

## P1CA-STMSTM-ST085-14

SMA Male to SMA Male cable assembly using ST085 Tight-Flex, Triple Shielded Coax, 14 inch

#### **Product Features**

P1CA-STMSTM-ST085-14 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 14 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<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 are their triple shielding that add additional RF stability even during tight bends.



### **Electrical Specification: T**<sub>Ambient</sub> = 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				1.29	
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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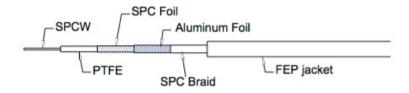


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Parameter	Description	Notes
Jacket	FEP	
Coax Diameter	0.104	
Minimum Bend Radius	0.2	
Length	14.0	
Operating Temprature	-55.0 to 125.0 °C	
RoHS Compliance	Yes	

## **Drawing**



## Graph



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DIMENSIONS				
Center Conductor Diameter				
(inch)		0.0201		
(mm)		0.51		
Dielectric Diameter				
(inch)		0.0641		
	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		2.20		
(inch)	0.104			
' '	0.104 2.64			
(mm) MATERIAL SPECIFICATIONS		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	Attenuati		Power	
Max Power (Watts)	dB/100Ft	dB/100M		
400MHz	14	45.9	240	
1GHz 3GHz	23 39	75.4 128	160 80	
3GHz 5GHz	39 52	128 170.6	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 50GHz	183 195	600 640	20 18	
311000	155	: 640	10	

### **Product Notes**

Temp range: -55 to +125 deg C

Minimum bend radius: 0.2 inch (5.1 mm)