P1CA-SAMSAM-SS141-48-PM

RF cable assembly, SMA Male to SMA Male, SS141 flexible coaxial cable, 48 inch. Supplied as TBD # of cables phase matched +/- 5 degrees at 10 GHz, operating to 18 GHz.



Product Features

P1dB's P1CA-SAMSAM-SS141-48-PM is a 50 Ohm RF cable assembly, supplied as TBD # of phase matched cables. It is an SMA male to SMA male cable using P1dB's SS141 flex coax which is a phase stable RF cable with 0.160 inch (4 mm) outer diameter. This cable is 48 inches long and the cables are phase matched to 5 degrees measured at 10 GHz. Operating to 18 GHz, the P1CA-SAMSAM-SS141-48-PM is a low loss flex cable with a minimum bend radius of 0.4 inches.

Typical delivery for a set of phase matched cables is 4 weeks. Maximum VSWR up to 18 GHz is 1.25.

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 10.0				1.2	
	10.0 to 18.0				1.25	
Insertion Loss	DC to 1.0	dB/ft.			0.13	
	1.0 to 10.0				0.45	
	10.0 to 18.0				0.64	
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	
Minimum Bend Radius	0.8	
Length	48.0	
Operating Temprature	-55.0 to 125.0 °C	
RoHS Compliance	Yes	

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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
Dielectic	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)	Attenuation		Power
Max Power (Watts)	dB/100Ft	dB/100M	
400MHz	8	26.24	1100
1GHz	13	42.6	550
3GHz	23	75.4	350
5GHz	30	98.4	245
10GHz	45	147.6	140
18GHz	64	209.9	87

Product Notes

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