



**CRYSTEK**  
MICROWAVE  
A DIVISION OF CRYSTEK CORPORATION

## 18 GHZ LOW LOSS RF COAX CABLE ASSEMBLIES WITH STAINLESS STEEL CONNECTORS

### LL142 50 Ohm 18 GHz Low Loss Coaxial Cables



#### Features:

|                               |                                                                                                    |
|-------------------------------|----------------------------------------------------------------------------------------------------|
| <b>Strain Relief:</b>         | Heavy duty adhesive strain relief with Neoprene jacket                                             |
| <b>Center Conductor:</b>      | SPCCS (Silver-Plated Copper Solid)                                                                 |
| <b>First Shield:</b>          | Flat silver-plated copper braid                                                                    |
| <b>Second Shield:</b>         | High temp. aluminum polyimide foil                                                                 |
| <b>Third Shield:</b>          | Round silver-plated copper braid                                                                   |
| <b>Dielectric:</b>            | Expanded PTFE (Polytetrafluoroethylene)                                                            |
| <b>Jacket:</b>                | ETFE (Ethylene Tetrafluoroethylene Copolymer)                                                      |
| <b>Cable Outer Diameter:</b>  | 0.208" (5.28mm)                                                                                    |
| <b>Connectors:</b>            | SST, corrosion-resistant 303 stainless steel per ASTM-A582<br>(Passivated finish per SAE-AMS-2700) |
| <b>Center Pin:</b>            | GPBC (Gold-Plated Beryllium Copper)                                                                |
| <b>Jacket Color:</b>          | Blue                                                                                               |
| <b>Operating Temperature:</b> | -40°C to +85°C                                                                                     |

**Minimum Bend Radius:** 0.8"

#### 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

#### **Connector Corrosion (salt spray):**

MIL-STD-202, method 101, test cond. B 5% salt solution.

#### **Connector Durability:**

500 connections Minimum

#### **SMA / SMA [Straight/Straight]**

| Part Number       | Description                                                 | Length |
|-------------------|-------------------------------------------------------------|--------|
| CCSMA-MM-LL142-12 | LL142 Low Loss Coax Cable, SMA Male/Male, Straight/Straight | 12"    |
| CCSMA-MM-LL142-24 | LL142 Low Loss Coax Cable, SMA Male/Male, Straight/Straight | 24"    |
| CCSMA-MM-LL142-36 | LL142 Low Loss Coax Cable, SMA Male/Male, Straight/Straight | 36"    |
| CCSMA-MM-LL142-48 | LL142 Low Loss Coax Cable, SMA Male/Male, Straight/Straight | 48"    |

#### Electrical Specifications:

|                                 |                          |
|---------------------------------|--------------------------|
| <b>Impedance:</b>               | 50 Ohms                  |
| <b>Frequency:</b>               | Up to 18 GHz             |
| <b>Insertion Loss:</b>          | 0.41 dB/ft Typ at 18 GHz |
| <b>VSWR:</b>                    | <1.3 to 18 GHz           |
| <b>Nominal Capacitance:</b>     | 26 pF/ft                 |
| <b>Velocity of Propagation:</b> | 78%                      |
| <b>Shield Effectiveness:</b>    | Greater than 90 dB       |
| <b>Attenuation (dB/ft):</b>     | 0.05 Typical at 500 MHz  |
| *connector loss not included    |                          |
|                                 | 0.08 Typical at 1 GHz    |
|                                 | 0.14 Typical at 3 GHz    |
|                                 | 0.21 Typical at 6 GHz    |
|                                 | 0.32 Typical at 12 GHz   |
|                                 | 0.41 Typical at 18 GHz   |

|                              |                |
|------------------------------|----------------|
| <b>Max Power in (Watts):</b> | 2800 @ 500 MHz |
| *as specified at 25°C        |                |
|                              | 1960 @ 1 GHz   |
|                              | 1100 @ 3 GHz   |
|                              | 760 @ 6 GHz    |
|                              | 520 @ 12 GHz   |
|                              | 370 @ 18 GHz   |

*Custom Lengths Available*



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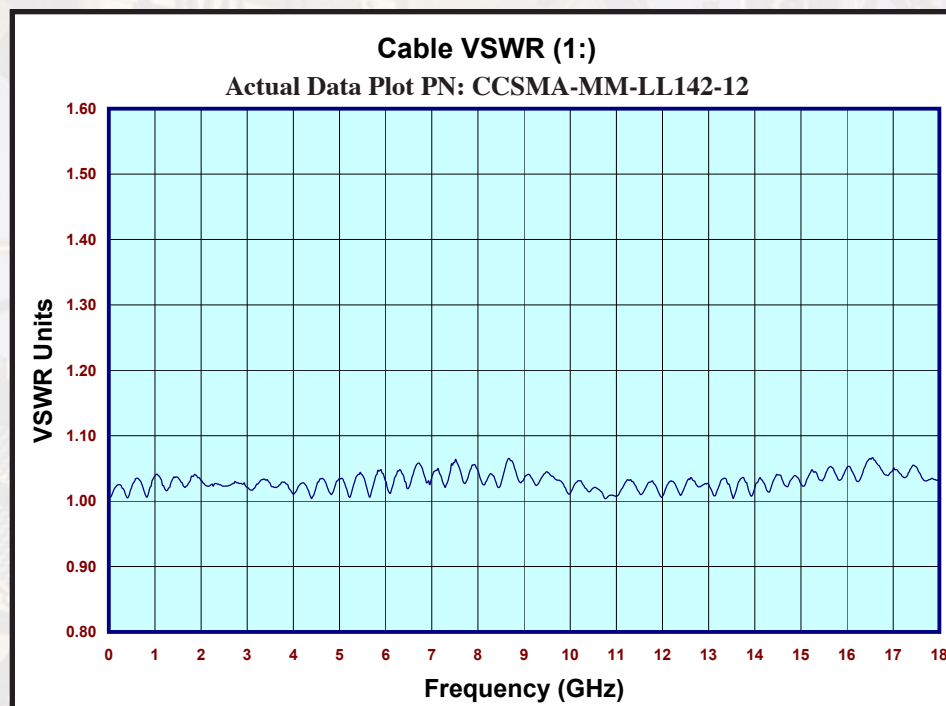
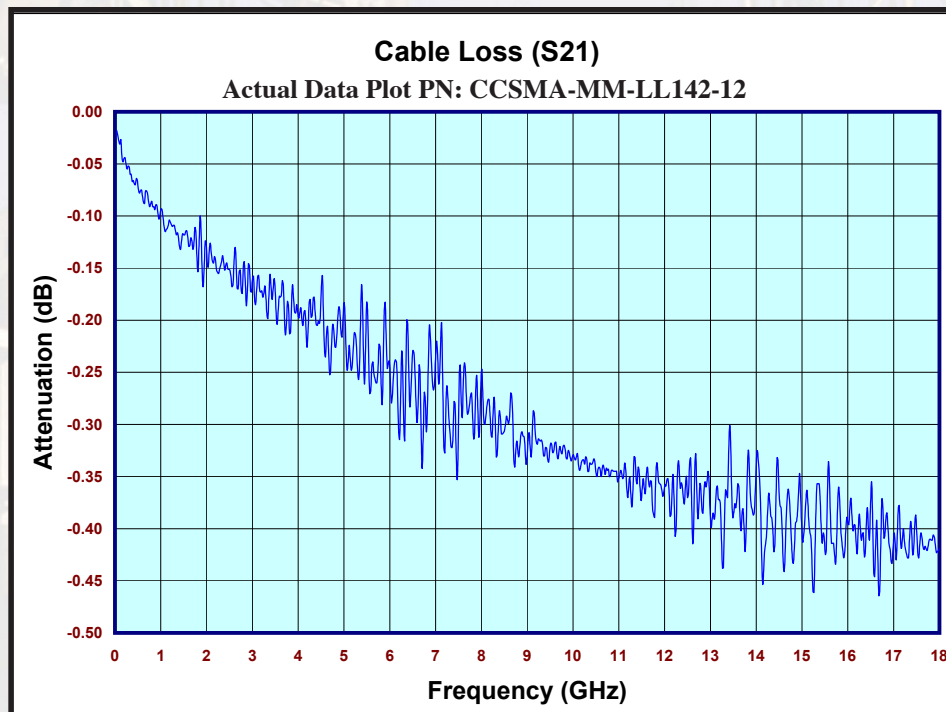
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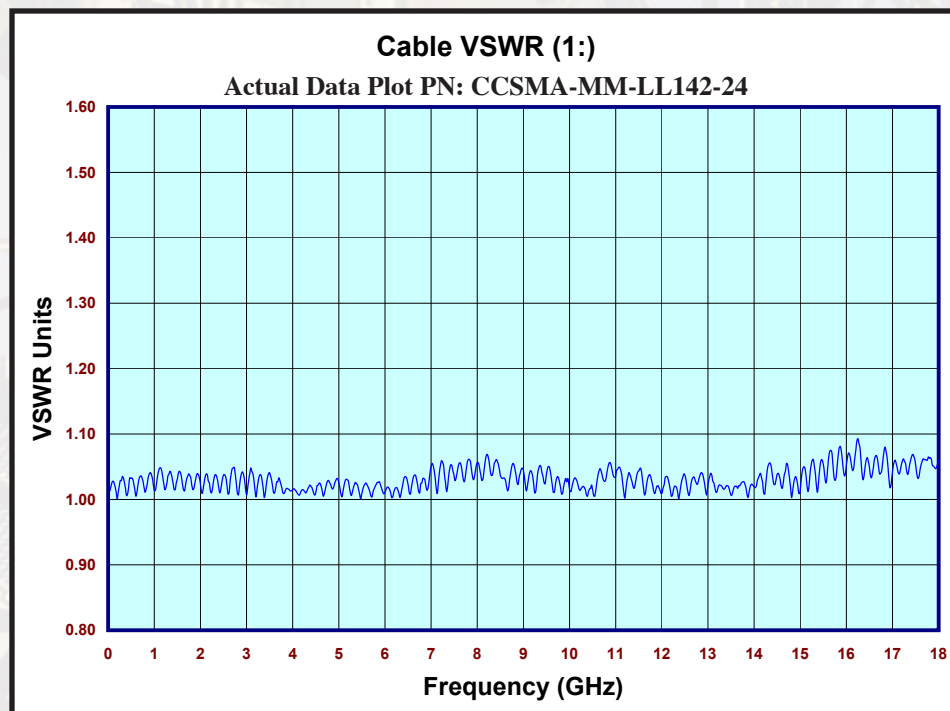
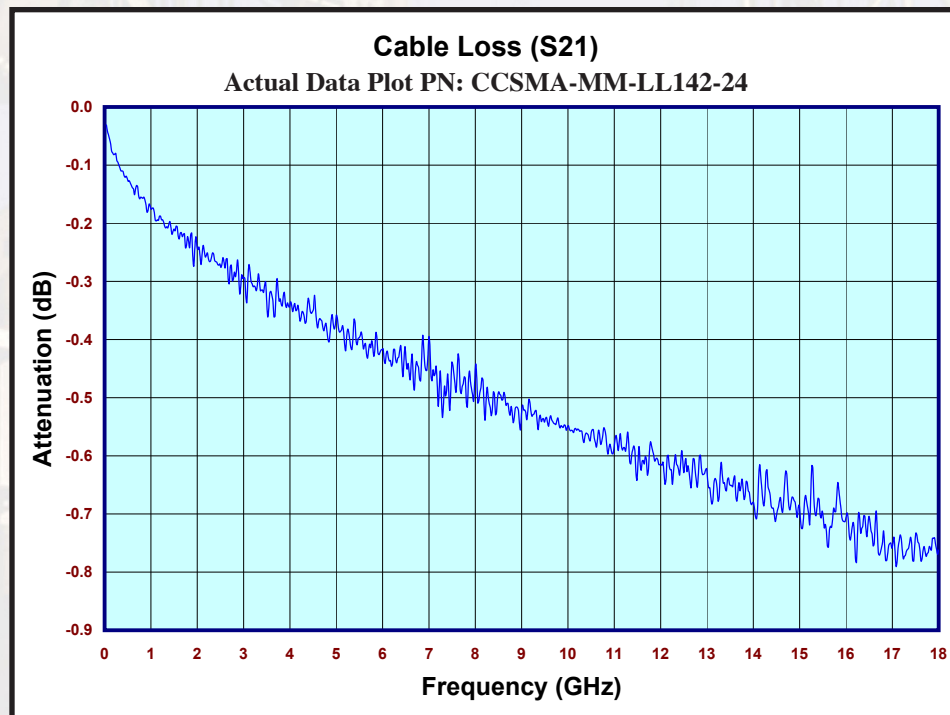
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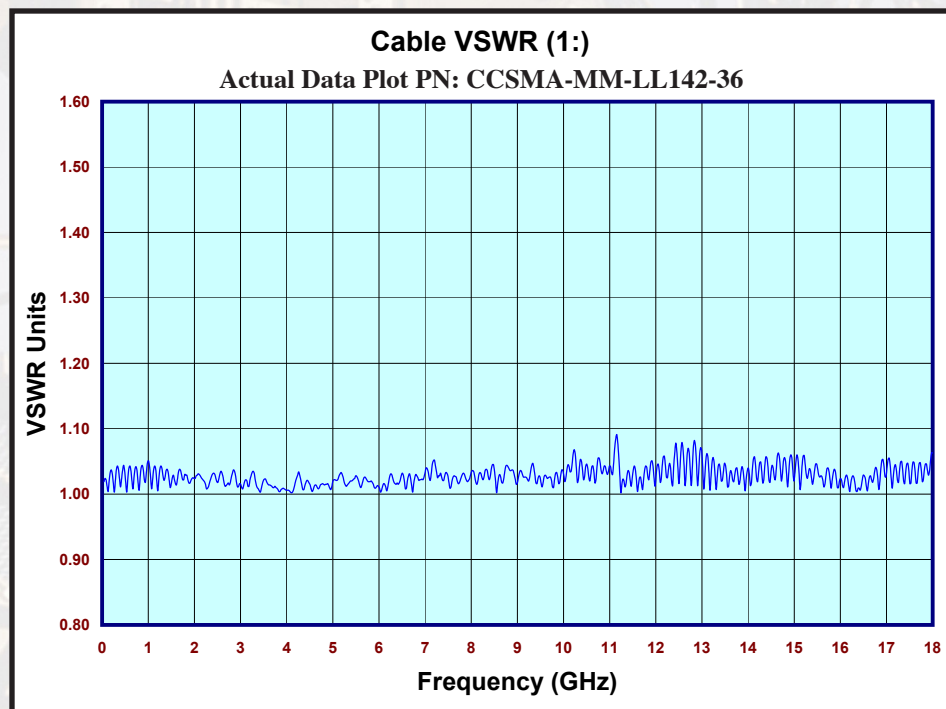
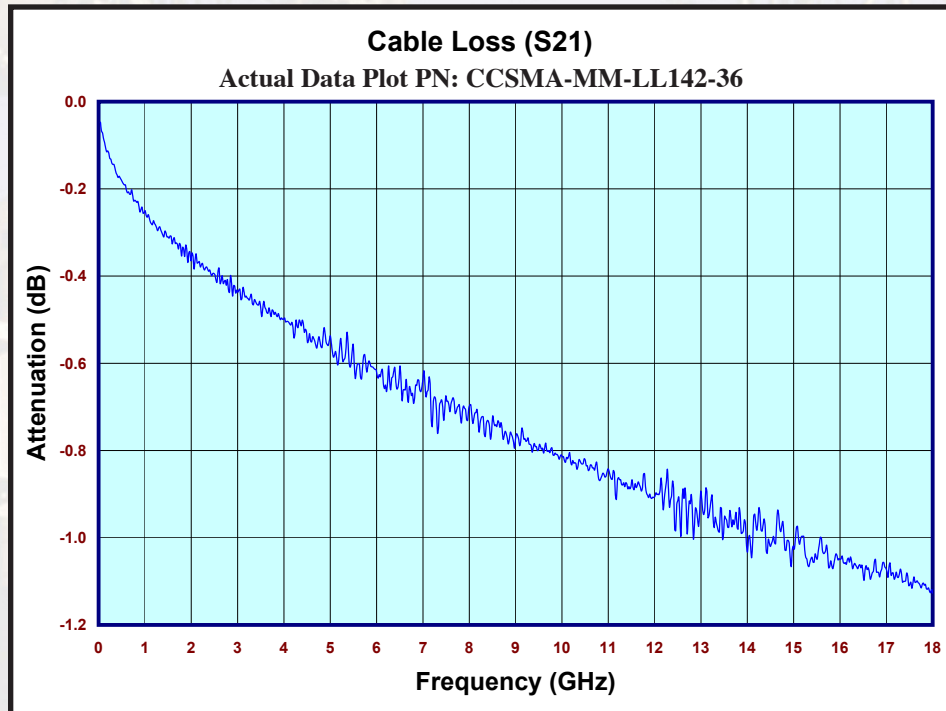
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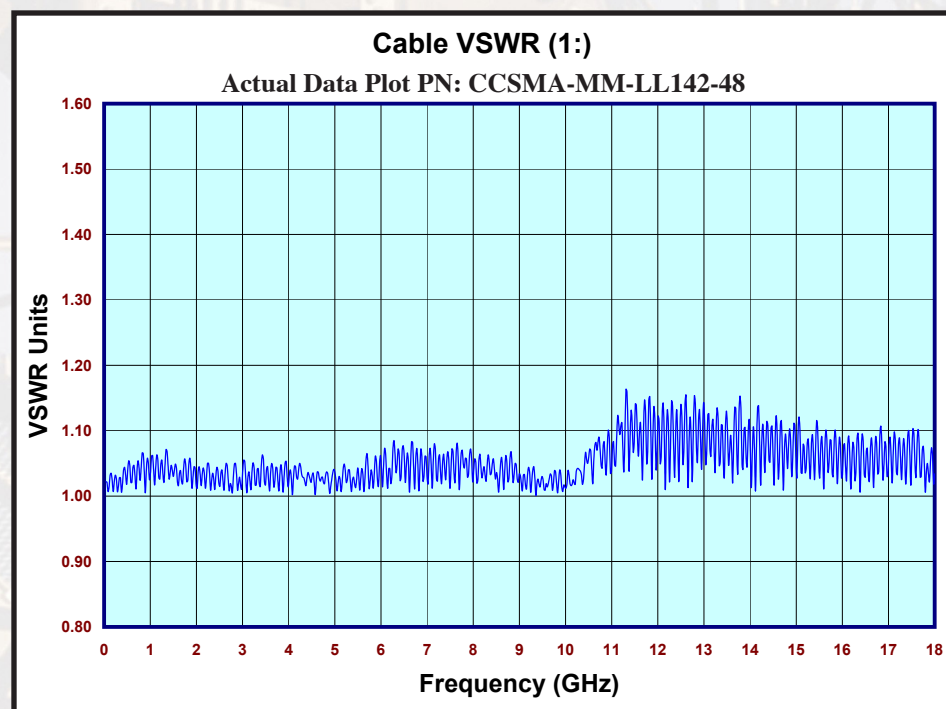
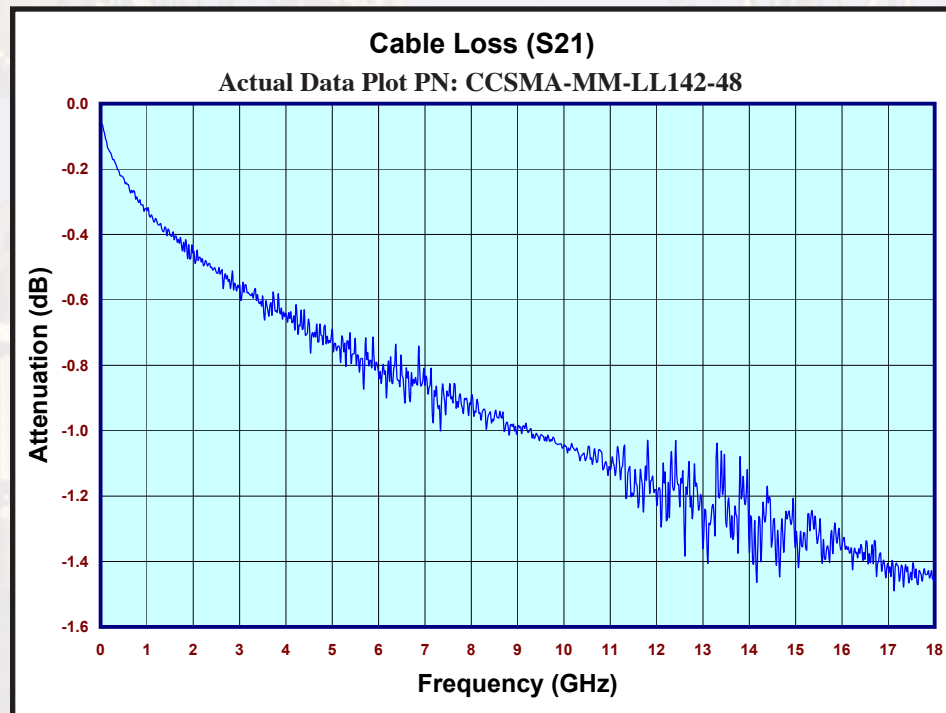
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