

PC/104, PC/104 Plus Specification

- ❖ Industry Standard bus connection systems, typically used on embedded PC applications.
- ❖ Designed for Board-To-Board stacking with a common bus.

PC/104 Connectors – 2.54mm pitch (M20)

❖ Materials

Mouldings:	High Temperature Plastic, UL94V-0
Contacts:	Phosphor Bronze
Finish:	Gold

❖ Electrical

Current	
Solder Tail:	3A max
Press-Fit Tail:	1A max
Working voltage:	12V DC
Voltage proof:	1,000V AC
Contact resistance:	30mΩ max
Insulation resistance:	5,000MΩ min

❖ Mechanical

Durability	
Mating:	10 operations
Press-fit:	3 operations
Insertion force (max):	2.0N per contact
Withdrawal force (min):	0.25N per contact
Insertion force to board (max)	
Press-Fit:	80N per contact

❖ Environmental

Temperature range:	-55°C to +105°C
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PC/104 Plus – 2.00mm pitch (M22)

❖ Materials

Mouldings:	High Temperature Plastic, UL94V-0
Contacts	
M22-602:	Brass
Others:	Phosphor Bronze
Finish:	See order code

❖ Electrical

Current:	1A max
Working voltage:	12V DC
Voltage proof:	800V AC
Contact resistance:	30mΩ max
Insulation resistance:	5,000MΩ min

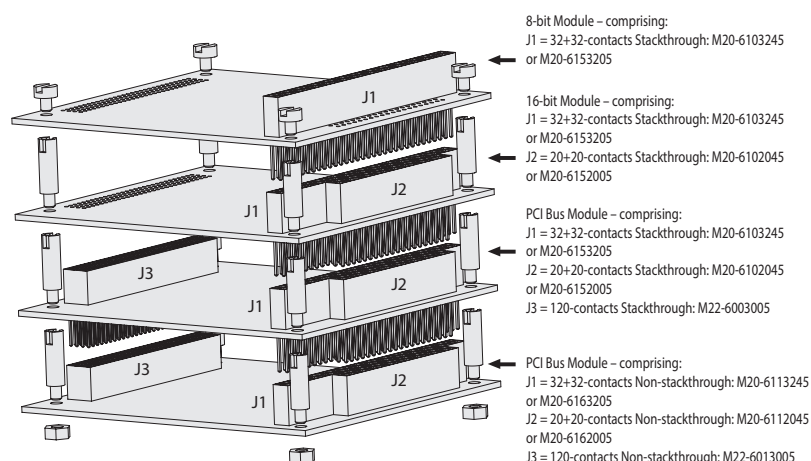
❖ Mechanical

Durability:	10 operations
Insertion force (max):	2.0N per contact
Withdrawal force (min):	0.3N per contact

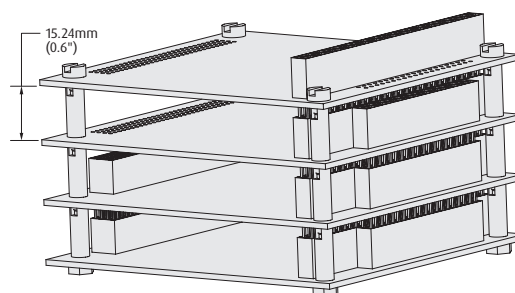
❖ Environmental

Temperature range:	-55°C to +105°C
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Typical PC/104 & PC/104-Plus Module Stack



Assembled PC/104 stack (4 Modules)

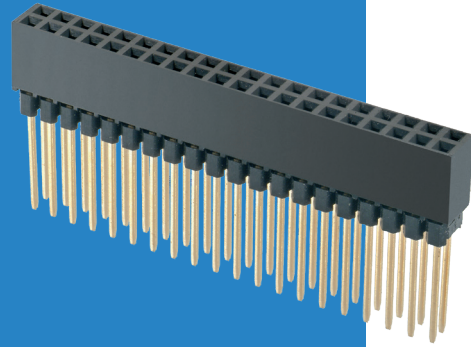


All dimensions in mm.

PC/104 Connectors

2.54mm Pitch Vertical Bus Connectors

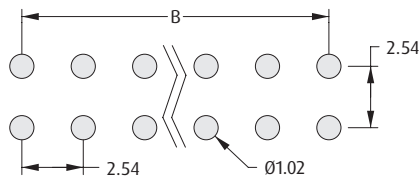
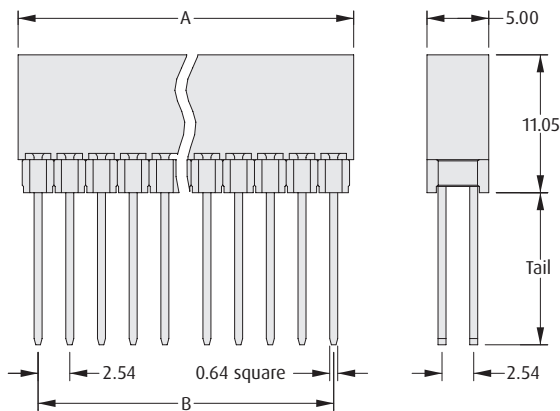
- ❖ 32+32 contacts supports an 8-bit system.
- ❖ 20+20 contacts combined with 32+32 contacts supports a 16-bit system.
- ❖ Press-fit connectors can be assembled direct to the PCB without soldering, using plated-through holes.
- ❖ Stackthrough connectors act as both male and female connectors.



SOLDER TAIL

CALCULATION

A	$B + 3.2$
B	$2.54 \times (\text{No. of contacts per row} - 1)$

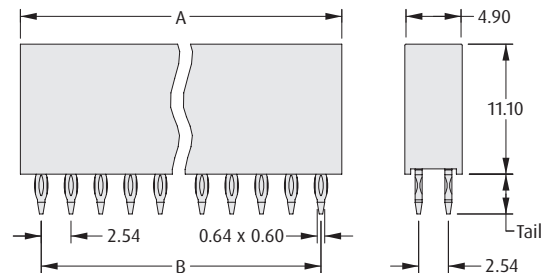


Recommended PC Board Pattern

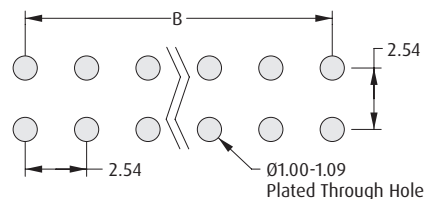
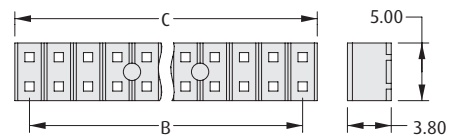
PRESS-FIT TAIL

CALCULATION

A	$B + 3.56$
B	$2.54 \times (\text{No. of contacts per row} - 1)$
C	$2.54 \times \text{No. of contacts per row}$



Press-Fit connector M20-615 supplied with spacer moulding



Recommended PC Board Pattern

HOW TO ORDER

SERIES CODE

M20 - 61 X XX XX

TYPE

0	Stackthrough, 12.20mm Solder Tail
1	Non-Stackthrough, 2.30mm Solder Tail
5	Stackthrough, 12.10mm Press-Fit Tail
6	Non-Stackthrough, 3.40mm Press-Fit Tail

FINISH

05	Gold (M20-615, 616)
45	Gold (M20-610, 611)

NO. OF CONTACTS PER ROW

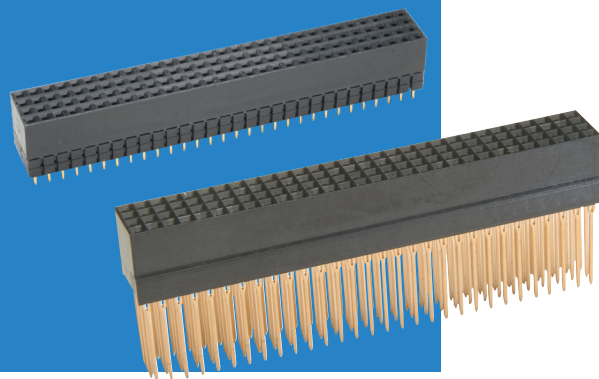
20, 32

All dimensions in mm.

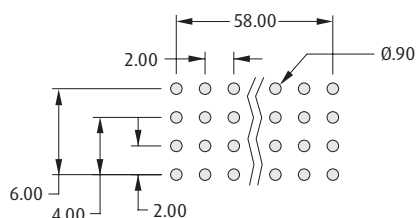
PC/104 Plus Connectors

2mm Pitch Vertical Bus Connectors

- ❏ Supports PCI bus.
- ❏ Stackthrough connectors act as both male and female connectors.
- ❏ Available in Solder tail configuration.

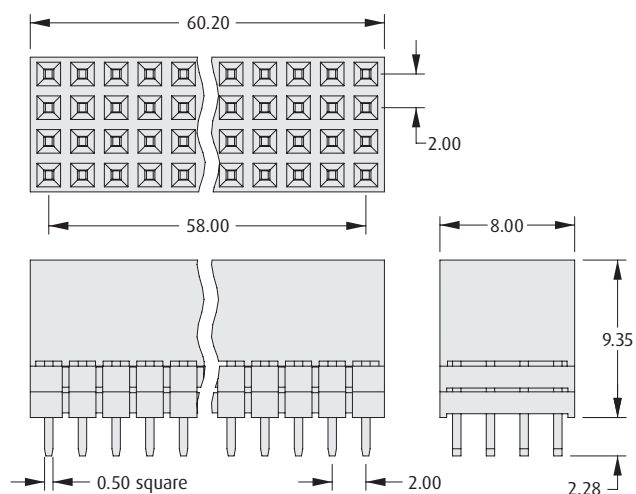


PC/104, PC/104 PLUS

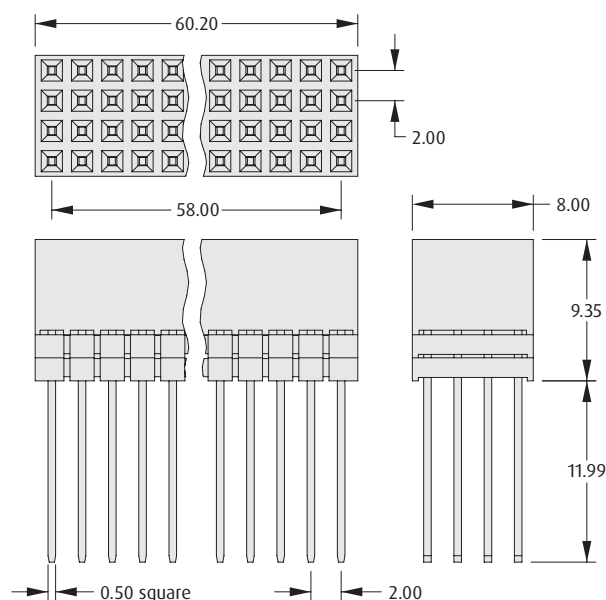


Recommended
PC Board Pattern

NON-STACKTHROUGH



STACKTHROUGH



HOW TO ORDER

SERIES CODE

M22 - 60 X 30 05

FINISH

05 Gold

TYPE

0	Stackthrough
1	Non-Stackthrough

NO. OF CONTACTS PER ROW

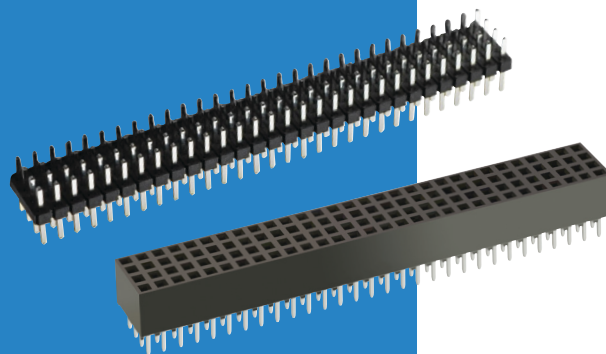
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All dimensions in mm.

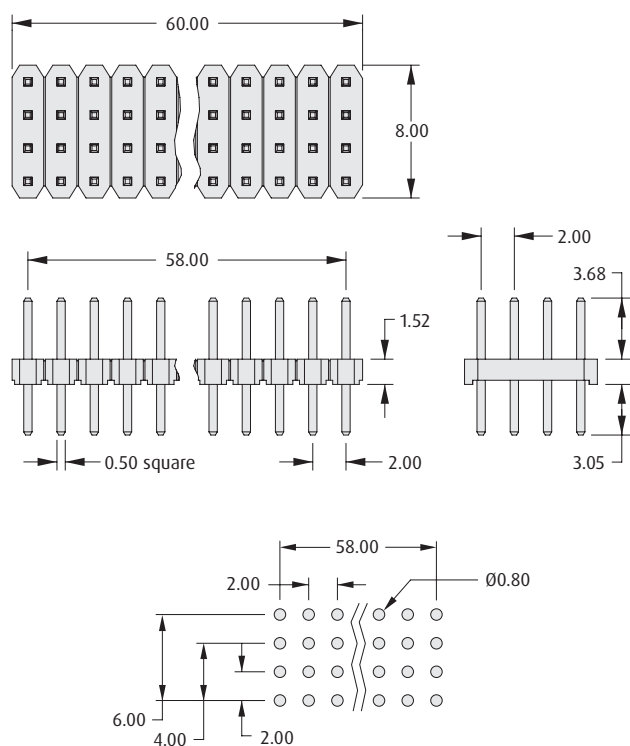
PC/104 Plus Connectors

2mm Pitch Accessory Connectors

- Accessory connectors for use with the PC/104 Plus range.

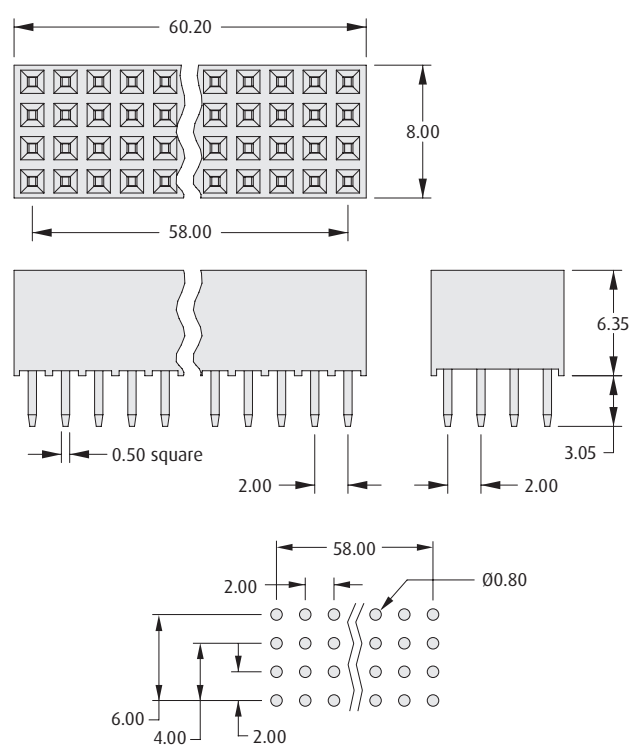


PC/104 PLUS POST HEADER



Recommended PC Board Pattern

PC/104 PLUS POST HEADER RECEPTACLE



Recommended PC Board Pattern

HOW TO ORDER

SERIES CODE

M22 - 60 X 30 42

FINISH

42 Gold + Tin

TYPE

2 Post Header

3 Post Receptacle

NO. OF CONTACTS PER ROW

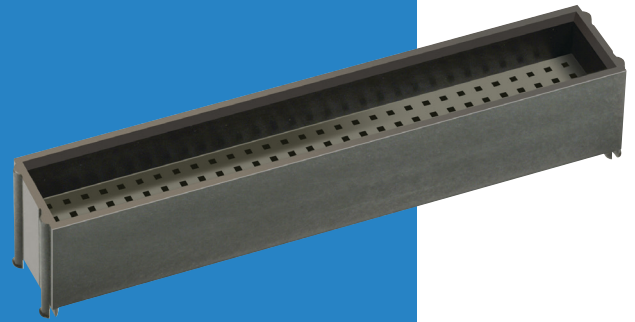
30

All dimensions in mm.

PC/104 Plus Connectors

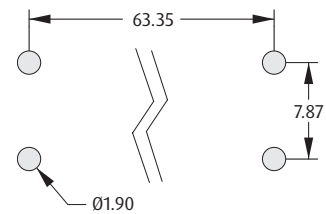
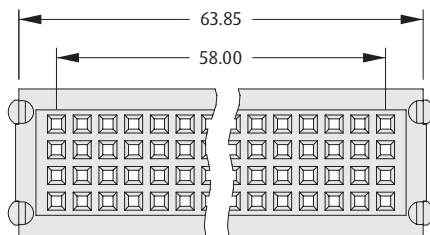
Accessories

- Accessory components for use with the PC/104 Plus range.
- The shroud is used to protect the long tails of the Stackthrough connector from the previous page, and ensures alignment with a mating connector. It self retains on the underside of the PCB after the Stackthrough connector has been soldered to the PCB, by latching into the four mounting holes.

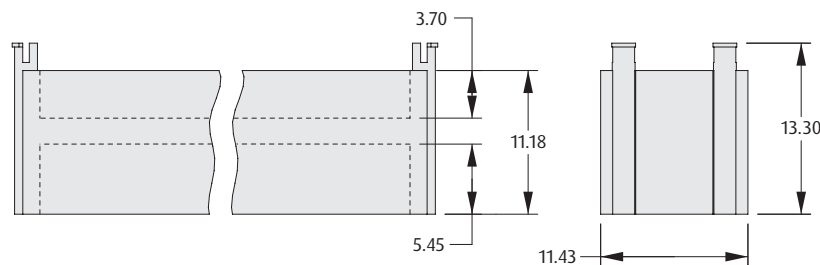


PC/104, PC/104 PLUS

PC/104 PLUS SHROUD



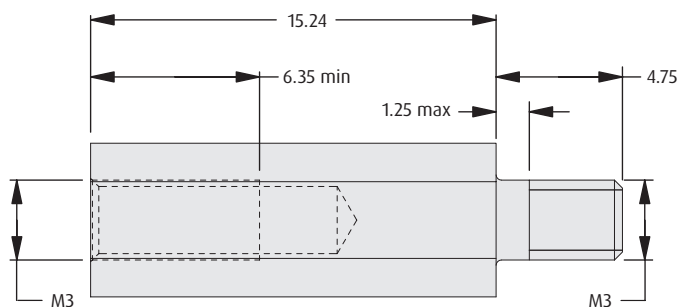
Recommended PC Board Pattern



ORDER CODE

M22-6043098

PC/104 SPACER



ORDER CODE

R6104-02

All dimensions in mm.