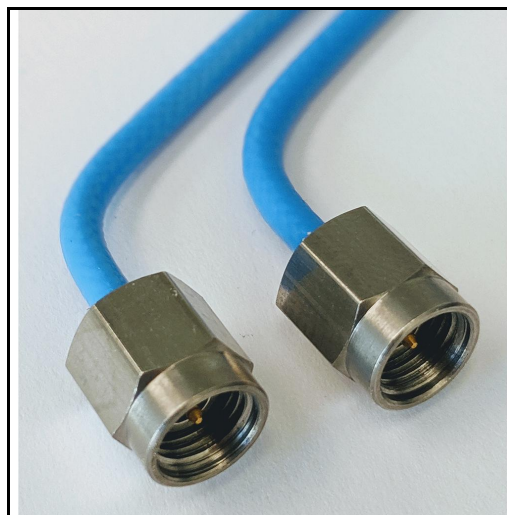


Product Features

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

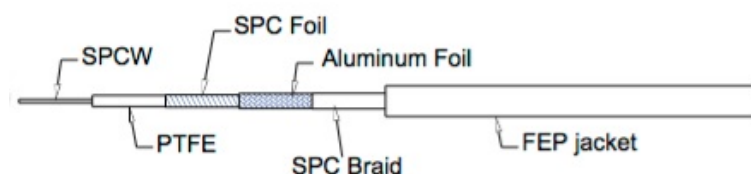
Parameter	Frequency Range	Units	Min	Typical	Max	Notes
Frequency Range		GHz	DC		40.0	
VSWR	DC to 1.0	1:			1.15	
	1.0 to 18.0				1.29	
	18.0 to 27.0				1.32	
	27.0 to 40.0				1.35	
Insertion Loss	DC to 1.0	dB/ft.			0.21	
	1.0 to 18.0				0.51	
	18.0 to 27.0				0.75	
	27.0 to 40.0				1.04	
Velocity Of Propagation		%		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	Power
		dB/100Ft	dB/100M
400MHz		14	45.9
1GHz		23	75.4
3GHz		39	128
5GHz		52	170.6
10GHz		80	262.4
18GHz		110	361
25GHz		131	430
30GHz		146	479
35GHz		160	525
40GHz		173	567
45GHz		183	600
50GHz		195	640

Product Notes