

B110 Series (1mm Male-ST to 1mm Male-ST)

Cable Assembly, 50ohms, DC-110GHz



B110-1Y-1Y-"L" (L: Length)

Maximum Ratings

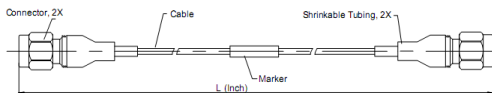
Operating Temperature -55°C to +85°C

Storage Temperature -55°C to +85°C

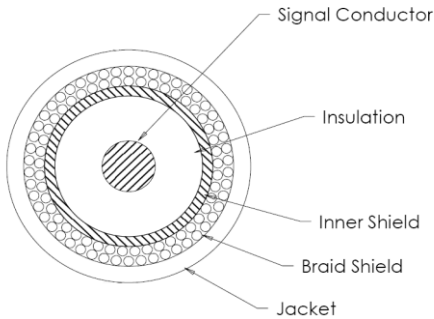
Permanent damage may occur if any of these limits are exceeded

Cable Diameter		1.42mm
Velocity of Propagation		78.7%
Shielding Effectiveness		>100dB
Power Handling at 20°C	18 GHz	11W
	26.5 GHz	8W
	40 GHz	7W
	50 GHz	6W
	67 GHz	5W
	110 GHz	3W
Min. Bending Radius		3mm

Outline Drawing



Cable Cross Section



Cable Construction	
Inner Conductor	SPC, Solid
Dielectric	Foamed PTFE
Inner Shield	Silver-Plated Copper Strip
Outer Shield	Silver-Plated Copper Braid
Jacket	FEP

Connectors	
● Nut, Stainless steel, Passivated	
● Body, Stainless steel, Passivated	
● Center contacts, Berillium Copper, Gold plated	
● Dielectric, PEI	

Product Guarantee*

Micable will repair or replace your cable assembly if it fails within six months after shipment. This guarantee excludes product damage from misuse or abuse

Features

- Super flexible with minimum bending radius of 3 mm
- Low loss with 15dB/m @ 110GHz
- VSWR <1.45:1 @ 110GHz
- Excellent shielding effectiveness >100 dB
- Excellent phase stability vs temperature 400ppm@-40~+70°C
- Very stable performance during bending and shaking
 - Amplitude Stability: <±0.1dB@110GHz
 - Phase Stability vs. Flexure: ±8°@110GHz(When wrapped 360° around a 14.2mm radius mandrel)

Applications

- Connections of module to module or rack to rack
- Various test systems
- Temperature cycle test in chamber
- Military and commercial miniature wave equipment

Electrical Specifications at 25°C

Freq. (GHz)	Length (inch)	Insertion Loss (dB@GHz)								VSWR (@GHz)							
		DC - 40		40-50		50-67		67-110		DC - 40		40-50		50-67		67-110	
		Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.
DC-110	4	1.1	1.3	1.2	1.5	1.6	1.9	2.2	2.6	1.26	1.30	1.31	1.35	1.37	1.40	1.41	1.45
	6	1.5	1.7	1.7	2.0	2.0	2.4	2.9	3.3								
	9	2.0	2.3	2.2	2.6	2.8	3.2	4.0	4.5								
	12	2.6	2.9	2.9	3.3	3.6	4.0	5.1	5.6								

Typical Performance Data (B110-1Y-1Y-12)

Frequency(GHz)	VSWR	Insertion Loss (dB)
0.01	1.02	0.05
1	1.05	0.34
2	1.07	0.52
3	1.09	0.68
4	1.06	0.77
5	1.13	0.86
6	1.09	0.99
8	1.16	1.13
10	1.11	1.31
12	1.15	1.42
14	1.17	1.58
16	1.23	1.67
18	1.20	1.78
26.5	1.25	2.12
30	1.21	2.25
40	1.26	2.54
50	1.31	2.83
60	1.25	3.27
67	1.37	3.54
110	1.41	5.07

