

Voltage Regulation Module (VRM) Connectors

Product Facts

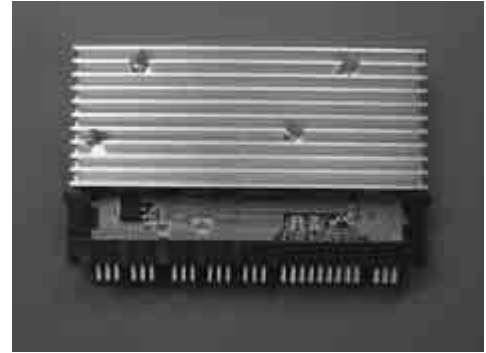
- Available in latch versions for VRMs up to 3 oz.
- Available with metal clip for VRMs over 3 oz.
- VRM connectors to support a wide variety of power supply standards
- Solder tail, press-fit and right-angle versions to support specific customer needs
- Up to 5.5 Amps per contact in typical VRM applications
- New materials are 94 V-0 rated with max. operating temperature of 125°C — VRM 10.x Series
- Keying prevents plugging the wrong VRM into the connector

Materials

Housing — PBT thermoplastic
Contact — High conductivity copper alloy

Technical Documents

Product Specification
 108-9039-1 & -2
Qualification Test Report
 501-227-1 & -2



The new Voltage Regulation Module (VRM) family of connectors is designed to meet the needs of many existing and new power supply standards being developed. They are dual row card edge style connectors that are well known in the computer market. Currently the connectors are designed to carry up to 150 amps of DC power — that's 300 amps total running through the connector. The connector is PCB mounted and there are versions available in press-fit or right-angle. The connectors have card retention either in

the form of a latch or a metal retention clip which is added after the VRM is in place.

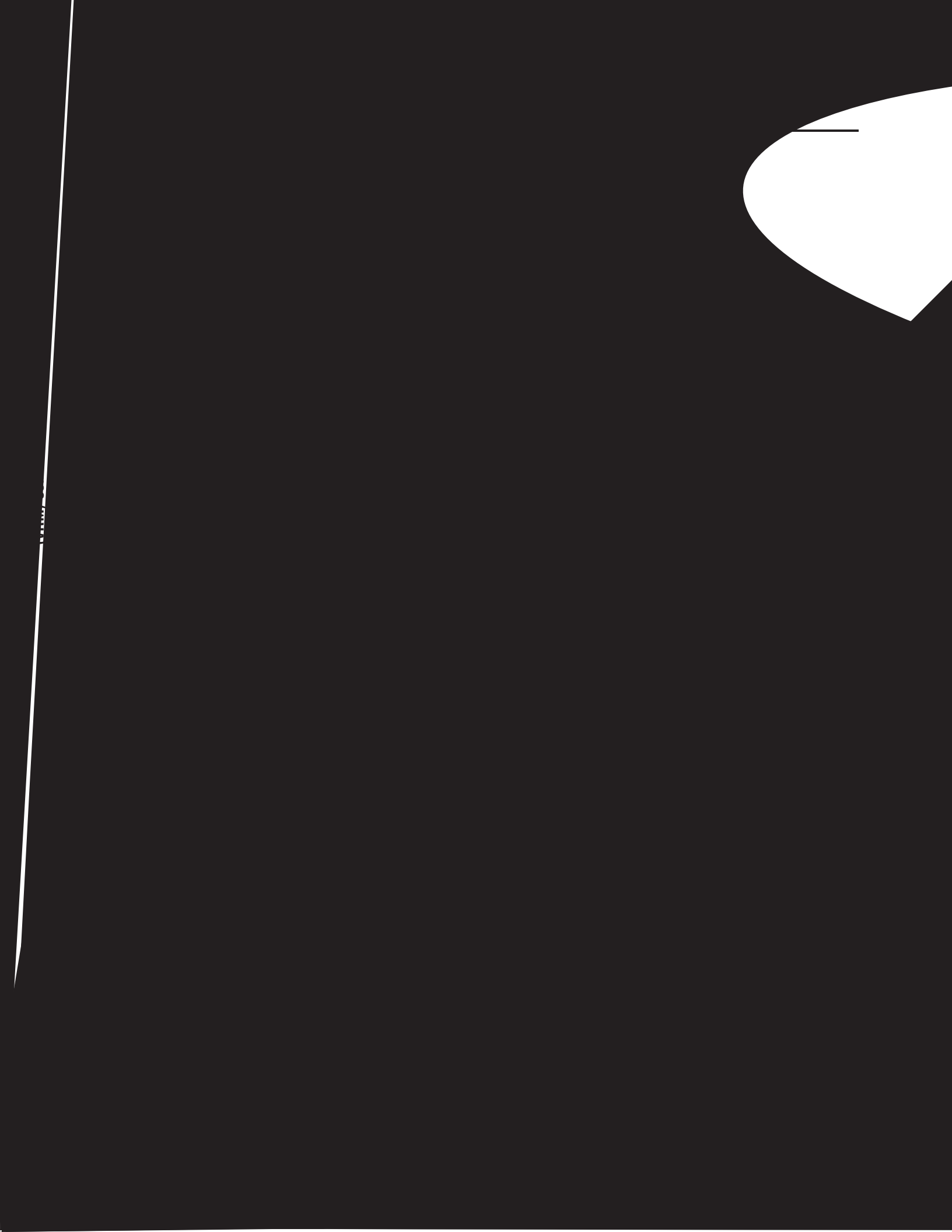
Industry Applications

The VRM connector is controlled by various power supply standards. Current ones are EPS-1U, AD2D-VID, AD2D, VRM 8.5, VRM 9.0, VRM 9.1, VRM 10.0 and VRM 10.1. Many applications with a need to transmit high power from board to board can benefit from this connector and additional customer specific applications are developing.

VRM Selection Chart

	VRM 8.5	VRM 9.0	VRM 9.1	VRM 10.0	VRM 10.1	VRM 10.2
Solder	6489165-1	6489930-2	6489930-2	1651826-1	—	—
Press-Fit	6489651-1	—	—	1766436-1	—	—
Surface-Mount	—	—	—	1766336-1	1766735-2	1761347-2

All part numbers are RoHS compliant.



Mini CROWN EDGE Connector

Dimensions

MINI CROWN EDGE

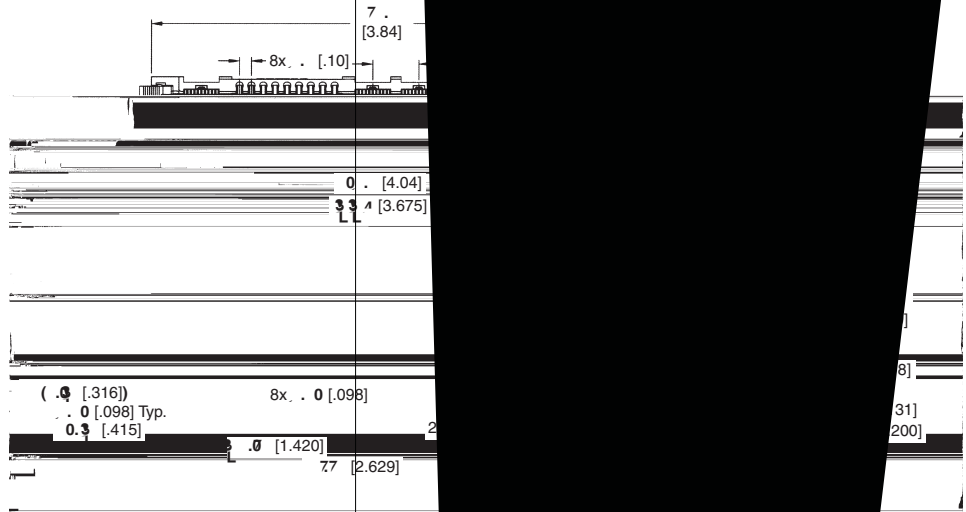
connectors are available in various configurations designed for diverse application environments. For other connector configurations, please refer to the Mini CROWN EDGE connector configurations, or check our website at www.tycoelectronics.com or contact Tyco Electronics.

Configuration: P2/S18/P10

Meets Intel VRM 10.2 specifications
 Power contacts x 12
 Signal contacts x 18
 Mating board thickness 0.062"

Reference Part Numbers:

- Solder tail, 4.5 mm (0.18")
Part Number 1651826-1
- Solder tail, 3.0 mm (0.12")
Part Number 1651929-1
- Surface-Mount
Part Number 1766336-1
- Compliant Press-fit 3.8 mm (0.15")
Part Number 1766436-1

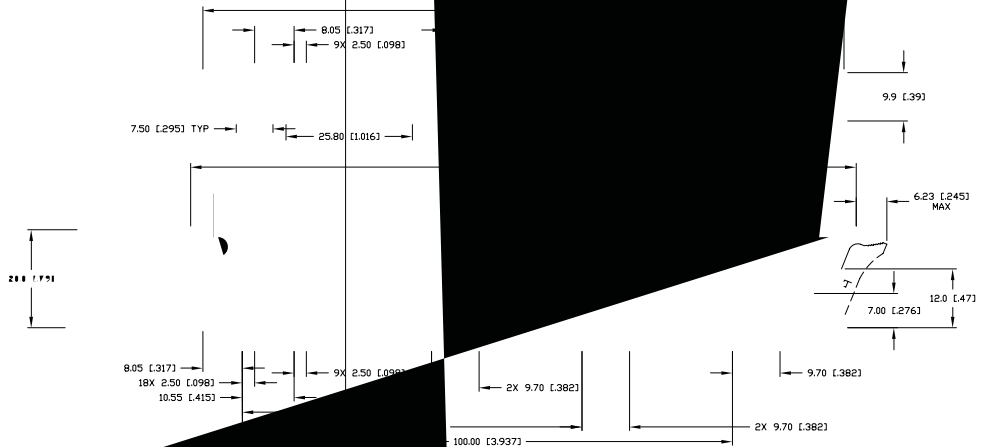


Configuration: P2/S20/P16

Meets AMD K8 specifications
 Power contacts x 18
 Signal contacts x 20
 Mating board thickness 0.093"

Reference Part Numbers:

- Solder tail, 4.5 mm (0.18")
Part Number 1766442-1
- Solder tail, 3.0 mm (0.12")
Part Number 1651864-1
- Compliant Press-fit 3.8 mm (0.15")
Part Number 1766443-1

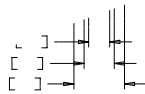
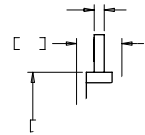
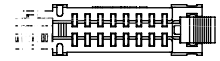
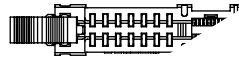


Mini CROWN EDGE Connector Configuration

Continued)

Configuration: S14/P14/S16

Meets AMD/K9 specifications

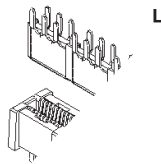


Configuration	Part Number	Length	Pin Pitch
P2/S24/P4	1926155-2	63.74 mm [2.509"]	1.57 mm [0.062"]
P2/S24/P8	1926024-2	83.14 mm [3.273"]	1.57 mm [0.062"]
P2/S18/P10	1651826-1	102.50 mm [4.040"]	1.57 mm [0.062"]
	1651929-1		
	1766336-1		
	1766436-1		
P2/S24/P12	1766735-2	102.54 mm [4.037"]	1.57 mm [0.062"]
S14/P14/S16	1766308-1	129.60 mm [5.102"]	1.57 mm [0.062"]
	1766442-1		
P2/S20/P16	1651864-1	135.80 mm [5.346"]	1.57 mm [0.062"]
	1766443-1		

Application without latches and custom layout available. Contact your local sales engineer.

OTHER Applications

A mating blade that allows certain Mini CROWN EDGE Connector configurations to be used as a stacked board power interconnection device is also available.



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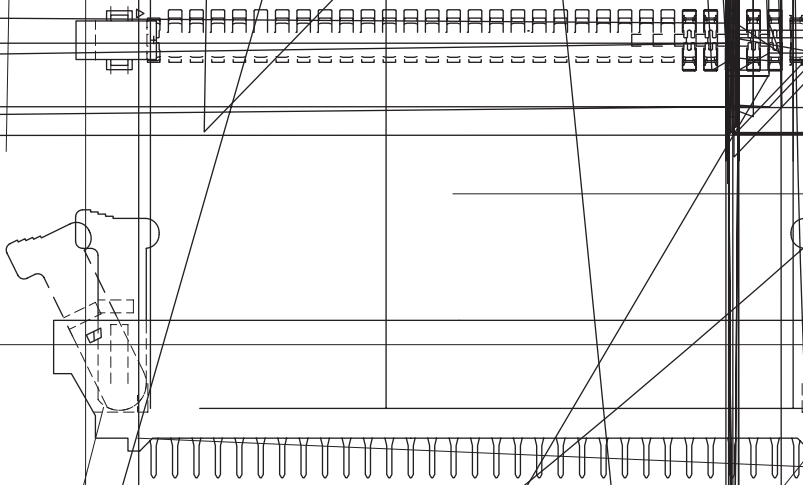
Custom Layout

Shown above for application

Voltage Regulation (VRM) Connector

SEC-II Connectors with Latches for VRMs

Molded-In K



Voltage Regulation Module (VRM) Connectors

Material

Housing - Black glass-filled polyester

Latch - Black glass-filled polyester

Contact - Phosphor bronze, plated .000030 [0.00076] min. gold plating in contact area, .000100 [0.00254] min. tin on solder posts, all over .000050 [0.00127] min. nickel

.000	.000	.000	.000	.000	25	Press-Fit	No	17 & 18	6489649-1
60.96	74.78	67.28	61.86	57.76					
\$. .	\$. .	\$. .	\$. .	\$. .	31	Solder	Yes	12 & 13	6489165-6
62.52	90.02	62.52	67.10	113.00					
\$. .	\$. .	\$. .	\$. .	\$. .	35	Solder	No	23 & 24	5145459-5
66.36	100.18	62.68	104.90	123.17					

See customer drawing for board retention locations.

All part numbers are RoHS compliant.