

TMD-2140-80/TD10.0 Low Cost Delay Line

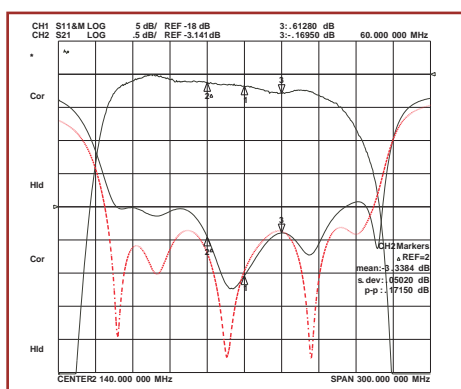
K&L's new low cost Miniature Delay filters utilize a Patent Pending topology integrating lumped and distributed elements to provide delay equalization.

- Extremely Flat Delay Response
- Excellent Phase Linearity
- Low Profile Surface Mount Packaging
- Smaller Size and Lower Loss than Coaxial Cable Delay Lines
- Price Competitive with Coaxial Cables of .046" Diameter

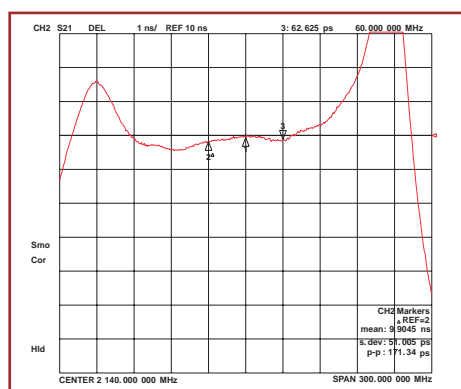


◆ Specifications:

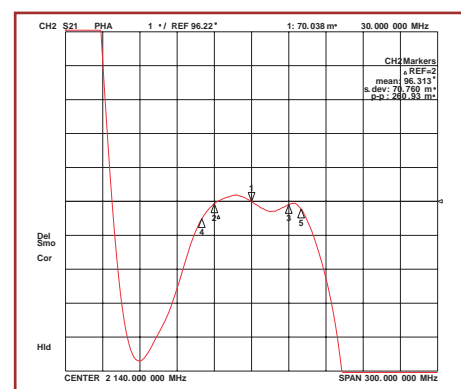
| | | | |
|---------------------------------|--------------------------------|------------------------|-----------------------|
| Frequency Range: | 2110-2170 MHz | Average Power Capacity | 1 watt max. |
| Passband Insertion Loss: | <3.5 +/- 0.6 dB | IMD Levels: | < -90 dBc |
| Amplitude Flatness: | +/- 0.15 dB | Operating Temperature: | -20 to + 80°C |
| Return Loss: | | Storage Temperature: | -40 to +80°C |
| 2110-2170 MHz | < -18 dB | Operating Humidity: | 0 to 95%, |
| 2100-2180 MHz | < -15 dB | | Non-condensing |
| Delay: | 10 ns +/- 0.25 ns | Transportation: | Basic Commercial |
| Phase Deviation from Linearity: | | Dimensions: | 2" L x .9" W x .29" H |
| 2110-2170 MHz | < +/- 0.75° (typ. < +/- 0.25°) | | [50.8 x 22.9 x 7.4mm] |
| 2100-2180 MHz | < +/- 1.5° (typ. < +/- 0.5°) | | |
| Characteristic Impedance: | 50 ohms | | |



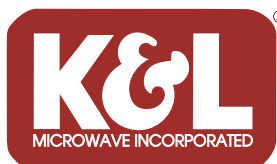
Amplitude/Reflection



Group Delay Variation



Deviation From Linear Phase



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Order Filters On-Line @ www.klmicrowave.com

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◆ Applications:

- Feedforward Power Amplifiers
- Delay/Phase Critical IF Filtering

◆ Part Numbering System:

TMD - 2140 - 80 / TD 10.0 - A

1 2 3 4 5 6

1. Series-Temperature Compensated
2. Center Frequency (MHz)
3. Bandwidth (MHz)
4. TD = Delay Filter
5. Customer Specified Delay (ns)

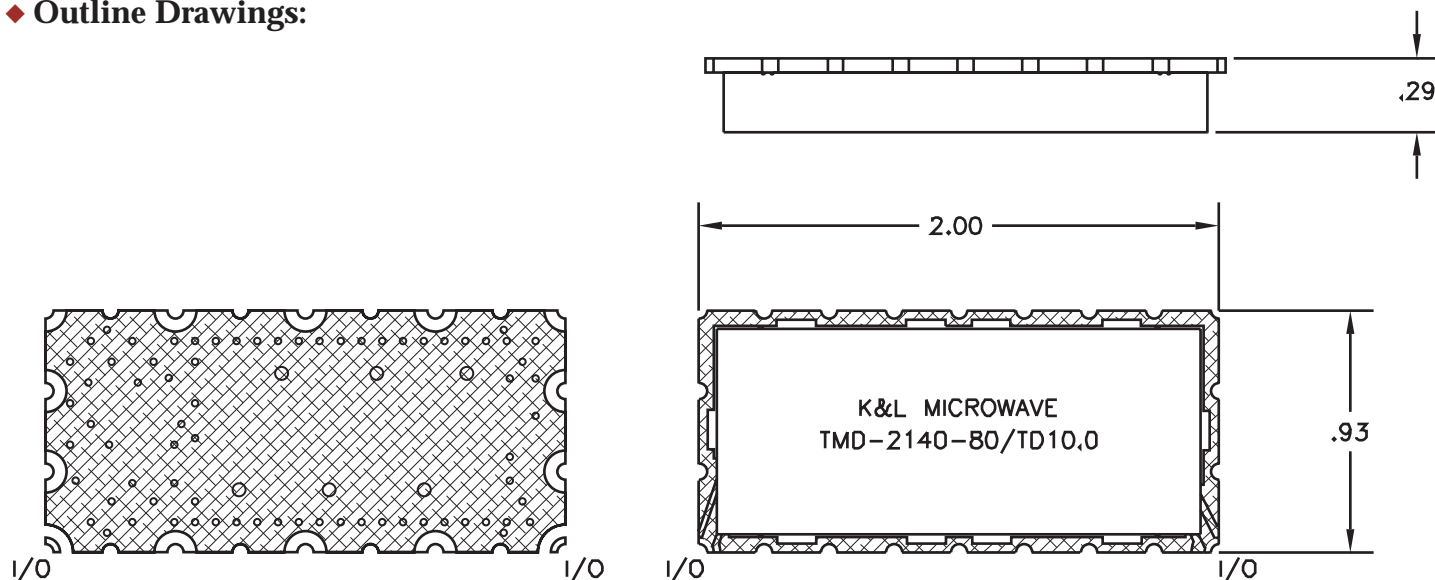
6. Deviation from Linear Phase

$$A = \pm .75^\circ \text{ for } \frac{BW}{f_0} < 3\%$$

$$B = \pm 1.5^\circ \text{ for } 5\% > \frac{BW}{f_0} < 3\%$$

- Dimensions of filters are customized for each delay level and frequency range. For a level of 10 ns at UMTS, see outline drawing below:

◆ Outline Drawings:



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