



## SSMC Plug to SSMC Jack Bulkhead Cable 24 Inch Length Using RG178 Coax

### RF Cable Assemblies Technical Data Sheet

**ET32764**

#### Configuration

- Connector 1: SSMC Plug
- Connector 2: SSMC Jack Bulkhead
- 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 (Typ.) | 0.48 | 0.76 | 1.09 | 1.77 |    | dB    |

**Mechanical Specifications**

**Cable Assembly**

Length\* 24 in [609.6 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 Jack Bulkhead     |
| 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                 |
| Outer Conductor Material and Plating  |                        | Beryllium Copper, Gold |
| Outer Conductor Plating Specification |                        | MIL-G-45204            |
| 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 |                        |
| Coupling Nut Plating Specification    | 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

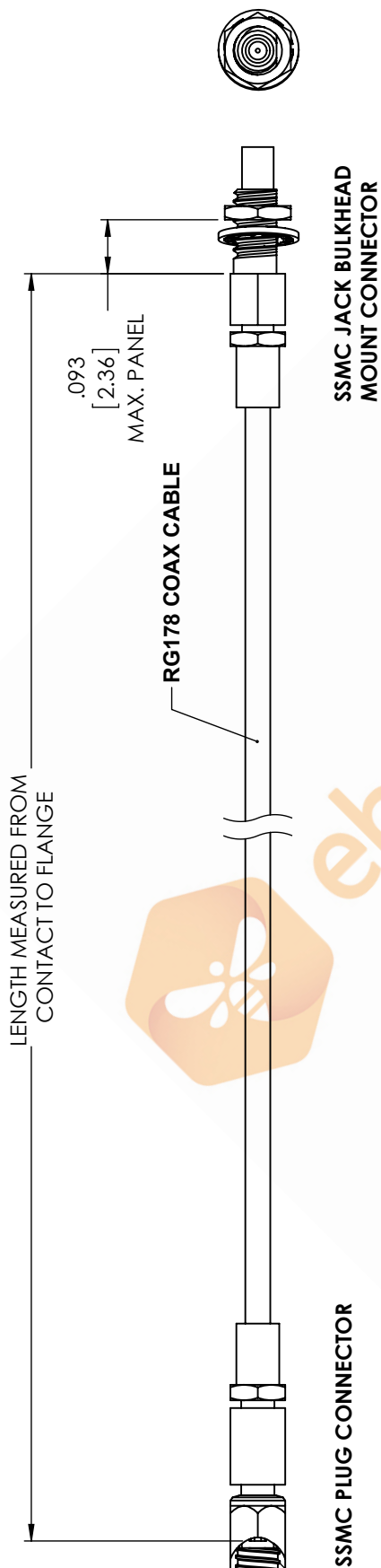
Operating Range -55 to +165 deg C

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

#### Plotted and Other Data

# ET32764 CAD Drawing


SSMC Plug to SSMC Jack Bulkhead Cable 24 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

ET32764

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].