## P1CA-STMSTM-ST085-8

SMA Male to SMA Male cable assembly using ST085 Tight-Flex, Triple Shielded Coax, 8 inches long, Operating to 18 GHz .

## Product Features

P1CA-STMSTM-ST085-8 is an RF Cable that is part of P1dB's Tight-Flex ${ }^{\text {TM }}$ 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 an 8 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 ${ }^{\text {TM }}$ cable assembly operates to 18 GHz with a max VSWR of 1.30:1.
Tight-Flex ${ }^{\text {TM }}$ cable assemblies are a flexible version of RG405 semi-rigid and 085 conformable coax cables that meet RG405 dimensional and electrical specifications. Tight-Flex ${ }^{\mathrm{Tm}}$ cable assemblies can operate up to 40 GHz , depending on the
 installed connectors. The advantage of Tight-Flex ${ }^{\text {TM }}$ cables over other 085 flex cables are their triple shielding that add additional RF stability even during tight bends.

Electrical Specification: $\mathrm{T}_{\text {Ambient }}=25^{\circ} \mathrm{C}$

| 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 | $\mathrm{dB} / \mathrm{ft}$. |  |  | 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 | 188 Martinvale Lane, San Jose, CA 95119 | $+1(408) 613-4857$ | inches long, Operating to 18 GHz .


| Parameter | Description | Notes |
| :--- | :---: | :---: |
| Jacket | FEP |  |
| Coax Diameter | 0.104 |  |
| Minimum Bend Radius | 0.2 |  |
| Length | 8.0 |  |
| Operating Temprature | -55.0 to $125.0^{\circ} \mathrm{C}$ |  |
| RoHS Compliance | Yes |  |

## Drawing



## Graph

## P1CA-STMSTM-ST085-8

SMA Male to SMA Male cable assembly using ST085 Tight-Flex, Triple Shielded Coax, 8 inches long, Operating to 18 GHz .

| DIMENSIONS <br> Center Conductor Diameter <br> (inch) <br> (mm) | $\begin{gathered} 0.0201 \\ 0.51 \end{gathered}$ |  |  |
| :---: | :---: | :---: | :---: |
| Dielectric Diameter (inch) (mm) | $\begin{gathered} 0.0641 \\ 1.63 \\ \hline \end{gathered}$ |  |  |
| Diameter Over Inner Foil (inch) <br> (mm) | 0.0708 <br> 1.80 |  |  |
| Diameter Over Outer Foil (inch) <br> (mm) | $\begin{gathered} 0.0748 \\ 1.90 \end{gathered}$ |  |  |
| Diameter over Braid (inch) (mm) | 0.0885 <br> 2.25 |  |  |
| Jacket Diameter (inch) (mm) | $\begin{gathered} 0.104 \\ 2.64 \end{gathered}$ |  |  |
| 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 | $50 \pm 2$ |  |  |
| Capacitance (Nominal) <br> (pF/f) <br> ( $\mathrm{pF} / \mathrm{m}$ ) | $\begin{aligned} & 29.4 \\ & 96.4 \end{aligned}$ |  |  |
| Velocity of Propagation (\%) | 70 |  |  |
| Cutt Off Frequency ( GHz ) | 63 |  |  |
| Shielding Effectiveness | $>-110 \mathrm{~dB}$ |  |  |
| Max. Attenuation Max Power (Watts) | dB/100Ft Attenuation | dB/100M | Power |
| $\begin{aligned} & 400 \mathrm{MHz} \\ & 1 \mathrm{GHz} \\ & 3 \mathrm{GHz} \\ & 5 \mathrm{GHz} \\ & 10 \mathrm{GHz} \\ & 18 \mathrm{GHz} \\ & 25 \mathrm{GHz} \\ & 30 \mathrm{GHz} \\ & 35 \mathrm{GHz} \\ & 40 \mathrm{GHz} \\ & 45 \mathrm{GHz} \\ & 50 \mathrm{GHz} \end{aligned}$ | $\begin{aligned} & 14 \\ & 23 \\ & 39 \\ & 52 \\ & 80 \\ & 110 \\ & 131 \\ & 146 \\ & 160 \\ & 173 \\ & 183 \\ & 195 \end{aligned}$ | 45.9 <br> 75.4 <br> 128 <br> 170.6 <br> 262.4 <br> 361 <br> 430 <br> 479 <br> 525 <br> 567 <br> 600 <br> 640 | $\begin{gathered} 240 \\ 160 \\ 80 \\ 57 \\ 44 \\ 33 \\ 29 \\ 26 \\ 23 \\ 22 \\ 20 \\ 18 \end{gathered}$ |

## Product Notes

Temp range: -55 to +125 deg $C$
Minimum bend radius: 0.2 inch ( 5.1 mm )

