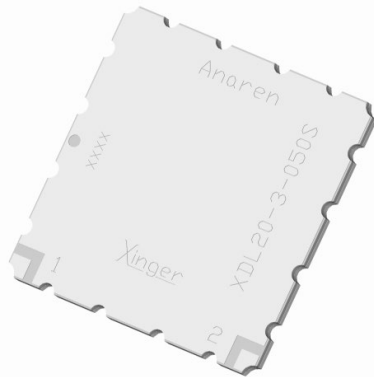




Delay Line



Description:

The XDL20-3-050 is a surface mount delay line that uses a slow wave coupling structure that maximizes the amount of delay per unit area over other distributed delay structures. The XDL20-3-050 can be used in amplifier linearization applications from 850 – 2000 MHz. The XDL20-3-050 is ideal for the delay element required in the main loop of feed forward amplifiers. The Xinger® delay lines are a low cost, high quality alternative to the traditional coaxial and filter solutions presently available. Parts have been subjected to rigorous qualification testing and units are 100% tested. Available in 6 of 6 tin immersion (XDL20-3-050S) RoHS compliant finishes.

Electrical Specifications:

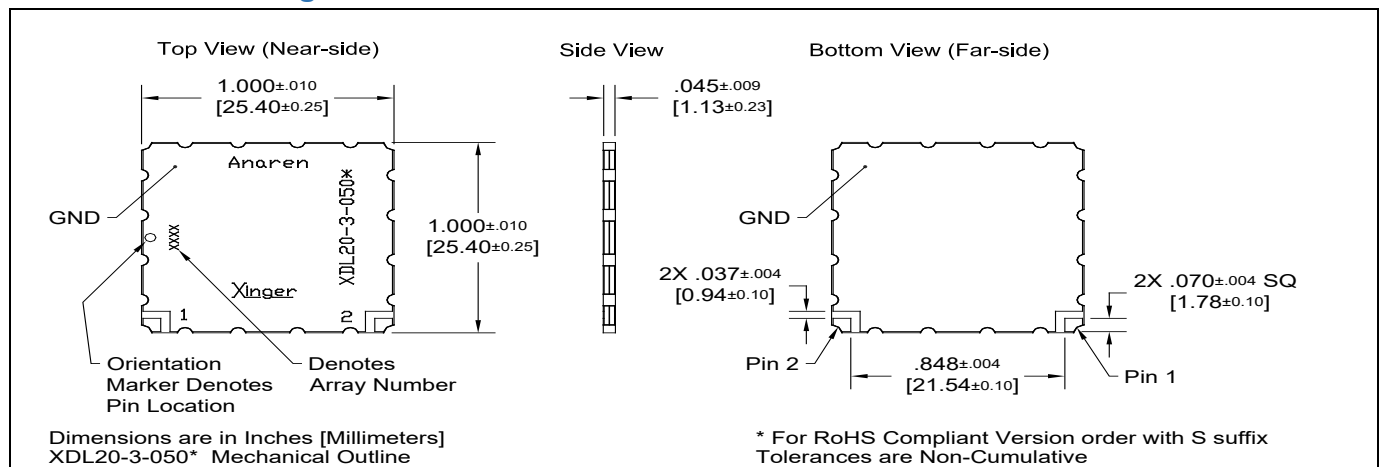
Features:

- Production Friendly
- Consistent Delay
- Stable over Temperature
- Surface Mountable
- Available in Tape & Reel
- Non-Lead Solder Paste Compatible
- Available in Lead-Free (as illustrated) or Tin-Lead
- 100% Tested

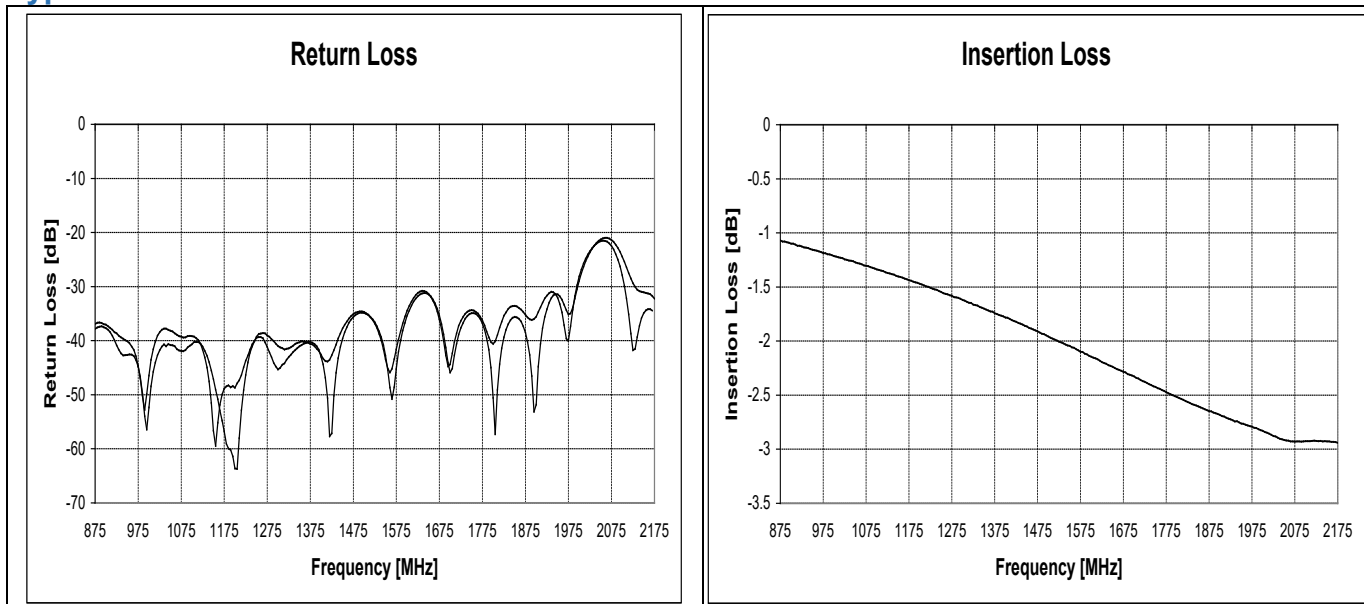
| Frequency (MHz.) | 869-894 AMPS Band | 925-960 GSM Band | 1805-1880 DCS Band | 1930-1990 PCS Band |
|---|----------------------|---------------------|-----------------------|-----------------------|
| Mean Delay (nS) | 2.88 ±0.06 | 2.95±0.06 | 4.80±0.1 | 5.03±0.1 |
| Deviation from Linear Phase (Degrees Max) | ±0.50 | ±0.50 | ±1.00 | ±1.00 |
| Amplitude Flatness (dB p-p) | 0.10 | 0.10 | 0.15 | 0.15 |
| Return Loss (dB min) | 20 | 20 | 20 | 20 |
| Insertion Loss (dB/nS) | 0.45 | 0.45 | 0.60 | 0.60 |
| Power Handling (Watts) | 1 | 1 | 1 | 1 |
| Operating Temp. (°C) | -55 to +85 | -55 to +85 | -55 to +85 | -55 to +85 |

Specification based on performance of unit properly installed on microstrip printed circuit boards with 50 Ω nominal impedance. Specifications subject to change without notice.

Mechanical Drawing:



Typical Performance: 875 to 2175MHz

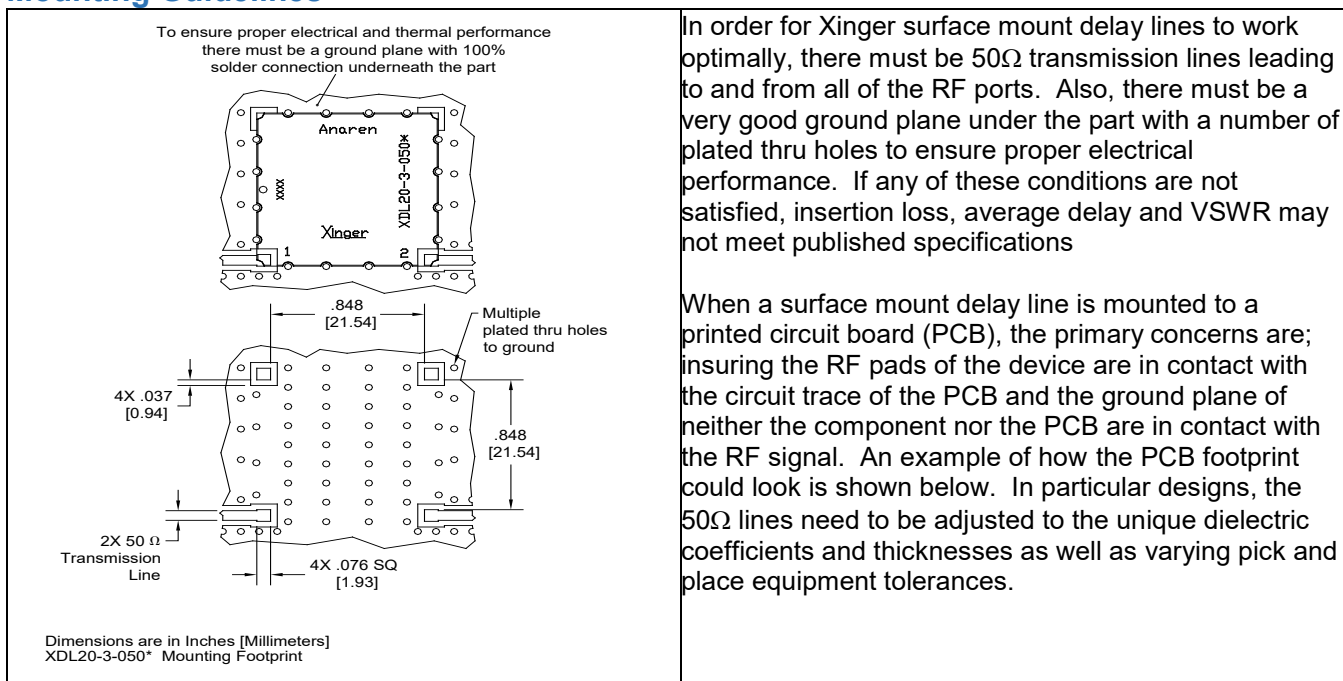


Average Delay

The average delay is defined as the group delay of the input signal through the delay line. Because the Xinger delay lines take advantage of a narrow band tuning technique, the average delay over the broad band varies. The lot-to-lot variation is reflected in the plus/minus tolerance given in specifications.

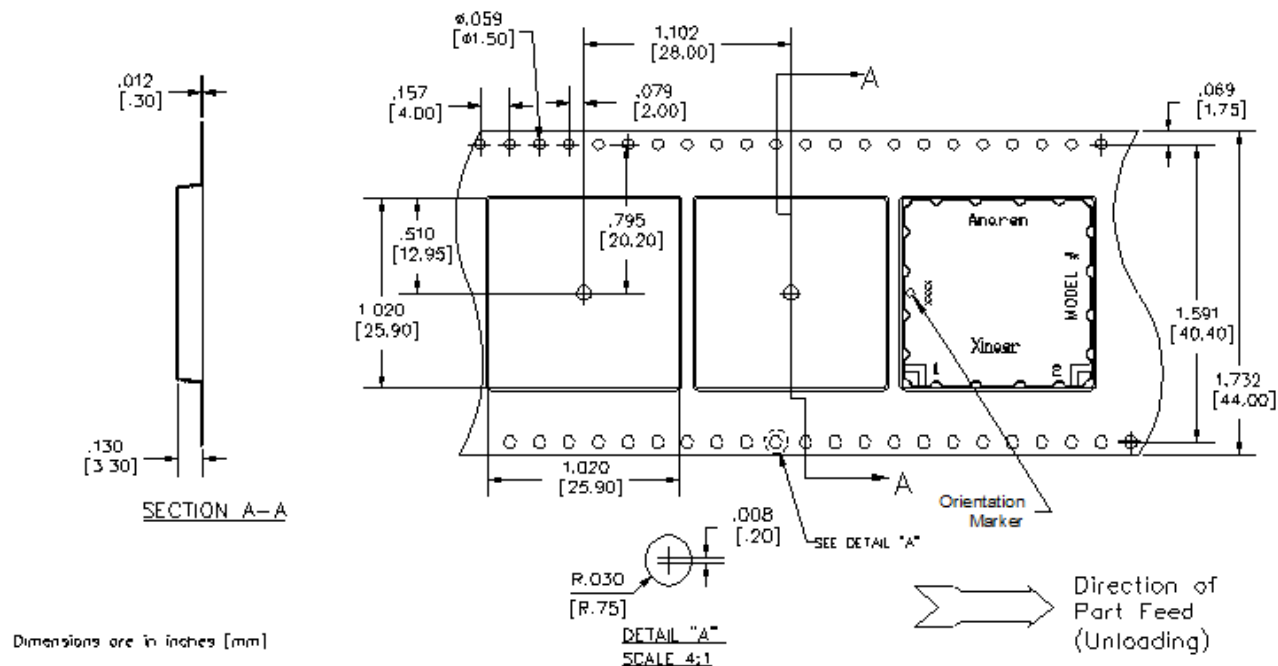
Refer to TTM Application Note AAN-232 for further information on Xinger delay lines.

Mounting Guidelines

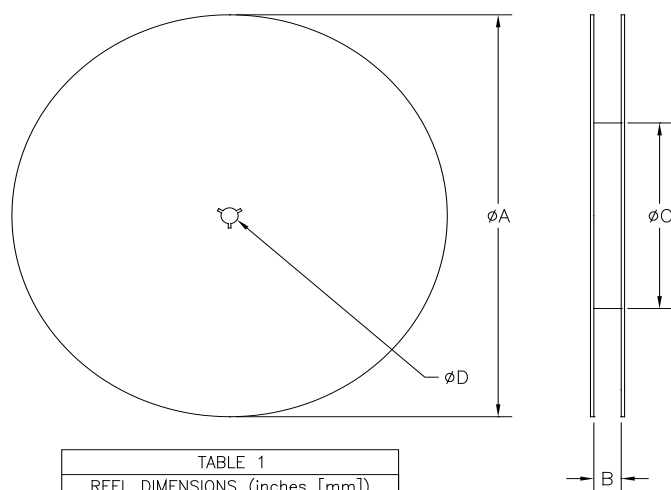


Packaging and Ordering Information:

Parts are available in both reel and tube. Packaging follows EIA 481-2. Parts are oriented in tape and reel as shown below. Minimum order quantities are 350 per reel and 23 per tube.



REEL



| TABLE 1 | |
|-------------------------------|--------------|
| REEL DIMENSIONS (inches [mm]) | |
| øA | 13.3 [333.0] |
| B | 1.732 [44.0] |
| øC | 7.00 [177.8] |
| øD | 0.512 [13.0] |

Contact us:
rf&s support@ttm.com

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Anaren:

[XDL20-3-050S](#)