

# 18 GHz PRECISION RF COAX CABLE ASSEMBLIES WITH STAINLESS STEEL CONNECTORS



## SS402 50 Ohm 18 GHz Precision Coaxial Cables

### Features:

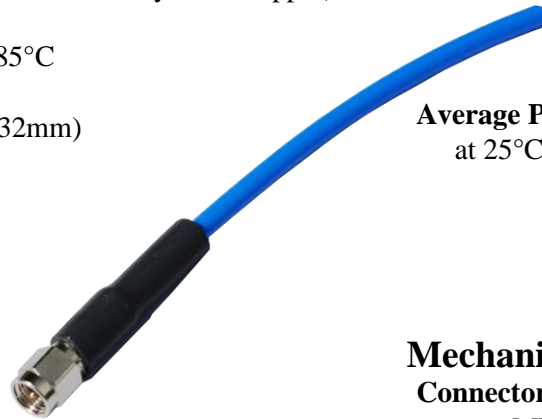
<b>Strain Relief:</b>	Heavy duty adhesive strain relief
<b>Center Conductor:</b>	SPCCS (Silver-Plated Copper Clad Steel)
<b>Inner Shielding:</b>	SS (Spiral Strip of Silver-Plated Copper)
<b>Outer Braid:</b>	SPC (Silver-Plated Copper Braid)
<b>Insulation:</b>	PTFE (Polytetrafluoroethylene) Dielectric
<b>Jacket:</b>	ETFE (Ethylene Tetrafluoroethylene Copolymer)
<b>Cable Outer Diameter:</b>	0.163 in. (4.14mm)
<b>Connectors:</b>	SST, corrosion-resistant, per ASTM-A582 (Passivated finish per SAE-AMS-2700)
<b>Center Pin:</b>	GPBC (Gold-Plated Beryllium Copper)
<b>Jacket Color:</b>	Blue
<b>Operating Temperature:</b>	-45°C to +85°C

**Minimum Bend Radius:** 0.8 in. (20.32mm)

*Custom Lengths Available*

### Available Connector Terminations:

- SMA Male
- SMA Male Right Angle



### Electrical Specifications:

<b>Impedance:</b>	50 Ohms
<b>Frequency:</b>	18 GHz
<b>Insertion Loss* (dB/ft):</b>	0.66 Typical at 18GHz
<b>VSWR:</b>	<1.3, DC to 18 GHz
<b>Nominal Capacitance:</b>	29 pF/ft
<b>Velocity of Propagation:</b>	70%
<b>Shield Effectiveness:</b>	Greater than 110 dB
<b>Attenuation (dB/ft):</b>	0.08 Typical at 500 MHz
<b>*connector loss not included</b>	0.11 Typical at 1 GHz
	0.21 Typical at 3 GHz
	0.32 Typical at 6 GHz
	0.50 Typical at 12 GHz
	0.66 Typical at 18 GHz
<b>Average Power (Watts):</b>	920 @ 500 MHz
<b>at 25°C</b>	620 @ 1 GHz
	360 @ 3 GHz
	220 @ 6 GHz
	150 @ 12 GHz
	120 @ 18 GHz

### Mechanical Specifications:

- Connector Corrosion (salt spray):**  
MIL-STD-202, Method 101,  
Condition B, 5% salt solution
- Connector Durability:**  
500 Connections Minimum

### SMA Male [Straight] / SMA Male [Straight]

Part Number	Description	Length
CCSMA-MM-SS402-6	SS402 Precision Coax Cable, SMA Male Straight / SMA Male Straight	6"
CCSMA-MM-SS402-12	SS402 Precision Coax Cable, SMA Male Straight / SMA Male Straight	12"
CCSMA-MM-SS402-24	SS402 Precision Coax Cable, SMA Male Straight / SMA Male Straight	24"
CCSMA-MM-SS402-36	SS402 Precision Coax Cable, SMA Male Straight / SMA Male Straight	36"
CCSMA-MM-SS402-48	SS402 Precision Coax Cable, SMA Male Straight / SMA Male Straight	48"
CCSMA-MM-SS402-60	SS402 Precision Coax Cable, SMA Male Straight / SMA Male Straight	60"
CCSMA-MM-SS402-72	SS402 Precision Coax Cable, SMA Male Straight / SMA Male Straight	72"
CCSMA-MM-SS402-120	SS402 Precision Coax Cable, SMA Male Straight / SMA Male Straight	120"

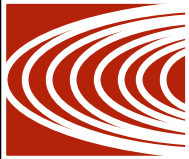
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## SMA Male [Straight] / SMA Male Right Angle

Part Number	Description	Length
CCSMA1-MM-SS402-6	SS402 Precision Coax Cable, SMA Male Straight / SMA Male R/A	6"
CCSMA1-MM-SS402-12	SS402 Precision Coax Cable, SMA Male Straight / SMA Male R/A	12"
CCSMA1-MM-SS402-24	SS402 Precision Coax Cable, SMA Male Straight / SMA Male R/A	24"
CCSMA1-MM-SS402-36	SS402 Precision Coax Cable, SMA Male Straight / SMA Male R/A	36"
CCSMA1-MM-SS402-48	SS402 Precision Coax Cable, SMA Male Straight / SMA Male R/A	48"
CCSMA1-MM-SS402-60	SS402 Precision Coax Cable, SMA Male Straight / SMA Male R/A	60"
CCSMA1-MM-SS402-72	SS402 Precision Coax Cable, SMA Male Straight / SMA Male R/A	72"
CCSMA1-MM-SS402-120	SS402 Precision Coax Cable, SMA Male Straight / SMA Male R/A	120"

## SMA Male [Right Angle] / SMA Male [Right Angle]

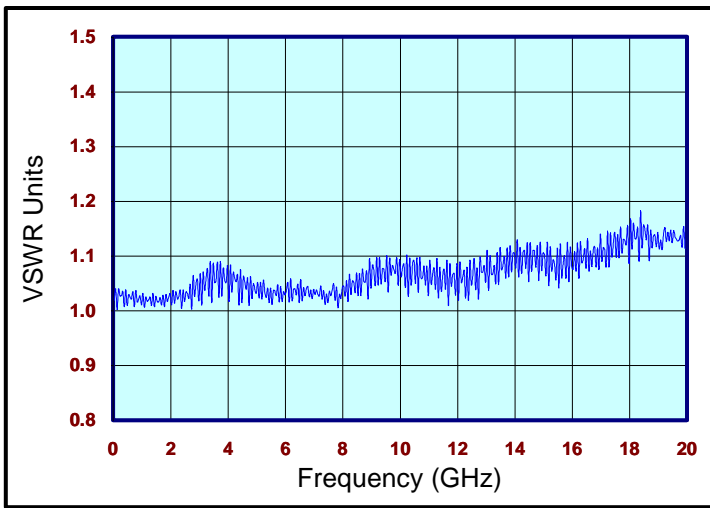
Part Number	Description	Length
CCSMA2-MM-SS402-6	SS402 Precision Coax Cable, SMA Male R/A / SMA Male R/A	6"
CCSMA2-MM-SS402-12	SS402 Precision Coax Cable, SMA Male R/A / SMA Male R/A	12"
CCSMA2-MM-SS402-24	SS402 Precision Coax Cable, SMA Male R/A / SMA Male R/A	24"
CCSMA2-MM-SS402-36	SS402 Precision Coax Cable, SMA Male R/A / SMA Male R/A	36"
CCSMA2-MM-SS402-48	SS402 Precision Coax Cable, SMA Male R/A / SMA Male R/A	48"
CCSMA2-MM-SS402-60	SS402 Precision Coax Cable, SMA Male R/A / SMA Male R/A	60"
CCSMA2-MM-SS402-72	SS402 Precision Coax Cable, SMA Male R/A / SMA Male R/A	72"
CCSMA2-MM-SS402-120	SS402 Precision Coax Cable, SMA Male R/A / SMA Male R/A	120"



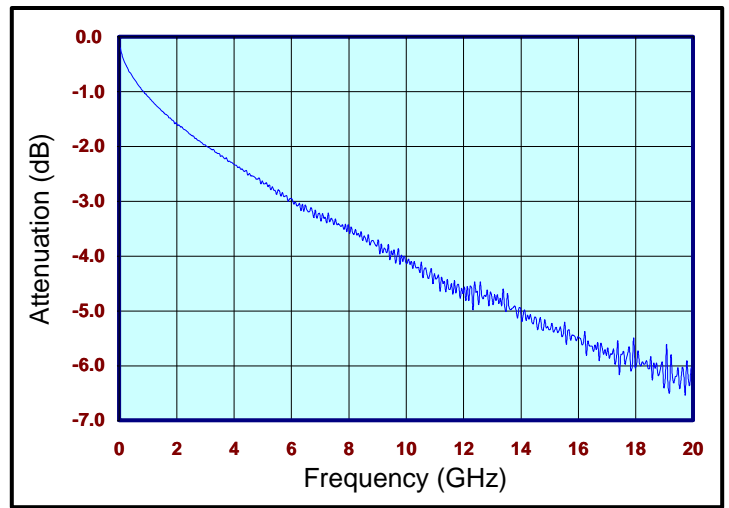
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Data plots contained within this specification are generated from actual production cable assemblies. This data represents the typical performance that can be expected from each cable assembly. The data is plotted from raw data without modification (ie: Smoothing or Averaging.)

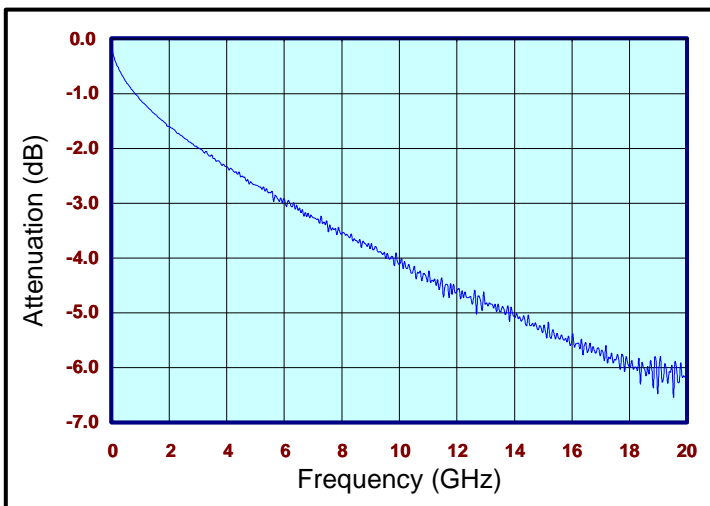
PN: CCSMA-MM-SS402-120  
 VSWR (S11)



PN: CCSMA-MM-SS402-120  
 INSERTION LOSS (S12)



PN: CCSMA-MM-SS402-120  
 INSERTION LOSS (S21)



PN: CCSMA-MM-SS402-120  
 VSWR (S22)

