

Model 2040+ 5G Radio Test Set
is designed to test and calibration analog
and digital radio systems

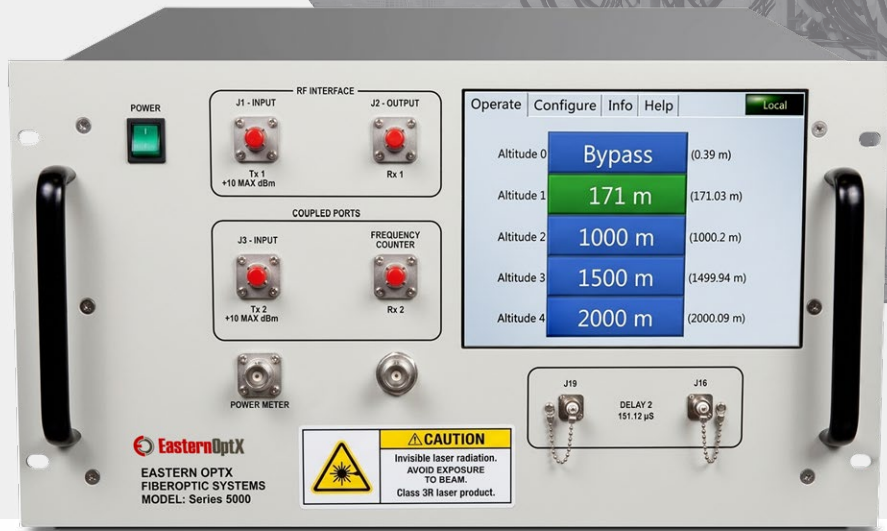
System Specifications

- Range: 0 - 1 mile in 5 foot steps
- Resolution: 5 foot
- Propagation Loss Control

Applications

- 5G Chip Set, phone, and base station testing.
- Substitute for field testing

Configure Now



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The Model 2040+ 5G Two-Radio System is a test network which replicates the propagation path for real-world applications. The system allows the user to test a variety of Air Interfaces using the same system without modification, and at the same time. This is not a signal emulator. The systems use low-loss fiber optic cable to create the propagation delay associated with radio transmissions from 20 to 40 GHz. Two radios may be connected to the system allowing full duplex operation. Each radio may operate over identical Air Interface with uni-directional or bi-directional multi-path. The delays between radios may be varied from 0 to 1 mile in 5 foot steps with propagation loss control. The 2040+ creates a variable test range right in your lab. It can be used as a design aid and as a test tool for new modulation and encryption schemes prior to expensive and time consuming field testing.

Standard System Features

- 2 Radio Ports
- Radio to Radio distances from 0 to 1 mile in 5 foot steps. (Full Duplex)
- Multipath Replicator (optional)
- Propagation Loss Control
- External Delay Option for Future Expansion
- Frequency Range: 20 to 40 GHz
- Single or Multiple Air Interfaces may be tested simultaneously. (Full Duplex)
- Interferer Injection
- Clutter and other Impairment Generation
- Remote Control Interface
- Front Panel LCD Touch Screen Control
- Optional Horn Antenna and Circulator



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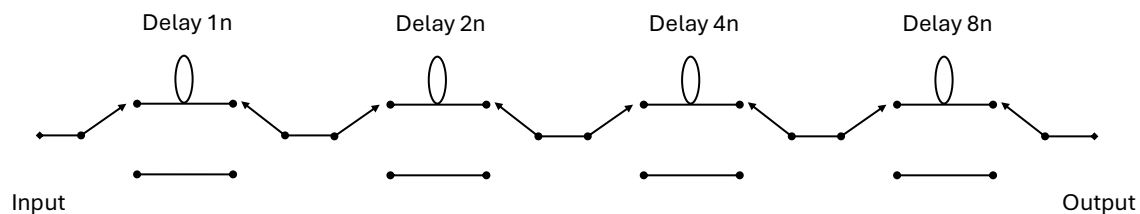


System Description

Operating from 20 to 40 GHz, two radios may be connected to the system allowing full duplex operation. Each radio may operates over identical Air Interface with uni-directional or bi-directional multi-path. The delays between radios may be varied from 0 to 1 mile in 5 foot steps with propagation loss control. The 2040+ creates a variable test range right in your lab. It can be used as a design aid and as a test tool for new modulation and encryption schemes prior to expensive and time consuming field testing.

Delay Configuration Options

Progressive Delay Configuration



Parameter	Specification	Notes
Instantaneous Bandwidth	Variable	(Limited by input circulator)
Accuracy	1 %	Optional 0.5%
Repeatability	0.01%	At constant temperature
System RF Gain	6 dB	Typical, 1 mile @ 30 GHz
VSWR	2 : 1	Maximum
Spurious Free Dynamic Range	100 dB/Hz ^{2/3}	Minimum
1 dB Input Compression	-15 dBm	Minimum
Noise Figure	25 dB (13 dB Typ.)	Maximum (Lower NF optional)
Input/Output Impedance	50 Ω	Nominal
Dimensions	19" Rack Per EIA-310-D	3U, 18" - 22" depending on design

