

Fluke Networks LRAT2-CIQ-GSV Specs

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DTX CableAnalyzer™ Ordering Information

Model Name	Product Description	
DTX-1800 ¹	DTX-1800 CableAnalyzer – Includes DTX-1800 Main and Smart Remote, LinkWare PC Software, 128MB MMC Card, Cat 6A/Class EA Permanent Link Adapters (2), Cat 6/Class E Channel Adapters (2), Headsets for Talk (2), AC Chargers (2), Carrying Case, USB Interface Cable (Mini-B), Serial RS-23 Cable (IEEE 1394 to DB-9), User Manual	
DTX-1200 ¹	DTX-1200 CableAnalyzer – Includes DTX-1200 Main and Smart Remote, LinkWare PC Software, Cat 6A/Class EA Permanent Link Adapters (2), Cat Class E Channel Adapters (2), Headsets for Talk (2), AC Chargers (2), Carrying Case, USB Interface Cable (Mini-B), User Manual	
DTX-LT ¹	DTX-LT CableAnalyzer — Includes DTX-LT Main and Smart Remote, LinkWare PC Software, Cat 6A/Class EA Permanent Link Adapters (2) (2), Cat 6/Class E Channel Adapter (1), AC Chargers, Carrying Case, USB Interface Cable (Mini-B), User Manual	
DTX-MFM ²	DTX Multimode Fiber Modules – Includes two modules one for Main and one for Smart Remote, 850nm and 1300nm LED sources combined into single output port, 850/1300/1310/1550 nm power meter, and integrated VFL	
DTX-SFM ²	DTX Singlemode Fiber Modules – Includes a set of two modules for Main and Smart Remote, 1310nm and 1550 nm laser sources combined into single output port, 850/1300/1310/1550 nm power meter and integrated VFL	
DTX-1800-M	DTX-1800 with Multimode Fiber Modules – Includes DTX-1800 CableAnalyzer and a set of DTX-MFM2 Multimode Fiber Modules	
DTX-1800-MS	DTX-1800 with Multimode and Singlemode Fiber Modules – Includes DTX-1800 CableAnalyzer and set of DTX-MFM Multimode Fiber Modules and DTX-SFM2 Singlemode Fiber Modules	
DTX-1200-M	DTX-1200 with Multimode Fiber Modules – Includes DTX-1200 CableAnalyzer with set of DTX-MFM2 Multimode Fiber Modules	
DTX-1200-MS	DTX-1200 with Multimode and Singlemode Fiber Modules – Includes DTX-1200 CableAnalyzer and set of DTX-MFM2 Multimode Fiber Modules and DTX-SFM2 Singlemode Fiber Modules	
DTX-1800/SR	DTX-1800 Smart Remote Add-on	
DTX-1200/SR	DTX-1200 Smart Remote Add-on	
DTX-LT/SR	DTX-LT Smart Remote Add-on	

Accessories and Options

Model Name	Product Description	Model Name	Product Description
DTX-NSM	Network Service Module for DTX Series – (1) Link identifier,(2) Link connectivity check (port characteristics of active device, ping function) and (3) Power over Ethernet (POE) verification of voltage and polarity for 802.3af	DTX-CHA012	Nexans GG45 Channel Adapter
DTX-AXKIT	Alien Crosstalk Kit for DTX Series — Test and certify alien crosstalk performance with DTX-1800. Contains DTX-AXTLK1 Communication Modules, set of 2, Windows-based AxTALK Analyzer Software, link terminators (DTX-AXTERM), set of 2, and RJ45-to-RJ45 coupler, set of 2		Siemon Tera Adapter Kit – Includes Tera Channel Adapters (2) and Tera Permanent Link Adapters (2)
DTX-CHA001A	Cat 6/Class E Channel Adapter	DTX-PLA012	Nexans GG45 Permanent Link Adapter (available July 2009)
DTX-CHA001SA	Cat 6/Class E Channel Adapters, set of 2	DTX-GG45	Nexans GG45 Adapter Kit (available July 2009) – Includes GG45 Channel Adapters (2) and GG45 Permanent Link Adapters (2)
DTX-PLA002	Cat 6A/Class EA Permanent Link Adapter with centered Cat 6A/Class EA plug (one adapter – also used to test Cat 6/ Cat 5e and Cat 5 links with 8-pin modular jacks).	DTX-AXTERM	Link Terminator for Alien Crosstalk Measurements – set of 2
DTX-PLA002S	DTX-PLA002S Cat 6A/Class EA Permanent Link Adapter with centered Cat 6A/Class EA plug (also used to test Cat 6/ Cat 5e and Cat 5 links with 8-pin modular jacks) – set of two.	DTX-LION	Lithium Ion Battery Pack
DTX-PLA001	Cat 6/Class E Permanent Link Adapter		Serial RS232 Cable (IEEE 1394 to DB-9)
DTX-PLA001S	Cat 6/Class E Permanent Link Adapters, set of 2, with DSP-PM06	DSP-MCR-U	MultiMedia Card (MMC) Reader, USB
DSP-PM06	Cat 6 Centered Personality Module, set of 2 (to be used with DTX-PLA001 adapters)	LinkWare	LinkWare Cable Test Management Software – Free download at www.flukenetworks.com/linkware
DSP-PMxx	Personality Modules for IDC and Legacy Cabling Systems — A wide variety of modules are available for IDC-type connectors and legacy systems (to be used with DTX-PLA001 adapters)	LinkWare- Stats	LinkWare Stats Statistical Report Option – Results analysis software option for LinkWare
DTX-CHA011	Siemon Tera Channel Adapter	DTX-1218E	DTX-1200 Enhancement Kit – Upgrade DTX-1200 to DTX-1800
DTX-PLA011	Siemon Tera Permanent Link Adapter	DTX-LT18E	DTX-LT Enhancement Kit – Upgrade DTX-LT to DTX-1800
		DTX-LT12E	DTX-LT Enhancement Kit – Upgrade DTX-LT to DTX-1200

Support Options

Model Name	Product Description
GLD-DTX	DTX Gold Support — Includes no-charge repair, loaner kit, no-charge scheduled annual calibration or performance verification, no-charge replacement of accessories, no-charge software or firmware upgrades, unlimited 7x24 multilingual technical support, unlimited access to KnowledgeBase and online training, 20% discount on all in-person or on-site training programs, priority access to the used equipment list, and members-only discounts on select products and enhancements
GLD-DTX-FIBERMOD	DTX Fiber Module Gold Support – Same above

[·] Available in 120V and International (120-240V) versions. 120V version includes English users manual. International version includes multi-language pack users manual.



DTX CableAnalyzer™ Series Specifications

Cable Types			
Shielded and unshielded twisted pair LAN cabling (STP, FTP, SSTP, and UTP) Note: For availability of additional adapters that allow testing to other performance standards, different cabling types, or fiber optic cabling, contact Fluke Networks.	TIA Category 3, 4, 5, 5e, and 6A: 100 Ω ISO/IEC Class C and D: 100 Ω and 120 Ω ISO/IEC Class E, Class EA, Class F and Class FA: 100 Ω		
Standard Link Interface Adapters			
Cat 6A/Class EA permanent link adapters	Plug type: shielded Cat 6A centered 8-pin modular plug (RJ45) Plug life: > 8000 insertions Tests supported: shielded and unshielded cable, TIA Cat 3, 4, 5, 5e, and 6 and ISO/IEC Class C, D and EA permanent link		
Cat 6/Class E channel adapters	Plug type: shielded 8-pin modular socket (RJ45) Plug life: >10,000 insertions Tests supported: shielded and unshielded cable, TIA Cat 3, 4, 5, 5e, 6, and 6A and ISO/IEC Class C, D, EA channels		
Test Standards			
TIA	Category 3 and Category 5e per TIA/EIA-568B Category 5 (1000BASE-T) per TIA TSB-95 Category 6 per TIA/EIA-568B.2-1 (Addendum #1 to TIA/EIA-568B.2) Category 6A per TIA/EIA-568B.2-10		
ISO/IEC	11801 Class C, D and E 11801-2000 Class C, D and E, 11801 Amd 1 Class EA channel; Amd 2 Class EA permanent link 11801 Class F (DTX-1800 only)		
EN	50173 Class C, D ,E 50173 Class F (DTX-1800 only)		
ANSI	TP-PMD		
IEEE 802.3	10BASE-T, 100BASE-TX, 1000BASE-T, 10GBASE-T		
IEEE 802.5	(STP cabling, IBM Type 1, 150 Ω) Token Ring, 4 Mbps and 16 Mbps		
General Specifications			
Speed of Autotest	Full 2-way Autotest of Category 6 Twisted-Pair links: 9 seconds or less Full 2-way Autotest of ISO/IEC Class F links: 25 seconds		
Supported test parameters The selected test standard determines the test parameters and the frequency range of the tests	Vire Map, Length, Propagation Delay, Delay Skew, DC Loop Resistance, Insertion Loss (Attenution), leturn Loss (RL), RL @ Remote, NEXT, NEXT @ Remote, Attenuation-to-Crosstalk Ratio, ACR-N @ lemote, ARC from the far end (ACR-F) formerly named ELFEXT, ACR-F @ Remote, Power Sum, NEXT PS NEXT), PSNEXT @ Remote, Power Sum ACR-F (PS ACR-F) nd PS ACR-F @ Remote.		
Cable tone generator	Generates tones that can be detected by a tone probe such as a Fluke Networks IntelliTone™ probe. The tones are generated on all pairs. Frequency range of tones: 440 Hz to 831 Hz		
Display	3.7 in (9.4 cm) diagonal, 240 dots wide by 320 dots high, passive color, transmissive LCD with backlight.		
Input protection	Protected against continuous telco voltages and 100 mA over-current. Occasional ISDN over-voltages will not cause damage		
Case	High impact plastic with shock absorbing overmold		
Dimensions	Main unit and Smart Remote: 8.5 in x 4.4 in x 2.4 in (21.6 cm x 11.2 cm x 6 cm), nominal		
Weight	2.4 lb (1.1 kg), nominal (without adapter or module)		
Power			
Main unit and remote:	Lithium-ion battery pack, 7.4 V, 4000 mAh		
Typical battery life:	12 to 14 hours		
Charge time* (with tester off):	4 hours (below 40° C)		
AC adapter/charger, USA version:	Linear power supply; Input 108 V ac to 132 V ac, 60 Hz; Output 15 V dc, 1.2 A		
AC adapter/charger, international version:	Switching power supply; Input 90 V ac to 264 V ac, 47 to 63 Hz; Output 15 V dc, 1.2 A (isolated output)		
Memory backup power in main unit:	Lithium battery		
Typical life of lithium battery:	5 years		
Languages supported	English, French, German, Spanish, Portuguese, Italian, Japanese, and Simplified Chinese		
Calibration	Service center calibration period is 1 year		

^{*} The battery will not charge at temperatures outside of 0° C to 45° C (32° F to 113° F). The battery charges at a reduced rate between 40° C and 45° C (104° F and 113° F).



Environmental Specifications				
Operating temperature	32° F to 104° F (0° C to 45° C)			
Storage temperature	-4° F to +140° F (-20° C to +60° C)			
Operating relative humidity (% RH without condensation)	32° F to 95° F (0° C to 35° C): 0 % 95° F to 113° F (35° C to 45° C): 0	32° F to 95° F (0° C to 35° C): 0 % to 90 % 95° F to 113° F (35° C to 45° C): 0 % to 70 %		
Vibration	Random, 2 g, 5 Hz -500 Hz			
Shock	1 m drop test with and without module and adapter attached			
Safety	CSA C22.2 No. 1010.1: 1992 EN 61010-1 1st Edition + Amendments 1, 2			
Pollution degree	Pollution Degree 2 as defined in IEC Technology Equipment, 1999'	Pollution Degree 2 as defined in IEC 60664 and applied to IEC 60950 'Safety of Information Technology Equipment, 1999'		
Altitude	Operating: 4000 m; Storage: 12000	Operating: 4000 m; Storage: 12000 m		
EMC	EN 61326-1			
Performance Specifications**				
Baseline accuracy		The baseline accuracy of all DTX Series testers meets or exceeds the requirements of Level IV as in draft 2nd Edition of IEC 61935-1 over the frequency range supported by the tester.		
Category 6A/Class EA link test modes (and lower link categories)	DTX CableAnalyzer far exceeds Level	DTX CableAnalyzer far exceeds Level IIIe requirements of TIA/EIA-568-B.2-10 and IEC 61935-1.		
Class F link test modes	DTX-1800 is compliant with Level IV	DTX-1800 is compliant with Level IV requirements as in the draft 2nd edition of IEC 61935-1.		
Length for Twisted Pair Cabling ¹				
Parameter	Single-ended test	Dual-ended test (Main and Remote)		
Range	4000 ns	150 m (490 ft)		
Resolution	1 ns	0.1 m or 1 ft		
Accuracy	± (2 ns + 2%); 0 to 750 ns ± (2 ns + 4%); 751 to 4000 ns	± (2 ns + 2%)		
Propagation Delay				
Parameter	Single-ended test	Dual-ended test (Main and Remote)		
Range	4000 ns	750 ns		
Resolution	1 ns	1 ns		
Accuracy	± (2 ns + 2%); 0 to 750 ns ± (2 ns + 4%); 751 to 4000 ns	± (2 ns + 2%)		
Delay Skew				
Parameter	Twisted Pair Cabling			
Range	0 ns to 100 ns	0 ns to 100 ns		
Resolution	1 ns	1 ns		
Accuracy	± 10 ns	± 10 ns		
DC Loop Resistance Test				
Parameter	Twisted Pair Cabling			
Range	0 Ω to 53 Ω	0 Ω to 53 Ω		
Resolution	0.1 Ω	0.1 Ω		
Accuracy	± (1 Ω + 1%)	± (1 Ω + 1%)		
Overload recovery time	Less than 10 minutes to rated accurrepeated or prolonged over-voltage.	Less than 10 minutes to rated accuracy following over-voltage. Referencing is required after repeated or prolonged over-voltage.		

N E T W O R K S U P E R V I S I O N

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Fluke Networks operates in more than 50 countries worldwide. To find your local office contact details, go to ${\color{red} \textbf{www.flukenetworks.com/contact.}}$

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^{**} Note: all specifications for tests on twisted-pair cabling apply to 100 Ω cable. Contact Fluke Networks for information on measurement performance for cable with a different impedance.

[†] Length specs do not include the uncertainty of the cable's NVP Value Above specifications are subject to change without notice.