



# SSMC Plug to SSMC Plug Cable 12 Inch Length Using RG178 Coax

## RF Cable Assemblies Technical Data Sheet

**ET32754**

### Configuration

- Connector 1: SSMC Plug
- Connector 2: SSMC Plug
- Cable Type: RG178

### Features

- SSMC Cable Assembly Max. Operating Frequency of 3 GHz
- Small SSMC cable connection form factor (50% smaller than SMA, radially)
- Reliable threaded coupling
- In stock and ready to ship

### Applications

- SSMC Cable General Purpose Test
- Data Acquisition Systems
- A/D Conversion Systems
- Ultra Wideband Digital Receivers
- Software defined radio (SDR)

### Description

Ebeestock's SSMC cable assemblies are part of our full line of RF components available for same-day shipping. These SSMC cable assemblies are designed to connect SSMC system components and test connections, delivering signal frequencies as high as 12.4 GHz. Our family of SSMC cables can also be used to connect SSMC ports on data acquisition systems, A/D modules or SSMC coax patch panels. If none of our standard options fit your application, you can specify your own custom SSMC cable assembly using Ebeestock's online Cable Creator.

Our SSMC cable assembly datasheet specifications and drawing with dimensions are shown below in this PDF. Ebeestock's broad catalog of RF, microwave and millimeter wave cable assemblies allow designers to configure and customize their signal connections however they like. Whether the need is to provide SSMC cabling for a data acquisition system, or simply create a custom cable assembly configuration, Ebeestock has the right cable assemblies for the job. Ebeestock can also expertly build custom cable assemblies for you and arrange fast shipping.

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		3	GHz
VSWR			1.44:1	
Velocity of Propagation		70		%
Capacitance		29.4 [96.46]		pF/ft [pF/m]
Operating Voltage (AC)			250	Vrms



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**Specifications by Frequency**

Description	F1	F2	F3	F4	F5	Units
Frequency	0.1	0.4	1	3		GHz
Insertion Loss (Max.)	0.34	0.48	0.65	0.99		dB
Insertion Loss (Typ.)	0.34	0.48	0.65	0.99		dB

**Mechanical Specifications**

**Cable Assembly**

Length\* 12 in [304.8 mm]  
Diameter 0.156 in [3.96 mm]

**Cable**

Cable Type RG178  
Impedance 50 Ohms  
Inner Conductor Type Stranded  
Inner Conductor Material and Plating Copper Clad Steel, Silver  
Dielectric Type PTFE  
Number of Shields 1  
Shield Layer 1 Silver Plated Copper Braid  
Jacket Material FEP, Tan  
Jacket Diameter 0.072 in [1.83 mm]  
  
Repeated Minimum Bend Radius 0.4 in [10.16 mm]



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### Connectors

Description	Connector 1	Connector 2
Type	SSMC Plug	SSMC Plug
Impedance	50 Ohms	50 Ohms
Mating Cycles	500	500
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Contact Plating Specification	MIL-G-45204	MIL-G-45204
Dielectric Type	Teflon	Teflon
Body Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Body Plating Specification	MIL-G-45204	MIL-G-45204
Coupling Nut Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Coupling Nut Plating Specification	MIL-G-45205	MIL-G-45205
Torque	1.75 in-lbs [0.2 Nm]	1.75 in-lbs [0.2 Nm]

#### Mechanical Specification Notes:

\*All cable assemblies have a length tolerance of 1.5% or  $\pm 3/8$ ", whichever is greater.

### Environmental Specifications

#### Temperature

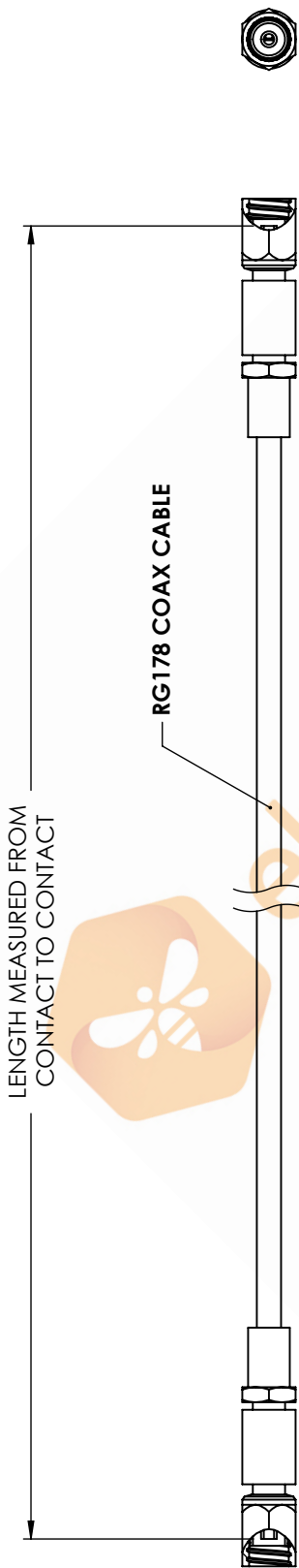
Operating Range -55 to +165 deg C

### Compliance Certifications (see [product page](#) for current document)

### Plotted and Other Data

# ET32754 CAD Drawing

SSMC Plug to SSMC Plug Cable 12 Inch Length Using RG178 Coax



STANDARD TOLERANCES

- .X ±0.2
- .XX ±0.01
- .XXX ±0.005

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES



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DWG TITLE

ET32754

CAGE CODE 53919

CAD FILE 08/31/17

SCALE N/A

SIZE A

CN2245

NOTES:  
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.  
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME  
3. DIMENSIONS ARE IN INCHES [mm].