

# Pg. 3

**Board-to-Board Connectors** 



**Board-to-FPC Connectors** 



**Commercial I/O Connectors** 



Industrial I/O Connectors (Rectangular)



Industrial I/O Connectors (Circular)



**Board-to-Cable Connectors** 



Card Connectors 1 (MicroSD, CF, DIMM, PCIe, M.2, MXM 3.0)



Card Connectors 2 (SIM, Micro SIM, Nano SIM)



**LED Lighting Connectors** 

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### **About JAE**



### Technology to Inspire Innovation

In 1953, Japan Aviation Electronics Industry, Ltd. began with the ambition of becoming a leading manufacturer in the aviation and space industries in Japan. Since then, we were able to expand and also specialize in designing and manufacturing connectors and gyroscopes.

Always keeping our corporate philosophy "Explore, Create, and Practice" in mind, we were able to successfully establish 3 strong product lines:

- Connectors
- User Interface Solutions
- Aerospace

JAE strives to be the number one partner for global customers by staying innovative and creative in an industry where technology is continuously evolving and advancing.

JAE Electronics, Inc., a subsidiary of parent company JAE, designs, manufactures and markets electronic components, fiber optic connectors, LCD monitor connectors, waterproof electrical connectors, connectors for commercial energy storage systems, and other digital systems. A global company, JAE is a recognized leader in providing solutions to complex design requirements. By combining divergent technologies from experience gained in the aerospace industry, JAE has been able to transfer these technologies into advanced connector designs. From connectors on Japan's Bullet Train, to the smallest hand-held video camera, JAE continues to meet the most demanding applications in the industry.







### Board-to-Board Connectors (1/2)

Series	WP25D	WP26	WP27D	WP6C	WP7	WP9	WP10
Photo		SP STATE STA	To the second se		STATE OF THE PARTY		
Pitch	0.35mm	0.35mm	0.35mm	0.4mm	0.4mm	0.4mm	0.4mm
Stacking Heights	0.7mm	0.6mm	0.7mm	0.8mm	0.7mm	0.8mm	0.7mm
Pin Count	10,28,38 (+2 power pins)	10,24,34,40,42,54, 60	10,30,34,38,40,50 (+2 power pins)	24,30	10,16,20,24,26,28, 30,32,34,40,50,60, 70	10,14,20,24,30,32, 40,60	2,4 (+4 power pins)
High Power Contacts	2	N/A	2	N/A	N/A	N/A	4
Board Mount	SMT	SMT	SMT	SMT	SMT	SMT	SMT
Current Rating	0.3A Signal 3A Power	0.3A	0.3A Signal 3A Power	0.3A	0.3A	0.3A	0.4A Signal 5A Power
Voltage Rating	50V AC/DC	50V AC/DC	50V AC/DC	50V AC/DC	50V AC/DC	50V AC/DC	50V AC/DC
Durability	30 cycles	30 cycles	30 cycles	30 cycles	30 cycles	50 cycles	30 cycles
Features	Hybrid connector w/ signal pins +2 high power contacts.	Small size and metal reinforcement in mating area to reduce risk of damage to insulator during mating.	Hybrid connector with high power contacts as well as metal reinforcement in mating area to reduce risk of damage to insulator.	Shielded connector for improved grounding and EMI/EMC performance.	High retention force for low pin counts and low insertion force for high pin counts.	Small connector width helps reduce board mounting space.	High power connector ideal for connecting batteries.

Part Number Guide

Board-to-Board Connectors

Socket side: WP10-S###VA10-R15000 Pin side: WP10-P###VA10-R15000

Orderable in Reels of 15,000

Socket side: WP25D-S###VA1-R8000 Pin side: WP25D-P###VA1-R8000

Orderable in Reels of 8.000

Socket side: WP6C - S###VA1 - R6000 Pin side: WP6C - P###VA1 - R6000

\*Shielded version

Orderable in Reels of 6,000

For pin counts up to 32:

Socket side: WP7A - S###VA1 - R8000 Pin side: WP7 - P###VA1 - R8000

For pin counts above 32:

Socket side: WP7B - S###VA1 - R8000 Pin side: WP7B - P###VA1 - R8000

Orderable in Reels of 6,000

Socket side: WP9 - S###VA1 - R6000 Pin side: WP9 - P###VA1 - R6000

Orderable in Reels of 6.000

Socket side: WP26 - S###VA1 - R15000 Pin side: WP26 - P###VA1 - R15000

Orderable in Reels of 15,000

Socket side: WP27D - S###VA3 - R15000 Pin side: WP27D - P###VA3 - R15000

Orderable in Reels of 15,000



### Board-to-Board Connectors (2/2)

Series	AC01	AX01	WR	KX14/15	KX24/25	TX24/25	TX24A/25A	IL-WX
Photo	N. S.							
Pitch	0.5mm	0.635mm	0.5mm	0.8mm	0.8mm	1.27mm	1.27mm	0.80mm
Stacking Heights	2.5mm: 60 & 80 pos: 2.5mm & 3.0mm 50 & 100 pos	8.0, 10.0, 14.0, 16.0, 18.0, 20.0, 22.0, 24.0, 30.0mm	4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 8.0, 9.0mm	4.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10.0, 11.0, 12.0mm	N/A	12.0-24.0mm (2.0mm increments)	N/A	4-9mm (parallel)
Pin Count (Parallel)	50,60,80,100	<b>100</b> (30,40,60,80,90, 120,140) *	20,30,40,50, 60,70,80,100, 120,160	20,30,40,50,60, 70,80	80,100,120, 140,180 (coplanar)	30,40,50,60,80, 100,120	80 (coplanar)	6,8,10,12,14,16, 18,20,22,24,26, 28,30,32,34,36
Pin Count (Right Angle)	N/A	30,40,60,80,90, 100,120, 140	30,40,50,60,70, 80,120	20,30,40,50, 60,70,80	80,100,120,140, 180	30,40,50,60,80, 100,120,140	N/A	6,8,10,12,14,16, 18,20,22,24,26, 28,30,32,34,36
Board Mount	SMT	SMT	SMT	SMT	Thru-hole	Thru-hole	Thru-hole	SMT
Current Rating	0.3A	0.5A	0.3A	0.5A	0.5A	1.0A	1.0A	0.5A
Voltage Rating	200VAC	50VAC	200VAC 300VDC	200VAC 300VDC	200VAC	250VAC	250VAC	200VAC 300VDC
Durability	500 cycles	100 Cycles	500 cycles	500 cycles	500 cycles	500 cycles	500 cycles	30 cycles
Features	Highly stable and reliable contact structure, proven over decades of use.	PCIe-Gen3 compliant, high- speed transmission connector. Floating feature allowing for easy blind mating, and dual contact structure for high reliability.	9 different vertical stack heights.	Mating guide and key to prevent mis-mating.	Robust mating guide. Click response when mated.	Ribbon type contacts ensure reliable electrical continuity.	Ribbon type contacts ensure reliable electrical continuity. Improved electrical characteristics from TX24/25 Series, supporting higher-speed transmission.	Combination of socket receptacle (straight) and pin header (straight/right angle) enable vertical and parallel connections.

Part Number Guide

Board-to-Board Connectors

#### **AC01 Series**

Socket side: AC01 – S### - WA# - R####

Emboss
Reel
Packaging

Plug side: AC01 – P### - WA1 – R####

Emboss
Reel
Packaging

#### KX14/15 Series

Receptacle: KX14 - ##K 2 DE

Stack Height: 2, 5, 8mm

Straight Plug: KX15 - ##K 3 D E

Stack Height: 2, 3, 4mm

R/A Plug: **KX15 - ##K** <u>L</u> **DLE** 

Right angle

#### TX24/25 Series

Receptacle: **TX24 - ###R -\_ <u>LT</u> - <u>H</u>1E**Plug: **TX25 - ###P -\_ <u>LT</u> - <u>H</u>1E** 

Stacking Height:

Receptacle:
6, 10, 12mm

H: Hook pin
N: No hook pin

Plug: LT: Right angle ST: Straight

\*Right-angle leave blank

#### **WR Series**

Socket side: WR - ###S - VF - N1

B: Positioning Boss - H05: +0.5mm
H30: +3.0mm

Modification Code

Vert Pin side: WR - ###P - VF - N1
B: Positioning Boss - 50: +1.0mm
60: +2.0mm

R/A Pin side: WR - ###P - HF - HD - A1E

#### KX24/25 Series

Packaging

Receptacle: KX24 - ###R - LT - H1

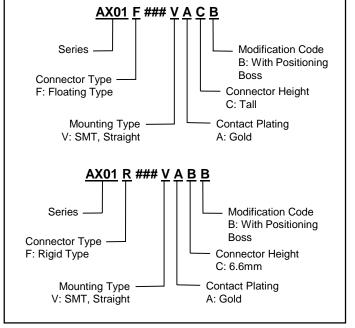
Plug: KX25 - ###P - LT - H1

LT: Right-angle
ST: Straight

#### TX24A/25A Series

Receptacle: **TX24A - 80R - <u>LT</u> - <u>H</u>1E**Plug: **TX25A - 80P - <u>LT</u> - <u>H</u>1E** 

#### **AX01 Series**



#### **IL-WX Series**

Socket side: IL-WX - ##\$\_ - VF\_ - B

B: Positioning Boss

Vert Pin side: IL-WX - ##P\_ - VF - HD - \$ - B

B: Positioning Boss Hold Down

R/A Pin side: IL-WX - ##P\_ - HF - HD - \$ - B

B: Positioning Boss Hold Down

### Board-to-FPC Connectors



Series	FF08	FR02	FB10	FA10	FF03	FA5B	FA5S	FM8
Photo	No. of the last of	History of the state of the sta	200 Services					
Pitch	0.2mm	0.2mm	0.3mm	0.5mm	0.5mm	0.5mm	0.5mm	0.5mm
Mounted Height	0.9mm	0.82mm	0.9mm	0.9mm	2mm	1.0mm	1.45mm	2.2mm
FPC/FFC Thickness	0.15 ± 0.02mm	0.2 ± 0.03mm	0.2 ± 0.03mm	0.2 ± 0.03mm	0.3 ± 0.05mm	0.3 ± 0.05mm	0.3 ± 0.05mm	0.3mm ± 0.03mm
FPC Contact Orientation	Lower	Upper or Lower	Lower	Upper or Lower	Lower	Lower	Lower	Lower
Pin Count	25,29,41,51,71,81	23,41,51,61	11,13,15,19,21,25, 27,31,33,41,45,51, 61	4,5,6,10	60,64,68,80,96	6,8,10,16,20,30,36, 40,45,50	6,8,10,15,16,18,20, 22,24,26,30,36,40, 45,50	41,51,60
Current Rating	0.3A	0.25A	0.35A	0.5A	0.5A	0.8A	0.8A	0.5A
Voltage Rating	50V	50V	50V	50V	50V	50V	50V	50V
Features	Smallest pitch. Rotating actuator.	Lowest profile in class. Robust rear actuator.	Smallest PCB footprint. Easy actuator operation with tactile lock feedback.	Quick one-step insertion & removal. Requires no actuator operation.	Highest pin count.	Mid mount type for low profile applications.	Easy slider operation.	Compatible with high speed signal transmission. Guides hold the FFC in place to prevent misalignment.

Part Number Guide Board-to-FPC Connectors

Loose pcs: FA5B0##HP1

Reel: FA5B0##HP1 R3000

1: Standard
2: Larger hold downs

Loose pcs: FA5S0##HP1

Reel: FA5S0##HP1R3000

Reel: FA10##SA1-R8000

Reel: FB10S###JT1R6000

Reel: FR02C0##JA1-R5000

Loose pcs: FF03##SA1

Reel: FF03##SA1 - R2000

Reel: FF08##SA1-R3000

Reel: FM8S###HA2R4000

### Commercial I/O Connectors



Series	DC2	DC3	DD1	DD2	DX07	DX4	DC1	DC04
Photo		A TAIN						in the sun
Pitch	0.4mm	0.4mm	0.5mm	0.5mm	0.5mm	0.65mm	1.0mm	1.0mm
Interface Type	Cable I/O	Cable I/O	Cable I/O R/A Dock 75º Vert Dock	Cable I/O R/A Dock Vert Dock	Cable I/O	Cable I/O	Cable I/O	Cable I/O
Pin Count (Parallel)	19	19	30	40	24	5	19	19
Signal Standard	HDMI	HDMI	USB 2.0	USB 2.0	USB Type-C™ USB 3.2 Thunderbolt™ 3*	USB 2.0	HDMI	HDMI 2.1
Current Rating	0.5A	0.3A	Signal:0.5A Power: 1.0A	Signal:0.5A Power: 1.0A	Vbus / GND: 5A Vconn: 1.25A Signal: 0.25A	Signal: 0.5A Power: 1.8A	0.5A	0.5A
Voltage Rating	40VAC	40VAC	30VAC	30VAC	20VAC	30VAC	40VAC	40VAC
Durability	5,000 cycles	5,000 cycles	10,000 cycles	10,000 cycles	10,000 cycles	10,000 cycles	10,000 cycles	10,000 cycles
Operating Temp	-20 ~ +85°C	-20 ~ +85°C	-25 ~ +75°C	-25 ~ +75°C	-30 ~ +80°C	-30 ~ +80°C	-20 ~ +85°C	-20 ~ +85ºC
Locking	Friction	Friction	Latch	Latch	Friction	Friction	Friction	Friction
Features	Mini HDMI Type-C compatible. Requires HDMI adopter status.	Micro HDMI Type-D compatible. Requires HDMI adopter status.	Docking connector to combine various high speed signals in a single connector.	Robust and compact design. Compatible with high speed signaling.	Reversible plug for easier insertion. Multiple receptacle mounting options available.	Micro USB 2.0 standard compatible. Various mounting options available.	HDMI Type A compatible. Requires HDMI adopter status.	HDMI Type A Category 3 compatible. Requires HDMI adopter status.

<sup>\*</sup>Select part numbers only. Contact us for more information.

Modification Code

Modification

Code

Cable Spec (2)

K: Gen1 3A

L: Gen 2 3A

N: Gen2 5A

Cable Length

10: 1 meter

20: 2 meter

Contact Area Plating

Receptacle: DC1RS19JA7

Cable Harness: DC1P019ST30200B

Restricted to HDMI Adopters Contact JAE for additional options

Receptacle: DD1R030HA1 Standard mount **DD1R030JA7** Reverse mount

Docking Plug: **DD1B030VA1** 

Vertical

DD1B030HA1

Right angle

Cable Plug: **DD1P030MA1** 

Receptacle:

DC2R019JA4

Hold Down Type J L Modification J: T/H, H: SMT code

Cable Harness:

DC1DC2ST2150B

Restricted to HDMI Adopters Contact JAE for additional options Receptacle: DD2R040HP2

Docking Plug: DD2B040VP4 **DD2B040HA2** 

Vertical Right angle

Cable Plug: **DD2P040MA1** 

Top Mount

Receptacle: DC3RX19JA2

Modification Code

Hold Down Type X, J: T/H

0, H: SMT

Receptacle: DC04S019JA1

Modification Code

Restricted to HDMI Adopters Contact JAE for additional options Receptacle: DX4R005 J J 2 Modification Modification Code -Code Hold Down Type -J: T/H H: SMT

Receptacle: DX07B024J J 1 Board Mount Type B: Mid-mount Modification Code S: On-board Contact Area Plating J: Au over Pd-Ni over NI A: Au over Ni J: Horizontal SMT X: Horizontal Hybrid W: Vertical dock

Plug: **DX07P024A J 5** 

Board Mount Type P: Plug type

V: Vertical dock

W: Waterproof

A: Slim Plug -

Cable Harness: DX07 5 18 S \*\* N \*\*\*\*\*

Series -Modification Code

5: Plug

Cable Spec (1)

18: USB3.1 C to C

19: USB3.1 C to A 50: USB3.1 C to C

w/ Screw lock

Cable Overmold/Jacket

S: Black (PVC)

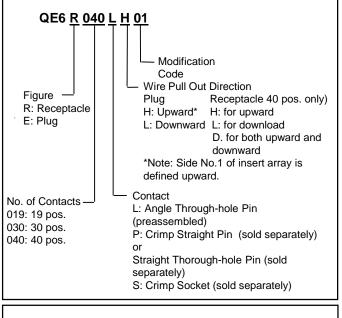
B: Black (TPE)

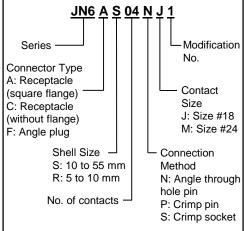


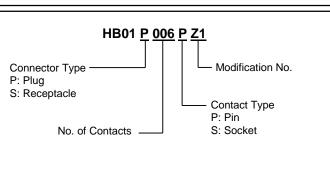
### Industrial I/O Connectors [Rectangular]

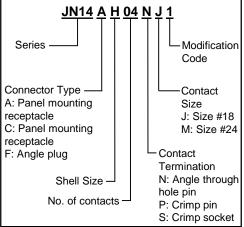


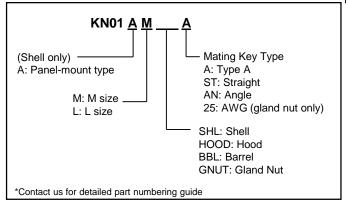
Series	QE6	DF02	JN6	JN14	HB01	HB03	KN01	KN02
Photo				20 9				
Pitch	3.1mm	1.27mm	3mm	3.2mm	N/A	N/A	N/A	N/A
1/0	Cable I/O	Cable I/O	Cable I/O	Cable I/O	Cable I/O	Cable I/O	Cable I/O	Cable I/O
Pin Count	19, 30, 40	14, 20, 26, 36, 50 68 (plug only)	2, 4, 7	2, 4, 9	6 (4 power, 2 signal)	2, 4, 8	12, 18, 50/insulator block 6 x insulator blocks /unit	4, 6, 8, 16, 24 / insulator block 3 x insulator blocks /unit
Current Rating	5A	0.5A	(2pos.): 1A (per pos.) (4pos.): 7A (per pos.) (7pos.): 1A (per pos.)	(2pos.): 1A (per pos.) (4pos.): 7A (per pos.) (9pos.): 1A (per pos.)	Power Signal 18 AWG: 9A 24 AWG: 2A 16 AWG: 11A 22 AWG: 3A 14 AWG: 13A 20 AWG: 4A	28 ~ 30 AWG : 1A 24 ~ 26 AWG : 2A	12 AWG x 12 pos.: 23A 16 AWG x 14 pos.: 16A 20 AWG x 18 pos.: 3A 22 AWG x 50 pos.: 1A	4 pos ins block: 4A 6 pos ins block: 2A 8 pos ins block: 13A 16 pos ins block: 2A & 4A 24 pos ins block: 2A
Voltage Rating	AC 1500 Vrms (for 1 minute)	250VAC	(2pos.): 100VAC (4pos.): 200VAC (7pos.): 100VAC	(2pos.): 100VAC (4pos.): 220VAC (9pos.): 100VAC	250VAC	250VAC	12 AWG: 250 VAC 16 AWG: 250 VAC 20 AWG: 24 VDC 22 AWG: 24 VDC	4, 6, 16 pos ins blocks: 24VDC 8, 24 pos ins blocks: 250VAC
Durability	500 cycles	500 cycles	100 cycles	100 cycles	30 cycles	100 cycles	100 cycles	30 cycles
Operating Temp	-55°C ~ +85 °C	-20°C ~ +80 °C	-40°C ~ +125 °C	-40°C ~ +125 °C	-25°C ~ +85 °C	-25°C ~ +105 °C	-25°C ~ +85 °C	-10°C ~ +85 °C
Termination	Crimp/Solder	IDC/Solder	Crimp	Crimp	Crimp	Crimp	Crimp	Crimp
Locking	Friction	One-touch, screw	Screw	Screw	Friction	Latch Lock	Rack & Pinion Lever	Latch Lock
Features	Two types of connections – wire crimp and board throughhole types. Compatible with 3U4HP size cards for 19-inch sub-rack.	Half-pitch (1.27mm) interface compatible. Ni- plated plastic hood for lighter weight with EMI shielding.	Plastic, waterproof connector ideal for small servo motors. Mating secured by screws. 4pin receptacle is mold-in; 2pin/7pin receptacles are press-fit.	Screw grounded 4pin receptacle. Spring lock 2pin/9pin receptacles. Plastic, waterproof. Ideal for small servo motors.	Hybrid structure enables both power and signal. Terminals compatible with AWG#14-24. Mechanical lock for secure mating. IP67 rated.	Miniature cable relay connector for compact servo motors. Simple, one-touch latch locking. Compact and Light-weight for ease of use in tight spaces.	Low force locking lever. Modular insulator structure for custom power and signal combination requirements, with EMI shielding option.	All-plastic outer shell, light-weight and low-cost connector. EMI shielding with a metal plating applied to outer shell and internally shield components.

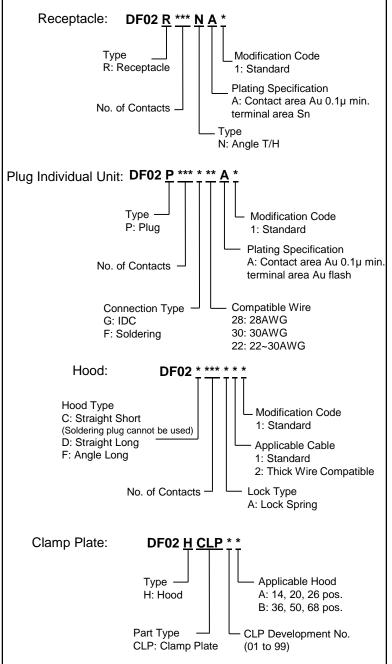








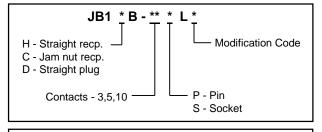


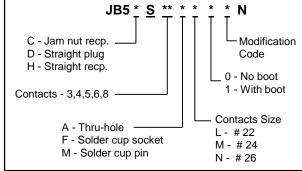


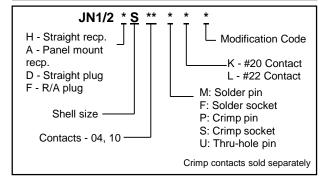


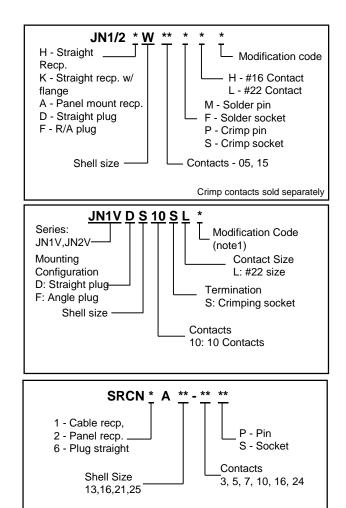


Series	JB5	JB1	JN1 / JN2	JN1W / JN2W	JN1V / JN2V	SRCN
Photo	9					
Plug Shell Diameter	ø11.0mm	ø18.0mm	JN1: ø19.0mm, JN2: ø 20.0mm	ø26.2mm	JN1: ø19.0mm, JN2: ø 20.0mm	ø21.2-33.2mm
Pin Count	3,4,5,6,8	3,5,10	4,10	5,15	10	3,5,7,10,16,24
Shell Material	Metal	Metal	JN1: Plastic JN2: Metal and Plastic	JN1W: Plastic JN2W: Metal and Plastic	JN1: Plastic JN2: Metal and Plastic	Metal
Mated Condition	IP68	IP67	IP67	IP67	IP67	N/A
Current Rating	2 ~ 3A	3A	3 ~ 5A	3 ~ 13A	3A	5 ~ 10A
Voltage Rating	200VAC ~ 320VAC	300VAC	200VAC	200VAC ~ 400VAC	230VAC	1,000VAC
Durability	5,000 cycles	500 cycles	500 cycles	500 cycles	500 cycles	500 cycles
Lock	Push-pull	Threaded	Push on, twist off	Push on, twist off	Push on, twist off	Threaded
Operating Temp	-55 ~ +85 °C	-30 ~ +85 °C	-20 ~ +125 °C	-20 ~ +125 °C	-20℃ to +125℃	-25 ~ +85 °C
Wire Size	AWG #22-28	AWG #22-28	AWG #20-28	AWG #14-28	AWG #20-28	AWG #16-20
Termination	Solder	Crimp	Crimp / Solder	Crimp / Solder	Crimp	Solder
Features	Small size, Unmated waterproof.	Mated Waterproof	One-touch locking mechanism. JN2 shell is 3x stronger.	One-touch locking mechanism	Increased socket contact points to withstand 25G vibration. Mates with conventional JN1/JN2 receptacle. One-touch locking.	UL approved, 5 insert guide keys.





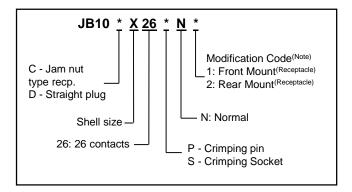


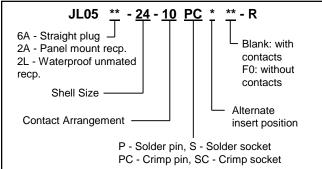


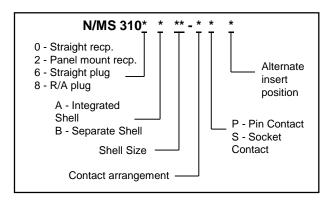


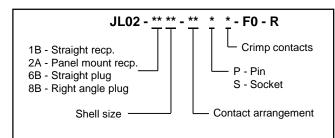
### Industrial I/O Connectors [Circular] (2/2)

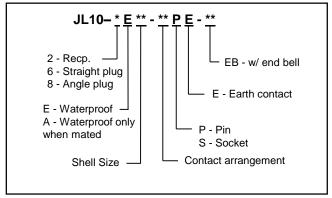
Series	JB10	JL02	JL04V	JL05	JL10	JK06	N/MS
Photo							
Plug Shell Diameter	ø33.5mm	ø34.1-62.7mm	ø22-56.3mm	ø35.9-51.7mm	ø35.9-58.6mm	ø36.5-66.3	ø22.2-81.8mm
Pin Count	26	10,17,19,24, 37,48,54	3,4,6,7,8,9,22	4,5,7,8,9,10, 17,19,24,30, 36,37, 52,73	4,9,17,19, 22,37	3,6,7,10,19,37,48	1~11,14,16, 17,19,22,24, 26,35,37, 48,54
Shell Material	Plastic	Metal	Metal	Metal	Metal	Metal	Metal
Mated Condition	IP67 (mated)	N/A	IP67	IP67	IP67	IP67	N/A
Current Rating	1A	1.5 ~ 13A	13 ~ 80A	2 ~ 46A	13 ~ 80A	13 ~ 367.9A	13 ~ 150A
Voltage Rating	100VAC	200VAC ~ 500VAC	100VAC ~ 500VAC	200VAC ~ 900VAC	100VAC ~ 500VAC	220VAC	200VAC ~ 3,000VAC
Durability	500 cycles	500 cycles	500 cycles	500 cycles	500 cycles	500 cycles	500 cycles
Lock	One-touch (push-and-twist)	Threaded	Threaded	Bayonet	Bayonet and Threaded	Bayonet	Threaded
Operating Temp	-20 ~ +125 °C	-55 ~ +85 °C	-55 ~ +125 °C	-55 ~ +125 °C	-55 ~ +125 °C	-55 ~ +85 °C	-55 ~ +125 °C
Wire Size	AWG #20-28	AWG #14-28	AWG #4-18	AWG #8-26	AWG #0-22	AWG #14-16	AWG #0-16
Termination	Crimp	Crimp	Solder	Crimp / Solder	Solder	Crimp	Solder
Features	Internal EMI shielding. One-touch, push-and-twist for easy locking and unmating.	Compatible with MIL-DTL-5015 standard.	TUV and UL approved. Compatible w/ MIL- DTL-5015.	JIS B 9960-1 compatible	TUV and UL approved. Compatible w/ MIL- DTL-5015.	Panel-to-cable connector, VG95234 design. Compatible w/ MIL-DTL-5015.	UL approved. Compatible with MIL-DTL-5015 standard.

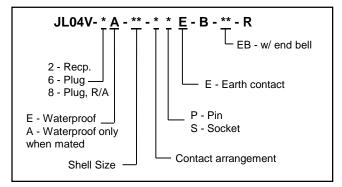


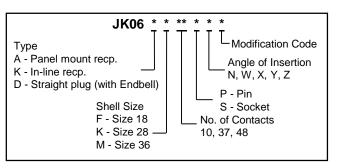












### **Board-to-Cable Connectors**



Series	FI-J	FI-JW	HJ1	HD*	FI-R	FI-X		1
Photo			To the last of the	Service of the servic			Single Row	Dual Row
Pitch	0.40mm	0.3mm	0.4mm	0.5mm	0.5mm	1.0mm	1.25mm	1.25mm
Discrete Wire AWG	N/A	N/A	#34,36	#32,34,36	#30,32,36	#30,32,36	#28,30,32	#28,30,32
Coax Wire AWG	#42,44	#42,44	#36,38,40,42,44	#36,38,40,42,44	#40	#32,40	N/A	N/A
FPC/FFC	N/A	N/A	N/A	N/A	JF08 Assembly	0.14±0.03mm	0.14±0.03mm	N/A
Pin Count	40	30, 34,40, 50	50	40	21,31,41,51	30	2-6,8,10,15, 20, 25,30	5,7,9,11,13,15,17, 19,21, 31,41
Mated Height	1.58mm	1.65mm	0.9mm	1.0mm	3.8mm	1.0-2.35mm	1.8mm	3.7mm
Locking	Friction	Friction	Friction/Pull Bar	Friction/Pull Bar	Latches	Latches	Latches	Latches
Durability	30 cycles	30 cycles	30 cycles	30 cycles	50 cycles	50 cycles	50 cycles	50 cycles
Current Rating	0.3A	0.25A	0.1A to 1.0A	0.1A to 1.0A	0.8A	1.0A	1.0A	1.0A
Voltage Rating	50V	50V	100V	100V	200V	200V	200V	200V
Features	Thin wire coaxial connector for small portable devices.	Vertical mating. Small footprint.	Ground reinforced design. Lowest profile.	Compatible with VESA standard for LED backlit panels.  LICENSED BY DAHICHI SEIKO CO., LTD. (I-PEX)	VESA standard for LCD interface of HD TV. Vertical mount available.	VESA standard for 1.0mm pitch LVDS interface.	Single row for low profile.	Dual row for smaller footprint.

Part Number Guide Board-to-Cable Connectors

Receptacle: FI - JW##S - VF16

Orderable in reels

Cable Plug: FI - JW##C - R3000

Only orderable in reels

Plug Shell: FI - JW##C - SH 1 - 9000

Only orderable in reels

Ground Bar: FI - JW##C - BGB - S - 6000

Cover: FI - JW##C - CGB - S - 9000

Only orderable in reels

Receptacle: HJ1S050HA1R6000

Cable Plug: HJ1P050MA1R6000

Cover Shell: HJ1P050-CSH1-10000

Pull Bar: HJ1P050-PB1

Orderable in reels

Receptacle: HD1S040HA1R6000

Cable Plug: HD1P040MA1R6000

Cover Shell: HD1P040-CSH1-10000

1: Discrete wire 2: Coax wire

Pull Bar: HD1P040-PB1

\*Licensed by I-PEX, Co., Ltd. Orderable in reels

Cover Shell: FI - RE ## CL- SH2 - 3000

Only for coax cable plug

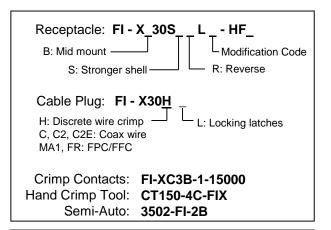
FFC Harness: JF08R0R0##0##UA

Pin Count — Cable length in cm

Crimp Contacts: FI-RC3-1A-1E-15000 (upper)

FI-RC3-1B-1E-15000 (lower)

Hand Crimp Tool: CT150-4C-FIR Semi-Auto: 3502-FI-2B



#### Single Row

Receptacle: FI - S\_##P - HFE

Cable Plug: FI - S\_##\$

#### **Dual Row**

Receptacle: FI - TWE##PB - VF Vertical

FI - W ##P - HFE Right angle

Cable Plug: FI - W##S

Crimp Contacts: FI-C3-A1-15000 Hand Crimp Tool: CT150-4C-FI Semi-Auto: 3502-FI-2B

### Card Connectors 1 (microSD, CF, DIMM, PCIe, M.2, MXM 3.0)



Series	ST1	ST11	ST12	ST19	ST50	MM60	MM70	MM80	JC26/C2	SM3
Photo										
Card	microSD	microSD	microSD	microSD and nano SIM combo	microSD (UHS-II)	PCI Express Mini Card	MXM 3.0 Graphics Card	DDR3 SDRAM SODIMM	Compact Flash	M.2 (NGFF)
Mounted Height	1.9mm, 1.4mm	1.25mm	1.4mm	1.3mm	1.35mm	2.125, 4.0, 5.9mm	6.7mm	5.2, 9.2mm	5.8mm, 7.4mm	1.2, 2.15, 3.1, 4.1mm
Pin Count	8, 8+2	8+2	10+2	20+2	17+2	52,76	310, 314	204	50	67
Voltage Rating	10V rms	10V rms	10V rms	50VAC rms	10V rms	50VAC rms	50V DC	200V AC rms	N/A	50V AC rms
Current Rating	0.5A	0.5A	0.5A	0.5A	0.5A	0.5A	0.5A	0.3A	0.5A	0.5A
Durability	10,000 cycles	5,000 cycles	10,000 cycles	2,500 cycles	5,000 cycles	50 cycles	30 cycles	25 cycles	10,000 cycles	60 cycles
Style	Hinged	Push-Push	Push-Push	Pin Eject Tray	Push-push	Card Edge	Card Edge	Card Edge	Ejector	Card Edge
Features	Available with card detection switch. Smallest footprint & lowest height for hinged type.	Strong mechanical lock to prevent card from popping out from vibration and shock.	2 extra contacts included for RF cards. Easy SMT solder inspection.	3 in 2 combo connector can house a nano SIM and either an additional nano SIM or a microSD.	Compatible with ultra high speed data transmission standard UHS-II for transferring large files quickly.	Retention latch or screw hold downs available to fix module to connector and main PCB.	MXM3.0 standard compatible.	DDR3 SO- DIMM connector compatible w/ JEDEC standard MO- 268C.	Reverse mount available. Retractable ejector available.	Multiple key and heights variations available.

Part Number Guide Card Connectors

MicroSD: ST1W008S4 A R1500

Hinged type

Modification code

MicroSD: ST1W008S4 G R2000

Low profile Hinged type

G: W/out detect switch T: With detect switch

X: Cover detect switch

ST11S008V4HR2000 MicroSD:

Push-push type

MicroSD: ST12S010VBAR1800

Push-push type

MicroSD: ST19S020VCAR1400

Combo tray type

MXM 3.0 Graphics Card Connector: MM70-314-310 B 2 - 1 Contact finish: Height modification code (Au plating) 1: 3.0mm 1: 0.1µm min.

DDR3 SDRAM SO-DIMM

MM80 - 204B1 - E1R Connector:

> Height modification -Blank: Standard code R: Reverse Blank: 5.2

2: 0.3µm min.

PCI Express Mini Card

Connector: MM60 - 52 - B 1 - E 1 Contact No. of contacts finish Socket type B: Top mount Height modification C: Mid mount Key type code

Latch: MM60 - EZ - H059 - B 5 Latch type -5: Sn plating Connector height With boss —

Nut: **NT1R3000** 4.0mm height connector NT4R1600

5.9mm height connector

M.2 (NGFF) Connector: SM3 Z S 067 U 310 \* \* Polarizing key: No. of contacts -A/B/E/M Mounting Type: -U: On-board B: Mid mount Contact finish: (Au plating) Connector Height: -A: 0.13um 120: 1.20mm B: 0.25um 215: 2.15mm 310: 3.10mm 410: 4.10mm Nut: SM3ZS067U215-NUT1 2.15mm connector SM3ZS067U310-NUT1 3.1mm connector SM3ZS067U410-NUT1 4.1mm connector

CompactFlash

Connector: JC26A - BB \* E

Blank: Standard 16: +1.6mm

Frame: JC26C2 - D S R \_ E D: Push-push ejector F: Fixed ejector

> R: Right, flip S: Standard L: Left, flip R: Reversed M: Right, fixed

H: Left. fixed

Blank: Standard

16: +1.6mm



### Card Connectors 2 (SIM, Micro SIM, Nano SIM)

Series	SF7	SF8	SF9	SF15	SF53	SF56	SF58	SF70	SF72	SF78
Photo		- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1								
Card	SIM	SIM	SIM	Micro SIM	Micro SIM	Micro SIM	Micro SIM	Nano SIM	Nano SIM	Nano SIM
Mounted Height	1.9mm/1.4mm	1.5mm	1.8mm	1.55mm	1.45mm	1.25mm	1.3mm	1.25mm	1.25mm	1.3mm
Pin Count	6, 6+2	6	6	6	6	6+2	6+2	6+2	6+2	12+2
Card/Tray Detect Switch	Available	Without switch	Without switch	Without switch	Without Switch	With Switch	With Switch	With Switch	With Switch	With Switch
Current Rating	1A	1A	1A	0.5A	0.5A	0.5A	0.5A	0.5A	0.5A	0.5A
Durability	5,000 cycles	5,000 cycles	5,000 cycles	1,500 cycles	1,500 cycles	5,000 cycles	5,000 cycles	5,000 cycles	5,000 cycles	2,500 cycles
Style	Hinged	Push-Pull Tray	Push-Pull Tray	Hinged	Push-Pull	Push-Push	Pin Eject Tray	Pin Eject Tray	Push-Push	Pin Eject Tray
Features	Reliable locking structure. Positioning boss, metal cover available.	Lowest profile for tray type connector. Normal and reverse mount available.	Normal and reverse mount available. 5 hold-downs for EMI and ESD prevention.	Small footprint and height. Clear click feeling to indicate when cover is locked.	Unique contact design to prevent damage from angled insertion and use with card adapters.	Smallest in class height. Long eject length for ease of use.	Low profile and narrow design. Strong lock design for high tray retention.	Small size for compact portable devices. Strong lock design for high tray retention.	Low profile; Special contact shape for enhanced reliability.	Low profile dual SIM connector can house 2 nano SIM cards at the same time.

Part Number Guide Card Connectors

SIM: SF7W 006 S 1 A

Hinge type

006: 6 position
008: 6 signal + 2 switch

A: Positioning boss
B: No boss
E: Low profile

1: Standard
4: Low profile

Micro SIM: SF15W006S4BR2000
Hinge type

Micro SIM: SF58S006VBAR2000
Tray type

Please contact JAE for recommended dimensions of the tray.

SIM: SF8V006S4AR1200
Tray type

A: Standard

Tray: SF8-STS1-A Standard

Need both Connector and Tray to use SF8 series

Micro SIM: SF56K006VBAR2000

Micro SIM: SF53S006VCBR2000

Push-Push Type

Push-Pull type

Nano SIM: SF70S006VBAR2000 Tray type

Please contact JAE for recommended dimensions of the tray.

Nano SIM: **SF72S006VBDR2500** Push-Push type

SIM: **SF9W006S4AR1200** 

Tray type

Tray: SF9-STS1-A Standard

Need both Connector and Tray to use SF9 series

Nano SIM: SF78S012VBAR1400

Tray type

Please contact JAE for recommended dimensions of the tray.



## LED Lighting Connectors

Series	ES3	ES3 (WF2)	ES3 (JF3)	ES5	ES6	ES9	ES10
Photo	W Sign	ES3 Series		Sy and Sy		So live in the second	
Applicable Wire Size	N/A	#22,24,26	#24,26 (solid)	#22,24,26	N/A	#22,24,26	#24,26 (solid)
Pin Count	2	2	1	1	2	2,4	1
Height	1.6mm (above board)	1.65mm (above board)	2.9mm	1.6mm	1.55mm (above board)	3mm	2.2mm
Locking	Friction	Latch	Friction	Latch	Friction	Friction	Friction
Durability	20 cycles	20 cycles	5 cycles	20 cycles	20 cycles	10 cycles	5 cycles
Current Rating	1.0A	2.0A	2.0A	4.0A	1.0A	3.0A (4 pos.) 4.0A (2 pos.)	2.0A
Voltage Rating	200V	200V	N/A	N/A	250V	300V	N/A
Operating Temperature	-40 ~ +105 ºC	-40 ~ +105 ºC	-40 ~ +105 ºC	-40 ~ +105 ºC	-40 ~ +105 ºC	-40 ~ +105 °C	-40 ~ +105 ºC
Features	Card edge connector that eliminates the need for wires to connect between boards.	Mechanical lock included for use in applications with vibration and shock.	Tapered insertion for easy mating. No harness assembly required.	Special lock structure that has a clear "click" feeling for secure mating.	Smallest size. Card edge connector design to reduce components and labor.	Spring lock structure provides high vertical and horizontal retention strength.	Compact structure with no insulator allows design flexibility. Easy single wire insertion.

Part Number Guide LED Lighting Connectors

#### ES3-WF1 Series (Card Edge type)

Receptacle: ES3B002WF1R1000



#### ES3-JF3 Series (Cable insertion type)

Receptacle: ES3S001JF3R3300



#### ES3-WF2 Series (Board-to-Wire type)

Receptacle: ES3B002WF2R1000

Housing: **ES3S002SZA**Contact: **IL-Z-C1-A-7000** 





#### **ES5 Series**

Receptacle: ES5S001JFAR5500



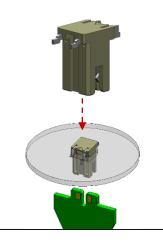
Cable Plug: ES5P09K5FA

#24-26AWG

Cable Plug: ES5P09K4F2 #22AWG

#### **ES6 Series**

Receptacle: ES6B002WF1R1000



#### **ES9 Series**

Receptacle: ES9P <u>00#</u> VF1R1600

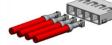
No. of contacts: 002: 2 - 004: 4

Plug (housing): ES9S 00# SZA

No. of contacts: 002: 2 004: 4

Contact: ES9S06K4FA





#### **ES10 Series**

Receptacle: ES10S001JF1R5500



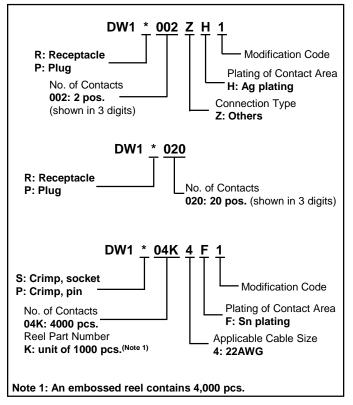


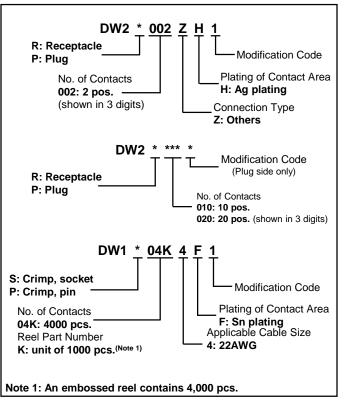
### High-Power Connectors

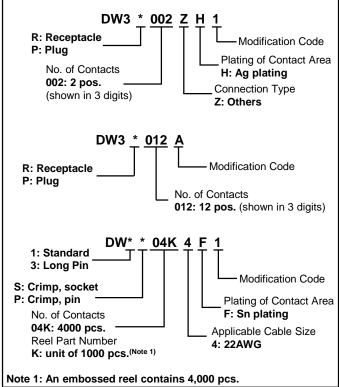
Series	DW1	DW2	DW3	DW4	DW05	DW07	KB1	KW1	KW03
Photo							Sales Control		600
Туре	Rack-and- Panel	Rack-and- Panel	Rack-and- Panel	Board-to-Cable	Cable-to-Cable	Bus bar-to-Bus bar	Cable-to-Cable	Plug + Cable	Plug + Cable
Pin Count	Power: 2 Signal: 20	Power: 2 Signal: 20	Power: 2 Signal: 24	1	1	N/A	1	Power: 2 Signal: 7	Power: 2 Signal: 8
Current	Power: 500A Signal: 2A	Power: 200A Signal: 2A	Power: 150A Signal: 2A	100A	150A	Current value (in A) that temperature rise will be 30 K or 65 K x safety ratio (80%)	25A max. (KB1-12- PC/SC) 10A max. (KB1-12- PC2/SC2)	Power: 125A Signal: 2A	Power: 80A Signal: 2A
Voltage Rating	Power: 600V Signal: 100V	Power: 600V Signal: 100V	Power: 600V Signal: 100V	600V	600V	N/A	1000VDC / 6000VAC Pollution Degree: 3 Over Voltage Category: III	DC500V	DC450A
Durability	20 cycles	100 cycles	100 cycles	50 cycles	100 cycles	100 cycles	50 cycles	10,000 cycles	10,000 cycles
Floating Range	+/- 2.75mm	+/-2.75mm	+/-2.0mm	N/A	N/A	+/-2.5mm	N/A	N/A	N/A
Operating Temp	-40 ~ +95 °C	-25 ~ +115 °C	-25 ~ +105 °C	-40 ~ +75 °C	-40 ~ +85 °C	-25 ~ +105 °C	-40 ~ +90 °C	-10 ~ +40 °C	-30 ~ +40 °C
Features	Robust high- power and signal hybrid for large battery modules. Floating for easy and blind mating.	200A for mid- range power solutions. Signal and power hybrid. Floating for easy and blind mating.	Low-profile to fit 1U form-factory battery rack. Power plus signal. Floating for easy and blind mating.	Secure cable connector for high-power. Color-coded and keyed to prevent mating errors. Offered as harness.	Keyed cable-to- cable connector for safe high- power mating. Screw holes for easy mounting.	Innovative busbar connector solution without screws or insulator. Clip mounting, no tools necessary.	High-current interconnect connector for solar panel module.	One-touch operation and light-weight for easy handling. UL recognized. Weather and impact resistant.	One-touch operation and light-weight for easy handling. UL recognized. Weather and impact resistant

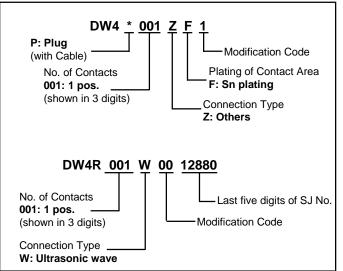
Part Number Guide

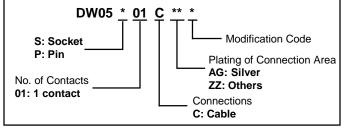
High-Power Connectors

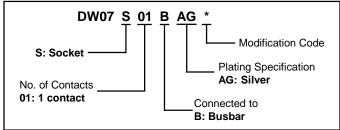


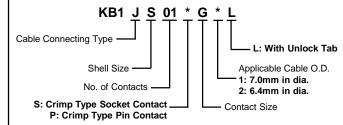


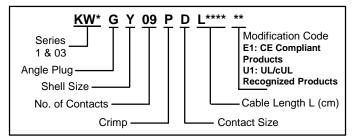












### Transportation (1/3)



Series	MX19	MX23A	MX36	MX37	MX44	MX47
Photo						
Pitch	2.5mm	2.5mm	2.5mm	2.2mm	3.5mm	2.5mm
	AWG #22-20 CAVS:	AWG #22-16	AWG #20	AWG #20 AWG #22-20		AWG #22-16
Wire Size	0.3 to 0.5mm <sup>2</sup> AVSS: 0.5mm <sup>2</sup>	AVSS, AVS: 0.5 to 1.25mm <sup>2</sup>	AVSS 0.5, AVSS 0.5F, AVSSX 0.5f, TVSSX 0.5f	AVSS 0.5, AVSS 0.5F, AVSSX 0.5f, TVSSX 0.5f	AVSS 0.3 to 0.5mm <sup>2</sup>	AVSS 0.3 to 1.25mm <sup>2</sup>
Pin Count	2,3*,4	12,18,26,34,36,40	2,4	4	2,4,6	39
Current Rating	5A	3A	3A	3A	3A	3A
Operating Temp	-40 ~ +85 °C	-40 ~ +125 °C	-40 ~ +125 °C	-40 ~ +105 °C	-40 ~ +125 °C	-40 ~ +125 °C
Application	Cable-to-Cable	Board-to-Cable	Cable-to-Cable	Cable-to-Cable	Board-to-Cable	Board-to-Cable
Features	Waterproof. Mechanical lock system. Grommet seal. Terminals have low insertion force and stress dispersion. Rear cover protects the grommet from damage.  *Only socket housing available for 3 pin option	Waterproof. Low profile. Available in reverse mount type. Retainer detects incomplete insertion of socket contact.	Waterproof. Spring separates connectors if not correctly mated. Shorting contact eliminates static discharge. Retainer detects incomplete insertion of socket contact.	Mechanical complete mating method. Spring separates connectors if not correctly mated. Shorting contact eliminates static discharge. Retainer detects incomplete insertion.	Single contact waterproof. Compact size. Improved vibration resistance by vibration absorption function of rubber. Secondary lock mechanism.	Waterproof. Different key option available. Retainer detects incomplete insertion of socket contact.

Part Number Guide **Transportation Connectors** 

Socket housing: MX1900#S51 Contacts: MX19S10K451 (socket) MX19P10K451 (pin)

2: Gray

Dummy pin: MX19000XD1

Pin housing:

MX1900#P51

Hand Tool: CT150-4C-MX19 Semi auto: 3502-MX19-2B

\*3 pin version

Socket housing: MX19A003S51

Socket housing: MX23A##SF1

Pin header: MX23A##NF1

Contacts: M23S05K351 Dummy pin: M120-55780

Front cap: MX23A##XF1

1: Standard Hand tool: CT160-3B-MX23 Semi auto: 350-MX23-2

Socket housing: MX3600#SQ3

Pin housing: MX3600#PQ3

Front cap: MX36004XF3

Contacts:

M36S08K4Q3 (socket)

M36P08K4Q3 (pin)

Semi auto: 350-MX36-2 Automatic: 350-MX36-3B

Socket housing: MX37004SP3

Socket <u>Pin</u> Contacts: M37S07K4P3 M37P75C4P3

Pin housing: MX37004PP3

Semi Auto: 350-MX37S-2 350-MX37P-2 Automatic: 350-MX37S-3B 350-MX37S-3B

Socket housing: MX44##\$F1

Pin header: MX44##NF1

Retainer: MX44##XR1

Wire seal: MX44000XP1

Wire O.D. 1, 1.4-1.5mm 2: 1.6-1.7mm Contacts: M44S05K4F1

Hand Tool: CT150-2-MX44 Semi Auto: 3502-MX44-2

Socket housing: MX47039SF1

Key code: 1,2

Pin header: MX47039NF1

Front cap: MX47039XF1

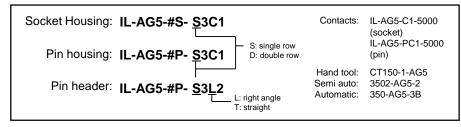
Contacts M47S65H2FA		M47S65H3FA	M47S65H4FA		
Wire Size (AWG)	#22-20	#18	#16		

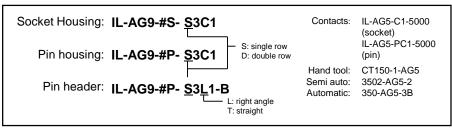
### Transportation (2/3)

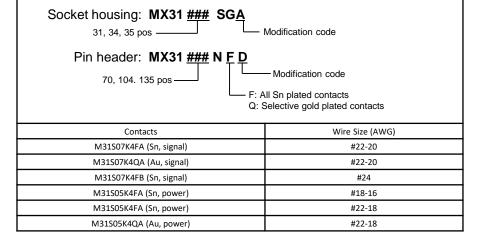


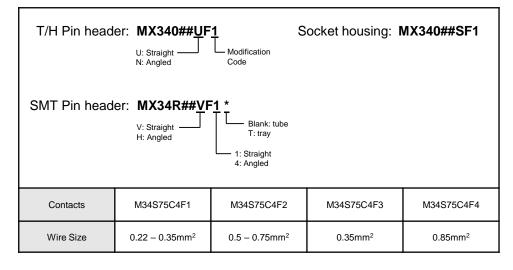
Series	IL-AG5	IL-AG9	MX31	Standard T/H	MX34 Vertical SMT	Right Angle SMT	MX77A	MX84B
Photo								
Pitch	2.5mm	2.5mm	Signal: 2.2mm Power: 3.2mm	2.2mm	2.2mm	2.2mm	Signal: 1.8mm Power: 2.1mm	2.2mm
Wire Size	AWG #22-20 AWG #18 AV, AVS, AVSS: 0.3 to 0.5 mm2 AVS, AVSS: 0.85 mm2	AWG #22-20 AWG #18 AV, AVS, AVSS: 0.3 to 0.5 mm2 AVS, AVSS: 0.85 mm2	Signal: AWG #22-20 Power: AWG #22-16 Signal: AVS, AVSS, AVX 0.3 to 0.5mm² Power: AVS, AVSS, AVX 0.3 to 1.25mm²	AWG #22-20  AVSS: 0.3, 0.5mm <sup>2</sup> CHFUS: 0.22 to 0.75mm <sup>2</sup> , CAN SD: 0.35mm <sup>2</sup>	AWG #22-20  AVSS: 0.3, 0.5mm <sup>2</sup> CHFUS: 0.22 to 0.75mm <sup>2</sup> , CAN SD: 0.35mm <sup>2</sup>	AWG #22-20  AVSS: 0.3, 0.5mm <sup>2</sup> CHFUS: 0.22 to 0.75mm <sup>2</sup> , CAN SD: 0.35mm <sup>2</sup>	AWG #36-32 CHFUS, CIVUS: 0.13, 0.22, 0.35mm <sup>2</sup> AVSS: 0.3mm <sup>2</sup>	AWG #22-20  AVSS: 0.3,
Pin Count	1 row: 4,5,6,7,10 2 rows: 14,16, 18,22,30	2,3	Pin: 70,98,104,135 Socket: 31,34,35	3,5,7,8,12,16,20, 24,28,32, 36,40	12,20,32	3,5,7,8,12,16,20, 24,32,36	4,8,12,16,20,24, 32,40	20,28
Current Rating	3A	3A	Signal: 2.2A Power: 5.7A	3A	3A	3A	3A	3A
Operating Temp	-40 ~ +85 °C	-40°C ~ +85 °C	-40 ~ +85 °C	-40 ~ +85 °C	-40 ~ +85 °C	-40 ~ +85 °C	-40 ~ +85 °C	-40 ~ +85 °C
Application	Cable-to-Cable/ Board-to-Cable	Cable-to-Cable	Board-to-Cable	Board-to-Cable	Board-to-Cable	Board-to-Cable	Board-to-Cable	Board-to-Cable
Features	Mechanical lock system enabling complete mating. Secondary lock mechanism to ensure correct terminal retention. Simplified crimp type termination.	Mechanical lock system enabling complete mating. Double hook mechanism to prevent contacts from being inserted or removed incompletely.	Mechanical lock system with audible click. Socket side contact designed with secondary lock. Simplified crimp type termination.	Mechanical lock system. Secondary lock mechanism to ensure terminal position. Simplified crimp type termination. Thru hole terminals.	Vertical mount SMT header. Mechanical lock system. Secondary lock mechanism to ensure terminal position. Simplified crimp type termination.	Horizontal mount SMT header. Mechanical lock system. Secondary lock mechanism to ensure terminal position. Simplified crimp type termination.	Extreme reduction in height to fit in slimmer ECU modules. SMT reflow compatible connector. Secondary lock mechanism to ensure terminal position.	UL94 V-0 flammability rating insulator. Mating and PCB footprint compatible with MX34.

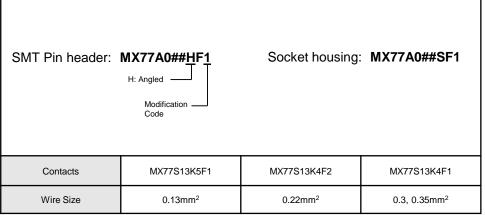
Part Number Guide Transportation Connectors

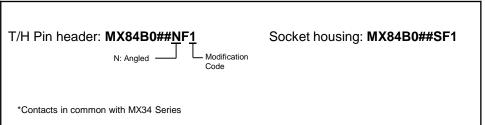












### Transportation (3/3)



Series	MX38	MX39/MX45	MX48	MX49	MX50/53	MX55	MX62	MX65	MX79A
Photo			<b>3</b>						
Pitch	2.0mm	2.2 mm	2.0mm	2.0mm	1.5mm	2.2mm	2.0mm	2mm	2.0mm
Wire Size	AWG #28 (Twin Ax)	AWG #28 Twin Ax	AWG #28 (Twin AX)	Signal: AWG #26 (Twin Ax) Power: AWG #20	AWG #28 (Twin Ax)	Signal/Power /Ground # 26 (STQ)	Signal: AWG #26(Twin Ax) Power: AWG #22	0.14mm² x4, 0.22mm² x4 (STQ)	AWG #26 STQ
Pin Count	2	4	2	4	19	4	10	4, 4+2, 8	4
Current Rating	Varies by cable type*	500 mA	Varies by cable type*	Signal: 0.5A	0.5A	Varies by cable type*	Power : 2.2A	1.5A	Signal: 2A Power: 2A
Operating Temp	-40 ~ +85 °C	-40 ~ +85 °C	-40 ~ +85 °C	-40 ~ +85 °C	-40 ~ +85 °C	-40 ~ +85 °C	-40 ~ +85 °C	-40 ~ +105 °C	-40 ~ +85 ºC
Application	Cable-to- Cable/ Board- to-Cable	Cable-to- Cable/ Board- to-Cable	Board-to- Cable	Cable-to- Cable/ Board-to- Cable	Cable-to- Cable/ Board-to- Cable	Board-to- Cable	Cable-to- Cable/ Board-to- Cable	Cable-to- Cable/ Board-to- Cable	Cable-to- Cable/ Board-to- Cable
Features	Excellent in transmission of high-speed signals such as LVDS and GVIF. Different key options available.	USB 2.0 compatible, sold as complete harness with USB standard receptacle	Excellent in transmission of high-speed signals such as LVDS and GVIF. Different key options available. Extremely compact design.	Compatible with USB 2.0 signal speeds. Different key options available. Extremely compact design.	HDMI Type E compatible connector and harnesses. Cable mounted receptacle for mating with consumer HDMI cables is available.	Waterproof connector for LVDS transmission from digital cameras. Right angle and straight plug available.	Compatible with USB 3.0 signal transmission. Mechanical lock included. Double metal shield for improved EMI.	Mating compatible with HSD connectors. Waterproof and non waterproof variations available. Pin headers not provided by JAE.	Compatible with LVDS or USB 2.0 signal speeds. Different key options available. Extremely compact design.

Part Number Guide Transportation Connectors

Key Codes:

Pin header: MX35 # 01 N P1 N: angle T: straight

**Board Mounting Receptacle:** 

Different key code

Angle type

Straight type B: white B: white C: blue C: blue E: green E: green F: brown F: brown

I: beige

G: blue-gray H: violet K: yellow

**MX38002FQ1**Different key code: 1,2,3,4

Pin header: MX38002NQ1

JAE will supply the complete mating harness designed to customer specifications.

Board Mounting Receptacle: MX39004NQ1

USB Harness: MX45004S0008397 (150mm)

**Board Mounting Receptacle:** MX48002NQ1

- Different key code: 1,2,3,4

JAE will supply the complete mating harness designed to customer specifications.

Board mounting receptacle: MX49004 # Q 1

> Different key code: 1,2 (T/H) 1,2,3,4 (SMT) H: SMT

JAE will supply the complete mating harness designed to customer specifications.

Board mounting receptacle: MX50019NQ1

> JAE will supply the complete mating harness designed to customer specifications.

Camera back housing connector: MX55A06ZB2

> Board mounting header: MX55006KQ1R600

JAE will supply the complete mating harness designed to customer specifications.

Board mounting header: MX62010HQ1R100

JAE will supply the complete mating harness designed to customer specifications.

**MX65 Series Harness** 

JAE will supply the complete mating harness designed to customer specifications.

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