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GUPM100

USB Optical Power Meter

Function and Specifications

52082469

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I. Introduction

The GUPM 100 USB Optical Power Meter allows test technicians to measure absolute power and dB insertion loss on fiber optic cables when used in conjunction with an approved laser or LED light source. The GUPM 100 Optical Power Meter is lightweight and simple to connect to Windows and Android devices to save live readings and attach them to fiber endface images, if necessary.

It is important to note that dB loss and absolute power readings can be affected by dirt or defects on fiber endfaces. It is imperative that test technicians have a full understanding of inspection and cleaning procedures when testing fiber optic networks.

BEFORE CLEANING   AFTER CLEANING
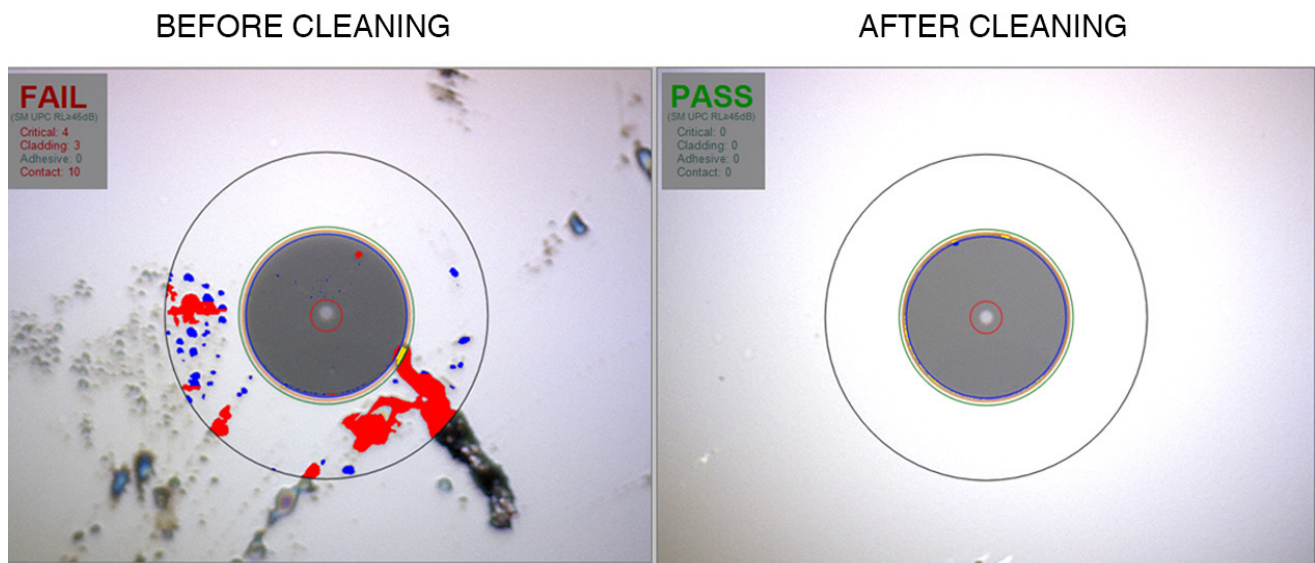
Auto-anlayzed images from GVIS400 using GVIS software

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II. Device Overview

	GUPM 100-02	GUPM 100-04
Wavelength range	850nm to 1625nm	850nm to 1625nm
Measurement range	+6 to - 70dBm	+23 to -45 dBm
Resolution	0.01dB	0.01dB
Absolute Accuracy*	+/-0.25dB	+/-0.25dB
Detector type	InGaas	Filtered InGaas
Optical interface	Universal 2.5mm (Order 1.25mm or screw-on adapters separately)	Universal 2.5mm (Order 1.25mm or screw-on adapters separately)
Tone Identification	2kHz incoming signal, audible alert	2kHz incoming signal, audible alert
Storage	External storage on PC	External storage on PC
Data Transfer	USB 2.0	USB 2.0
Dimensions	3.75"L x .75"W x .75"H	3.75"L x .75"W x .75"H
Weight	.05 lb	.05 lb

*Accuracy measured at -10dBm and 25-degrees Celsius, all other specifications are at 25-degrees Celsius

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III. Data Manager for Windows

The Data Manager software for devices running Windows Vista, 7, and 8 will allow the user to fully control the measurement settings of the GUPM 100.
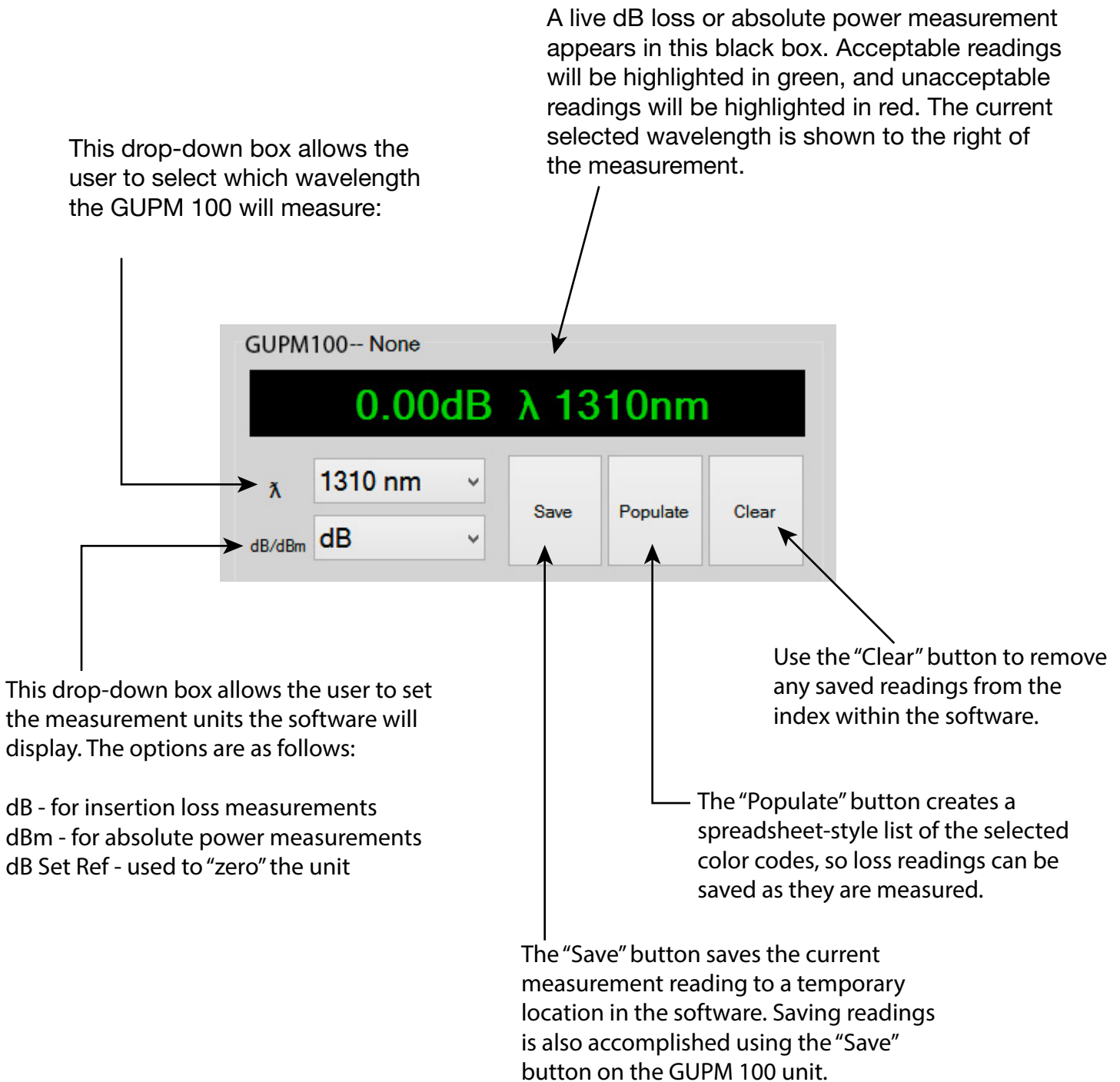

When the Data Manager software is open and the GUPM 100 is successfully connected to the computer, a message reading "GUPM - 100 connection successful" (outlined in red above) will appear in the bottom left corner of the window.

Users will fill out all of the Test Settings (outlined in blue above) before exporting their readings. All of this information will be included in the closeout report.

Before beginning dB loss tests, the appropriate dB loss budget and color codes should be set in the software. Click Settings>Report Settings to access the window shown below. Click "Enable" next to the wavelength to be tested, use the Minimum and Maximum fields to set your loss budget, and select a cable color configuration (if applicable). Click "OK" to return to the main screen.
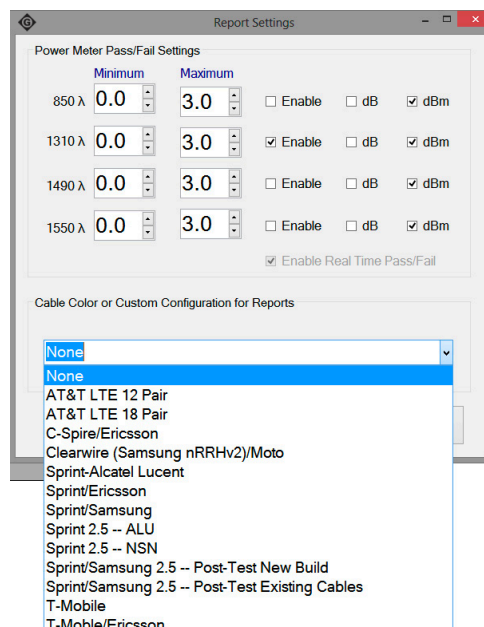
Most of the functions of the GUPM 100 will be controlled from within the Data Manager software. Look to the left side of the window to view the power meter user interface.

A live dB loss or absolute power measurement appears in this black box. Acceptable readings will be highlighted in green, and unacceptable readings will be highlighted in red. The current selected wavelength is shown to the right of the measurement.

This drop-down box allows the user to select which wavelength the GUPM 100 will measure:

GUPM100-- None

0.00dB λ 1310nm

λ 1310 nm

dB/dBm dB

Save   Populate   Clear

This drop-down box allows the user to set the measurement units the software will display. The options are as follows:

dB - for insertion loss measurements
dBm - for absolute power measurements
dB Set Ref - used to "zero" the unit

Use the "Clear" button to remove any saved readings from the index within the software.

The "Populate" button creates a spreadsheet-style list of the selected color codes, so loss readings can be saved as they are measured.

The "Save" button saves the current measurement reading to a temporary location in the software. Saving readings is also accomplished using the "Save" button on the GUPM 100 unit.

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Clicking File>Export to Excel creates a full report with all test settings, report settings, and dB loss measurements included. See next page.

Depending on the values entered in the Report Settings window, the Pass/Fail column will indicate whether the saved reading is good or bad.

Clicking "Save" enters the current measured value into the list. The blue highlighted row indicates where the next reading will be saved.

The "Populate" button enters the selected color codes into the spreadsheet.

If a failing or incorrect reading is saved by mistake, users can click the incorrect row and save another reading over it.

File   Settings   About

GUPM-100 --- Sprint 2.5 -- ALU

4.47dB λ 1310nm

λ [1310 nm ▾]

dB/dBm [dB ▾]

[Save] [Populate] [Clear]

Cable	Date	Measurement	Pass/Fail
S1/Orange	7/1/2014 4:02 PM	4.47dB λ 1310nm	Pass
S1/Yellow			
S1/Purple			
S1/Red			
S1/Blue			
S1/Green			
S2/Orange			
S2/Yellow			
S2/Purple			
S2/Red			
S2/Blue			
S2/Green			
S3/Orange			
S3/Yellow			
S3/Purple			
S3/Red			
S3/Blue			
S3/Green			

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REPORT

Customer Name	Contact Name	Testing Company	Tester's Name

Test Location		Date/Time	
		7/2/2014 8:37 AM	

Cable ID		Fibers From	
	Cable Length		Fibers To

Comments		Pass/Fail	
		1550 Min/Max: 0dBm /4dBm Enabled	

Test Equipment Model	Test Equipment ID
GUPM 100-02	

GUPM Test Data

Loc #	Comment	Pass/Fail	850nm	Unit	1310nm	Unit	1490nm	Unit	1550nm	Unit
1	Alpha-Black-Sp	Pass							0.62	dB
2	Alpha-Red-Sp	Pass							0.45	dB
3	Alpha-Blue	Pass							0.13	dB
4	Alpha-Orange	Pass							0.52	dB
5	Alpha-Green	Pass							0.98	dB
6	Alpha-Brown	Pass							1.49	dB
7	Alpha-Slate	Pass							0.60	dB
8	Alpha-White	Pass							0.43	dB
9	Beta-BrownSlate-Sp	Pass							0.52	dB
10	Beta-GreenBrown-Sp	Pass							0.55	dB
11	Beta-Yellow	Pass							0.23	dB
12	Beta-Violet	Pass							0.58	dB
13	Beta-Rose	Pass							0.44	dB
14	Beta-Aqua	Pass							0.18	dB
15	Beta-BlueOrange	Pass							0.19	dB
16	Beta-OrangeGreen	Pass							0.44	dB
17	Gamma-AquaBlue-Sp	Pass							0.94	dB
18	Gamma-RoseAqua-Sp	Pass							1.35	dB
19	Gamma-SlateWhite	Pass							1.50	dB
20	Gamma-WhiteRed	Pass							0.99	dB
21	Gamma-RedBlack	Pass							0.30	dB

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IV. GVIS for Windows

The GVIS software for devices running Windows Vista and 7 will allow the user to fully control the measurement settings of the GUPM 100 and save dB loss or absolute power measurements directly to their fiber endface images.
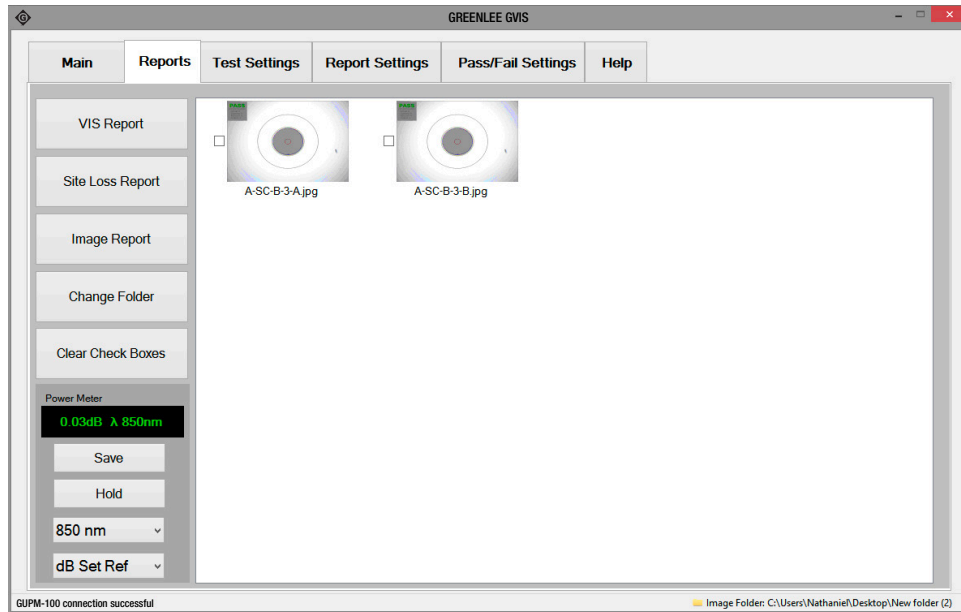
When the GVIS software is open and the GUPM 100 is successfully connected to the computer, a message reading "GUPM - 100 connection successful" (outlined in red above) will appear in the bottom left corner of the GVIS window.

Before beginning dB loss tests, the appropriate dB loss budget should be set in the software. Navigate to the "Pass/Fail Settings" tab to access the window shown below. Click "Enable" next to the wavelength to be tested, then use the Minimum and Maximum fields to set your loss budget. Return to the "Reports" tab to begin testing.

Most of the functions of the GUPM 100 will be controlled from within the GVIS software. Look to the bottom left side of the window to view the power meter user interface.

A live dB loss or absolute power measurement appears in this black box. Acceptable readings will be highlighted in green, and unacceptable readings will be highlighted in red. The current selected wavelength is shown to the right of the measurement.

This drop-down box allows the user to select which wavelength the GUPM 100 will measure:

Power Meter

1.07dB λ 1550nm

Save

Hold

1550 nm

dB Set Ref

Clicking the "Save" button will save the current measurement to the fiber endface image(s) selected in the "Reports" tab of GVIS.

This drop-down box allows the user to set the measurement units the software will display. The options are as follows:

dB - for insertion loss measurements dBm - for absolute power measurements dB Set Ref - used to "zero" the unit

The "Hold" button will freeze the current measurement on screen. When clicked, the text on this button will change to "Read." When "Read" is clicked, the measurement will return to a live reading.

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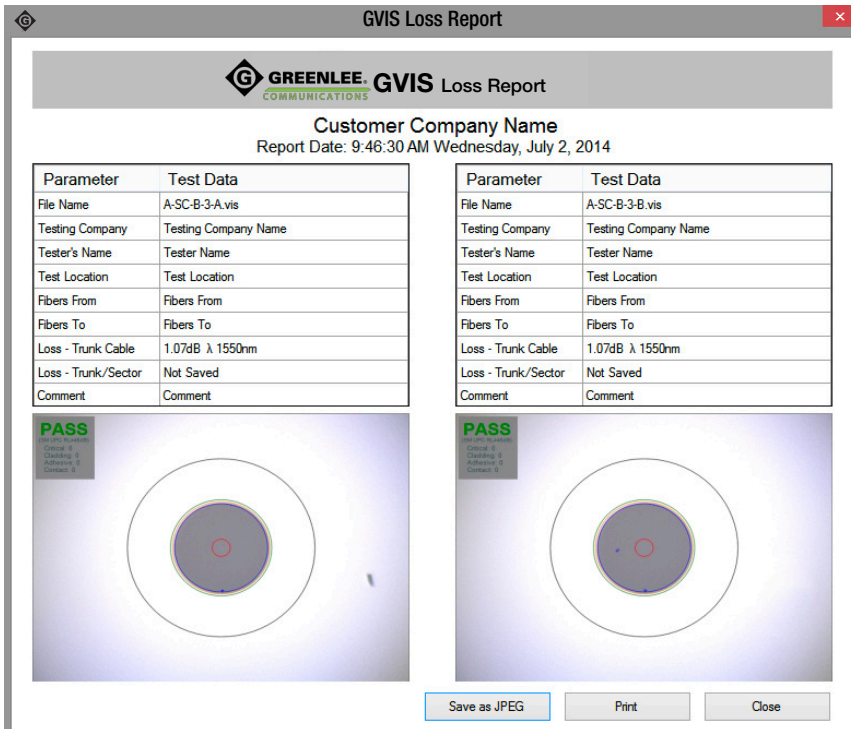**COMMUNICATIONS**
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The "GVIS Report" button allows the user to view a full report of the selected image(s).

To save measurements to endface images, select one or two images using the check boxes or by holding the Ctrl key on the keyboard while selecting the images.
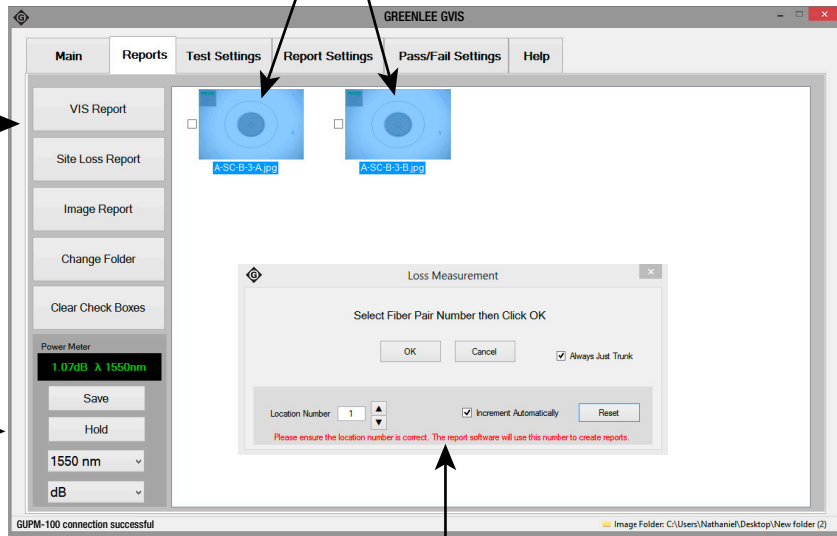
Use the "Save" and "Hold/Read" buttons to obtain and save a passing measurement.

The Loss Measurement box pops up when the "Save" button is pressed. Use this box to choose the location to which the loss reading will be saved. When "Always Just Trunk" is selected, the measurement will be saved as a trunk reading only.

GVIS Loss Report

Customer Company Name
Report Date: 9:46:30 AM Wednesday, July 2, 2014

Parameter	Test Data
File Name	A-SC-B-3-A.vis
Testing Company	Testing Company Name
Tester's Name	Tester Name
Test Location	Test Location
Fibers From	Fibers From
Fibers To	Fibers To
Loss - Trunk Cable	1.07dB λ 1550nm
Loss - Trunk/Sector	Not Saved
Comment	Comment

Parameter	Test Data
File Name	A-SC-B-3-B.vis
Testing Company	Testing Company Name
Tester's Name	Tester Name
Test Location	Test Location
Fibers From	Fibers From
Fibers To	Fibers To
Loss - Trunk Cable	1.07dB λ 1550nm
Loss - Trunk/Sector	Not Saved
Comment	Comment

PASS

PASS

Save as JPEG   Print   Close

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IV. Technical Support

If you need technical assistance or have specific questions about any procedures or guidelines in this guide, please contact our technical support team

Customer Service & Tech Support

Email: cscommunications@greenlee.textron.com
Phone: 1 800-642-2155 Option 1, then Option 1 for Customer Service
Fax: 1 760-598-5634

Technical Support

Email: communicationstechsupport@greenlee.textron.com
Phone: 1 800-642-2155 Option 1, then Option 2 for Technical Support

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