VIAVI

T-BERD/MTS 8000 & 6000A Platform

Bi-Directional Fiber Characterization

Test Procedure

This document describes the procedure to configure and perform the characterization of an optical fiber link using a mated pair of T-BERD/MTS 8000 and T-BERD/MTS 6000A platforms.

T-BRERD/MTS 8000 unit

T-BRERD/MTS 6000 unit

TEST SET REVIEW AND PREPARATION

FIBER CHARACTERIZATION OVERVIEW

Fiber Characterization is a comprehensive suite of point-to-point physical layer optical tests that measures and determines the quality and potential transmission capability of a given optical fiber.

Fiber Characterization testing, prior to network element installation, provides a true picture of the network's physical characteristics and expected performance for various technologies (10/40/100Gb/s Ethernet, DWDM, CWDM)

It enables the equipment manufacturer to provide the operator with the most cost-optimized solution for a given bit rate.

A complete fiber characterization suite of test includes:

- Connector end face inspection
- Bi-directional Insertion Loss measurements (IL)
- Bi-directional Optical Return Loss measurements (ORL)
- Bi-directional OTDR testing
- Chromatic Dispersion (CD) testing
- Polarization Mode Dispersion (PMD) testing
- Attenuation Profile (AP)

RECOMMENDED TEST EQUIPMENT AND ACCESSORIES

Prior to testing you will need to locate the following test equipment and accessories. Most of this equipment is found in the Fiber Characterization Test Kit you have purchased.

Test units

- 1xT-BERD 8000 unit equipped with 3 test modules, built-in Power meter, VFL and talkset.
- 1xT-BERD/MTS 6000A equipped with one test module, built-in Power meter, VFL and talkset.

T-BERD/MTS 8000

T-BERD/MTS 6000A
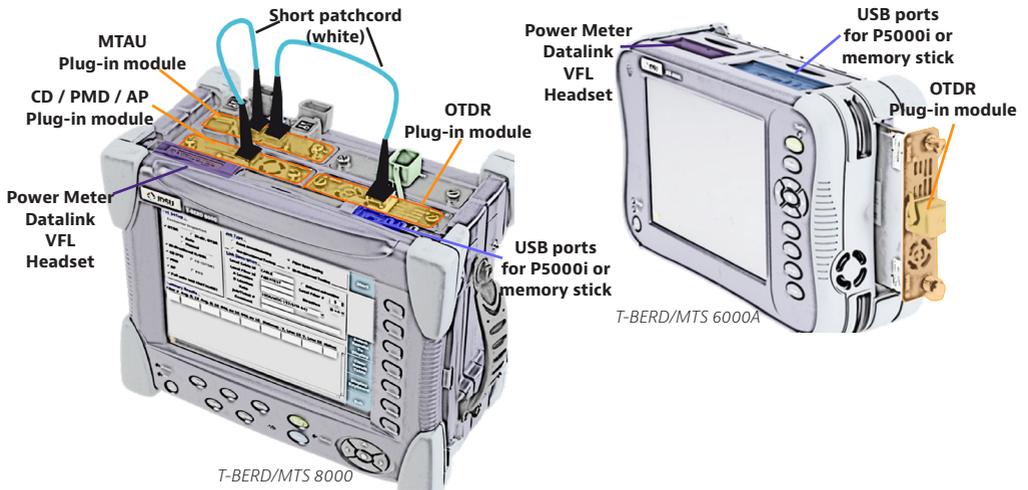
Accessories

- 2x inspection scopes P5000i - one for each site

- 2x connector tip boxes for P5000i with 7 tips. one for each site

- 4 x 3m (10 inch) fiber patchcords 2 for each site

- 2x Termination kit in small black box. one for each site

- Fiber optic cleaning tools (not included in the kit)

FIBER CHARACTERIZATION TEST CRITERIA

Shown below are the pertinent criteria, pass/fail thresholds and associated Standards for testing fiber. The fiber characterization test kit will measure all these parameters.

Parameter	JDSU	Relevant international standard
Fiber Slope	0.35 dB / km @ 1310nm 0.25 dB / km @ 1550nm	ITU-T G.650.3, IEC-60793-1-22, TIA-455-133-A-2003
Insertion Loss (IL)	Varies by span	ITU-T G.650.1, IEC 60793-1-40, TIA/EIA-455-78B
Optical Return Loss (ORL)	>30dB	IEC 61300-3-6, IEC 61300-3-7, EIA/TIA-455-107A
Splice Loss	<0.3 dB 1-way <0.15 bidir avg	ITU-T G.650, IEC 60874-1, IEC 61073-1, TIA/EIA-455-8
Connector Loss	<0.5 dB 1-way <0.3 bidir avg	ITU-T G.650, IEC 60874-1, IEC 61073-1, TIA/EIA-455-8
Connector Reflectance	<-35dB	ITU-T G.650, IEC 60874-1, IEC 61073-1, TIA/EIA-455-8

Parameter	JDSU	Relevant international standard
PMD	5ps for 10GE 10ps for 10Gb/s 2.5ps for 40G 25ps for 100GE (DP-QPSK)	ITU-T G.650.2, IEC 60793-1-48, TIA-455-113
CD	738 ps/nm for 10GE 1000 ps/nm for 10Gb/s 80ps/nm for 40G 30,000 ps/nm for 100GE (DP-QPSK)	ITU-T G.650.1, IEC 60793-1-42, ANSI/TIA-455-175-B (2003)
AP	0.25 dB:km at 1550 nm 0.25 dB/km at 1600 nm	TIA/EIA-455-61, TIA/EIA-455-78, IEC 61300-3-7, IEC 60793-1-1

SOFTWARE DOWNLOADS

Verify your test equipment has the latest software update to ensure proper operation. This includes TBERD 6000A, TBERD 8000, FiberChek PRO inspection for P5000i fiber scopes. Software conflicts between P5000i scope and T-BERD/MTS units may impact the test process.

Make sure the 6000 and 8000 units have the same software version.

Use the following internet links to check for latest SW and follow upgrade procedure.

TBERD 8000
http://8k.updatemyunit.net/

T-BERD®/MTS-8000 V2 Platform

http://8k.updatemyunit.net

TBERD 6000A
http://6k.updatemyunit.net/

T-BERD®/MTS-6000 and 6000A Platform with SN >= 10000

http://6k.updatemyunit.net

FiberChek PRO
http://fcpro.updatemyunit.net

FiberChek™ PRO Software

http://fcpro.updatemyunit.net

TBERD 6000AV2
http://6kav2.updatemyunit.net

T-BERD®/MTS-6000A V2 Platform

http://6kav2.updatemyunit.net

The FiberCheck™Pro software is used to upgrade the P5000i inspection probe. It requires installation on a PC and direct connection of the P5000i probe.

CIRCUIT/LINK INFORMATION REQUIREMENTS

The following information is required before beginning testing. This information should be readily available from Transport Engineering, Service or Dark Fiber Provider.

- Schematic showing all sites on ring
- Span distance information between all sites on ring
- Fiber #s assigned to be used at each location
- Job information
- Required pass/Fail criteria for splice loss, connector loss and reflectance, total ORL
- Expected transmission speed for the tested link (e.g. 10Gb/s, 40Gb/s, 100Gb/s…)

Prior to starting a test sequence:

- Locate all physical fiber ports on panel
- Identify the fiber under test (FUT) and the fiber used for the datalink connection.

INSPECT AND CLEAN CONNECTORS

Before connecting a fiber into a test module or fiber panel, inspect and clean the bulkhead and the fiber jumper connectors.

1 Connect the P5000i video inspection scope to both units USB port (any)

2 Press the **ON/OFF** hard key on the both units to turn-up.

3 Press the **HOME** hard key on the T-BERD/MTS 8000.

4 Press the **SYSTEM** hard key on the T-BERD/MTS 6000A or **HOME** if 6000AV2

5 Activate the Microscope function on both units by touching twice with your finger or stylus.

6 Use the P5000i video inspection scope to verify the connector quality.
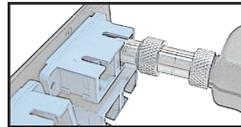
7 Use appropriate cleaning material (e.g. IBC™ cleaner, cotton swab, dust air sprays, etc...) and re-inspect to confirm.

ACTIVATING THE TEST FUNCTIONS − T-BERD/MTS 8000

1 Press the **ON/OFF** hard key to turn-up.

2 Press the **HOME** hard key when unit is on.

3 Activate the test functions by touching twice with your finger or stylus

4 Activate 6 test functions:

ACTIVATING THE TEST FUNCTIONS − T-BERD/MTS 6000A

1 Press the **ON/OFF** hard key to turn-up.

2 Press the **HOME** hard key when unit is on.

3 Activate the test functions by touching twice with your finger or stylus

5 Activate 2 test functions: and

REFERENCING THE TEST FUNCTIONS

The following test functions require REFERENCING before performing field tests:

- FCOMP - Insertion Loss (IL) and Optical return Loss (ORL), Chromatic Dispersion (CD), Attenuation Profile (AP)

If the references have already been performed, skip this step.

You can check the references are valid by tapping **Refs** *on the script main menu.*

FIBERCOMPLETE (IL/ORL) REFERENCING PROCESS - IN THE OFFICE

PERFORMING ORL AND SIDE-BY-SIDE IL REFERENCING

1 Touch the [°■■ FCOMP] tab.

2 Press the key [References] to enter the reference menu.

3 Press the key [Take Refs] in order to enter the referencing wizard

5 Press **Side/Side** key on the dialog box [Select loss referencing method. / Loopback / Side/Side] to start the referencing process for ORL and side by side Insertion Loss

5 When prompt, connect the test jumpers from the 8000 MTAU COM port to the mainframe power meter and from the test module to 6000A mainframe power meter, as shown below

Fiber jumper connected to PM port

Fiber jumper connected to COM port

T-BERD/MTS 8000

Fiber jumper connected to PM port

Fiber jumper connected to OTDR port

T-BERD/MTS 6000A

6 Press OK to measure emitted power level.

7 When prompt, disconnect the test jumpers from the mainframe power meter on both units and connect the non-reflective terminator to the end of each test jumper, as shown below:

Mating adapter

Non reflective termination

Fiber jumper connected to COM port

T-BERD/MTS 8000

Mating adapter

Non reflective termination

Fiber jumper connected to OTDR port

T-BERD/MTS 6000A
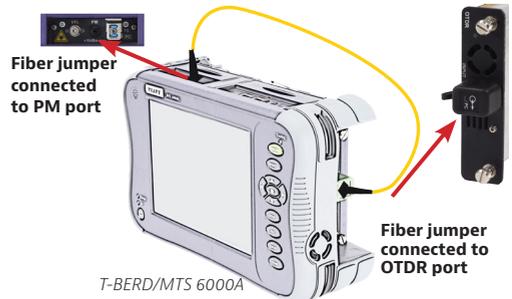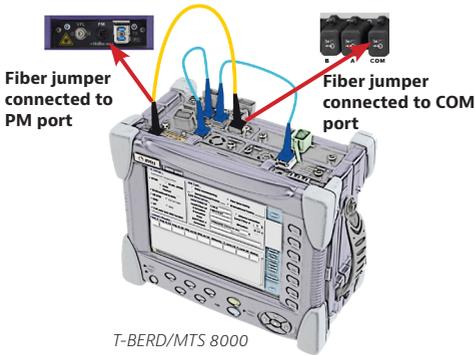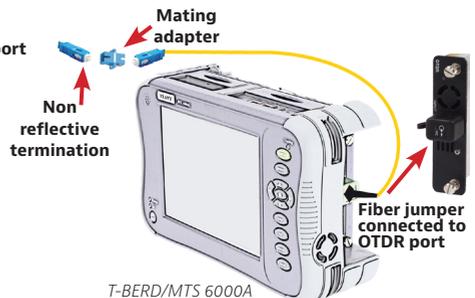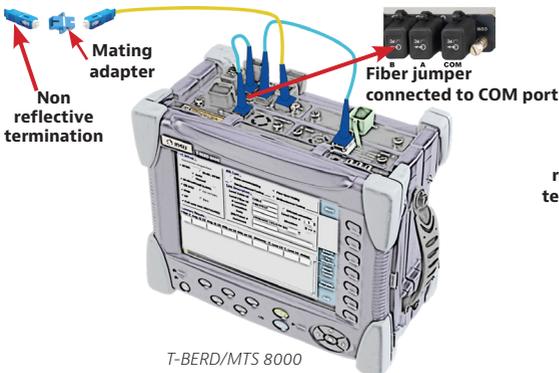
8 Press OK to measure zero ORL.

9 Remove the non-reflective terminators

10 Connect both jumpers together using the appropriate mating adapter. See below the interconnection schematic.

Mating adapter

Fiber jumper connected to COM port

Fiber jumper connected to OTDR port

T-BERD/MTS 8000

T-BERD/MTS 6000A
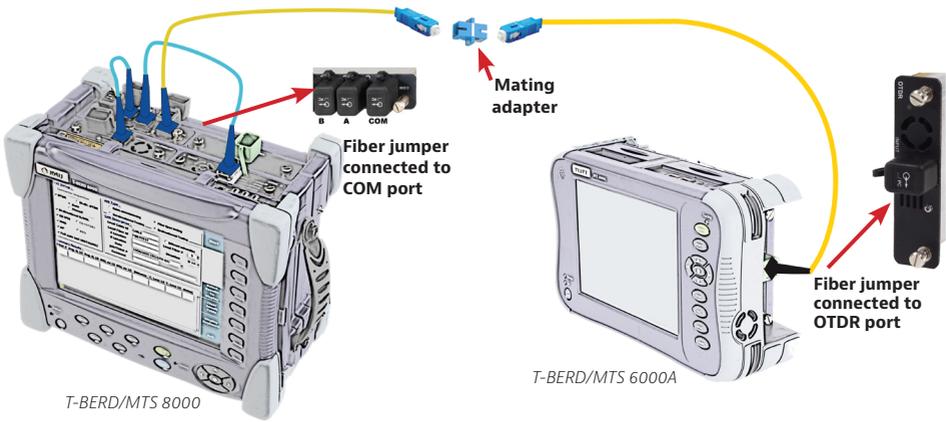
11 Press **OK** to measure IL side by side.

12 Disconnect both jumpers from the mating adapter but not from the test units.

Keep connection if you want to perform CD and AP referencing then refer to corresponding proce-dure below.

PERFORM ORL AND LOOPBACK IL REFERENCING

This step can be conducted in the field since there is no need to have both units at the same loca-tion.

1 Touch the [FCOMP] tab.

2 Press the key [References] to enter the reference menu.

3 Press the key [Take Refs] in order to enter the referencing wizard

4 Press **Loopback** key on the dialog box [Select loss referencing method.   Loopback / Side/Side] to start the referencing process for ORL and Insertion Loss

5 When prompt, connect the test jumpers from the 8000V2 MTAU COM port to the mainframe power meter and from the test module to 6000A mainframe power meter, as shown below:

Fiber jumper connected to PM port

Fiber jumper connected to COM port

Fiber jumper connected to PM port

Fiber jumper connected to OTDR port

T-BERD/MTS 8000

T-BERD/MTS 6000A

6 Press OK to measure emitted power level.

7 When prompt, disconnect the test jumpers from the mainframe power meter on both units and connect the non-reflective terminator to the end of each test jumper, as shown below:

Mating adapter

Non reflective termination

Fiber jumper connected to COM port

T-BERD/MTS 8000

Mating adapter

Non reflective termination

Fiber jumper connected to OTDR port

T-BERD/MTS 6000A V2
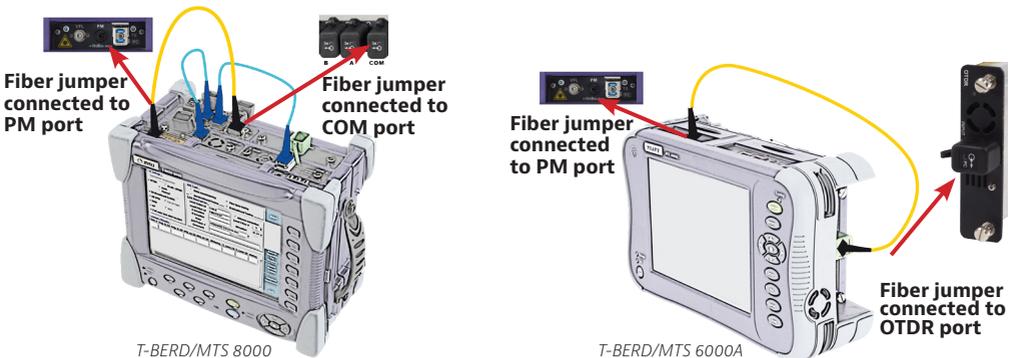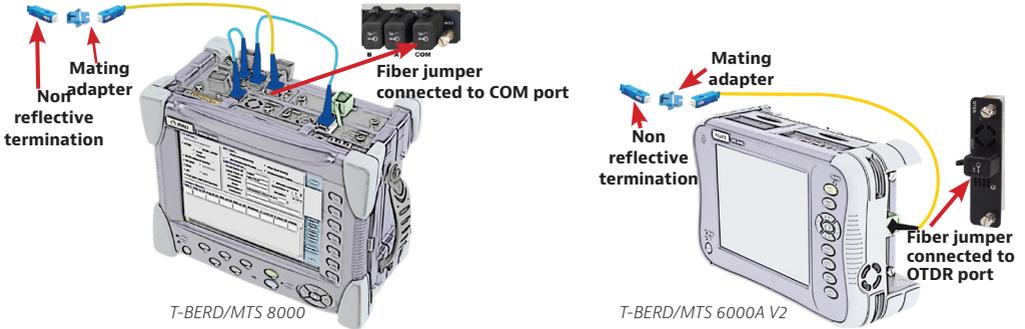
8 Press **OK** to measure zero ORL.

9 Remove the non-reflective terminators

Do not disconnect the test cords from the test units.

CHROMATIC DISPERSION (CD) REFERENCING PROCESS – IN THE OFFICE

CONNECTING BOTH TEST SETS (IF NOT ALREADY DONE)

1 Inspect and clean connectors of the fiber jumpers, the COM port of the T-BERD/MTS 8000 and the OTDR port of the T-BERD/MTS 6000A using the P5000i inspection scope.

2 Connect the fiber jumper 1 to the T-BERD/MTS 8000 COM port of the MTAU module and to the mating adapter.

3 Connect the fiber jumper 2 to the T-BERD/MTS 6000A OTDR module and to the mating adapter.

Test jumper 1

Test jumper 2

Mating adapter

Test jumper 1 connected to COM port

Test jumper 2 connected to OTDR port

T-BERD/MTS 8000

T-BERD/MTS 6000A V2

ACTIVATE THE BBS SOURCE ON THE T-BERD/MTS 6000A UNIT

1 Press the SYSTEM (6000AV1) or the HOME (6000AV2) hard key to go to the home page and activate the BBS function.

2 Press the RESULTS hard key.

3 Touch the soft key [Source Off / Source On] to turn the source on.

4 Touch the softkey [CD / PMD / AP] to position the test mode as CD.

PERFORMING CD REFERENCING ON THE T-BERD/MTS 8000

1 Press the SETUP hard key.

2 Touch the [CD] tab.

3 Select Take Reference   Yes   **No**   Yes

4 Enter the BBS serial number under BBS Serial Number   14   **14**

BBS serial number is displayed on the T-BERD/MTS6000A Results page

Source on Module
CW
1460-1640 nm
BBS Serial Number : 14

5 Press the START/STOP key

6 Confirm by pressing YES when the message ⚠ Take New Reference Confirm ? pops up.

A message Valid Reference is displayed in green. If not, verify proper connector cleanliness and interconnections then restart referencing process

SAVING A REFERENCE FILE ON THE T-BERD 8000

You can save the reference file in order to recall it later in the field when using a different T-BERD/MTS 6000 units with this T-BERD/MTS 8000.

1 Once the reference measurement is done, press Fast Report key

2 Select Save Mode   File Only   **File Only**

3 Enter the source serial number under Fiber Number   14   **14**

4 Press the key Save All

5 Give it a name T-BER 6000A CD REF SN xxx   xxx being the BBS serial number, so that you know it contains the reference for T-Berd 6000A SN xxx.

This file (ex: "T-BERD6000A AP REF SN xxx.ocd") is saved into your T-BERD 8000 unit.

Repeat the referencing and saving steps for as many T-BERD 6000A and T-BERD 8000 units

It's recommended to save the reference files into a dedicated directory for easy location (ex: "Ref" directory)

LOADING A REFERENCE FILE INTO A T-BERD 8000

1 Press the FILE hard key

2 Select the directory where the reference files are located. For example:

3 Highlight the file that has the requested T-BERD/MTS 6000A reference

4 Press the Load soft key

5 Press Load Trace + Config. . Loading the trace + configuration will take you to the "results" page

disk
Apps
bert
config
demo
software
StrataSync
User-Manuals
CD ref
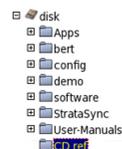
6 Press the ⬭SETUP hard key.

Note: You now see 2 reference boxes One says `Reference` *and that shows the current reference loaded into the test unit. The lower box says* `Trace reference` *and that shows the reference information for the trace that is currently loaded (your new reference). It also shows the filename so you can see if it is "T-BERD6000A CD REF SN xxx.ocd", for example.*

7 Under the `Reference` list, select | Take Reference | No | **No** | **Yes** |

8 Press the soft key | Load Ref. From Trace |

The message ⚠ Ref. Copying from Curve to Internal Confirm ? appears.

9 Select | **Yes** |

The date and s/n of the reference appear into the `Reference` *list. You know the new reference is loaded*

10 Follow the above steps to change the reference again

ATTENUATION PROFILE (AP) REFERENCING PROCESS - IN THE OFFICE

CONNECTING BOTH TEST SETS (IF NOT ALREADY DONE)

1 Inspect and clean connectors of the fiber jumpers, the COM port of the T-BERD/MTS 8000 and the OTDR port of the T-BERD/MTS 6000A using the P5000i inspection scope.

2 Connect the fiber jumper 1 to the T-BERD/MTS 8000 COM port of the MTAU module and to the mating adapter.

3 Connect the fiber jumper 2 to the T-BERD/MTS 6000A OTDR module and to the mating adapter.

Test jumper 1

Test jumper 1 connected to COM port

Mating adapter

Test jumper 2

Test jumper 2 connected to OTDR port

T-BERD/MTS 8000

T-BERD/MTS 6000A

ACTIVATE THE BBS SOURCE ON THE T-BERD/MTS 6000A UNIT

1 Press the ⬭SYSTEM (6000AV1) or the ⬭HOME (6000AV2) hard key to go to the home page and activate the BBS function 🔆 BBS

2 Press the (RESULTS) hard key

3 Touch the soft key Source On/Source Off to turn the source on

☐ Source Off
☑ Source On

4 Touch the softkey to position the test mode as AP

○ CD
○ PMD
● AP

1 Press the SETUP hard key.

2 Touch the ®⌇⌇ AP tab.

3 Select Take Reference   Yes **No** Yes .

4 Enter the BBS serial number under BBS Serial Number 14 **14** .

BBS serial number is displayed on the T-BERD / MTS6000A Results page

Source on Module
CW   **1460-1640** nm
BBS Serial Number : 14

5 Press the START STOP key.

6 Confirm by pressing YES when the message ⚠ Take New Reference Confirm ? pops up.

A message Valid Reference is displayed in green. If not, verify proper connector cleanliness and interconnections then restart referencing process

SAVING A REFERENCE FILE ON THE T-BERD 8000

You can save the reference file in order to recall it later in the field when using different T-BERD/MTS 6000 units with one T-BERD/MTS 8000.

1 Once the reference measurement is done, press Fast Report key.

2 Select Save Mode   File Only **File Only** .

3 Enter the source serial number under Fiber Number 14 **14** .

4 Press the key Save All .

5 Give it a name T-BER 6000A AP REF SN xxx xxx being the BBS serial number, so that you know it contains the reference for T-Berd 6000A SN xxx.

This file (ex: "T-BERD6000A AP REF SN xxx.ats") is saved into your T-BERD 8000 unit.

Repeat the referencing and saving steps for as many T-BERD 6000A and T-BERD 8000 units

It's recommended to save the reference files into a dedicated directory for easy location. (ex: "Ref" directory)

LOADING A REFERENCE FILE INTO A T-BERD 8000

1 Press the FILE hard key

2 Select the directory where the reference files are located. For example:

3 Highlight the file that has the requested T-BERD/MTS 6000A reference

4 Press the Load soft key

⊟ 💾 disk
 ⊞ 📁 Apps
 ⊞ 📁 bert
 ⊞ 📁 config
 ⊞ 📁 demo
 ⊞ 📁 software
 ⊞ 📁 StrataSync
 ⊞ 📁 User-Manuals
   📁 CD ref
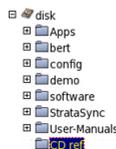
5 Press **Load Trace + Config.** . Loading the trace + configuration will take you to the "results" page

6 Press the **SETUP** hard key.

You now see 2 reference boxes One says **Reference** *and that shows the current reference loaded into the test unit. The lower box says* **Trace reference** *and that shows the reference information for the trace that is currently loaded (your new reference). It also shows the filename so you can see if it is "T-BERD6000A AP REF SN xxx.ats", for example.*

7 Under the **Reference** list, select **Take Reference   No   No   Yes**

8 Press the soft key **Load Ref. From Trace**

The message ⚠️ **Ref. Copying from Curve to Internal Confirm ?** appears.

9 Select **Yes**

The date and s/n of the reference appear into the **Reference** *list. You know the new reference is loaded*
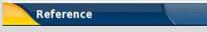
10 Follow the above steps to change the reference again.

HIGH LEVEL DIRECTORY CREATION - IN THE OFFICE

CREATING THE HIGH LEVEL STORAGE DIRECTORY -– T-BERD/MTS 8000 & T-BERD/MTS 6000A

1 Press the **FILE** hard key.

2 Highlight desired main disk drive (prefer **Harddisk** drive) by touching with your finger or stylus. Press the soft key **Create Directory** to create a master directory.

A virtual keyboard will appear to allow you to input a new folder name. Alternatively, you can connect a USB keyboard to input the name

3 Once the folder name is input, press to validate and create.

4 Press **HOME** or **SYSTEM** keys to go back to Home page

For each test, the unit will create a sub-directory containing all test results. All sub-directories will be saved into this master directory, unless a new one is created or the selection of the high level directory changes.

AUTOMATED LINK CHARACTERIZATION − TEST PROCESS IN THE FIELD

The following procedure describes the AUTOMATED METHOD to configure and perform Fiber Characterization using a mated pair of a T-BERD 8000 and T-BERD 6000A platforms. Please read the entire procedure BEFORE starting.

Due to excess loss, interconnection issues (connector cleanliness, incorrect mating…) or no spare fiber available, you may not be able to use the datalink. You can run a complete Fiber Characterization test sequence without the datalink connection.

CONNECTING THE OPTICAL TALKSET AND DATALINK

1 Connect a fiber jumper from TS (DATALINK) port to the fiber panel port of a 2nd fiber (FUT-2) at each site (T-BERD/MTS 8000 and T-BERD/MTS 6000A). Don't forget to inspect and clean!

T-BERD/MTS 8000   *T-BERD/MTS 6000A*
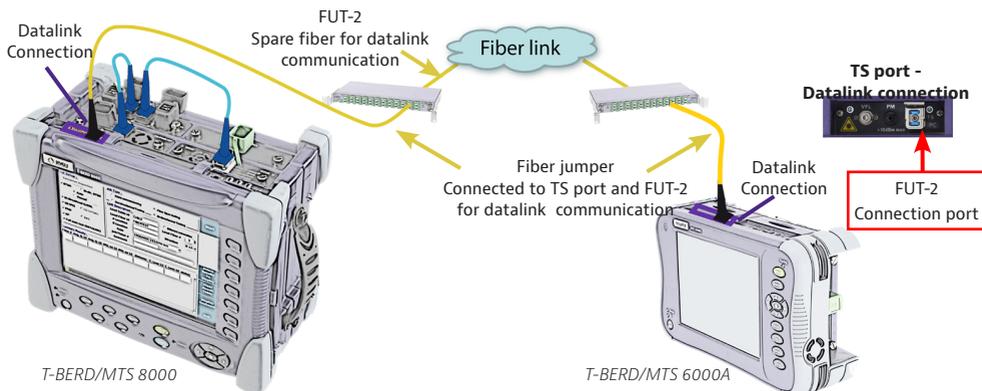
2 Press the HOME hard key on both units

3 On the T-BERD/MTS 8000, tap [DATALINK] icon twice.

After a few seconds, a short beep will be heard on both the TB8000 and TB6000A if the DATALINK comes u

SETTING FCOMP AND OEO (IL/ORL/OTDR) PASS/FAIL CRITERIA ON THE T-BERD/MTS 8000 UNIT

You don't need to go through this step if the pass/fail criteria had previously been set up.

1 Press the SETUP Hard key on both units

2 Go to the FiberComplete tab FCOMP on both units.

3 Press the soft key Alarms

4 Configure the FCOMP Thresholds parameters as "Default" or enter your own criteria.

5 Go to the SM-OTDR tab SM-OTDR . on both units.

6 Press the soft key Alarms .

7 Select Alarm level to "Fail" Alarm Level — Fail | None | Fail | Warning .

8 Set the thresholds to Threshold — JDSU Default | JDSU Default or define your own criteria.

2	Display	
Table View		Fiber
Thresholds		JDSU Default
Loss		►
ORL		►

1 Inspect and clean connectors of the fiber jumpers, the fiber panel port of FUT-1, the COM port of the T-BERD/MTS 8000 and the OTDR port of the T-BERD/MTS 6000A using the P5000i inspection scope.

2 Connect the fiber jumper to the fiber panel port of the fiber under test FUT-1 and to the test set: one connected to the T-BERD/MTS 8000 COM port of the MTAU module and one connected the T-BERD/MTS 6000A OTDR module.

Datalink Connection

Fiber link

FUT-1
Fiber under test

Fiber jumper
Connected to OTDR port

Fiber jumper
Connected to
COM port

T-BERD/MTS 8000

B A COM

T-BERD/MTS 6000A
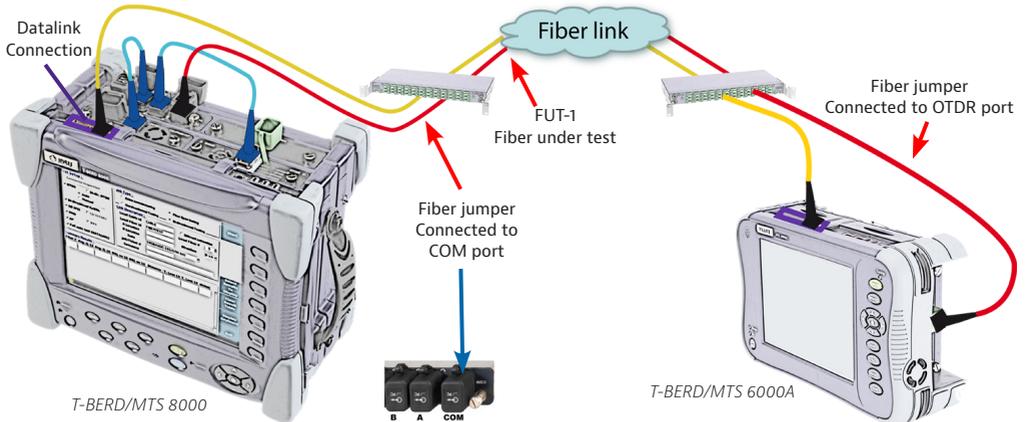
LAUNCHING THE LINK CHARACTERIZATION SCRIPT ON BOTH UNITS

1 Press the **SCRIPT** hard key on the 8000 and 6000A units or the **Script** soft key from the 6000AV2 Home page

2 Select the function **2 Scripts / 1: Link_Characterization** by touching with your finger or stylus.

3 Press the soft key **Launch** to enter the script configuration menu.

If both test sets have the latest version loaded, touch the [FC SCRIPT] from the home page to be directed to the script main page immediately

CONFIGURING THE TEST SEQUENCE

1 Checkmark the desired test functions to include in the characterization sequence

2 Make sure "Full auto test" is checked.

On the T-BERD/MTS 8000E

Test Setup :
- ☐ Connector Inspection
- ☐ OTDR Unidir.
- ☐ OTDR Bidir.   ◉ Auto
- ☑ OEO   ○ Manual
- ☑ Bi-directionnal IL/ORL
- ☑ CD
- ☑ PMD   ☐ BBS
- ☑ AP
- ☑ Full auto test (DATALINK)

On the T-BERD/MTS 6000A

Test Setup :
- ☐ Connector Inspection
- ☑ BBS
- ☑ Full auto test (DATALINK)

1 Check "Fiber Span testing" as Job Type

Job Type :
○ Cable commissioning　　　◉ Fiber Span testing

2 Enter Link information on both units – Make sure they are both identical for test documentation consistency.

Enter Cable/Link Id

Select bit/rate in drop down list

Enter fiber number

Enter Fiber identification

Enter both end locations

Add job/work# info. and comments if required

Link Description :

Local Cable Id	CABLE		☐ Different extremities
Local Fiber Id	X23		Local Fiber #	3
A Location	LA		
B Location	LB		Direction	A->B
Rate	10GEth	
Job/Ticket #	TH78	
Comment	FC TEST #2	

All test files will be saved into the directory automatically created as per [Local Fiber Id] [Local Fiber #].

CONFIGURING THE "RESULTS" SUMMARY TABLE

This summary table, located at the bottom of the script main page, enables to review selected values at the end of the script test sequence. A Pass/Fail status is associated to the table.

Summary Results :

Fiber #	Distance	Avg. IL 15	ORL oe 15	PMD	AP 1550	CD 1550	CDC 1550	status

You don't need to go through this step if the table has previously been configured.

1 Press the [Select Results To Display] to access the selection list.

2 Highlight one parameter in the column **Available results** .

3 Press the soft key [Add Result] in order to select the parameter and see it in the column **Results to display** .

4 Repeat steps 1 to 3 until you have selected all the parameters. Maximum 7.

5 Press the soft key [Validate] in order to acknowledge the selection.

STARTING A TEST SEQUENCE

A green [Fiber Continuity] is displayed on top of the script main page in order to confirm both test sets are connected to the same fiber under test. If the fiber continuity is red, please check connectors and/or fiber position.

1 Press the [Start] soft key or the [START STOP] button on both units

A datalink connection quality is then performed [Datalink test in progress / Ok]. It will take few seconds
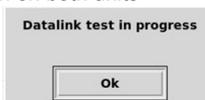
If the connection fails, check connectors' cleanliness first, or change the datalink distance reach as documented in the message.

A message **Waiting for datalink initialisation.** is displayed while both units are communicating to each others in order to synchronize the test sequence

On the T-BERD/MTS 8000

A message appears during each test transition. No intervention required unless one test cannot be completed.

On the T-BERD/MTS 6000A

The following message appears while the 8000 test is in progress

Please wait, far end unit testing.

Measurement in progress...

Stop

. **DO NOT** press **Stop** unless the 8000 user notifies it.

TEST NEXT FIBER

Once test completes, a message will appear :

Measurements completed? Test next fiber?

Yes   **No**   **Retest Same Fiber**

1 Verify results in RESULTS SUMMARY table

2 If results are satisfactory Swap FUT-1 and FUT-2 at fiber panel (at each site) and press **Yes** on both TB8000 and TB6000A. Fiber number will automatically increment and a new results folder will be created

Before testing next fiber, make sure the fiber description (fiber number, location…) has been correctly setup in the Link Characterization Script setup page.

3 Notify the far end user to do the same

4 If results are un-satisfactory, perform steps to remedy problem(s) and press **Retest Same Fiber**

5 Notify the far end user to do the same

6 If no further testing is required at site, press **No** and EXIT script.

7 Move To Next Site For Testing

For efficient testing of multiple sites, use a 'leap frog' method so that only 1 tester is moving at a time. In addition, you can also use two TB6000A units with one TB8000 allowing both sides of a ring to be tested in a shorter period of time. Please refer to the referencing process in order to load corresponding CD and AP references.

VIAVI