amitec

TRANSMISSION LINE TRAINER TLA05

Transmission Line Trainer TLA05 Features:

* 30-300 Mhz sweep source with detector
* Calibrated attenuator
* Displays standing waves/maxima-minima on CRO
* Uses actual coaxial lines rather than simulated ones.
* Impedance matching.
* Measures VSWR, reflection coefficient, characteristic impedance, velocity of propagation, dielectric constant and signal attenuation in TDR.
* Measure parameters of 50, 75 and 300 Ohms cables
* Study Time Domain Reflectometry.
* Study location and nature ofdiscontinuities,Open/short, mismatched terminations, etc.
* Offers a complete view of the transmission line in analog and digital domains, which is essential for complete understanding of transmission line behavior.

CRO not included

Amitec TLA05 Technical Specifications:

A. Frequency Domain Analyzer

Frequency range	:	30-300 MHz typical LCD Display.
Level	:	100mV p-p
Attenuator 50 Ohms	:	0.5, 1, 2,4, 8,15 dB
Output Impedance	:	50 Ohms
Scope out	:	X-Y output to scope

B. Resistive Impedance Analyzer

Characteristic Imp.	:	upto 900 ohms
Display	:	LCD

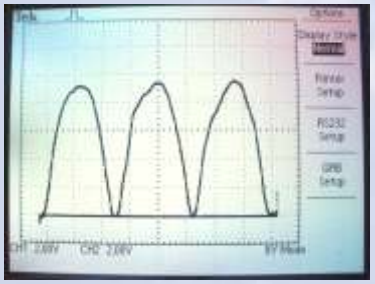
C. Time Domain Reflectometer

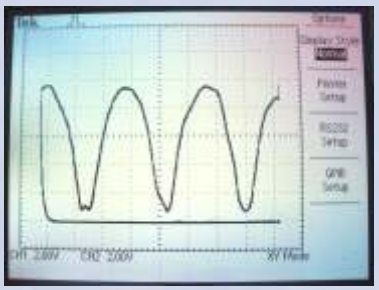
PRR Short range	:	10MHz typical
Pulse width	:	<10ns typical
PRR Long range	:	100KHz typical
Amplitude	:	1V nominal
Output Impedance	:	50 Ohms

Accessories

Lengths of 50 ohms and 75 ohms coaxial cable, 300ohms parallel line, lossy line, Tee connectors, ,Standard load of 50 and 75 ohms, Various capacitive and inductive loads, shorts, Balun 1:1 & 1:4, Operating manual, Mains cord

E-Manual: Installation Video for ease of Learning





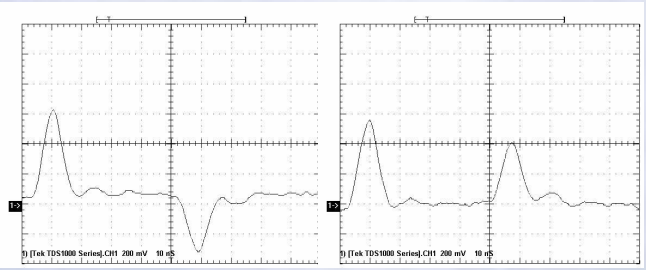
List of Experiments TDR

1. Introduction
2. To observe the open / short & terminated line.
3. To measure the characteristic impedance of a line.
4. To measure the velocity and dielectric constant
5. To measure the attenuation constant
6. To measure the VSWR, return loss
7. To observe the two sections joined with a connector
8. To observe the inductive coil Termination
9. To observe the t-line with a capacitor termination
10. To observe the t-line with a varying pulse width
11. To observe line with partial open and partial short
12. To observe the lossy transmission line

List of Experiments FDR

1. To setup the standing waves and observe the maxima and minima on a CRO in real time.
2. To measure characteristic imped. &differentiate between the matched and unmatched lines.
3. To study the attenuation characteristic of signal along a transmission line and observe its variation with frequency
4. To study the effect of reactive loads
5. To study the difference between lossy and loss less
6. To study the physical dimensions & estimate its Zo
7. To study behavior of infinite and short lines.
8. To study the operation of balun transformer on 300 ohms parallel line.
9. To study dielectric constant of insulator.
10. To study velocity of propagation & wavelength.

Dimensions: 56X41X18 cms. **Weight: 7 kg.**
Warranty: 3 yrs.



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