Technology to Inspire Innovation



Connector Selection Guide 2015 - 2016



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View all JAE connectors at www.JAE.com

Contact marketing@jae.com to request the electronic version of this connector guide.

Company Profile

JAE Electronics, Inc.



About JAE

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.

Technology to Inspire Innovation









Click on the series name or image to jump to its webpage. For series that do NOT have a link, please contact your JAE sales representative for more information.

Series	WP10	WP21	WP25D	WP3	WP6/C	WP7	WP9	WR	KX14/15	KX24/25	TX24/25
Photo									Mis.		
Pitch	N/A	0.35mm	0.35mm	0.4mm	0.4mm	0.4mm	0.4mm	0.5mm	0.8mm	0.8mm	1.27mm
Stacking Heights	0.7mm	0.6mm	0.7mm	1.0mm	0.8mm	0.7mm	0.8mm	4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 8.0, 9.0mm	5.0, 6.0, 8.0, 9.0, 11.0, 12.0mm	N/A	12.0- 24.0mm (±2.0mm)
Pin Count (Parallel)	2 Signal 4 Power	10,20,22,24, 30,34,40,42, 46,54	10,28,38 (+2 power pins)	16,20,22,24, 30,36,40,42, 50, 64,70,80	10,12,16,20, 24,30,40,50	10,16,20,24, 26,28,30,32, 34,40,50,70	10,14,20,24, 30,32,40,60	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
Pin Count (Right Angle)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	30,40,50,60, 70,80,120	20,30,40,50, 60,70,80	80,100,120, 140,180	30,40,44,50 ,60,80,100, 120
Board Mount	SMT	SMT	SMT	SMT	SMT	SMT	SMT	SMT	SMT	Thru-hole	Thru-hole
Current Rating	0.4A 5A Power	0.3A	0.3A 0.2A Power	0.4A	0.3A	0.2A	0.3A	0.3A	0.5A	0.5A	1.0A
Voltage Rating	50VAC 50VDC	50VAC 50VDC	50VAC 50VDC	50VAC 50VDC	50VAC 50VDC	50VAC 50VDC	50VAC 50VDC	200VAC 300VDC	200VAC 300VDC	200VAC	250VAC
Durability	30 cycles	30 cycles	30 cycles	50 cycles	30 cycles	30 cycles	50 cycles	500 cycles	500 cycles	500 cycles	500 cycles
Features	High power connector ideal for connecting batteries.	Smallest footprint and lowest height.	Hybrid connector with signal pins plus 2 high power contacts.	High retention force.	Shielded variation available for 24 and 30 position with common footprint.	High retention force for low pin counts and low insertion force for high pin	Small connector width helps reduce board mounting space.	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.

View all JAE connectors at www.JAE.com

Part Number Guide Board-to-Board Connectors

Orderable in Reels of 15000

Socket side: WP21-S###VA1-R8000 Pin side: WP21-P##VA1-R8000

Orderable in Reels of 8000

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

Orderable in Reels of 8000

Socket side: WP3 - S###VA1 - R6000 Pin side: WP3 - P###VA1 - R6000

Orderable in Reels of 6000

Socket side: WP6 - S###VA2 - R6000 Pin side: WP6 - P###VA2 - R6000

Shielded version:

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

Orderable in Reels of 6000

For pin counts up to 32:

Socket side: WP7A - S###VA1 - R6000 Pin side: WP7 - P###VA1 - R6000

For pin counts above 32:

Socket side: WP7B - S###VA1 - R6000 Pin side: WP7B - P###VA1 - R6000

Orderable in Reels of 6000

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

Orderable in Reels of 6000

Socket side: WH1S###WA1-E6000 Pin side: WH1P###WA1-E6000

*Not pictured. Please visit www.jae.com for more info.

Orderable in Reels of 6000

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

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

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**

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

Receptacle: KX24 - ###R - LT - H1
Plug: KX25 - ###P - LT - H1

LT: Right-angle H: Hook pin 6ST: Straight

Receptacle: TX24 - ###R - LT - H1E
Plug: TX25 - ###P - LT - H1E

Stacking Height: Receptacle: 6, 10, 12mm
Plug: 6, 8, 12mm
*Right-angle leave blank

*Right-angle leave blank

Commercial I/O Connectors





Click on the series name or image to jump to its webpage. For series that do NOT have a link, please contact your JAE sales representative for more information.

Series	DC2	DC3	DD4	DD1	DD2	DX07	DP3	DX4	DC1
Photo		15 A. T.			Pan		40000	30	
Pitch	0.4mm	0.4 mm	0.4mm	0.5mm	0.5mm	0.5mm	0.6mm	0.65mm	1.0mm
I/O	Cable I/O	Cable I/O	Cable I/O R/A Dock Vert Dock	Cable I/O R/A Dock 75° Vert Dock	Cable I/O R/A Dock Vert Dock	Cable I/O	Cable I/O	Cable I/O	Cable I/O
Pin Count	19	19	40	30	40	24	20	5	19
Signal Standard	НДМІ	НДМІ	USB 3.0 DisplayPort™ SATA	USB 2.0	USB 2.0	USB Type-C™	Thunderbolt™	USB 2.0	НДМІ
Current Rating	0.5A	0.3A	Signal: 0.1A Power: 1.1A	Signal: 0.5A Power: 1.0A	Signal: 0.5A Power: 1.0A	5A	Signal: 0.5A	Signal: 0.5A Power: 1.8A	0.5A
Voltage Rating	40VAC	40VAC	30VAC	30VAC	30VAC	20VAC	300VAC	30VAC	40VAC
Durability	5,000 cycles	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	-25 ~ +75 °C	-30 ~ +80 °C	-20 ~ +85 °C	-30 ~ +80 °C	-20 ~ +85 °C
Locking	Friction	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.	Space-saving low height, fine pitch docking connector.	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 avail.	Thunderbolt™ compatible. Various board mounting options available.	Micro USB 2.0 standard compatible. Various mounting options available.	HDMI Type A compatible. Requires HDMI adopter status.

View all JAE connectors at www.JAE.com

Part Number Guide Input/Output Connectors

Receptacle: DC1RS19JA7

Cable Harness: DC1P019ST30200B

Restricted to HDMI Adopters Contact JAE for additional options

Receptacle: DC2R019JA4

Cable Harness: DC1DC2ST2150B

Restricted to HDMI Adopters Contact JAE for additional options Receptacle: **DD1R030HA1** Standard mount **DD1R030JA7** Reverse mount

Docking Plug: DD1B030VA1

DD1B030HA1 Right angle

Vertical

Cable Plug: DD1P030MA1

Receptacle: DP3R020<u>S</u> <u>U32</u>JQ <u>1</u> R400

T/H lead length

Blank: 1.4mm

1: 2.1mm

Board Mount Type — S: Standard R: Reverse

Height modification code —

U32: 3.2mm up L05: 0.5mm down

Receptacle: DD2R040HP2

Docking Plug: **DD2B040VP4** Vertical

DD2B040HA2 Right angle

Cable Plug: DD2P040MA1

Receptacle: DD4RA040JA1

Docking Plug: DD4PA040WA1 Vertical Plug: DD4PA040MA1 Right angle

Cradle: **DD4BA040WA1**

DD4BA040MA1

Receptacle: Top Mount

DC3RX19JA2

Modification Code

Hold Down Type
X, J: T/H
0, H: SMT

DC3R019JA1

Modification Code

Restricted to HDMI Adopters Contact JAE for additional options Board Mount Type
B: Mid-mount
S: On-board

Modification Code
1: w/ rear shield
2 (B-type): no rear shield
2 (S-type): w/ rear shield
3: no rear shield

Plug: DX07P024MJ1R1500

Receptacle: DX4R005 J J 2

Modification Code

Hold Down Type

J: T/H

H: SMT

Industrial I/O Connectors [Rectangular] 🎇





Click on the series name or image to jump to its webpage. For series that do NOT have a link, please contact your JAE sales representative for more information.

Series	DZ02	DF02
Photo		
Pitch	0.635mm	1.27mm
I/O	Cable I/O	Cable I/O
Pin Count	8	14,20,26,36,50 68 (plug only)
Current Rating	0.5A	0.5A
Voltage Rating	30VAC	250VAC
Durability	1,500 cycles	500 cycles
Operating Temp	-40 ~ +85 °C	-20 ~ +80 °C
Locking	Friction	One-touch/Screw
Features	Vibration-resistant strong lock, ideal for harsh conditions. Compact I/O compatible with IEC/EN 61800-5-2.	Half-pitch (1.27mm) interface compatible. Ni- plated plastic hood for lighter weight with EMI shielding.

JAE's Industrial I/O connectors can be used in various industrial applications, including: Servo amplifiers, motion controllers, PLC (Programmable Logic Controller), factory automation equipment, servo amplifiers, robotic devices, telecommunication equipment and other industrial machinery applications.









DZ02 Series	No. of Contacts	Part Number
Receptacle	8	DZ02R008NC1R400
Plug	8	DZ02B008DC1

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Part Number Guide

DF02 Series

		No. of	
HOC	DDS	Contacts	Part Number
	Short	14	DF02C014A11
		26	DF02C026A11
		36	DF02C036A11
		50	DF02C050A11
ш		68	DF02C068A11
STRAIGHT TYPE	Long	14	DF02D014A11
ы		20	DF02D020A11
픘		26	DF02D026A11
M	3	50	DF02D050A11
H R	Long/Thick (wire competible)	26	DF02D026A21
S	Long/Thick (wire compatible)	50	DF02D050A21
	Long w/ Screw Lock	36	DF02D036B11

RECEPTACLE

_		
	No. of Contacts	Part Number
	14	DF02R014NA3
	20	DF02R020NA3
	26	DF02R026NA3
	36	DF02R036NA3
	50	DF02R050NA3

		No. of Contacts	Part Number
ANGLE TYPE	Long	36	DF02F036A11
A	Long/Thick (wire compatible)	36	DF02F036A21

IDC Connection Type

PLUG

8

Solder Type

No. of Contacts	Part Number	No. of Contacts	Part Number	AWG (IDC Type)
14	DF02P014F22A11	14	DF02P014G28A1	
20	DF02P020F22A11	20	DF02P020G28A1	
26	DF02P026F22A11	26	DF02P026G28A1	28
36	DF02P036F22A11	36	DF02P036G28A1	20
50	DF02P050F22A11	50	DF02P050G28A1	
		68	DF02P068G28A1	
		14	DF02P014G30A1	30
		50	DF02P050G30A1	30



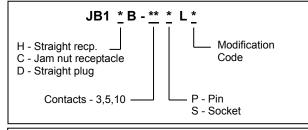
Industrial I/O Connectors [Circular]

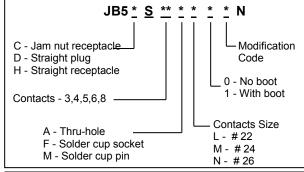
Click on the series name or image to jump to its webpage. For series that do NOT have a link, please contact your JAE sales representative for more information.

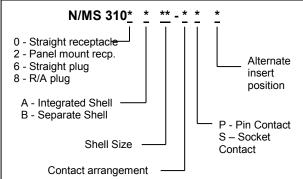
Series	JB5	JB1	JN1 / JN2	JN1W / JN2W	SRCN	JL02	JL04V	JL05	JL10	N/MS
Photo	0		300	790		906		60	6	66
Diameter (Max.)	Ф11.0mm	Ф18.0mm	Ф19.0mm	Ф26.2mm	Ф21.2-33.2mm	Ф34.1-62.7mm	Ф22-56.3mm	Ф35.9-51.7mm	Ф35.9-58.6mm	Ф22.2-81.8mm
Pin Count	3, 4, 5, 6, 8	3, 5, 10	4, 10	5, 15	3,5,7,10,16,24	10, 17, 19, 24, 37, 48, 54	3, 4, 6, 7, 8, 9, 18, 22	4,5,7,8,9,10, 17,19,24,30, 36,37,52,73	3,4,9,17,19	1~11,14,16,17, 19,22,24,26,35, 37,48,54,100
Shell Material	Metal	Metal	JN1: Plastic JN2: Metal & Plastic	JN1W: Plastic JN2W: Metal & Plastic	Metal	Metal	Metal	Metal	Metal	Metal
Mated Condition	IP68	IP67	IP67	IP67	N/A	N/A	IP67	IP67	IP67	N/A
Current Rating	2 ~ 3A	3A	3 ~ 5A	3 ~ 13A	5 ~ 10A	1.5 ~ 13A	13 ~ 80A	2 ~ 46A	19 ~ 80A	13 ~ 150A
Voltage Rating	200VAC ~ 320VAC	300VAC	200VAC	200VAC ~ 400VAC	250VAC ~ 350VDC	200VAC ~ 500VAC	100VAC ~ 500VAC	200VAC ~ 900VAC	100VAC ~ 500VAC	200VAC ~ 3,000VAC
Durability	5,000 cycles	500 cycles	500 cycles	500 cycles	500 cycles	500 cycles	500 cycles	500 cycles	500 cycles	500 cycles
Lock	Push-pull	Threaded	Push and twist	Push and twist	Threaded	Threaded	Threaded	Bayonet	Bayonet & Threaded	Threaded
Operating Temp	-55 ~ +85 °C	-30 ~ +85 °C	-20 ~ +125 °C	-20 ~ +125 °C	-25 ~ +85 °C	-55 ~ +85 °C	-55 ~ +125 °C	-55 ~ +125 °C	-55 ~ +125 °C	-55 ~ +125 °C
Wire Size	AWG #22-28	AWG #22-28	AWG #20-28	AWG #14-28	AWG #16-20	AWG #14-28	AWG #4-18	AWG #8-26	AWG #0-22	AWG #0-16
Termination	Solder	Crimp	Crimp / Solder	Crimp / Solder	Solder	Crimp	Solder	Crimp / Solder	Solder	Solder
Features	Small size. Unmated waterproof	Mated Waterproof	One-touch locking mechanism. JN2 shell is 3x stronger.	One-touch locking mechanism	UL approved. 5 insert guide keys	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	UL approved. Compatible with MIL-DTL- 5015 standard.

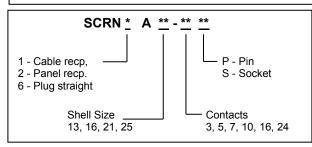
View all JAE connectors at www.JAE.com

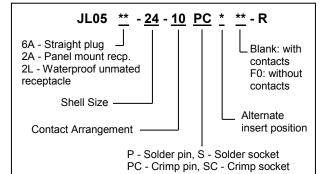
Part Number Guide Circular Connectors

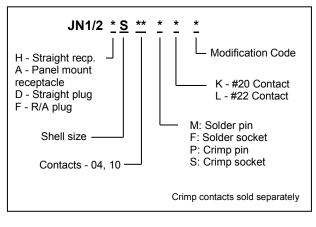


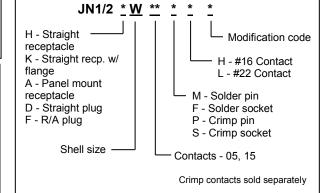


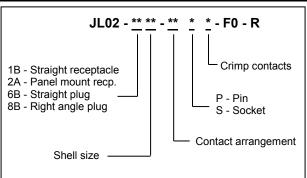


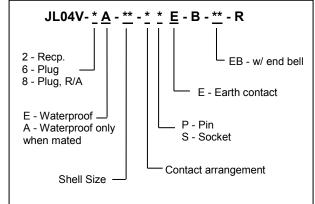


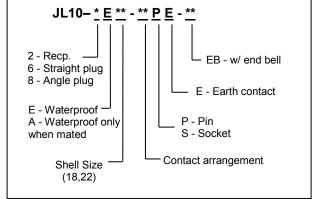












Board-to-FPC Connectors





Click on the series name or image to jump to its webpage. For series that do NOT have a link, please contact your JAE sales representative for more information.

Series	FF08	FR02	FB10	FA10	FF03	FA5B	FA5S
Photo		Tribing of the state of the sta		75			
Pitch	0.2mm	0.2mm	0.3mm	0.5mm	0.5mm	0.5mm	0.5mm
Mounted Height	0.9mm	0.82mm	0.9mm	0.9mm	2mm	1.0mm	1.45mm
FPC/FFC Thickness	0.15±0.03mm	0.2±0.03mm	0.2±0.03mm	0.2±0.03mm	0.3±0.05mm	0.3±0.05mm 0.14±0.03mm	0.3±0.05mm
FPC Contact Orientation	Lower	Upper & Lower	Lower	Upper & Lower	Lower	Lower	Lower
Pin Count	25,29,41,51,71,81	23, 41, 51,61	11,13,15,21,27, 31,33,41,45,51, 61	4,5,6,8*,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
Current Rating	0.3A	0.25A	0.35A	0.5A	0.5A	0.8A	0.8A
Voltage Rating	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.	Quick one-step insertion & removal. Requires no actuator operation.	Highest pin count.	Mid mount type for low profile applications.	Easy slider operation.

Part Number Guide

Board-to-FPC Connectors

Loose pcs: FA5B0##HP1

Reel: **FA5B0##HP1 R3000**

1: t0.3mm FPC/FFC — 3: t0.14mm FPC/FFC

Loose pcs: FA5S0##HP1

Reel: **FA5S0##HP1R3000**

Loose pcs: FA10##SA1

Reel: FA10##SA1-R8000

Reel: FB10S###JA2R6000

Loose pcs: FR02C0##JA1

Reel: FR02C0##JA1-R5000

Loose pcs: FF03##SA1

Reel: FF03##SA1 - R2000

Reel: **FF08##SA1-R3000**





Click on the series name or image to jump to its webpage. For series that do NOT have a link, please contact your JAE sales representative for more information.

Series	FI-JP	FI-JW	HJ1	HD1/FI-Z	FI-R	FI-X	FI (single row)	FI (dual row)
Photo						Zu ju		4/1/2
Pitch	0.25mm	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	#44,46	#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	FFC (JF08)	0.14±0.03mm	0.14±0.03mm	N/A
Pin Count	40,50	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
R/A Height	1.08mm	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	Friction	Friction
Durability	20 cycles	30 cycles	30 cycles	30 cycles	50 cycles	50 cycles	50 cycles	50 cycles
Current Rating	0.2A	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	Vertical mating. Smallest pitch.	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 - JP##S - VF10 - R3000

Cable Plug: FI - JP##C - R3000

Plug Shell: FI - JP##C - SH1 - 9000

Only orderable in reels

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: FI - R_ ## S - HF

E: EMI shell H: Horizontal V: Vertical

H: Discrete wire crimp
 C: Fine-wire coaxial

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

Only for coax cable plug

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

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

Receptacle: **FI-Z40S-HF-R6000**Ground enforced

Mates with HD1 plug connector. FI-Z footprint has additional ground pads when compared to the HD1 receptacle footprint.

Orderable in reels

Receptacle: FI - X_30S__ L _ - HF

B: Mid mount _____ Modification Code
S: Stronger shell R: Reverse

Cable Plug: FI - X30H _

H: Discrete wire crimp C, C2, C2E: Coax wire MA1, FR: FPC/FFC

Crimp Contacts: FI-XC3A-1-15000

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

Single Row

Receptacle: FI - S ##P - HFE

Cable Plug: FI - S_##S

E: EMI Shell Shell S: Discrete wire crimp ME: FPC/FFC MRE: Rev. FPC/FFC

Dual Row

Receptacle: FI - TWE##PB - VF Vertical

FI - W_##P - HFE Right angle

- E: EMI Shell

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)





Click on the series name or image to jump to its webpage. For series that do NOT have a link, please contact your JAE sales representative for more information.

Series	ST1/ST1-G/T	ST10	ST11	MM60	ММ70	ММ80	JC26/C2	WA6	SM3
Photo									
Card	microSD	microSD	microSD	PCI Express Mini Card	MXM 3.0 Graphics Card	DDR3 SDRAM SODIMM	CompactFlash	MicroDIMM	M.2
Mounted Height	1.9mm/1.4mm	1.25mm	1.25mm	2.125, 4.0, 5.9mm	4.3, 6.7mm	5.2, 9.2mm	5.8, 7.4mm	3.0mm	2.15, 3.1, 4.1mm
Pin Count	8, 8+2	8+2	8+2	52,76	314	204	50	214	67
Dielectric Withstanding Voltage	500V RMS (1 min.)	500V RMS (1 min.)	500V RMS (1 min.)	300V RMS (1 min.)	250V RMS (1 min.)	500V RMS (1 min.)	500V RMS (1 min.)	500V RMS (1 min.)	300V RMS (1 min.)
Current Rating	0.5A	0.5A	0.5A	0.5A	0.5A	0.3A	0.5A	0.3A	0.5A
Durability	10,000 cycles	10,000 cycles	5,000 cycles	50 cycles	30 cycles	25 cycles	10,000 cycles	25 cycles	60 cycles
Style	Hinged	Push-push	Push-push	Card Edge	Card Edge	Card Edge	Ejector	Board to Board	Card Edge
Features	Available with card detection switch. Smallest footprint & lowest height for hinged type.	Lowest height in the market.	Strong mechanical lock to prevent card from popping out from vibration and shock.	Retention latch or screw hold downs available to fix module to connector and main PCB.	MXM3.0 standard compatible. Available in 2 heights.	DDR3 SO- DIMM connector compatible w/ JEDEC standard MO- 268C.	Reverse mount available. Retractable ejector available.	DDR2 MicroDIMM connector compatible with JEDEC Standard MO- 260B SO-004A.	Multiple key and heights variations available.

View all JAE connectors at www.JAE.com

Part Number Guide Card Connectors 1

MicroSD:
Hinged type

ST1W008S4 A R1500

Modification code

MicroSD:
Low profile
Hinged type

ST1W008S4 G R2000

G: Without detect switch
T: With detect switch

Orderable in reels

MicroSD: **ST10S008V4BR1800**Push-push type

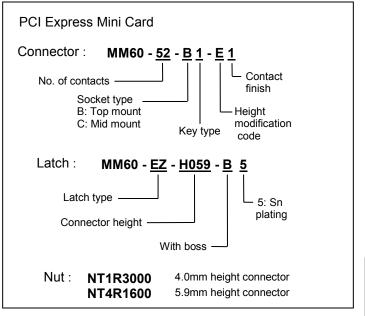
don paon type

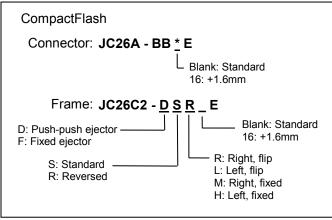
Orderable in reels

MicroSD: ST11S008V4HR2000

Push-push type

Orderable in reels

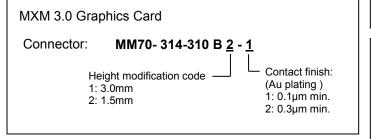


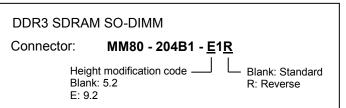


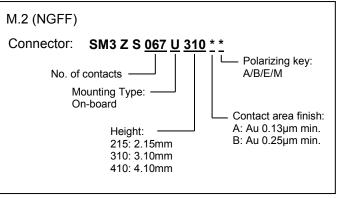
Female side: WA6F214VA1T

DDR2 MicroDIMM

Male side: WA6M214VA1T







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





Click on the series name or image to jump to its webpage. For series that do NOT have a link, please contact your JAE sales representative for more information.

Series	SF7	SF8	SF9	SF15	SF50	SF51	SF56	SF58	SF70	SF72
Photo				A COLOR						
Card	SIM	SIM	SIM	Micro SIM	Micro SIM	Micro SIM	Micro SIM	Micro SIM	Nano SIM	Nano SIM
Mounted Height	1.9, 2.25, 2.5mm	1.5mm	1.8mm	1.55mm	1.2mm	1.8mm	1.25mm	1.3mm	1.25mm	1.25mm
Pin Count	6, 6+2	6	6	6	6	6+2	6+2	6+2	6+2	6
Dielectric Withstanding Voltage	500V rms (1 min.)	500V rms (1 min.)	500V rms (1 min.)	500V rms (1 min.)	500V rms (1 min.)	500V rms (1 min.)	500V rms (1 min.)	500V rms (1 min.)	500V rms (1 min.)	500V rms (1 min.)
Current Rating	10μA to 1A	10μA to 1A	10μA to 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	5,000 cycles	1,000 cycles	5,000 cycles	5,000 cycles	5,000 cycles	5,000 cycles
Style	Hinged	Tray type	Tray type	Hinged	Pull bar	Tray type	Push-Push	Tray type	Tray type	Push-Push
Features	Locking structure. Positioning boss, metal cover, or detection switch 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.	Small height and footprint. Pull bar in- cluded to assist ejec- tion of card.	Reverse mount w/ detect switch. Unique lock design to increase tray retention strength with- out increasing eject force.	Smallest in class height. Detect switch included.	Low profile and narrow design. Push- eject tray type with detect switch included.	Compatible with 4FF nano SIM cards for compact portable devices. Includes detect switch.	Low profile; Special contact shape for enhanced reliability. Includes detect switch

View all JAE connectors at www.JAE.com

Part Number Guide Card Connectors 2

SIM: SF7W 006 S 1 A

Hinge type connector

006: 6 position 008: 6 signal + 2 switch

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

1: Standard 4: Low profile

Micro SIM: SF51S006V4BR1400
Tray type

Please contact JAE for recommended dimensions of the tray.

Micro SIM: SF15W006S4BR2000
Hinge type

SIM: **SF8V006S4AR1200**

Tray type connector A: Standard B: Reverse

Tray: SF8-STS1-A Standard SF8-STR1-B Reverse

Need both Connector and Tray to use SF8 series

Micro SIM: SF50S006V4AR1500
Pull bar type

A: Pull bar on left
C: Pull bar on right

Micro SIM: SF58S006VBAR2000
Tray type

Please contact JAE for recommended dimensions of the tray.

Nano SIM: SF70S006VBAR2000

Tray type

Please contact JAE for recommended dimensions of the tray.

SIM: **SF9W006S4AR1200**

Tray type connector A: Standard B: Reverse

Tray: SF9-STS1-A Standard

SF9-STR1-B Reverse

Need both Connector and Tray to use SF9 series

Micro SIM: **SF56S006V4AR2000** Push-Push Type

18

Push-Push Type

Nano SIM:

SF72S006VBAR2500





Click on the series name or image to jump to its webpage. For series that do NOT have a link, please contact your JAE sales representative for more information.

Series	ES3	ES3 (WF2)	ES3 (JF3)	ES5	ES9	ES10
Photo		ES3 Series				
AWG	N/A	#22,24,26	#24,26 (solid)	#22,24,26	#22,24,26	#24,26
Pin Count	2	2	1	1	2, 4	1
Height	1.6mm	1.65mm	2.9mm	1.6mm	3mm	2.2mm
Locking	Friction	Latch	Friction	Latch	Friction	Friction
Durability	20 cycles	20 cycles	5 cycles	20 cycles	10 cycles	5 cycles
Current Rating	1.0A	2.0A	2.0A	4.0A	3.0, 4.0A	2.0A
Voltage Rating	200V	200V	N/A	N/A	300V	N/A
Operating Temperature	-40 ~ +105 °C	-40 ~ +105 °C	-40 ~ +105 °C	-40 ~ +105 °C	-40 ~ +105 °C	-40 ~ +105 °C
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.	Spring lock structure provides high retention strength.	Compact structure with no insulator allows design flexibility; Easy single wire cable insertion.

Part Number Guide **LED Lighting Connectors**

ES3 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: ES5S001JFA



Cable Plug: **ES5P09K5FA** #24-26AWG

Cable Plug: ES5P09K4F2 #22AWG



ES9 Series

Receptacle: ES9P 00# VF1R1600

No. of contacts: 002: 2

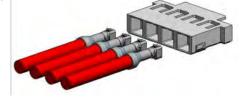
004: 4

Plug (housing): ES9S 00# SZA

No. of contacts: 002: 2 004: 4

20

Contact: ES9S06K4FA



ES10 Series

Receptacle: ES10S001JF1







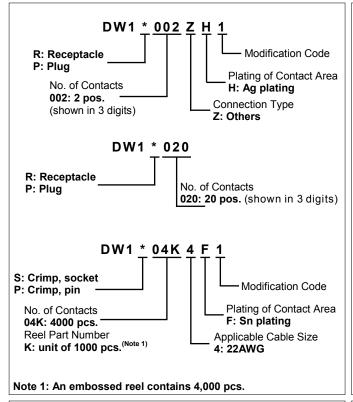
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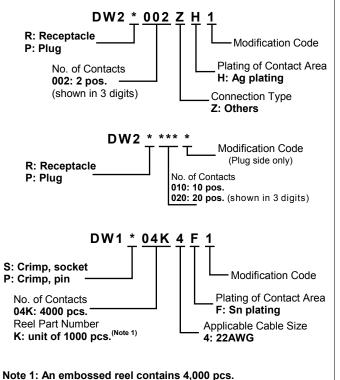
Series	DW1	DW2	DW3	DW4	DW05	KW1
Photo						
Туре	Rack-and-Panel	Rack-and-Panel	Rack-and-Panel	Board-to-Cable	Cable-to-Cable	Plug + Cable
Pin Count	Power: 2 Signal: 20	Power: 2 Signal: 20	Power: 2 Signal: 24	1	1	Power: 2 Signal: 7
Current	Power: 500A Signal: 2A	Power: 200A Signal: 2A	Power: 150A Signal: 2A	100A	150A	Power: 125A Signal: 2A
Voltage Rating	Power: 600V Signal: 100V	Power: 600V Signal: 100V	Power: 600V Signal: 100V	600V	600V	DC500V
Durability	20 cycles	100 cycles	100 cycles	50 cycles	100 cycles	10,000 cycles
Floating Range	+/- 2.75mm	+/- 2.75mm	+/- 2.0mm	N/A	N/A	N/A
Operating Temperature	-40 ~ +95 °C	-40 ~ +115 °C	-40 ~ +105 °C	-40 ~ +85 °C	-40 ~ +85 °C	-10 ~ +40 °C
Features	Ideal for large-scale power storage (over 25KWh). Robust combination of highpower and signal contacts for large battery modules.	Ideal for mid-range power storage (25KWh—10KWh). Power bus-bars attach on the battery side of the panel.	Ideal for small-scale power storage (under 10KWh). Low-profile to fit in a 1U standard rack.	Secure cable connector for high- power. Color-coded and keyed to prevent mating errors.	Keyed cable-to-cable connector for safe high-power mating. Screw holes for easy mounting.	One-touch operation and light-weight for easy handling. UL recognized. Weather and impact resistant.

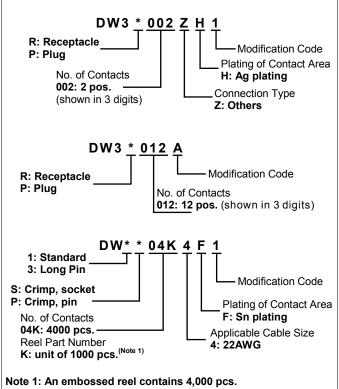
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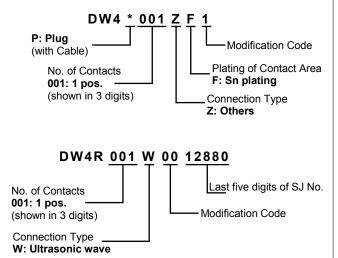
Part Number Guide

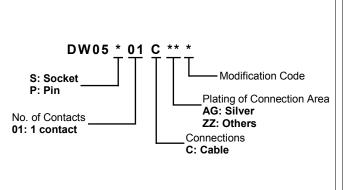
DW & KW1 Series

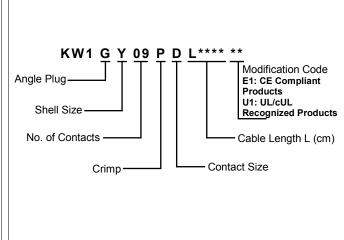














Transportation 1



Click on the series name or image to jump to its webpage. For series that do NOT have a link, please contact your JAE sales representative for more information.

Series	IL-AG5	MX19	MX23A	MX31	MX36	MX37	MX39/MX45	MX44
Photo			Far a	3 8			O. C.	
Pitch	2.5mm	2.5mm	2.5mm	Signal: 2.2mm Power: 3.2mm	2.5mm	2.2mm	2.2mm	3.5mm
	AWG #22-18	AWG #22-20	AWG #22-16	Signal: AWG #22-20 Power: AWG #22-16	AWG #20	AWG #20	AMC #29	AWG #22-20
Wire Size	AV,AVS,AVSS: 0.3 to 0.5mm ² AVS, AVSS: 0.85mm ²	CAVS: 0.3 to 0.5mm ² AVSS: 0.5mm ²	AVSS, AVS: 0.5 to 1.25mm ²	Signal: AVS, AVSS, AVX 0.3 to 0.5mm ² Power: AVS, AVSS AVX 0.3 to 1.25mm ²	AVSS 0.5, AVSS 0.5F, AVSSX 0.5f, TVSSX 0.5f	AVSS 0.5, AVSS 0.5F, AVSSX 0.5f, TVSSX 0.5f	AWG #28 Twin Ax	AVSS 0.3 to 0.5mm ²
Pin Count	1 row: 4,5,6, 7,10 2 rows: 14,16, 18,22,30	2, 4	12, 18, 26, 34, 36,40	Pin: 70,98,104,135 Socket: 31,34,35	2, 4	4	4	2, 4, 6
Current Rating	3 A	5A	3A	Signal: 2.2A Power: 5.7A	3A	3A	500mA	3 A
Operating Temperature	-40 ~ +85 °C	-40 ~ +85 °C	-40 ~ +125 °C	-40 ~ +85 °C	-40 ~ +105 °C	-40 ~ +105 °C	-40 ~ +85 °C	-40 ~ +125 °C
Application	Cable to Cable/ Board to Cable	Cable to Cable	Board to Cable	Board to Cable	Cable to Cable	Cable to Cable	Cable 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.	Waterproof. Mechanical lock system. Grommet seal. Terminals have low insertion force and stress dispersion. Rear cover protects the grommet from damage.	Waterproof. Low profile. Available in reverse mount type. Retainer detects incomplete insertion of socket contact.	Mechanical lock system with audible click. Socket side contact designed with secondary lock. Simplified crimp type termination.	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 connector if not correctly mated. Shorting contact eliminates static discharge. Retainer detects incomplete insertion.	USB 2.0 compatible. Sold as a complete harness with USB standard receptacle.	Single contact waterproof. Compact size. Improved vibration resistance by vibration absorption function of rubber. Secondary lock mechanism.

Part Number Guide Transportation 1

Socket Housing: IL-AG5-#S-S3C1 Contacts: IL-AG5-C1-5000 (socket) ÎL-AG5-PC1-5000 S: single row IL-AG5-#P-S3C1 Pin housing: (pin) D: double row Hand tool: CT150-1-AG5 Semi auto: 3502-AG5-2 IL-AG5-#P-S3L2 Pin header: 350-AG5-3B Automatic: L: right angle T: straight

Socket housing: MX1900#S51 | Contacts: MX19S10K451 (socket) | MX19P10K451 (pin) | MX19P10K451 (pin) | MX19000XD1

Pin housing: **MX1900#P51**Hand Tool: CT150-4C-MX19
Semi auto: 3502-MX19-2B

Socket housing: MX23A##SF1

Pin header: MX23A##NF1

Contacts: M23S05K351

Dummy pin: M120-55780

Pin header: MX340##UF1 Socket housing: MX340##SF1 1: 3-24 pos U: Straight N: Angled 2: 28-40 pos Contacts Hand Tool Semi auto Automatic M34S75C4F1 CT150-2-MX34 350-MX34D-2 350-MX34B-3B M34S75C4F2 CT150-1-MX34 350-MX34D-2 350-MX34B-3B M34S75C4F3 N/A 350-MX34C-2 350-MX34C-3B

Board Mounting Receptacle: MX39004NQ1

N/A

USB Harness: MX45004S0008397 (150mm)

350-MX34C-2

350-MX34C-3B

Socket housing: MX3600#SQ3 Contacts: M36S08K4Q3 (socket) M36P08K4Q3 (pin)

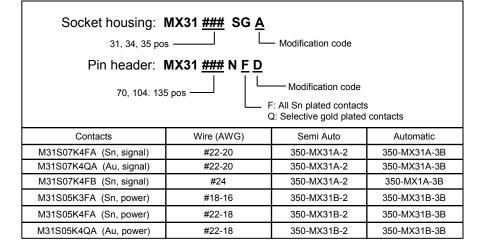
Pin housing: MX3600#PQ3

Front cap: **MX36004XF3**Semi auto: 350-MX36-2
Automatic: 350-MX36-3B

Socket housing: **MX37004SP3** Contacts: Socket M37S07K4P3 M37P75C4P3

Pin housing: **MX37004PP3**Semi Auto: 350-MX37S-2 350-MX37P-2
Automatic: 350-MX37S-3B 350-MX37S-3B

Socket housing: MX44###SF1 Contacts: M44S05K4F1 Pin header: MX44##NF1 Retainer: MX44##XR1 CT150-2-MX44 Hand Tool: 3502-MX44-2 Wire seal: MX44000XP1 Semi Auto: Wire O.D. 1, 1.4-1.5mm 2: 1.6-1.7mm



M34S75C4F4

Transportation 2



Click on the series name or image to jump to its webpage. For series that do NOT have a link, please contact your JAE sales representative for more information.

	Click on the sei	ies name of mage to) amp to its wespager						
Series	Standard T/H	MX34 Straight SMT	Right Angle SMT	MX35	MX38	MX47	MX48	MX49	MX50/53
Photo							3	C. C.	So of
Pitch	2.2mm	2.2mm	2.2mm	N/A	2.0mm	2.5mm	2.0mm	2.0mm	1.5mm
Wire Size	AWG #22-20 AVSS: 0.3, 0.5mm ² CHFUS: 0.22 to 0.75mm ² , CAN SD: 0.35mm ²	AWG #22-20 AVSS: 0.3, 0.5mm ² CHFUS: 0.22 to 0.75mm ² , CAN SD:	AWG #22-20 AVSS: 0.3, 0.5mm ² CHFUS: 0.22 to 0.75mm ² , CAN SD: 0.35mm ²	N/A	AWG #28 (Twin Ax)	AWG #22-16 AVSS 0.3 to 1.25mm ²	AWG #28 (Twin Ax)	Signal: AWG #26 (Twin Ax) Power: AWG #20	AWG #28 (Twin Ax)
Pin Count	3,5,7,8,12,16,2, 24,28,32,36,40	0.35mm ²	8, 12, 20	1	2	39	2	4	19
Current Rating	3A	3 A	3A	1A		3A		Signal: 0.5A	0.5A
Operating									
Temperature	-40 ~ +85 °C	-40 ~ +85 °C	-40 ~ +85 °C	-30 ~ +85 °C	-40 ~ +85 °C	-40 ~ +125 °C	-40 ~ +85 °C	-40 ~ +85 °C	-40 ~ +85 °C
Application	-40 ~ +85 °C Board-to-Cable	-40 ~ +85 °C Board-to-Cable	-40 ~ +85 °C Board-to-Cable	-30 ~ +85 °C Board-to-Cable	-40 ~ +85 °C	-40 ~ +125 °C Board-to-Cable	-40 ~ +85 °C	-40 ~ +85 °C	-40 ~ +85 °C Cable-to-Cable/ Board-to-Cable

Part Number Guide Transportation 2

T/H Pin header: MX340##UF1 Socket housing: MX340##SF1

U: Straight 1: 3-24 pos 2: 28-40 pos 2: 28-40 pos

SMT Pin header: MX34R##VF1 *

V: Straight H: Angled T: tray

1: Straight 4: Angled

Contacts	Hand Tool	Semi auto	Automatic
M34S75C4F1	CT150-2-MX34	350-MX34D-2	350-MX34B-3B
M34S75C4F2	CT150-1-MX34	350-MX34D-2	350-MX34B-3B
M34S75C4F3	N/A	350-MX34C-2	350-MX34C-3B
M34S75C4F4	N/A	350-MX34C-2	350-MX34C-3B

Board Mounting Receptacle: MX38002FQ1

Different key code: 1,2,3,4

Pin header: MX38002NQ1

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

Socket housing: MX47037SF1

--- Key code: 1,2

Pin header: MX47037NF1

Front cap: MX47037XF1

Contacts	Wire size (AWG)	Hand tool	Semi Auto Applicator
M47S65H2FA	#22-20	CT160-3-MX47	3502-MX47-2
M47S65H3FA	#18	CT160-3B-MX47	3502-MX47-2
M47S65H4FA	#16	CT160-3C-MX47	3502-MX47-2

Key Codes: Angle type Straight type Pin header: MX35 # 01 N P1 B: white B: white C: blue C: blue N: angle E: green E: green T: straight F: brown F: brown G: blue-gray I: beige Different key code H: violet K: yellow

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

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.

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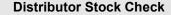
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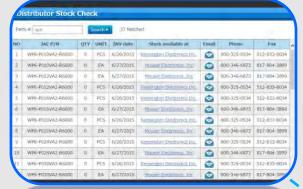
Transportation 2

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