DTX CableAnalyzer Release Notes (July 2010)

C*h*anges to DTX Version 2.36 (July 2010)

Don't forget to update to LinkWare 6.1 AND AxTalk Analyzer 4.0

1. **Cable / Spec Database Change**

- Renamed:
    - TIA568C Backbone MM to TIA-568-C Multimode (No change in values).
    - TIA568C Backbone ISP to TIA-568-C Singlemode ISP (No change in values).
    - TIA568C Backbone ISP to TIA-568-C Singlemode OSP (No change in values).
- Removed draft numbers from ISO/IEC Twisted Pair test limits, AMD2 was published in April 2010 (No change in values).
- Removed "max" from the ISO/IEC standards to avoid confusion.
- Added TIA 1005 Industrial Ethernet test limits - supports two pair Category 5e and 6 testing.
- Change "Method" names for fiber:
    - Method A becomes 2 Jumper.
    - Method B becomes 1 Jumper.
    - Method C becomes 3 Jumper to align with international standards and aid users in selecting the correct option.
- Added M12 Two-Pair and M12 Two-Pair Crossed to support new TIA 1005 test limits.
- Updated ZugBus and MVB test limits.
- Updated the MBW @ 1300 nm for OM3 cable. Was 2000, now 500. Error has no impact on the outcome of test results.
- Added length as "info" test for Spool Tests using the laboratory adapters.
- Added Russian copper and fiber standards.
- Added 10GBASE-LRM .
- Added OM4 fiber - 10GBASE-S will still fail after 300 m. We are waiting for the IEEE to define the supported distance of 10GBASE-S using OM4 fiber.

- Updated the following Cable Libraries:
    - SYSTIMAX
    - CommScope
    - Panduit
    - Comtran
    - INFRAPLUS
    - Schrack
    - Remee
    - Kerpen/Leoni
    - AMP NETCONNECT
    - DIGILINK
        - Are you a manufacturer wanting to add your cables to the DTX/OptiFiber? Click here for details.

2. **New Features**

- Faster Alien Crosstalk test with the coming AxTalk Analyzer Version 4.0.

3. **Bug Fixes**

- Japanese string for Far-End Source corrected.
- Overwriting a fiber result in the DTX in Smart Remote Mode does not change the Method type if that has also been changed; rare occurrence - fixed.
- Unterminated far end Spool Test on links between 95 and 99 m could result in excessive NEXT being reported. Has gone undetected until now because Spool Tests involved cable greater than 305 m or 1,000 ft - fixed.
- Spanish results show PASA/FALLO for PASS/FAIL. Should be "PASA*/FALLO" - fixed

Changes to DTX Version 2.24 (Nov 2009)
There is no change to the user with this code. It was issued to the factory to enable new bench test software. If you have Version 2.22, there is no need to update your DTX CableAnalyzer. Doing so will not harm or affect your DTX CableAnalyzer. New DTX CableAnalyzers shipping from the factory here in Everett, WA will have the new 2.24 code.

Changes to DTX Version 2.22 (Apr 2009)

1. Cable / Spec Database Change
   - TIA568B Backbone MM changed to TIA568C Backbone MM
   - TIA568B Backbone SM ISP changed to TIA568C Backbone SM ISP
   - TIA568B Backbone SM OSP changed to TIA568C Backbone SM OSP
   - TIA568B Horiz. DELETED (Not in the new ANSI/TIA-568-C.0 standard)
   - Added ACR-N and PS ACR-N to Category 6A AUTOTESTs as Information Only.
   - ISO/IEC 11801 Amendment 2 updated to Draft 25N1599
     o ISO ClassEa PL2 25N1599
     o ISO ClassEa PL2 25N1599 Lo IL
     o ISO ClassEa PL3 25N1599
     o ISO ClassFa PL2 25N1599
     o ISO ClassFa PL3 25N1599

     If your Class E_A Permanent Link has two connectors (no consolidation point), then you would select ISO ClassEa PL2 25N1599. If your Class E_A Permanent Link has three connectors (includes a consolidation point) then you would select ISO ClassEa PL3 25N1599. ISO ClassEa PL2 25N1599 Lo IL would only be used if ISO ClassEa PL2 25N1599 failed the AUTOTEST.

   - ISO11801 CL Ea Qualification added - click here for details
   - Corrected accuracy bands on patch cord certification (users should observe less marginal PASS* reporting)
   - EN50173 updated
     o EN50173 PL2 Class Ea
     o EN50173 PL3 Class Ea
     o EN50173 PL2 Class Fa
     o EN50173 PL2 Class Fa

     If your Class E_A Permanent Link has two connectors (no consolidation point), then you would select EN50173 PL2 Class Ea. If your Class E_A Permanent Link has three connectors (includes a consolidation point) then you would select EN50173 PL3 ClassEa. Same principle applies to Class F_A.

   - ISO C7A SE Patch Cord Return Loss Limits now have a minimum floor of 10 dB.
   - Limit TIA C6PCable Spool (LA) had incorrect accuracy curve – updated and fixed.
   - Twisted Pair Class Ea Limits Low IL updated.
   - NVP updated for Cable Type: INFRA + - MNCGM800 / 880
   - Added Daetwyler cable to Cable Library.
   - Update to the Draka Cable Library.
   - Update Hitachi Manchester Cable Library.

2. New Features

- Support for DTX-CLT (Chinese) CableAnalyzer.
- Support for new GG45 Permanent Link Adapter (Due Q3 2009)

3. Bug Fixes

- Coax LIA not detected on power-up when NSM or AxTalk module installed- fixed.
- Noise spike between 351-400 MHz can cause DTX to reset – very rare occurrence - fixed.
- Incorrect warning "SM fiber attached to MM port" – fixed.
- DTX occasionally resets when setting launch compensation – fixed.
- DTX saves plot data intermittently even when Store Plot Data is not selected – fixed.
- Gainer Events should NOT always get marked with a status of WARNING – fixed.
- Incorrect compensation causes coax HDTDR to trigger false HDTDR failure at remote – fixed.
- Incorrect French translation of splices – fixed.
- Scanning on / off text cut off in Spanish – fixed.
- OTDR can report end as ghost – fixed.
- Custom Loss Limit editing causes a crash (rare) – fixed.
- FindFiber locks up when Coax nose installed – fixed.
- Fiber Loss allows you to enter 3.25 dB/ km but shows 3.3 dB / km – fixed.
- Bad Japanese translation for "Current Series" – fixed.
- Auto OTDR intermittently chooses too large of pulse width – fixed.
- OTDR Out-of-range for APC ends message – fixed.
- Method A had three patch cords under Patch Lengths when it should be two – fixed.

4. Known issues

- None - if you have found an issue, please let us know mailto:support@flukenetworks.com

Changes to DTX Version 2.12 (Jun 2008)

1. Cable / Spec Database Change
   - All draft numbers have been removed from Category 6A test limits since this standard is now approved.
   - In accordance with cabling standards worldwide
       o ELFEXT becomes ACR-F
       o PSELFEXT becomes PS ACR-F
       o ACR becomes ACR-N
       o PSACR becomes PS ACR-N
       o PSNEXT becomes PS NEXT
   - Added 70 dB rule for ACR-F (all standards)
   - Added 67 dB rule for PS ACR-F (all standards)
   - Folders have been created for Cat 5e, Cat 6, Cat 6A, Cat 7 and Cat 7A patch cord test limits.
   - CLC patch cords standards have been removed from the test database since they are now the same as the ISO/IEC 11801 test limits.
   - Addition of 7 new specifications:
       o ISO Class Fa PL 25N1431
       o EN50173 PL Class Fa
       o JIS X5150:2004 Cl. Fa PL

- o ISO Class Fa Ch FDAM
- o EN 50173 Channel Class Fa
- o JIS X5150:2004 Cl. Fa Channel
- o ISO Class Ea PL 25N1431
- Added Cat 6A FTP Cable
- Updated ADC, Draka and SYSTIMAX GigaSPEED cable types to utilize the Cat 6A HDTDR/HDTDX parameters – these cable types were using the Cat 6 HDTDR/HDTDX parameters. This does not affect your PASS/FAIL result.
- Renamed 'Berk-Tek' to LANMark
- Updated Kerpen, Panduit and Siemon cable types.
- Changed test limit name "ISO/IEC 14763" to "ISO/IEC 14763-3"
- Moved "GBxxxx" test limits to a new China folder
- Added Corning SMF28
- Added OS2 Fibre
- Updated backscatter coefficient values for the following brands: CommScope, Furukawa, HCS Fiber, Molex AFOxxxx, OFS GigaGuide and LaserWave, TeraGain, Systimax LazrSPEED and OptiSPEED.
- Updated IR and backscatter coefficient values for OFS LaserWave 150 (50)
- Updated modal bandwidth values for Corning eSX+ (50) and Corning SX+ (50)

2. New Features

- Added support the new M12 Channel adapter to be used to test links in the industrial environment that are constructed with the M12 two wire-pair connector. This adapter supports the 10BASE-T, 100BASE-T and Profinet test standards.
- Added a new test standard in the Application folder called "10G Equip. Channel". This standard is identical to the 10GBASE-T standard or the TIA TSB155 Channel standards with the exception that the length Pass/Fail decision. This standard requires that the average length of the four wire pair not exceed 100 meter (328 feet).
- An additional entry has been added to the test standard selection "Last Used". The last entry on this screen is called "More Test Limits…" This selection is a duplicate way of the F1 soft key to view all folders of test standards and select a standard that does not show up in the "Last Used" list.

3. Bug Fixes

- Running an AUTOTESt with Impedance in it would cause the DTX CableAnalyzer to cycle its power after approx. 300 AUTOTESTs - Fixed.
- Wire Map screen for 1000BASE-T incorrectly displayed. Measurement was good though – fixed.
- ISO11801 Fiber Optic Link contains atten. coeff. values in the OTDR limits. These limits can cause good links to fail – it has been removed.

4. Known issues

- None - if you have found an issue, please let us know mailto:support@flukenetworks.com

Changes to DTX Version 2.06 (Jan 2008)

1. Cable / Spec Database Change

- Augmented Category 6 limits now labeled as Draft 8.0; limits are the same as Draft 6.0.
- Added Fibre Channel Limits.
- ISO/IEC 14763-3 Singlemode length is changed from 2,000 m to 5,000 m.

- EN50173 Fiber Optic Link 1300 nm loss/km changed from 1.0 dB/km to 1.5 dB/km.
- 100BASE-FX; fixed loss for 50/125 μm fiber at 1300 nm changed from 11.0 dB to 6.3 dB. This is reduced by 4.7 dB due to the coupling loss between the switch/hub and the 50/125 μm fiber.
- 10BASE-FL; fixed loss for 50/125 μm fiber at 850 nm changed from 12.5 dB to 7.8 dB. This is reduced by 4.7 dB due to the coupling loss between the switch/hub and the 50/125 μm fiber.
- ISO11801 Fiber Optic Link Attenuation coefficient values for these OTDR limits have been removed. Segment coefficient still remains.

2. New Features

- None. This is a maintenance release.

3. Bug Fixes

- Subtle changes to some limits, described above.

4. Known issues

- None - if you have found an issue, please let us know mailto:support@flukenetworks.com

Changes to DTX Version 2.04 (Jun 2007)

1. Cable / Spec Database Change

- Augmented Category 6 limits kept at Draft 6.0 - Draft 8.0 is out for comment now - limits are the same as Draft 6.0
- Update for HCS cables including changing all cable names from "HCSxxxx" to DataLinkxxxx"
- Added Mohawk cable names (15 cables)
- Added Schrack Technik cable names (15 cables)
- Added Siemens SIMATIC NET cable names (9 cables)
- Changed 'CAE GROUPE' to 'CAE Groupe'
- Changed 'ADC KRONE' to 'ADC'
- Changed 'DRAKA Comteq Multimedia' to 'DRAKA Comteq'
- Renamed and updated many BKS cables names
- Updated Kerpen cable names
- The manufacturers' database for fiber optic cables has been extensively modified, adding new fiber types and names, deleting obsolete fiber types and names and extending the database to support the plug-in OTDR module

2. New features

- Support for the new DTX Compact OTDR module
  The DTX Compact OTDR is a module that simply snaps onto a DTX mainframe transforming it into a fully functioning optical time domain reflectometer (OTDR) capable of testing both multimode and singlemode fiber. This powerful new module makes the DTX CableAnalyzer the only copper cable tester that can perform OTDR testing. This new capability will allow cable installers to transform their tester, their staff and ultimately their business with the ability to win new fiber jobs. This product introduction makes the DTX CableAnalyzer the only cable tester that can perform both Basic Loss Test fiber link certification (tier 1) and Extended fiber link certification (tier 2). The DTX Compact OTDR is designed for premises cabling technicians. Its revolutionary features will enable every technician to test like a fiber expert
- Additional warnings given about selecting AC Wire Map

- Updated Support for the DTX-NSM, Network Service Module
- Expanded AC Wire Map Test Capability - now detects tip/ring reversals
  A DTX tester updated with software version 2.04 properly diagnoses (tip-ring) reversal errors in the pair wiring.
  This addition makes the AC wire map and its diagnostics fully equivalent to the commonly used dc wire map tests

3. Bug fixes

- Under very specific conditions during patch cord testing and the HDTDX is run, the DTX would reset itself - fixed.
- Using the DTX-NSM and Office ID Locators when pin 7 or 8 is open gave the incorrect ID number - fixed

4. Known issues

- None - if you have found an issue, please let us know.

Changes to DTX Version 1.41 (Feb 2007)

Don't forget to update to LinkWare 2.71

1. Cable / Spec Database Change

- Augmented Category 6 limits updated to Draft 6.0.
- Length limits on TSB-155, 10GBASE-T have been removed.
- Draft numbers removed from TSB-155, this is now approved.
- ISO Class Ea updated to 25N1255 with the 12 dB Lo IL added (If the normal Ea fails, you are allowed to use this)
- TR24750 PL added.
- Rename a saved test result - view result in SPECIAL FUNCITONS and press Save to rename it.
- IEC 14763-3 limit/procedure added.
- Correct NVP for CommScope DataPipe 5EN5
- Create cable type for 50 ohm coax cable LDF4-50A
- Added Cat 6A UTP cable type
- Updated 3M
- Updated ADC KRONE
- Updated CAE-GROUPE
- Added CEAM
- Updated Corning
- Updated Daetwyler
- Added DRAKA
- Added HCS
- Added Molex
- Added Spezialkabel München
- Updated Systimax.
- Added Aug Cat6 as a cable type.
- Gigabit Crossover Cable added to Outlet Configuration.
- 15 m limits added to Patch Cord Databases.
- Cable limits added under folder called "Other" to support Cable Manufacturers in their laboratories.

2. New features

- AC Wire Map - allows you to test through a midspan PoE device (unique).
- AutoSave feature added - inidcates which CableID you are testing on the front screen.
- Trip counter feature on adapter count.
- Grid lines added to plots - option in Tab 5 under Instrument Settings in SETUP.
- Zoom up to x128 on vertical axis/change scale on vertical axis.
- Vertical and horizontal zoom on graphs.
- Improved Alien Crosstalk testing time - 19 secs

3. Bug fixes

- DTX-GFM now allows custom fixed loss testing - fixed.
- DTX-PLA001 will not occasionally calibrate- fixed.
- FAIL light would always appear on remote unit when doing Alien Crosstalk testing - fixed.
- DTX-NSM module didn't recognize the Hubbell PowerTRAC active patch panel as PSE - fixed.
- Loading new settings from LinkWare takes too long – fixed.
- Far End Source reference diagram wrong for Method B - fixed.

Changes to DTX Version 1.4 (Feb 2007)
This software was found to have a bug in it causing a crash. Please update to 1.41 and LinkWare 2.71

Changes to DTX Version 1.31 (Apr 2006)

1. Bug fixes
    - There was an error in the Korean setup which prevented two standards from being selected. Unless you are using the DTX CableAnalyzer with the language set to Korean, there is no need to upgrade from 1.3 to 1.31.

Changes to DTX Version 1.3 (Feb 2006)

Don't forget to update to LinkWare 2.5

1. Cable / Spec Database Changes
    - There are no changes to Category 5e, 6. Class C, D, E or F – these are ratified standards.
    - Updated Augmented Category 6 Limits to Draft 3.0 (New tighter Return Loss limit line for Perm. Link) If you are currently testing to TIA AugCat6 PL dr1.4, please consult your cable vendor/consultant/customer before updating the DTX CableAnalyzer. The limit has tightened by 2.0 dB for Return Loss. This is a draft standard and subject to further possible changes. We are committed to keeping the DTX current with TIA drafts. Once you have updated the DTX, it cannot be downgraded to a previous version.
    - Updated TSB-155 to Draft 3.0
    - Removed ISO AugCl Pl E 3N753 (ISO will not support Permanent Link testing at this time).
    - ISO AugCl CH E 3N753 changed to ISO Class Ea Channel.
    - Korean Emblem fiber test standards added.
    - KRONE cables changed to ADC.
    - New SYSTIMAX cables added.
    - New SIEMON cables added.
    - New ADC TrueNet fibers added.

- New Gigamedia cables added.
- Added support for LMR-400-75.
- Panduit TX6000 LSZH set as UTP (was incorrectly set as FTP).
- Ethernet Outlet Configuration now labeled Ethernet Two Pair to avoid confusion; to be used with 100BASE-TX test limit where 4,5 and 7,8 are not connected.

2. New Features
- Support for the DTX-NSM Network Service Module.
- Support for the DTX-xFM2 Fiber Modules.
- Outlet Configuration now visible from main Autotest screen.
- DTX used to prompt users with a message indicating Incompatible Settings, caused by selecting a Cable Type or Outlet Configuration not suitable for the chosen Test Limit. This will no longer happen. If you select TIA Cat 6 Perm. Link for example, it will not allow you to select Crossover as an Outlet Configuration. Incompatible Cable Types or Outlet Configurations are grayed out.
- Recover deleted test results. If you saved results with Version 1.3 then inadvertently deleted results using your DTX CableAnalyzer, power down the unit, hold down keys F1 and EXIT, power up the DTX and let go of the keys once it has finished playing a tune. This function works for both the Internal Memory and any MMCs inserted using Version 1.3 code. It will not work if you formatted the MMC or have older code. For help in recovering results from formatted MMCs, please e-mail support@flukenetworks.com
- Add setup item to force HDTDR and HDTDX to run with every test. You can find this in Tab 2 of SETUP. It will add approximately 6 seconds to each Autotest. HDTDX and HDTDR normally run on marginal passes or failures only. Since the DTX is so accurate, marginal passes could be with margins as low as 0.3 dB. If the margin is only 1.0 dB, HDTDX will not run and we will need to ask you to run HDTDX in Single Test to help you diagnose the cause of the low margin. Turning this feature on will help us to help you diagnose low margins better.
- Extended the number of Cable IDs in the preset list from 253 to 2000.
- Disable shield testing when selecting FTP or SSTP, requested by customers where the channel test has a UTP user cord. The status is shown on the main screen of the DTX so you know whether the shield is being tested or not.
- Warning message at end of Autotest for negative fiber loss results. If there is a negative loss of more than -0.09 dB, a warning will be given.
- Loopback fiber module selftest added.
- Rollover and Crossover added to Outlet Configuration.
- Disable Wire Map Checking for Mid-span DTE Testing. Some Mid-span DTE devices do not pass through DC signals making it impossible for the DTX to complete a DC Wire Map measurement. Creating a custom test limit now lets you disable Wire Map checking.
- Factory Clean – you can restore your DTX to its original factory defaults. Power off the DTX Main unit, power on the remote unit and connect them together using the test leads/adapters. Hold down keys F1, F3 and SAVE, keeping them held down, power on the Main unit. Let go of the keys when the tune has stopped playing. Rotate the dial to SPECIAL FUNCTIONS and select Self Test. Press F3. Several warnings will be given. This will ERASE ALL SETTINGS and TEST RESULTS.

3. Bug fixes (Non of these affect the outcome of your test results)
- Wire Map Short circuit graphics misaligned.
- Coax 10BASE-2, 10BASE-5 Prop Delay not present In Single Test.
- UI screen continues to show old memory status after format until first save.
- Autotest: remote beeps on Wire Map failure when audible tone disabled.
- Coax looping TDR shows an invalid pair.
- Length error when crossed wires.
- Software update only looks for lowercase ".dtx" file.
- Single Test HDTDR and HDTDX do not get Wire Map split pair notification.
- FOM behavior inconsistent on some test limits when using SimpliFiber.
- Fail star results not indicated by red asterisk.
- When 0,00 format selected, the characters are joined.
- Length pass/fail status should only be shown for shortest pair. This was a confusing screen, now only the shortest pair is indicated with either a pass or fail mark. The others are marked as "i" for information only.
- Fiber power meter (monitor mode) change wavelength always starts at 850 nm.
- Looping HDTDR/HDTDX can show clipped section.
- Memory status improved after save.
- Panduit TX6000 LSZH set as UTP (was incorrectly set as FTP).

Changes to Version 1.21 (Aug 2005)

- Fixed bug causing DTX to reset itself if Impedance was a test parameter and certain lengths of cable tested. This bug only affect 10BASE-T, 100BASE-TX, 1000BASE-T and Korean test standards which contain the impedance test.'
- For details of Augmented Category 6, click here.

1. Cable / Spec Database Changes

    - Updated Augmented Category 6 Limits Draft 1.4b
    - Updated TSB-155 Draft 1.3
    - New ISO 10GBASE-T Limits ISO TR24750 3N746
    - New Augmented Class E Limits 3N753
    - Added SYSTIMAX GigaSPEED X10D 1091A, 2091A & 2091A
    - DTX-PL Selftest – ELFEXT limits corrected
    - Graybar VIP1000 & VIP2000 limits added (found under Vendor folder)
    - Chinese Limits added
    - Taiwan Limits added
    - Old Category 5 TSB-67 Limits added
    - Old ISO/IEC 11801 Class D (1995) Limit added

2. New languages

    - Čeština (Czech)
    - Polski (Polish)
    - Svenska (Swedish)
    - Traditional Chinese

3. Bug fixes

    - DTX-PL Selftest – ELFEXT limits corrected

1. Cable / Spec Database Changes

   - Added Nexans and Brand-Rex twisted pair and fiber cables. The total number of cables is now 439.
   - The DTX-PL Selftest spec was reduced from 500MHz to 250MHz so it would run on the LT and 1200 versions.
   - Added the fiber type Multimode 62.5, MBW=220.
   - Added China standard (GBT) to DTX specs. These include GBT-Cat3 and GBT-Cat5 in a new China spec folder. These specs apply to both permanent link and channel link.
   - Added four new application specs for two pair POE (Power Over Ethernet). These include POE Cat 5e Channel, POE Cat 5e Link, POE Cat 6 Channel, and POE Cat 6 Link.
   - Deleted 1000BASE-SX/LX. Now is either 1000BASE-SX or 1000BASE-LX.
   - Deleted Backbone Laser MM. GFM now accepts TIA568 Backbone.

2. Bug fixes

   - "bad patch cord" message displayed incorrectly.
   - PL Self Test doesn't appear on DTX-1200 or LT. Scanning 1200 Main to LT Remote causes Lockup
   - Portuguese String Reported Too Long (No Truncation) -- Perform Special Functions-Set Reference-Module. After reference is set, press OK. The display's F1 is reported as too long.
   - Italian String Too Long -- On the Setup-Instrument Settings-Store Plot Data screen, the title is too long.
   - The following French strings are too long:
       a. special Functions-Set Reference-Module softkey F1. Note that the last "s" is truncated.
       b. perform the set reference and press OK. Again F1 is the culprit. "Raccordement" Note that the final "ent" is truncated.
   - Pressing TEST on remote when main is showing Wire Map warning fails to start test.
   - Extra attenuation of TDX if no length.
   - Looping Map/Resistance can't always find remote.
   - UI sometimes hangs/crashes during looping Map/Resistance.
   - Using a spec containing an '&' in the name causes setup to reset to defaults.
   - Fiber Type "FiberExpress 2000 (50) does not allow 10GBASE-S.
   - Top Summary Screen shows wrong margin for failing IL.
   - Return loss margin reported within the 3db rule range.

1. Faster Autotest Times
   Due to improvements in data processing methods, the following test times are now applicable: (it really is 9 secs for Cat 6)

Test Standard	DTX CableAnalyzer Version 1.1
Category 5e	9
Category 6	9
Class D	9
Class E	9
Class F	22
10GBASE-T	22

The speed of the NEXT, Return Loss measurements have not been altered, only the calculation process. Speeding up the NEXT, Return Loss measurements reduces the noise floor and dynamic range of the instrument which in turn compromises accuracy.
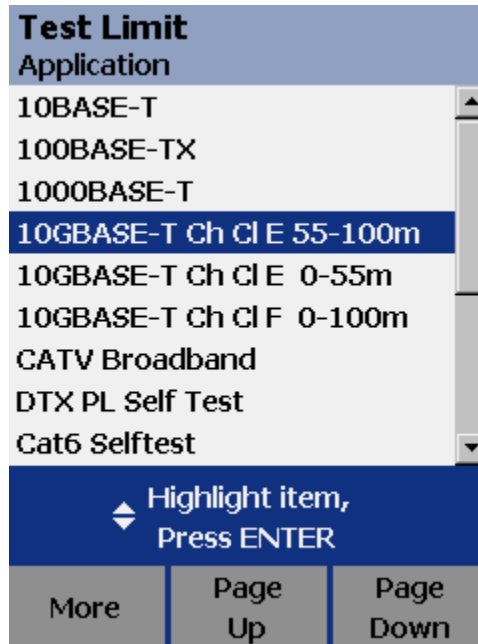
2. New Autotest Results Screen
   With many cabling vendors guaranteeing margins of performance, the DTX will now report the worst case margin for each parameter at the end of the Autotest. These values are reported in parenthesis:
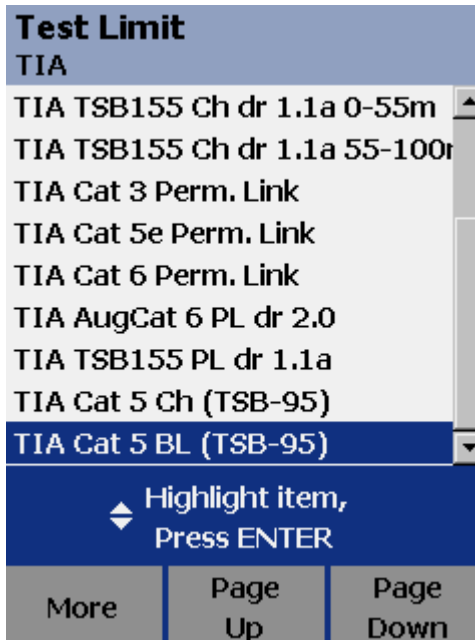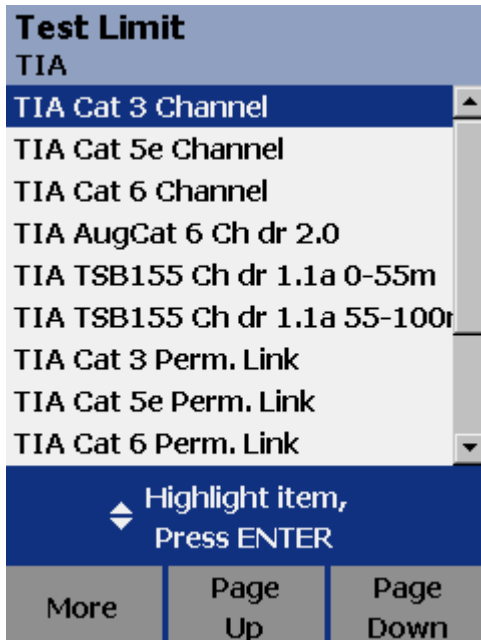
3. Standards Database Updated
   The 10GBASE-T entries have been changed to reflect the new DRAFT 500 MHz requirement from the IEEE.

Test Limit
Application

10BASE-T
100BASE-TX
1000BASE-T
10GBASE-T Ch Cl E 55-100m
10GBASE-T Ch Cl E 0-55m
10GBASE-T Ch Cl F 0-100m
CATV Broadband
DTX PL Self Test
Cat6 Selftest

▲ Highlight item,
▼ Press ENTER

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The 10GBASE-T CH Cl E 0-55m entry supports 10GBASE-T over existing category 6 / class E installations to 55 m. 10GBASE-T CH Cl E 55-100 m is for new UTP cabling systems designed specifically to eliminate Alien Crosstalk, the coupling of noise from one cable to the other. It also supports existing category 6 shielded cabling systems where Alien Crosstalk is not considered such as issue due to the shielding of the cable and connectors. In addition to this, you will find new entries in the TIA Folder:

Test Limit
TIA

TIA Cat 3 Channel
TIA Cat 5e Channel
TIA Cat 6 Channel
TIA AugCat 6 Ch dr 2.0
TIA TSB155 Ch dr 1.1a 0-55m
TIA TSB155 Ch dr 1.1a 55-100r
TIA Cat 3 Perm. Link
TIA Cat 5e Perm. Link
TIA Cat 6 Perm. Link

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Test Limit
TIA

TIA TSB155 Ch dr 1.1a 0-55m
TIA TSB155 Ch dr 1.1a 55-100r
TIA Cat 3 Perm. Link
TIA Cat 5e Perm. Link
TIA Cat 6 Perm. Link
TIA AugCat 6 PL dr 2.0
TIA TSB155 PL dr 1.1a
TIA Cat 5 Ch (TSB-95)
TIA Cat 5 BL (TSB-95)

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▼ Press ENTER

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TIA TSB-155 CH dr 1.1a is a channel measurement designed to verify the performance of an existing category 6 cabling system for 10GBASE-T operation. The same is for TIA TSB-155 PL dr 1.1a.

TIA AugCat6 CH dr 2.0 is a channel measurement designed to certify new category 6 cabling systems designed to support 10GBASE-T over the full distance of 100 meters. The same is also for TIA AugCat6 PL dr 2.0, except this is a permanent link test where the distance is 90 meters.

TSB-95 has been added to support previous / existing category 5 installations. This is an obsolete standard, hence the BL (Basic Link) nomenclature.

4. VCSEL Fiber Option (DTX-GFM)
   For those who prefer to test with a VCSEL, there is now a VCSEL 850 nm / FP Laser 1310 nm option:

This is for the verification of 1000BASESX or LX over multimode cable. If you require certification, you should continue to use your existing DTX-MFM module since the cabling standards specify the use of a category 1 light source.

5. Fiber Optic Meter
   Since we were unable to make the DSP-FOM work with the DTX, there is now a new power meter only module:

For those wishing to carry out basic fiber testing, this is ideal. It can be used with an existing 850 nm, 1300 nm, 1310 nm or 1550 nm light source.

6. Battery Conditioner
   If your battery does not appear to last as long as it should or used to, it is probably dues to the internal gas gauge in the Li-ION battery 'drifting'. To reset it, rotate the dial to SPECIAL FUNCTIONS and select Battery Status.
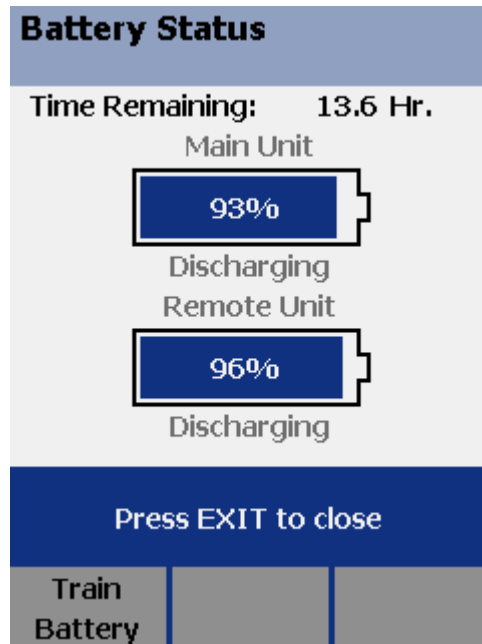
   Connect the testers together, plug in the power supplies and press the F1 Key. It is recommended to do this every six months. This will ensure maximum battery performance.

7. Coax Test
   Not just a coax test as with previous testers. This coax test includes insertion loss. The optional modules (DTX-CH003) are placed on the main and remote unit. Insertion Loss measurements can be made up to 350 meters.

The presentation on the adapter is F-Type with F-Type to BNC Adapters supplied to allow the testing of CCTV and 10BASE-2.

8. Patch Cord Test
   Just as with the DSP-4x00, you can now certify patch cords with the optional DTX-PCU-6S.


9. Siemon TERA® Adapters
   Only Fluke Networks' DTX-1800 is approved to test the Siemon TERA® Cabling system. Both Channel and Permanent Link Adapters are available.

10. Multiple Operator / Site Names
    Just as with the DSP-4x00, you can now have up to 20 operator and site names in the DTX CableAnalyzer.

11. Automatic Module Detection
    If only the fiber module is inserted, you will only get the fiber options menu. This is true for the optional coax module as well.

12. Custom Cable Type
    If you have a vendor that is not in the cable library, you can create your own. Up to 9 custom cable types can be created.

13. Custom Test Limit Setup
    You can now create your own cable tests based in existing tests. It is possible to remove certain test parameters. However, the standards name is prefixed and suffixed with an asterisk to indicate a custom cable test. This is true for fiber and copper tests but not for coax tests at this time.
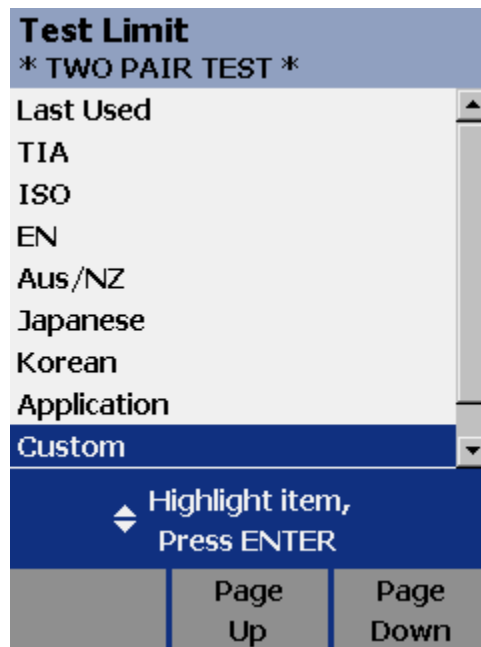
14. Custom Outlet Configuration
   Create your own!

15. Extended Frequency Option
   Although the category 5e standard stops at 100 MHz, we have received numerous requests for the measurement to continue to 350 MHz but keep the limit line standards compliant to 100 MHz. This is now possible by rotating the dial to SETUP and selecting Instrument Settings. Under Store Plot Data, you will see the following 3 options:
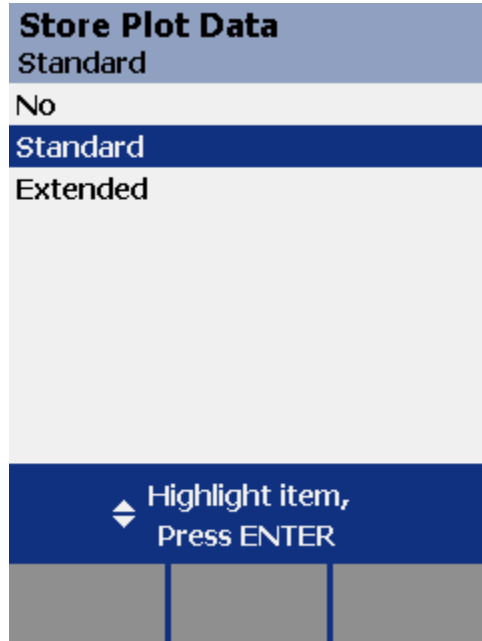

   'No' will mean that no plot data is stored. 'Standard' will store plot data and 'Extended' will store plot data to 350 MHz. This is also true if category 6 is selected. When class F and 'Extended' are selected, the test will run to 900 MHz.

16. Scanning Function
   As with previous testers from Fluke Networks, the user has the ability to continuously measure a link for the parameters Wire Map and Resistance.
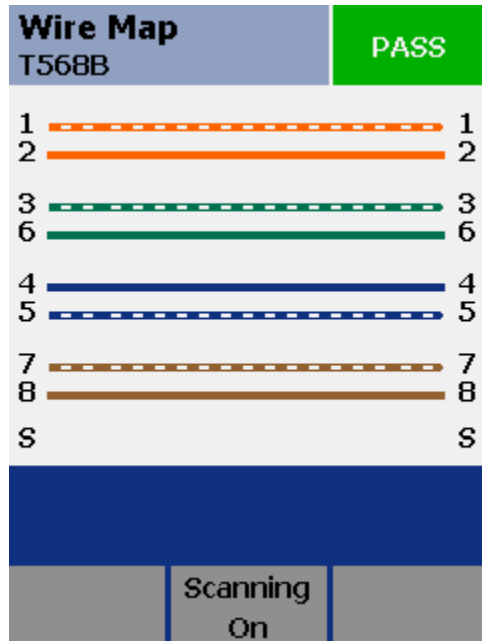
17. HDTDX @ HDTDR Cursor Improved
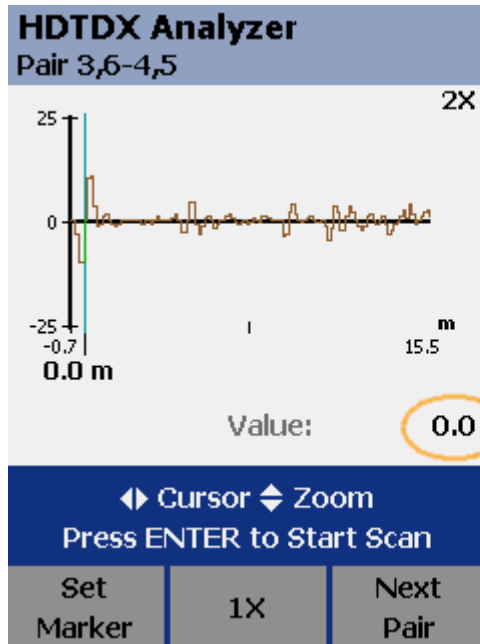
18. HDTDX @ HTDR 4x Magnification
Using the F2 Key, you can now zoom on the vertical axis.

19. Permanent Link Field Calibration
Using the existing DSP-PLCAL Module and the new LinkWare 2.3, the DTX-PLA001 can now be calibrated, just as with the DSP-4x00 DSP-LIA101.

20. UL Verified Accuracy Bands Implemented
The region deemed as 'marginal' has changed slightly to reflect the independently verified accuracy of the DTX by UL (Underwriters Laboratories).

21. New Languages
Russian has now been added:

22. Minor Bug Fixes

- 3 dB and 4 dB rule enabled in single test.
- DTX does not reset during fault diagnostics if the link is 30 meters and fails the autotest now.
- Stale test limits in 'Last Used' list are deleted when software is updated.
- Retain most recent test on power down.
- SYSTIMAX 3071E in Cable Library had incorrect NVP. It has been changed to 69% from 68%.

23. LinkWare Stats
LinkWare Stats can now be exported to PDF. If you have LinkWare Stats installed, updating to LinkWare 2.3 will automatically install LinkWare Stats 1.2.