



Mini-Circuits

COAXIAL

Power Splitter/Combiner **ZC2PD-E18673+**

50Ω 2 Way-0° 18 to 67 GHz 12W 1.85mm Female

THE BIG DEAL

- Wideband, 18 to 67 GHz
- Low Insertion Loss, 1.2dB typ.
- Power Handling, 12W
- High Isolation, 30dB typ.
- Low Amplitude Unbalance, 0.1 dB typ.
- Stripline Design

APPLICATIONS

- 5G MIMO and Back Haul Radio Systems
- LTE & 5G MIMO Infrastructure
- Satellite Communications
- Test & Measurement Equipment
- Radar, EW, and ECM Defense Systems



Generic photo used for illustration purposes only

Model No.	ZC2PD-E18673+
Case Style	UU2624-6
Connectors	1.85mm Female

+RoHS Compliant

The +Suffix identifies RoHS Compliance.
See our website for methodologies and qualifications

PRODUCT OVERVIEW

Mini-Circuits' ZC2PD-E18673+ is a wideband 2-way 0° power splitter/combiner. It provides coverage from 18 to 67 GHz, (Ka band & V band) supporting a wide range of applications including 5G, Defense, Instrumentation and many more. This model provides 12W power handling as a splitter and very Low Insertion Loss across the entire operating frequency range, minimizing power dissipation and delivering excellent signal power transmission from input to output. The ZC2PD-E18673+ comes housed in a case measuring 0.85 x 1.06 x 0.5" with 1.85mm female connectors

KEY FEATURES

Features	Advantages
Wideband, 18 to 67 GHz	Extremely wide frequency range supports many broadband applications in a single model.
Low Insertion Loss, 1.2 dB typ.	The combination of 12W power handling and Low Insertion Loss makes this model a suitable candidate for distributing signals while maintaining excellent transmission of signal power.
High Isolation, 30 dB typ.	Minimizes interference between ports
High Power Handling: <ul style="list-style-type: none">• 12W as a splitter at 25°C• 0.4W as a combiner at 25°C	The ZC2PD-E18673+ is suitable for systems with a wide range of power requirements.
Low amplitude unbalance, 0.1 dB	Produces nearly equal output signals, ideal for parallel path and multichannel systems.
DC Passing, 350 mA as a splitter	Supports applications where DC power is needed through the RF line.





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ELECTRICAL SPECIFICATIONS AT 25°C

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Units
Frequency Range	-	18	-	67	GHz
Insertion Loss (above theoretical 3.0dB per port)	18 - 40	-	0.9	1.7	dB
	40 - 50	-	1.2	2.0	
	50 - 67	-	1.6	2.6	
Isolation	18 - 40	16	29	-	dB
	40 - 50	16	29	-	
	50 - 67	16	32	-	
Phase Unbalance (\pm) ¹	18 - 40	-	1	-	Degree
	40 - 50	-	2	-	
	50 - 67	-	3	-	
Amplitude Unbalance (\pm) ¹	18 - 40	-	0.1	0.7	dB
	40 - 50	-	0.1	0.6	
	50 - 67	-	0.1	0.8	
VSWR (Port S)	18 - 40	-	1.23	1.7	:1
	40 - 50	-	1.18	1.8	
	50 - 67	-	1.16	1.9	
VSWR (Port 1-2)	18 - 40	-	1.23	1.7	:1
	40 - 50	-	1.16	1.8	
	50 - 67	-	1.12	1.9	
Power Handling	As Splitter ¹	-	-	12	W
	As Combiner ²	-	-	0.4	

1. All outputs must be terminated with 50 ohm (VSWR 1.5:1 or better)

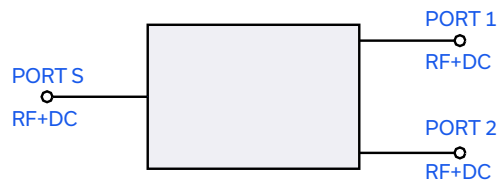
2. As a combiner of non-coherent signals, max. power per port is 0.2 watt

MAXIMUM RATINGS

Parameter	Ratings
Operating Case Temperature	-50 °C to +100 °C
Storage Temperature	-50 °C to +100 °C

Permanent damage may occur if any of these limits are exceeded.

FUNCTIONAL DIAGRAM





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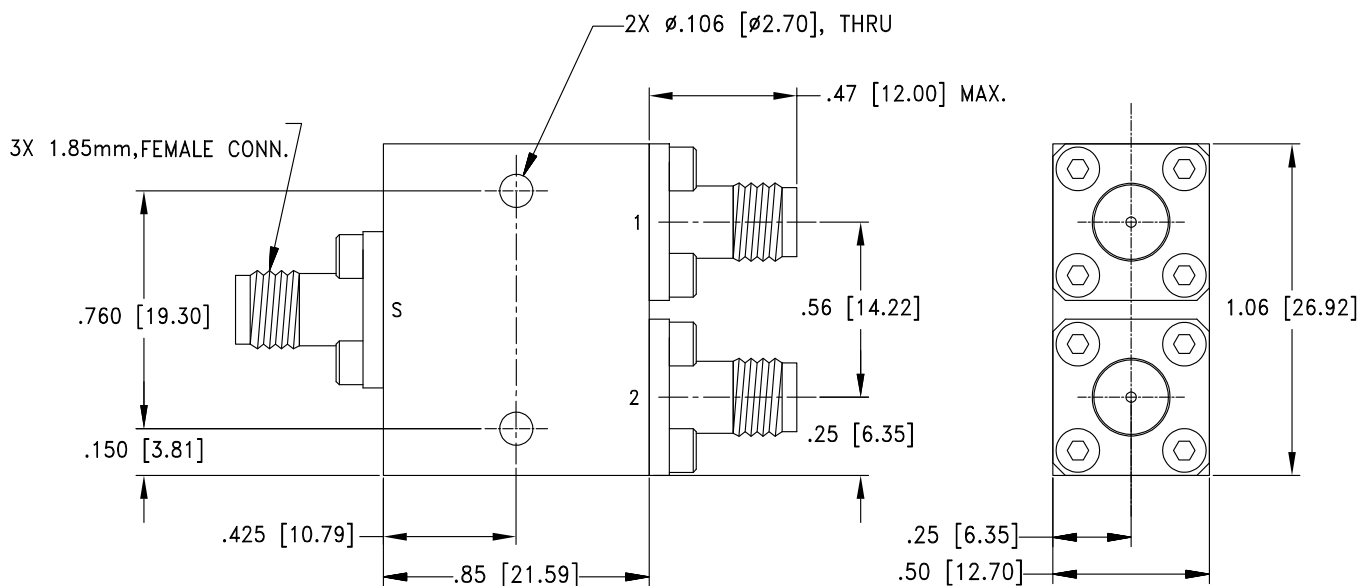
50Ω 2 Way-0° 18 to 67 GHz 12W 1.85mm Female

COAXIAL CONNECTIONS

Input / Output ¹	S
Output / Input ¹	1-2

1. Unit is bi-directional design.

OUTLINE DRAWING



Weight: 35 grams

Dimensions are in inches [mm]. Tolerances: 2 Pl. ±.03; 3 Pl. ± .015



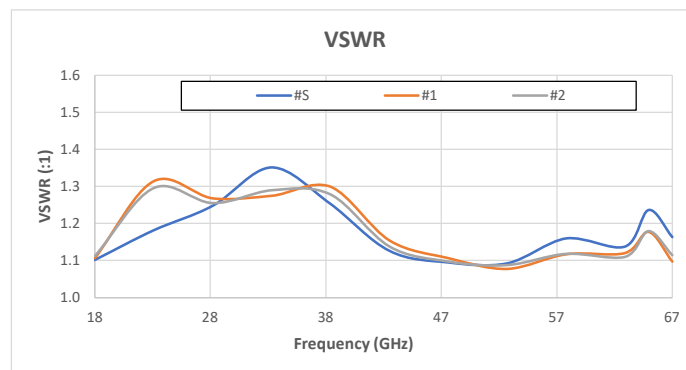
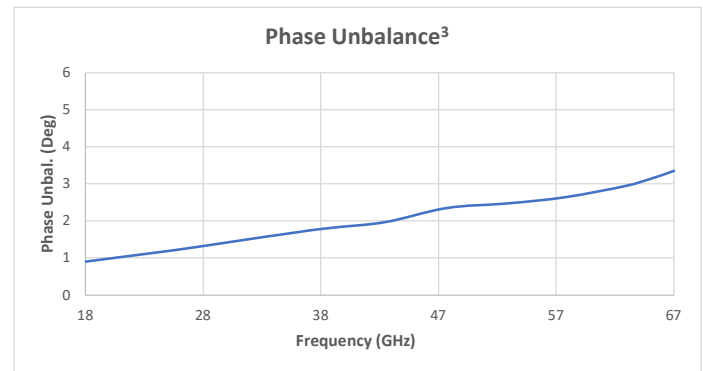
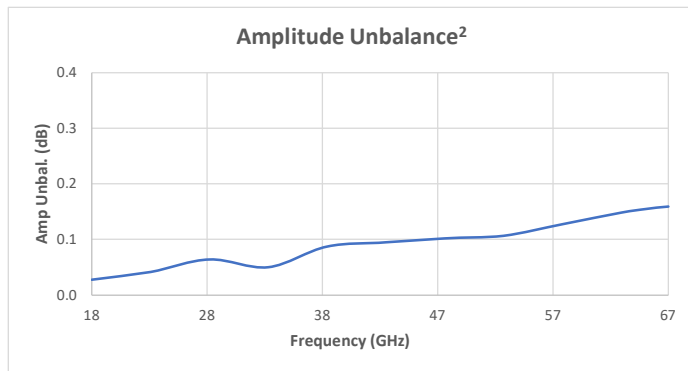
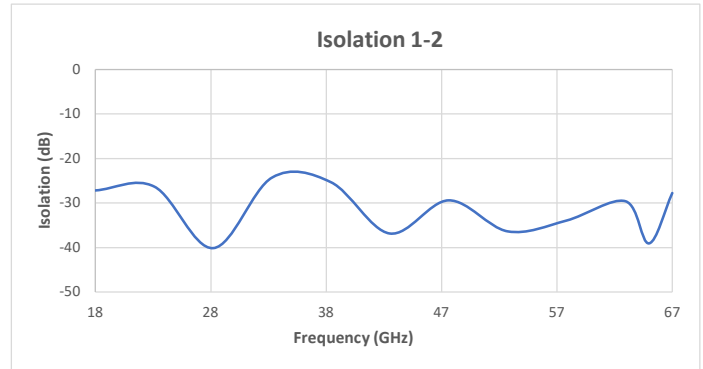
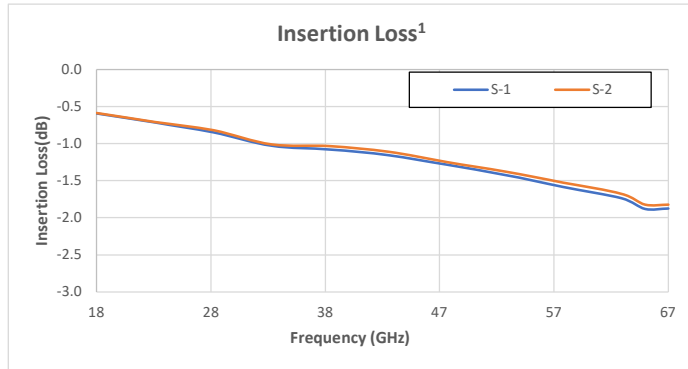


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TYPICAL PERFORMANCE CURVES



Note:

1. Insertion loss is loss above theoretical loss (3dB)
2. Amplitude unbalance is average unbalance between any ports
3. Phase unbalance is average unbalance between any ports

NOTES

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the standard terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/terms/viewterm.html



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