ADAM TECH
Adam Technologies, Inc.

CARD EDGE CONNECTORS
.100" X .200" [2.54 X 5.08] CENTERLINE
CE SERIES

INTRODUCTION:
Adam Tech CE Series Card Edge Connectors are precision engineered PCB mount connectors developed to mate with the plated fingers of a printed circuit daughter board. Their bifurcated, cantilever contacts are set in a dual readout configuration and they offer a reliable connection for a wide range of PCB thicknesses. Adam Tech's sturdy solder tails with tapers allow easy insertion and rugged durability.

FEATURES:
.100" x .200" centerlines
Selectively gold plated contacts
Wide selection of positions
Compatible with a wide range of PCB thicknesses

MATING PC BOARDS:
All printed circuit boards with a thickness of .055" to .075"

SPECIFICATIONS:

Material:
Standard insulator: PBT, 30% glass reinforced, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0
Insulator Color: Black
Contacts: Phosphor Bronze

Contact Plating:
Gold Flash (30 µin Optional) over Nickel underplate on contact area, tin over copper underplate on tails.

Electrical:
Operating voltage: 250V AC max.
Current rating: 3 Amps max.
Contact resistance: 30 mΩ max. initial
Insulation resistance: 3000 MΩ min.
Dielectric withstanding voltage: 500V AC for 1 minute

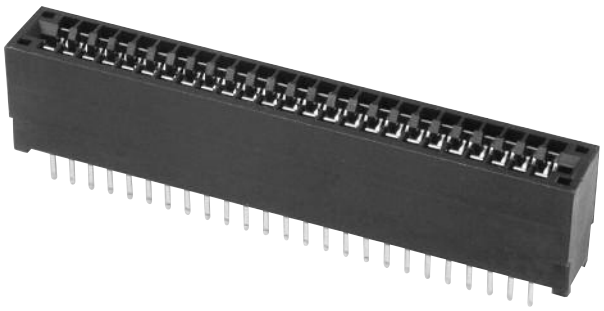
Mechanical:
Insertion force: 10 oz max.
Withdrawal force: 3 oz min

Temperature Rating:
Operating temperature: -40°C to +105°C
Soldering process temperature:
Standard insulator: 235°C
Hi-Temp insulator: 260°C

PACKAGING:
Anti-ESD plastic trays

SAFETY AGENCY APPROVALS:
UL Recognized File No. E224053
CSA Certified File No. LR1578596

RoHS COMPLIANT
HI-TEMP INSULATOR AVAILABLE



ORDERING INFORMATION

CE	98	U

SERIES INDICATOR
CE = Card Edge Connector, Vertical Mount
CERA = Card Edge Connector, Right Angle Mount

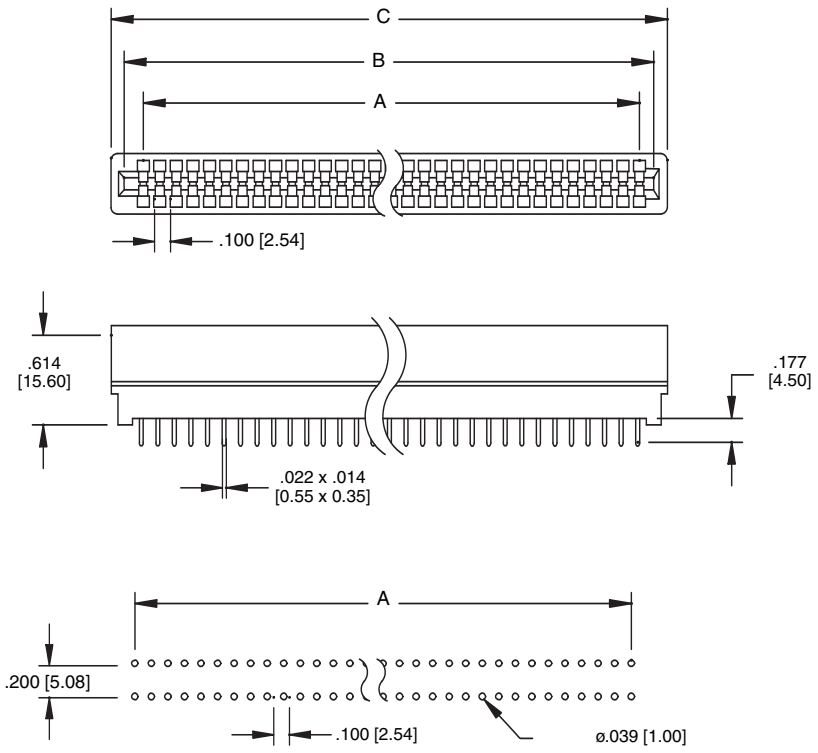
POSITIONS
18, 30, 32, 36, 40, 44, 50, 56, 60, 62, 80, 98, 100

CONTACT PLATING:
U = Selectively gold plated contacts

OPTIONS:
Add designator(s) to end of part number
30 = 30 µin gold plating in contact area
HT = Hi-Temp insulator for Hi-Temp soldering processes up to 260°C

CARD EDGE CONNECTORS
.100" X .200" [2.54 X 5.08] CENTERLINE
CE SERIES

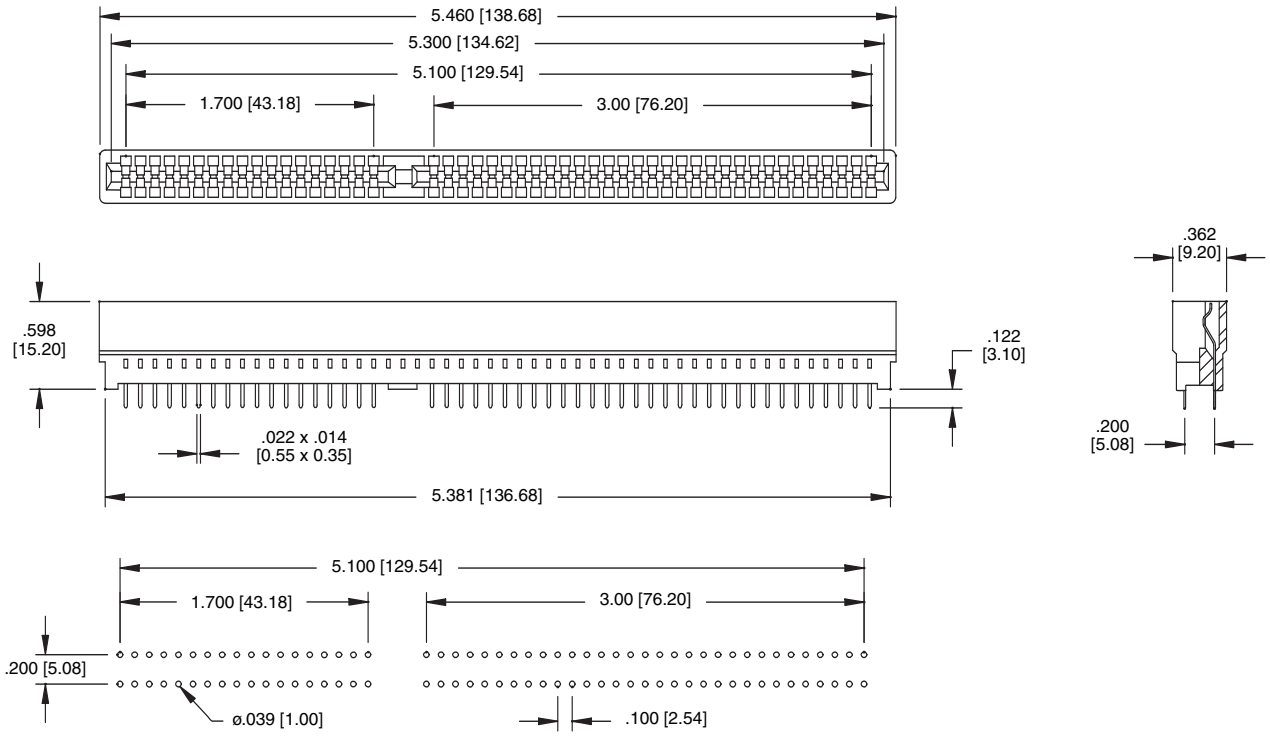
18P-100P



A = .100 [2.54] X No. of spaces
B = A + .207 [5.28]
C = A + .360 [9.14]

Recommended PCB Layout

98P



Recommended PCB Layout

ADAM TECH
Adam Technologies, Inc.

HIGH DENSITY CARD EDGE
.050" [1.27] VESA MICRO CHANNEL ARCHITECTURE (MCA)
HMCA SERIES

INTRODUCTION:
Adam Tech HMCA Series Card Edge Connectors include Standard and Express versions designed for PCB's in Peripheral Component Interconnect (PCI) applications. Each is manufactured in a four row, high density package which is completely compatible to industry standards and has specially engineered contacts which provide a very short electrical path between boards. Adam Tech card edge connectors are designed for high performance with solid board pegs and precision located, selectively gold plated contacts which are ideal in high speed, increased bandwidth applications

FEATURES:
PCI and PCI Express Versions
High density compact designs
Industry standard PCI compatible
Special contact design reduces electrical path
Selectively plated contacts
Open bottom for after solder cleaning

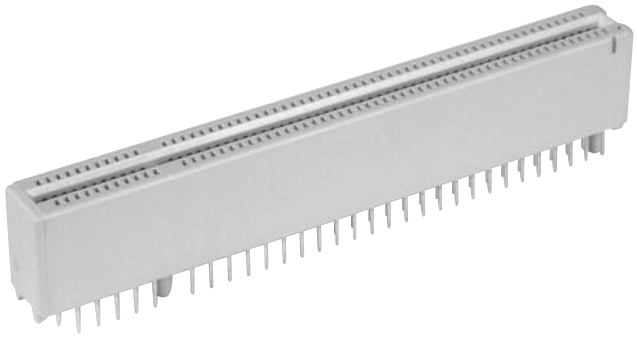
MATING PC BOARDS:
All .050" centerline printed circuit board pads with a thickness of .062" to .072"

SPECIFICATIONS:
Material:
Standard insulator: PPS, 30% glass reinforced, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0
Insulator Color: Dark Brown (White 120 pos.)
Contacts: Phosphor Bronze
Contact Plating:
Gold Flash (30 µin Optional) over Nickel underplate on contact area, tin over copper underplate on tails.
Electrical:
Operating voltage: 125V AC max.
Current rating: 1 Amp max.
Contact resistance: 30 mΩ max. initial
Insulation resistance: 1000 MΩ min.
Dielectric withstanding voltage: 500V AC for 1 minute
Mechanical:
Insertion force: 7 oz max.
Withdrawal force: 0.9 oz min
Temperature Rating:
Operating temperature: -55°C to +105°C
Soldering process temperature:
Standard insulator: 235°C
Hi-Temp insulator: 260°C

PACKAGING:
Anti-ESD plastic trays

SAFETY AGENCY APPROVALS:
UL Recognized File No. E224053
CSA Certified File No. LR1578596

RoHS COMPLIANT
HI-TEMP INSULATOR AVAILABLE



ORDERING INFORMATION

HMCA	A	112	G

SERIES INDICATOR
HMCA =
VESA Micro-channel
Card Edge connector

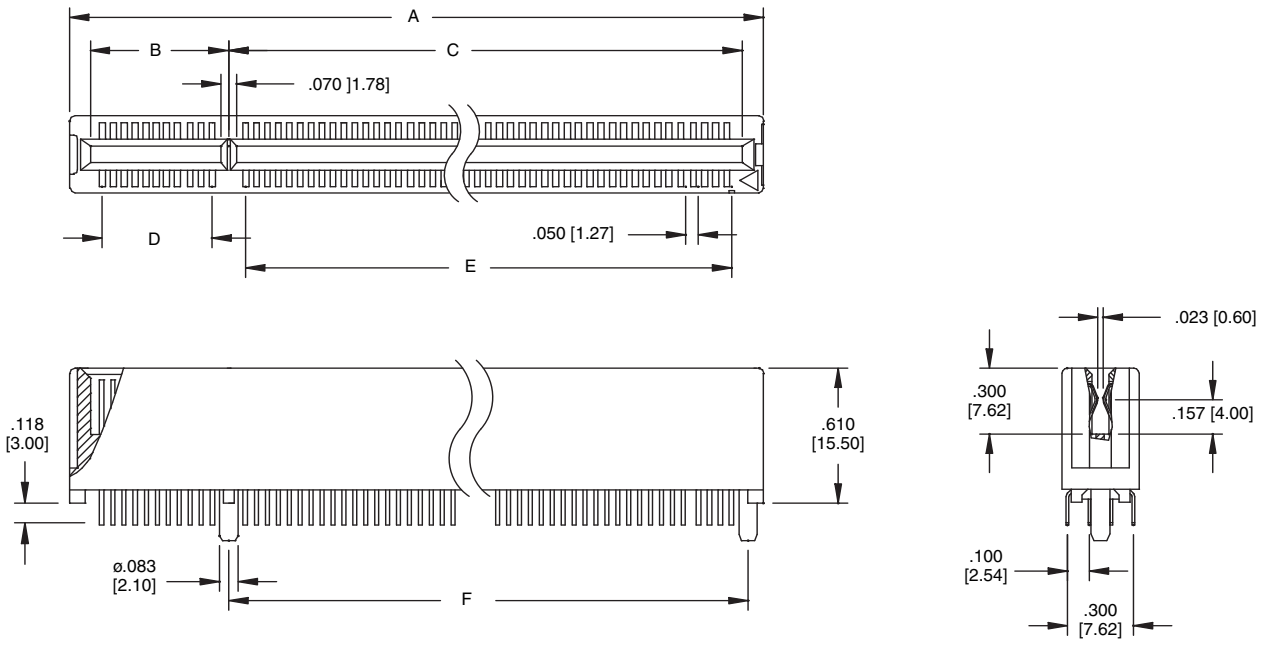
PEGS =
A = Plastic pegs
B = Metal boardlocks

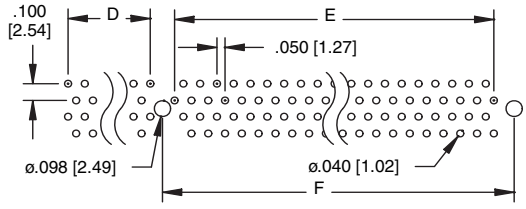
POSITIONS
112, 120, 132, 182, 184, 194

PLATING
G = Selectively gold plated contacts

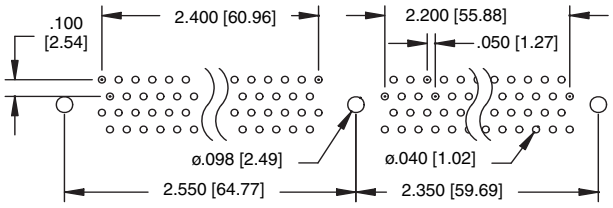
OPTIONS
Add designator(s) to end of part number
30 = 30 µin gold plating in contact area
HT = Hi-Temp insulator for Hi-Temp soldering processes up to 260°C

HIGH DENSITY CARD EDGE
.050" [1.27] VESA MICRO CHANNEL ARCHITECTURE (MCA)
HMCA SERIES

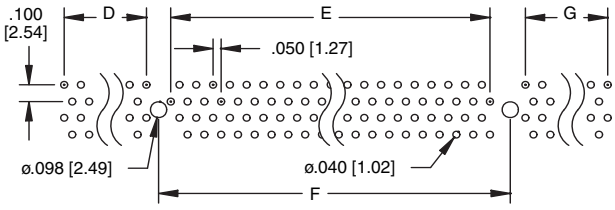




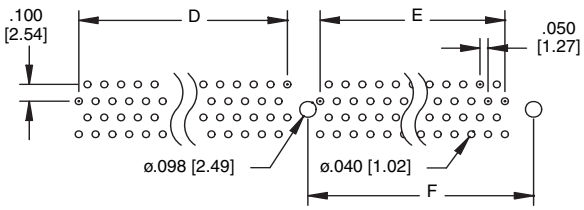
112 and 120 PIN



184 PIN



132 PIN



182 PIN

Recommended PCB Layout

Unit: Inch [mm]

Part No. & Positions	Dimensions						
	A	B	C	D	E	F	G
HMCA-112-G	3.140 [79.76]	0.625 [15.88]	2.325 [59.06]	0.500 [12.70]	2.200 [55.88]	2.232 [56.69]	—
HMCA-120-G	3.340 [84.84]	0.625 [15.88]	2.525 [64.14]	0.500 [12.70]	2.400 [60.96]	2.550 [64.77]	—
HMCA-132-G	3.740 [95.00]	0.625 [15.88]	2.925 [74.30]	1.834 [46.60]	2.200 [55.88]	2.350 [59.69]	0.450 [11.43]
HMCA-182-G	4.890 [124.21]	2.175 [55.25]	2.525 [64.14]	2.050 [52.07]	2.050 [52.07]	2.550 [64.77]	—
HMCA-194-G	5.290 [134.37]	2.175 [55.25]	2.925 [74.30]	2.050 [52.07]	2.200 [55.88]	2.350 [55.88]	0.450 [11.43]

ADAM TECH
Adam Technologies, Inc.

HIGH DENSITY CARD EDGE

.050" [1.27] CENTERLINE EISA CONNECTOR

HDCE SERIES

INTRODUCTION:
Adam Tech HDCE Series EISA (Extended Industry Standard Architecture) Card Edge Connectors are .050" pitch 188 position dual level contact connectors specifically designed to mate with AT, XT and PC expansion cards. Our precision formed High Reliability contact system is contained within a Hi-Temp PPS body which features a close tolerance polarizing slot and card edge lead-in area for superior mating.

FEATURES:
High density .050" Centerlines
Compatible with PC, XT & AT
Durable Long Life cycle contacts
High Pressure Contacts for Low Level Circuits

MATING PC BOARDS:
All .050" centerline printed circuit board pads with a thickness of .062" to .072"

SPECIFICATIONS:

Material:

Standard insulator: PPS, 30% glass reinforced, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0
Insulator Color: Dark Brown (Black optional)
Contacts: Phosphor Bronze

Contact Plating:

Gold Flash (30 µin Optional) over Nickel underplate on contact area, tin over copper underplate on tails.

Electrical:

Operating voltage: 125V AC max.
Current rating: 3 Amps max.
Contact resistance: 20 mΩ max. initial
Insulation resistance: 1000 MΩ min.
Dielectric withstanding voltage: 500V AC for 1 minute

Mechanical:

Insertion force: 7 oz max.
Withdrawal force: 0.9 oz min

Temperature Rating:

Operating temperature: -55°C to +105°C
Soldering process temperature:
Standard insulator: 235°C
Hi-Temp insulator: 260°C

PACKAGING:
Anti-ESD plastic trays

APPROVALS AND CERTIFICATIONS:
UL Recognized File No. E224053
CSA Certified File No. LR1578596

RoHS COMPLIANT
HI-TEMP INSULATOR AVAILABLE

ORDERING INFORMATION

HDCE	188	G

SERIES INDICATOR
HDCE = EISA Card Edge Connector

POSITIONS
188

PLATING
G = Selectively gold plated contacts

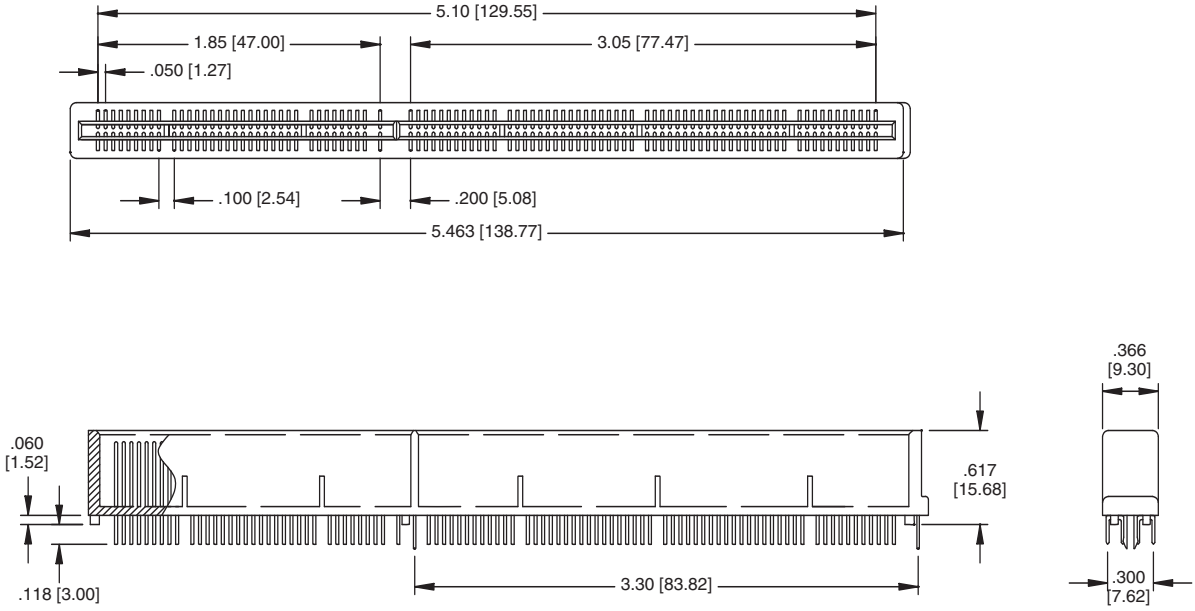
OPTIONS:
Add designator(s) to end of part number
30 = 30 µin gold plating in contact area
BK = Black color insulation
HT = Hi-Temp insulator for Hi-Temp soldering processes up to 260°C

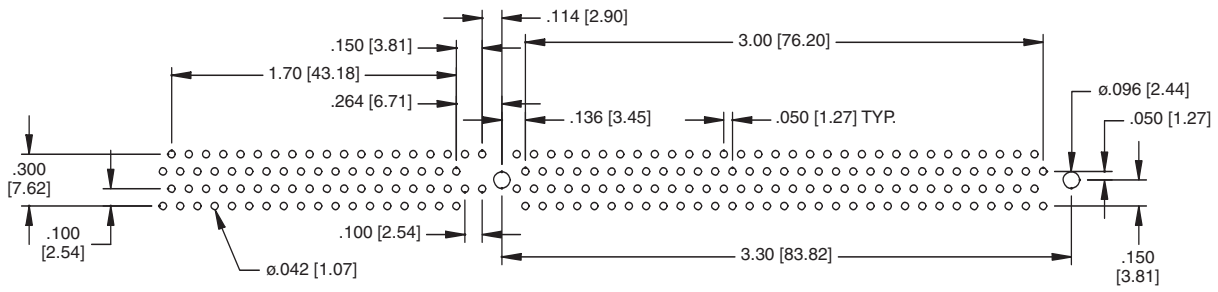
HIGH DENSITY CARD EDGE

.050" [1.27] CENTERLINE EISA CONNECTOR

HDCE SERIES

HDCE-188-G





Recommended PCB Layout

PCI & MINI PCI EXPRESS

1.00mm & 0.8mm CARD EDGE CONNECTOR

PCIE SERIES

INTRODUCTION:
Adam Tech's wide range of PCI & Mini PCI Express connectors provide a low cost, highly scalable, general-purpose serial I/O interconnect that provides a unifying standard for a number of I/O solutions within one platform. They are typically used in high-speed serial link technology applications similar to that found in Gigabit1 Ethernet, Serial ATA (SATA), and Serial-Attached SCSI (SAS). The 36P version supports a single PCI express lane and can be used to replace standard PCI connectors. Our higher bandwidth 4 & 8 lane versions are ideal to use in many server applications.

FEATURES:
Durable Long Life cycle contacts
High Pressure Contacts for Low Level Circuits
Hot plug and hot swap enabled
Rated to run at up to 2.5Gbps
Supports 2.5Gbps data transfer and scalable for future band width increases.
Available in x1, x4, x8, and x16 configurations
Coexists with standard PCI

MATING PC BOARDS:
All printed circuit boards with a thickness of .062" to .072"

SPECIFICATIONS:

Material:
Standard insulator: PPS, 30% glass reinforced, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0
Insulator Color: Dark Brown
Contacts: Phosphor Bronze

Contact Plating:
Gold Flash (30 µin Optional) over Nickel underplate on contact area, tin over copper underplate on tails.

Electrical:
Operating voltage: 125V AC max.
Current rating: 3 Amps max.
Contact resistance: 20 mΩ max. initial
Insulation resistance: 1000 MΩ min.
Dielectric withstanding voltage: 500V AC for 1 minute

Mechanical:
Insertion force: 7 oz max.
Withdrawal force: 0.9 oz min

Temperature Rating:
Operating temperature: -55°C to +105°C
Soldering process temperature:
Standard insulator: 235°C
Hi-Temp insulator: 260°C

PACKAGING:
Anti-ESD plastic trays

APPROVALS AND CERTIFICATIONS:
UL Recognized File No. E224053
CSA Certified File No. LR1578596

HI-TEMP INSULATOR AVAILABLE

RoHS COMPLIANT

ORDERING INFORMATION
PCI EXPRESS

PCIE	98	1

SERIES INDICATOR
PCIE = PCI Express Card Edge connector

POSITIONS
MPCI = 36, 64, 98, 164

MOUNTING
1 = Thru-Hole PCB Tails
SM = Straddle Mount

ORDERING INFORMATION
MINI PCI EXPRESS

See pg. 177 for Available Types

OPTIONS:
Add designator(s) to end of part number
30 = 30 µin gold plating in contact area
HT = Hi-Temp insulator for Hi-Temp soldering processes up to 260°C
LL = Latch option left side
LR = Latch option right side

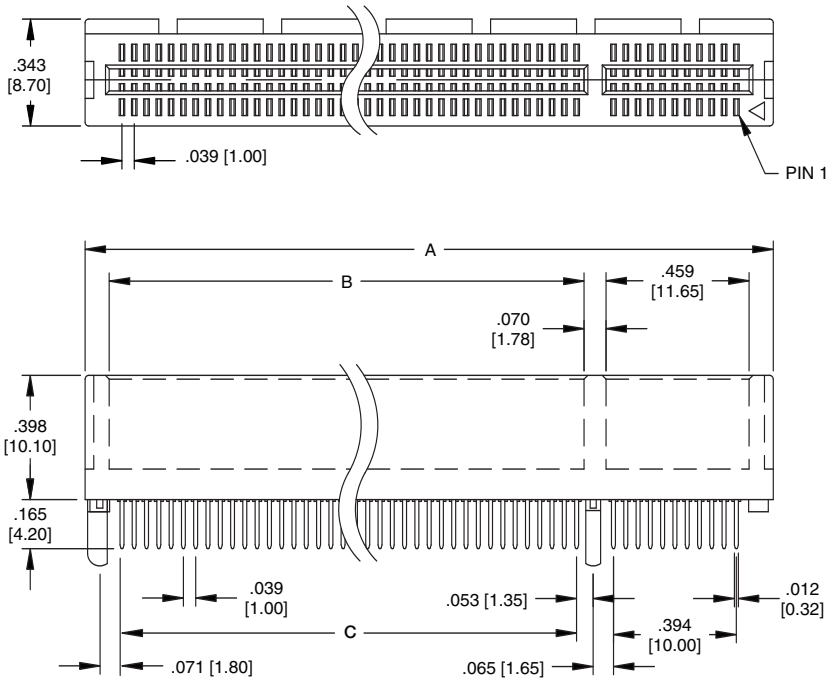
PCI & MINI PCI EXPRESS

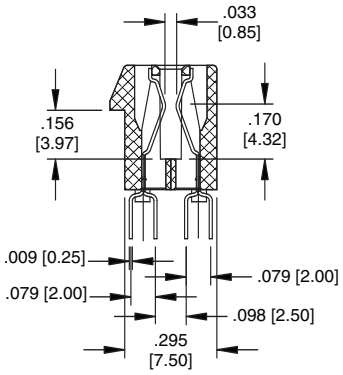
1.00mm & 0.8mm CARD EDGE CONNECTOR

PCIE SERIES

PCI EXPRESS

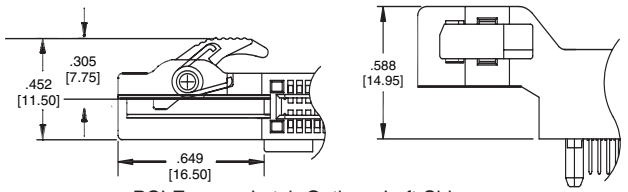
THRU HOLE PCB MOUNT



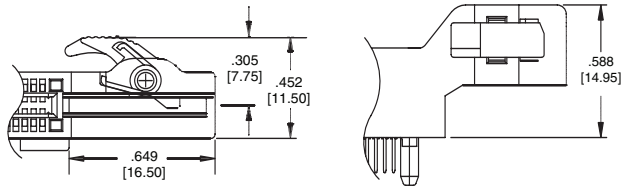


PART NO. & POSITIONS	DIMENSIONS			
	A	B	C	D
PCIE-36-1	.984 [25.00]	.301 [7.65]	.236 [6.00]	.321 [8.15]
PCIE-64-1	1.535 [39.00]	.852 [21.65]	.787 [20.00]	.872 [22.15]
PCIE-98-1	2.205 [56.00]	1.522 [38.65]	1.457 [37.00]	1.541 [39.15]
PCIE-164-1	3.504 [89.00]	2.821 [71.65]	2.756 [70.00]	2.840 [72.15]

PCI LATCHING OPTIONS

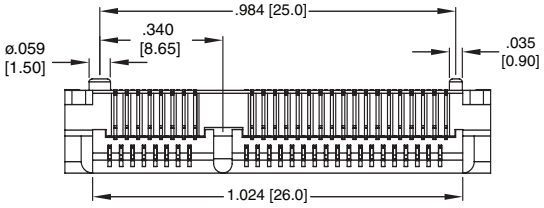


PCI Express Latch Option - Left Side

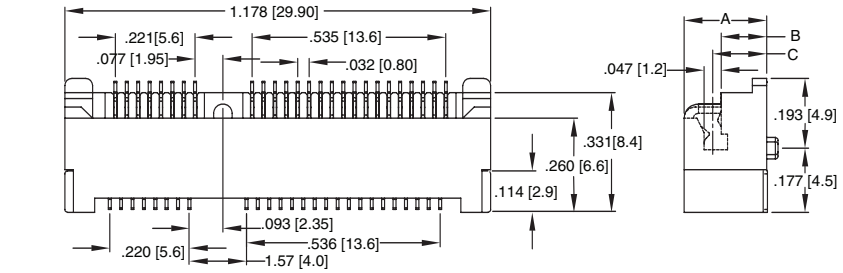


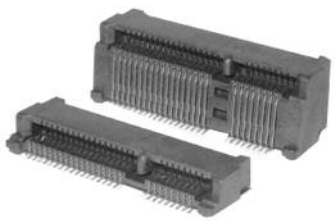
PCI Express Latch Option - Right Side

MINI PCI EXPRESS

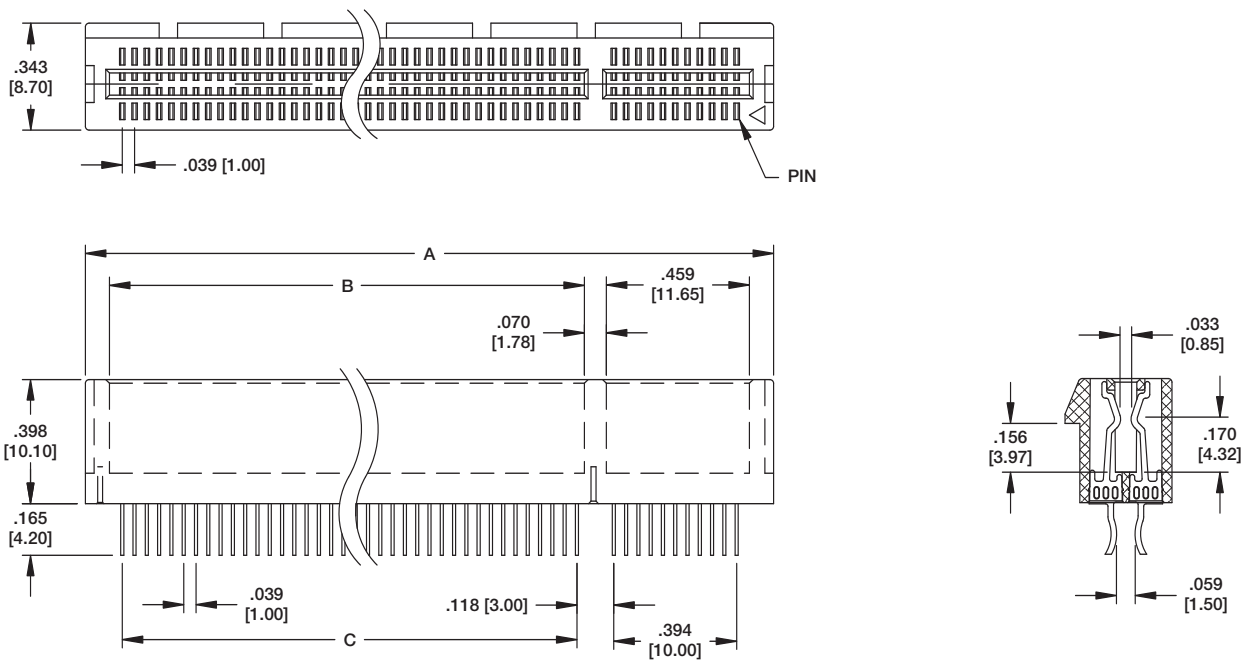


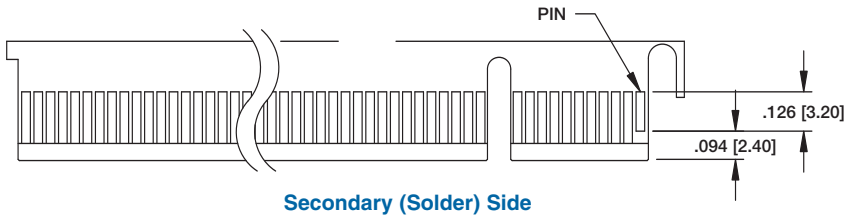
PN		A	B	C
[illegible]	R	4.0	1.4	2.00
[illegible]	R	5.2	2.6	3.20
[illegible]	R	5.6	3.2	3.80
[illegible]	R	5.8	3.2	3.80
[illegible]	R	6.7	4.35	4.95
[illegible]	R	8.0	5.65	6.25
[illegible]	R	9.0	6.4	7.0
[illegible]	R	9.9	7.4	8.0



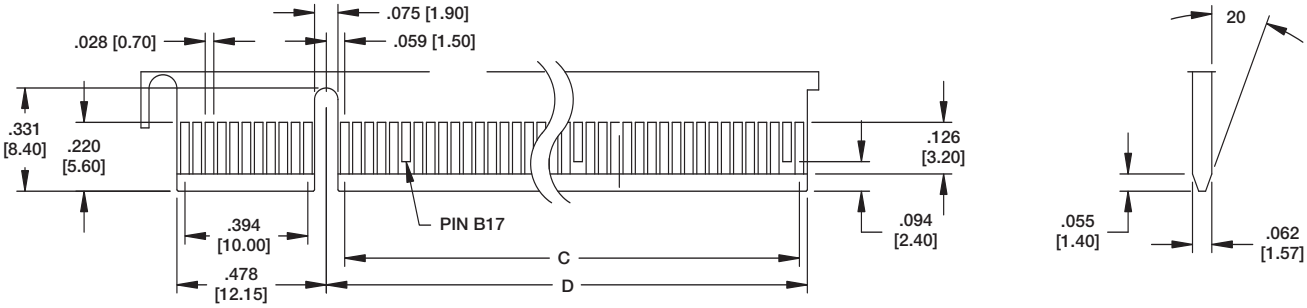


PCI EXPRESS
STRADDLE MOUNT





Secondary (Solder) Side



Primary (Component) Side

PART NO. & POSITIONS	DIMENSIONS			
	A	B	C	D
PCIE-36-SM	.984 [25.00]	.301 [7.65]	.236 [6.00]	.321 [8.15]
PCIE-64-SM	1.535 [39.00]	.852 [21.65]	.787 [20.00]	.872 [22.15]
PCIE-98-SM	2.205 [56.00]	1.522 [38.65]	1.457 [37.00]	1.541 [39.15]
PCIE-164-SM	3.504 [89.00]	2.821 [71.65]	2.756 [70.00]	2.840 [72.15]