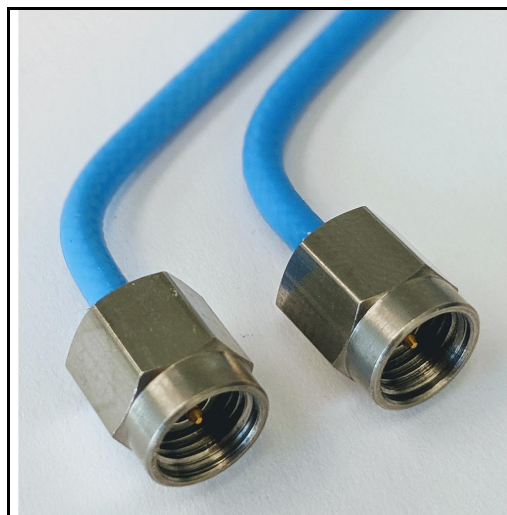


Product Features

P1CA-29M29M-ST085-6 is an RF cable assembly 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. It is a 6 inch 2.92mm Male to 2.92mm Male cable assembly that utilizes ST085 Tight-Flex, triple shield coax, which is 0.104 inch (2.6 mm) diameter. The Tight-Flex™ cable assembly operates to 40 GHz with a max VSWR of 1.35:1. Max Insertion Loss at 40 GHz for this 6 inch assembly is 0.9 dB. RF shielding > 110 dB. Velocity of Propagation is 70 %.

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 is triple shield construction for great RF shielding and RF stability during tight bends.



Electrical Specification: T_{Ambient} = 25° C

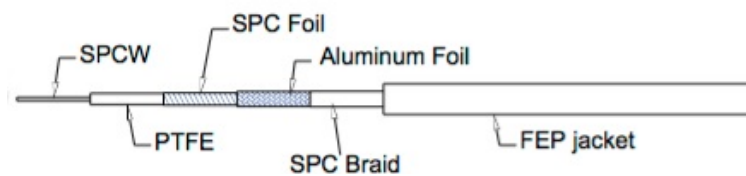
Parameter	Frequency Range	Units	Min	Typical	Max	Notes
Frequency Range		GHz	DC		40.0	
VSWR	DC to 1.0	1:			1.15	
	1.0 to 18.0				1.29	
	18.0 to 27.0				1.32	
	27.0 to 40.0				1.35	
Insertion Loss	DC to 1.0	dB/ft.			0.21	
	1.0 to 18.0				0.51	
	18.0 to 27.0				0.75	
	27.0 to 40.0				1.04	
Velocity Of Propagation		%		70.0		

Mechanical And Environmental Specifications:

Parameter	Description	Notes
Connector 1	2.92mm Male	
Connector 1 Coupling Nut	Passivated Stainless Steel	
Connector 1 Body	Passivated Stainless Steel	
Connector 1 Contact	Gold Plated Brass	
Connector 2	2.92mm 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	

Parameter	Description	Notes
Dielectric	PTFE	
Shield	1. SPC Tape, Aluminum Tape, SPC Braid	
Jacket	FEP	
Coax Diameter	0.104	
Minimum Bend Radius	0.2	
Length	6.0	
Operating Temperature	-55.0 to 200.0 °C	
RoHS Compliance	Yes	

Drawing



Graph

2.92mm Male to 2.92mm Male cable assembly using ST085 Tight-Flex, Triple Shielded Coax, 6 inches long, Operating to 40 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	Aluminium Tape
Inner Foil	Silver Plated Copper Tape
Dielectric	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 Max Power (Watts)	Attenuation 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