

# B12Y Series (N Male-RA to N Male-RA)

## High Performance Cable Assembly, 50ohms, DC-18GHz



### B12Y-500-500-"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	4.9mm	
Velocity of Propagation	83%	
Shielding Effectiveness	>90dB	
Power Handling at 20°C	1 GHz	875W
	2 GHz	615W
	6 GHz	350W
	12GHz	244W
	16 GHz	210W
	18 GHz	197W
Min. Bending Radius	20mm	

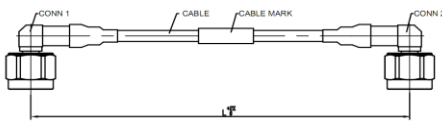
#### Features

- Stainless steel connectors for long mating-cycle life
- High shielding effectiveness, >90dB
- Excellent phase stability over temperature, 500ppm@-55°C--+85°C
- Extremely low loss, low VSWR
- High power handling
- Low loss: cable insertion loss <1.1dB/m@18GHz
- Very stable performance during flexing and shaking
  - Amplitude Stability: <±0.05dB@18GHz
  - Phase Stability vs. Flexure: <±4°@18GHz
 (When wrapped 360° around a 49mm radius mandrel)

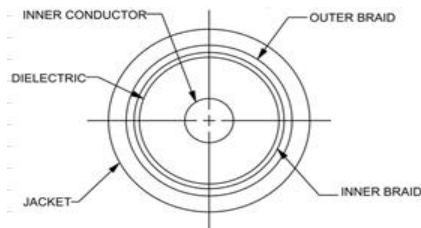
#### Applications

- Phase array radars
- Rack to rack connection
- RF/Microwave test systems
- Airborne, ground and shipborne systems

Outline Drawing Unit [mm]



Cable Cross Section



#### Cable Construction

Inner Conductor	Solid Silver Plated Copper
Dielectric	LD-PTFE
Inner Braid	Silver-Plated Copper Strip
Outer Braid	Silver-Plated Copper Braid
Jacket	FEP

#### Connectors

- Nut, Stainless steel, Passivated
- Body, Stainless steel, Passivated
- Center contacts, Brass, Gold plated
- Dielectric, PTFE, Natural

#### 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

#### Electrical Specifications at 25°C

Freq. (GHz)	Length (m)	Insertion Loss (dB@GHz)								VSWR (@GHz)								
		DC - 3		3-6		6-12		12-18		DC - 3		3-6		6-12		12-18		
		Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	
DC-18	0.5	0.4	0.5	0.5	0.6	0.6	0.8	0.7	0.9	1.14	1.20	1.17	1.25	1.22	1.30	1.28	1.35	
	1	0.5	0.7	0.7	0.9	1.0	1.2	1.2	1.5									
	1.5	0.7	0.9	0.9	1.1	1.5	1.7	1.8	2.1									

#### Typical Performance Data (B12Y-500-500-1M)

Frequency(MHz)	VSWR	Insertion Loss (dB)
50	1.02	0.03
1000	1.05	0.25
2000	1.14	0.35
3000	1.11	0.43
4000	1.17	0.50
5000	1.11	0.57
6000	1.15	0.64
7000	1.13	0.72
8000	1.20	0.79
9000	1.15	0.85
10000	1.18	0.90
12000	1.22	0.97
13000	1.20	1.03
15000	1.10	1.15
18000	1.28	1.24

