

50 Ω

75 Ω

DC - 6 GHz

INTRODUCTION

- Subminiature coaxial connectors
- "Push-pull" snap-on mating
- Complies with specification CECC 22220
- CEI standard 1169-36

APPLICATIONS

50 Ω models :

- Wireless communications
- Civil and military radio-telecommunication equipment

75 Ω models :

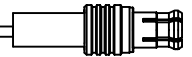
- Videocommunication
- Television broad casting

The **MCX series** utilizes the SMB series electrical line and features a particularly simple, compact and robust interface.

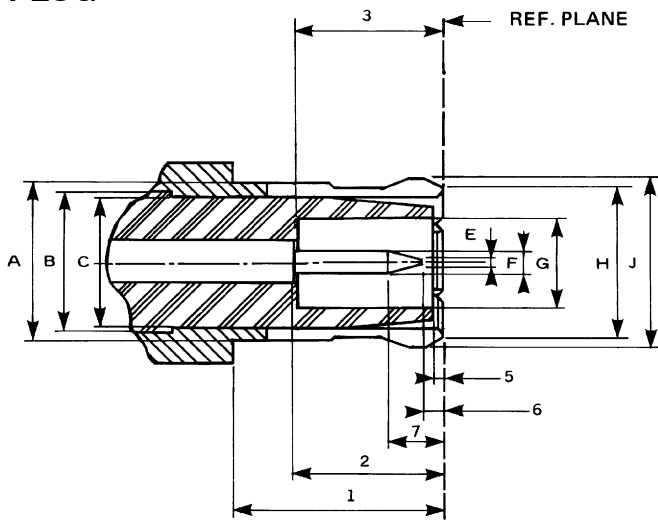
The MCX series is 30 % smaller than the SMB.

The **MCX series** helps to **miniaturize equipment**. It lowers wiring connection costs through its full crimp and solder-crimp versions as the center contact of the straight models can be either crimped or soldered. It optimizes PCB layouts with its range of models for PCBs including surface mount and press-fit receptacles.

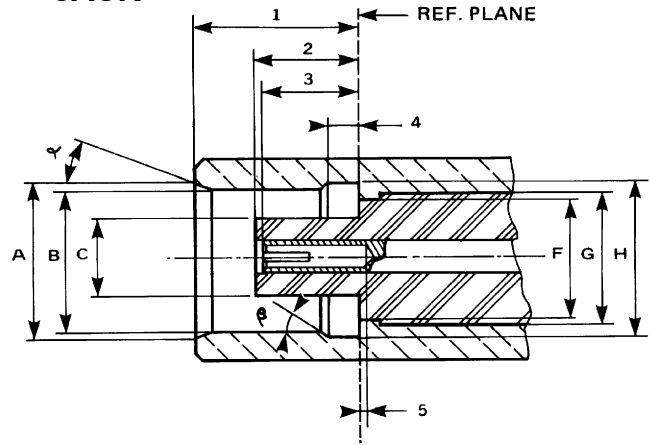
This catalog also includes the whole range of PCB solder coaxial cable terminals (see pages 18/20).



PLUG



JACK



PLUG

ITEM	mm		Inch	
	mini	maxi	mini	maxi
1	4,15	—	.163	
2	2,80	3,20	.110	.126
3	2,80		.110	
5	0,00	0,30	.000	.012
6	0,15		.006	
7		1,20		.047
A		3,40		.134
B	3,05 NOM.		.120 NOM.	
C		3,00		.118
E		0,25		.010
F	0,48	0,53	.019	.021
G	2,00		.079	
H		3,60		.142
J		3,80		.150

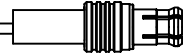
JACK

ITEM	mm		Inch	
	mini	maxi	mini	maxi
1	4,00	4,12	.157	.162
2	2,60	2,80	.102	.110
3	2,30	2,80	.090	.110
4	0,75	0,85	.029	.033
5	0,00		.000	
α	18 °	22 °	18 °	22 °
β	43 °	47 °	43 °	47 °
A	3,80		.150	
B	3,42	3,48	.135	.137
C		1,98		.078
F		3,00		.118
G	3,05 NOM.		3,05 NOM.	
H	3,60	3,75	.142	.148

Note : All dimensions in the following pages of this catalogue are given in inches (mm).

* statistics cotation : .0539 ± .0055 (.0594 max)/(1.37 ± 0.14)(1.51 max)

- 1) Coupling nut against on datum 1
- 2) Coupling nut against on datum 2



REQUIREMENT	GENERAL SPECIFICATIONS		
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ELECTRICAL

Impedance	50 Ω and 75 Ω		
Frequency range	DC - 6 GHz		
Typical V.S.W.R.	1 GHz	2.5 GHz	6 GHz
<i>Straight styles</i>	1.04	1.08	1.13
2.6/50/S	1.06	1.09	1.12
<i>Right angle styles</i>	1.03	1.06	1.10
2.6/50/S	1.04	1.07	1.10
Insulation resistance	1000 MΩ		
Contact resistance (mΩ)	Initial	After environment	
Center contact	≤ 5	≤ 15	
Outer contact	≤ 2.5	≤ 7.5	
Voltage rating (V.R.M.S)	At sea level	At 70.000 Ft	
Cable RG 196/U - RG 188A/U - .047	170 V rms max	45 V rms max	
Ø 2.6 double screen	335 V rms max	85 V rms max	
RG 405/U - .085	250 V rms max	65 V rms max	
Dielectric withstanding voltage	at sea level	at 70.000 Ft	
Cable RG 196/U - RG 188A/U - .047	500 V rms max	100 V rms max	
Ø 2.6 double screen	750 V rms max	100 V rms max	
RG 405/U - .085	750 V rms max	100 V rms max	
Power	P = 120W at 1.8 GHz, T = 40°C at sea level, VSWR = 1.1 for a straight plug MCX for Ø 2.6/50/D cable		

MECHANICAL

Mechanical endurance	500 matings
Engagement and separation force	
Engagement	≤ 14.2 lbs – 63 N max
Separation	≥ 1.8 Lbs – 8N ≤ 4.5 lbs 20 N
Cable retention force	
RG 196A/U-	≥ 7.2 lbs – 32 N
RG 188A/U-	≥ 11.9 lbs – 53 N
Ø 2.6/50 Ω double screen	≥ 24.1 lbs – 107 N
.047	≥ 9.7 lbs – 43 N
RG 405/U-.085	≥ 34.9 lbs – 155 N
Contact captivation	Axial force 2.25 Lbs 10 N

ENVIRONMENTAL

Operating temperature	-55°C +155°C	
Temperature cycling	CECC 22220 paragraph 4-6-5	
Thermal shock	CECC 22220 paragraph 4-6-7	MIL STD 202 - method 107 condition C
High temperature test	CECC 22220 paragraph 4-7-2	MIL STD 202 - method 108A condition D
Corrosion (salt spray)	CECC 22220 paragraph 4-6-10	MIL STD 202 - method 101 condition B
Vibration	CECC 22220 paragraph 4-6-3	MIL STD 202 - method 204 condition D

MATERIALS

Bodies and male contacts	Brass
Interface and female center contacts	Beryllium copper
Ferrules	Brass
Insulators	PTFE

PLATING

Bodies	Gold Nickel BBR (non magnetic)
Center contacts	Gold

Packaging standard : unit except if mentioned