

"High Frequency Ceramic Solutions"

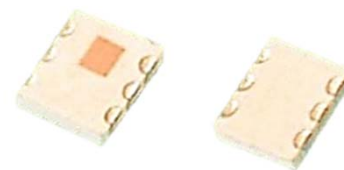
LNB Diplexer, 1175/1925 MHz, EIA 1210, SMD

P/N 1175DP41B1925

Detail Specification: 2/11/2014

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General Specifications

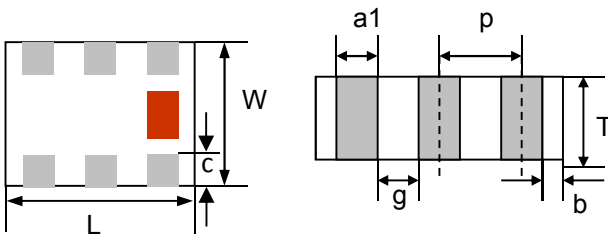
Part Number	1175DP41B1925			
Center Freq. (MHz)	1175	1925		
Passband (MHz)	900-1450	1650-2200		
Insertion Loss (dB)	1.62 typ/2.2 max. (25°C) 2.5 max. (-40to+ 25°C)	1.65 typ/2.2 max. (25°C) 2.5 max. (-40to+ 25°C)		
Return Loss	-9.5 dB (min)	-9.5 dB (min)		
Attenuation (db)	33 typ (25 min.) @ 1650 to 2200MHz	30 typ (24 min.) @ 900 to 1450MHz	Impedance	50Ω (Terminals 1, 3, and 5)
			Power Capacity	500mW max. (CW)
Ripple (db)	1.33 typ. (1.6 max.) @ 900 to 1450MHz 25MHz Ripple: 0.27 typ. (0.40max)	1.17 typ. (1.6 max.) @ 1650-2200MHz 25MHz Ripple: 0.24 typ. (0.40max)	Storage Period	18 months max.
			Reel Quantity	2,000
			Operating Temperature Range	-40°C to +85°C
Recommended Storage Cond.	+5 to +35 °C, Humidity 45 to 75%RH			

Part Number Explanation

P/N Suffix	Packing Style	Bulk	Suffix = S	eg. 1175DP41A1925S
		T & R (2000pcs)	Suffix = E	eg. 1175DP41A1925E
	Termination style	100% Tin	Suffix = None	eg. 1175DP41A1925(E or S)
	Evaluation Board	1175DP41B1925-EBSMA		

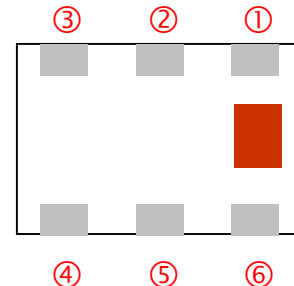
Mechanical Dimensions

	In	mm
L	0.126 ± 0.008	3.20 ± 0.20
W	0.098 ± 0.008	2.50 ± 0.20
T	0.039 max.	1.00 max.
a	0.022 ± 0.006	0.55 ± 0.15
b	0.004 min.	0.1 min.
c	0.016 ± 0.004/0.00	0.40 ± 0.1 /-0.2
g	0.018 ± 0.006	0.45 ± 0.15
p	0.039 ± 0.004	1.00 ± 0.10



Terminal Configuration

No.	Function
1	(LPF) Lower Freq. Port
2	GND
3	(HPF) Higher Freq. Port
4	GND
5	Common Port
6	GND



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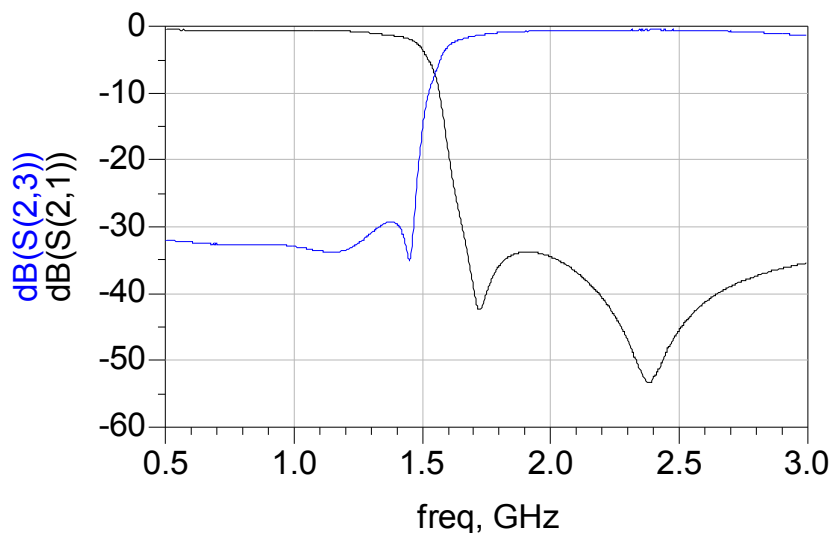
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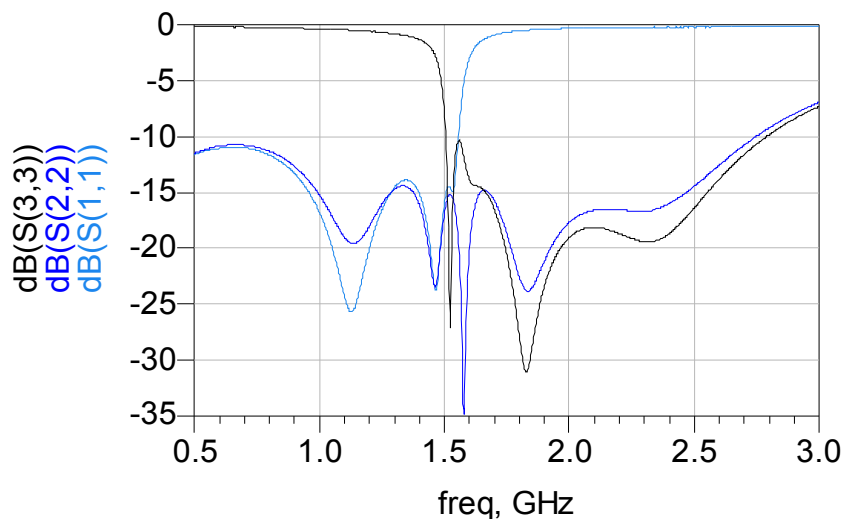
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Typical Electrical Performance (T=25°C)

Attenuation



Return Loss



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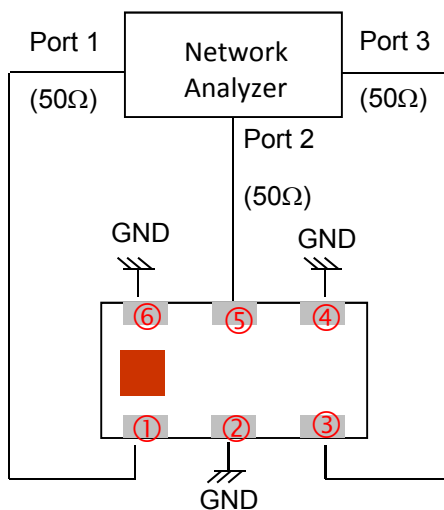
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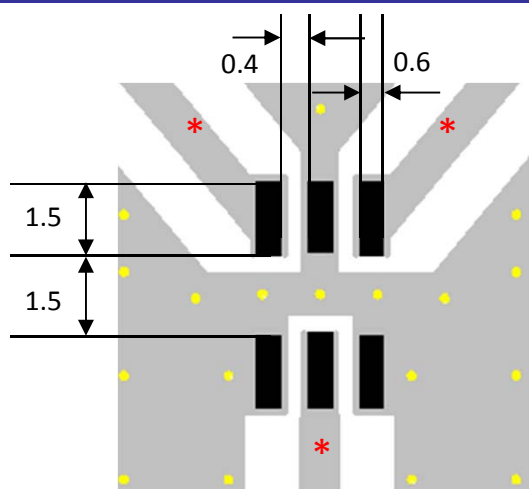
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Measuring Diagram



Mounting Considerations



Gray Solder Resist

Black Land

Yellow Through-hole (ϕ 0.35)

* Line width should be designed to match 50 Ω characteristic impedance, depending on PCB material and thickness.

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More Diplexers

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RoHS Compliance

www.johansontechnology.com/technical-notes/rohs-compliance.html

Packaging information

www.johansontechnology.com/ipcpackaging.html

Soldering Information

www.johansontechnology.com/ipcsoldering-profile

Layout Files, s-parameters and any other technical questions

www.johansontechnology.com/component/techquestion/?Itemid=407

MSL Info

www.johansontechnology.com/technical-notes/msl-rating.html

Recommended Storage Condition and Max Shelf Life

www.johansontechnology.com/ipcstorage-shelflife

Antenna layout and tuning techniques

www.johansontechnology.com/tuning

Antenna layout review, tuning, and characterization services

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