

# P1CA-24M24M-130F-24-PM-1PS

Phase matched cable assemblies, 2.4mm male to 2.4mm male, 130F flexible coax, 24 inch. Phase matched +/- 1 ps. Frequency DC to 50 GHz. Supplied as phase matched pairs. Price is per cable. Each set includes S-Parameter data.

### Product Features

P1dB's matched cable P1CA-24M24M-130F-24-PM-1PS is a flexible low loss cable assembly with 2.4mm male to 2.4mm male connectors. The assemblies are supplied as matched pairs to within 1 ps over the frequency range DC to 50 GHz. The assembly length is 24 inches and typical insertion loss at 50 GHz is 2.4 dB. Typical VSWR from DC to 50 GHz is 1.30.

The flexible 130F cable has an outer diameter of 0.14 inch (3.6mm) and has a Velocity of Propagation of 74%. The cable features 2 shield layers for >90 dB shielding performance. Made with a Low Density PTFE dielectric, typical attenuation at 50 GHz is 1.0 dB/ft.



### Electrical Specification: T Ambient = 25° C

Parameter	Frequency Range	Units	Min	Typical	Max	Notes
Frequency Range		GHz	DC		50.0	

#### **Mechanical And Environmental Specifications:**

Parameter	Description	Notes	
Connector 1	2.4mm Male		
Connector 2	2.4mm Male		
Coax Cable	Flexible, low loss		
Cable Type	130F		
Coax Diameter	0.14		
Minimum Bend Radius	0.7		
Length	24.0		
Operating Temprature	-55.0 to 125.0 °C		
RoHS Compliance	Yes		

#### Drawing



#### Graph



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			51	Diameter		
	M	aterial				
1 Inner Conductor	Silver Plated Conner		mm	inch		
1. Inner Conductor 2. Dielectric	Silver Plated Copper		0.72	0.028		
3. Outer Conductor	Sprial Wrapped Silver Plated	Copper Tape	2.12	0.091		
4. Interlayer	PTFE		2.58	0.102		
5. Outer shields	Silver Plated Copper Braid		2.98	0.117		
6. Jacket	FEP		3.60	0.142		
Electrical Characteristics						
Impedance			50	50 Ohms		
Velocity of Propagation			;	74%		
Shielding Effectivene			>	>90 dB		
Operating Frequency (MAX.)			50	50 GHz		
Dielectric withstanding voltage			100	0 VRM S		
Mechanical Characteristics						
Cable Minimum Static Bend Radius			18 mm	.709 inch		
Cable Minimum Dynamic Bend Radius			36 mm	1.42 inch		
Weight			34 g/m	0.024 lbs/ft		
Frequency/GHz)	Atter	Boy	Power(Watts CW)			
Frequency(GHz)	dB/100 m	dB/100 Ft	101	Power(watts Cw		
1.0	43.8	13.36		409		
2.0	62.2	18.97		288		
4.0	88.5	26.99		202		
6.0	108.8	33.18		165		
8.0	126.1	38.46		142		
10.0	141.5	43.16		127		
12.0	155.4	47.40		115		
14.0	168.3	51.33		106		
18.0	191.8	58.50		93		
40.0	291.7	88.97		61		
50.0	328.5	100.19		55		

## **Product Notes**

Mating cylecs > 500.

P1dB, Inc.



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Temp range -55 to +125 deg C.

Bend radius is 0.7 inch (18mm).