



FEATURES

- Direct Measurement
- Real Time Output
- External RF Input
- LF to VHF Capability

DESCRIPTION

The Model 500 Group Delay Test Set is capable of direct real time measurement of the group delay variation of IF-to-tape predetection converters, filters and other instruments. The Test Set utilizes a swept external RF input which may be in the range from 100 kHz to 160 MHz and an internal 20 kHz source. The instantaneous group delay measurement is performed over a moving band 20 kHz wide as the RF signal is swept through the band of interest. The Test Set is especially well suited to testing filters having nominal bandwidths in the range of 500 kHz to 10 MHz.

A real time flicker-free display of group delay variation may be obtained on an oscilloscope to facilitate tuning of delay equalizers; alternatively, the Test Set may be used with a plotter to record group delay performance. A digital panel meter provides direct read out of group delay variation when the RF signal is manually tuned.

The test set uses precision, wide-band amplitude demodulators to recover the modulation envelope of the test signal. As a consequence, operation is not affected by possible frequency conversions in the unit under test.

SPECIFICATIONS

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|-----------------------------------|---------------------------------------|
| Frequency Range | 0.1 to 160 MHz (Usable to 200 MHz) |
| Impedance—Input and Output | 50 ohms |
| Return Loss — All Ports | 20 dB, minimum |
| Modulation Frequency | 20 kHz |
| Modulation Depth | 50%, nominal |
| Demodulator Dynamic Range | -40 to 0 dBm |
| Delay Range | 0 to 10 microseconds |
| Delay Offset Range | 0 to 10 microseconds |

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| Output Sensitivity | 2000 ns/V |
| Digital Display Range | 0 to 1999 ns |
| Calibration | 0.50 V/ μ s |
| Power | 115 Vac 50/60 Hz |
| Size | 16-3/4 inches wide by 5-1/4 inches high by 13 inches deep |

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| Auxiliary Equipment Required | |
| RF Source | HP8601 |
| Oscilloscope | |
| X-Y Recorder | Optional |

Specifications are subject to change without notice.

ORDERING INFORMATION

Model 500 Group Delay Test Set

WARRANTY

All of Reaction Instruments' equipment is warranted for one year, except for damage caused by accident or misuse, provided the equipment is returned for repair to the plant in Herndon, VA.

Adams  Russell

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