



# Ultra Low Profile 0805 Power Divider 3 Way $50\Omega$ to $50\Omega$



#### **Description:**

The PD1722J5050S3HF is a low profile, sub-miniature Wilkinson power divider in an easy to use surface mount package and is ideal for high volume manufacturing while delivering higher performances than traditional printed and lumped element solutions. It has been designed for the DCS, PCS, UMTS and CDMA markets. The PD1722J5050S3HF is matched to 50  $\Omega$  and has a height profile of 0.79 mm. Three external resistors are required for operation. Components are available on tape and reel for high volume manufacturing pick and place.

## **Detailed Electrical Specifications:**

Specifications subject to change without notice.

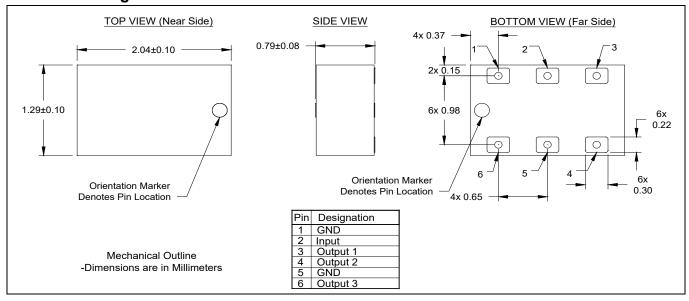
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- 1700 2200 MHz
- 0.82 mm Height Profile
- 50Ω Outputs/Inputs
- DCS/PCS/UMTS/CDMA
- External resistors required
- Low Insertion Loss
- Surface Mountable
- Tape & Reel
- Non-conductive Surface
- RoHS Compliant
- Halogen Free

notice.								
	ROOM (25°C)							
Parameter	Min.	Тур.	Max	Unit				
Frequency	1700		2200	MHz				
Input Port Impedance		50		Ω				
Output Port Impedance		50		Ω				
Return Loss	9	11		dB				
Insertion Loss*		0.9	1.3	dB				
Amplitude Balance		0.5	0.9	dB				
Phase Balance		9	12	Degrees				
Isolation (Output Ports)	14	17		dB				
Power Handling			1	Watts				
Operating Temperature	-55		+85	°C				

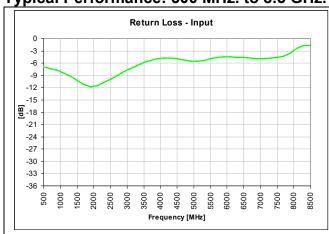
<sup>\*</sup>Insertion Loss stated at room temperature (Insertion Loss is approximately 0.1 dB higher at +85 °C)

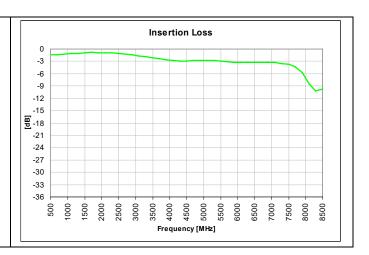
#### **Outline Drawing:**

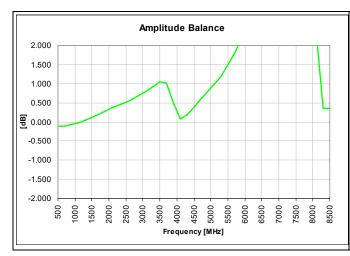


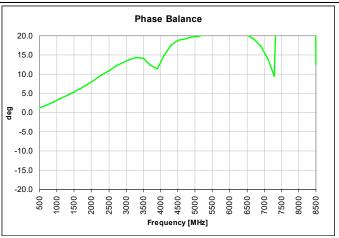


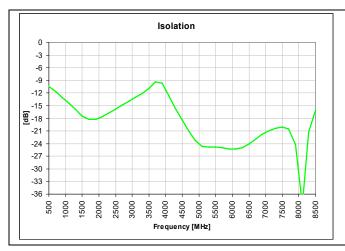
Typical Performance: 500 MHz. to 8.5 GHz.









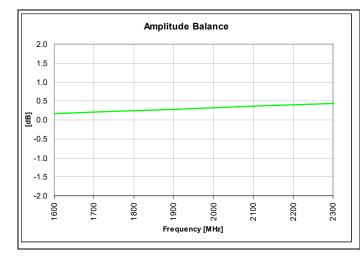


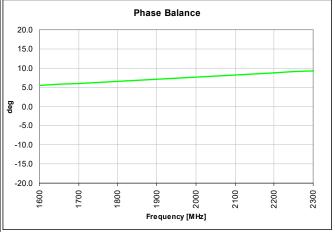


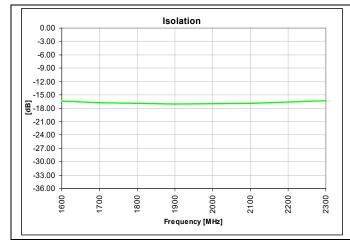
## Wide Band Performance: 1600 MHz. to 2300 MHz.









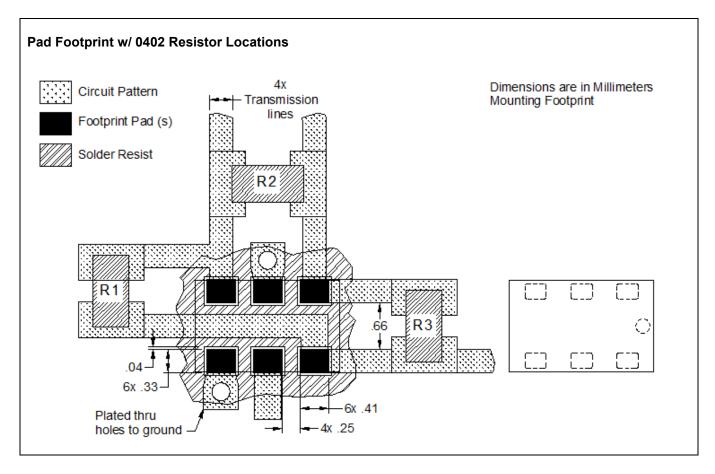




## **Mounting Configuration:**

In order for Xinger surface mount components to work optimally, the proper impedance transmission lines must be used to connect to the RF ports. If this condition is not satisfied, insertion loss, Isolation and VSWR may not meet published specifications.

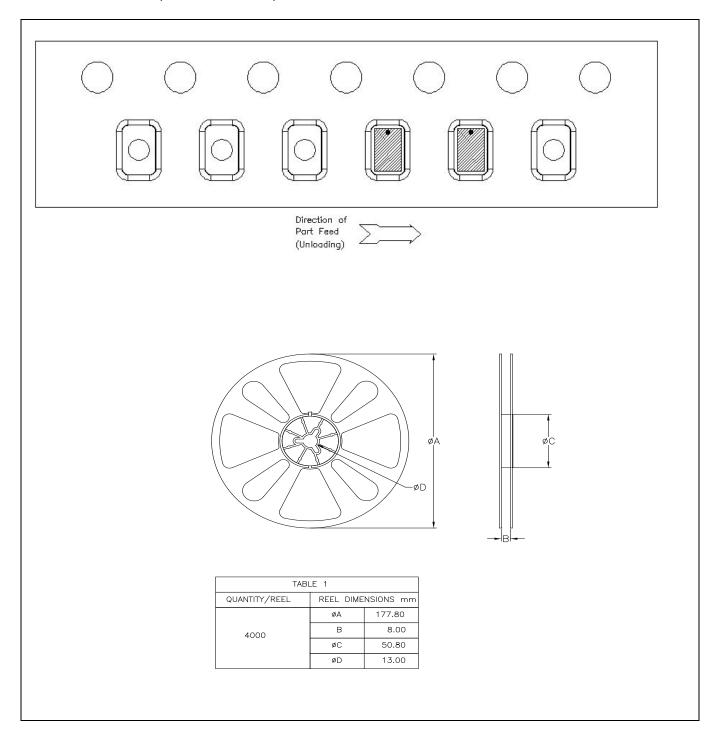
All of the Xinger components of the PCB footprint used in the testing of these parts is shown below. In specific designs, the transmission line widths need to be adjusted to the unique dielectric coefficients and thickness as well as varying pick and place equipment tolerances. In addition, since the PD1722J5050S3HF is a Wilkinson power divider, external  $0402\ 100\Omega$  resistors must be mounted must be mounted as shown in the Figure below.





## **Packaging and Ordering Information:**

Parts are available in reel and are packaged per EIA 481-D. Parts are oriented in tape and reel as shown below. Minimum order quantities are 4000 per reel.



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