

# PS-2-1000F

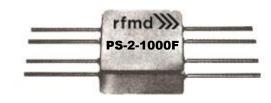
Wideband In Phase Two Way Hybrid Combiner/Divider 5.0MHz to 1000MHz

A two-way in-phase hybrid power combiner/divider is a 180° hybrid power combiner/divider with the difference port (A) internally terminated.

As a two-way power divider, a signal fed into the input port yields two inphase output signals 3 dB down from the input power.

As a two-way power combiner, signals applied to the output ports yield a vector sum at the input port.

Multi-way binary power combiners/dividers are realized by cascading combinations of the basic two-way device. The power division ratio of the multi-way combiner/divider is 1/n.



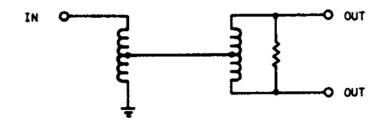
### Package: Flatpack

#### **Features**

- Low Insertion Loss
- 2 Way up to 4GHz
- 3 and 4 Way up to 2GHz
- 6 to 9 Way up to 1GHz

## **Applications**

- Milcom
- Electronic Warfare
- Industrial, Scientific, Medical
- Aerospace Avionics
- Military and Civilian Radar
- Satellite Communications



**Functional Schematic** 



## **Absolute Maximum Ratings**

Parameter	Rating	Unit
Operating Temperature Range	-54 to +100	°C
Total Input Power (1/20 Watt Internal Load Dissipation)	1	W

Specifications subject to change without notice.

Environmental conditions: All units are designed to meet their specifications between -54°C and +100°C and after exposure to any or all of the following tests per MIL-STD-202E.

- Thermal Shock: Method 107D, Test Condition B
- Altitude: Method 105C, Test Condition G
- H.F. Vibration: Method 204C, Test Condition D
- Mechanical Shock: Method 213B, Test Condition C
- Random Vibration (15 minutes per axis): Method 214, Test Condition IIF
- Solderability: Method 208C
- Terminal Strength: Method 211A, Test Condition C
- Resistance to Soldering Heat: Method 210A, Test Condition B

Sealed units meet the requirements of Method 106D of MIL-STD-202E when exposed to humidity.

#### **Nominal Operating Parameters**

Parameter Specification Min Typ Max	tion	Unit	Condition		
	Min	Тур	Max		Condition
General Performance					
Isolation		20		dB	
-1 dB Bandwidth	5.0		1000	MHz	
Midband Insertion Loss		0.5		dB	
Amplitude Unbalance		0.15		dB	
Phase Unbalance		3.0		°C	
VSWR		1.5			

Specifications subject to change without notice.

Caution! ESD sensitive device.

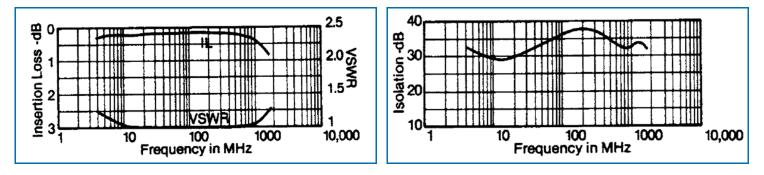
Exceeding any one or a combination of the Absolute Maximum Rating conditions may cause permanent damage to the device. Extended application of Absolute Maximum Rating conditions to the device may reduce device reliability. Specified typical performance or functional operation of the device under Absolute Maximum Rating conditions is not implied.

The information in this publication is believed to be accurate. However, no responsibility is assumed by RF Micro Devices, Inc. ("RFMD") for its use, nor for any infringement of patents or other rights of third parties resulting from its use. No license is granted by implication or otherwise under any patent or patent rights of RFMD. RFMD reserves the right to change component circuitry, recommended application circuitry and specifications at any time without prior notice.



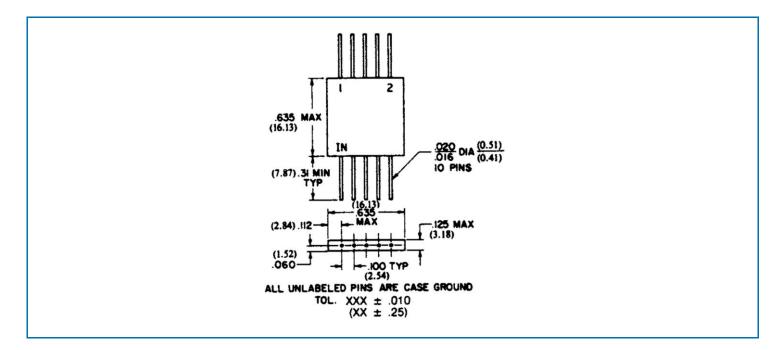


## **Typical Performance**



### Package Drawing (Dimensions in millimeters)

Material: F15 Kovar per ASTM Std.; F-15-68 chemical composition per MIL-STD-1276, type K Finish: plating: all metal parts gold per MIL-G-45204, type I, grade A, class 1, over nickel per MIL-C-26074, class 1



RF Micro Devices Inc. 7628 Thorndike Road, Greensboro, NC 27409-9421 For sales or technical support, contact RFMD at +1.336.678.5570 or customerservice@rfmd.com. DS131017

The information in this publication is believed to be accurate. However, no responsibility is assumed by RF Micro Devices, Inc. ("RFMD") for its use, nor for any infringement of patents or other rights of third parties resulting from its use. No license is granted by implication or otherwise under any patent or patent rights of RFMD. RFMD reserves the right to change component circuitry, recommended application circuitry and specifications at any time without prior notice.