

# Certificate of Calibration

## Fluke Nederland B.V.

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<b>Certificate Number:</b>	SA00924195	<b>Date of Calibration:</b>	01 Feb 2021
<b>Receive Condition:</b>	IN TOLERANCE	<b>Date of Recalibration:</b>	01 Feb 2022
<b>Return Condition:</b>	IN TOLERANCE	<b>Place of Calibration:</b>	Eindhoven
<b>Manufacturer:</b>	FLUKE NETWORKS	<b>Temperature within:</b>	(23.0 ± 3) °C
<b>Model:</b>	DSX-8000	<b>Humidity within:</b>	(45 ± 20) %rh
<b>Serial Number:</b>	1837089		
<b>Description:</b>	2GHZ DSX CABLEANALYZER		
<b>Procedure:</b>	Manual Procedure		

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<b>Customer:</b>	OMIKRON INFORMATIKA KFT. BUDAPEST
<b>Customer Asset ID:</b>	016001057
<b>RMA Number:</b>	606254521

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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:** 01 Feb 2021

Electronically signed

**Authorized By**

R. Mehta

## Certificate of Calibration

**Certificate Number:** SA00924195

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**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
WP2621	DSX-CALVERST 2G	E000156

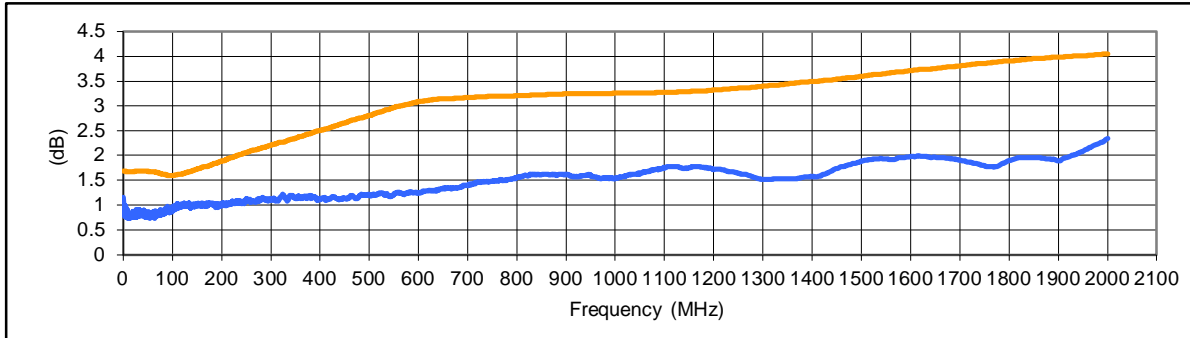
## Found-Left Report

Model **DSX-8000 CAT 8 2000MHz Copper Module**  
 Serial Number **1837089**

Test date 1-Feb-21  
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### NEXT

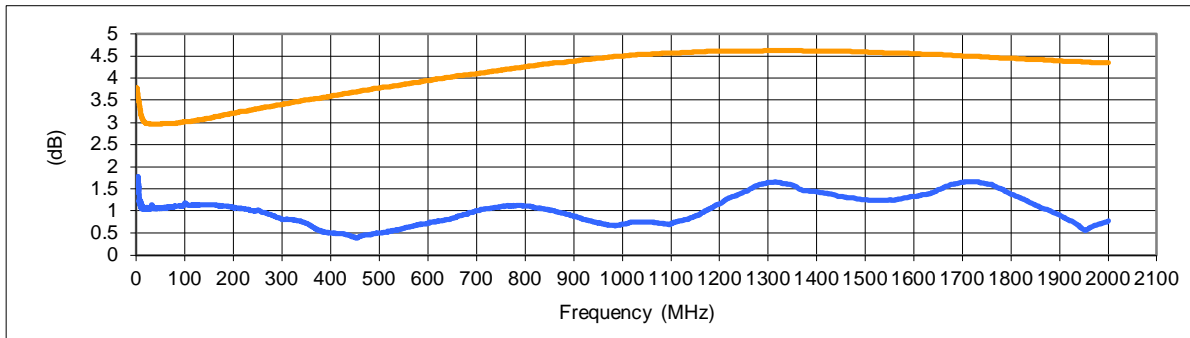
NEXT Artifact SN 18163675



Pass Worst margin: 0.530 at 1 MHz in pair 36-78. Worst accuracy at each frequency shown.

### CDNEXT

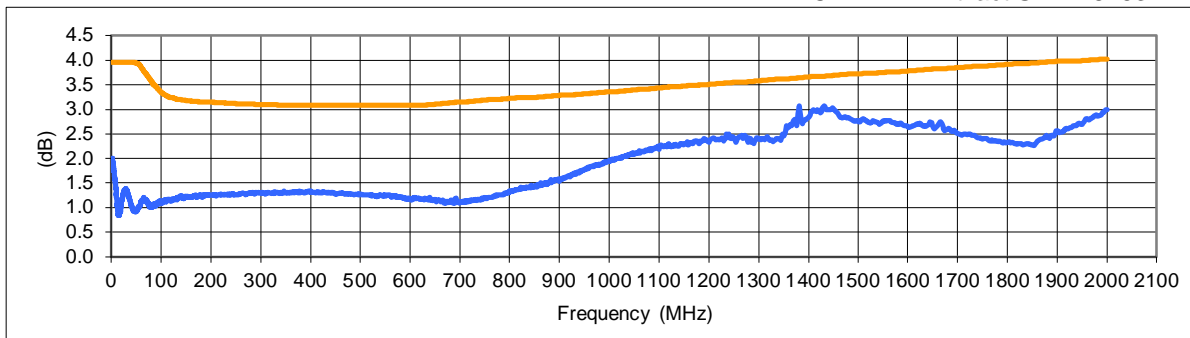
CDNEXT Artifact SN 18163662



Pass Worst margin: 1.810 at 3.38 MHz in pair 78-45. Worst accuracy at each frequency shown.

### CMRL

CMDMRL Artifact SN 18163724



Pass Worst margin: 0.570 at 1382 MHz in pair 78. 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

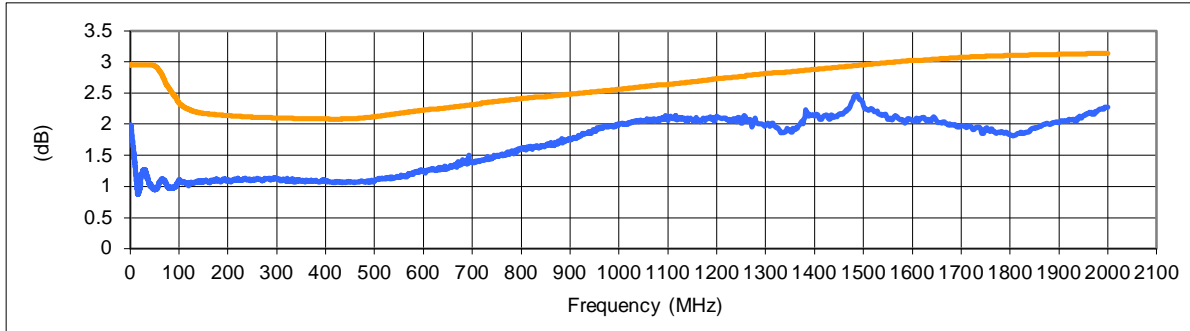
Model **DSX-8000 CAT 8 2000MHz Copper Module**  
 Serial Number **1837089**

Test date 1-Feb-21

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## RL

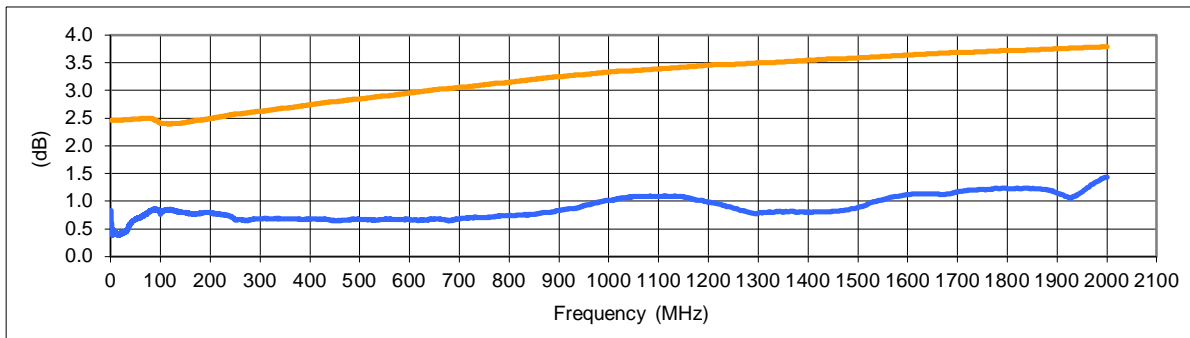
CMDMRL Artifact SN 18163724



Pass Worst margin: 0.460 at 1486 MHz in pair 12. Worst accuracy at each frequency shown.

## TCL

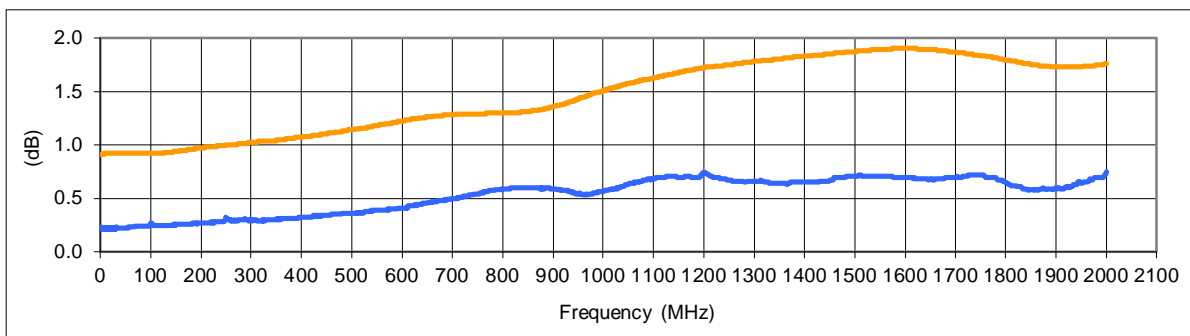
TCL Artifact SN 18163731



Pass Worst margin: 1.540 at 115 MHz in pair 78. Worst accuracy at each frequency shown.

## IL

ILFEXT Artifact SN 18210515



Pass Worst margin: 0.650 at 99.75 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

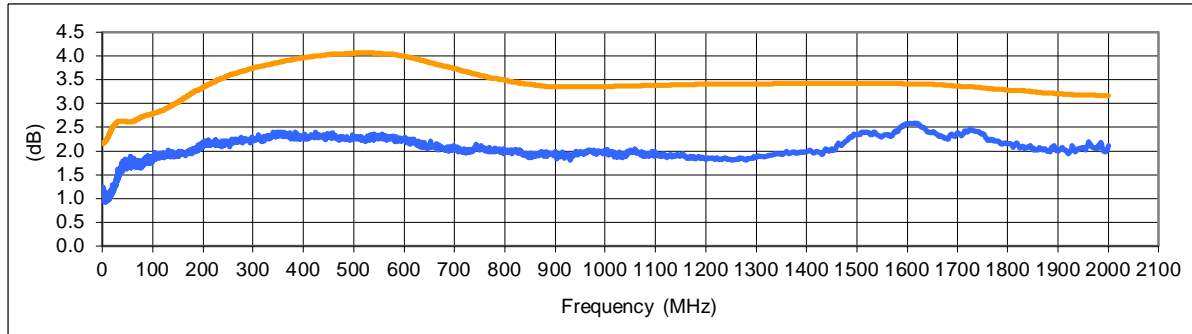
Model **DSX-8000 CAT 8 2000MHz Copper Module**  
 Serial Number **1837089**

Test date 1-Feb-21

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## FEXT

ILFEXT Artifact SN 18210515



Pass Worst margin: 0.720 at 55.5 MHz in pair 78-12. 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 18210473

	Measured	Expected	Limit	
Resistance on pair 12	0.27	0.00	0.80	Pass
Resistance on pair 36	49.87	49.80	0.60	Pass
Resistance on pair 45	99.96	99.80	1.60	Pass
Resistance on pair 78	451.92	453.00	4.00	Pass

## Resistance imbalance

Resistance Unbalance Artifact SN 18210451

	Measured	Expected	Limit	
Resistance on pair 12	0.24	0.00	0.80	Pass
Resistance on pair 36	25.15	24.90	0.90	Pass
Resistance on pair 45	12.38	12.13	0.90	Pass
Resistance on pair 78	24.35	24.05	0.90	Pass
Resistance imbalance on pair 12	0.00	0.00	0.05	Pass
Resistance imbalance on pair 36	0.01	0.00	0.13	Pass
Resistance imbalance on pair 45	0.32	0.32	0.06	Pass
Resistance imbalance on pair 78	0.85	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

M\_ILFEXT Artifact SN 18210501

Pass Worst margin: 0.670 at 1.75 MHz in pair 12

## M FEXT

M\_ILFEXT Artifact SN 18210501

Pass Worst margin: 0.400 at 34.75 MHz in pair 45-78