

Certificate of Calibration

Fluke Nederland B.V.

Certificate Number:	SA01015911	Date of Calibration:	13 Jan 2022
Receive Condition:	IN TOLERANCE	Date of Recalibration:	13 Jan 2023
Return Condition:	IN TOLERANCE	Place of Calibration:	Eindhoven
Manufacturer:	FLUKE	Temperature within:	(23.0 ± 3) °C
Model:	DSX-602-PRO INT	Humidity within:	(45 ± 20) %rh
Serial Number:	19290260-19310015		
Description:	500 MHZ CABLEANALYZER PRO V2, WWIFI		
Procedure:	Manual Procedure		

Customer:	EQUICOM HU-1162 BUDAPEST
Customer Asset ID:	OMI07
RMA Number:	606277879

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: 13 Jan 2022

Electronically signed

Authorized By

C. Lesanu

Certificate of Calibration

Certificate Number: SA01015911

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 60751:2008 for resistance temperature devices.

Standards and test-equipment used

Inventory No	Model	Serial No
WP2292	DSX-CALVERST	E000041

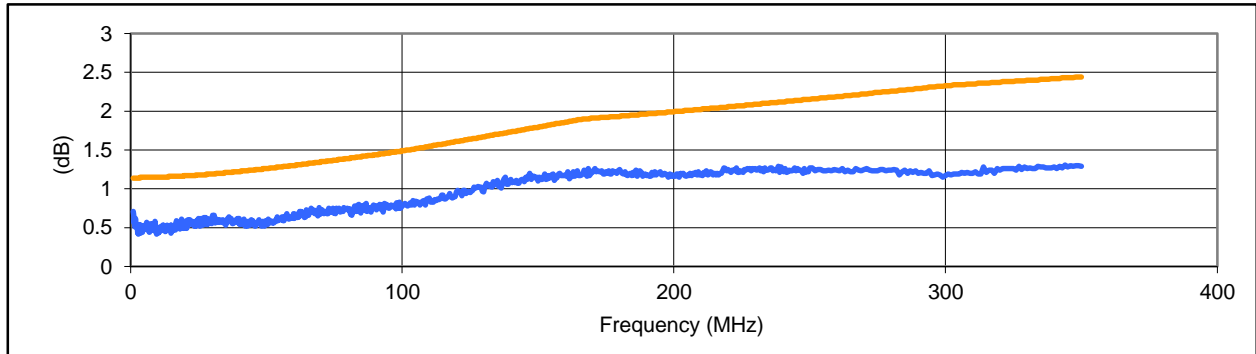
Found-Left Report

Model **DSX-600 Copper Tester**
 Serial Number **19130040**

From **MAIN**
 Test date **13-Jan-22**
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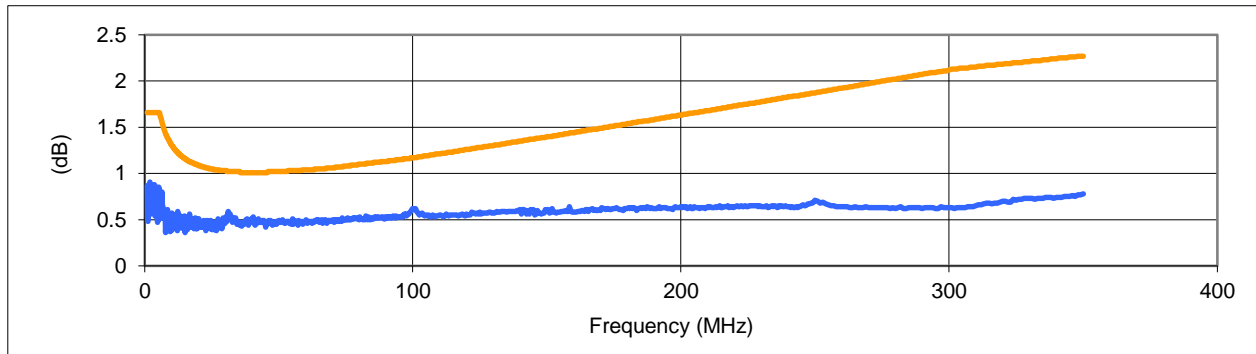
NEXT Artifact SN 2856102



Pass Worst margin: 0.430 at 1 MHz in pair 12-78. Worst accuracy at each frequency shown.

CDNEXT

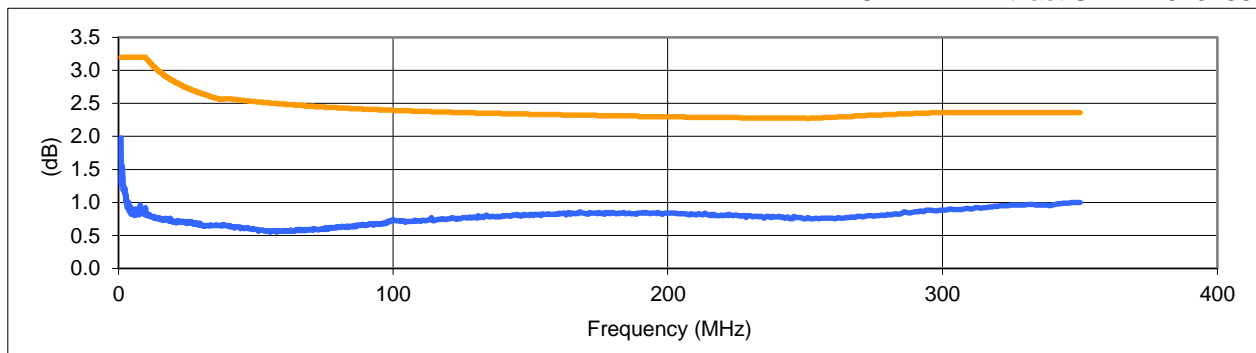
CDNEXT Artifact SN 2820037



Pass Worst margin: 0.430 at 31.25 MHz in pair 36-12. Worst accuracy at each frequency shown.

CMRL

CMDMRL Artifact SN 2843456



Pass Worst margin: 1.220 at 1 MHz in pair 45. Worst accuracy at each frequency shown.

Blue line: Measured difference of DSX and reference laboratory equipment added to measurement accuracy of reference laboratory equipment. Worst accuracy at each frequency shown.

Orange line: Corresponding measurement accuracy requirement for nominally compliant Level IV or Level 2G/VI field tester.

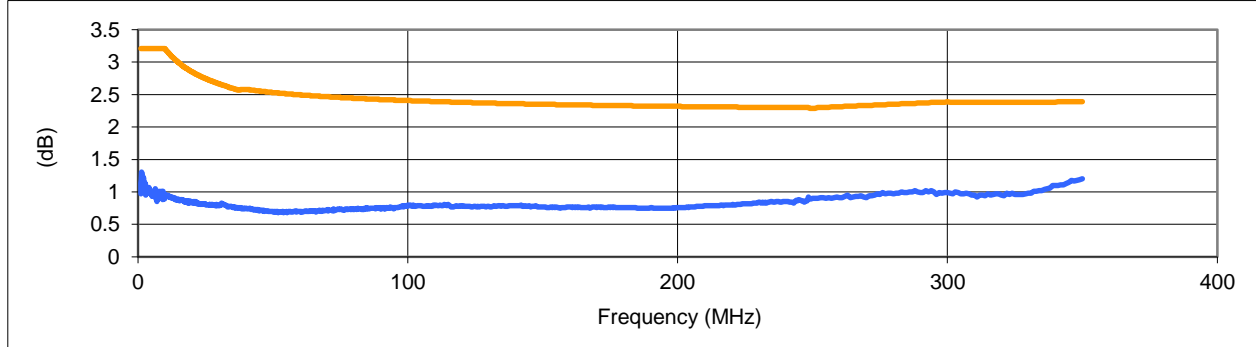
Found-Left Report

Model **DSX-600 Copper Tester**
 Serial Number **19130040**

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 Test date 13-Jan-22
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RL

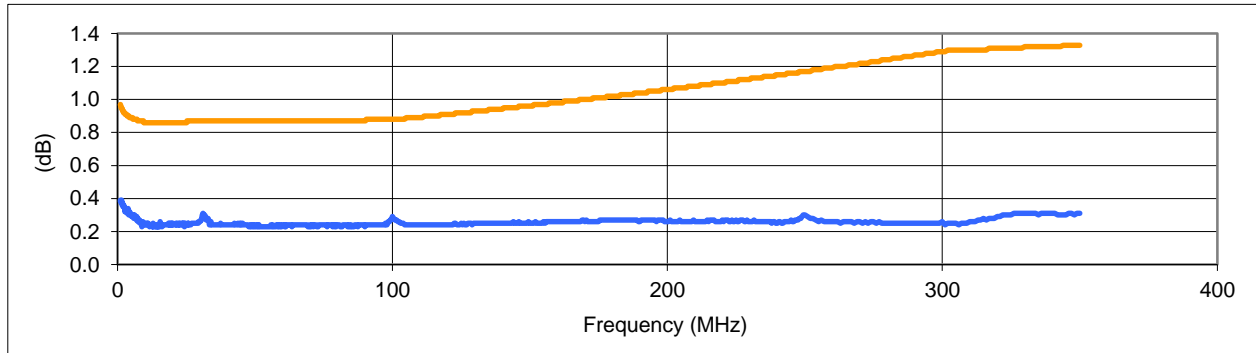
CMDMRL Artifact SN 2843456



Pass Worst margin: 1.190 at 350 MHz in pair 45. Worst accuracy at each frequency shown.

TCL

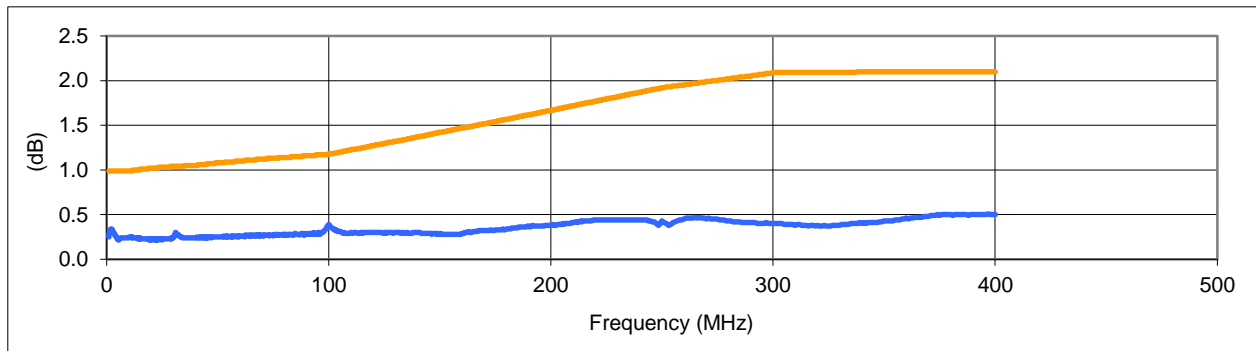
TCL Artifact SN 2843450



Pass Worst margin: 0.560 at 3.88 MHz in pair 12. Worst accuracy at each frequency shown.

IL

ILFEXT Artifact SN 2860574



Pass Worst margin: 0.650 at 2 MHz in pair 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.

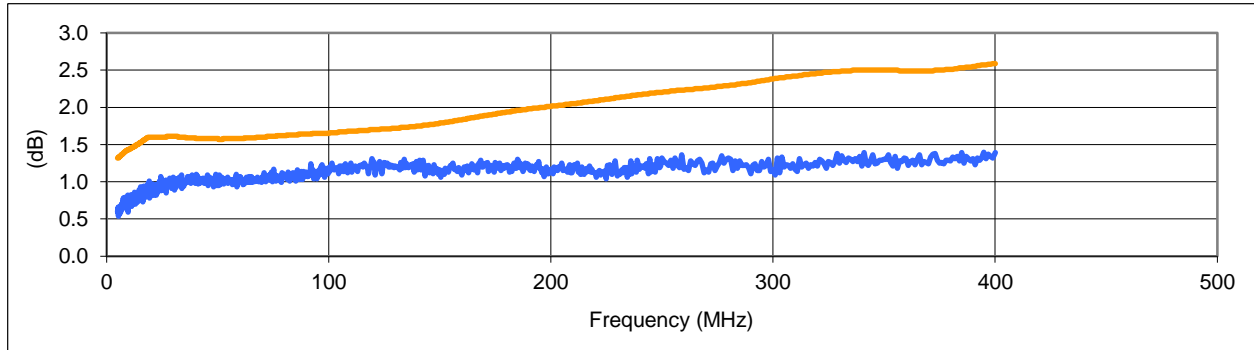
Found-Left Report

Model **DSX-600 Copper Tester**
 Serial Number **19130040**

From **MAIN**
 Test date **13-Jan-22**
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FEXT

ILFEXT Artifact SN 2860574



Pass Worst margin: 0.390 at 119.5 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 2860453

	Measured	Expected	Limit	
Resistance on pair 12	0.26	0.00	0.80	Pass
Resistance on pair 36	50.06	49.80	0.60	Pass
Resistance on pair 45	100.14	99.80	1.60	Pass
Resistance on pair 78	453.07	453.00	4.00	Pass

Resistance imbalance

Resistance Unbalance Artifact SN 2860466

	Measured	Expected	Limit	
Resistance on pair 12	0.26	0.00	0.80	Pass
Resistance on pair 36	25.09	24.90	0.90	Pass
Resistance on pair 45	12.28	12.13	0.90	Pass
Resistance on pair 78	24.22	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	0.33	0.32	0.06	Pass
Resistance imbalance on pair 78	0.84	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

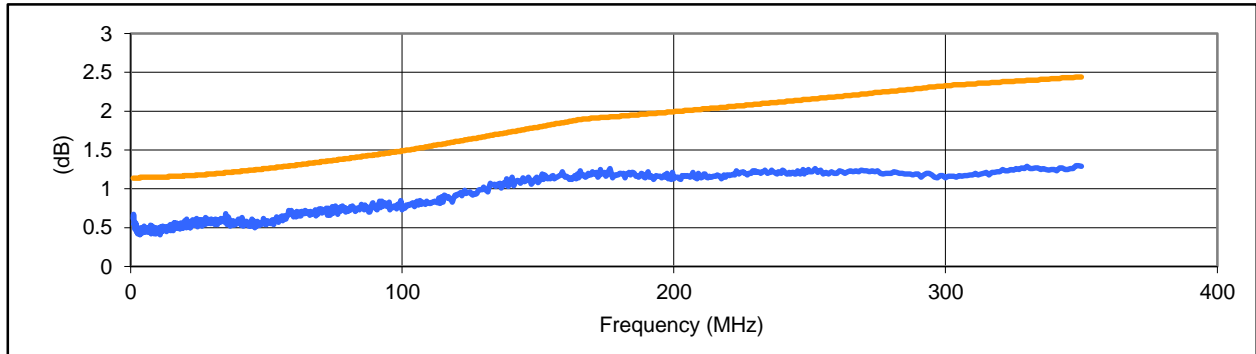
Found-Left Report

Model **DSX-600 Copper Tester**
 Serial Number **19130084**

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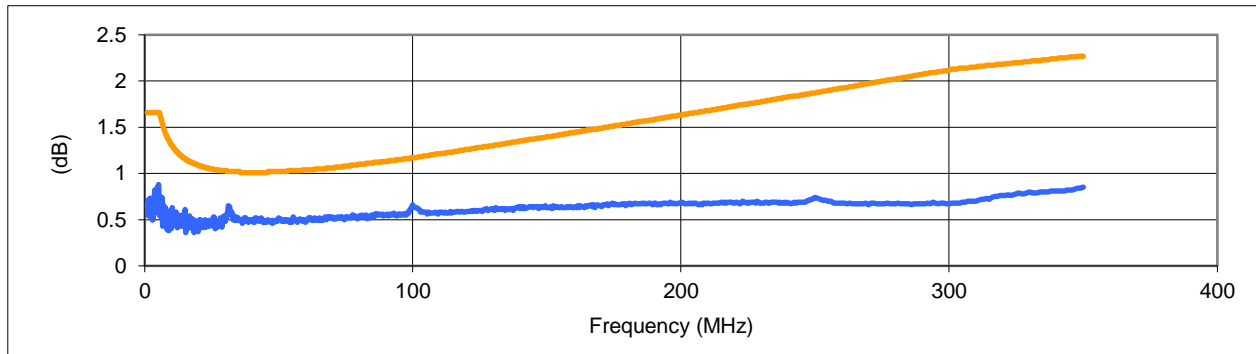
NEXT Artifact SN 2856102



Pass Worst margin: 0.470 at 1.13 MHz in pair 12-78. Worst accuracy at each frequency shown.

CDNEXT

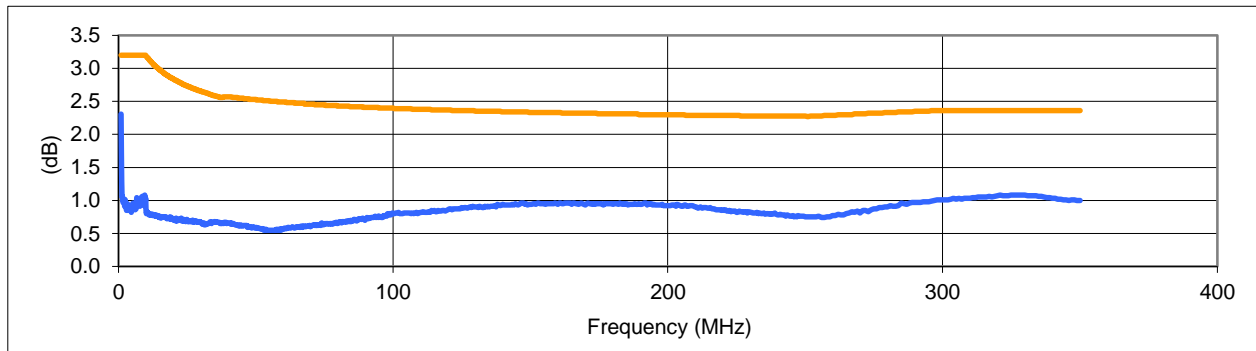
CDNEXT Artifact SN 2820037



Pass Worst margin: 0.370 at 31.25 MHz in pair 36-12. Worst accuracy at each frequency shown.

CMRL

CMDMRL Artifact SN 2843456



Pass Worst margin: 0.890 at 1 MHz in pair 36. Worst accuracy at each frequency shown.

Blue line: Measured difference of DSX and reference laboratory equipment added to measurement accuracy of reference laboratory equipment. Worst accuracy at each frequency shown.

Orange line: Corresponding measurement accuracy requirement for nominally compliant Level IV or Level 2G/VI field tester.

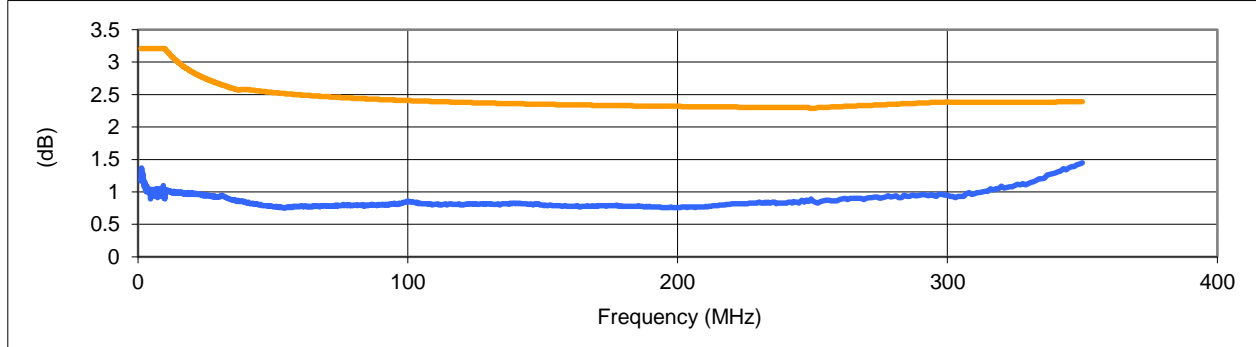
Found-Left Report

Model **DSX-600 Copper Tester**
 Serial Number **19130084**

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 Test date 13-Jan-22
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RL

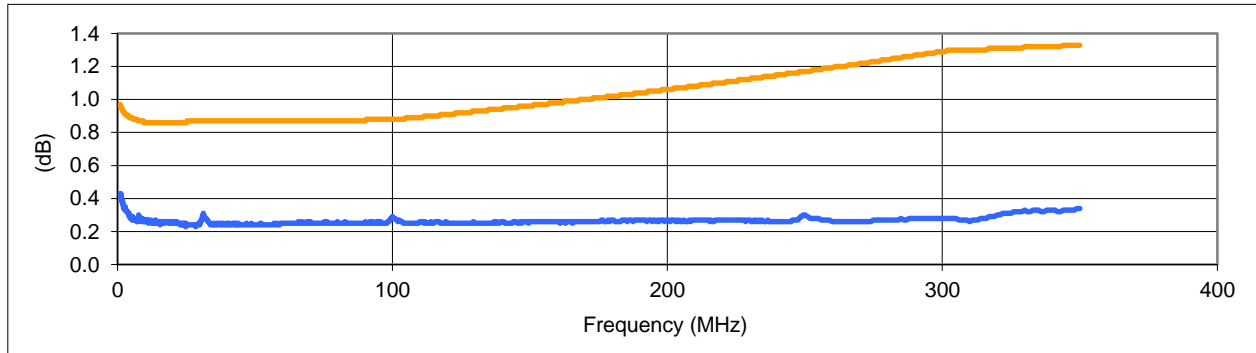
CMDMRL Artifact SN 2843456



Pass Worst margin: 0.940 at 350 MHz in pair 78. Worst accuracy at each frequency shown.

TCL

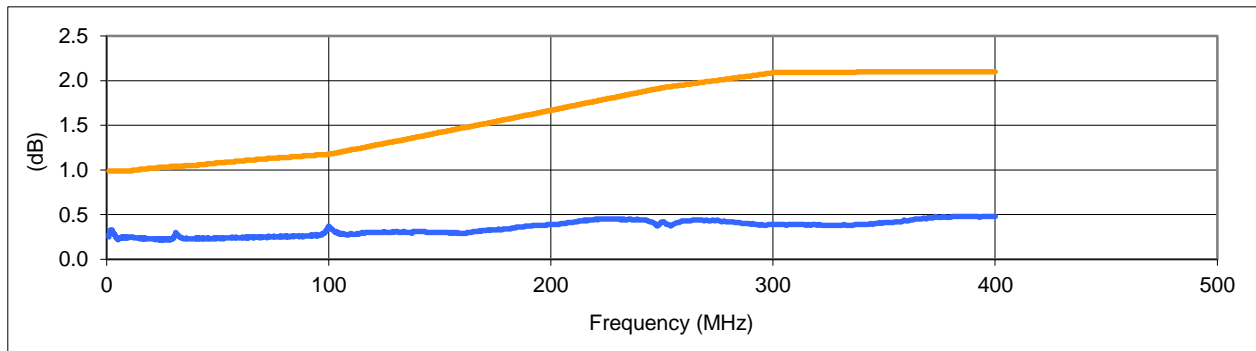
TCL Artifact SN 2843450



Pass Worst margin: 0.520 at 1.38 MHz in pair 45. Worst accuracy at each frequency shown.

IL

ILFEXT Artifact SN 2860574



Pass Worst margin: 0.660 at 2 MHz in pair 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.

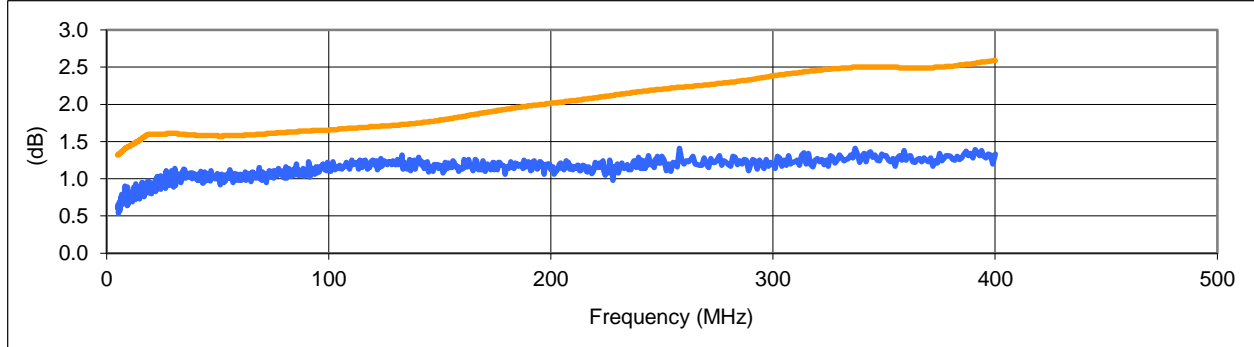
Found-Left Report

Model **DSX-600 Copper Tester**
 Serial Number **19130084**

From MAIN
 Test date 13-Jan-22
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FEXT

ILFEXT Artifact SN 2860574



Pass Worst margin: 0.410 at 91 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 2860453

	Measured	Expected	Limit	
Resistance on pair 12	0.19	0.00	0.80	Pass
Resistance on pair 36	50.06	49.80	0.60	Pass
Resistance on pair 45	100.10	99.80	1.60	Pass
Resistance on pair 78	453.00	453.00	4.00	Pass

Resistance imbalance

Resistance Unbalance Artifact SN 2860466

	Measured	Expected	Limit	
Resistance on pair 12	0.22	0.00	0.80	Pass
Resistance on pair 36	25.12	24.90	0.90	Pass
Resistance on pair 45	12.31	12.13	0.90	Pass
Resistance on pair 78	24.26	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	0.33	0.32	0.06	Pass
Resistance imbalance on pair 78	0.84	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

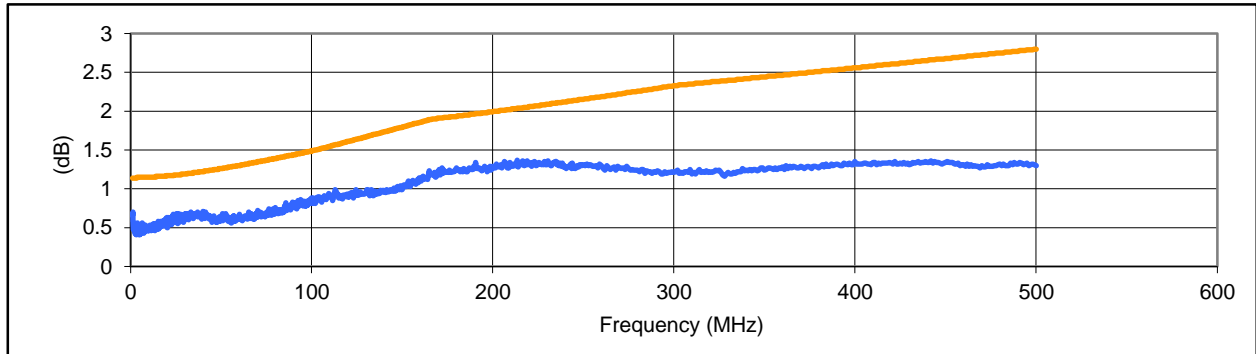
Found-Left Report

Model **DSX-600 Copper Tester**
 Serial Number **19290260**

From **MAIN**
 Test date **13-Jan-22**
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NEXT

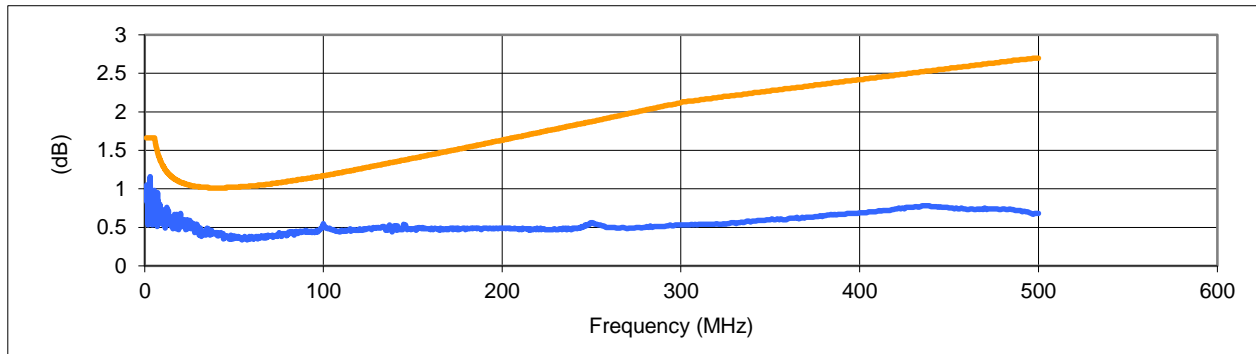
NEXT Artifact SN 2856102



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

CDNEXT

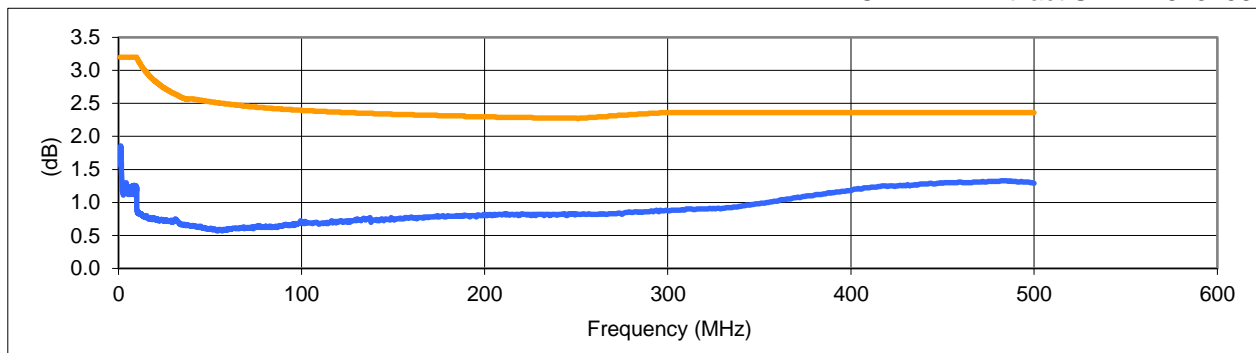
CDNEXT Artifact SN 2820037



Pass Worst margin: 0.410 at 20.13 MHz in pair 45-78. Worst accuracy at each frequency shown.

CMRL

CMDMRL Artifact SN 2843456



Pass Worst margin: 1.030 at 482 MHz in pair 45. Worst accuracy at each frequency shown.

Blue line: Measured difference of DSX and reference laboratory equipment added to measurement accuracy of reference laboratory equipment. Worst accuracy at each frequency shown.

Orange line: Corresponding measurement accuracy requirement for nominally compliant Level IV or Level 2G/VI field tester.

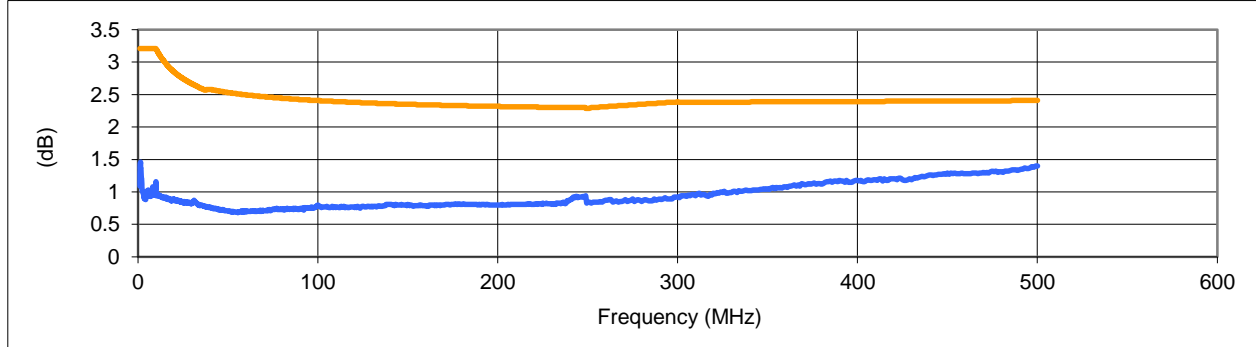
Found-Left Report

Model **DSX-600 Copper Tester**
 Serial Number **19290260**

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RL

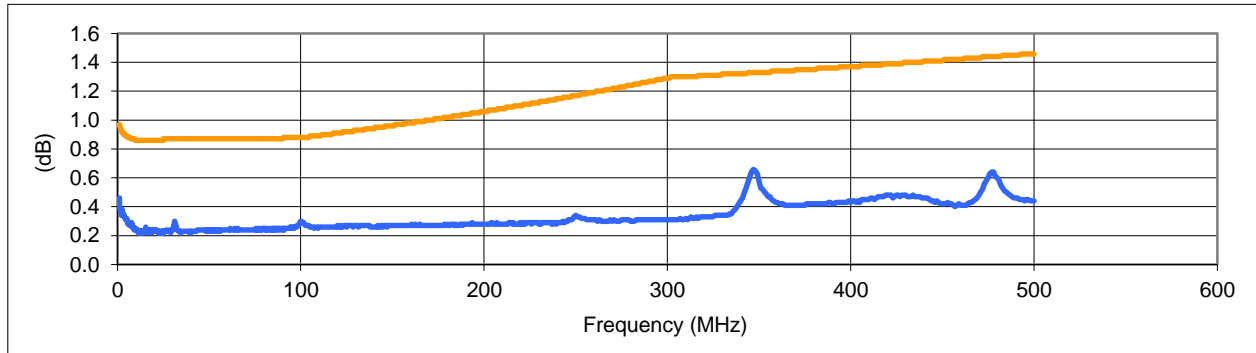
CMDMRL Artifact SN 2843456



Pass Worst margin: 1.010 at 499 MHz in pair 12. Worst accuracy at each frequency shown.

TCL

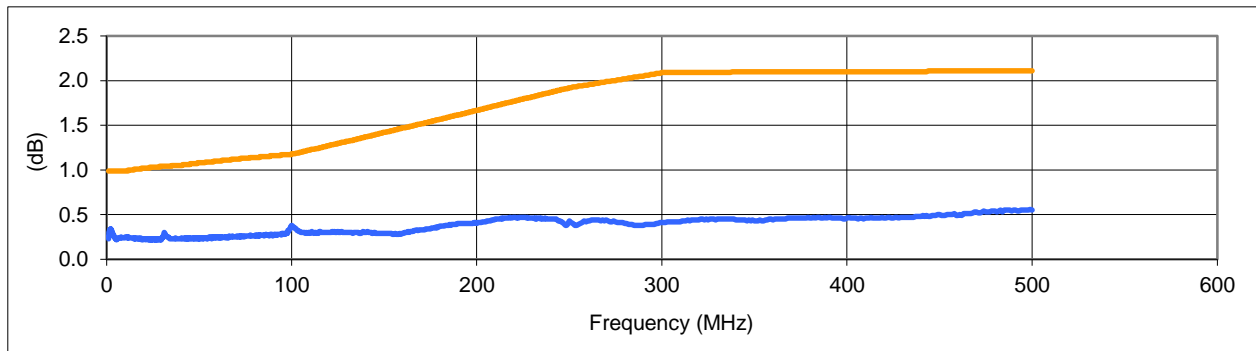
TCL Artifact SN 2843450



Pass Worst margin: 0.510 at 1 MHz in pair 78. Worst accuracy at each frequency shown.

IL

ILFEXT Artifact SN 2860574



Pass Worst margin: 0.650 at 2.13 MHz in pair 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.

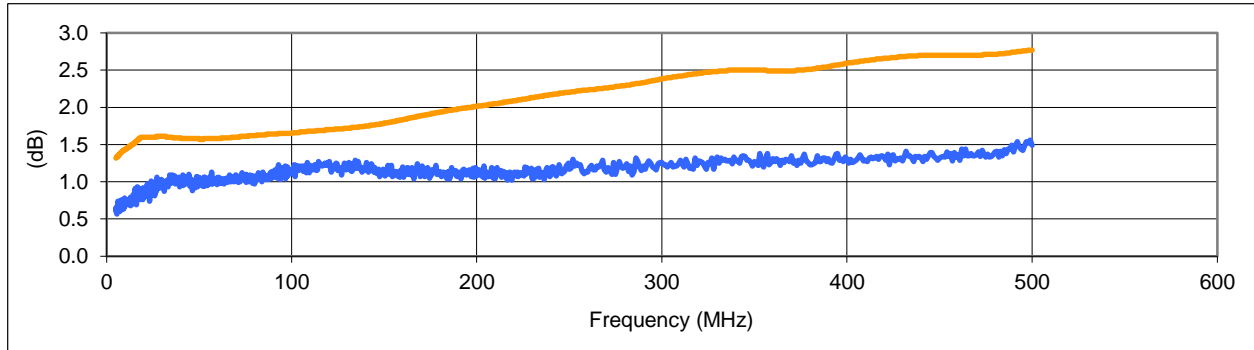
Found-Left Report

Model **DSX-600 Copper Tester**
 Serial Number **19290260**

From MAIN
 Test date 13-Jan-22
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FEXT

ILFEXT Artifact SN 2860574



Pass Worst margin: 0.420 at 93 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 2860453

	Measured	Expected	Limit	
Resistance on pair 12	0.23	0.00	0.80	Pass
Resistance on pair 36	50.20	49.80	0.60	Pass
Resistance on pair 45	100.24	99.80	1.60	Pass
Resistance on pair 78	453.37	453.00	4.00	Pass

Resistance imbalance

Resistance Unbalance Artifact SN 2860466

	Measured	Expected	Limit	
Resistance on pair 12	0.23	0.00	0.80	Pass
Resistance on pair 36	25.16	24.90	0.90	Pass
Resistance on pair 45	12.39	12.13	0.90	Pass
Resistance on pair 78	24.30	24.05	0.90	Pass
Resistance imbalance on pair 12	0.00	0.00	0.05	Pass
Resistance imbalance on pair 36	0.00	0.00	0.13	Pass
Resistance imbalance on pair 45	0.33	0.32	0.06	Pass
Resistance imbalance on pair 78	0.84	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

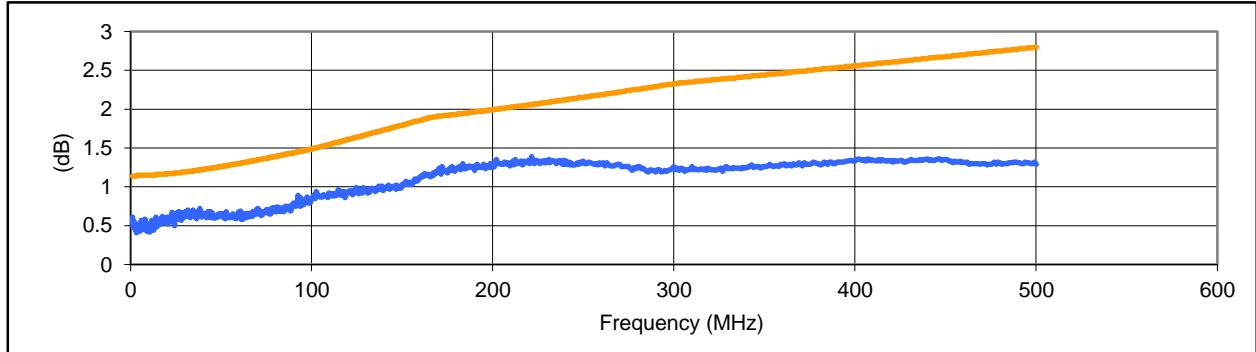
Found-Left Report

Model **DSX-600 Copper Tester**
 Serial Number **19310015**

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 Test date **13-Jan-22**
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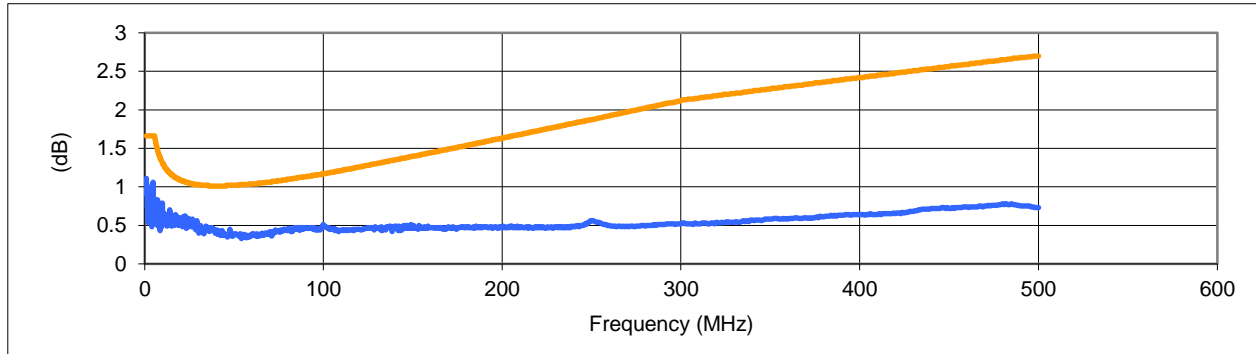
NEXT Artifact SN 2856102



Pass Worst margin: 0.500 at 22.88 MHz in pair 12-78. Worst accuracy at each frequency shown.

CDNEXT

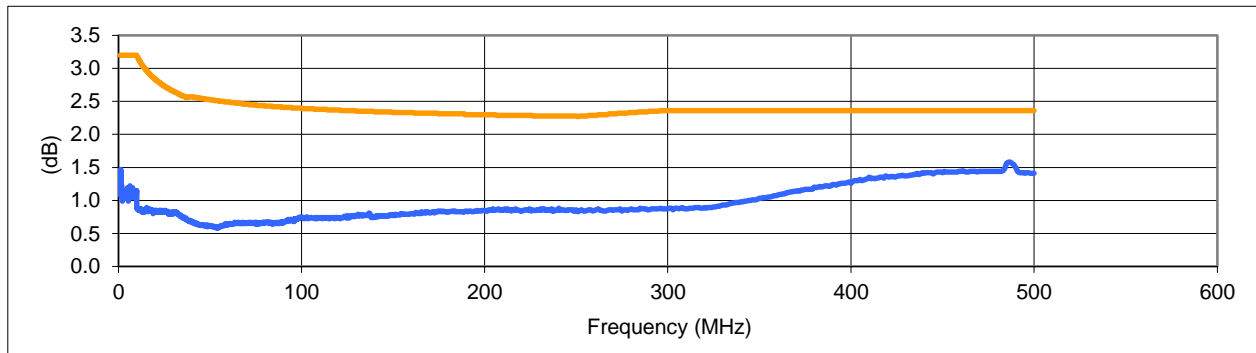
CDNEXT Artifact SN 2820037



Pass Worst margin: 0.440 at 22.88 MHz in pair 45-78. Worst accuracy at each frequency shown.

CMRL

CMDMRL Artifact SN 2843456



Pass Worst margin: 0.780 at 486 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.

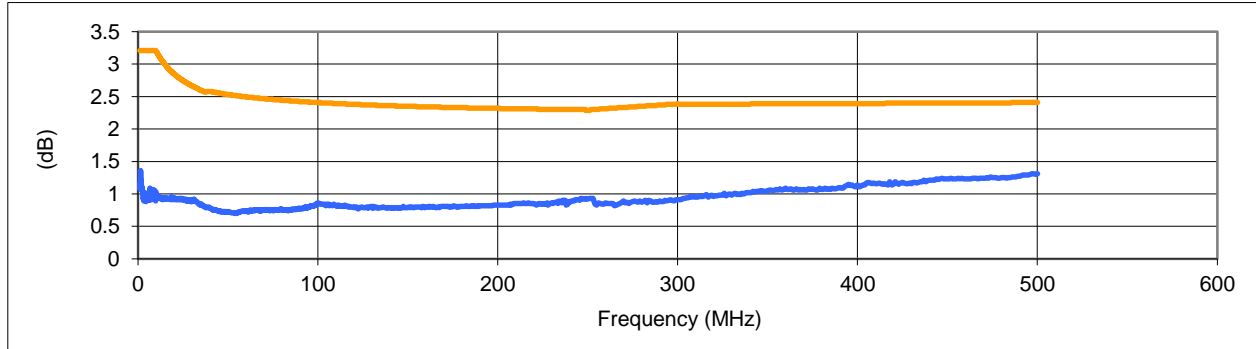
Found-Left Report

Model **DSX-600 Copper Tester**
 Serial Number **19310015**

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RL

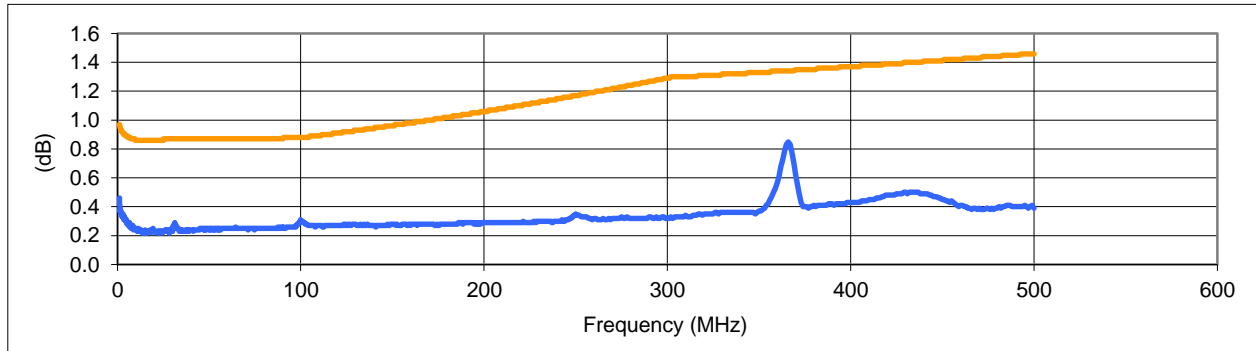
CMDMRL Artifact SN 2843456



Pass Worst margin: 1.100 at 497 MHz in pair 12. Worst accuracy at each frequency shown.

TCL

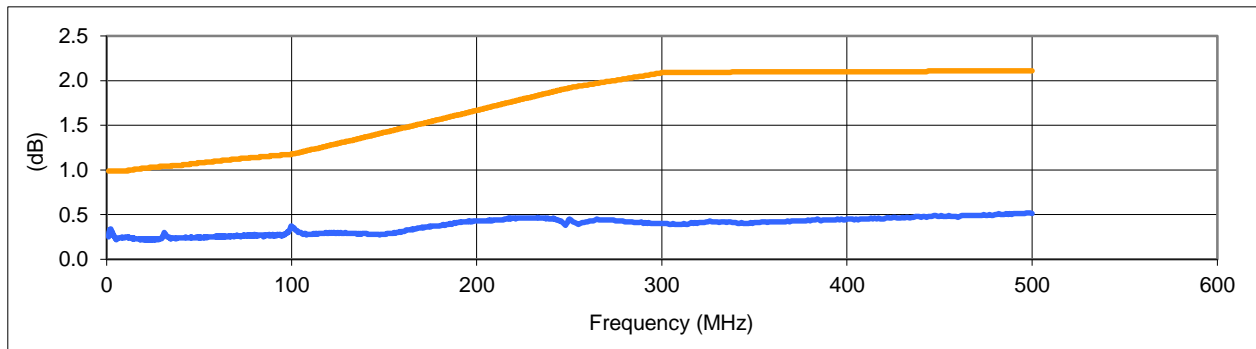
TCL Artifact SN 2843450



Pass Worst margin: 0.490 at 366 MHz in pair 12. Worst accuracy at each frequency shown.

IL

ILFEXT Artifact SN 2860574



Pass Worst margin: 0.650 at 2.13 MHz in pair 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.

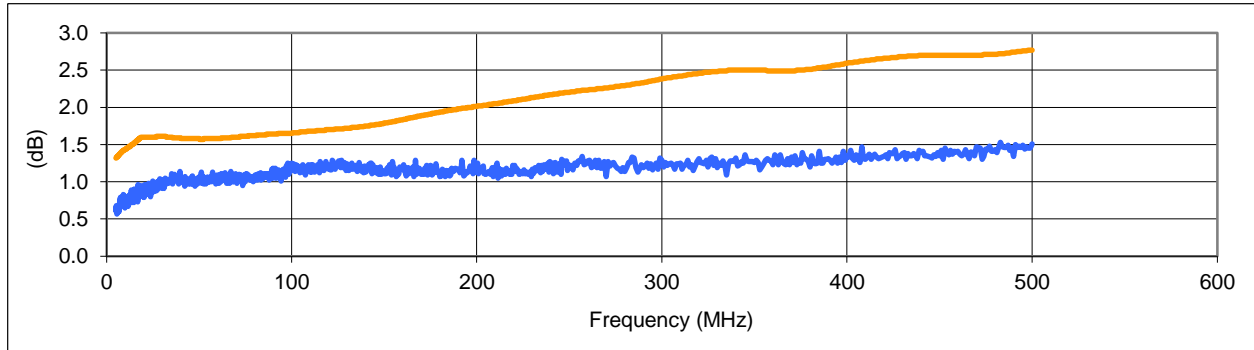
Found-Left Report

Model **DSX-600 Copper Tester**
 Serial Number **19310015**

From **REMOTE**
 Test date **13-Jan-22**
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FEXT

ILFEXT Artifact SN 2860574



Pass Worst margin: 0.400 at 98 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 2860453

	Measured	Expected	Limit	
Resistance on pair 12	0.30	0.00	0.80	Pass
Resistance on pair 36	50.16	49.80	0.60	Pass
Resistance on pair 45	100.31	99.80	1.60	Pass
Resistance on pair 78	453.37	453.00	4.00	Pass

Resistance imbalance

Resistance Unbalance Artifact SN 2860466

	Measured	Expected	Limit	
Resistance on pair 12	0.23	0.00	0.80	Pass
Resistance on pair 36	25.16	24.90	0.90	Pass
Resistance on pair 45	12.39	12.13	0.90	Pass
Resistance on pair 78	24.27	24.05	0.90	Pass
Resistance imbalance on pair 12	0.01	0.00	0.05	Pass
Resistance imbalance on pair 36	0.00	0.00	0.13	Pass
Resistance imbalance on pair 45	0.33	0.32	0.06	Pass
Resistance imbalance on pair 78	0.84	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

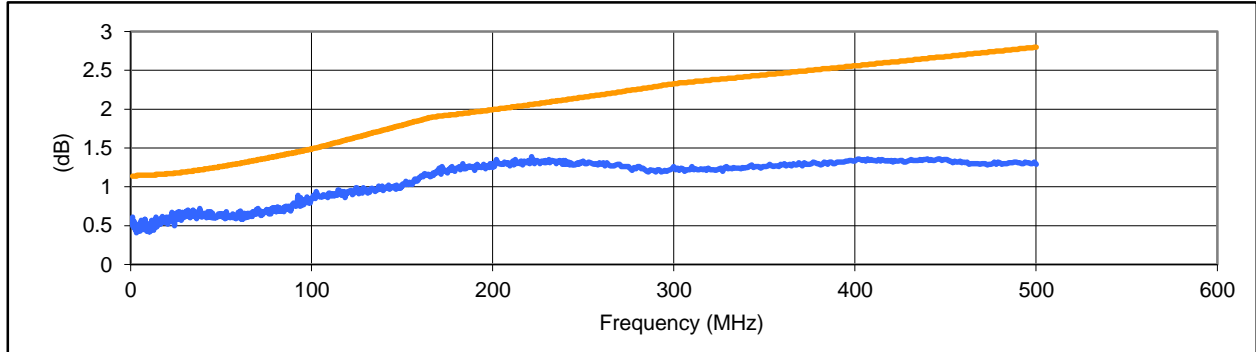
Found-Left Report

Model **DSX-600 Copper Tester**
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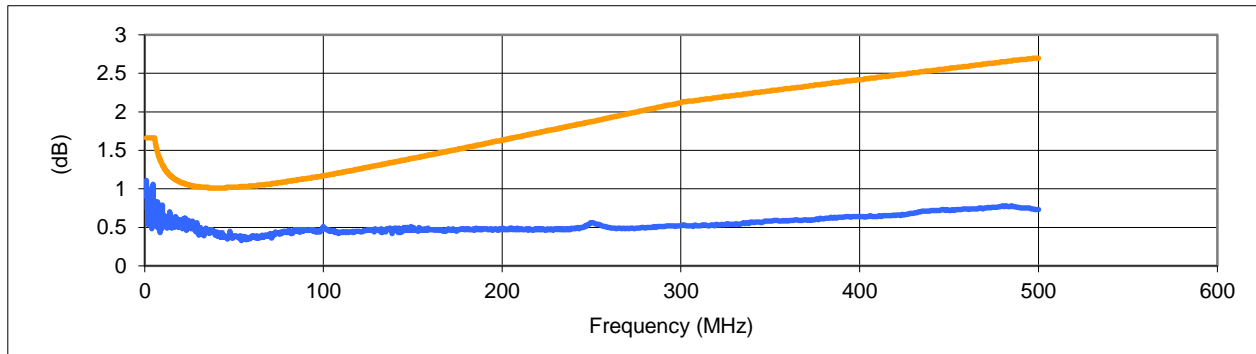
NEXT Artifact SN 2856102



Pass Worst margin: 0.500 at 22.88 MHz in pair 12-78. Worst accuracy at each frequency shown.

CDNEXT

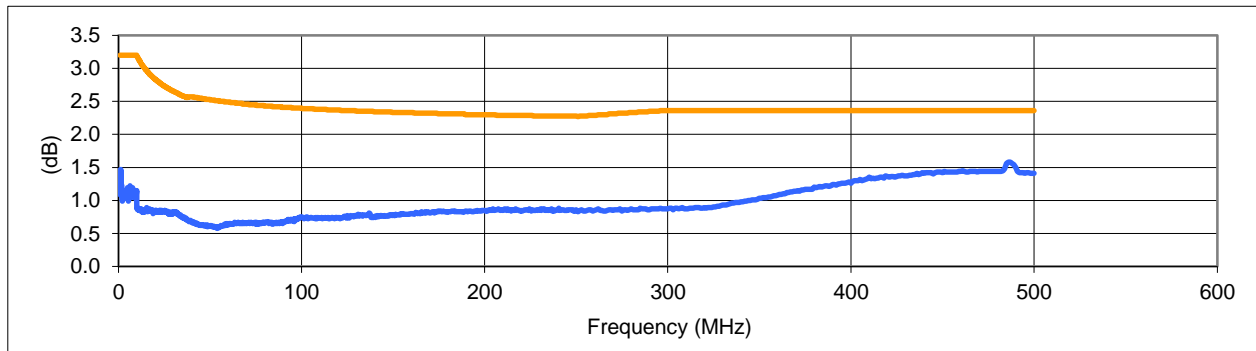
CDNEXT Artifact SN 2820037



Pass Worst margin: 0.440 at 22.88 MHz in pair 45-78. Worst accuracy at each frequency shown.

CMRL

CMDMRL Artifact SN 2843456



Pass Worst margin: 0.780 at 486 MHz in pair 45. Worst accuracy at each frequency shown.

Blue line: Measured difference of DSX and reference laboratory equipment added to measurement accuracy of reference laboratory equipment. Worst accuracy at each frequency shown.

Orange line: Corresponding measurement accuracy requirement for nominally compliant Level IV or Level 2G/VI field tester.

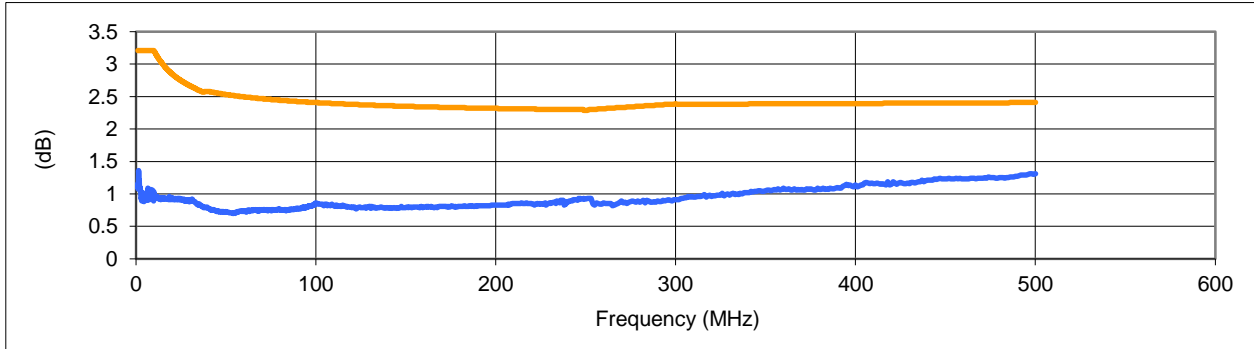
Found-Left Report

Model **DSX-600 Copper Tester**
 Serial Number **19310015**

From **REMOTE**
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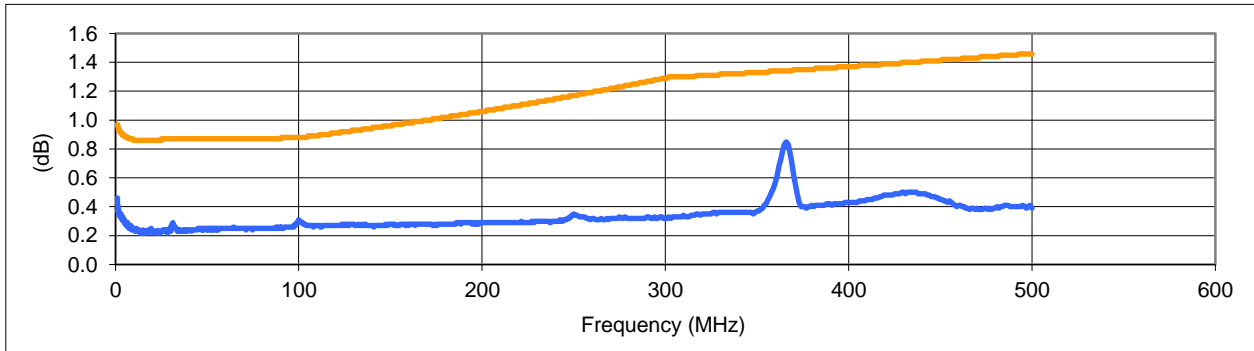
CMDMRL Artifact SN 2843456



Pass Worst margin: 1.100 at 497 MHz in pair 12. Worst accuracy at each frequency shown.

TCL

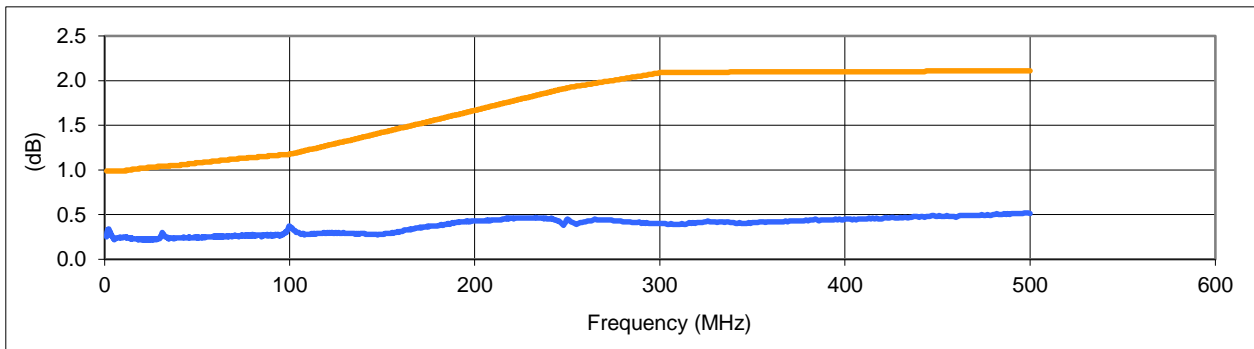
TCL Artifact SN 2843450



Pass Worst margin: 0.490 at 366 MHz in pair 12. Worst accuracy at each frequency shown.

IL

ILFEXT Artifact SN 2860574



Pass Worst margin: 0.650 at 2.13 MHz in pair 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.

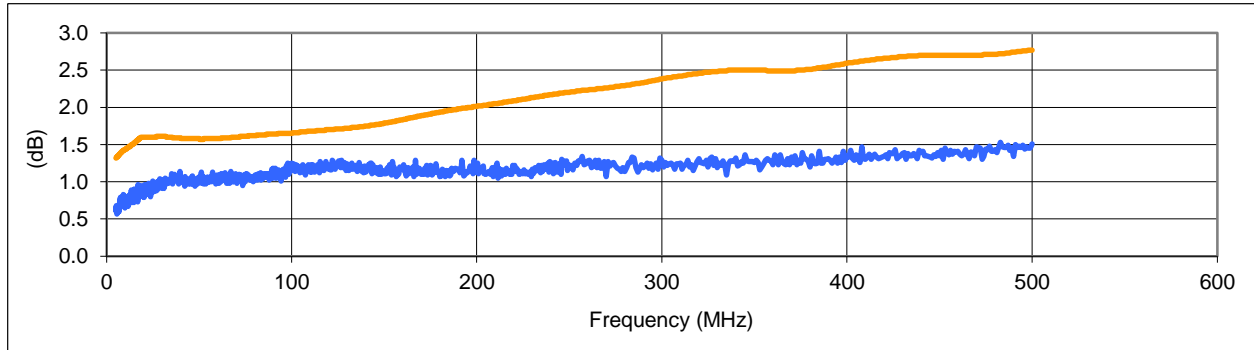
Found-Left Report

Model **DSX-600 Copper Tester**
 Serial Number **19310015**

From **REMOTE**
 Test date **13-Jan-22**
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FEXT

ILFEXT Artifact SN 2860574



Pass Worst margin: 0.400 at 98 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 2860453

	Measured	Expected	Limit	
Resistance on pair 12	0.30	0.00	0.80	Pass
Resistance on pair 36	50.16	49.80	0.60	Pass
Resistance on pair 45	100.31	99.80	1.60	Pass
Resistance on pair 78	453.37	453.00	4.00	Pass

Resistance imbalance

Resistance Unbalance Artifact SN 2860466

	Measured	Expected	Limit	
Resistance on pair 12	0.23	0.00	0.80	Pass
Resistance on pair 36	25.16	24.90	0.90	Pass
Resistance on pair 45	12.39	12.13	0.90	Pass
Resistance on pair 78	24.27	24.05	0.90	Pass
Resistance imbalance on pair 12	0.01	0.00	0.05	Pass
Resistance imbalance on pair 36	0.00	0.00	0.13	Pass
Resistance imbalance on pair 45	0.33	0.32	0.06	Pass
Resistance imbalance on pair 78	0.84	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