

MPD0780W2

Power Splitters/Combiners

MECSINE 兆讯

APPLICATIONS

1. Multi-frequency signal combined
2. Indoor antenna distribution system Balanced Amplifiers
3. Multi-frequency Small Cell & Pico

Features

1. Low Insertion Loss 0.75dB typ based on IPD technology
2. Based on IPD technology
3. High isolation
4. Frequency covers a wide range of applications

Description

The MPD0780W2 is a low cost, high performance two 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. MPD0780W2 is Based on IPD technology which possess excellent electrical and mechanical stability. All components are 100% RF tested.

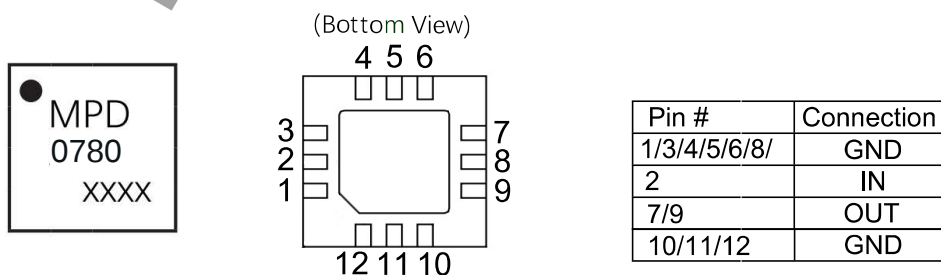
Characteristics 1)

Item	Min.	Type.@25°C	Max.	Unit
Frequency Range	700		8000	MHz
isolation	10	15		dB
Insertion Loss		0.75	1.50	dB
Phase Unbalance	-5	2	+5	degrees
Amplitude	-1	0.35	+1	dB
VSWR (:1)		1.35	2.0	:1
Operating Temp.	-55		+105	°C
Power			2	W

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

PORT CONFIGURATIONS

Figure 1.MPD0780W2



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2) Suggest to add a TVS Diode in parallel between electrode and Capacitors external connected to electrode to prevent DC signal entry to guarantee parts normal work.

Figure 2. MPD0780W2 electrical schematic



Typical Performance 25°C: (2000-6000 MHz)

Figure 3. MPD0780W2 Insertion Loss

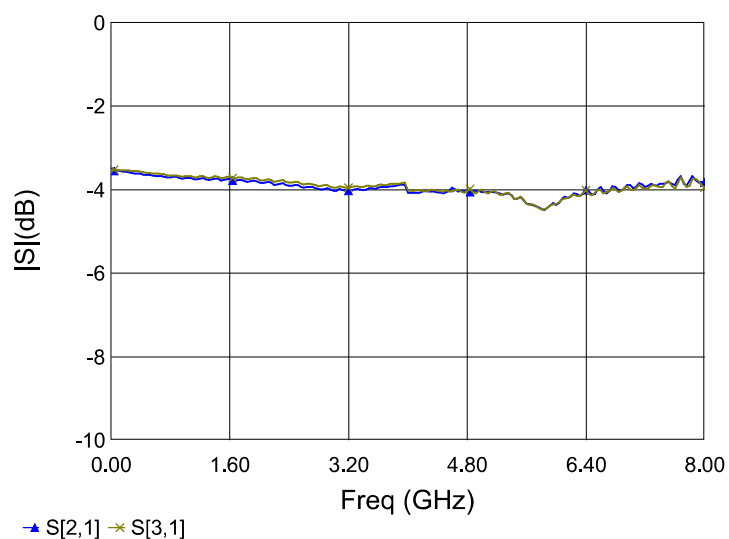
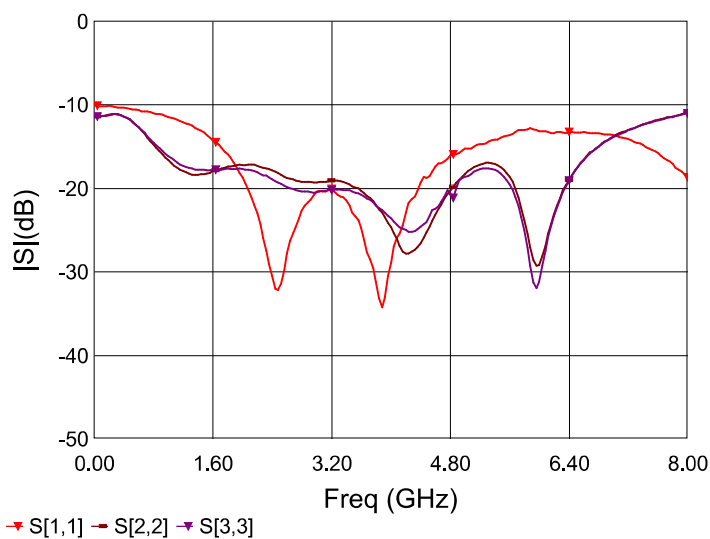


Figure 4. MPD0780W2 Return Loss



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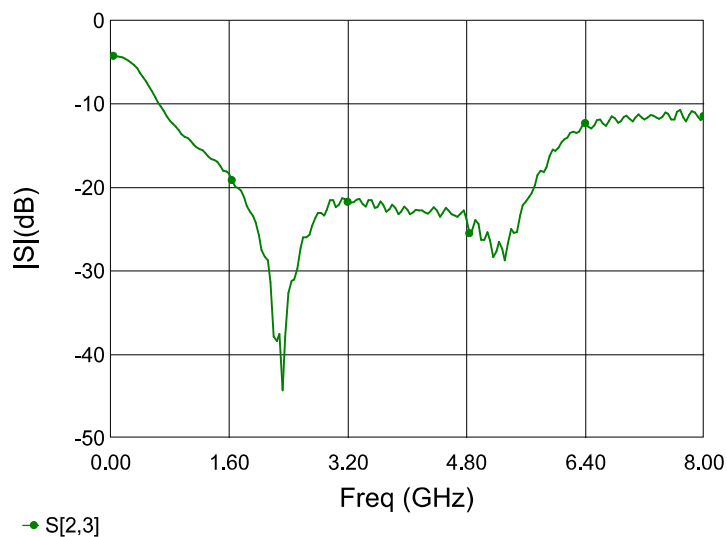
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Figure 5. MPD0780W2 Isolation



Freq (MHz)

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Outline Drawing

Figure 6. MPD0780W2 Outline Drawing

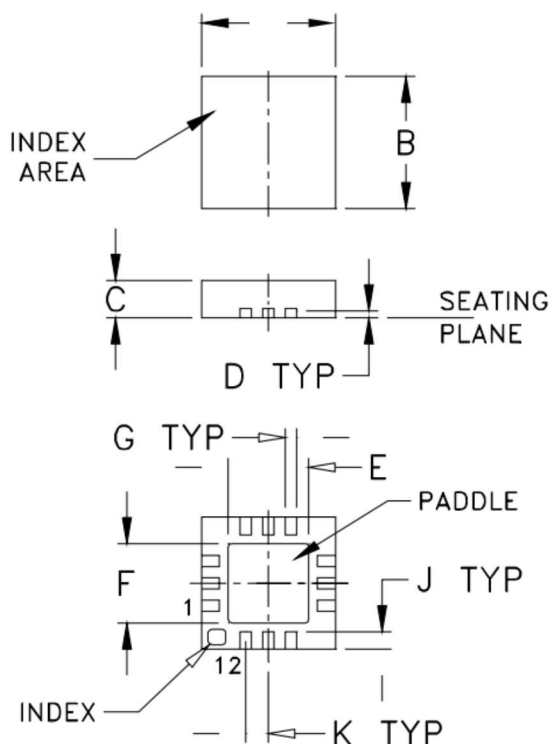
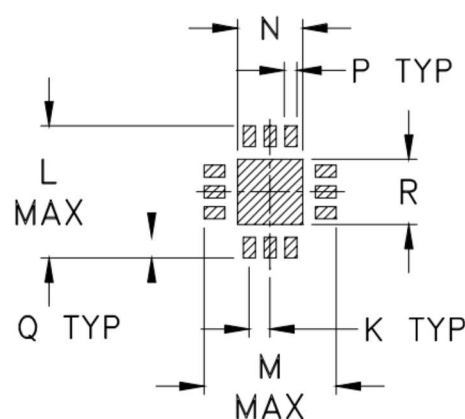


Figure 7. MPD0780W2 Recommended PCB Layout



Outline Dimensions (mm)

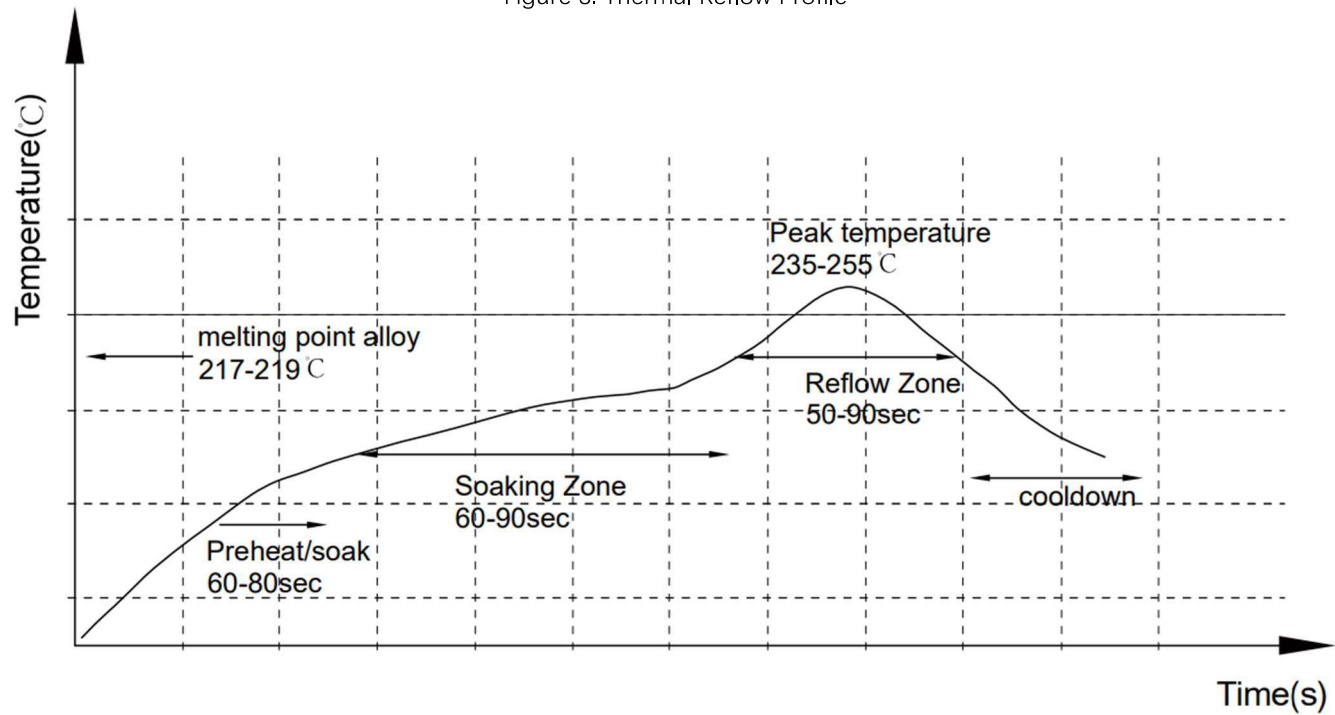
A	B	C	D	E	F	G	H	J
3.00	3.00	0.89	0.20	1.45	1.45	0.23	---	0.41
K	L	M	N	P	Q	R		wt
0.51	3.23	3.23	1.24	0.25	0.51	1.24		0.02

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REFLOW PROFILE

Figure 8. Thermal Reflow Profile



	Ramp Up	Pre-Heating	Peak	Soaking
Temperature(°C)	T1:160±5°C	T2:180±5°C	T4:260±5°C	T3:230±5°C
Time(sec)	t1:60±5sec	t2:100±15sec	t3:30±5sec	t4:60±10sec

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Device	Package	Reel	Shipping
MPD0780W2	QFN3*3	7 "	3000/Tape & Reel

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Revision	Description	Date
Rev0	Preliminary	2022/10/09

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