

Ultra-Flex

For Hand Formed Semi-Flexible Cable Assemblies

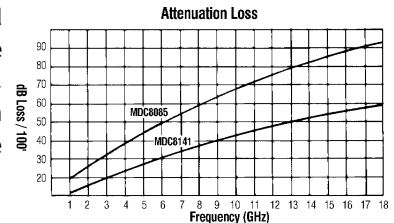
Features

- No bending tools required
- Ultra-flexibility
- 100% shielded
- Many connector possibilities
- Low insertion loss
- Cable spools & cable assemblies available to 100 feet
- Perfect for prototypes
- Excellent for laboratory
- May be purchased without connectors
- Dielectric material: Teflon (TFE)
- Outer jacket: Silver coated copper covered steel
- Shield: Tin filled copper braid, 100% coverage
- Velocity of propagation: 70% nominal

MIDISCO Ultra-Flex coaxial cable and assemblies eliminate the need for tooling normally required to form semi-rigid assemblies. This cable series is extremely flexible, can be shaped and reshaped by hand, and supplied with most of the standard connector types. The 100% shielded cable has a copper-tin composition outer jacket, teflon insulator and a silver coated copper over steel center conductor. Both 50 ohm versions, the 0.085 diameter (MDC8085) and 0.141 diameter (MDC8141) types have excellent electrical performance to 20 GHz and above at temperatures to 200°C. A 75 ohm version (MDC8084) is also available.

These assemblies are perfect for prototype and production applications, especially when there are close quarters that don't permit pre-bending. The low loss, good VSWR ultra- flexibility and wide connector selection make them useful in the test laboratory. Connectors are also available separately. Delivery is one week.

Performance



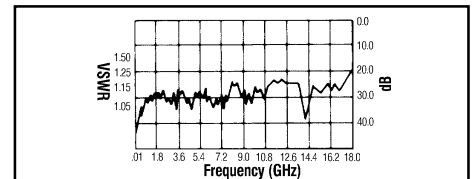
Cable Type*	Impedance ohms (nom)	Cable O.D.	Dielectric O.D.	Shield ohms/K'	Conductor O.D.	Capacitance pF/ft (nom)	Attenuation (loss) @ Freq. (MHz) dB/100ft.										Bend Radius	
							50	100	200	400	700	1000	4000	7000	10000	18000	min.	suggstd.
MDC8141	50	0.141	0.118	4.5	0.0365	29.3	2.4	3.5	5.0	7.6	10.0	13.0	30.0	41.0	50.0	73.0	.500	.750
MDC8085	50	0.083	0.064	10.2	0.0201	29.3	4.5	6.5	9.2	13.0	17.0	22.0	44.0	58.0	70.0	105.0	.125	.250
MDC8084	75	0.084	0.065	10.2	0.0113	19.3	4.5	6.6	10.0	15.0	21.0	26.0	60.0	82.0	110.0	—	.125	.250

* Also see MDC8402 & MDC8405 in High Performance Cable Assemblies section of catalog.

Cable Assembly Ordering Information

Insert Cable Type chosen into part number formula: ConnectorA—Cable—ConnectorB—Length(inches)
 Example: SM-8085-BF-27 is a 27 inch assembly with an SMA male and BNC female connectors using MDC8085 cable. For further information, please contact MIDISCO.

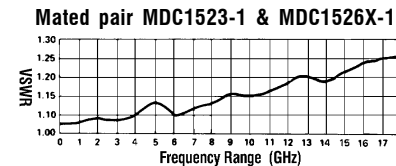
See the Coaxial Cable Assemblies section for cable assemblies available from stock.



Typical VSWR — MDC8141 Cable
10 foot Cable Assembly with SMA (M) Connectors

Connectors (Precision)

Semi-Rigid, Ultra-Flex, & Snake — Type N & SMA

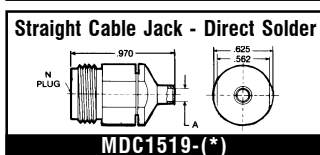
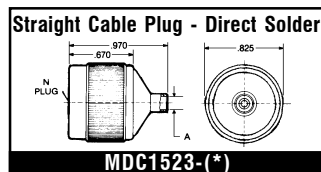
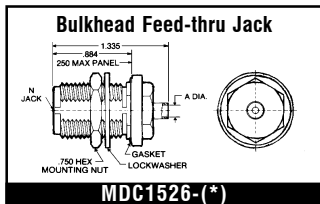
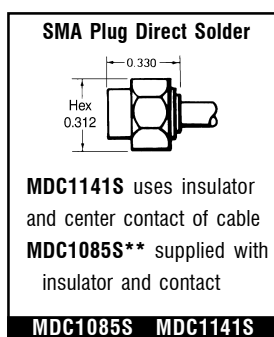
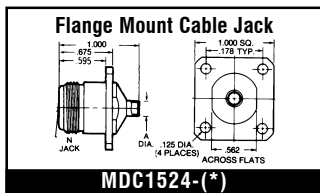


MIDISCO'S cable assembly department designed two versatile, very small SMA plugs, model MDC1141S for 0.141 dia. (RG402) and MDC1085S for 0.085 dia. (RG405) semi-rigid cable. Each is small enough to allow tight bends, has retractable coupling nuts (snap

off "C" rings), that eliminate blind mating, are self facing, and assemble easily and quickly. MDC1141S is also designed to be used with rebendable SNAKE MDC5141 and Ultra-Flex MDC8141. MDC1085S, in addition to standard semi-rigid cable, is for use with SNAKE MDC5085 and Ultra-Flex MDC8085. Both types are assembled to the cable with a single soldering operation. Standard versions have a gold plated body and stainless finish (passivated) coupling nut. For gold plating all over, drop the "S" suffix (example MDC1141).

MIDISCO's MDC1523-* precision type N plugs for semi-rigid, and similar type cables use mode-free design techniques to provide excellent VSWR to 18 GHz. The MDC1519-(*), MDC1524-(*), and the MDC1526-(*). The MDC1526-(*). Bulkhead Feed-thru Jack is also available for 18 GHz applications as the MDC1526X-(*). All type N connectors shown accommodate 0.085, 0.141, and 0.250 diameter semi-rigid cables and the complimentary SNAKE, Ultra-Flex, and the MDC8401, MDC8402 and MDC8405 coaxial cables, which are flexible, teflon-jacketed equivalents to 0.085, 0.141 and 0.250 semi-rigid. All are easy-to-assemble direct solder types.

Suffixes: "-1" for 0.141 (RG402) Semi-Rigid Cable; "-2" for 0.085 (RG405) Semi-Rigid Cable; "-3" for 0.250 (RG401) Semi-Rigid Cable; "-4" for RG174, 188, 316 flexible cable (slightly different dimensions and assembly)



** For connector with pre-assembled contact, specify MDC1085PS or MDC1085P.