

Archer .8 and Archer .5 Fine Pitch Board-to-Board Connectors

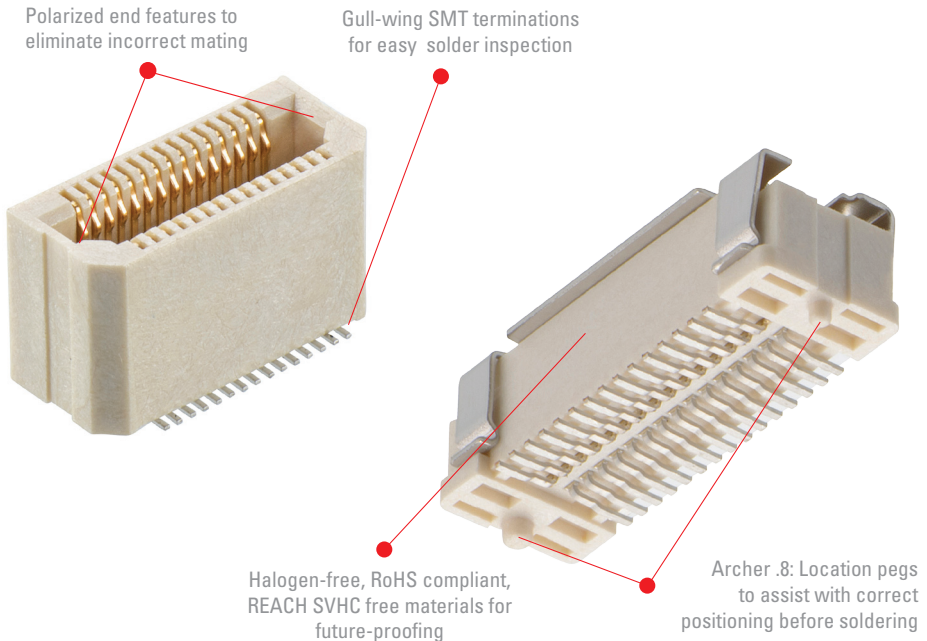
Miniature PCB connectors for industrial and embedded computing

With Archer .8 and Archer .5, you can achieve a compact, capable industrial-grade connection with a high pin count. Designed for mezzanine daughterboard to motherboard layouts.

Capable of 0.5A per contact at just 0.8mm or 0.5mm pitch, with a total number of contacts up to 120. Protected contacts with polarized end features ensure confidence in mating and connection protection.

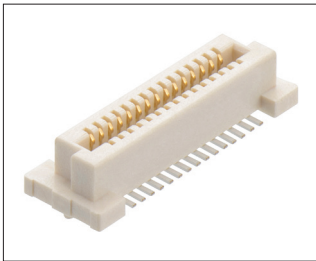
Supplied ready for high volume automation in Tape & Reel packaging. Stocked and ready for your production needs.

Product Features

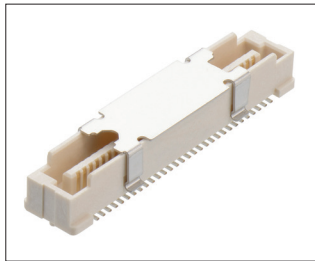


Features and Benefits

Compact 0.8mm pitch for Archer .8, 0.5mm pitch for Archer .5	Minimal board real estate used
Up to 120 contacts	High level of connections in one device
High Speed Connectivity	Suitable for signal & data transfer in industrial applications
Polarized with recessed or shrouded contacts	Eliminate mis-mating and accidental damage to contacts
Different size location pegs (Archer .8)	Ensure correct orientation on the PCB and no movement during soldering
Surface mount terminations, tape and reel packaging	Ideal for high volume automated assembly
5mm mating height for Archer .8, 8mm for Archer .5	Low-profile board-to-board connections, great for mezzanine to motherboard applications



30 contact (15+15) female Archer .8



60 contact (30+30) male Archer .8 with pick and place cap assembled



100 contact (50+50) female Archer .5

Key Applications

Industrial	Embedded computing, Control and Monitoring systems, Sensor modules, IOT connection equipment
Test and Measurement	Smart meters, Mobile monitoring devices, Laboratory measurement systems
E-Vehicles	Battery management units, intelligent control systems, Camera and Lidar units
Retail	Point-of-sale equipment, warehouse inventory systems, POS terminals
Consumer Electronics	Home appliances, Building automation
Fire and Security	Monitoring and detection equipment

Specifications

Electrical/Signal Integrity	Archer .8	Archer .5
Current Rating	0.5A max per contact	0.5A max per contact
Voltage Rating	100V AC/DC	100V AC/DC
Maximum Voltage	500V AC/DC for 1 minute	150V AC for 1 minute
Data Rate	12GHz, 24Gb/s	8GHz, 16Gb/s
Impedance Range	84 to 100Ω @ 50ps edge (10-90%) 77 to 92Ω @ 35ps edge (10-90%)	73.5 to 99.3Ω @ 35ps edge (10-90%)
Return Loss	-10dB up to 15GHz	-15dB at 8GHz
Insertion Loss	-1.5dB up to 16GHz	-1.2dB at 8GHz
Crosstalk	NEXT: -20dB up to 20GHz FEXT: -25dB up to 20GHz	NEXT: -35dB up to 12GHz
Mechanical/Physical	Archer .8	Archer .5
No. of operations	30 cycles	30 cycles
Vibration	10-55-10Hz, 1.5mm, 6 hours total	10-55-10Hz, 1.5mm, 6 hours total
Shock	50G, 18 shocks total	50G, 18 shocks total
Temp Range	-40°C to +125°C	-55°C to +85°C
Housing	Halogen-Free Thermoplastic UL94V-0	Halogen-Free Thermoplastic UL94V-0
Contact Material	Phosphor Bronze	Phosphor Bronze
Contact Finish	Gold contact area, tin terminations	Gold contact area, tin terminations
Packaging	Tape & Reel with Pick & Place	Tape & Reel

How To Order

Archer .8

M58 – **X80** **XX** **42** **R**

SERIES CODE

TYPE

280	Female
380	Male

TOTAL NO. OF CONTACTS

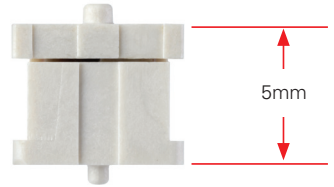
03	30 (15+15)
04	40 (20+20)
06	60 (30+30)
08	80 (40+40)
10	100 (50+50)
12	120 (60+60)

PACKAGING

R	Tape and Reeled (with Pick & Place)
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FINISH

42	Gold + Tin
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Archer .5

M58 – **X50** **XX** **42** **R**

SERIES CODE

TYPE

250	Female
350	Male

TOTAL NO. OF CONTACTS

03	30 (15+15)
04	40 (20+20)
08	80 (40+40)
10	100 (50+50)

PACKAGING

R	Tape and Reeled
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FINISH

42	Gold + Tin
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Harwin Europe
Portsmouth, UK

Harwin Americas
Salem, New Hampshire, USA

Harwin Asia
Singapore