select appropriate PCB type connectors to weld with flexible and rigid boards, and insert the cable network of rigid-flex PCB with each module, so as to realize the interconnection of signals between modules inside the bomb.







Rigid-flex PCB

#### Y34M Series Micro-circular Electrical Connector

#### **Product Overview**

- In-line micro-circular electrical connector;
- The contact adopting flexible twist pins and rigid Jack structure;
- Small in size, light in weight, easy to use and reliable in
- Number of cores: seven specifications of 4, 7, 11, 19, 37, 55 and
- Two locking modes of thread locking and push-pull locking are
- The flange of Y34M product has two types: Diamond flange and
- There are two kinds of plating, one is nickel plating and the other is cadmium plating;
- Execute enterprise standard: Q/Ag 1.363 Detailed Specification for Y34M Series Micro-circular Electrical Connectors.

#### **Product Performance**

#### **Mechanical Properties**

Housing	Copper alloy	Mechanical life	500 plugging and unplugging cycles		
Plating	Nickel plating, Cadmium plating	Vibration	Frequency 10 ~ 2000 Hz, Acceleration		
Insulator	Thermoplastic	Impact	735m/s ²		
Contact	Gold-plated copper alloy, crimping type, welding type,				
	PCB type				

#### **Electrical Performance**

Contact resistance	and rated current of	contacts

Contact	Contact res	Rated	
Specification	Before lifetime	After lifetime	current A
Twist pins	≤10	≤20	3

Magnetic permeability Insulation resistance Withstand voltage

Not more than 2.0 under normal conditions  $\geq$  5000 M $\Omega$ ; under damp and hot conditions  $\geq 1 \text{ M}\Omega$ under normal conditions  $\geq$  800Vrms; under damp and hot conditions  $\geq$  360Vrms, Under low pressure conditions  $\geq$  150Vrms

Frequency  $10 \sim 2000$  Hz, Acceleration  $196 \text{ m/s}^2$ 

#### **Environmental Performance**

Model Designation

Temperature range  $-65 \text{ °C} \sim +125 \text{ °C}$ Salt spray 48h

Relative humidity Working air pressure 90% ~ 95% at 40 °C 101.33 kPa ~ 4.39 kPa

#### Y34M Η Code of main Y34M: Copper alloy housing designation Number of I - 1 keyway keyways No indication: 3 keyways Number of 4, 7, 11, 19, 37, 55, 85 contacts P - Pin **Contact type** S - Jack H - Crimping type S - Welding cup type Tail type L - In-line PCB W - Bent PCB A - Housing with shielded crimp ring Accessories B - Housing with tail cover No indication - Nickel plating Housing plating G - Cadmium plating No indication - The socket housing flange is diamond Variant F - The socket housing flange is square A - The plug is provided with a rain cover, and the socket housing flange is circular



Table 3					
No.	Classification feature	Classification content	Mark code		
1	Wire color	R: red; W: white; M: purple; G: green; A: gray; U: blue; Y: yellow; B: black; N: orange;	R, W, M, G, A, U, Y, B, N		
2	L	Connector with wires	L		
3	Wire length	1000: wire length value in mm	1000		
4	Wire specification	A: 0.15mm ² AFR-250 B: 0.12mm ² AFR-250 D: 0.15mm ² AFRP-250 F: 0.15mm ² AF-250 etc.	A, B, D, F etc.		
5	Additional requirements	No indication: no additional requirements 1: Wire jacket nylon sleeve 2: Wire jacket anti-wave sleeve 3: Wire jacket anti-wave sleeve and nylon sleeve 4: Marker at the end of wire etc.	1, 2,3, 4, etc.		

Model example: Y34MI-7PHA-F (WL300A)

The above marks indicate that the number of contacts of the product is 7, and the contact is a pin; the tail end of the contact is changed into crimping type, and the housing is provided with a shielded crimp ring; the wire specification is AFR-250, the cross-sectional area of the wire core is 0.15mm², the length is 300, and the color is white; the anti-misinsertion structure is a keyway Y34M product.

## Y34M Spectrum Arrangement (View of Pin-mounted Insulator Insertion Surface)





2. The position indicated by the arrow is the position of the main keyway;

3.• indicates no contact.

Type of Plug and Socket		Basic Identification	Structural Features					
		Plug Y34M-PH	Copper alloy housing, square socket flange, electroless nickel plating, with					
Crimping	Basic	Socket Y34M-SH-F	crimping, three keyways					
	type	Plug Y34MI-PH	One keyway, compared with Y34M-PH/SH-F					
type		Plug Y34MI-SH-F						
	Variant	Socket Y34M-SH	Compared with Y34M-SH-F, the socket flange is diamond					
	v arrant	Socket Y34MI-SH	One keyway, compared with Y34M-SH					
	Basic	Plug Y34M-PS	Commenced with V24M DII/CILE 4 construction in the interview in the second					
Welding	type	Socket Y34M-SS-F	Compared with Y 34M-PH/SH-F, the contact termination is welding cup type					
type	Variant	Socket Y34M-SS	Compared with Y34M-SS-F, the socket flange is diamond					
	variant	Socket Y34MI-SS	One keyway, compared with Y34M-SS					
		Plug Y34M-PL	In line DCP ture, compared with V24M DU/SU F					
	Basic type	Socket Y34M-SL-F	In-line r CB type, compared with 154W-11/SH-F					
In-line PCB		Plug Y34MI-PL	One hourses, command with V24M DL/SL E					
type		Socket Y34MI-SL-F	One keyway, compared with 1 54W-PL/SL-F					
	Variant	Socket Y34M-SL	Compared with Y34M-SL-F, the socket flange is diamond					
	v al lalli	Socket Y34MI-SL	One keyway, compared with Y34M-SL					
	Basic type	Plug Y34M-PW	Bent DCB type compared with V2/M DH/SH					
		Socket Y34M-SW	Bent I CB type, compared with 154141-11/511					
Bent PCB type		Plug Y34MI-PW	One transverse compared with V24M DW/SW					
		Socket Y34MI-SW	One keyway, compared with 1 54W-PW/SW					
	Variant	Socket Y34M-SW	Compared with $\overline{Y34M-SW}$ , the socket flange is diamond					
	v ai lallt	Socket Y34MI-SW	One keyway, compared with Y34M-SW					

#### Classification of Y34M Series Plug and Socket

#### Instructions for Product Selection

Y34M series products are micro-circular electrical connectors with keyway housing positioning, and the contacts are flexible pin and rigid Jack structure. The products are available in various forms such as crimping type, welding type and PCB type, which can be used together. Any type of plug and socket with the same number of cores can be used together.

When selecting the crimping connector, it is necessary to determine the color and length of the wire, whether the wire harness needs to be shielded, and whether the nylon sleeve is needed. If the user has other special requirements for the wire brand and wiring mode of the product, he should confirm with the company's technicians and confirm the product model before ordering.

If most of the holes of the product need to be connected with wires with thicker outer diameter, it should be considered whether the gluefilling cavity and clamp assembly of the product have enough accommodation space, and the conclusion can only be drawn after trial assembly.

For the treatment of empty points in the product, if there is no technical agreement or no consensus has been reached before, the empty points shall be blocked with jacks or pins that are not crimped with wires.

#### **Operation Precautions**

When installing, fix the socket flange on the mounting panel with screws.

The electrical connector is connected by screw thread. When connecting, align the positioning rib groove on the plug/socket first. After the initial connection, slowly rotate the connecting cap on the plug clockwise until it is tightened. At this time, the plug/socket is connected in place.

When the electrical connector is separated, slowly turn the connecting cap on the plug counterclockwise until it is separated

The product is strictly prohibited to contact with acid, alkali and other polar solvents during transportation, storage and use.

When the product is not connected for a long time, it is necessary to cover the dust cover.

The welding temperature shall be no more than 280 °C and the welding time shall be no more than 3s when wire welding is performed on the welded product.

## **Overall and Installation Dimensions**

Plug: Y34M-PH/Y34MI-PH Socket: Y34M-SH-F/Y34MI-SH-F 4Xø2.3^{+0.1} G Ð Ø ß S А  $\oplus$  $\oplus$ Number Α В С Е F G Н (mm) of cores (mm) (mm) (mm) (mm) (mm) 4 10.2 11 9 16.5 11.5 M8×1-6h 7 10.9 13 13.8 11 18.5 13.5 M10×1-6h 11 19.5 17.3 M15×1-6h 37 16.1 19 14

Y34M crimping type: plug Y34M-PH/Y34MI-PH/square flange socket Y34M-SH-F/Y34MI-SH-F

# Y34M welding typeY34M-PS/Y34MI-PS Y34M-SS-F/Y34MI-SS-F





Y34M bent PCB type Y34M-PW/Y34MI-PW Y34M-SW-F/Y34MI-SW-F

Plug: Y34N	Plug: Y34M-PW/Y34MI-PW         Socket: Y34M-SW-F/Y34MI-SW-F						
Number of cores	A (mm)	B (mm)	C (mm)	E (mm)	F (mm)	G (mm)	Н
4	10.2	11	9	16.5	11.5		M8×1-6h
11	13	13.8	11	18.5	13.5	10.9	M10×1-6h
37	19.5	17.3	16.1	19	14		M15×1-6h

Y34M crimping type: diamond flange socket Y34M-SH/Y34MI-SH





Y34M in-line PCB type: diamond flange socket Y34M-SL/Y34MI-SL

Y34M bent PCB type: diamond flange socket Y34M-SW/Y34MI-SW


Hole size of Y34M series in-line PCB socket: Y34M-SL/Y34MI-SL;

The hole size of the pin is  $\Phi 0.8_0^{+0.1}$ , and the size of the mounting hole is  $\Phi 2.2_0^{+0.1}$  (viewed from the threading direction of the PCB contact). Y34M-7SL/Y34MI-7SL



Hole size of Y34M series bent PCB socket: Y34M-SW/Y34MI-SW;

The hole size of the pin is  $\Phi 0.8_0^{+0.1}$ , and the size of the mounting hole is  $\Phi 2.2_0^{+0.1}$  (viewed from the threading direction of the PCB contact). Y34M-7SW/Y34MI-7SW 7xø0.8 2xø2.2 5 c 5 1.27 2.54 11.6±0.06

# Opening size of mounting plate



# Distance dimension of mounting surface



# **Fuzz Button**

# **Product Overview**

- Small space required and high contact density
- Small plugging and unplugging force, no need of high temperature welding, easy disassembly and maintenance
- It is suitable for the transmission of common low-frequency signals, the interior is randomly wound and distributed by thin metal wires, the path length and skin effect are reduced, the signal loss during transmission is small, and it is also suitable for the transmission of high-frequency signals such as microwaves



• Suitable for unwelded vertical interconnections between modules or between functional modules and substrates

# **Product Performance**

### **Mechanical Properties**

Materials	Gold-plated beryllium copper, gold-plated	Impact	100g, half sinusoid
	molybdenum, gold-plated tungsten etc.	Compression	15% -30% of length
Plating	Gold plating	Random vibration	0.2G ² /Hz
Mechanical life	5000 plugging and unplugging cycles		

### **Environmental Performance**

Operating temperature -55 °C $\sim$ + 125 °C S	Salt spray	96h
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### **Transmission performance**

Operating frequency $\leq$ 40GHz	
Insertion loss $0Hz \sim 10GHz, \ge -0.2dB$	$Far\text{-end crosstalk}  0Hz \sim 10GHz, \leq \text{-}20dB$
Return loss $0Hz \sim 10GHz \le -15dB$	Near-end crosstalk $0Hz \sim 10GHz, \leq -20dB$

#### **Electrical Performance**

### Rated current and contact resistance

No.	Contact diameter (mm)	Rated current (A)	Contact resistance (mΩ)	No.	Contact diameter (mm)	Rated current (A)	Contact resistance (mΩ)
1	0.25	1	< 80	10	1.91	17	< 1.5
2	0.38	3	< 70	11	2.03	20	< 1.25
3	0.51	5	< 50	12	2.29	25	< 1
4	0.64	5	< 40	13	3.18	35	< 1
5	0.76	5	< 25	14	3.81	40	< 1
6	1.02	7.5	< 10	15	4.32	60	< 0.8
7	1.14	7.5	< 4	16	5.08	80	< 0.6
8	1.27	7.5	< 3	17	7.11	100	< 0.4
9	1.57	10	< 2.5				

# Model Designation

Basic series	FB-		WW		
Materials	80: Gold-plated ber gold-plated molyb plated tungsten; 83: Gold-plated nic	yllium copper; 81: denum; 82: gold- kel-chromium		DDD	LLL
Diameter	025: 0.25mm; 064: 0.64mm; 114: 1.14mm; 191: 1.91mm; 318: 3.18mm; 508: 5.08mm;	038: 0.38mm; 076: 0.76mm; 127: 1.27mm; 203: 2.03mm; 381: 3.81mm; 711: 7.11mm;	051: 0.51mm; 102: 1.02mm; 157: 1.57mm; 229: 2.29mm; 432: 4.32mm;		
Length	0050 ~ 1270: 0.50mm ~ 12.7mm				

Model example: FB-800510300

The above marks indicate that the fuzz button is made of gold-plated beryllium copper material, with a diameter of 0.51 mm and a length of 3 mm.

No.	Contact diameter (mm)	Length range (mm)	No.	Contact diameter (mm)	Length range (mm)
1	0.25	$1.02 \sim 2.16$	10	1.91	$1.91 \sim 7.62$
2	0.38	$1.02 \sim 2.79$	11	2.03	$2.03 \sim 7.62$
3	0.51	$0.51 \sim 5.08$	12	2.29	2.29 ~ 10.16
4	0.64	$0.64 \sim 5.08$	13	3.18	$1.52 \sim 10.16$
5	0.76	$0.76 \sim 6.35$	14	3.81	1.52 ~ 12.7
6	1.02	$0.97 \sim 6.35$	15	4.32	1.52 ~ 12.7
7	1.14	1.14 ~ 6.35	16	5.08	1.52 ~ 12.7
8	1.27	1.27 ~ 6.35	17	7.11	1.52 ~ 12.7
9	1.57	$1.57 \sim 7.62$			

# Specifications and Dimensions

# **Application Principle of Fuzz Button**

The fuzz button is an elastic connector (contact), which is used to replace the board-to-board connector, placed in a matching interlayer, and applied with a certain prestress to make the fuzz button contact with the pad to achieve electrical connection. This technology is also known as the fuzz button vertical interconnection technology.



# Main Technical Characteristics of Fuzz Button

1. End-face contact, zero plugging and unplugging force, no need of high temperature welding, easy disassembly and maintenance, suitable for unwelded vertical interconnection between modules or between functional modules and substrates.



2. The required space is small, and the contact density is high: the minimum specification diameter of the fuzz button contact is only 0.25mm, and the contact arrangement with a contact spacing of 0.5mm can be realized. The minimum height of the fuzz button contact is only 1 mm, which can realize the effective vertical interconnection between the PCBs with the board height of about 1 mm.



# **Examples of Product Application**

1. Fuzz button + insulator structure

It has the advantages of small size, simple structure, convenient connection and good signal integrity, is suitable for the use environment with small installation height between boards, and is the most common use form of the fuzz button product



Interboard mezzanine connector

2. Structure of fuzz button + insulator + fixing cap

It has the advantages that the service life of the fuzz button can be greatly prolonged when the fuzz button is used together with the fixing cap. When in installation, the fixing cap part can realize expansion and contraction, which is suitable for the height between the boards with a certain adjustment space.



Glass-sintered fuzz button connector



RF coaxial connector

3. Structure of fuzz button + insulator + conductor

It has the advantages of ensuring longer service life of the fuzz button and better fixity of the contacts.



# Application Field of Fuzz Button

It is widely used in modern military and civil electronic equipment, especially in airborne and missile-borne radar and communication systems.

