



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

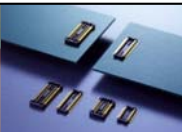
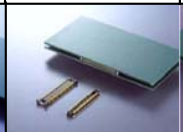
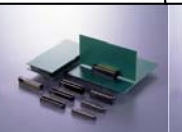
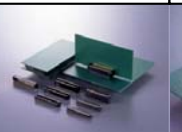
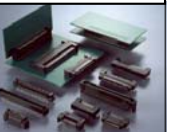
Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

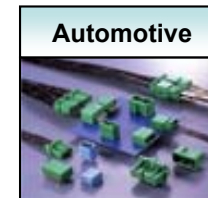
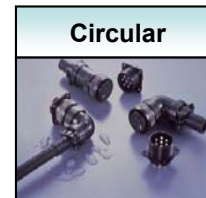
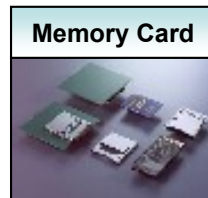
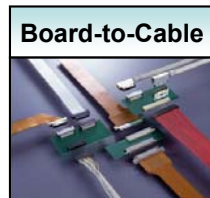
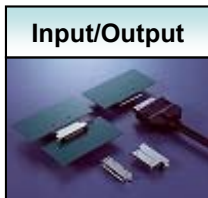
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Board-to-Board Connectors

Series	AA03	WH1	AA01A	IL-312	WB3	WR	KX14/15	PM1	TX24/25
Photo									
Pitch	0.4mm	0.4mm	0.5mm	0.5mm	0.5mm	0.5mm	0.8mm	0.8mm	1.27mm
Stacking Heights	1.0mm	1.0mm	1.5mm	2.5,3.0mm	4.0,5.0mm	4.0, 4.5, 5.0 5.5, 6.0, 6.5, 7.0, 8.0, 9.0	4.0, 5.0, 6.0, 7.0, 8.0, 9.0	Rt. Angle	12.0 – 24.0 (±2.0mm)
Pin Count (Parallel)	20,22,24,30, 36,40,50, 64,70,80	24,30,40	10,30,40,60	20,30,40,50, 60,70,80,100	200	20,30,40,50, 60,70,80, 100,120,160	20, 30, 40, 50, 60, 70, 80, 100, 120, 140, 160	N/A	30,40,44, 50,60,80, 100,120,140
Pin Count (Rt. Angle)	N/A	N/A	N/A	N/A	N/A	20,30,40,50, 60,70,80,120	20,30,40,50 60,70,80,100 120,140	50	30,40,44 50,60,80 100,120,140
Board Mount	SMT	SMT	SMT	SMT	SMT	SMT	SMT	SMT	Thru-Hole
Current Rating	0.4A	0.4A	0.2A	0.3A	0.5A	0.3A	0.5A	0.5A	1.0A
Voltage Rating	250VAC	250VAC	250VAC	500VAC	500VAC	500VAC	500VAC	250VAC	500VAC
Durability	50 cycles	50 cycles	30 cycles	50 cycles	25 cycles	500 cycles	500 cycles	7000 cycles	500 cycles
Features	Highest retention force	Two point contact to resist twisting stress.	Dual mating contact JAE original design	Twist-resistant contacts. Reliable and stable	Conforms to PCI Express Card specs. (supports TMDs & VGA)	9 different vertical stack heights	Widest range of options in 0.8mm market	Low-profile docking. Hot plug structure.	Price per contact significantly below competition





Socket side: **AA03 - S###VA1 - R6000**
Pin side: **AA03 - P###VA2 - R6000**

Only orderable in Reels of 6000

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

Socket side: **AA01A - S###VA1 - R3000**
Pin side: **AA01A - P###VA1 - R3000**

Only orderable in Reels of 3000

Socket side: **IL - 312 - A###S_ - VF_ - A1**
B: Positioning Boss _____ H05: +0.5mm

Pin side: **IL - 312 - A###P_ - VF_ - A1**
B: Positioning Boss _____ 30: +0.5mm

Female side: **WB3F200VD1_**
_____ T: Mounting Tape

Male side: **WB3M200VD1_**
Height code: _____ T: Mounting Tape
1: Standard
2: +1.0mm

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**
Plug: **KX15 - ###K 2 DE**

K: Polarization key _____ Stacking Height:
N: No key _____ Receptacle:
2, 5, 8, 11, 14mm
Plug:
2, 3, 4mm

For additional options, visit our website

Female side: **PM1F050N1AE**
R/A Thru-hole _____ 1AE: Tin-alloy
SA: 0.76µm Au/Ni

Female side: **PM1F050V1AE**
Vertical SMT _____ 1AE: Tin-alloy
DA: 0.76µm Au/Ni

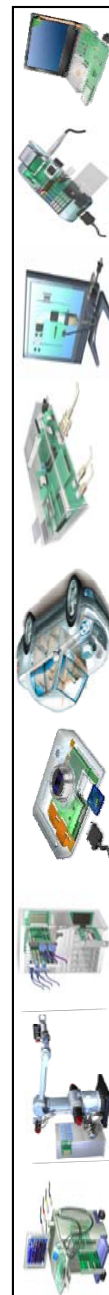
Male side: **PM1M050H1AE**
R/A SMT _____ 1AE: Tin-alloy
DA: 0.76µm Au/Ni

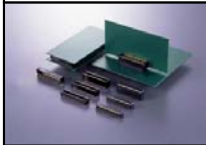
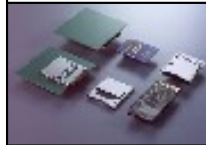
Receptacle: **TX24 - ###R - LT - H1E**
Plug: **TX25 - ###P - LT - H1E**

Stacking Height: _____ H: Hook pin
N: No hook pin
Receptacle:
6, 10, 12mm
Plug:
6, 8, 12mm
*Right-angle leave blank
LT: Right-angle
ST: Vertical

Input/Output Connectors

Series	DD1	DD2	DA1	DX	DC1	DE1	DG1	WM1	WM2
Photo									
Pitch	0.5mm	0.5mm	0.6mm	0.8mm	1.0mm	1.27mm	0.8mm	1.0mm	1.0mm
I/O	Cable I/O 15° V Dock R/A Dock	Cable I/O R/A Dock	Cable I/O R/A Dock	<u>DX1</u> : miniA <u>DX2</u> : miniB <u>DX3</u> : miniAB	Cable I/O	Cable I/O	Cable I/O	R/A and Straight Dock	Vert. Dock
Pin Count	30	40	10,18,26	5	19	15	25, 73	68	54
Signal Standard	USB 2.0	USB 2.0		USB 2.0	HDMI	PCI Express x1	InfiniBand x4,x10,x12	USB 2.0	USB 2.0 SATA
Current Rating	0.5A Signal 1.0A Power	0.5A Signal 1.0A Power	0.5A Signal 1.0A Power	1.0A	0.5A	0.5A	0.5A	0.5A	0.5A
Voltage Rating	30VAC	30VAC	100VAC	30VAC	40VAC	40VAC		125VAC	125VAC
Durability	10000 cycles	10000 cycles	10000 cycles	5000 cycles	10000 cycles	10000 cycles	250 cycles	5000 cycles	10000 cycles
Operating Temp	-25 ~ 75° C	-25 ~ 75° C	-25 ~ 75° C	-20 ~ 60° C	-20 ~ 85° C	-40 ~ 80° C	-25 ~ 70° C	-40 ~ 85° C	-40 ~ 85° C
Locking	Latches	Latches	Latches	N/A	N/A	Latches	Lanyard	N/A	N/A
Features	Handheld Leader (Apple iPod version)	Major PDA market	Low Cost I/O	miniUSB standard compatible	HDMI standard compatible	High-speed I/O	Integrated with Gore cable for superior performance	Low-profile docking. Insertion guide.	±2.0mm blind mating. Ground to ground first contact



Board-to-Board**Board-to-Flex****Board-to-Cable****Memory Card****Circular****Automotive**

Receptacle: **DD1R030HA1**

Docking Plug: **DD1B030VA1**
DD1B030HA1

Vertical
Right angle

Cable Plug: **DD1P030MA1**

Receptacle: **DC1R019JBA**

Cable Harness: **DC1P019ST30200B**

Restricted to HDMI Adapters
Contact JAE for additional options

Type B miniUSB: **DX2R005HN2E700**

Type AB miniUSB: **DX3R005HN2E700**

Receptacle: **DD2R040HP2**

Docking Plug: **DD2B040HA2**

Cable Plug: **DD2P040MA1**

Receptacle: **DE1R015ND1**

Cable Harness: **DE1P15T0014719**

Contact JAE for other cable lengths

Female side: **WM1F068N S A**

N: R/A Thru-hole
U: Vertical Thru-hole

Height code:
A: Standard
B: Reversed
D: +0.4mm
E: +5.0mm
F: +1.3mm

Male side: **WM1M068USA**

Receptacle: **DA1R010H91E**
DA1R018H91E
DA1R026L91E

Docking Plug: **DA1B###H91E**

Cable Plug: **DA1P010M94E**
DA1P018M91E
DA1P026M92E

Receptacle: **DG1R025HS5**

Cable Plug: **DG1P025MS1**

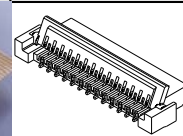
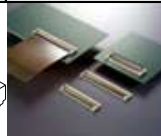
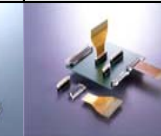
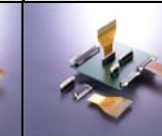
025: 4x Infiniband
073: 10x, 12x Infiniband

For additional options, visit our website

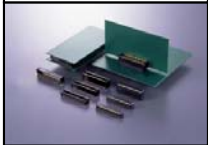
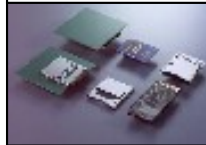
Female side: **WM2F054WPA**

Male side: **WM2M054JPA**

Board-to-Flex Connectors

Series	FF02S	FF02	FB3	FB8	FB6	FF03	FA5B	FA5S	IL-FPR (HF)	IL-FPR (VF)
Photo										
Pitch	0.3mm	0.3mm	0.3mm	0.3mm	0.3mm	0.5mm	0.5mm	0.5mm	0.5 mm	0.5mm
Mounted Height	0.9mm	1.2mm	1.9mm	1.2mm	1.2mm	2mm	1.0mm	1.45mm	2.0mm	3.9mm
FPC/FFC	0.12±.03mm	0.12±.03mm	0.2±.03mm	0.2±.03mm	0.15±.03mm	0.3±.05mm	0.3±.05mm 0.14±.03mm	0.3±.05mm 0.14±.03mm	0.3±.05mm	0.3±.05mm
FPC Orientation	Lower	Lower	Lower	Upper	Lower	Lower	Lower	Lower	Lower U: Upper	N/A
Pin Count	15,17,25,27, 29,31,33,35, 40,45,50, 55,60,65	15,21,25,27, 29,33,35,39, 45,51, 55, 60,70,90	17,21,25, 27,33,35,39, 45,49,51, 57,61,71	17,23,25,29, 31,33,35,39, 41,45,51	15,17,21,25, 27,29,33, 39,45,51, 53,57,59	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	5-14,16, 17,18,20,21, 22,24,26,28, 30-38,40, 45,50	8-14, 16,18,20,21, 22,24,25,26, 27,28,30-34, 36,40,45
Mating	Cam Lock	Cam Lock	LIF	LIF	LIF	Cam Lock	ZIF	ZIF	ZIF	ZIF
Current Rating	0.35A	0.35A	0.35A	0.35A	0.35A	0.5A	0.8A	0.8A	0.5A	0.5A
Voltage Rating	50V	50V	50V	50V	50V	50V	50V	50V	50V	50V
Features	Lowest profile and smallest depth.	70% market small form factor color LCD	Rotating actuator	Actuator on rear end of FB5 for superior retention	Rotating actuator	Highest pin count	Suspended mount for extremely low profile	Easy slider operation	Pull-out slider	Vertical cable orientation



Board-to-Board**Input/Output****Board-to-Cable****Memory Card****Circular****Automotive**

Loose pcs: **FB3S###C11**

Reel: **FB3S###C11R3000**

Loose pcs: **FF02##SS1**

Reel: **FF02##SS1-R3000**

Loose pcs: **FA5S###HP1**

Reel: **FA5S###HP1R3000**

Loose pcs: **FB8S###JA1**

Reel: **FB8S###JA1R2000**

Loose pcs: **FF02S##SV1**

Reel: **FF02S##SV1-R3000**

Loose pcs: **IL-FPR-##S-HF-N1**

Reel: **IL-FPR-##S-HF-N1-R3000**

Loose pcs: **FF03##SA1**

Reel: **FF03##SA1 - R2000**

Loose pcs: **FB6S###JA1**

Reel: **FB6S###JA1R3000**

Loose pcs: **FA5B###HP1**

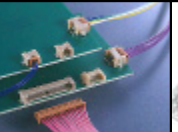
Reel: **FA5B###HP1 R3000**

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

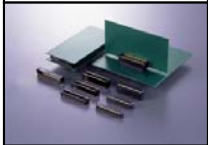
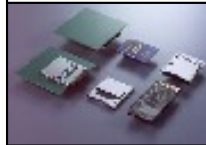
Loose pcs: **IL-FPR-##S-VF-N1**

Reel: **IL-FPR-##S-VF-N1-R1500**

Board-to-Cable Connectors

Series	FI-J	FI-R	FI-X	FI-E	FI-(single row)	FI-(double row)	IL-Z	IL-S	IL-G
Photo									
Pitch	0.4mm	0.5mm	1.0mm	1.0mm	1.25mm	1.25mm	1.25mm	2.0mm	2.5mm
Wire AWG	N/A	#30,32,36	#30,32,36	#30,32,36	#28,30,32	#28,30,32	#28,30,32	#24,26,28	#22,24,26,28
Coax	AWG#42,44	AWG#40,42	AWG#32,40	AWG#40	N/A	N/A	N/A	N/A	N/A
FPC/FFC	N/A	FFC (JF04)	0.14±0.03mm	N/A	N/A	N/A	N/A	N/A	N/A
Pin Count	20,25,30, 35,40	21,31,41,51	30	30	2-6,8,10,15, 20,25,30	5,7,9,11,13, 15,17,19,21, 31,41	2-15	2-15	2-15
R/A Height	1.58mm	3.8mm	1.0mm	3.2mm	1.8mm	3.7mm	3.45mm	4.5mm	6.0mm
Locking	N/A	Latches	Latches	Latches	N/A	N/A	Friction	Friction	Friction
Durability	30 cycles	50 cycles	50 cycles	50 cycles	50 cycles	50 cycles	50 cycles	50 cycles	100 cycles
Current Rating	0.3A	0.8A	1.0A	1.0A	1.0A	1.0A	1.0A	3.0A	3.0A
Voltage Rating	50V	200V	200V	200V	200V	200V	200V	300VAC/ 400VDC	Φ35.9mm
Features	Smallest footprint in 0.4mm market	Only major mfg for 0.5mm LVDS. Vertical avail.	VESA std for 1.0mm LVDS	Only major mfg for 1.0mm LVDS	Single row. Vertical avail.	Dual row 0.625mm Staggered. Vertical avail.	Thru-hole or SMT. Vertical avail.	Thru-hole. Vertical avail.	Thru-hole. Extremely low cost. Vertical avail.



Board-to-Board**Input/Output****Board-to-Flex****Memory Card****Circular****Automotive**

Receptacle: **FI - J##S - VF15N**

Cable Plug: **FI - J##C3**

Plug Shell: **FI - J##C2 - SH - D - 10000**
Only orderable in reels

Receptacle: **FI - E##S**

Cable Plug: **FI - E##C**

H: Discrete wire crimp
HL: Crimp, Lock
C, C2: Fine-wire coaxial

Crimp Contacts: **FI-XC3A-1-15000**

Hand Crimp Tool: **CT150-4C-FIX**

Semi-Auto: **350-FI-2B**

For cable side accessories, visit our website

SMT Receptacle: **IL - Z - ##PL - SMTYE**
T/H Vert Recep: **IL - Z - ##P - S125T3 - E**
T/H R/A Recep: **IL - Z - ##P - S125L3 - E**

Cable Plug: **IL - Z - ##S - S125C3**

Crimp Contacts: **IL - Z-C3-A-15000**
Hand Crimp Tool: **CT150-4C-ILZ**
Semi-Auto: **350-ILZ-2**

Receptacle: **FI - R_ ## S - #F** (HF: R/A, VF: Vertical)

E: EMI shell

Cable Plug: **FI - R_ ## H**

E: EMI shell

L: Locking Latches
H: Discrete wire crimp
C: Fine-wire coaxial

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

Hand Crimp Tool: **CT150-4C-FIR**

Semi-auto: **350-FI-2B**

Single Row

Receptacle: **FI - S##P - HFE**

Cable Plug: **FI - S_ ##S**

E: EMI Shell

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

Dual Row

Receptacle: **FI - W##P - HFE** Right-angle
FI - TWE##P - VF Vertical

B: Positioning Boss

Cable Plug: **FI - W_ ##S**

E: EMI Shell

S: Discrete wire crimp
MA1: FPC/FFC R/A
MVA1: FPC/FFC Vert.

Crimp Contacts: **FI-C3-A1-15000**

Hand Crimp Tool: **CT150-4C-FI**

Semi-Auto: **350-FI-2B**

Vertical Recep: **IL - S - ##P - S2T2 - EF**
R/A Recep: **IL - S - ##P - S2L2 - EF**

Cable Plug: **IL - S - ##S - S2C2-S**

Crimp Contacts: **IL-S-C2-S-10000**
Hand Crimp Tool: **CT150-* -ILS(2: AWG#28-26)**
(4: AWG#26-24)

Semi-Auto: **350-ILS-2**

Receptacle: **FI - X##S - HF - NPB**

L: Lock

Bottom mount

SL: Stronger Lock receptacle also available

Cable Plug: **FI - X##H -**

H: Discrete wire crimp
HL: Crimp, Lock
C, C2: Fine-wire coaxial
C2L: Coaxial, Lock
MA1: FPC/FFC

L: Locking latches

Crimp Contacts: **FI-XC3A-1-15000**

Hand Crimp Tool: **CT150-4C-FIX**

Semi-auto: **350-FI-2B**

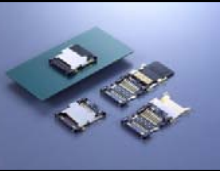
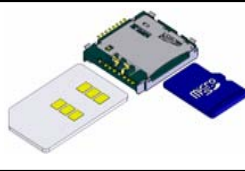
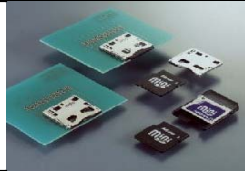
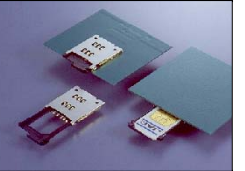
Vertical Recep: **IL - G - ##P - S3T2 - SA**
R/A Recep: **IL - G - ##P - S3L2 - SA**
Cable Plug: **IL - G - ##S - S3C2 - SA**

Crimp Contacts: **IL-G-C2-SC-10000**
Hand Crimp Tool: **CT150-1_ -ILG**

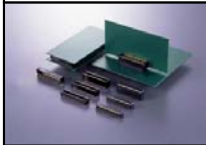
blank: AWG#28-26
B: AWG#26-24
C: AWG#24-22
D: AWG#20

Semi-Auto: **350-ILG-2**

Memory Card Connectors (SIM, SAM, SD, miniSD, microSD)

Series	ST1/2	ST5	ST6	SC1	SG5	SF7	SF9
Photo							
Card	microSD	Combo	microSD	miniSD	SD	SIM/SAM	SIM
Mounted Height	<u>ST1</u> : 1.9mm <u>ST2</u> : 1.75mm	2.8mm	1.65mm	2.35mm	<u>A1</u> : 2.8mm	1.9,2.3,2.5mm	1.8mm
Pin Count	<u>ST1</u> : 8 <u>ST2</u> : 8+2	14+2	8+2	11+2	13	6, 6+2	6
Current Rating	0.5A	0.5A	0.5A	0.5A	0.5A	10 μ A to 1A	10 μ A to 1A
Durability	10000 cycles	10000 cycles	10000 cycles	10000 cycles	10000 cycles	5000 cycles	5000 cycles
Style	<u>1</u> : Hinged <u>2</u> : Push-push	Top: SIM Bottom: microSD	Push-push	Push-push	Push-push	Hinged	Tray type
Features	Half lock to prevent card falling out or over-eject	SIM and microSD combo connector.	Half lock to prevent card falling out or over-eject	Half lock to prevent card falling out or over-eject. Card detect live insert	<u>A1</u> : Std Audible click Card detect Write protect detect	Locked structure. Positioning boss avail.	Standard type of SIM card connector.



Board-to-Board**Input/Output****Board-to-Flex****Board-to-Cable****Circular****Automotive**

MicroSD:
Hinged type

ST1W008S4 A R1500

A: Standard
B: Detect switch

Only orderable in reels

MicroSD:
Push-push type

ST2S008V1AR1500

Only orderable in reels

SIM/ microSD:
Combo

ST5S014V4AR800

Only orderable in reels

microSD:
Push-push type

ST6S008V4AR1500

Only orderable in reels

MiniSD:

SC1S011V1 S 2R500

S: Standard

Only orderable in reels

SD: **SG5S009V1 A1**

A1: Standard

SIM: **SF7W 006 S 1 A**

006: 6 position
008: 6 signal + 2 switch

A: Positioning boss
B: No boss

1: Standard
4: Low profile

SIM: **SF9W006S4AR1200**

Slide type
connector

A: Standard
B: Reverse

Only orderable in reels

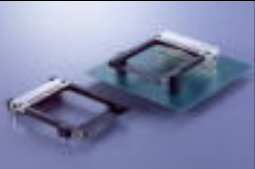
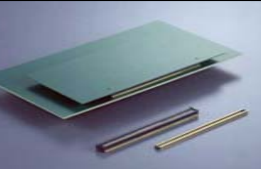
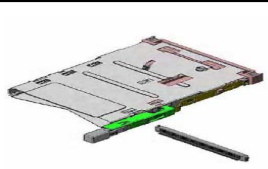
Tray for: **SF9-STS1-A** Standard
SF9 **SF9-STR1-B** Reverse

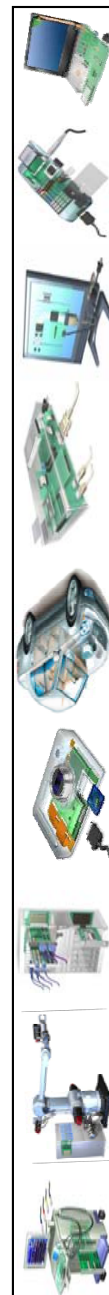
Need both Connector and Tray to use SF9 series

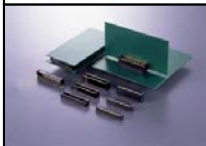


Memory Card Connectors

(CF, CableCard, Express Card, Express Mini Card, PC Card, MicroDIMM)

Series	JC26C2	JC22	PX10/11	WA6	MM60	PX20/22
Photo						
Card	CF	Cable Card	Express Card	MicroDIMM	Express Mini Card	PC/Express Card
Mounted Height	5.8, 7.4mm	5.0, 17.0mm (standoff)	5.7, 5.9, 7.3mm	3.0 mm	3.9, 5.9mm	0, 1, 1.5 mm (standoff)
Pin Count	50	68	26	214	52	PC Card Slot: 68 Express Card Slot: 26
Current Rating	0.5A	0.5A	0.75A	0.3A	1.0A	PC Card: 0.5A Express Card: 0.75A
Durability	10000 cycles	10000 cycles	5000 cycles	25 cycles	50 cycles	PX20:10000/5000 cycles (indoor/outdoor) PX22: 5000 cycles
Style	Ejector		Ejector	Board to board	Module socket	Ejector
Features	Reverse mount avail. Retractable ejector avail.	Cable Card, Type I/II PC Snap-in DIP Mounting	Accepts both 34mm and 54 mm cards	DDR2 JEDEC Standard MO-260B SO-004A	Locked structure. Positioning boss avail.	PC Card and Express Card combo connector and frame.



Board-to-Board**Input/Output****Board-to-Flex****Board-to-Cable****Circular****Automotive****Compact Flash:**

Frame: **JC26C2 - D S R E**

D: Push-push ejector
F: Fixed ejector

S: Standard
R: Reversed

R: Right, flip
L: Left, flip
M: Right, fixed
H: Left, fixed

16: +1.6mm

CableCard: **JC22 - S 5**

5: 5mm standoff
17: 17mm standoff

D: Without shell

DDR2 MicroDIMM:

Female side: **WA6F214VA1T**

Male side: **WA6M214VA1T**

PC/Express Card:

Base : **PX20 B B 2 - E1000**

Base side

B: with Boss
N: without Boss

Embossed tape

2: 0.3 um min. Au plating over Ni

Slot : **PX20 - F S R 15 - H - C 2**

Combo type frame

S: Standard/ R: Reverse

Button position: R=right, L=Left

Standoff Height: 1.5 mm

Plating

Modification code

Nut type:
H,K=with, N=without

Express Card Only:

Slot : **PX22 - S S R 15 K - A 2**

Single type frame

Mounting code S: Standard

Button position: R=right, L=Left

Standoff Height: 1.5 mm

Plating

Modification code

Nut type

ExpressCard:

Base: **PX10 - B S B 00**

10: 54mm card
11: 34mm card

S: Standard
R: Reversed

02: +0.2mm
16: +1.6mm

B: Positioning boss
N: No boss

Frame: **PX10 - F S 00 P H**

P: Bottom plate
N: No plate

H: Nut
N: No nut

Express Mini Card:

Connector : **MM60 - 52 - B 1 - E 1**

No. of contacts

Socket type

Key type

Contact finish

Height modification code

Latch : **MM60 - EZ - H059 - B 5**

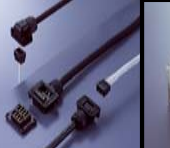
Latch type

Connector height

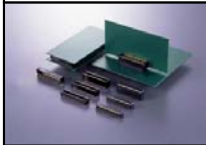
With boss

5: Sn plating

Circular Connectors

Series	JB5	JB1	JN1 & JN2	JN 4	JN 6	SRCN	JL02	JL04V	JL05	N/MS
Photo										
Shell Size	Φ11.0mm (0.43)	Φ18.0mm (0.71)	Φ19.0mm (0.74)	Φ5-55mm (0.20-2.2)	Φ5-55mm (0.20-2.2)	Φ21.2-33.2mm (0.83 – 1.31)	Φ34-62.7mm (1.34 – 2.45)	Φ22.0-56.3mm (0.87-2.22)	Φ36-51.7mm (1.4 – 2.04)	Φ20-77mm (0.79-2.76)
Pin Count	3, 4, 5, 6, 8	3, 5, 10	4, 10, 15	2, 4	2, 4, 7	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	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 16, 17, 19, 22, 24, 26, 35, 37, 48, 54 100
Shell Material	Metal	Metal	JN1 Plastic JN2 Metal	Plastic	Plastic	Metal	Metal	Metal	Metal	Metal
Mated Condition	IP68	IP67	IP67	IP67	IP67	N/A	N/A	IP67	IP67	N/A
Max Amp	2A ~ 3A	3A Max	3A ~ 5A	5A ~ 7A	1A ~ 7A	5.0A / 10.0A	1.5A ~ 13A	13A ~ 80A	5A ~ 46A	13A ~ 150A
Rated Voltage	200VAC	300VAC	200VAC	200VAC	100VAC/ 200VAC	250VAC / 350VDC	200VAC ~ 500VAC	100VAC ~ 500VAC	250VAC ~ 900VAC	200VAC ~ 3000VAC
Durability	5000 cycles	500 cycles	500 cycles	100 cycles	100 cycles	500 cycles	500 cycles	500 cycles	500 cycles	500 cycles
Lock	Push-pull	Threaded	Push-and-twist	Screws	Screws	Screw	Threaded	Threaded	Bayonet	Threaded
Operating Temp	-55° ~ +85° C	-30° ~ +85° C	-20° ~ +125° C	-20° ~ +130° C	-40° ~ +125° C	-25° ~ +85° C	-55° ~ +85° C	-55° ~ +125° C	-55° ~ +125° C	-55° ~ +125° C
Wire Size	AWG #22 - 28	AWG #22 - 28	AWG #20-28	AWG #18-22	AWG #18-28	AWG #16 & 20	AWG #14 - 28	AWG #4 - 16	AWG #8 - 26	AWG #8 - 26
Termination	Solder	Crimp	Crimp / Solder	Crimp / Thru Hole	Crimp / Thru Hole	Solder	Crimp	Solder	Crimp / Solder	Solder
Benefits	Mated Water proof	Mated Water proof	Mated Water proof	Mated Water proof	Mated Water proof	Robust Locking System	Robust Locking System	“E” Water Proof Unmated	Mated Water proof	5015 Intermitable UL Approved
Features	Small Size Color boots	EMI Shielding	One-touch Locking Mechanism	Great Connector for Servo Motors	Great Connector for Servo Motors	5 Keying Options	5015 Intermitable	TUV/UL Approved	5 keying options	RoHS compliant Non Environmental Class A & B Only



Board-to-Board**Input/Output****Board-to-Flex****Board-to-Cable****Memory Card****Automotive****JN4 * T ** * J 1 - R**

A - Square flange receptacle
F - Angle plug
Shell size
No. of contacts
Special code
Mod. code
Contact size
J- Size #18
N-Angle through hole pin size#18
P-Crimp pin
S-Crimp socket

JB5 * * - ** * * * N

C - Jam Nut Female
D - Straight Male
S or W (25) = Shell Size
Contacts = 3,4,5,6,8
A - Thru Hole
F - Solder Cup Socket
M - Solder Cup Pin
Cable Dia 0, 1
Boot Color 0-4
Contacts
L - Size 22
M - Size 24
N - Size 26

JL02 * * - ** * *

1B- Cable Connecting Plug
2A - Panel Mounting Receptacle
6B - Straight Plug
8B - Right Angle Plug
Shell Size 18,20,22,24,28,32,36
Crimp
P - Pin
S - Socket
Insertion Arrangement

SCRN * A ** - ** **

1 - Cable Plug
2 - Panel Female
6 - Plug Straight
Class A
Shell Size 13, 16, 21, 25
P - Pin
S - Socket
Contacts 3, 5, 7, 10, 16, 24

JL05 ** - 24 10 * C * *

6A - Straight Male
2A - Box Mount Female
2L - H2O Proof
2A - H2O Proof Mated
Shell Size
Contact Arrangement
P - Pin Contact
S - Socket Contact
Color
Insert
Crimp

JB1 * B - ** * L *

C - Jam Nut Female
D - Straight Male
H - Cable Type Receptacle
Contacts - 3, 5 10
P - Pin
S - Socket
1 - Receptacle
2 - Plug, Anti Oil
5 - Weatherproof

JL04 * E - ** * * E B - **

2 - Female
6 - Male
8 - Male, 90°
Shell Size 10SL, 14S, 18-24, 28, 32
EB - End Bell
Blank - Without EB
P - Pin
S - Socket
Contact Config.

N/MS 310* * * ** - *

3100 - 3102,
3106, 3108
A - Integrated Shell
B - Separate Shell
Shell Size
Insertion Arrangement
P - Pin Contact
S - Socket Contact
Insertion Rotation Angle

JN1/2 *S - ** * * *

Connector Type
Contacts 4, 10, 15
Contact Type
K - #20 Contact
L - #22 Contact
Cable Diameter - 1 or 2
Hand Crimp Tools
CT150-2-JN1-D
CT150-2-JN1-E
CT150-2-JN1-B
Crimp Contacts Sold Separately

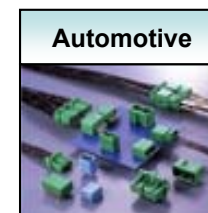
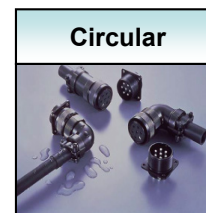
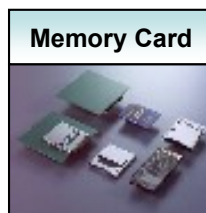
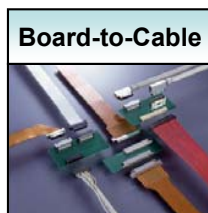
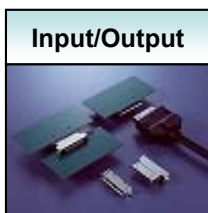
JN6 * * - ** * *

A - Receptacle w/ Flange
C - Receptacle w/o Flange
F - Plug, 90°
Shell Size
S - 10 to 55mm
R - 5 to 10mm
J - Contact #18
M - Contact #24
N - 90° Thru Hole
P - Crimp Pin
S - Crimp Socket
Contacts - 2, 4, 7

Transportation



Series	IL-AG5	MX19	MX23A	MX34	MX36	MX37	MX41	MX5	MX39/MX45	MX44
Photo										
Pitch	2.5 mm	2.5 mm	2.5 mm	2.2 mm	2.5 mm	2.5 mm	2.54 mm	Signal: 3.0 mm Power: 3.5 mm	2.2 mm	2.2 mm
Wire AWG	AWG #22-20, 18 AV, AVS, AVSS: 0.3 to 0.5 mm ² AVS, AVSS: 0.85 mm ²	AWG #22-20 CAVS: 0.3 to 0.5 mm ² AVSS: 0.5 mm ²	AWG #22-16 AVSS, AVS: 0.5 to 1.25 mm ²	AWG #22-20 AVSS: 0.3, 0.5 mm ² CHFUS: 0.22 to 0.35 mm ² , 0.5 to 0.75 mm ² CAN SD: 0.35 mm ²	AWG #20 AVSS 0.5, AVSSC 0.5f AVSSX 0.5f TVSSX 0.5f	AWG #20 AVSS 0.5, AVSSC 0.5f AVSSX 0.5f TVSSX 0.5f	AWG #22-20, #19-17 ESB-MIL123-A WSK 1A 348-A2 S97GG14401AA	Signal: AWG #24-18 Power: AWG #22-16, #14 Signal AVS, AVSS, AVX: 0.2 to 0.85 mm ² Power AVS, AVSS, AVX: 0.3 to 2 mm ² (2 mm for AVSS only)	Twin Ax 28 AWG	AWG #22-20 AVSS 0.3 to 0.5 mm ²
Pin Count	1 row: 4, 5, 6, 7, 10 2 rows: 14, 16, 18, 22, 30	2, 4	12, 18, 26, 34	12, 16, 20, 24, 28, 32, 36, 40	2, 4	4	22	Pin: 26, 34, 42, 48, 54, 64, 76 Socket: 12, 16, 22, 26	4	2, 4, 6
Current Rating	3 A	5 A	3 A	3 A	3 A	3 A	7-14 A	Signal: 4 A Power: 8 A	500 mA	3A
Applicable PCB Thickness	1.6 to 2.4 mm	N/A	1.6 mm	1.6 mm	N/A	N/A	N/A	1.6 mm	1.6 mm	1.6 mm
Operating Temperature	-40 ~ 85 °C	-40 ~ 85 °C	-40 ~ 125 °C	-40 ~ 85 °C	-40 ~ 105 °C	-40 ~ 105 °C	-40 ~ 105 °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	Cable to Cable	Cable to Cable	Cable to Cable	Board 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.	Spray proof. 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.	Lightweight. Mating and unmating force less than 80N. Closed box socket contact increases mechanical strength. Preset retainer allows easy wire harness assembly.	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.	USCAR-2 compliant. Highly reliable. Mechanical Complete mating method. Retainer detects incomplete insertion of socket contact.	Mechanical lock system with audible click. Socket side contact designed with secondary lock. Simplified crimp type termination.	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.



Socket Housing: **IL-AG5-#S- S3C1**

Pin housing: **IL-AG5-#P- S3C1**

Pin header: **IL-AG5-#P- S3L2**

S: single row
D: double row

L: right angle
T: straight

Contacts: IL-AG5-C1-5000 (socket)
IL-AG5-PC1-5000 (pin)

Hand tool: CT150-1-AG5
Semi auto: 350-AG5-2
Automatic: 350-AG5-3B

Socket housing: **MX1900#S51**

Pin housing: **MX1900#P51**

1: Black
2: Gray

Contacts: MX19S10K451 (socket)
MX19P10K451 (pin)

Semi auto: 350-MX19-2
Automatic: 350-MX19-3B

Socket housing: **MX23A##SF1**

Pin header: **MX23A##NF1**

Front cap: **MX23A##XF1**

1: Standard
2: Reverse

Contacts: M23S05K351

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

Socket housing: **MX41022SF4**

Pin housing: **MX41022PF4**

Contacts: M41S05K1F2 (socket)
M41P05K1F2 (pin)

Semi auto: 350-MX41-2

Socket housing: **MX340##SF1**

Pin header: **MX340##UF1**

U: Straight
N: Angled

1: 12-24 pos
2: 28-40 pos

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

Memory Card

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**

Pin housing: **MX37004PP3**

	Socket	Pin
Contacts:	M37S07K4P3	M37P75C4P3
Semi Auto:	350-MX37S-2	350-MX37P-2
Automatic:	350-MX37S-3B	350-MX37S-3B

Socket housing: **MX44***SF1**

Pin housing: **MX44***NF1**

Retainer: **MX44***XR1**

Contacts: M44S05K4F1
Hand Tool: CT150-2-MX44
Semi Auto: 3502-MX44-2

Board Mounting Receptacle: **MX39004NQ1**

USB Harness: **MX45004S0008397 (150mm)**

Socket housing: **MX5- ## S-C-G**

12, 16, 22,
26 pos

Pin housing: **MX5-##P-L-GE- C#**

G, GE: green
LB: light blue

10= 26 pos, 7= 34 pos
6= 42 pos, 5= 48 pos
4= 64 pos, 3= 76 pos

Contacts	Wire (AWG)	Hand Tool	Semi Auto	Automatic
MX5-SG-C1-5000	#20-18	N/A	350-MX52-2	350-MX52-3B
MX5-B-SG-C2-5000	#24-20	CT160-3-MX52	350-MX52-2	N/A
MX5-PW-C0-4000	#16, #14 (only AVSS)	N/A	N/A	350-MX51-3B
MX5-B-PW-C1-4000	#20-16	CT160-3-MX51	350-MX51-2	N/A
MX5-B-PW-C2-4000	#22-20	N/A	350-MX51-2	350-MX51-3B