

Certificate of Calibration

Fluke Nederland B.V.

Certificate Number:	SA01197789	Date of Calibration:	18 Aug 2023
Receive Condition:	IN TOLERANCE	Date of Recalibration:	18 Aug 2024
Return Condition:	IN TOLERANCE	Place of Calibration:	Eindhoven
Manufacturer:	FLUKE NETWORKS	Temperature within:	(23.0 ± 3) °C
Model:	DSX-600	Humidity within:	(45 ± 20) %rh
Serial Number:	18050177-18090063		
Description:	500 MHZ CABLEANALYZER MAINUNIT AND REMOTE		
Procedure:	Manual Procedure		

Customer: OMIKRON INFORMATIKA KFT.
BUDAPEST

Customer Asset ID: -

RMA Number: 606310432

All measurements are traceable to national and/or international standards or have been derived by approved ratio techniques. When possible standards used for this calibration are ISO/IEC 17025 accredited calibrated.

This calibration is performed by a DEKRA certified lab for ISO 9001. This certificate may not be reproduced other than in full. Calibration certificates without signatures, either electronic or handwritten, are not valid.



Issue Date: 18 Aug 2023

Electronically signed

Authorized By

W.H.J. van Hulten

Certificate of Calibration

Certificate Number: SA01197789

Remarks

- The calibration status found in this certificate on the top of each results page must be interpreted as:
 - As Found : Data collected before the unit was adjusted and / or repaired
 - As Left : Data collected after the unit has been adjusted and / or repaired
 - Found / Left : Data collected without any adjustment and / or repair performed
- The calibration interval (due date) is the responsibility of the end user.
- According to the European norm 'Operation of electrical installations' NEN-EN 50110-1 release 2013 and the Dutch norm NEN 3140 release 2015 paragraph 5.102.12 through 5.102.16, a safety test is not required. Therefore not performed.
- Temperature conversions (if applicable) are performed according to ISO/IEC 60584:2013 for thermocouples, and ISO/IEC 60751:2022 for resistance temperature devices.

Standards and test-equipment used

Inventory No	Model	Serial No
WP2389	DSX-CALVERST	E000060

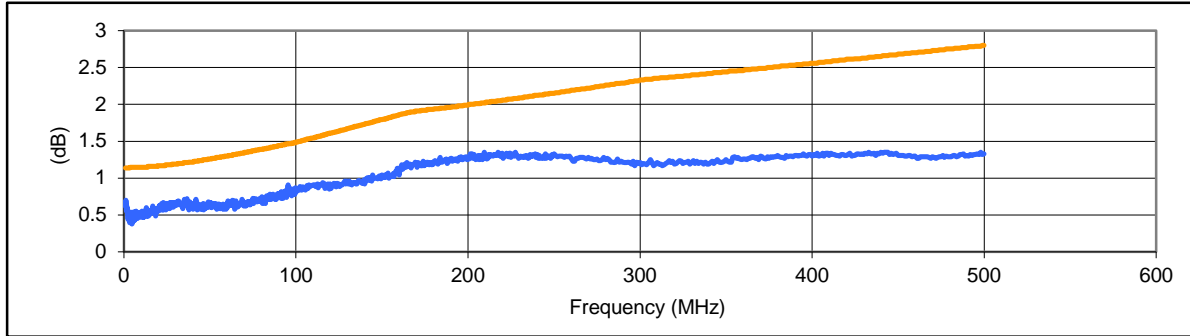
Found-Left Report

Model **DSX-600 Copper Tester**
 Serial Number **18050177**

From MAIN
 Test date 18-Aug-23
 Page 1 of 6

NEXT

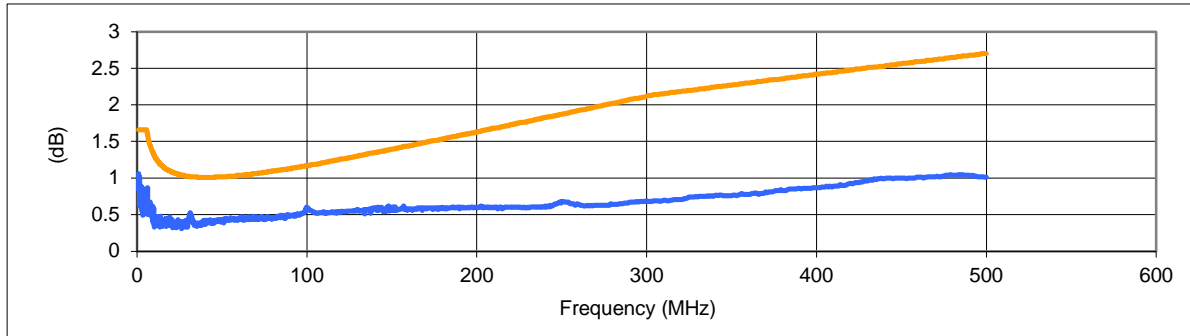
NEXT Artifact SN 2820039



Pass Worst margin: 0.440 at 1.25 MHz in pair 12-36. Worst accuracy at each frequency shown.

CDNEXT

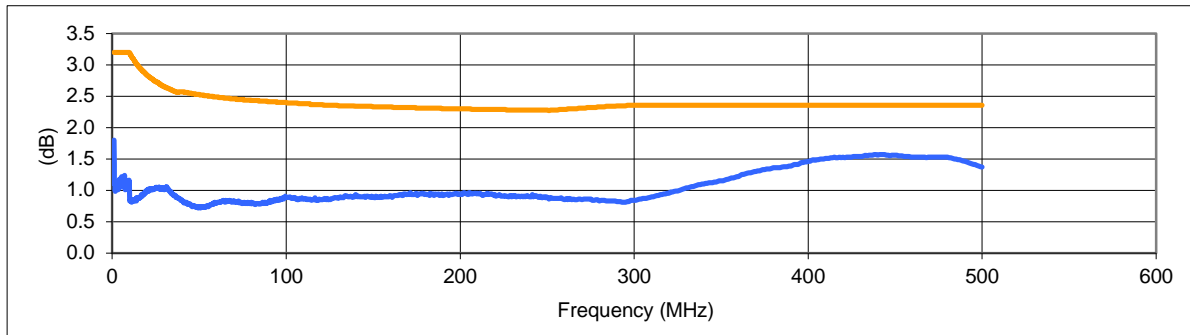
CDNEXT Artifact SN 2856301



Pass Worst margin: 0.490 at 31.13 MHz in pair 36-12. Worst accuracy at each frequency shown.

CMRL

CMDMRL Artifact SN 2843453



Pass Worst margin: 0.790 at 438 MHz in pair 45. Worst accuracy at each frequency shown.

- Measured difference of DSX and reference laboratory equipment added to measurement accuracy of reference laboratory equipment. Worst accuracy at each frequency shown.
- Corresponding measurement accuracy requirement for nominally compliant Level IV or Level 2G/VI field tester.

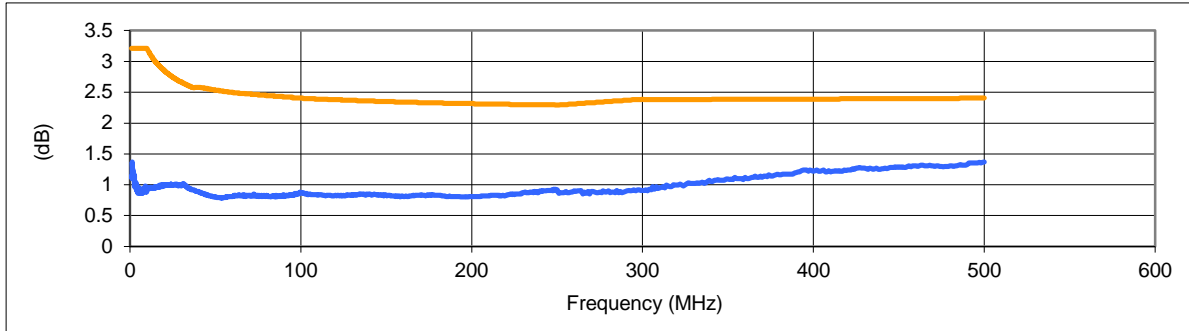
Found-Left Report

Model **DSX-600 Copper Tester**
 Serial Number **18050177**

From MAIN
 Test date 18-Aug-23
 Page 2 of 6

RL

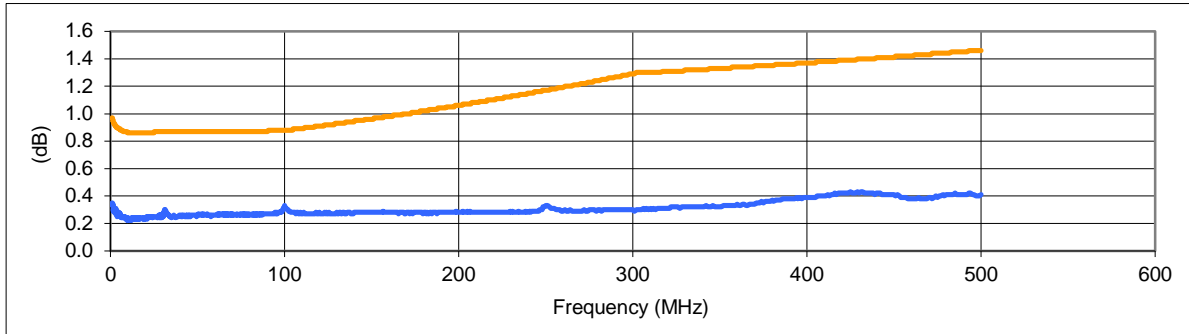
CMDMRL Artifact SN 2843453



Pass Worst margin: 1.040 at 500 MHz in pair 12. Worst accuracy at each frequency shown.

TCL

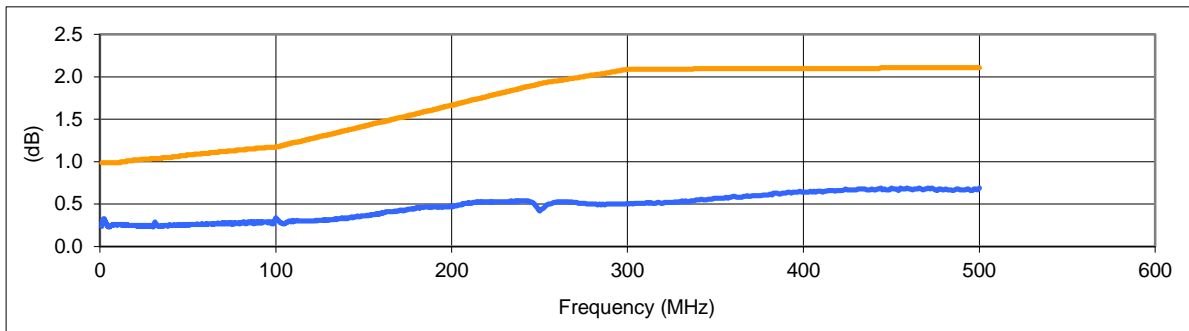
TCL Artifact SN 2843449



Pass Worst margin: 0.550 at 100 MHz in pair 45. Worst accuracy at each frequency shown.

IL

ILFEXT Artifact SN 2856318



Pass Worst margin: 0.660 at 1.88 MHz in pair 36. Worst accuracy at each frequency shown.

- Measured difference of DSX and reference laboratory equipment added to measurement accuracy of reference laboratory equipment. Worst accuracy at each frequency shown.
- Corresponding measurement accuracy requirement for nominally compliant Level IV or Level 2G/VI field tester.

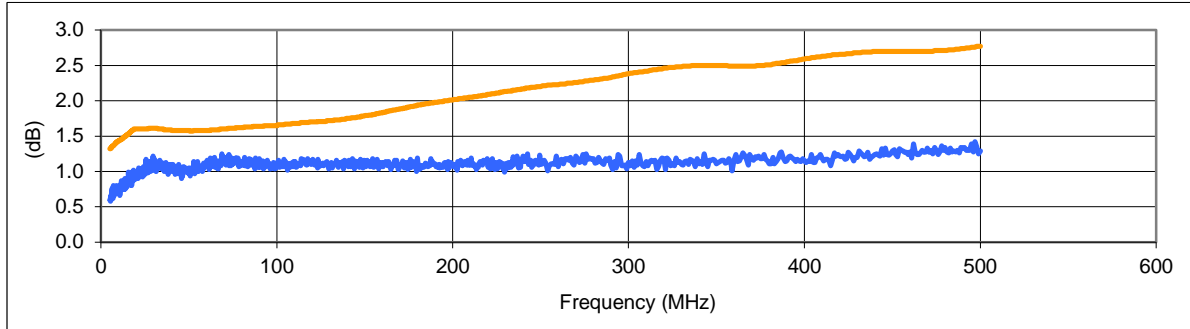
Found-Left Report

Model **DSX-600 Copper Tester**
 Serial Number **18050177**

From MAIN
 Test date 18-Aug-23
 Page 3 of 6

FEXT

ILFEXT Artifact SN 2856318



Pass Worst margin: 0.350 at 68.75 MHz in pair 36-12. Worst accuracy at each frequency shown.

- Measured difference of DSX and reference laboratory equipment added to measurement accuracy of reference laboratory equipment. Worst accuracy at each frequency shown.
- Corresponding measurement accuracy requirement for nominally compliant Level IV or Level 2G/VI field tester.

Loop Resistance

Loop Resistance Artifact SN 2860459

	Measured	Expected	Limit	
Resistance on pair 12	0.12	0.00	0.80	Pass
Resistance on pair 36	49.95	49.80	0.60	Pass
Resistance on pair 45	100.03	99.80	1.60	Pass
Resistance on pair 78	453.19	453.00	4.00	Pass

Resistance imbalance

Resistance Unbalance Artifact SN 2860571

	Measured	Expected	Limit	
Resistance on pair 12	0.15	0.00	0.80	Pass
Resistance on pair 36	25.10	24.90	0.90	Pass
Resistance on pair 45	12.32	12.13	0.90	Pass
Resistance on pair 78	24.28	24.05	0.90	Pass
Resistance imbalance on pair 12	0.01	0.00	0.05	Pass
Resistance imbalance on pair 36	0.01	0.00	0.13	Pass
Resistance imbalance on pair 45	0.27	0.32	0.06	Marginal
Resistance imbalance on pair 78	0.83	0.85	0.12	Pass

DSX-8000 only: M_IL and M_FEXT measurements validate the ability of the DSX-8000 to make measurements with DSX-5000 adapters.

M IL Not applicable

M FEXT Not applicable

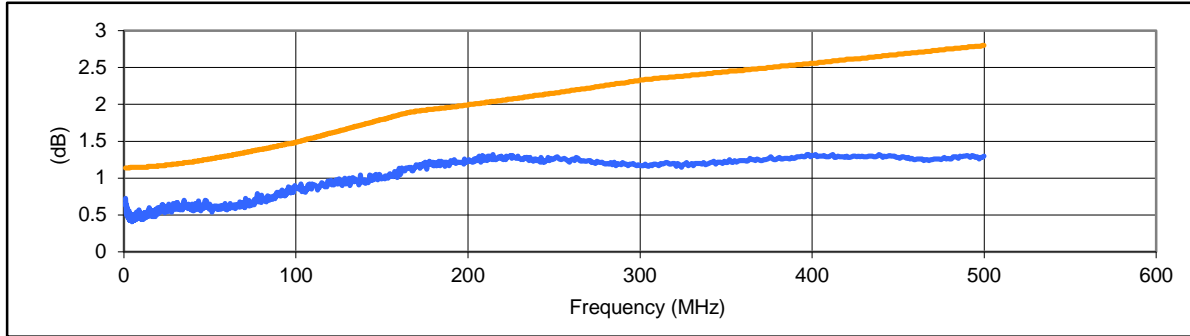
Found-Left Report

Model **DSX-600 Copper Tester**
 Serial Number **18090063**

From **REMOTE**
 Test date **18-Aug-23**
 Page 4 of 6

NEXT

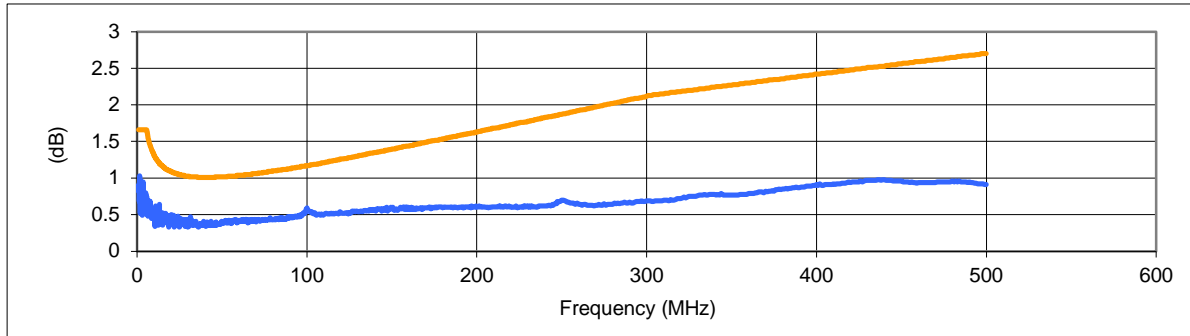
NEXT Artifact SN 2820039



Pass Worst margin: 0.410 at 1 MHz in pair 12-36. Worst accuracy at each frequency shown.

CDNEXT

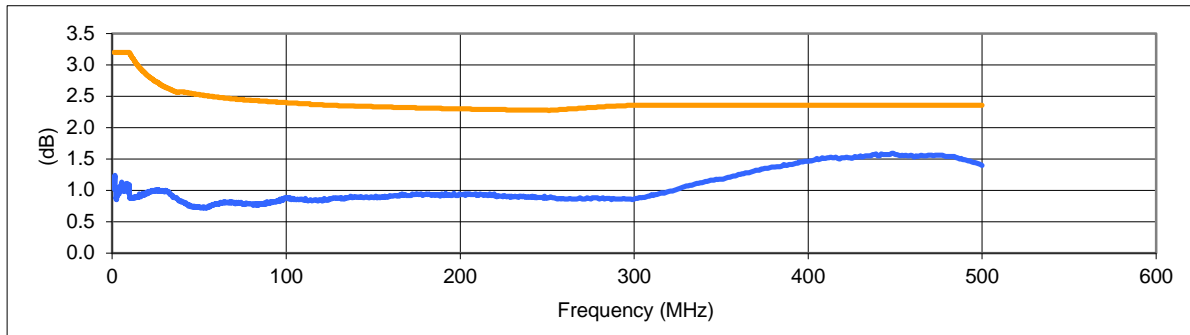
CDNEXT Artifact SN 2856301



Pass Worst margin: 0.550 at 31.5 MHz in pair 36-12. Worst accuracy at each frequency shown.

CMRL

CMDMRL Artifact SN 2843453



Pass Worst margin: 0.770 at 448 MHz in pair 45. Worst accuracy at each frequency shown.

- Measured difference of DSX and reference laboratory equipment added to measurement accuracy of reference laboratory equipment. Worst accuracy at each frequency shown.
- Corresponding measurement accuracy requirement for nominally compliant Level IV or Level 2G/VI field tester.

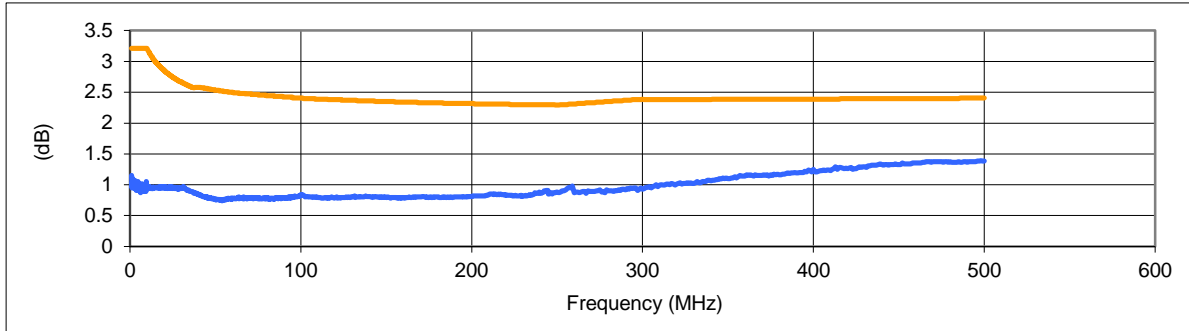
Found-Left Report

Model **DSX-600 Copper Tester**
 Serial Number **18090063**

From **REMOTE**
 Test date **18-Aug-23**
 Page 5 of 6

RL

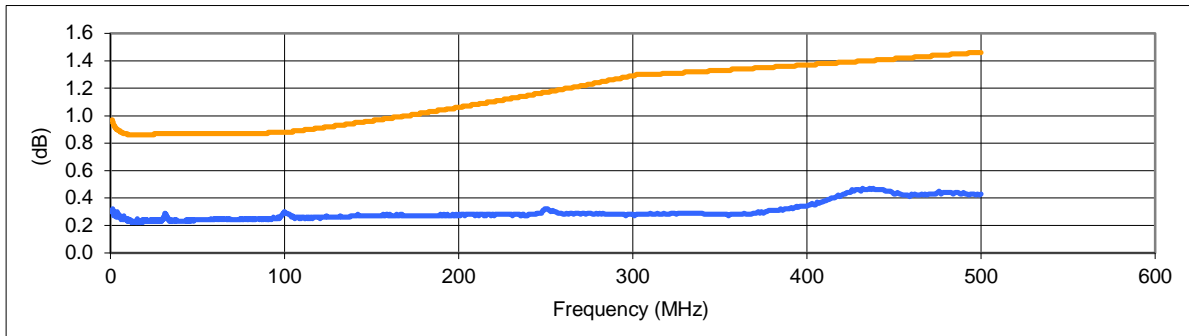
CMDMRL Artifact SN 2843453



Pass Worst margin: 1.020 at 498 MHz in pair 12. Worst accuracy at each frequency shown.

TCL

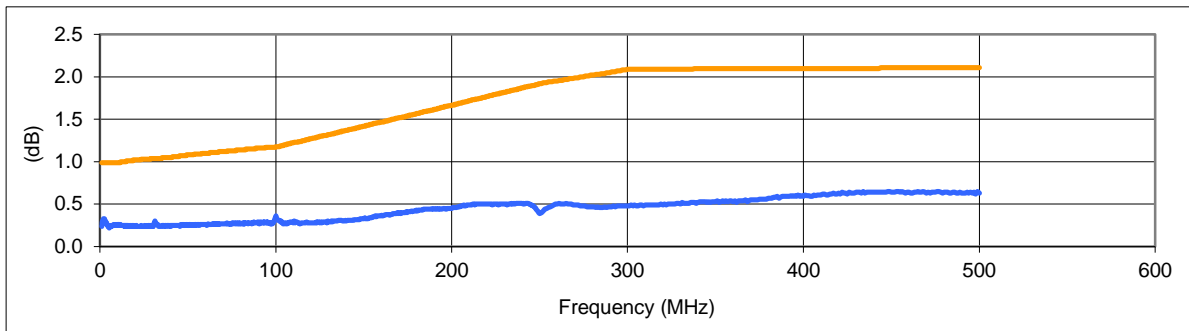
TCL Artifact SN 2843449



Pass Worst margin: 0.580 at 99.75 MHz in pair 78. Worst accuracy at each frequency shown.

IL

ILFEXT Artifact SN 2856318



Pass Worst margin: 0.660 at 1.88 MHz in pair 36. Worst accuracy at each frequency shown.

- Measured difference of DSX and reference laboratory equipment added to measurement accuracy of reference laboratory equipment. Worst accuracy at each frequency shown.
- Corresponding measurement accuracy requirement for nominally compliant Level IV or Level 2G/VI field tester.

Found-Left Report

Model **DSX-600 Copper Tester**
 Serial Number **18090063**

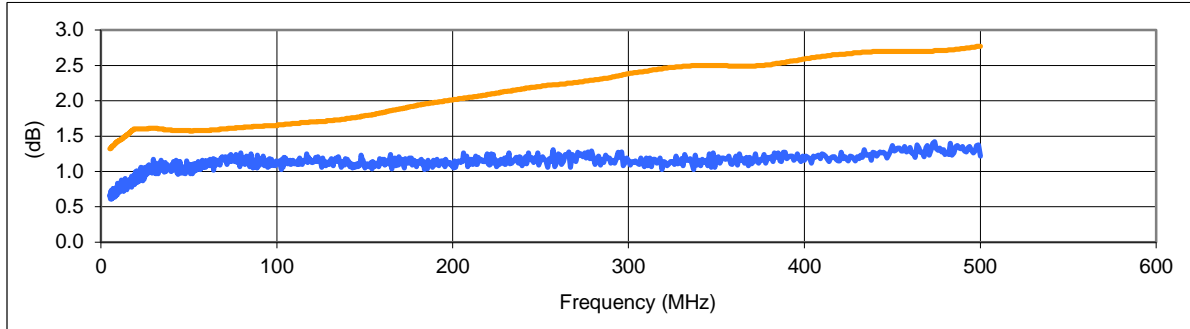
From **REMOTE**

Test date **18-Aug-23**

Page 6 of 6

FEXT

ILFEXT Artifact SN **2856318**



Pass Worst margin: 0.360 at 79.5 MHz in pair 36-12. Worst accuracy at each frequency shown.

- Measured difference of DSX and reference laboratory equipment added to measurement accuracy of reference laboratory equipment. Worst accuracy at each frequency shown.
- Corresponding measurement accuracy requirement for nominally compliant Level IV or Level 2G/VI field tester.

Loop Resistance

Loop Resistance Artifact SN **2860459**

	Measured	Expected	Limit	
Resistance on pair 12	0.19	0.00	0.80	Pass
Resistance on pair 36	49.95	49.80	0.60	Pass
Resistance on pair 45	100.14	99.80	1.60	Pass
Resistance on pair 78	453.19	453.00	4.00	Pass

Resistance imbalance

Resistance Unbalance Artifact SN **2860571**

	Measured	Expected	Limit	
Resistance on pair 12	0.12	0.00	0.80	Pass
Resistance on pair 36	25.03	24.90	0.90	Pass
Resistance on pair 45	12.25	12.13	0.90	Pass
Resistance on pair 78	24.21	24.05	0.90	Pass
Resistance imbalance on pair 12	0.01	0.00	0.05	Pass
Resistance imbalance on pair 36	0.01	0.00	0.13	Pass
Resistance imbalance on pair 45	0.31	0.32	0.06	Pass
Resistance imbalance on pair 78	0.83	0.85	0.12	Pass

DSX-8000 only: M_IL and M_FEXT measurements validate the ability of the DSX-8000 to make measurements with DSX-5000 adapters.

M IL Not applicable

M FEXT Not applicable

Test Program TFSTest v2.5.7025
 DSX Report Form v3.05 18-May-2017