

Product Features

P1CA-SAMSAM-SS141-18 is an test Cable that is part of P1dB's SS141 series, high performance cable assemblies. It is a 18 inch SMA Male to SMA Male cable assembly that utilizes SS141 High Performance coax, which is 0.163 inches in diameter. The SS141 test cable operates to 27 GHz with a max VSWR of 1.3:1. P1dB's SS141 cable assemblies are general purpose test cables that are dimensionally equivalent to RG402 semi-rigid and 141 conformable coax cables and RG402 electrical specifications. SS141 test cables can operate up to 40 GHz, depending on the installed connectors. The advantage of SS141 test cables over other test cables are their cost-effective design that still offer good phase and amplitude stability for general purpose test systems.



Electrical Specification: T_{Ambient} = 25° C

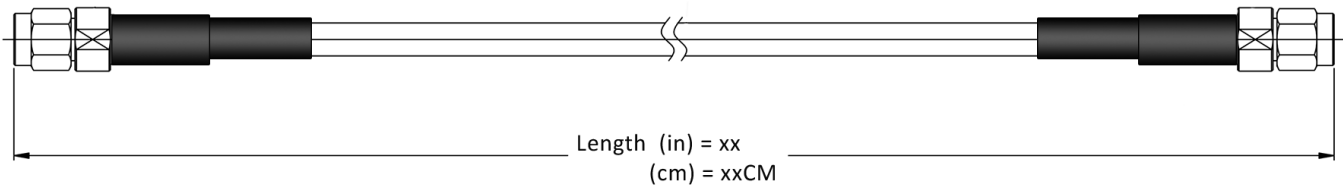
Parameter	Frequency Range	Units	Min	Typical	Max	Notes
Frequency Range		GHz	DC		27.0	
VSWR	DC to 1.0	1:			1.1	
	1.0 to 10.0				1.2	
	10.0 to 18.0				1.25	
	18.0 to 27.0				1.3	
Insertion Loss	DC to 1.0	dB/ft.			0.2	
	1.0 to 10.0				0.55	
	10.0 to 18.0				0.78	
	18.0 to 27.0				0.94	
Velocity Of Propagation		%		70.0		

Mechanical And Environmental Specifications:

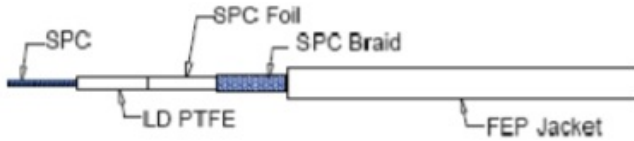
Parameter	Description	Notes
Connector 1	SMA Male	
Connector 1 Coupling Nut	Passivated Stainless Steel	
Connector 1 Body	Passivated Stainless Steel	
Connector 1 Contact	Gold Plated Brass	
Connector 2	SMA Male	
Connector 2 Coupling Nut	Passivated Stainless Steel	
Connector 2 Body	Passivated Stainless Steel	
Connector 2 Contact	Gold Plated Brass	
Coax Cable	High Performance	
Cable Type	SS141	
Cable Inner Conductor	SPC	
Dielectric	PTFE	
Shield	1. SPC Braid, SPC Ribbon	
Jacket	FEP	
Coax Diameter	0.163	

Parameter	Description	Notes
Minimum Bend Radius	0.08	
Length	18.0	
Operating Temperature	-55.0 to 125.0 °C	
RoHS Compliance	Yes	

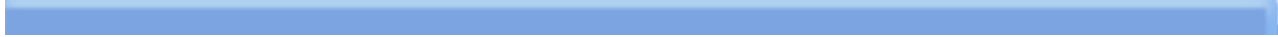
Drawing



Graph



MECHANICAL CHARACTERISTICS		
Max. Operating Temperature (°C)	-55/ +200	
Min. Bend Radius (inch) (mm)	Static	Dynamic
	0.48 12	0.8 20
Weight (g/Ft) (g/M)	13.5	
	44.3	



ELECTRICAL CHARACTERISTICS		
Impedance	50±2	
Capacitance (Nominal)		
(pF/ft)	29.4	
(pF/m)	96.4	
Velocity of Propagation (%)	78	
Cutt Off Frequency (GHz)	40	
Shielding Effectiveness	> -110dB	
Max. Attenuation (dB/100Ft)	Attenuation	
Max Power (Watts)	dB/100Ft	Power
400MHz	7	1100
1GHz	11	550
3GHz	18.9	350
5GHz	25.3	245
10GHz	37.5	140
18GHz	51.9	87
25GHz	63.5	75
30GHz	71.4	68
35GHz	78.4	61
40GHz	87.8	56
DIMENSIONS		
Center Conductor Diameter		
(inch)	0.04	
(mm)	1.02	
Dielectric Diameter		
(inch)	0.116	
(mm)	2.95	
Diameter Over Foil		
(inch)	0.124	
(mm)	3.14	
Diameter over Braid		
(inch)	0.136	
(mm)	3.46	
Jacket Diameter		
(inch)	0.163	
(mm)	4.14	
MATERIAL SPECIFICATIONS		
Jacket	FEP	
Braid	Round silver plated copper	
Foil	Flat silver plated copper foil	
Dielectric	LD PTFE	
Center Conductor	Solid SPC	

Product Notes