

MPD1216W4

4 ways Power Splitter/Combiners



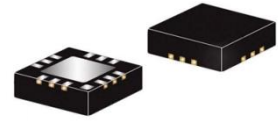
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Applications

1. GNSS Antenna
2. Multi-frequency signal combined
3. GSM, CDMA and LTE

Features

1. Low Insertion Loss 1.5dB typ based on IPD technology
2. Based on IPD technology
3. High isolation
4. Frequency wide Band
5. AEC-Q200 qualified



Description

The MPD1216W4 is a low cost, high performance four ways power splitters in an easy to use surface mount package. It is ideal for multi -frequency signal combined, indoor antenna distribution system and multi-frequency Small Cell & Pico. MPD1216W4 is Based on IPD technology which possess excellent electrical and mechanical stability. All components are 100% RF tested.

Electrical Specifications

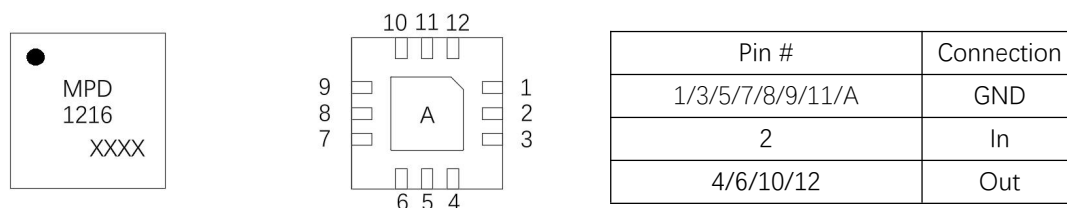
Table 1. MPD1216W4 Electrical Specifications

Item	Min.	Type.	Max.	Unit
Frequency Range	1150		1650	MHz
Insertion Loss (above 6 dB)		1.5		dB
Isolation		18		dB
Amplitude Unbalance			+1	
Phase Unbalance	-5		+5	Deg.
Return Loss		18		dB
Operating Temp.	-55		+125	°C
Power Input (2 port)			1.5	Watt

All the above data are based on specified demo board and tested in 25° environment.

Port Configurations

Figure 1. MPD1216W4 Port Configurations (Bottom View)



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Typical Performance

Figure 2. MPD1216W4 Return Loss

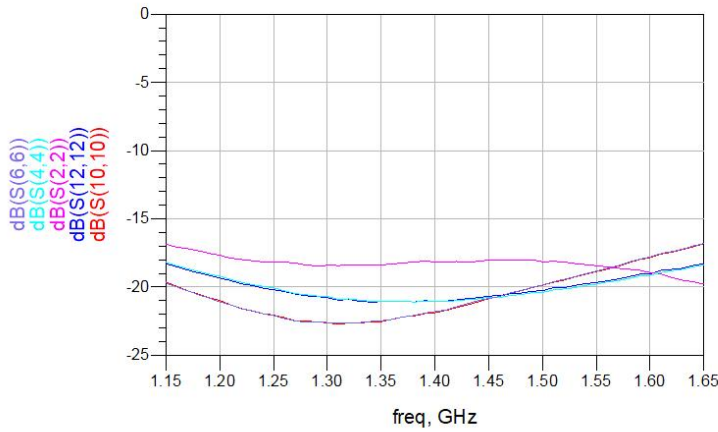


Figure 3. MPD1216W4 Insertion Loss (S4,2)

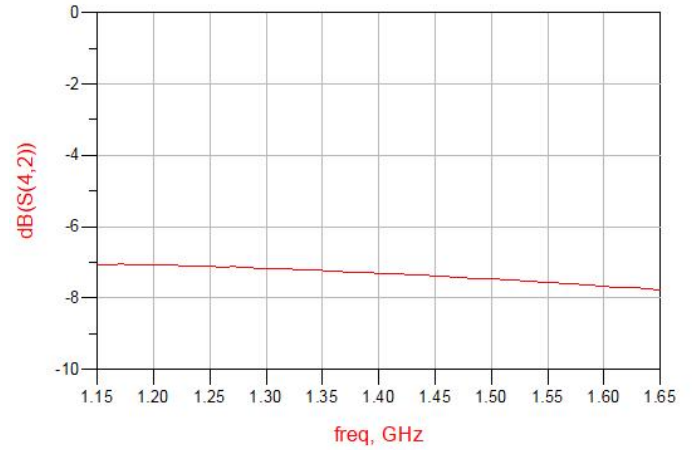


Figure 4. MPD1216W4 Insertion Loss (S6,2)

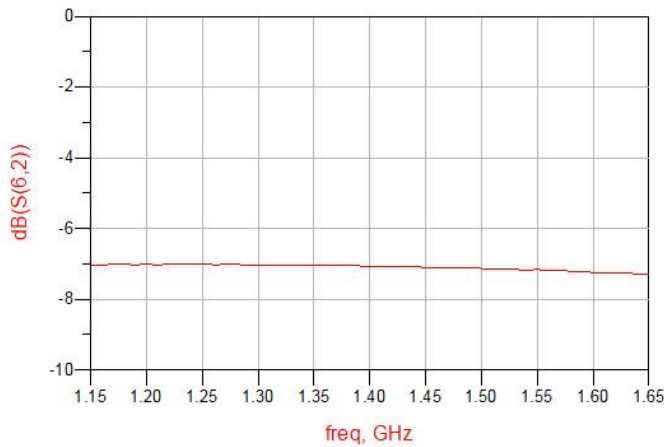


Figure 5. MPD1216W4 Insertion Loss (S10,2)

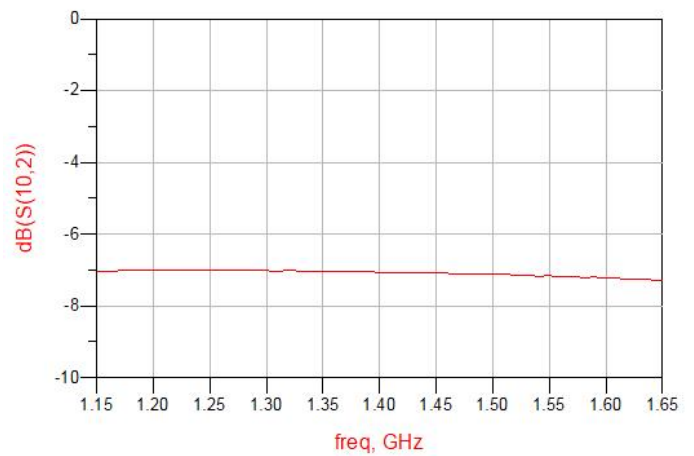


Figure 6. MPD1216W4 Insertion Loss (S12,2)

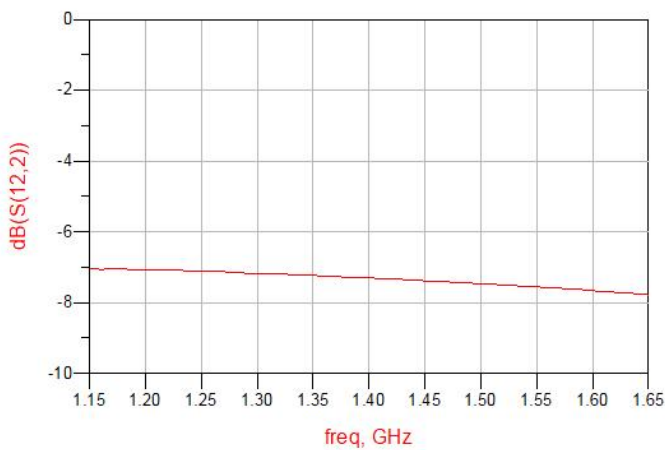
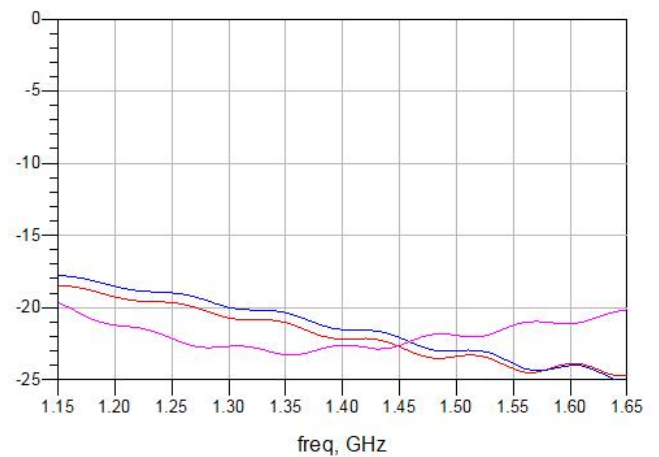


Figure 7. MPD1216W4 Isolation



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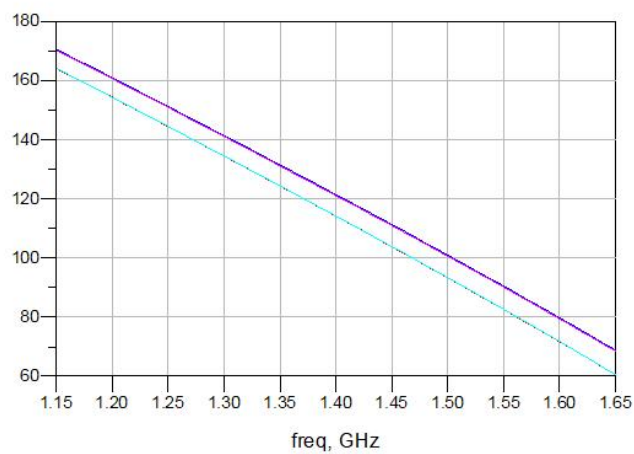
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Figure 8. MPD1216W4 Phase



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Outline Drawing

Figure 9. MPD1216W4 Outline Drawing

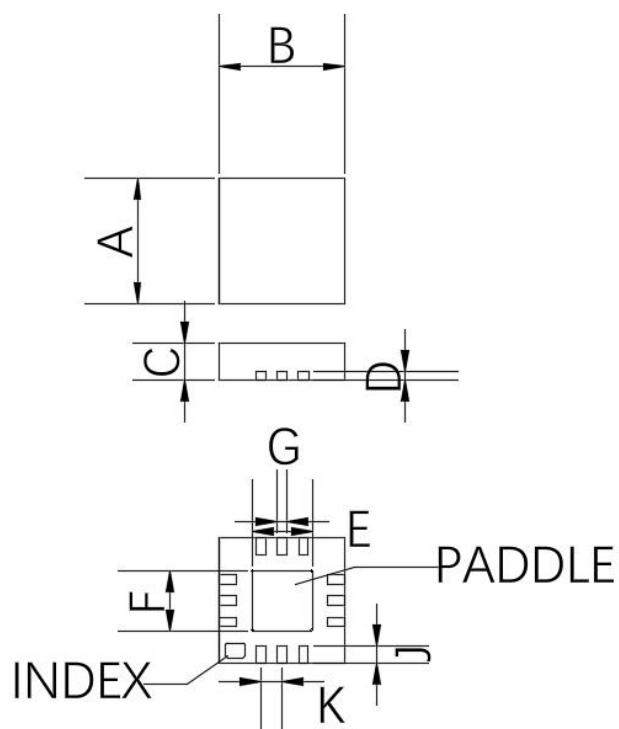
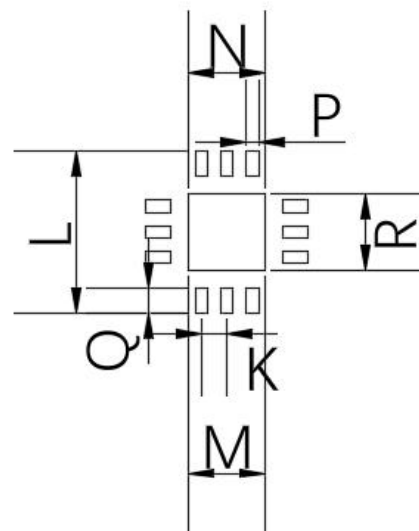


Figure 10. MPD1216W4 Recommended PCB Layout



Outline Dimensions (mm)

A	B	C	D	E	F	G	H	J
3.00	3.00	0.89	0.20	1.45	1.45	0.23	...	0.41
K	L	M	N	P	Q	R		Wt
0.51	3.23	3.23	1.52	0.25	0.51	1.52		0.02

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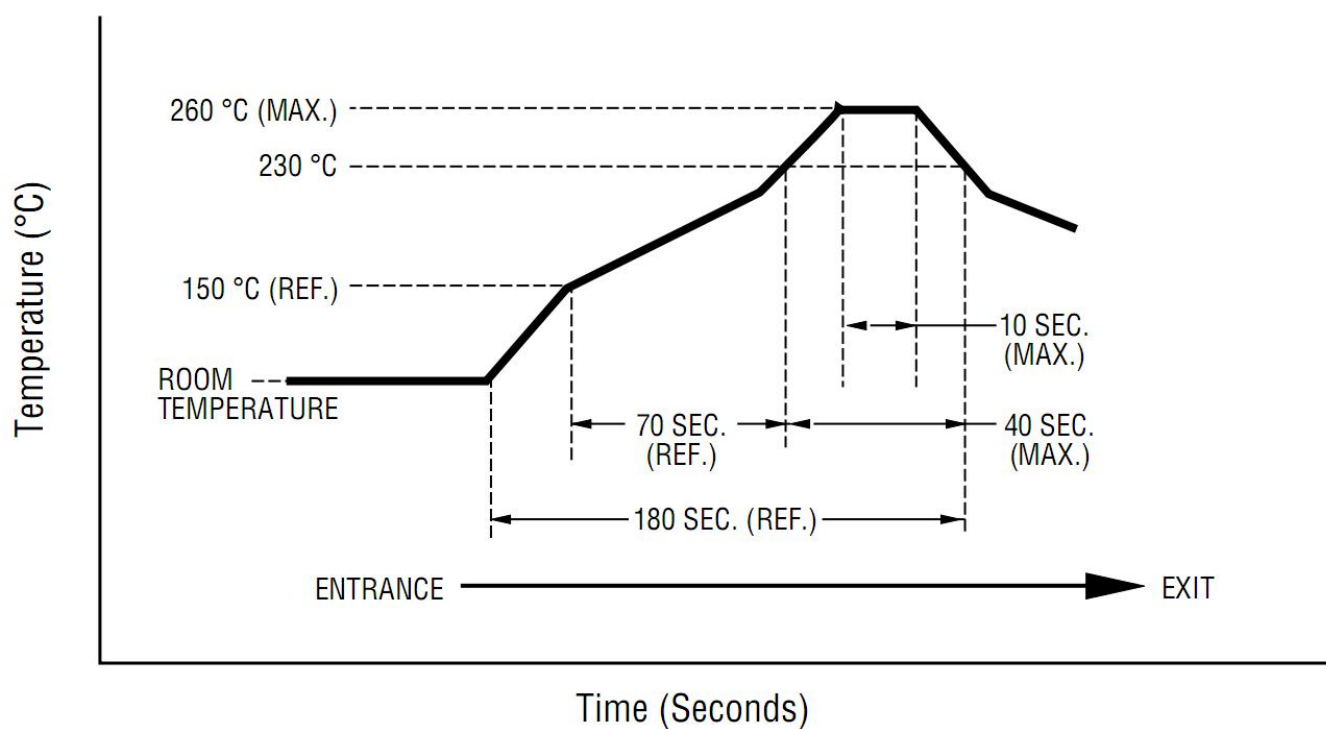
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Table 2. MPD1216W4 Ordering Information

Device	Package	Reel	Shipping
MPD1216W4	3*3mm	7"	3000/Reel

Recommended Reflow Solder Profile

Figure 11. MPD1216W4 Recommended Reflow Solder Profile



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Revision	Description	Date
Rev0	Preliminary	2026/1/15

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