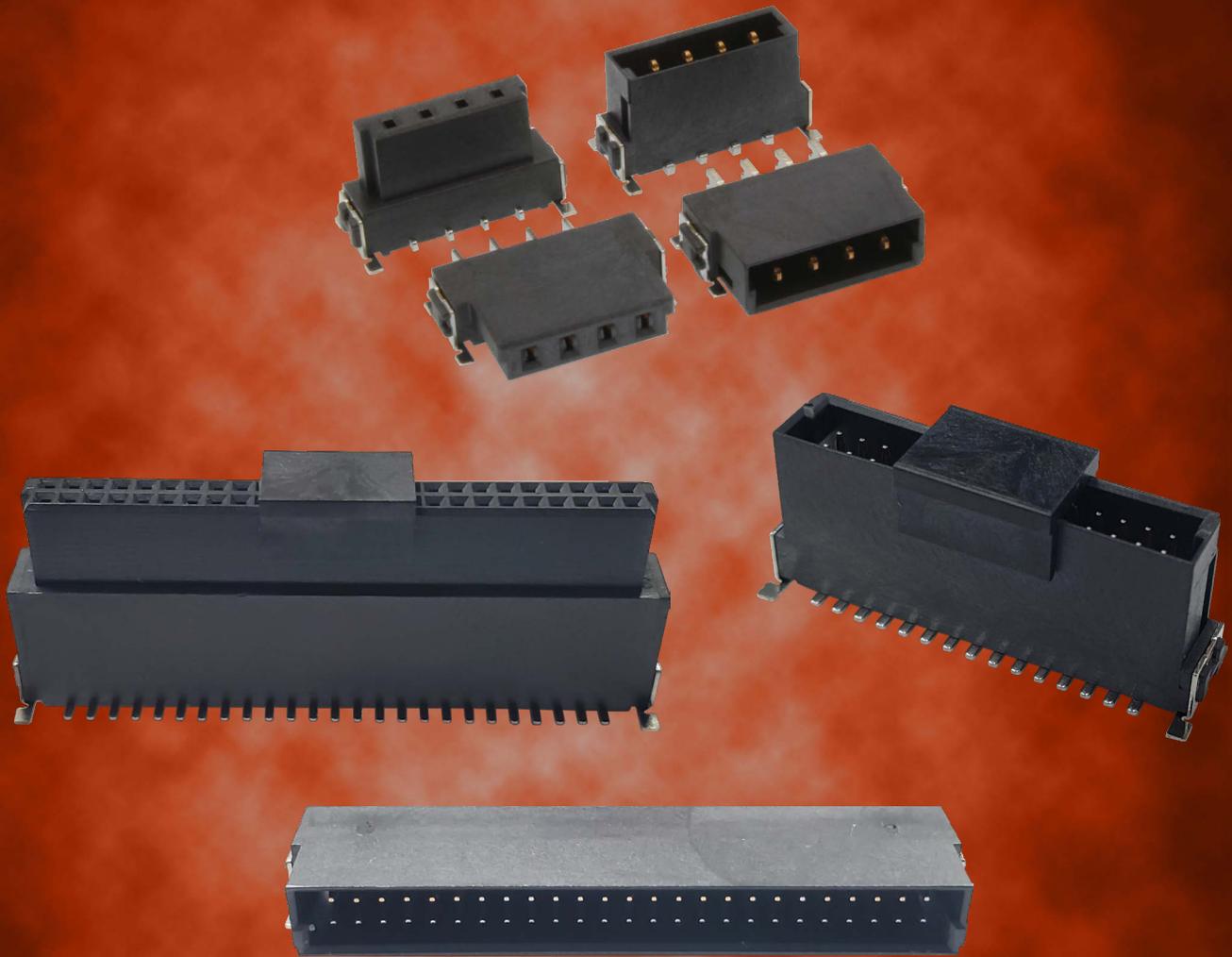


# ADAME TECH



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 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

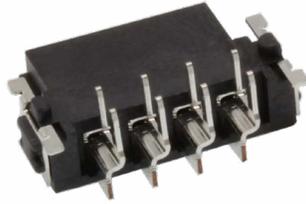
Right Angle Socket  
Surface Mount



[View Datasheet](#)

## ESMC11D-XX-20F1

Right Angle Socket  
DIP



[View Datasheet](#)

## ESMC12-XX-20A2

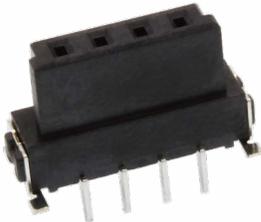
Vertical Socket  
Surface Mount  
Pick and Place Cap



[View Datasheet](#)

## ESMC12D-XX-20C2

Vertical Socket  
DIP  
Pick and Place Cap



[View Datasheet](#)

## ESMC13-XX-20D1

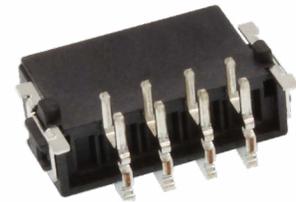
Right Angle Plug  
Surface Mount



[View Datasheet](#)

## ESMC13D-XX-20F1

Right Angle Plug  
DIP



[View Datasheet](#)

## ESMC14-XX-20A2

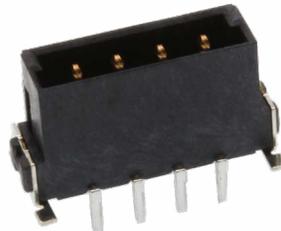
Vertical Plug  
Surface Mount  
Pick and Place Cap



[View Datasheet](#)

## ESMC14D-XX-20C2

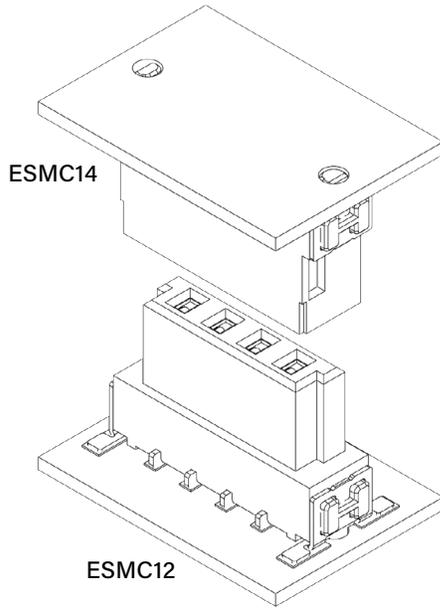
Vertical Plug  
DIP  
Pick and Place Cap



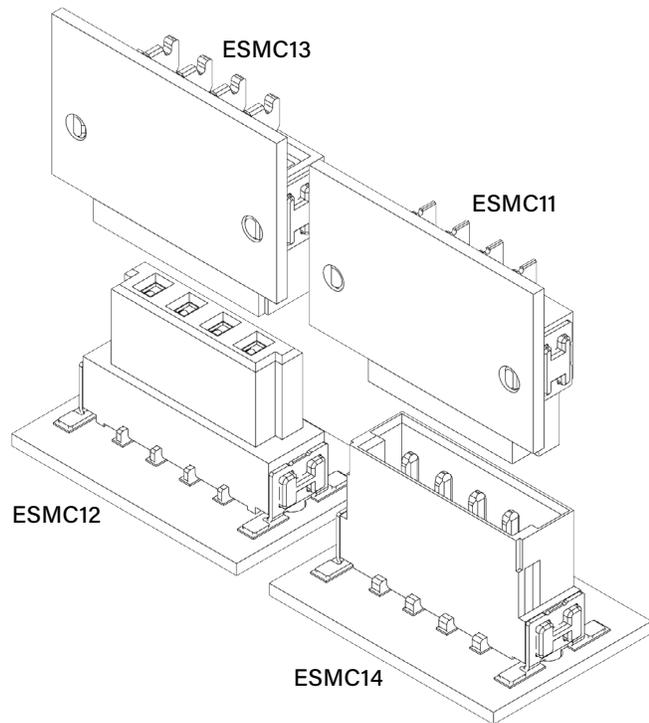
[View Datasheet](#)

# ESMC Power Board-to-Board Connections

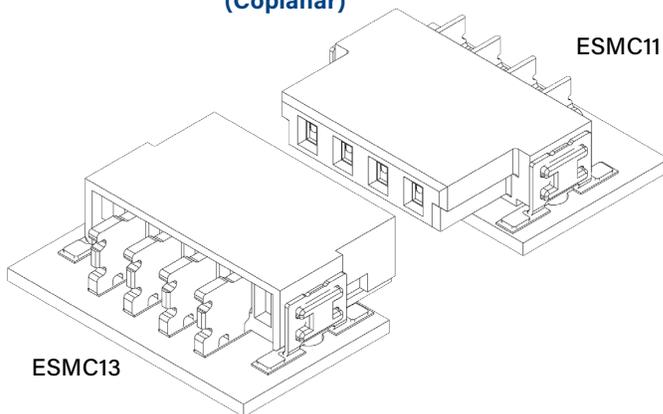
**Stacked Boards  
(Mezzanine)**



**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 cable assemblies and custom connector options 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
- 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

### 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-M-XX-SGR-SMT

Right Angle Plug



[View Datasheet](#)

## ESMC-F-XX-SGR-SMT

Right Angle Socket



[View Datasheet](#)

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

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



[View Datasheet](#)

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

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



[View Datasheet](#)

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

Right Angle Plug



[View Datasheet](#)

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

Right Angle Socket  
Latch



[View Datasheet](#)

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

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



[View Datasheet](#)

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

Vertical Socket  
Latch  
IDC Type



[View Datasheet](#)

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

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



[View Datasheet](#)



To contact us, scan the QR code to reach our website inquiry form.

[adam-tech.com](https://adam-tech.com)

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