

MPD0710W2/S2

Power Splitters/Combiners

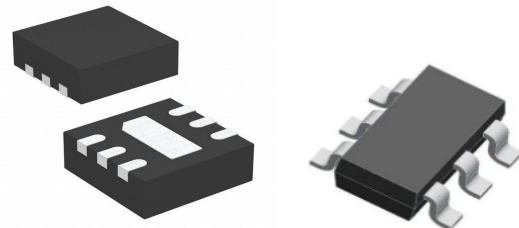
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APPLICATIONS

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

Features

1. Low Insertion Loss 0.5dB typ based on IPD technology
2. Based on IPD technology
3. High isolation
4. Frequency covers a wide range of applications



Case1: DFN2*2

Case2: SOT23-6

Description

The MPD0710W2 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. MPD0710W2 is Based on IPD technology which possess excellent electrical and mechanical stability. All components are 100% RF tested.

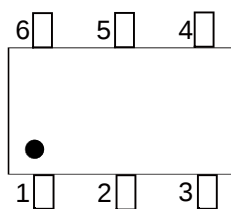
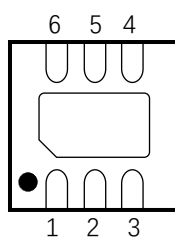
Characteristics 1)

Item	Min.	Type.@25°C	Max.	Unit
Frequency Range	700		1000	MHz
isolation	18	20		dB
Insertion Loss		0.5	0.8	dB
Phase Unbalance	-5	2	+5	degrees
Amplitude	-0.5	0.2	+0.5	dB
VSWR (:1)		1.2	1.3	: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. MPD0710W2/S2 (Top View)



Pin #	Connection
1	GND
2	IN
3	GND
4	OUT
5	GND
6	OUT

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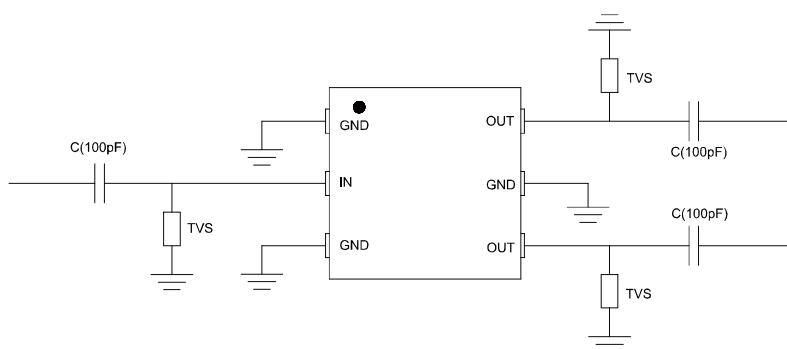
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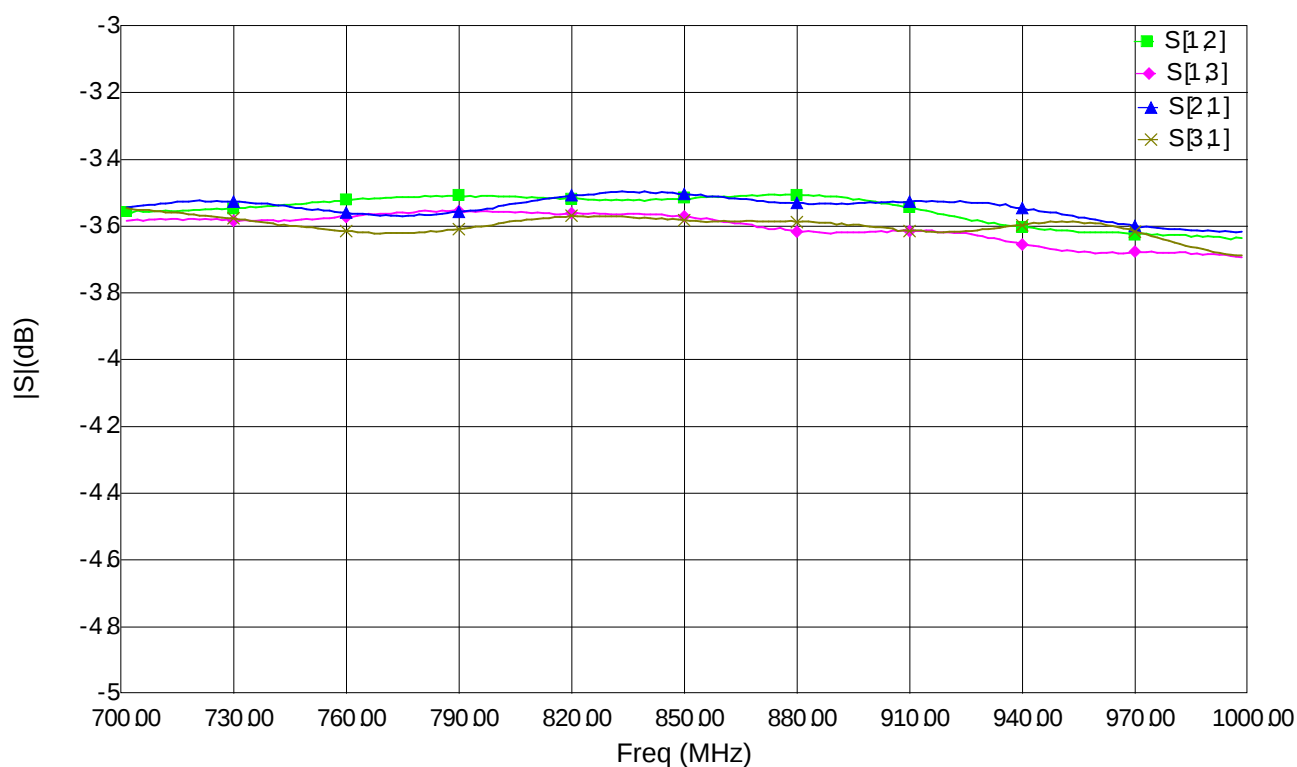
2) Suggest to add a TVS Diode in parallel between electrode and Capacitors external connected to electrode to prevent DC signal entry to guarantee parts normal work.

Figure 2. MPD0710W2/S2 Suggested Circuits



Typical Performance 25°C: (700-1000 MHz)

Figure 3. MPD0710W2/S2 Insertion Loss



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Figure 4. MPD0710W2/S2 Return Loss

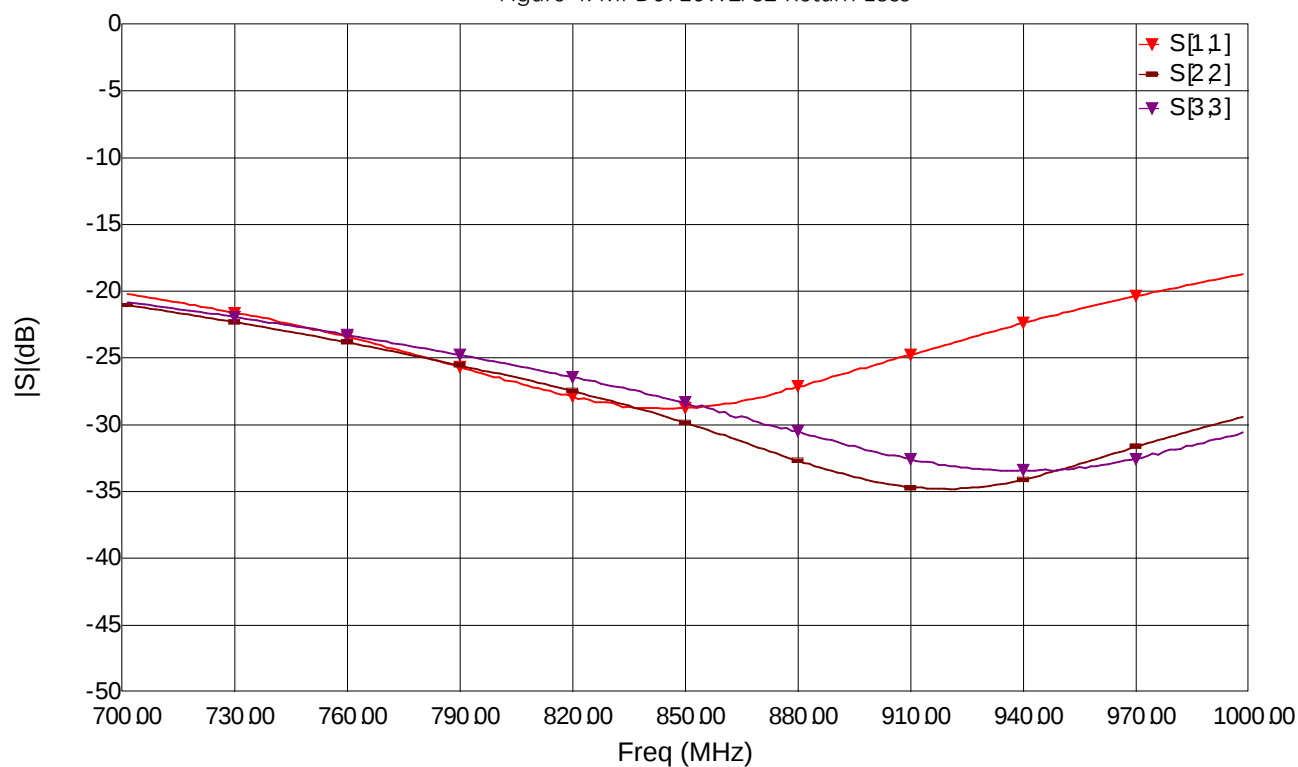
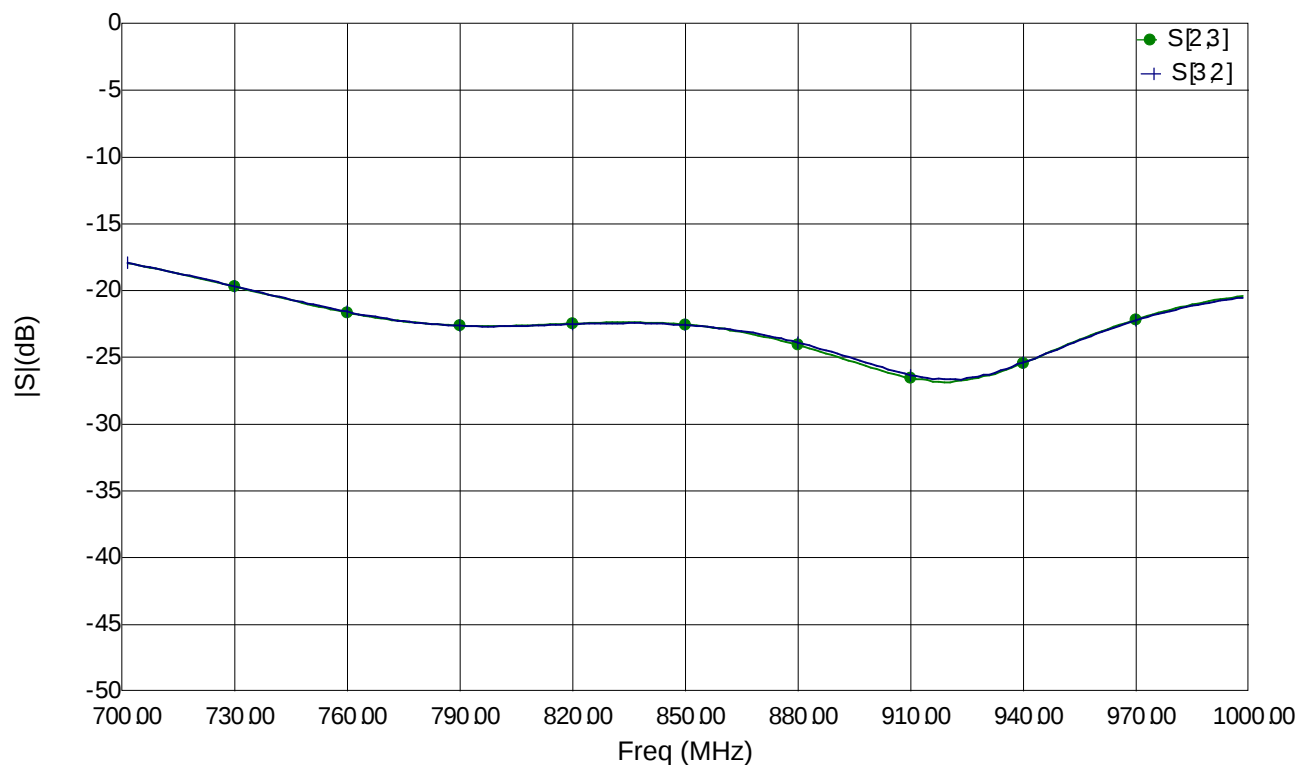


Figure 5. MPD0710W2/S2 Isolation



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Outline Drawing

Figure 6. MPD0710W2 Outline Drawing

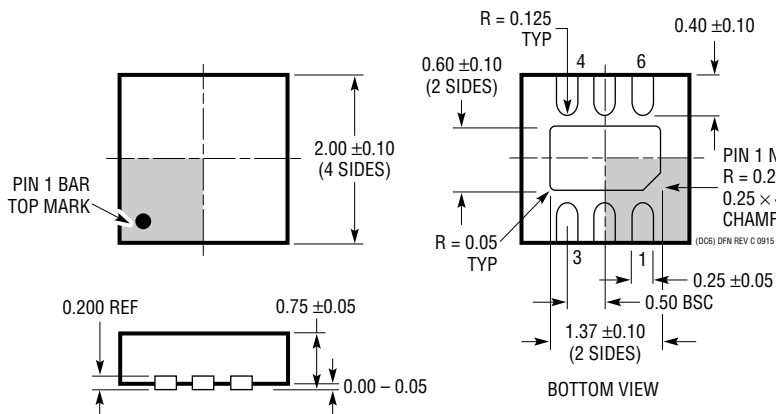


Figure 8. MPD0710W2 Recommended PCB Layout

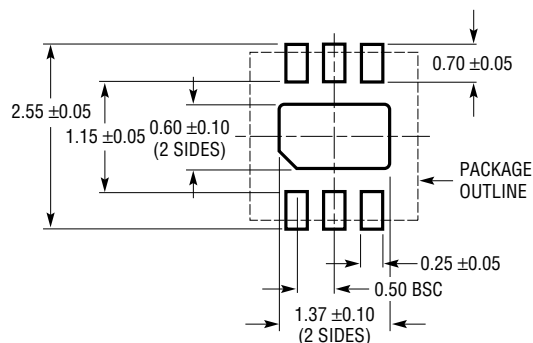
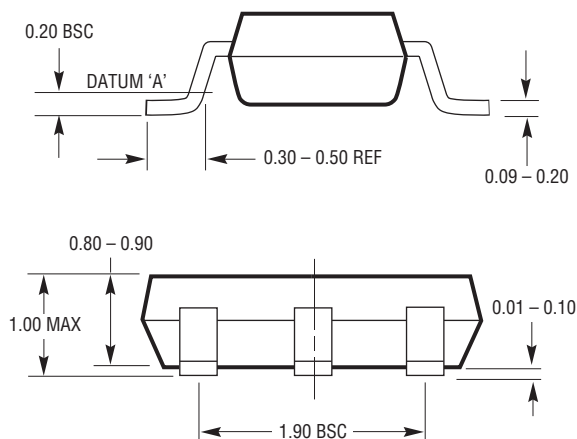
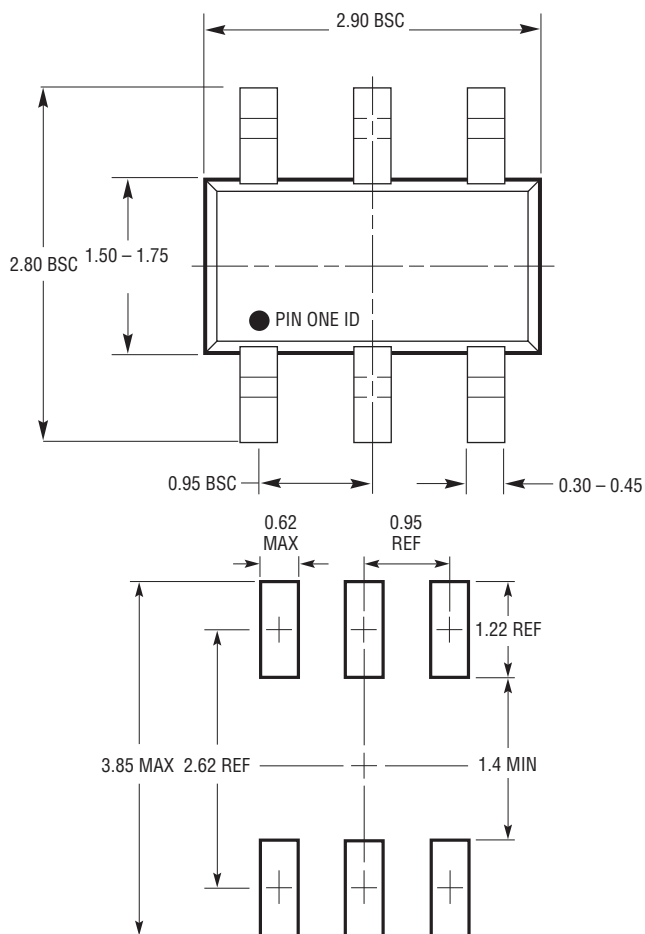


Figure 9. MPD0710S2 Outline Drawing and Recommended PCB Layout



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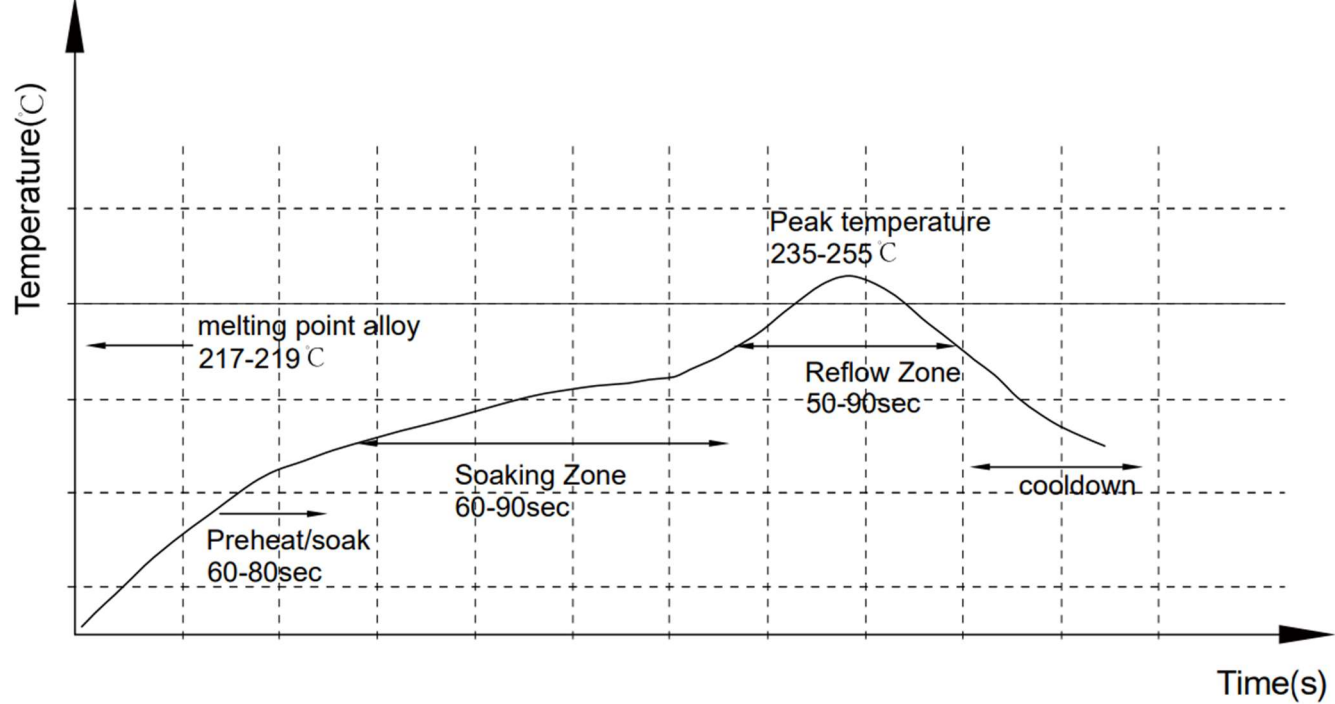
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REFLOW PROFILE

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

Packaging and Ordering Information

Parts are available in reel and are packaged per EIA 481-2. Parts are oriented in tape and reel as shown below. Minimum order quantities are 4000 per reel. See Model Numbers below for further ordering information.

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Device	Package	Reel	Shipping
MPD0710W2	DFN2*2	7 "	4000/Tape & Reel
MPD0710S2	SOT23-6	7 "	3000/Tape & Reel

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Revision	Description	Date
Rev0	Preliminary	2021/12/21

Attention

1.This datasheet is downloaded from the website of Murata Manufacturing Co., Ltd. Therefore, it's specifications are subject to change or our products in it may be discontinued without advance notice. Please check with our sales representatives or product engineers before ordering.

2.This datasheet has only typical specifications because there is no space for detailed specifications. Therefore, please review our product specifications or consult the approval sheet for product specifications before ordering.

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