CRYSTEK MICROWAVE
A DIVISION OF CRYSTEK CORPORATION

18 GHZ PRECISION RF COAX CABLE ASSEMBLIES WITH STAINLESS STEEL CONNECTORS

SS402 50 Ohm 18 GHz Precision Coaxial Cables

RoHS Compliant

Features:

Strain Relief:	Heavy duty adhesive strain relief
Center Conductor:	SPCCS (Silver-Plated Copper Clad Steel)
Inner Shielding:	SS (Spiral Strip Of Silver-Plated Copper)
Outer Braid:	SPC (Silver-Plated Copper Braid)
Insulation:	PTFE (Polytetrafluoroethylene) dielectric
Jacket:	ETFE (Ethylene Tetrafluoroethylene Copolymer)
Cable Outer Diameter:	0.163" (4.14mm)
Connectors:	SST, corrosion-resistant, per ASTM-A582 (Passivated finish per SAE-AMS-2700)
Center Pin:	GPBC (Gold-Plated Beryllium Copper)
Jacket Color:	Blue
Operating Temperature:	-45°C to +85°C
Minimum Bend Radius:	0.8" (20.32mm)

Custom Lengths Available

Available Connector Terminations:

SMA Male
SMA Male Right Angle
Type N Male
Type N Bulkhead Female
Type N Male Right Angle
TNC Male
TNC Bulkhead Female
TNC Male Right Angle

Electrical Specifications:

Impedance:	50 Ohms
Frequency:	18 GHz
Insertion Loss:	0.66 dB/ft Typ at 18 GHz
VSWR:	<1.3, DC to 18 GHz
Nominal Capacitance:	29 pF/ft
Velocity of Propagation:	70%
Shield Effectiveness:	Greater than 110 dB
Attenuation (dB/ft):	0.08 Typical at 500 MHz
*connector loss not included	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

Avg Power in (Watts):	920 @ 500 MHz
*as specified at 25°C	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, test cond. B 5% salt solution.

Connector Durability:
500 connections Minimum

SMA Male / SMA Male[Straight/Straight]

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

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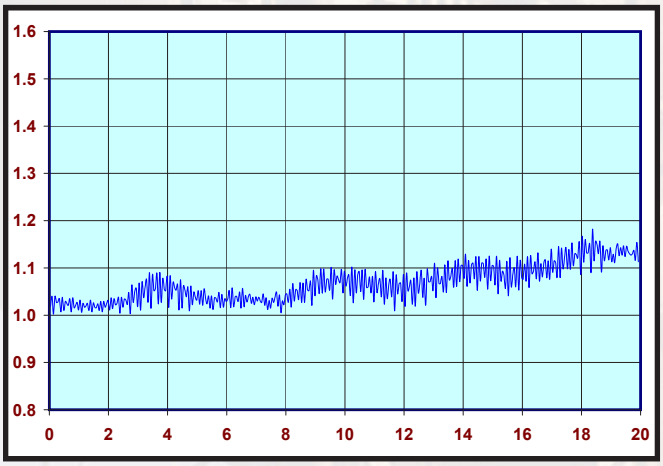
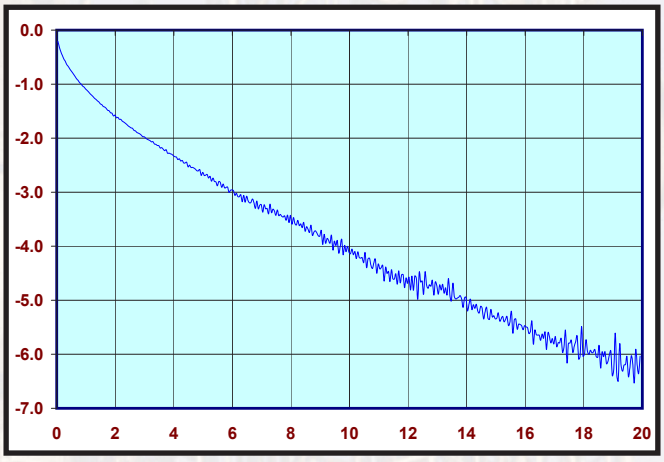
Data plots contained within this specification are generated from actual production cable assemblies. This data represents the typical performance that can be expected from each cable assembly. The data is plotted from raw data without modification (ie: Smoothing or Averaging.)

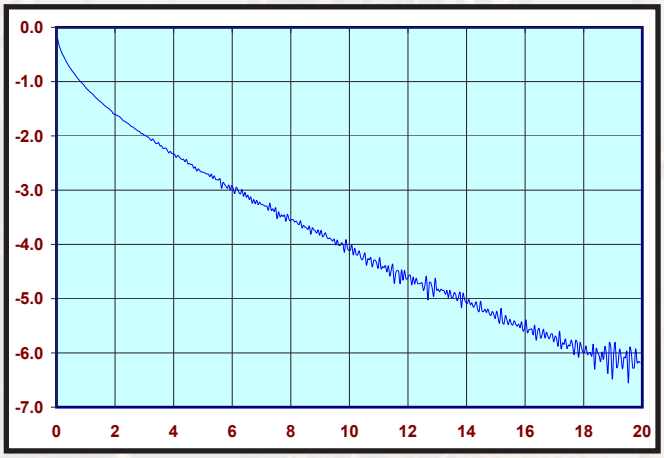
PN: CCSMA-MM-SS402-120
VSWR (S11)



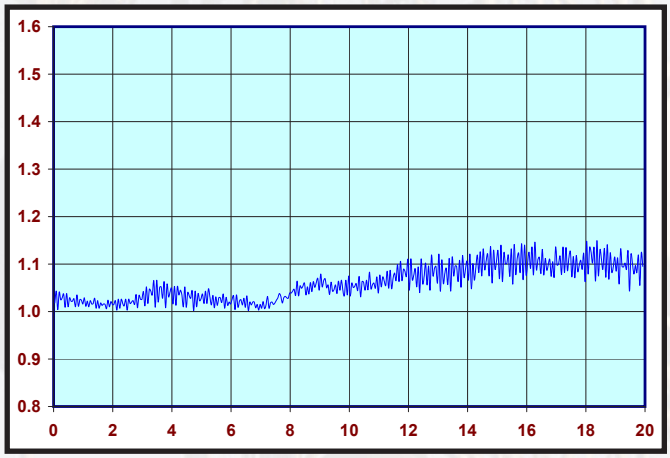
PN: CCSMA-MM-SS402-120
INSERTION LOSS (S12)



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



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



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