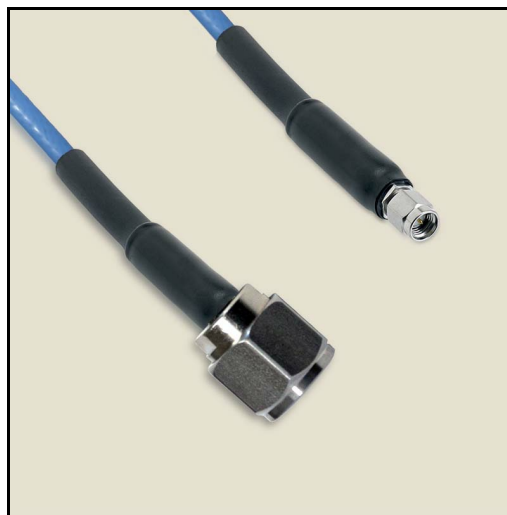


Product Features

P1CA-SAMNM-SS141-48 is a 50 Ohm RF test Cable that is part of P1dB's SS141 series high performance cables. It is a 48 inch SMA Male to N Male cable assembly that utilizes SS141 High Performance coax, which is 0.163 inches in diameter. The SS141 test cable operates to 18 GHz with a max VSWR of 1.35:1. Typical Insertion Loss for a 48 inch assembly is 1.9 dB at 10 GHz and 2.6dB at 18 GHz.

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		18.0	
VSWR	DC to 1.0	1:			1.1	
	1.0 to 5.0				1.2	
	5.0 to 10.0				1.25	
	10.0 to 18.0				1.35	
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	N 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	
Length	48.0	
Operating Temperature	-55.0 to 125.0 °C	

Parameter	Description	Notes
RoHS Compliance	Yes	

Drawing

DIMENSIONS	
Center Conductor Diameter	
(inch)	0.037
(mm)	0.94
Dielectric Diameter	
(inch)	0.117
(mm)	2.96
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	Solid PTFE
Center Conductor	Solid SPC

Graph



ELECTRICAL CHARACTERISTICS		
Impedance	50±2	
Capacitance (Nominal)		
(pF/ft)	29.4	
(pF/m)	96.4	
Velocity of Propagation (%)	70	
Cutt Off Frequency (GHz)	40	
Shielding Effectiveness	> -110dB	
Max. Attenuation (dB/100Ft)		
Max Power (Watts)		
400MHz	dB/100Ft	Power
1GHz	dB/100M	
3GHz	8	1100
5GHz	13	550
10GHz	23	350
18GHz	30	245
25GHz	45	140
30GHz	64	87
35GHz	78	75
40GHz	87	68
	96	61
	104	56
MECHANICAL CHARACTERISTICS		
Max. Operating Temperature (°C)	-55/ +200	
Min. Bend Radius	Static	Dynamic
(inch)	0.4	1.57
(mm)	10	40
Weight		
(g/Ft)	13.5	
(g/M)	44.3	

Product Notes