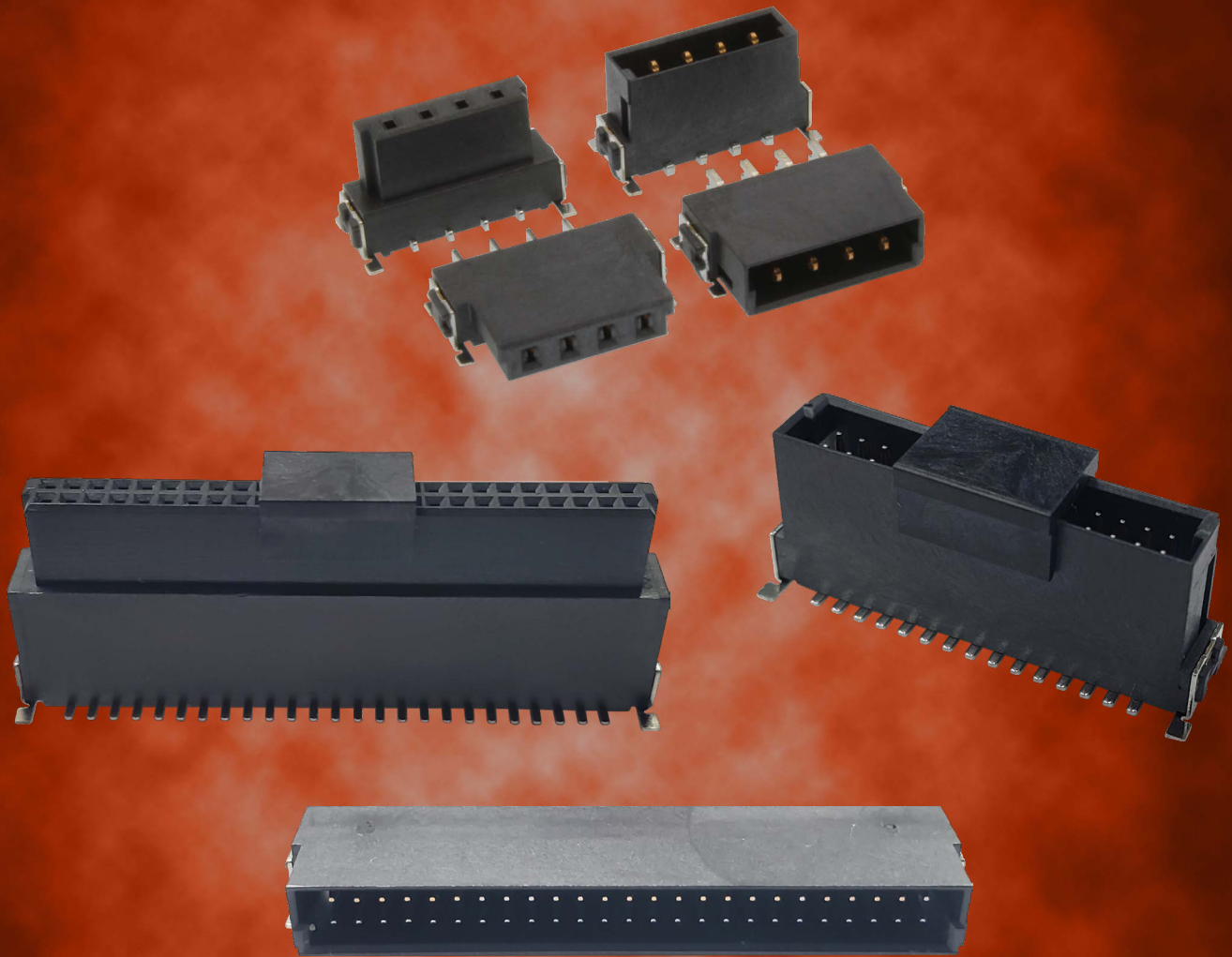


ADAME TECH



ESMC BOARD-TO-BOARD
POWER AND SIGNAL CONNECTORS

ESMC Board-to-Board Power Connectors

Adam Tech's ESMC Power Series delivers dependable, high-power board-to-board connectivity in a compact 2.54mm pitch design, engineered for demanding power applications. This stacking and coplanar connector family is available in 2 to 12 positions, with each precision-formed contact supporting up to 24A for stable, high-current transmission. Featuring selective gold plating and a robust terminal structure, the ESMC Power Series ensures excellent conductivity, mechanical strength, and long-term reliability. Flexible parallel, perpendicular, and side-by-side PCB configurations, along with vertical or right angle orientations and SMT or DIP mounting options, simplify layout and integration while supporting efficient automated assembly through plug and socket options, pick-and-place caps, and tape-and-reel packaging.

FEATURES:

- Supports high current transmission up to 24A per pin
- Robust terminal structure ensures mechanical strength and stable conductivity
- Board-to-board connections
- .100" [2.54mm] pitch
- 2-12 positions
- Parallel, perpendicular, and side-by-side PCB connection arrangements
- High-reliability, precision-formed contact design
- High temperature thermoplastic insulator
- Operating temperature: -55°C to +125°C
- UL certified
- RoHS compliant

APPLICATIONS:

- Computers
- Telecommunications
- Industrial control systems
- Medical devices
- Automotive
- Power supplier
- Embedded systems

SPECIFICATIONS:

Material:

Insulator: High temp thermoplastic, rated UL 94V-0

Insulator color: Black

Contacts: Copper alloy

Plating:

Gold flash over nickel underplate on contact area

Tin over nickel underplate on solder tails

Electrical:

Current rating: 24 A max (single contact)

Contact resistance: 10 mΩ max

Insulation resistance: 10,000 MΩ min

Withstanding voltage: 1390 VAC for 1 minute

Temperature Rating:

Operating temperature: -55°C to +125°C

Environmental:

Lead free, RoHS compliant



Robotic



Automotives/
Charger



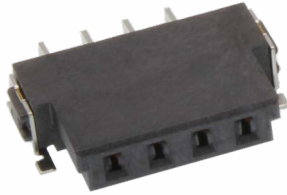
Industrial
Driver

Actuator/Sensor
Control Unit



ESMC11-XX-20D1

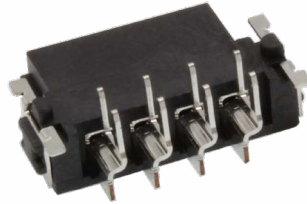
Right Angle Socket
Surface Mount



[View Datasheet](#)

ESMC11D-XX-20F1

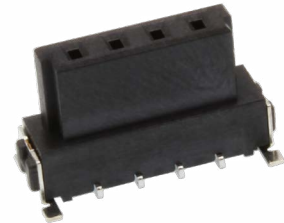
Right Angle Socket
DIP



[View Datasheet](#)

ESMC12-XX-20A2

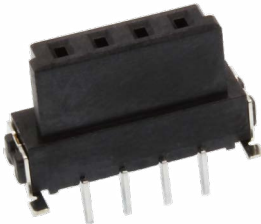
Vertical Socket
Surface Mount
Pick and Place Cap



[View Datasheet](#)

ESMC12D-XX-20C2

Vertical Socket
DIP
Pick and Place Cap



[View Datasheet](#)

ESMC13-XX-20D1

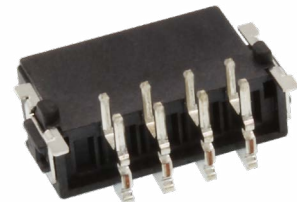
Right Angle Plug
Surface Mount



[View Datasheet](#)

ESMC13D-XX-20F1

Right Angle Plug
DIP



[View Datasheet](#)

ESMC14-XX-20A2

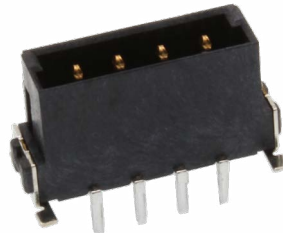
Vertical Plug
Surface Mount
Pick and Place Cap



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ESMC14D-XX-20C2

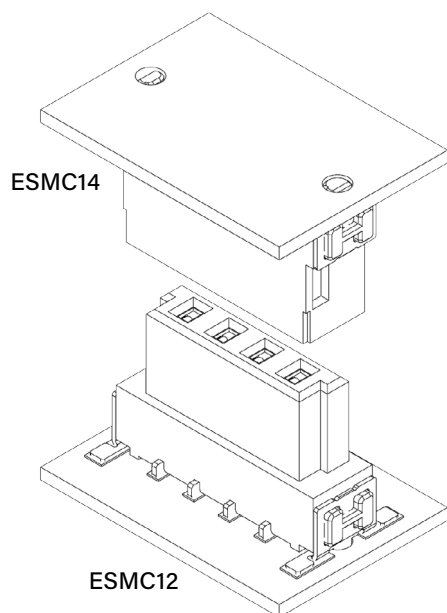
Vertical Plug
DIP
Pick and Place Cap



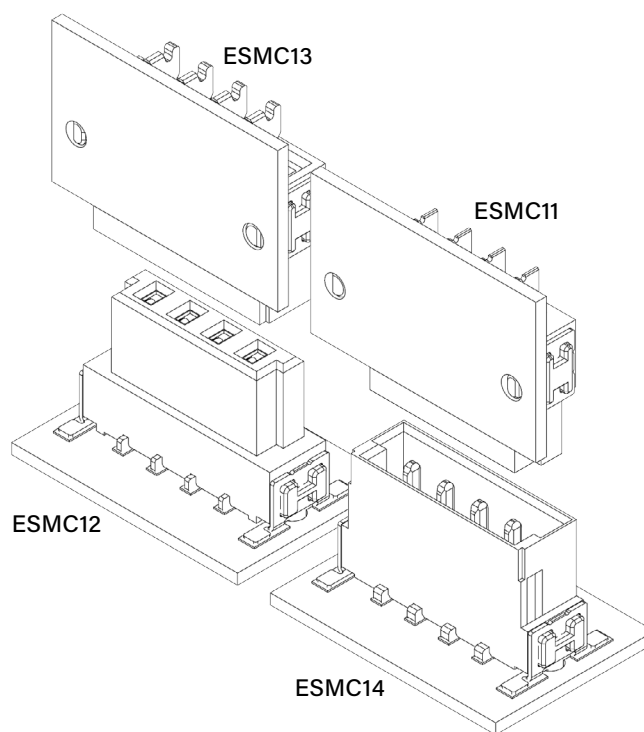
[View Datasheet](#)

ESMC Power Board-to-Board Connections

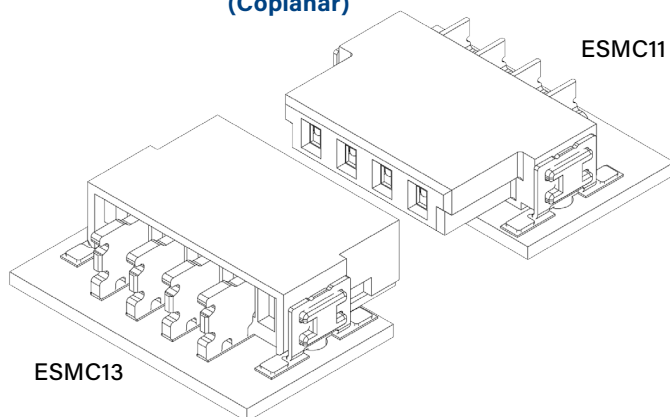
**Stacked Boards
(Mezzanine)**



Orthogonal Boards



**Extender Card
(Coplanar)**



ESMC Board-to-Board Signal Connectors



Adam Tech's ESMC Signal Series provides dependable, high-performance PCB connectivity in a compact 1.27mm pitch design, engineered for space-constrained applications. This stacking and coplanar connector family supports parallel, perpendicular, and side-by-side board configurations and is available in both vertical and right angle mounting orientations. Vertical options are offered in low, mid, and high profiles to accommodate a wide range of design requirements, with secure mating and connection distances ranging from 0.315" (8.0mm) to 0.728" (18.5mm). In addition to standard board-to-board solutions, this product line includes press-fit connectors, cable assemblies, and custom solutions to support specialized applications. Designed for reliability and flexibility, the ESMC Signal Series delivers consistent performance across consumer electronics, industrial equipment, and medical devices.

SPECIFICATIONS:

Material:

Insulator: High temp thermoplastic, rated UL 94V-0
 Insulator color: Black
 Contacts: Phosphor bronze or high conductivity copper
 Board lock: Brass, tin plated
 Plating:
 Gold flash over nickel underplate on contact area
 Tin over nickel underplate on solder tails

APPLICATIONS:

- Computers
- Telecommunications
- Industrial control systems
- Medical devices
- Automotive

FEATURES AND BENEFITS:

- .050" [1.27mm] pitch
- 2-80 positions
- Surface mount, IDC, and press-fit mounting
- Parallel, perpendicular, and side-by-side PCB connection arrangements
- PCB connection distances: .315" [8.0mm] to .728" [18.5mm]
- Cable assemblies with various pin count, cable length, configuration, and material options
- High reliability precision formed contact design
- Angular inclination tolerance (longitudinal: 3.9°, transverse: 2.6°)
- High temperature thermoplastic insulator
- Operating temperature: -55°C to +125°C
- RoHS compliant



Frequency Converter

Modular IO



Electrical:

Current rating: 1.2 to 8 A max
 Contact resistance: 25 mΩ max
 Insulation resistance: 1000 MΩ min
 Withstanding voltage: 500 VAC for 1 minute

Temperature Rating:

Operating temperature: -55°C to +125°C

Environmental:

Lead free, RoHS compliant

ESMC-M2-XX-SGS-PF

Vertical Plug
Press-Fit Type



[View Datasheet](#)

ESMC-M-XX-SGR-SMT

Right Angle Plug
Surface Mount



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ESMC-F-XX-SGR-SMT

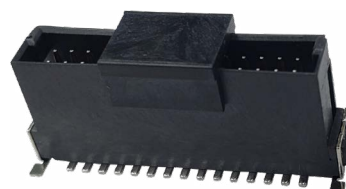
Right Angle Socket
Surface Mount



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ESMC-M-XX-SGS-SMT-X-PP

Vertical Plug
Low, Mid, and High Profile Options
Pick & Place Cap
Surface Mount



[View Datasheet](#)

ESMC-F-XX-SGS-SMT-X-PP

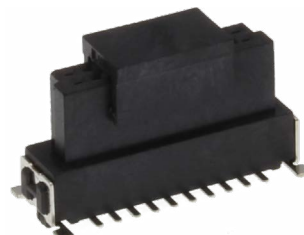
Vertical Socket
Low, Mid, and High Profile Options
Pick & Place Cap
Surface Mount



[View Datasheet](#)

ESMC-F-XX-SGS-SMT-X-5-PP-TR

Vertical Socket
Low, Mid, and High Profile Options
Pick & Place Cap
Surface Mount



[View Datasheet](#)

ESMC-1-M-XX-SGR-SMT-TR

Right Angle Plug
Surface Mount
Lock Window



[View Datasheet](#)

ESMC-1-F2-XX-SGR-10.00-SMT-L-TR

Right Angle Socket
Surface Mount
Latch



[View Datasheet](#)

ESMC-F-XX-SGS-14.10-IDC-L

Vertical Socket
IDC Type
Latch



[View Datasheet](#)

CA-ESMC-F-F-XX-X-XXXX-X-C1

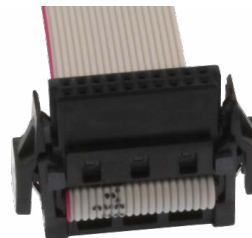
Cable Assembly (Various Lengths)
Vertical IDC Sockets
PVC or TPE Material
Latch



[View Datasheet](#)

CA-ESMC1-F-F-20-XXXX-C1A

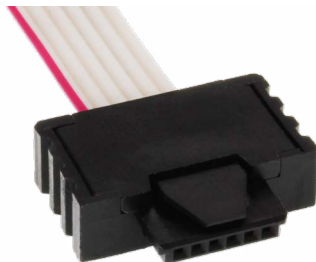
Cable Assembly (Various Lengths)
Vertical IDC Sockets
20 Position
Latch



[View Datasheet](#)

CA-ESMC1-F-F-XX-XXXX-C1

Cable Assembly (Various Lengths)
Vertical Solder Sockets
Latch



[View Datasheet](#)

CA-ESMC1-M-M-XX-XXXX-C1

Cable Assembly (Various Lengths)
Vertical Solder Plugs
Lock Window



[View Datasheet](#)



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inquiry form.

adam-tech.com

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