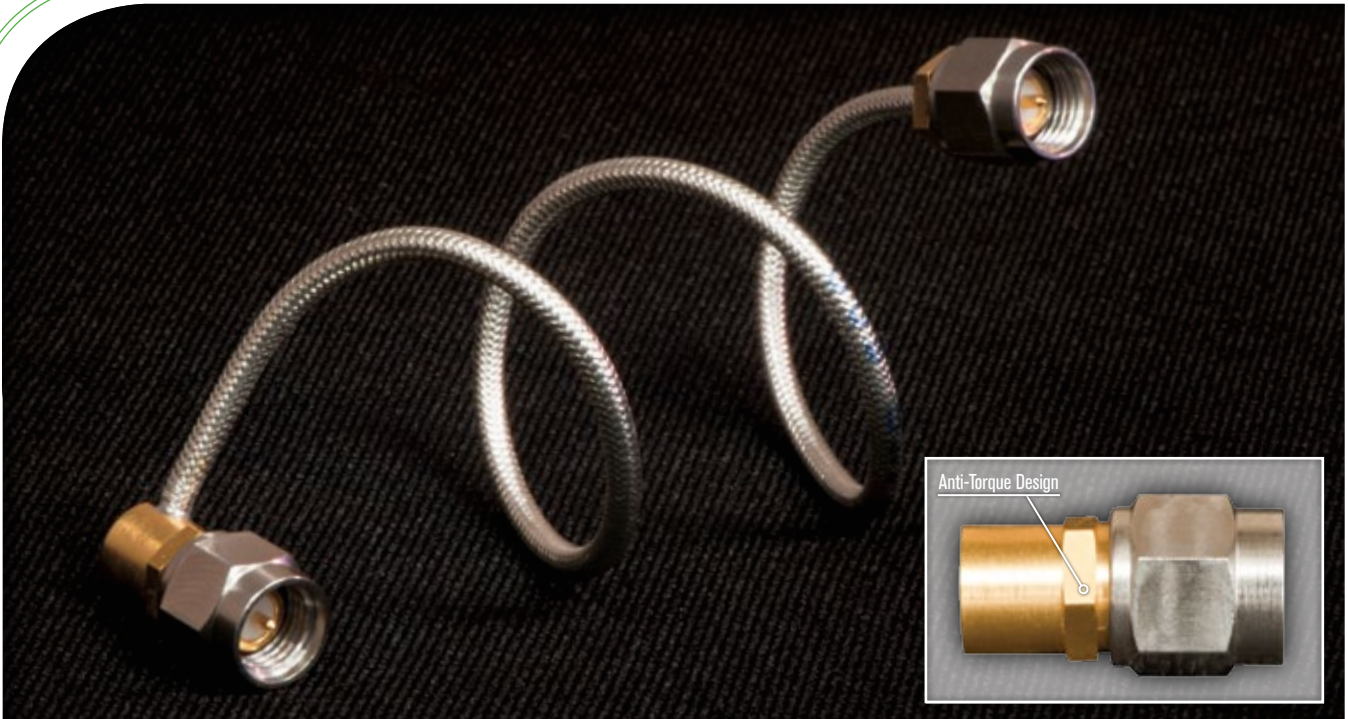


# Semi-Flex® Cable Assemblies

## DC - 40 GHz

**CARLISLE**  
INTERCONNECT TECHNOLOGIES



Semi-Flex Cable Assembly

### INTRODUCTION

Semi-Flex® coaxial cable assemblies are a tried and proven alternative to traditional Semi-Rigid Coaxial Cables. These cables provide comparable electrical performance to semi-rigid cables, while simultaneously allowing simple formation for use within RF/Microwave systems, as well as, for making external connections to other equipment. The outer conductor is comprised of a tin filled copper wire braid, which enables easy forming and re-forming by hand without the need for bending tools. With a Copper/Poly Foil inner layer along with Semi-Rigid style dielectric and center conductor, our Semi-Flex cables provide enhanced shielding and performance that exceeds traditional conformable cables.

There is no significant electrical performance degradation when the Semi-Flex cables are formed into position. The conformable property of the cable allows it to retain its shape making field installations fast and simple. The malleable nature of the outer jacket eliminates solder joint failures and allows bends immediately behind the fillet. These features, along with CarlisleIT's Anti-Torque connector designs (see inset) remarkably extend the assemblies' working life even after many connect/disconnect cycles.

CarlisleIT's Semi-Flex cable assemblies allow you to meet deadlines, reduce cost, eliminate tooling and drafting needs, and simplify manufacturing processes all at once.

### FEATURES

- » Hand-formable without the need for bending tools
- » Excellent electrical performance; comparable to semi-rigid cables
- » 100% Shielded with two metal outer conductors for reduced leakage
- » Improved flexibility and bending radius compared to semi-rigid
- » Quick and Easy Assembly; available in various lengths and connector options
- » 1 Week Lead Time

### CUSTOM SOLUTIONS

In addition to our standard offering, CarlisleIT has also built a vast library of modified designs from the myriad of custom solutions we have delivered to our customers. We offer a variety of customized options for these semi-flex cables, which include different connector options, higher frequency coverage, extended environmental testing, etc. Our team of dedicated Engineers can help develop the right solution for your application needs.

# Semi-Flex® Cable Assemblies

## How to Order:

- 1) Choose your Cable Code from the Semi-Flex® Cable Information table.
- 2) Choose your Connector Codes from the Connector Codes table (consult factory if your connector is not shown).
- 3) Build your assembly Part Number from the Part Number Guide.

## Semi-Flex® Cable Information

Product	Cable Code	Jacket Type	Max. Frequency	Max. Insertion Loss (dB p/ft.)	VSWR @ Max Freq.	Available Connectors
.047 Type Semi-Flex®	604	None*	20GHz	1.90	1.50:1	MCX, SMA, SMP, SSMP
.086 Type Semi-Flex®	600	None*	40GHz	1.92	1.38:1	MCX, TNC, Type N, BMA, SMA, K, SMP, SSMP
	620	Standard**	26.5GHz	1.48	1.17:1	
	650	High Temp†	18GHz	1.16	1.17:1	
.141 Type Semi-Flex®	601	None*	26.5GHz	0.94	1.17:1	TNC, N, BMA, SMA
	621	Standard**	26.5GHz	0.94	1.17:1	
	651	High Temp†	18GHz	0.73	1.17:1	
.250 Type Semi-Flex®	606	None*	18GHz	0.48	1.15:1	TNC, N, SMA

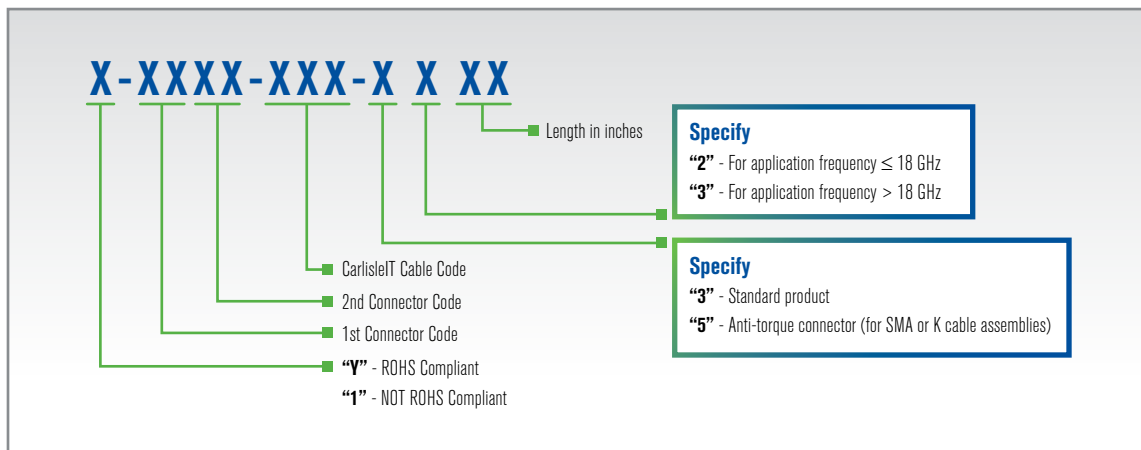
\* = Tin Filled Copper Braid Outer Conductor Only / \*\* = Polyurethane Coating over Outer Conductor / † = FEP Coating over Outer Conductor

## Connector Codes

SERIES:	MCX	TNC	Type N	BMA	SMA	K (2.92mm)	SMP	SSMP
Max Freq. (GHz)	6	18	18	22	26.5	40	40	60‡
	<b>CODES</b>	<b>CODES</b>	<b>CODES</b>	<b>CODES</b>	<b>CODES</b>	<b>CODES</b>	<b>CODES</b>	<b>CODES</b>
PLUG	M6	30	18	R1	36	K6	G6	R6
RIGHT ANGLE PLUG	M7	31	19	N/A	37	N/A	G7	R7
JACK	M8	32	20	R2	38	K8	G8	R8
PANEL JACK	M9	33	21	R4	39	K9	G9	R9
BULKHEAD JACK	M0	34	22	R3	40	K0	N/A	N/A

‡ = Max Frequency of cable assembly limited by the cable operating frequency

## Part Number Guide



## Notes:

Connector codes should be listed in increasing numerical sequence and numbers should precede codes with letters.  
Examples: **1-3640-601-5212** and **1-36G6-600-5212**