What technique does the SVA1000X/SSA3000X-R use for the Distance-To-Fault function?

August 12, 2021

The SIGLENT SVA1000X and SSA3000X-R series of spectrum analyzers have a Distance-To-Fault feature that is useful for determining the physical location of breaks, dielectric degradation, and other issues in cabling, connectors, and adapters.

This technique utilizes a swept signal source to produce an output signal that covers a known frequency range. As the impedance of the cable/Device-Under-Test (DUT) changes, some of the swept energy is reflected back to the source. This reflected energy is measured and an inverse FFT (IFFT) of the data is used with the propagation velocity of the cable to calculate the physical distance from the source to the impedance difference.

North American Headquarters

SIGLENT Technologies America, Inc
6557 Cochran Rd Solon, Ohio 44139
Tel: 440-398-5800
Toll Free:877-515-5551
Fax: 440-399-1211
info@siglent.com
www.siglentamerica.com/

European Sales Offices

SIGLENT TECHNOLOGIES EUROPE GmbH
Staetzlinger Str. 70
86165 Augsburg, Germany
Tel: +49(0)-821-666 0 111 0
Fax: +49(0)-821-666 0 111 22
info-eu@siglent.com
www.siglenteu.com

Asian Headquarters

SIGLENT TECHNOLOGIES CO., LTD.
Blog No.4 & No.5, Antongda Industrial Zone,
3rd Liuxian Road, Bao'an District,
Shenzhen, 518101, China.
Tel:+ 86 755 3661 5186
Fax:+ 86 755 3359 1582
sales@siglent.com
www.siglent.com/ens