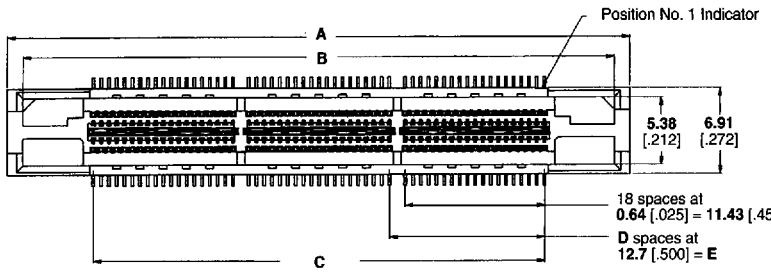
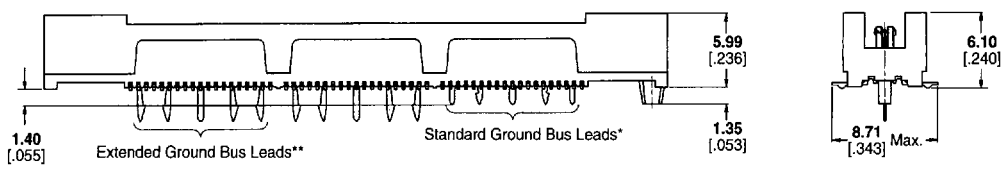
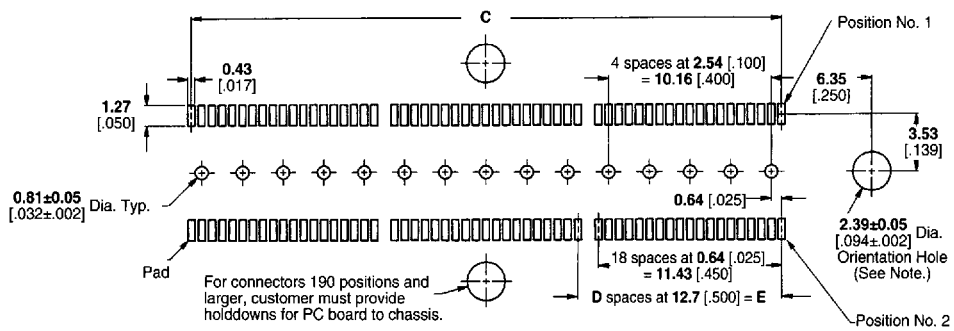
MICTOR Vertical Receptacles

Related Product Data:

Material and Finish — page 5
Performance Characteristics — page 5
Mating Plugs — pages 6 thru 13
Technical Documents — page 53







Recommended PC Board Layout
(Connector Side of Board Shown)

No. of Positions	Dimensions					Part Numbers	
	A	B	C	D	E	Gold Plating	Palladium-Nickel Plating
38	**25.40** 1.000	**22.86** .900	**11.43** .450	0	—	2-767004-2	767054-1
76	**38.10** 1.500	**35.56** 1.400	**24.13** .950	1	**12.70** .500	2-767004-3	767054-2
114	**50.80** 2.000	**48.26** 1.900	**36.83** 1.450	2	**25.40** 1.000	2-767004-4	767054-3
152	**63.50** 2.500	**60.96** 2.400	**49.53** 1.950	3	**38.10** 1.500	2-767004-5	767054-4
190	**76.20** 3.000	**73.66** 2.900	**62.23** 2.450	4	**50.80** 2.000	2-767004-6	767054-5
228	**88.90** 3.500	**86.36** 3.400	**74.93** 2.950	5	**63.50** 2.500	2-767004-7	767054-6
266	**101.60** 4.000	**99.06** 3.900	**87.63** 3.450	6	**76.20** 3.000	2-767004-8	767054-7

*One ground bus with 5 tails per each 38-position module.
**Connectors with extended ground bus leads can be made available, consult AMP.
Note: For dual application, the orientation hole must be 1.98±0.03 [.078±.001]. See Application Specification 114-11004 for details.

Dimensions are shown for reference purposes only. Customer drawings are available upon request.

Dimensions are in millimeters and inches unless specified otherwise. Values in brackets are equivalent U.S. customary units. Chart dimensions are in millimeters over inches.

For drawings, technical data or samples, contact your AMP sales engineer or call the AMP Product Information Center: 1-800-522-6752.

Specifications subject to change. Consult AMP for latest specifications.

Material and Performance Specifications, MICTOR Connectors

Material Specifications

Material

Housing: Liquid crystal polymer, black

Contacts: Beryllium copper

Ground Bus: Phosphor bronze

Finish (Gold Plating)

Contacts and Ground Bus: Duplex plated 0.00076 [.000030] min. gold in mating area, 0.00381 [.000150] min. tin-lead on leads, with entire contact and ground bus underplated 0.00178 [.000070] min. nickel

Finish (Palladium-Nickel Plating)

Contacts and Ground Bus: Duplex plated 0.000013 [.000005] min. gold over 0.00076 [.000030] min. palladium-nickel in mating area, 0.00381 [.000150] min. tin-lead on leads, with entire contact and ground bus underplated 0.00178 [.000070] min. nickel

Performance Specifications

Ratings

Voltage: 30 vac

Current: Signal; 1.0 ampere, fully derated*
Ground; 7.6 amperes, fully derated*

Temperature: -55°C to +125°C

*Consult AMP for details on current rating.

Electrical Characteristics

Characteristic Impedance: 50±5 ohms at 1 ns

Termination Resistance: ΔR 10 milliohms max.; AMP Specification 109-6-1

Insulation Resistance: 10,000 megohms min.; AMP Specification 109-208-1

Dielectric Withstanding Voltage: 500 vac at sea level; AMP Specification 109-29-1

Mechanical Characteristics

Solderability: Solderable area shall have a 95% min. solder coverage; AMP Specification 109-11-1

Vibration (Random): No discontinuities of 1 µs or longer duration; AMP Specification 109-21-5

Physical Shock: No discontinuities of 1 µs or longer duration; AMP Specification 109-26-1

Durability (Tested to): Mate and unmate samples at a rate of 600 cycles max. per hour. 25 cycles, gold plating; 500 cycles, palladium-nickel plating; AMP Specification 109-27

Contact Retention: 1 lb min.; AMP Specification 109-30

Mating Force: 152 oz max. per 1/2 inch of connector (1 module). Each module equals 38 signal contacts and 1 ground bus; AMP Specification 109-42

Unmating Force: 19 oz min. per 1/2 inch of connector (1 module). Each module equals 38 signal contacts and 1 ground bus; AMP Specification 109-42

Environmental Characteristics

Thermal Shock: Subject mated samples to 5 cycles between -55°C and +125°C; AMP Specification 109-22

Humidity - Temperature Cycling: Subject mated samples to 10 cycles between +25°C and +65°C at 95% RH; AMP Specification 109-23-3, Condition B

Temperature Cycling: Subject mated samples to 1024 cycles between -40°C and +60°C at 2 hours per cycle; AMP Specification 109-75-1

Temperature Life: Subject mated samples to temperature life at +118°C for 792 hours; AMP Specification 109-43

Mixed Flowing Gas: Subject mated samples to environmental class II for 14 days; AMP Specification 109-85-2

Technical Documents

Various technical documents are available for your use.

Product Specifications describe technical performance characteristics and verification tests. They are intended for Design, Component and Quality Engineers.

108-1422	MICTOR Connectors
108-1252	Micro-Strip Connectors (Cable-to-Board)
108-1272	Micro-Strip Connectors (Board-to-Board)
108-1244	Z-PACK Stripline 100 Connectors

Application Specifications describe requirements for using the product in its intended application and/or crimping information. They are intended for Packaging and Design Engineers and the Setup Person.

114-11004	Application Tooling for MICTOR Right-Angle Connectors
114-11005	Micro-Strip Connectors (Board-to-Board)
114-1065	Z-PACK Stripline 100 Connectors

Instruction Sheets provide instructions for assembling or applying the product. They are intended for the Manufacturing Assembler or Operator.

MICTOR Connectors:

408-4334	Slitting Tool 767527-1
408-4335	Right-Angle Connector Application Tool 767511-1

Micro-Strip Connectors:

408-6927	Design Recommendations for PC Board Support Fixture
408-7162	Impact Tools 380392
408-9708	Contact Replacement Tool Kit 311686-7
408-9895	AMP Seating Tools 90687

Z-PACK Stripline 100 Connectors:

408-4012	Pin Assembly Contact Replacement Tool Kit 768784-1
408-6927	Design Recommendations for PC Board Support Fixture
408-9675	AMP Seating Tools 854423 for Z-PACK Stripline 100 Pin Assemblies
408-9704	Pliers Kit 854904-1 for Insertion and Removal of Locking Clip on Z-PACK Modular Receptacle Assemblies

Other available technical publications include:

Electrical Performance Reports:

889061	MICTOR Right-Angle Connector
889062	MICTOR .430" High Stacking Connector
889116	MICTOR .260" High Stacking Connector
82833	Micro-Strip .430 High Vertical Stacking Connector
82353	Z-PACK Stripline 100 Connector (.100 Centerline, Four-Row, Right-Angle, Through-Hole Mount)

Technical Papers:

82509	High-Density, High Speed Board-to-Board Stripline Connector
82731	Design of a Micro-Strip Connector