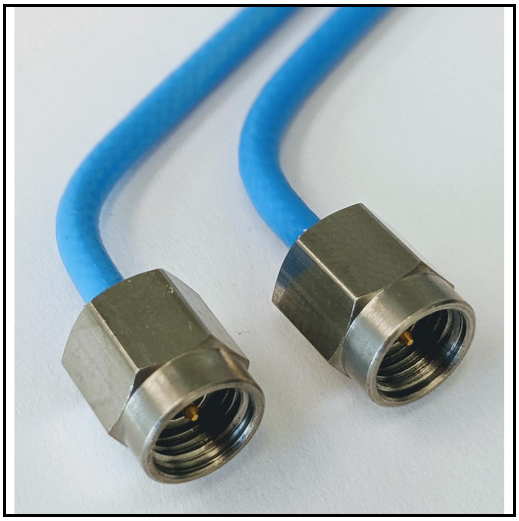
# P1CA-STMSTM-ST085-72

SMA Male to SMA Male cable assembly using ST085 Tight-Flex, Triple Shielded Coax, 72 inches long, Operating to 18 GHz.



**Product Features**

P1CA-STMSTM-ST085-72 is an RF Cable that is part of P1dB's Tight-Flex™ cable assembly series. With a minimum bend radius of 0.2 inch, the cable allows bends at the connector end eliminating the need for a right angle connector. This assembly a 72 inch SMA Male to SMA Male cable assembly that utilizes ST085 Tight-Flex, Triple Shielded coax, which is 0.104 inches in diameter. The Tight-Flex™ cable assembly operates to 18 GHz with a max VSWR of 1.30:1.

Tight-Flex™ cable assemblies are a flexible version of RG405 semi-rigid and 085 conformable coax cables that meet RG405 dimensional and electrical specifications. Tight-Flex™ cable assemblies can operate up to 40 GHz, depending on the installed connectors. The advantage of Tight-Flex™ cables over other 085 flex cables are their triple shielding that add additional RF stability even during tight bends.

**Electrical Specification: $T_{Ambient}$ = 25° C**

| Parameter | Frequency Range | Units | Min | Typical | Max | Notes |
|---|---|---|---|---|---|---|
| Frequency Range | | GHz | DC | | 18.0 | |
| VSWR | DC to 1.0 | 1: | | | 1.15 | |
| | 1.0 to 5.0 | | | | 1.2 | |
| | 5.0 to 10.0 | | | | 1.25 | |
| | 10.0 to 18.0 | | | | 1.3 | |
| Insertion Loss | DC to 1.0 | dB/ft. | | | 0.21 | |
| | 1.0 to 5.0 | | | | 0.51 | |
| | 5.0 to 10.0 | | | | 0.75 | |
| | 10.0 to 18.0 | | | | 1.04 | |
| Velocity Of Propagation | | % | | 70.0 | | |

**Mechanical And Environmental Specifications:**

| Parameter | Description | Notes |
|---|---|---|
| Connector 1 | SMA Male | |
| Connector 1 Coupling Nut | Passivated Stainless Steel | |
| Connector 1 Body | Passivated Stainless Steel | |
| Connector 1 Contact | Gold Plated Brass | |
| Connector 2 | SMA Male | |
| Connector 2 Coupling Nut | Passivated Stainless Steel | |
| Connector 2 Body | Passivated Stainless Steel | |
| Connector 2 Contact | Gold Plated Brass | |
| Coax Cable | Tight-Flex, Triple Shielded | |
| Cable Type | ST085 | |
| Cable Inner Conductor | SPCW | |
| Dielectric | PTFE | |
| Shield | 1. SPC Tape, Aluminum Tape, SPC Braid | |

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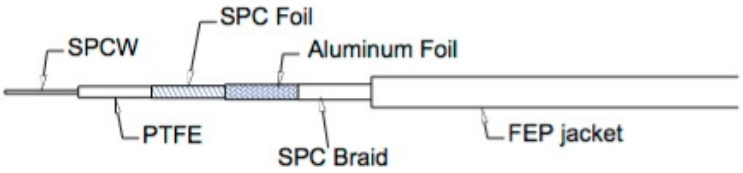
SMA Male to SMA Male cable assembly using ST085 Tight-Flex, Triple Shielded Coax, 72 inches long, Operating to 18 GHz.

| Parameter | Description | Notes |
|---|---|---|
| Jacket | FEP | |
| Coax Diameter | 0.104 | |
| Minimum Bend Radius | 0.2 | |
| Length | 72.0 | |
| Operating Temprature | -55.0 to 125.0 °C | |
| RoHS Compliance | Yes | |

**Drawing**




**Graph**

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SMA Male to SMA Male cable assembly using ST085 Tight-Flex, Triple Shielded Coax, 72 inches long, Operating to 18 GHz.

| DIMENSIONS | |
|---|---|
| Center Conductor Diameter | |
| (inch) | 0.0201 |
| (mm) | 0.51 |
| Dielectric Diameter | |
| (inch) | 0.0641 |
| (mm) | 1.63 |
| Diameter Over Inner Foil | |
| (inch) | 0.0708 |
| (mm) | 1.80 |
| Diameter Over Outer Foil | |
| (inch) | 0.0748 |
| (mm) | 1.90 |
| Diameter over Braid | |
| (inch) | 0.0885 |
| (mm) | 2.25 |
| Jacket Diameter | |
| (inch) | 0.104 |
| (mm) | 2.64 |
| **MATERIAL SPECIFICATIONS** | |
| Jacket | FEP(BLUE) |
| Braid | Round Silver Plated Copper |
| Outer Foil | Aliminium Tape |
| Inner Foil | Silver Plated Copper Tape |
| Dielectic | Solid PTFE |
| Center Conductor | Solid SPCW |
| **ELECTRICAL CHARACTERISTICS** | |
| Impedance | 50±2 |
| Capacitance (Nominal) | |
| (pF/ft) | 29.4 |
| (pF/m) | 96.4 |
| Velocity of Propagation (%) | 70 |
| Cutt Off Frequency (GHz) | 63 |
| Shielding Effectiveness | > -110dB |

| Max. Attenuation<br>Max Power (Watts) | Attenuation<br>dB/100Ft | dB/100M | Power |
|---|---|---|---|
| 400MHz | 14 | 45.9 | 240 |
| 1GHz | 23 | 75.4 | 160 |
| 3GHz | 39 | 128 | 80 |
| 5GHz | 52 | 170.6 | 57 |
| 10GHz | 80 | 262.4 | 44 |
| 18GHz | 110 | 361 | 33 |
| 25GHz | 131 | 430 | 29 |
| 30GHz | 146 | 479 | 26 |
| 35GHz | 160 | 525 | 23 |
| 40GHz | 173 | 567 | 22 |
| 45GHz | 183 | 600 | 20 |
| 50GHz | 195 | 640 | 18 |

**Product Notes**

Temp range: -55 to +125 deg C

Minimum bend radius: 0.2 inch (5.1 mm)

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