

The **SCI141** Interconnect Assembly series incorporates Conformable™ cable and standard connectors providing an alternative to semi-rigid cable assemblies to 12GHz. These assemblies feature a copper foil tape and tin-filled composite cable jacket. The assemblies have standard connectors designed to meet MIL-C-39012 in straight male and right angle male SMA. These cable assemblies are useful where semi-rigid cable would be used, but can be hand formed without the expensive cost of design, tooling and drawings.

### FEATURES

Copper tinned composite jacket for hand formability

Solid PTFE dielectric

Tight bending radius of .188 inches

Low Cost

### CONNECTORS

SMA Straight Male and right angle male

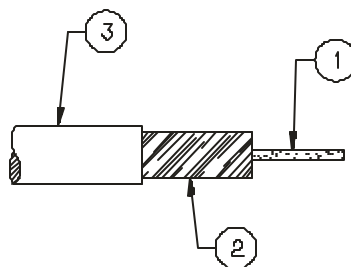
### CABLE SIZE

.141 inches, nominal outer diameter; 4 inches to 18 inches, 24 inches standard lengths

### APPLICATIONS

Alternative for semi-rigid assemblies

### Cable Construction



1. Center conductor: Silver plated copper clad steel\*
  2. Dielectric: Solid PTFE
  3. Outer conductor: Copper foil tape and tin-filled composite braid
- \* Silver plating per ASTM-B-298

Conformable is a registered trademark of Belden Wire & Cable Company

### ELECTRICALS

Velocity of Propagation %		69.5
RF Leakage Min. @ 10GHz dB/m		-85
Impedance	Nominal	50
Capacitance	pF/ft (pF/m)	29 (95.14)

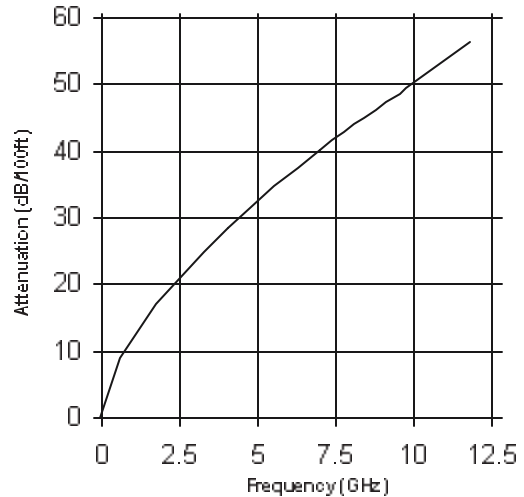
### MECHANICAL/ENVIRONMENTAL

Nominal Diameter	inches (cm)	.141 (.351)
Minimum Bend Radius	inches (cm)	.188 (.467)
Minimum Flex Radius	inches (cm)	.500 (1.270)
Temperature	DEG. C	-40/+125
Weight	lb/100ft (kg/m)	3.4 (.05)

### Materials and Finishes (Cable)

Jacket	Tin Filled Braid Composite
Dielectric	TFE Teflon
Center Conductor	Steel, copper clad, silver plated

SC141 CABLE  
ATTENUATION vs FREQUENCY

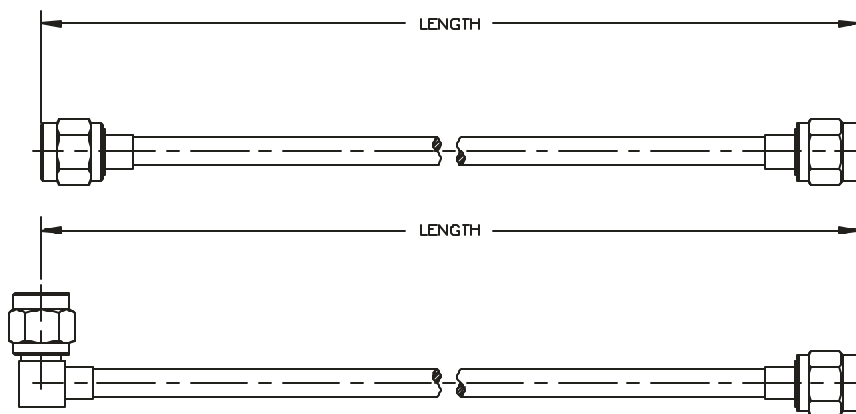


### CONNECTOR CODES



CONNECTOR STYLE	FREQ GHz	MALE	
		BTR	RA
SMA	12	21	22

STANDARD LENGTHS OF 4 INCHES TO 18 INCHES IN ONE INCH INCREMENTS PLUS 24 INCHES



### HOW TO SPECIFY PART NUMBER

FOR EXAMPLE:



PART NUMBER IS: 21 21 SC141 024

The **SCA 141** Interconnect Assembly series incorporates Conformable™ cable and standard connectors providing an alternative to semi-rigid cable assemblies to 18 GHz. These assemblies feature a copper foil tape and tin-filled composite cable jacket. The assemblies have connectors designed to meet MIL-C-39012 in straight male antitorque and right angle male SMA. These cable assemblies are useful where semi-rigid cable would be used, but can be hand formed without the expensive cost of cable design, tooling and drawings.

## FEATURES

- Copper tinned composite jacket for hand formability
- Solid PTFE dielectric
- Tight bending radius of .188 inches
- Cost effective alternative for semi-rigid assemblies

## CONNECTORS

- SMA straight male antitorque and right angle male

## CABLE SIZE

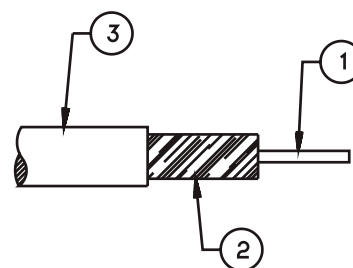
- .141 inches, nominal outer diameter; 4 inches to 18 inches, 24 inches standard lengths

## APPLICATIONS

- Interconnect assembly for signal routing



### Cable Construction



1. Center conductor: Silver plated copper clad steel \*
  2. Dielectric: Solid PTFE
  3. Outer conductor: Copper foil tape and tin-filled composite braid
- \* Silver plating per ASTM-B-298

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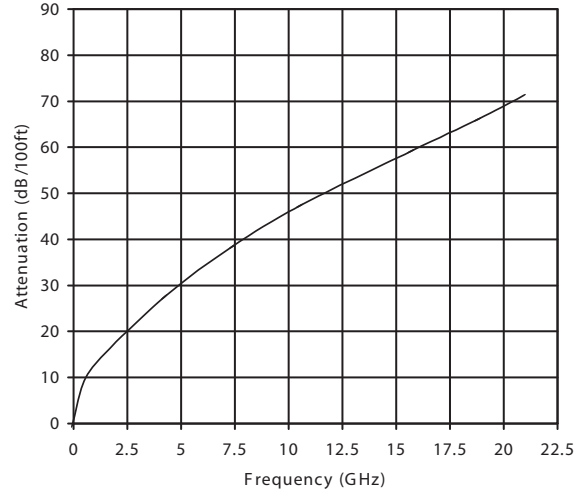
ELECTRICAL		
Velocity of Propagation	%	69.5
RF Leakage Min. @ 1GHz	dB/ft (dB/m)	-100 (30.5)
Impedance	Nominal	50
Capacitance	pF/ft (pF/m)	29.5 (96.8)

MECHANICAL/ENVIRONMENTAL		
Nominal Diameter	inches (cm)	0.141 (.351)
Minimum Bend Radius	inches (cm)	0.188 (.467)
Minimum Flex Radius	inches (cm)	.500 (1.270)
Temperature	DEG. C	-40/+125
Weight	lb/1000 FT	25.8

MATERIALS AND FINISHES (SMA male CONNECTORS)	
Body (Anti-torque)	Gold Plated Copper Alloy
Nut	Passivated Stainless
Gasket	Silicone Rubber
Contact	BeCu / Gold plated
Insulator	PTFE

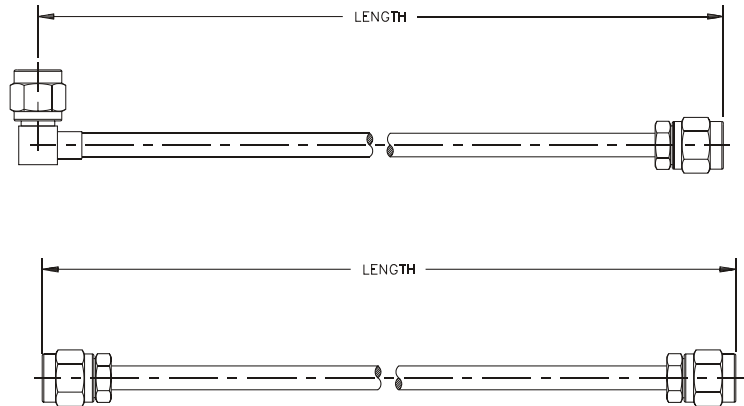
CABLE MATERIALS	
Jacket	Tin Filled Braid Composite
Dielectric	PTFE Teflon
Center Conductor	Silver Plated Copper Clad Steel

SC141 CABLE  
ATTENUATION vs FREQUENCY



CONNECTOR CODES			
CONNECTOR STYLE	FREQ GHz	MALE	
		STR	RA
SMA	18	21	22

STANDARD LENGTHS OF 4 INCHES TO 18 INCHES IN ONE INCH INCREMENTS PLUS 24 INCHES



### HOW TO SPECIFY PART NUMBER

CONNECTOR ONE

CONNECTOR TWO

**SCA 1 4 1**  
CABLE

LENGTH (INCHES)

FOR EXAMPLE:

SMA STRAIGHT MALE TO SMA STRAIGHT MALE, 24 INCHES LONG.  
NOTE: USE LEADING ZEROS WHEN SPECIFYING LENGTH.

PART NUMBER IS: **21 21 SCA141 024**