



NEW COPPER TEST FEATURES TO HELP YOU FACE ADVANCED NOISE TROUBLESHOOTING ISSUES

EXFO has created the most advanced field impulse-noise capture and analysis tool set, which is available on the FTB-635. Its unique impulse noise scope and new impulse-noise duration and disruption (IDD) histograms options complement the Wideband noise tool kit.*

What's New

FTB-635 Wideband Copper and DSL Tester

- > **Impulse Noise Scope:** Capture and analyze EMI impulse noise
- > **Impulse Noise Duration and Disruption (IDD) Histograms:** See the distribution of fast and slow impulses over time
- > **NEXT:** Qualify copper pairs during the construction and installation phase
- > **G.INP and Vectoring Counters:** Expanded information enabling G.INP and vectoring circuits to recognize noise issues at the DSL level
- > **Bulk Export:** Offers improved job reporting automation

	Application and Features	FTB-610	FTB-635-V2XAA	FTB-635-V2XAB
Triple play	Data testing		✓	✓
	IPTV testing		✓	✓
	VoIP analysis		✓	✓
	Web browser	✓	✓	✓
	IPTV monitoring		✓	✓
xDSL and Ethernet Qualification	Ethernet link verification	✓	✓	✓
	Bonding, G.INP, vectoring support		ADSL2+, VDSL2	VDSL2
	VDSL2 service verification		✓	✓
	ADSL2+ service verification		A, L, M	A, B, J, M
Copper Qualification	SmartR™ intelligent feature set	✓	✓	✓
	Digital Multimeter, station ground	✓	✓	✓
	High-voltage isolation resistance (500 V)	✓	✓	✓
	TDR, RFL and K-test fault location	✓	✓	✓
	WB physical-layer qualification (30 MHz)	✓	✓	✓
	Single-end attenuation (30 MHz)	✓	✓	✓
	Narrow and wideband noise testing (PSD, metallic, NEXT)	✓	✓	✓
	Impulse-noise capture and analysis	✓	✓	✓
	Impulse-noise duration and disruption (IDD) histograms	✓	✓	✓
Added Value	Multilayer (copper, optical, Ethernet, IP)	✓	✓	✓
	EXFO Connect compatibility	✓	✓	✓
	Floating license support	✓	✓	✓
	Bulk test-result export tool	✓	✓	✓
	Connectivity: 3G/Bluetooth/Wi-Fi	✓	✓	✓

The FTB-635's Enhanced Copper Test Features:

SmartR™ Copper Testing

- > One-button automatic tests identify and locate common faults while saving technicians time.

DMM with 500 V Insulation Test

- > This comprehensive digital multimeter includes a high-voltage (500 V) insulation resistance test.

Fault Location Toolbox

- > This comprehensive tool set includes automatic, manual, crosstalk TDR and resistive fault location (RFL) tests.

True 30 MHz Testing

- > Copper-based narrow and wideband testing for more accurate qualification and analysis of loop conditions.

Noise Analyzer

- > Offers a complete and powerful set of tests for detecting, capturing and analyzing noise in the line, including PSD, NEXT and EMI (REIN, SHINE) impulse noise. With the unique capability to assess the impact of the impulse noise over time.

Flexible Configuration

- > Wideband tests, NEXT, TDR, resistive fault location (RFL) and graphical fault locators are field-upgradable software options with floating license support.

* W-band option required to enable IDD feature.



DON'T BE BLIND TO NOISE ISSUES

Noise Is a Chronic Problem for Your Customers

Noise has always been the enemy of good telecom signal transfer. The latest DSL technologies keep shifting upward, using higher frequency bands over classic telco copper pair up to 30 MHz. The side effect of this extension is the susceptibility of the pair to a new range of noises.

- > Although the cable pair might test out very well, the DSL may still show errors.
- > Noise may be affecting the SNR and global quality of service (QoS).
- > A change in test procedure is required to address this new range of noise.

1 Hear the noise

- > Bad voice quality
- > Pixelization on IPTV
- > DSL not synchronizing



Customers dealing with low QoS

- > Validate the full range triple-play services
- > Analyze low QoS on the DSL line
- > Use of a powerful hybrid field-testing tool is required

TROUBLESHOOT NOISE BY ISOLATING ISSUES WITH THE FTB-635



Wideband Copper
and DSL Test Solution

2 Detect the noise



Identify the type of noise

- > Narrow-band noise
- > Wideband noise
- > Disruptive impulse noise

4 Understand the noise

- > See the variations of the noise over time
- > See the distribution of fast and slow impulses over time



Impulse Noise Duration
Disruption (IDD)

3 See the noise

Capture and visualize the noise

- > Simultaneous time and frequency domain analysis
- > Recognize the signature and the source of the noise
- > Also works in the case of complex EMI, REIN* or SHINE** issues.



Impulse Noise Scope

*REIN = Repetitive electrical impulse noise

**SHINE = Single high-impulse noise event