

## P1CA-29M29M-ST085-6

2.92mm Male to 2.92mm Male cable assembly using ST085 Tight-Flex, Triple Shielded Coax, 6 inches long, Operating to 40 GHz.

#### **Product Features**

P1CA-29M29M-ST085-6 is an RF cable assembly that is part of P1dB's Tight-Flex<sup>™</sup> 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<sup>™</sup> 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<sup>™</sup> cable assemblies are a flexible version of RG405 semi-rigid and 085 conformable coax cables that meet RG405 dimensional and electrical specifications. Tight-Flex<sup>™</sup> cable assemblies can operate up to 40 GHz, depending on the installed connectors. The advantage of Tight-Flex<sup>™</sup> cables over other 085 flex cables is triple shield construction for great RF shielding and RF stability during tight bends.



### **Electrical Specification: T**<sub>Ambient</sub> = 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		

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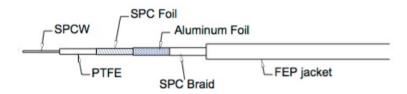


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Parameter	Description	Notes	
Dielectric	PTFE		
Shield	1. SPC Tape, Aluminum Tape, SPC Braid		
Jacket	FEP		
Coax Diameter	0.104		
Minimum Bend Radius	0.2		
Length	6.0		
Operating Temprature	-55.0 to 200.0 °C		
RoHS Compliance	Yes		

### **Drawing**



### Graph



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DIMENSIONS				
Center Conductor Diameter				
(inch)		0.0201		
(mm)		0.51		
Dielectric Diameter				
(inch)		0.0641		
(mm)	1.63			
Diameter Over Inner Foil	0.0700			
(inch)	0.0708			
(mm)	1.80			
Diameter Over Outer Foil		0.0740		
(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	Round Silver Plated Copper Aliminium Tape			
Inner Foil	Silver Plated Copper Tape			
Dielectic	Solid PTFE			
Center Conductor	Solid SPCW			
ELECTRICAL CHARACTERISTICS				
		50±2		
Impedance	DVIZ			
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	240	
1GHz 3GHz	23 39	75.4 128	160 80	
5GHz	52	170.6	57	
10GHz	80	262.4	44	
18GHz	110	361	33	
25GHz	131	430	29	
30GHz	146	479	26	
35GHz 40GHz	160 173	525	23	
45GHz	183	567	22 20	
50GHz	195	600 640	18	
		. 040	10	

### **Product Notes**