## Xinger

## Ultra Low Profile 0603 Power Divider $50 \Omega$ to $50 \Omega$



## Description

The PD2635L5050S2HF is a low profile, sub-miniature Wilkinson power divider in an easy to use surface mount package. The PD2635L5050S2HF is ideal for high volume manufacturing and delivers higher performances than traditional printed and lumped element solutions. The PD2635L5050S2HF is matched to $50 \Omega$ and has a height profile of 65 mm , which is ideal for high-level integrations in the following markets: 5G, LTE. The PD2635L5050S2HF does not include the resistive element and therefore, requires an external resistor for operation. The PD2635L5050S2HF is available on tape and reel for high volume manufacturing pick and place.

Detailed Electrical Specifications: Specifications subject to change without notice.

| Features: | Parameter | Room ( $25^{\circ} \mathrm{C}$ ) |  |  |  |  |  |  |  |  |  |  |  | Unit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Min | Typ | Max | Min | Typ | Max | Min | Typ | Max | Min | Typ | Max |  |
| 2490-4000 MHz | Frequency | 2496 |  | 2600 | 2600 |  | 3500 | 3400 |  | 3800 | 3800 |  | 4000 | MHz |
| 0.65 mm Height Profile | Inout Port Impedance |  | 50 |  |  | 50 |  |  | 50 |  |  | 50 |  | $\Omega$ |
| $50 \Omega$ Input/50 О Output | Putput Port Impedance |  | 50 |  |  | 50 |  |  | 50 |  |  | 50 |  | $\Omega$ |
| Low Insertion Loss | Return Loss | 13 | 16 |  | 14 | 17 |  | 14 | 17 |  | 12 | 17 |  | dB |
| Surface Mountable | Insertion Loss* |  | 0.4 | 0.5 |  | 0.3 | 0.5 |  | 0.4 | 0.6 |  | 0.4 | 0.7 | dB |
| Tape\&Reel | Amplitude Balance |  | 0 | 0.3 |  | 0 | 0.3 |  | 0 | 0.3 |  | 0 | 0.4 | dB |
| Non-conductive Surface | Phase Balance |  | 0.2 | 3 |  | 0.2 | 3 |  | 0.2 | 4 |  | 0.2 | 4 | Degrees |
| RoHS Complianlt | Isolation (Putput Ports) | 16 | 18 |  | 15 | 20 |  | 15 | 20 |  | 14 | 20 |  | dB |
| External Resistor Required | Power Handling@85 ${ }^{\circ} \mathrm{C}$ |  |  | 2 |  |  | 2 |  |  | 2 |  |  | 2 | Watts |
| Halogen Free | Operating Temperature | -55 |  | 140 | -55 |  | 140 | -55 |  | 140 | -55 |  | 140 | ${ }^{\circ} \mathrm{C}$ |

* Insertion Loss stated at room temperature (Insertion Loss is approximately 0.1 dB higher at $+85^{\circ} \mathrm{C}$ )


## Outline Drawing



What'll we think of next? *
Available on Tape and Reel for Pick and Place Manufacturing.

Typical Broadband Performance: $\mathbf{6 0 0} \mathbf{~ M H z}$ to $\mathbf{7 6 0 0}$ GHz


USA/Canada: (315) 233-5510
Toll Free:
(833) 389-6402
+44 2392-232392 +8651262749282

Available on Tape and Reel for Pick and Place Manufacturing.

Typical Performance: 2300 MHz to $\mathbf{4 1 0 0} \mathbf{~ M H z}$





USA/Canada: (315) 233-5510 Place Manufacturing.

Toll Free:
Europe: $\quad+44$ 2392-232392
Asia: $\quad+8651262749282$

## 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.

An example 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 thicknesses as well as varying pick and place equipment tolerances. In addition, since the PD2635L050S2HF is a Wilkinson power divider, an external $0603100 \Omega$ resistor must be mounted in locations R1 as shown in the Figure below.

All of the Xinger components are constructed from organic PTFE based composites which possess excellent electrical and mechanical stability. Xinger components are compliant to a variety of ROHS and Green standards and ready for Pb -free soldering processes. Pads are Gold plated with a Nickel barrier.

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Pad Footprint w/ 0402 Resistor Location


Dimensions are in Millimeters
Mounting Footprint

## 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.


Direction of
Part Feed
(Unloading)


| TABLE 1 |  |  |
| :--- | :---: | :---: |
| QUANTITY/REEL | REEL DIMENSIONS mm |  |
| 4000 | $\phi \mathrm{~A}$ | 177.80 |
|  | B | 8.00 |
|  | $\phi \mathrm{C}$ | 50.80 |
|  | $\phi \mathrm{D}$ | 13.00 |

## Mouser Electronics

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Anaren:
PD2635L5050S2HF

