

Precision Low Loss Flexible Cable Assemblies

- Cost Effective
- Low Insertion Loss
- Electrically Tested
- SMA, N, TNC, N, and 7mm Connectors

Midwest Microwave offers a complete assortment of precision high performance cable assemblies to fit your test system requirements. They combine electrical stability with durable construction and provide excellent performance characteristics up to 26.0 GHz. They are available from stock in SMA, Type N, TNC, and 7mm connector interface types and are designed to provide superior performance at a cost effective price. Custom phase matched and time delay assemblies can also be supplied to specific specifications upon request with custom identification markers if required.



Cable Assemblies using M 42 Cable		
MIDWEST CABLE No.	Connectors	Length (in.)
CSY-SMSM-42-006-IS	SMA Male to SMA Male	6
CSY-SMSM-42-012-IS	SMA Male to SMA Male	12
CSY-SMSM-42-018-IS	SMA Male to SMA Male	18
CSY-SMSM-42-024-IS	SMA Male to SMA Male	24
CSY-SMSM-42-036-IS	SMA Male to SMA Male	36
CSY-NMNM-42-006-IS	N Male to M Male	6
CSY-NMNM-42-012-IS	N Male to N Male	12
CSY-NMNM-42-018-IS	N Male to N Male	18
CSY-NMNM-42-024-IS	N Male to N Male	24
CSY-NMNM-42-036-IS	N Male to N Male	36

Cable Assemblies using M 52 Low Loss Cable		
MIDWEST CABLE No.	Connectors	Length (in.)
CSY-SMSM-52-006-IS	SMA Male to SMA Male	6
CSY-SMSM-52-012-IS	SMA Male to SMA Male	12
CSY-SMSM-52-018-IS	SMA Male to SMA Male	18
CSY-SMSM-52-024-IS	SMA Male to SMA Male	24
CSY-SMSM-52-036-IS	SMA Male to SMA Male	36
CSY-NMNM-52-006-IS	N Male to M Male	6
CSY-NMNM-52-012-IS	N Male to N Male	12
CSY-SMSM-52-018-IS	N Male to N Male	18
CSY-NMNM-52-024-IS	N Male to N Male	24
CSY-NMNM-52-036-IS	N Male to N Male	36

Note: For 7mm, N, & TNC connector configured cable assemblies, simply substitute "7M7M" or "NNN", "TMTM" for "SMSM" in the Midwest Cable No.

Insertion Loss					
Frequency (GHz)	SMA dB	Type N dB	TNC dB	Cable - dB per ft	
2.0	0.03	0.05	0.04	M42 0.17	M52 0.12
4.0	0.05	0.08	0.07	0.25	0.18
6.0	0.06	0.10	0.09	0.33	0.22
8.0	0.07	0.11	0.10	0.40	0.26
10.0	0.08	0.13	0.12	0.46	0.30
12.0	0.09	0.14	0.13	0.50	0.33
14.0	0.10	0.20	0.18	0.56	0.36
16.0	0.11	0.22	0.20	0.60	0.39
18.0	0.12	0.25	0.23	0.64	0.41

Cable Specifications		
MIDWEST CABLE TYPE	M 42	M 52
Impedance	50	50
Center Conductor Type	Solid	Stranded
Outside Dia - in(mm)	0.180 (4.6)	0.205 (5.2)
Frequency Cutoff - (GHz)	26.0	28
Insertion Loss - (dB)	see chart	see chart
CW Power - (kW) @ 5 GHz	0.40	0.85
RF Leakage - (dB) @ 5 GHz	-90	-90
Capacitance - (pF/M)	89	95
Velocity of Propagation - (%)	70	76.5
Time Delay - (nS/M)	3.7	3.4
Temperature Range - (oC)	-55 to 200	-65 to 200
Minimum Bend Radius- in (mm)	1.4 (35.6)	1.0 (25.4)
Weight (lbs per ft)	0.03	0.05

Materials and Finishes

Center Conductor - Silver-coated copper clad steel per ASTM-B-298.

Electrical Shields - Silver coated flat copper per IPC-FC-221.

Mechanical Shields - Silver-coated copper per ASTM-B-298.

Dielectric Core - Extruded Polytetrafluoroethylene (PTFE), per MIL-C-17.

Outer Jacket - Extruded fluorinated ethylene propylene (FEP) per MIL-C-17