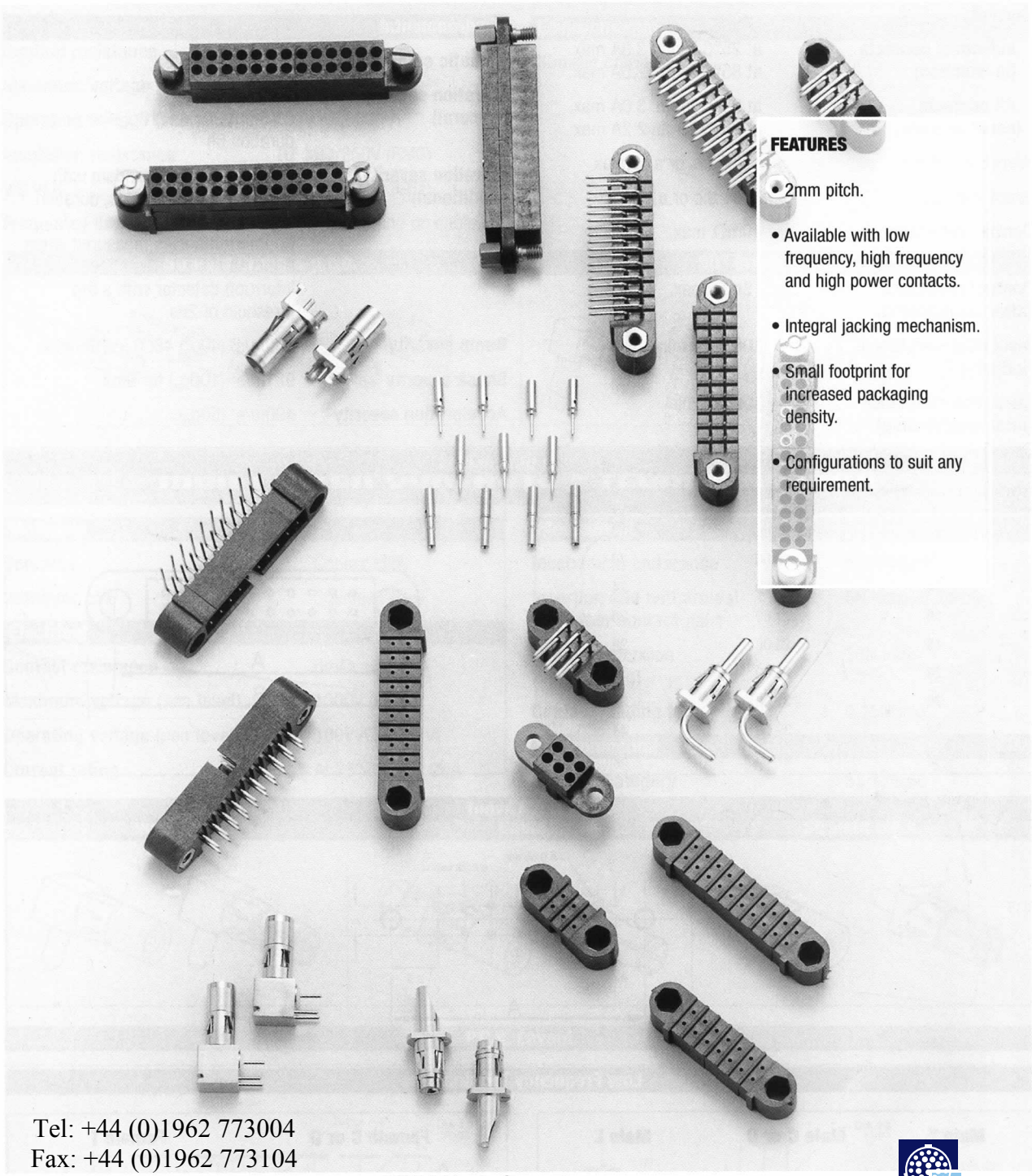
MICRONECTOR 220

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.

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IN2CONNECT
ELECTRONIC CONNECTORS

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

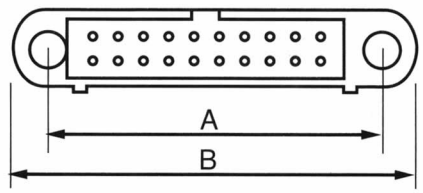
Mechanical operations	500 min.
Insertion and withdrawal force (per contact pair)	0.8N max., 0.2N min.
Contact retention	10N min.
Crimp barrel accommodation	22 AWG - 28 AWG to BS G 210 Type A

Environmental

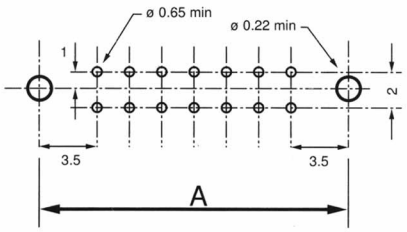
Climatic category	55/125/56
Vibration severity (General)	10Hz, 2000Hz 0.75mm/98m/s² ($10g_n$) duration 6h
Vibration severity (Additional)	13.3Hz to 2000Hz random with superimposed sinusoids, duration 15 min each of 4 planes. No intermittancies measured when using an H.S.L.I. (High Speed Logic Interrupt) 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

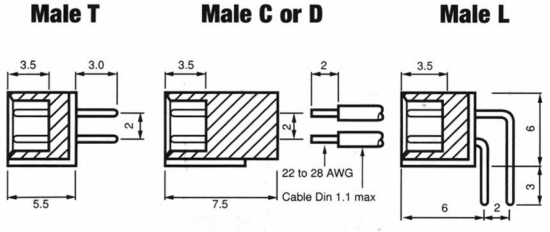
Contact Arrangement	A crs	B
6	11.00	16
10	15.00	20
14	19.00	24
16	21.00	26
18	23.00	28
20	25.00	30
26	31.00	36
34	39.00	44
42	47.00	52

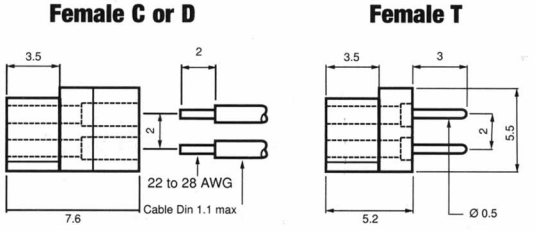


P.C.B. Layout



Low Frequency Terminations





HIGH FREQUENCY CONTACTS - TECHNICAL DATA

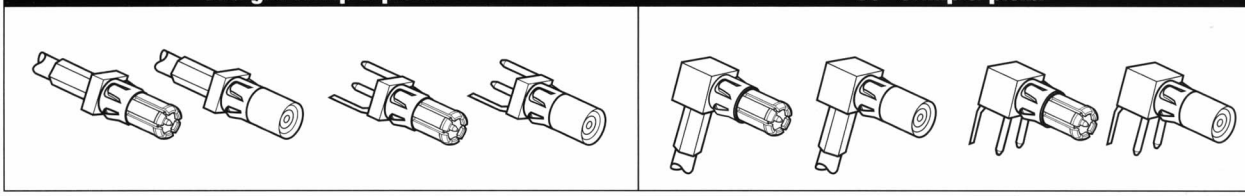
Materials	
Spring loaded parts	Gold plated beryllium copper
Other metallic parts	Copper alloy
Insulator	PTFE
Retaining clip	Stainless steel

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

Straight Crimp & p.c.b. | **90° Crimp & p.c.b.**



HIGH POWER CONTACTS - TECHNICAL DATA

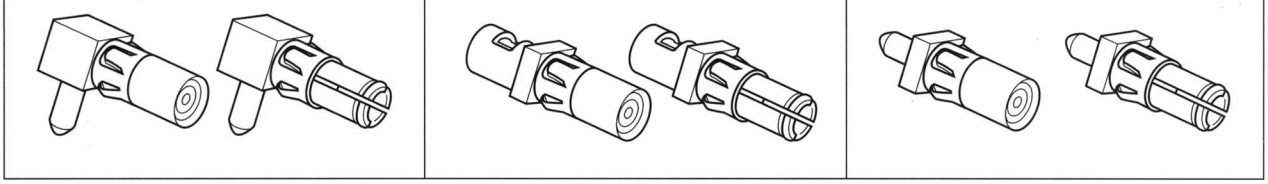
Materials	
Contacts	Copper alloy
Retaining clip	Stainless steel

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.

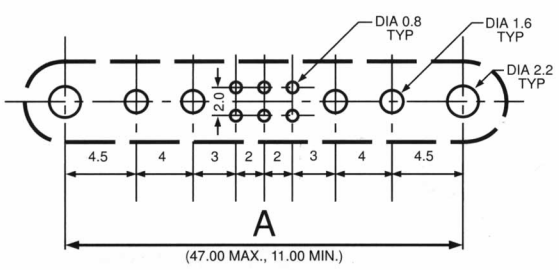
Environmental	
Climatic category	55/125/56

90° p.c.b. | **Cable** | **Straight p.c.b.**

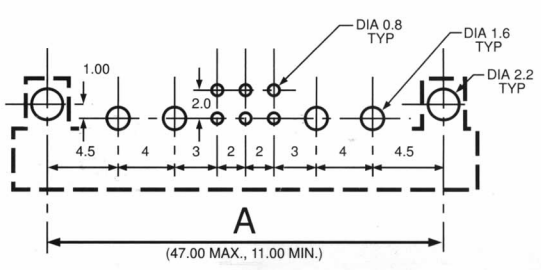


P.C.B. Layout

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

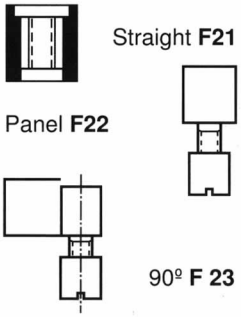
L - 90° p.c. (Male only)
T - Straight p.c.
C - Crimp 24-28 AWG
D - Crimp 22 AWG

Termination Finish

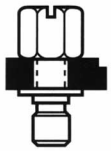
01 - Gold
03 - Tin alloy

Fixings

Male connectors

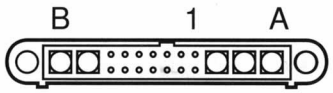


Female connectors



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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