

EOX Series 1000 Delay Line

RF/Microwave Time Delay System



Product Summary

Description

The EOX Series 1000 RF/Microwave Time Delay System is an economical, high performance, turnkey solution for radar test, wireless communications, Wi-MAX, and altimeter applications. The Series 1000 features ultra wide bandwidth, low loss, high isolation, low noise figure, and high dynamic range. Available with time delays up to 500 μ sec and a top end frequency of 40 GHz.

Technology

EOX fiber optic technology overcomes the shortcomings of conventional schemes such as acoustic, digital, and coaxial transmission line delays including:

- Quantization Errors
- Triple Transit Time
- Dispersion

Features

- Easy, reliable operation
- Available for L, S, C, X, Ku and Ka radar bands (0.1 to 40 GHz)
- Stable and repeatable performance

Applications

- Radar target simulation
- Signal processing
- Extension of radar range sites
- Phase noise measurements
- Multipath and communication link simulation

Reliability

- > 200,000 hours of operation in field environments
- Systems in continuous operation for more than 4 years

Eastern OptX, Inc. A Veteran Owned Small Business

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DS-0001 REV3

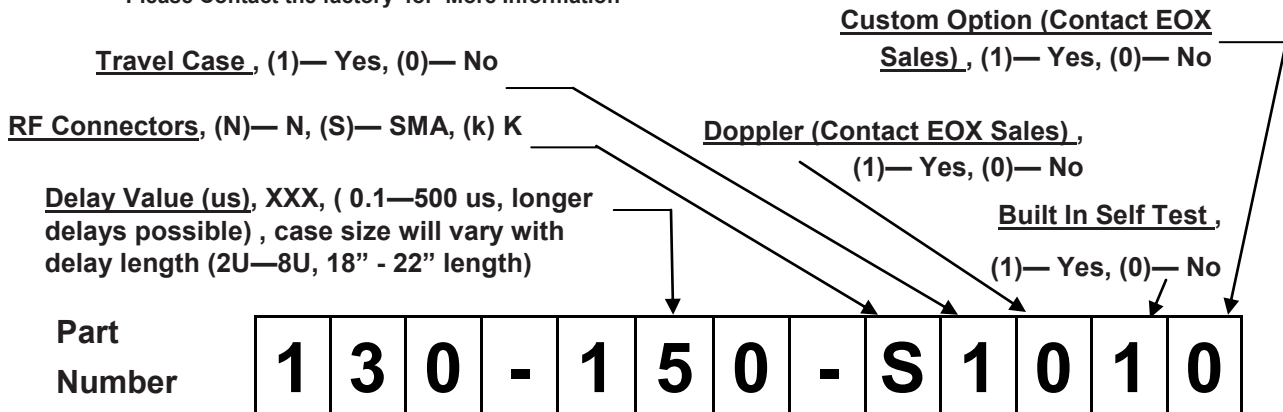


Product Details

Specifications

| Parameter | Specification | Notes |
|-----------------------------|-------------------------------------|--------------------------|
| Delay Accuracy | 1 % | 0.1 % Optional |
| Delay Repeatability | < 1 % | At constant temperature |
| Typical System RF Gain * | 6 dB (0.1 dB/us delay loss) | 50 μs delay, 5 GHz, typ. |
| VSWR | 2 : 1 | Maximum |
| Spurious Free Dynamic Range | 100 dB/Hz ^{2/3} | Minimum |
| 1 dB Input Compression | -15 dBm | Minimum |
| Noise Figure | 12 dB Typical | Lower NF optional |
| Input / Output Impedance | 50 Ω | Nominal |
| RF Connector | Type N or SMA (Jack) | Other Types Available |
| Dimensions | 19" Rack Per EIA-310-D | See Delay Value Below |
| Power Supply | 120 VAC - 60 Hz, or 230 VAC - 50 Hz | Alternates Available |

* Please Contact the factory for More Information



| Frequency ID | Range (GHz) |
|--------------|-------------|
| 0 | 0.01—3 |
| 1 | 0.1 - 4.5 |
| 2 | 0.1 — 6 |
| 3 | 0.1—11 |
| 4 | 0.1—13 |
| 5 | 0.1—15 |
| 6 | 0.1—18 |
| 7 | 1—40 GHz |

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