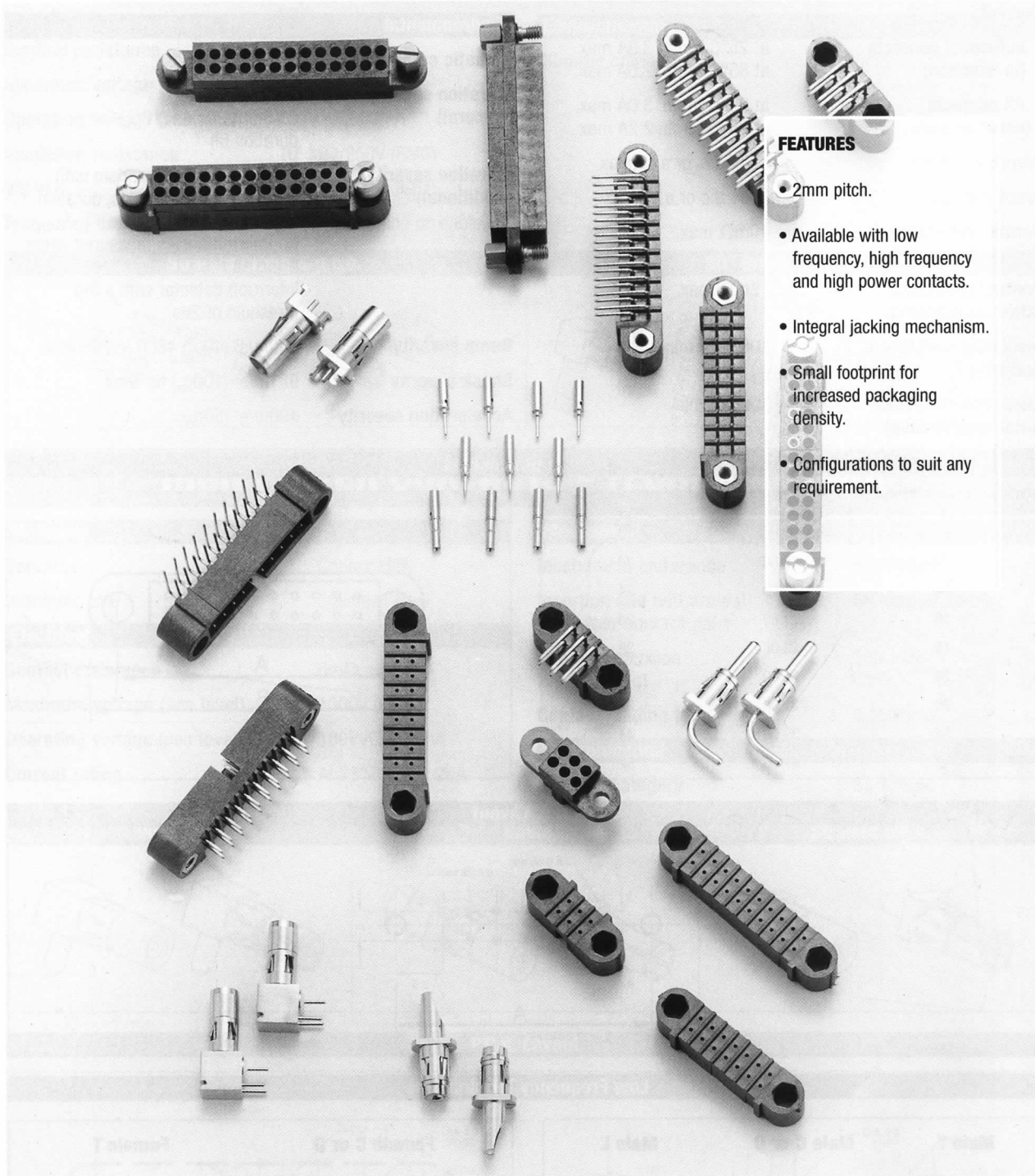


MICRONECTOR 220

High Density, 2mm Mixed Layout Connectors



FEATURES

- 2mm pitch.
- Available with low frequency, high frequency and high power contacts.
- Integral jacking mechanism.
- Small footprint for increased packaging density.
- Configurations to suit any requirement.

ITW McMurdo Connectors
Norway Road, Hilsea
Portsmouth
PO3 5HT
England
Tel: +44 (0)23 9269 4971
Fax: +44 (0)23 9265 3356

LOW FREQUENCY CONTACT - TECHNICAL DATA

Materials

Insulator	High temperature thermoplastic
Contact	Copper alloy plated hard acid gold
Termination	Hard acid gold or tin/lead
Fixings	Stainless Steel

Electrical

Current

Individual contacts (in isolation) at 25°C Tamb. 3.3A max.
at 85°C Tamb. 2.6A max.

All contacts (simultaneously) at 25°C Tamb. 3.0A max.
at 85°C Tamb. 2.2A max.

Working voltage 120V d.c. or a.c. peak

Proof voltage 360V d.c or a.c. peak

Contact resistance (initially) 10mΩ max.

Contact resistance (after conditioning) 13mΩ max.

Insulating resistance (initially) 1000MΩ min.

Insulation resistance (after conditioning) 100MΩ min.

Mechanical

Mechanical operations 500 min.

Insertion and withdrawal force (per contact pair) 0.8N max., 0.2N min.

Contact retention 10N min.

Crimp barrel accommodation 22 AWG - 28 AWG to BS G 210 Type A

Environmental

Climatic category 55/125/56

Vibration severity (General) 10Hz, 2000Hz
0.75mm/98m/s² (10g_n)
duration 6h

Vibration severity (Additional) 13.3Hz to 2000Hz random with superimposed sinusoids, duration 15 min each of 4 planes.
No intermittencies measured when using an H.S.L.I. (High Speed Logic Interrupt) detector with a trip threshold of 2ns.

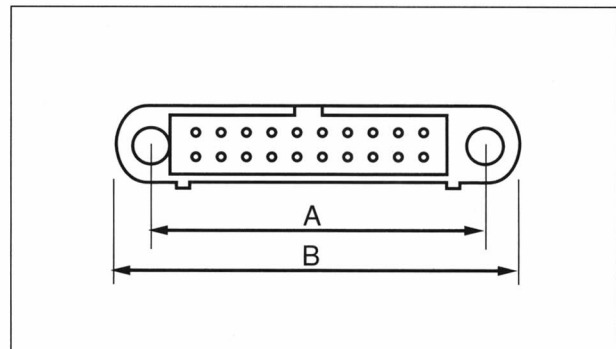
Bump severity 390m/s² (40g_n) 4000 ± 10bumps

Shock severity 981m/s² (100g_n) for 6ms

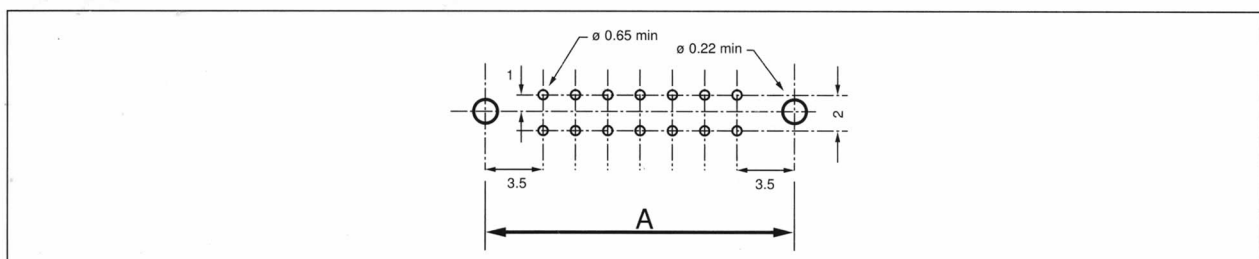
Acceleration severity 490m/s² (50g_n)

Outline Dimensions

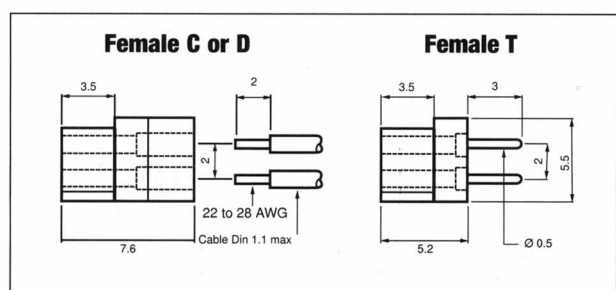
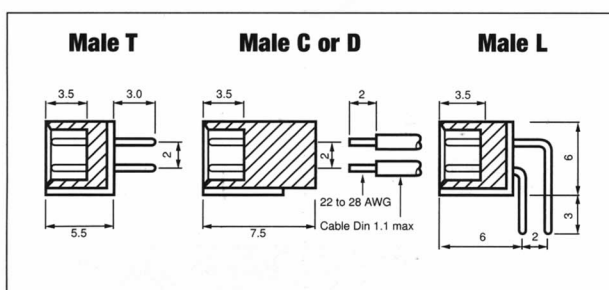
Contact Arrangement	A crs	B
6	11.00	16
10	15.00	20
14	19.00	24
16	21.00	26
18	23.00	28
20	25.00	30
26	31.00	36
34	39.00	44
42	47.00	52



P.C.B. Layout



Low Frequency Terminations



HIGH FREQUENCY CONTACTS - TECHNICAL DATA

Materials

Spring loaded parts	Gold plated beryllium copper
Other metallic parts	Copper alloy
Insulator	PTFE
Retaining clip	Stainless steel

Electrical

Impedance	50Ω
Contact resistance	6mΩ max.
Maximum voltage (sea level)	1000V (RMS)
Operating voltage (sea level)	180V AC/500mA
Insulation resistance	10 ⁶ MΩ/250V (RMS)
V.S.W.R.	<1.05 + 0.04f (GHz)
Frequency limit range	6GHz (depending on cable)

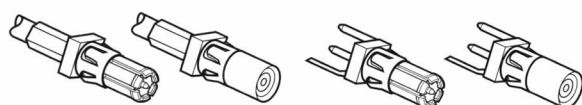
Mechanical

Mechanical endurance	500 cycles
Insertion and withdrawal force (per contact pair)	5N max., 0.5N min.
Contact retention (in moulding)	20N min.
Contact holding force	0.15N min.

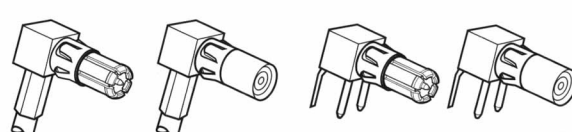
Environmental

Climatic category	55/125/56
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Straight Crimp & p.c.b.



90° Crimp & p.c.b.



HIGH POWER CONTACTS - TECHNICAL DATA

Materials

Contacts	Copper alloy
Retaining clip	Stainless steel

Electrical

Contact resistance	6mΩ max.
Maximum voltage (sea level)	1000V (RMS)
Operating voltage (sea level)	180V AC/500mA
Current rating	At 25°C Tamb. 20A

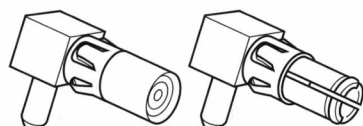
Mechanical

Mechanical endurance	500 cycles
Insertion and withdrawal force (per contact pair)	5N max., 0.5N min.
Contact retention (in moulding)	20N min.
Contact holding force	0.15N min.

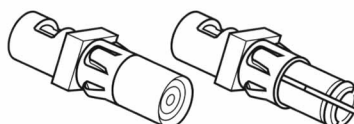
Environmental

Climatic category	55/125/56
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90° p.c.b.



Cable

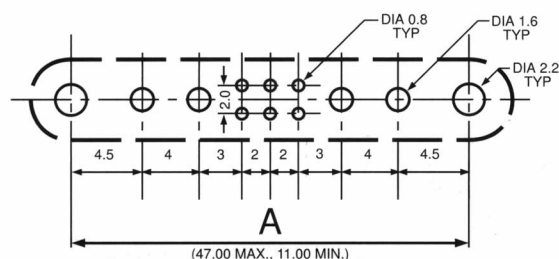


Straight p.c.b.

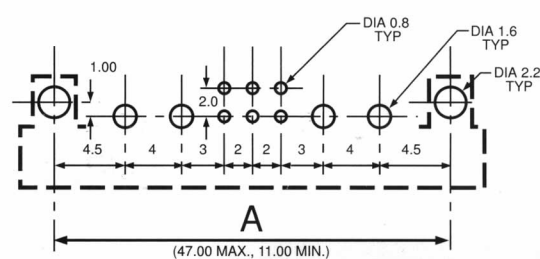


P.C.B. Layout

Straight



90°



ORDERING INFORMATION

220	M	14	T	03	F21		
220CX	F	10	C	01	M11	3	2

SERIES _____
 CONTACT TYPE _____
 CONTACT ARRANGEMENT (LF) _____
 TERMINATION TYPE _____
 TERMINATION FINISH _____
 FIXINGS _____
 H.F./H.P. CAVITIES - END A _____
 H.F./H.P. CAVITIES - END B _____

Series

220 - Low frequency contacts
 220CX - Mixed layout

Contact Type

M - Male
 F - Female

Contact Arrangement (LF)

6, 10, 14, 16, 18, 20, 26, 34, 42

Termination Type

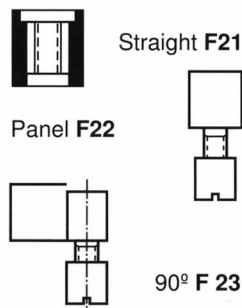
L - 90° p.c. (Male only)
 T - Straight p.c.
 C - Crimp 24-28 AWG
 D - Crimp 22 AWG

Termination Finish

01 - Gold
 03 - Tin alloy

Fixings

Male connectors

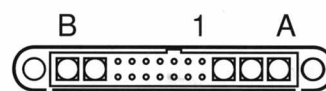


Female connectors



Straight M11

H.F./H.P. Cavities - End A and End B



Male (Female - reverse)

1 to 10 cavities available

High Frequency Contacts - Order Codes

Male	Style	Female
M221	Straight p.c.	F221
M223	90° p.c.	F223
M225	Straight Crimp RG178	F225
M226	Straight Crimp RG316 FG174 RG179	F226
M227	90° Crimp RG178	F227
M228	90° Crimp RG316 FG174 RG179	F228

High Power Contacts - Order Codes

Male	Style	Female
MH202	Straight p.c.	FH202
MH203	90° p.c.	FH203
MH210	Solder (10A)	FH210
MH215	Solder (15A)	FH215
MH220	Solder (20A)	FH220

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