

Description:

The X4C40L1-30G is a low profile, high performance 30dB directional coupler in a new easy to use, manufacturing friendly surface mount package. It is designed particularly for LTE and 5G wireless communications frequency bands. The X4C40L1-30G is designed particularly for power and frequency detection, as well as for VSWR monitoring, where tightly controlled coupling and low insertion loss is required.

All of the Xinger components are constructed from ceramic filled PTFE composites, which possess excellent electrical and mechanical stability. All parts have been subjected to rigorous qualification testing and units are 100% RF tested. Produced in an ENIG final finish.

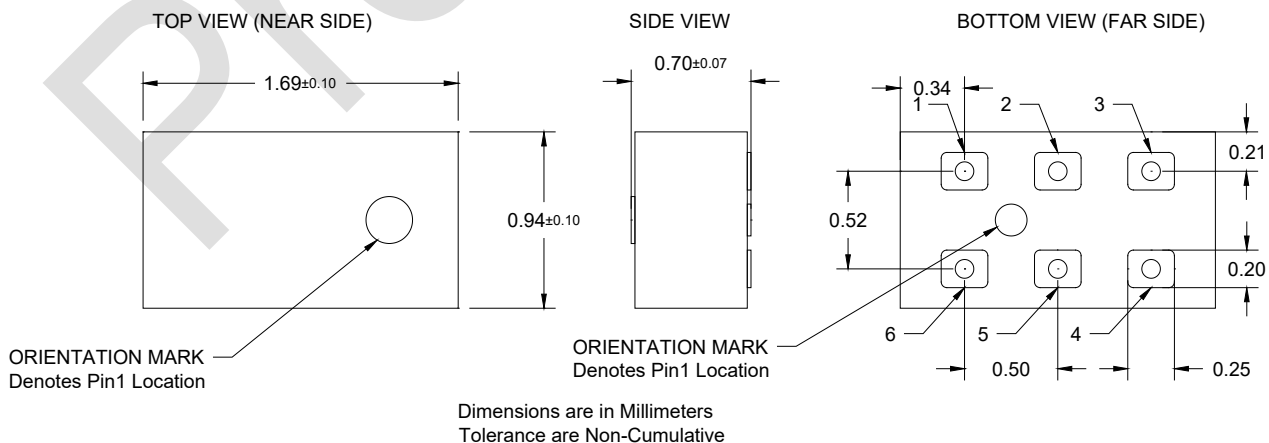
Detailed Electrical Specifications:

Features:

- 3300-5000 MHz
- Very Low Loss
- Production Friendly
- Tight Coupling
- High Directivity
- Tape and Reel
- Lead Free

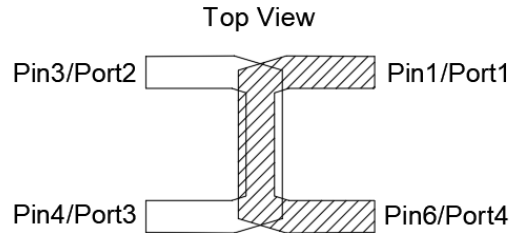
| Frequency | Mean Coupling | Insertion Loss | VSWR |
|-----------------------|---------------|-----------------------|-----------------|
| MHz | dB | dB Max | Max : 1 |
| 3300-5000 | 30.0 ±1.0 | 0.1 | 1.22 |
| Frequency Sensitivity | Directivity | Power | Operating Temp. |
| dB | dB Min | Avg.CW Watts at 105°C | °C |
| ± 0.30 | 20 | 7 | -55 to +140 |

Outline Drawing:



Directional Coupler Pin Configuration

The X4C40L1-30G has an orientation marker to denote Pin 1. Once port one has been identified, the other ports are known automatically. Please see the chart below for clarification:



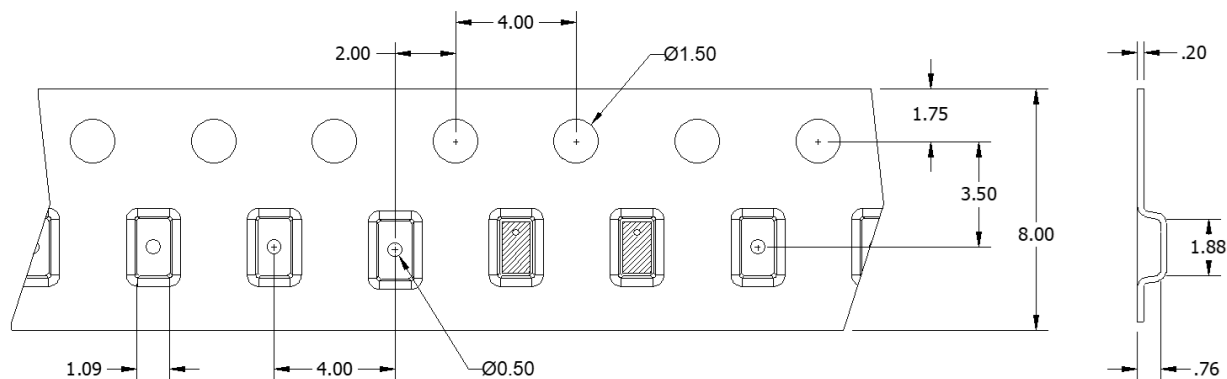
20dB Coupler Pin Configuration

| Configuration | Pin 1/Port 1 | Pin 2 | Pin 3/Port 2 | Pin 4/Port 3 | Pin 5 | Pin 6/Port 4 |
|---------------|--------------|-------|--------------|--------------|-------|--------------|
| Conf.-1 | Input | Gnd | Coupled | Isolated | Gnd | Direct |
| Conf.-2 | Direct | Gnd | Isolated | Coupled | Gnd | Input |

Note: The direct port has a DC connection to the input port and the coupled port has a DC connection to the isolated port.
For optimum IL and power handling performance, use Pin 1 or Pin 2 as inputs.

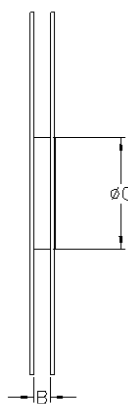
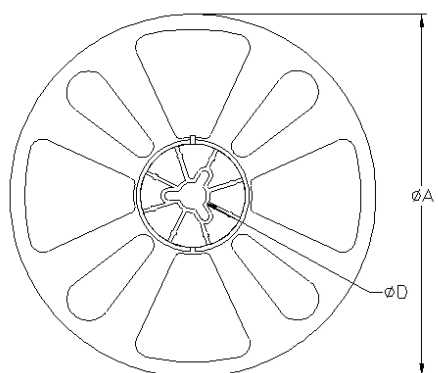
Packaging and Ordering Information:

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



Dimensions are in Millimeters

Direction of Part Feed (Unloading) →



| TABLE 1 | | |
|---------------|--------------------|--------|
| QUANTITY/REEL | REEL DIMENSIONS mm | |
| 4000 | ØA | 177.80 |
| | B | 8.00 |
| | ØC | 50.80 |
| | ØD | 13.00 |

Contact us:
rf&s_support@ttm.com