



Test Report – FCC 15B Unintentional Radiator

Prepared For: Uniden America Corporation

Approved for Release By:

Signature: Bruno Clavier

Name & Title: Bruno Clavier, General Manager

Date of Signature 12/28/2020

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1. Customer Information

Applicant: Uniden America Corporation
Address: 6225 N State Highway 161
Suite 300
Irving, TX 75038

Technical Contact: Steve Roby
Telephone: 817-858-8624
Email address: SRoby@uniden.com

1.1 Test Result Summary

The following test procedure was used ANSI C63.4-2014. Full test results are available in this report.

No additions to the test methods were needed. There were no deviations, or exclusions from the test methods. No test results are from external providers or from the customer. The test results relate only to the items tested. Timco does not offer opinions and interpretations, only a pass/fail statement.

Clauses	Description of the Requirements	Result (Pass, Fail or N/A)
Applicable Clauses from FCC 15 B		
15.107	Conducted Emission Limits	Pass
15.111 (a)	Receiver Conducted Power	NA ⁽¹⁾
15.121	38 dB Rejection	NA ⁽²⁾
15.109	Radiated Emission Limits	Pass

Notes:

- 1) EUT is not intended for connection with AC Mains.
- 2) Manufacturer provided attestation letter, no test required.



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2. Location of Testing

2.1 Test Laboratory

Timco Engineering Inc. is a subsidiary of Industrial Inspection & Analysis, Inc. ("IIA"). Testing was performed at Timco's permanent laboratory located at 849 NW State Road 45, Newberry, Florida 32669

FCC test firm # 578780

FCC Designation # US1070

FCC site registration is under A2LA certificate # 0955.01

ISED Canada test site registration # 2056A

EU Notified Body # 1177

For all designations see A2LA scope # 0955.01



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2.2 Testing was performed, reviewed by

Dates of Testing: 12/28/2020 – 12/28/2020

Signature:

Name & Title:

Franklin Rose, EMC Specialist

Date of Signature

12/28/2020

Signature:

Sr. EMC Engineer
EMC-003838-NE



Name & Title:

Tim Royer, EMC Engineer

Date of Signature

12/28/2020



3. Test Sample(s) (EUT/DUT)

The test sample was received: 12/28/2020

3.1 Description of the EUT

A description as well as unambiguous identification of the EUT(s) tested. Where more than one sample is required for technical reasons (such as the use of connected units for the purpose of conducted output power testing where the product units will have integral antennas), each specific test shall identify which unit was tested.

Identification	
FCC ID:	AMWUB360
Brief Description	Digital Scanning Receiver
Type of Modular	N/A
Model(s) #	BCD996P2
Firmware version	N/A
Software version	N/A
Serial Number	N/A

Technical Characteristics	
Technology	Digital Scanning Receiver
Frequency Range	25 – 1300 MHz
RF O/P Power (Max.)	N/A
Modulation	N/A
Bandwidth & Emission Class	N/A
Number of Channels	N/A
Duty Cycle	N/A
Antenna Connector	N/A
Voltage Rating (AC or Batt.)	AC

Antenna Characteristics			
Antenna	Frequency Range	Mode / BW	Antenna Gain
1	n/a	n/a	0 dBi
2			



3.2 Configuration of EUT

Band	Mode	Number of Ant.
	Receive	1

Operating conditions during Testing:

No modifications of the device under test (including firmware, specific software settings, and input/output signal levels to the EUT).

Peripherals used during Testing:

No peripherals used.

3.3 Test Setup of EUT

Equipment, antenna, and cable arrangement. The setup of the equipment and cable or wire placement on the test site that produces the highest radiated and the highest ac power-line conducted emissions shall be shown clearly and described. Information on the orientation of portable equipment during testing shall be included. Drawings or photographs may be used for this purpose.

Test Setups are included in the test report.



4. Test methods & Applicable Regulatory Limits

4.1 Test methods/Standards/Guidance

The measurement was performed as per FCC 15B. Full test results are available in this report.

Limits and Regulatory Limits:

- 1) FCC 15B

5. Measurement Uncertainty

Parameter	Uncertainty (dB)
Conducted Emissions	1.42
Radiated Emissions (30 – 200 MHz)	5.49
Radiated Emissions (200 – 1000 MHz)	5.79
Radiated Emissions (1 GHz – 18 GHz)	4.37
The uncertainties provided in this table represent an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of K=2.	

6. Environmental Conditions

Temperature & Humidity

Measurements performed at the test site did not exceed the following:

Parameter	Measurement
Temperature	23 C +/- 5%
Humidity	55% +/- 5%
Barometric Pressure	30.05 in Hg

Note: Specific environmental conditions that are applicable to a specific test are available in the test result section.



7. List of Test Equipment and Test Facility

The test equipment used identified by type, manufacturer, serial number, or other identification and the date on which the next calibration or service check is due.

Description of the firmware or software used to operate EUT for testing purposes.

A complete list of all test equipment used shall be included with the test report. The manufacturer's model and serial numbers, and date of last calibration, and calibration interval shall be included. Measurement cable loss, measuring instrument bandwidth and detector function, video bandwidth, if appropriate, and antenna factors shall also be included where applicable.

List of Test Equipment

Device	Manufacturer	Model	SN #	Current Cal	Cal Due
Active Loop	ETS-Lindgren	6502	00062529	10/20/20	10/20/2023
Biconical 1057	Eaton	94455-1	1057	10/16/20	10/16/2023
Log-Periodic 1243	Eaton	96005	1243	4/20/18	4/19/2021
Double-Ridged Horn/ETS Horn 1	ETS-Lindgren	3117	00035923	2/25/20	2/24/2023
Double-Ridged Horn/ETS Horn 2	ETS-Lindgren	3117	00041534	10/14/20	10/14/2023
Double-Ridged Horn 18-40 GHz	EMCO	3116	9011-2145	10/19/20	10/19/2023
CHAMBER	Panashield	3M	N/A	3/12/19	3/11/2021
Pre-amp	RF-LAMBDA	RLNA00M45GA	NA	2/27/19	2/26/2022
EMI Test Receiver R&S ESU 40	Rohde & Schwarz	ESU 40	100320	8/28/18	8/27/2021
LISN (Primary)	Electro-Metrics	ANS-25/2	225363	9/16/20	9/16/2023



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8. Test Results

The results of the test are usually indicated in the form of tables, spectrum analyzer plots, charts, sample calculations, as appropriate for each test procedure.

A description and/or a block diagram of the test setup is usually provided.

The measurement results, along with the appropriate limits for comparison, may be presented in tabular or graphical form. In addition, any variation in the measurement environment may be reported if applicable (e.g., a significant change of temperature that could affect the cable loss and amplifier response).

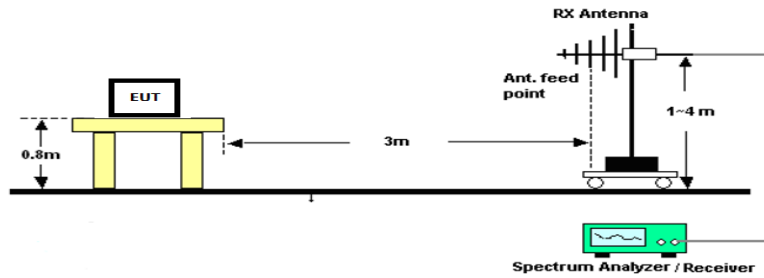
Units of measurement

Unless noted otherwise in the referenced standard, the measurements of ac power-line conducted emissions and conducted power output will be reported in units of dB μ V. Unless noted otherwise in the referenced standard, the measurements of radiated emissions will be reported in units of decibels, referenced to one microvolt per meter (dB μ V/m) for electric fields, or to one ampere per meter (dBA/m) for magnetic fields, at the distance specified in the appropriate standards or requirements. The measurements of antenna-conducted power for receivers may be reported in units of dB μ V if the impedance of the measuring instrument is also reported. Otherwise, antenna-conducted power will be reported in units of decibels referenced to one milliwatt (dBm). All formulas for data conversions and conversion factors, if used, will be included in this measurement report.

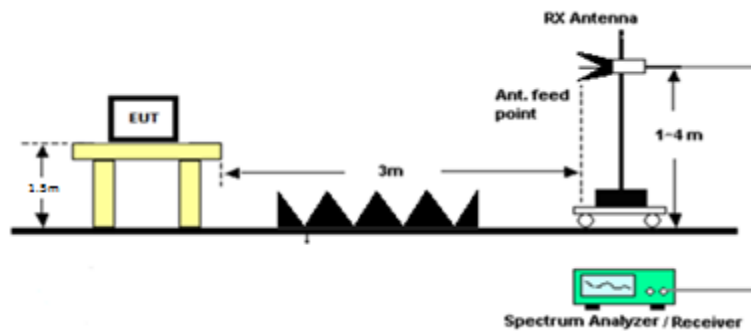
8.1 Radiated Emissions

Limits from FCC 15.109 and test procedure from ANSI C63.4-2014.

Radiated Test Setup, 30 – 1000 MHz



Radiated Test Setup, Above 1000 MHz





8.1.1 Scanning Receiver Function, 30 MHz to 200 MHz, Horizontal Polarity Plot



30 Dec 20 10:57

Test Spec CISPR 22 Radiated Disturbances

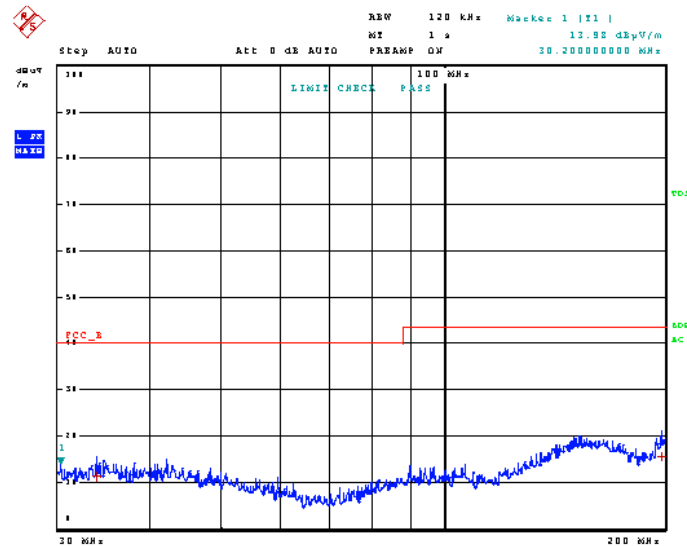
Polarity

Vertical

Stepped Scan (1 Range)

Scan Start: 30 MHz
Scan Stop: 200 MHz
Detector: Trace 1: MAX PEAK
Transducer: TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
30.000000 MHz	200.000000 MHz	40.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1





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8.1.2 Scanning Receiver Function, 30 MHz to 200 MHz, Horizontal Polarity Table

30.Dec 20 10:57

Test Spec CISPR 22 Radiated Disturbances
Polarity
Vertical

Final Measurement

Meas Time: 1 s
Margin: 25 dB
Subranges: 2

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
1	33.840000000 MHz	11.24	Quasi Peak	-28.76
1	197.440000000 MHz	15.74	Quasi Peak	-27.76

Page 2 of 2

8.1.3 Scanning Receiver Function, 30 MHz to 200 MHz, Vertical Polarity Plot



30.Dec 20 10:56

Test Spec CISPR 22 Radiated Disturbances

Polarity

Vertical

Stepped Scan (1 Range)

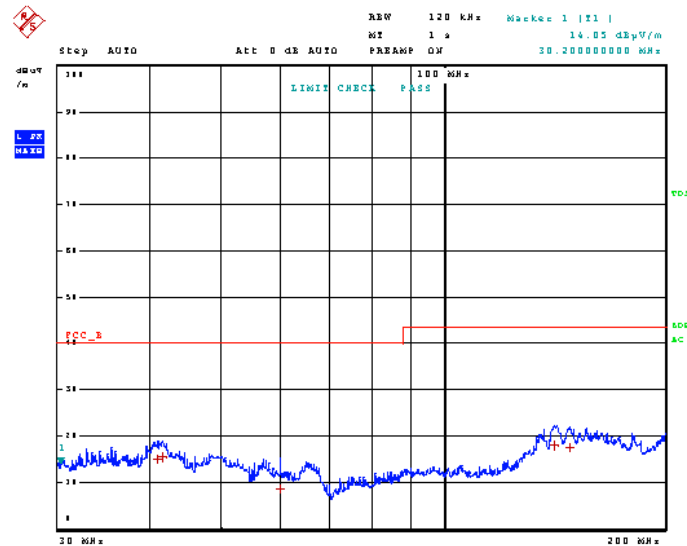
Scan Start: 30 MHz

Scan Stop: 200 MHz

Detector: Trace 1: MAX PEAK

Transducer: TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
30.000000 MHz	200.000000 MHz	40.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1



Page 1 of 2



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8.1.4 Scanning Receiver Function, 30 MHz to 200 MHz, Vertical Polarity Table

30.Dec 20 10:56

Test Spec CISPR 22 Radiated Disturbances

Polarity

Vertical

Final Measurement

Meas Time: 1 s
Margin: 25 dB
Subranges: 5

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	40.880000000 MHz	14.99	Quasi Peak	-25.01
1	41.600000000 MHz	15.38	Quasi Peak	-24.62
1	59.920000000 MHz	8.46	Quasi Peak	-31.54
1	141.560000000 MHz	17.93	Quasi Peak	-25.57
1	148.440000000 MHz	17.47	Quasi Peak	-26.03

Page 2 of 2

8.1.5 Scanning Receiver Function, 200 MHz to 1000 MHz, Horizontal Polarity Plot



30 Dec 20 10:53

Test Spec CISPR 22 Radiated Disturbances

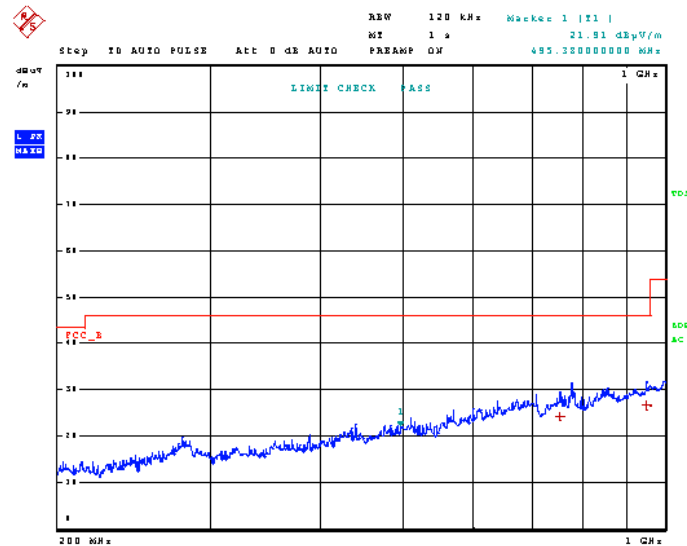
Polarity

Horizontal

Time Domain Scan (1 Range)

Scan Start: 200 MHz
Scan Stop: 1 GHz
Detector: Trace 1: MAX PEAK
Transducer: TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
200.000000 MHz	1.000000 GHz	30.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1



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8.1.6 Scanning Receiver Function, 200 MHz to 1000 MHz, Horizontal Polarity Table

30.Dec 20 10:53

Test Spec CISPR 22 Radiated Disturbances
Polarity
Horizontal

Final Measurement

Meas Time: 1 s
Margin: 20 dB
Subranges: 2

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	756.620000000 MHz	24.35	Quasi Peak	-21.65
1	950.990000000 MHz	26.48	Quasi Peak	-19.52

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8.1.7 Scanning Receiver Function, 200 MHz to 1000 MHz, Vertical Polarity Plot



30 Dec 20 10:54

Test Spec CISPR 22 Radiated Disturbances

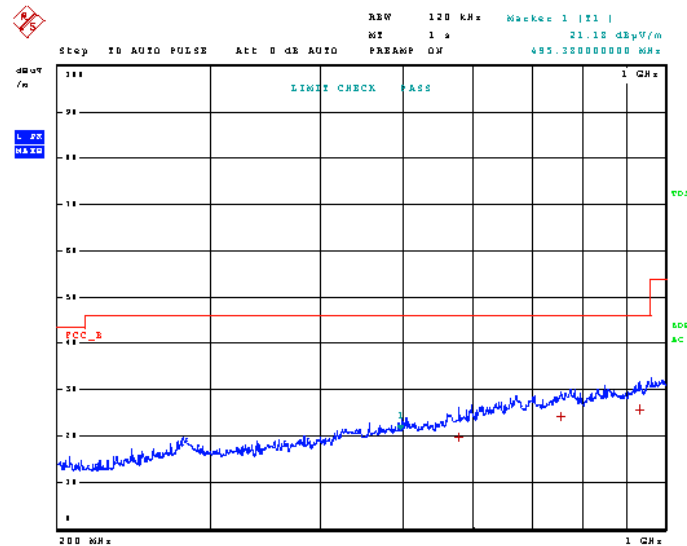
Polarity

Horizontal

Time Domain Scan (1 Range)

Scan Start: 200 MHz
Scan Stop: 1 GHz
Detector: Trace 1: MAX PEAK
Transducer: TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
200.000000 MHz	1.000000 GHz	30.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1





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8.1.8 Scanning Receiver Function, 200 MHz to 1000 MHz, Vertical Polarity Table

30.Dec 20 10:54

Test Spec CISPR 22 Radiated Disturbances
Polarity
Horizontal

Final Measurement

Meas Time: 1 s
Margin: 20 dB
Subranges: 3

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	578.360000000 MHz	19.68	Quasi Peak	-26.32
1	759.770000000 MHz	24.19	Quasi Peak	-21.81
1	936.260000000 MHz	25.65	Quasi Peak	-20.35

Page 2 of 2



29.Dec 20 18:25

Scan Start: 1 GHz
Scan Stop: 12.5 GHz
Detector: Trace 1: MAX PEAK Trace 2: MAX PEAK
Transducer: TDS_05

TDS

658



8.1.10 Scanning Receiver Function, above 1000 MHz, Horizontal Polarity Table

29 Dec 20 18:25

Final Measurement

Meas Time: 500 ms
Margin: 40 dB
Subranges: 16

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
1	1.004250000 GHz	37.03	CISPR Averag	-16.97
2	1.004250000 GHz	49.31	Max Peak	
1	1.403750000 GHz	35.55	CISPR Averag	-18.45
2	1.403750000 GHz	49.52	Max Peak	
1	1.973500000 GHz	35.02	CISPR Averag	-18.98
2	1.973500000 GHz	47.32	Max Peak	
1	2.591500000 GHz	32.23	CISPR Averag	-21.77
2	2.591500000 GHz	44.36	Max Peak	
1	3.909250000 GHz	38.28	CISPR Averag	-15.72
2	3.909250000 GHz	47.16	Max Peak	
1	4.886500000 GHz	42.10	CISPR Averag	-11.90
2	4.886500000 GHz	47.97	Max Peak	
1	6.796500000 GHz	28.64	CISPR Averag	-25.36
2	6.796500000 GHz	41.54	Max Peak	
1	11.555250000 GHz	30.37	CISPR Averag	-23.63
2	11.555250000 GHz	44.00	Max Peak	



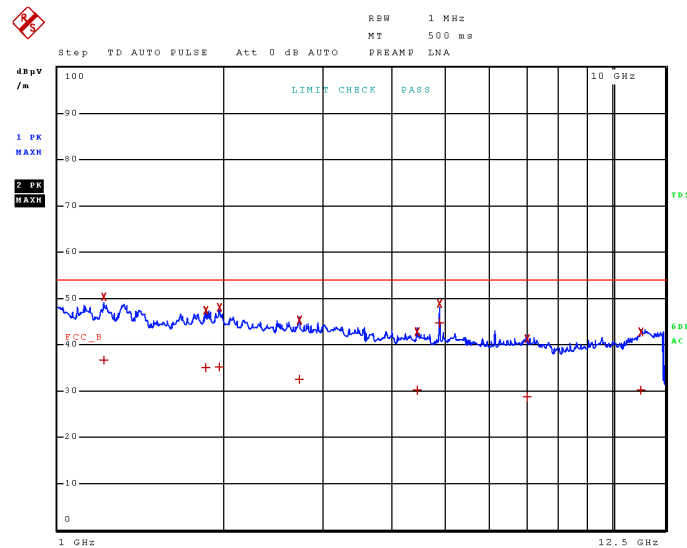
8.1.11 Scanning Receiver Function, above 1000 MHz, Vertical Polarity Plot

29.Dec 20 18:28

Time Domain Scan (1 Range)

Scan Start: 1 GHz
Scan Stop: 12.5 GHz
Detector: Trace 1: MAX PEAK Trace 2: MAX PEAK
Transducer: TDS_05

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
1.000000 GHz	12.500000 GHz	250.00 kHz	1.00 MHz	100 μ s	Auto	35 dB	INPUT1





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8.1.12 Scanning Receiver Function, above 1000 MHz, Vertical Polarity Table

29.Dec 20 18:28

Final Measurement

Meas Time: 500 ms
Margin: 40 dB
Subranges: 16

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
1	1.211250000 GHz	36.66	CISPR Averag	-17.34
2	1.211250000 GHz	50.22	Max Peak	
1	1.851000000 GHz	34.95	CISPR Averag	-19.05
2	1.851000000 GHz	47.34	Max Peak	
1	1.957750000 GHz	35.11	CISPR Averag	-18.89
2	1.957750000 GHz	48.06	Max Peak	
1	2.727750000 GHz	32.49	CISPR Averag	-21.51
2	2.727750000 GHz	45.26	Max Peak	
1	4.446000000 GHz	30.13	CISPR Averag	-23.87
2	4.446000000 GHz	42.75	Max Peak	
1	4.886500000 GHz	44.71	CISPR Averag	-9.29
2	4.886500000 GHz	48.81	Max Peak	
1	7.032750000 GHz	28.74	CISPR Averag	-25.26
2	7.032750000 GHz	41.19	Max Peak	
1	11.291000000 GHz	30.18	CISPR Averag	-23.82
2	11.291000000 GHz	42.80	Max Peak	

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8.1.13 25MHz, 30 MHz to 200 MHz, Horizontal Polarity Plot



30.Dec 20 11:02

Test Spec CISPR 22 Radiated Disturbances

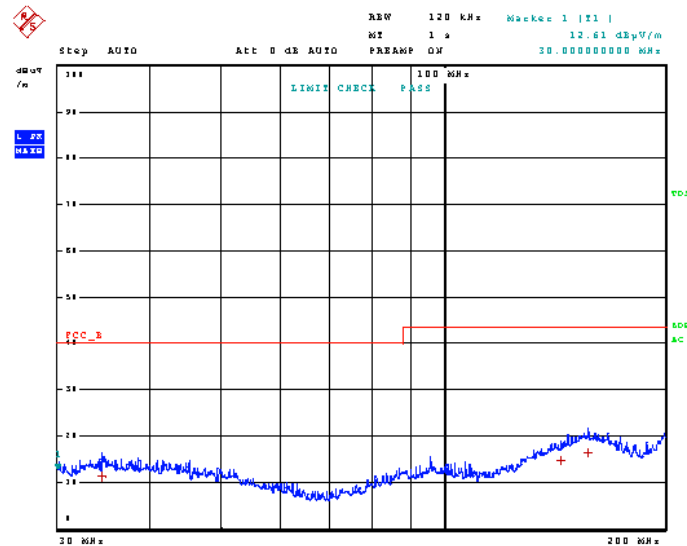
Polarity

Vertical

Stepped Scan (1 Range)

Scan Start: 30 MHz
Scan Stop: 200 MHz
Detector: Trace 1: MAX PEAK
Transducer: TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
30.000000 MHz	200.000000 MHz	40.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1



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8.1.14 25MHz, 30 MHz to 200 MHz, Horizontal Polarity Table

30.Dec 20 11:02

Test Spec CISPR 22 Radiated Disturbances
Polarity
Vertical

Final Measurement

Meas Time: 1 s
Margin: 25 dB
Subranges: 3

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	34.320000000 MHz	11.28	Quasi Peak	-28.72
1	144.520000000 MHz	14.83	Quasi Peak	-28.67
1	157.320000000 MHz	16.47	Quasi Peak	-27.03

Page 2 of 2

8.1.15 25MHz, 30 MHz to 200 MHz, Vertical Polarity Plot



30.Dec 20 11:01

Test Spec CISPR 22 Radiated Disturbances

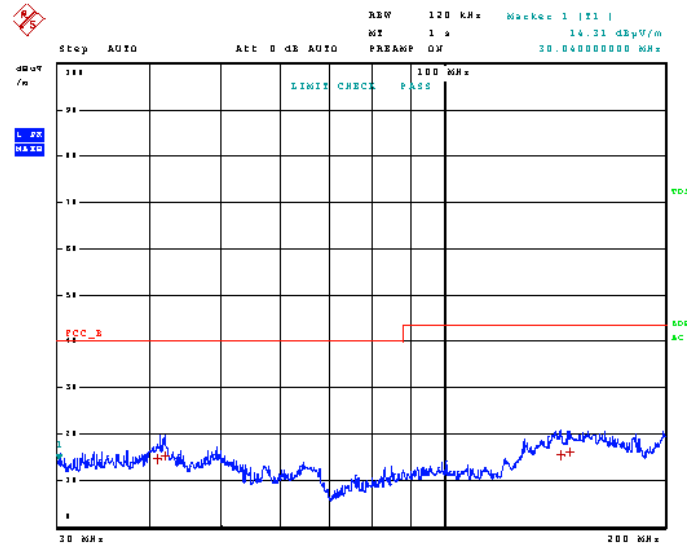
Polarity

Vertical

Stepped Scan (1 Range)

Scan Start: 30 MHz
Scan Stop: 200 MHz
Detector: Trace 1: MAX PEAK
Transducer: TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
30.000000 MHz	200.000000 MHz	40.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1





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8.1.16 25MHz, 30 MHz to 200 MHz, Vertical Polarity Table

30.Dec 20 11:01

Test Spec CISPR 22 Radiated Disturbances
Polarity
Vertical

Final Measurement

Meas Time: 1 s
Margin: 25 dB
Subranges: 4

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	40.840000000 MHz	14.52	Quasi Peak	-25.48
1	41.880000000 MHz	15.23	Quasi Peak	-24.77
1	144.280000000 MHz	15.38	Quasi Peak	-28.12
1	148.360000000 MHz	15.97	Quasi Peak	-27.53

Page 2 of 2



Test Spec	CISPR 22 Radiated Disturbances
Polarity	Horizontal

Scan Start:	200 MHz
Scan Stop:	1 GHz
Detector:	Trace 1: MAX PEAK
Transducer:	TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
200.000000 MHz	1.000000 GHz	30.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1





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8.1.18 25MHz, 200 MHz to 1000 MHz, Horizontal Polarity Table

30.Dec 20 10:47

Test Spec CISPR 22 Radiated Disturbances
Polarity
Horizontal

Final Measurement

Meas Time: 1 s
Margin: 20 dB
Subranges: 2

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	758.510000000 MHz	24.31	Quasi Peak	-21.69
1	817.490000000 MHz	33.33	Quasi Peak	-12.67

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8.1.19 25MHz, 200 MHz to 1000 MHz, Vertical Polarity Plot



30.Dec 20 10:49

Test Spec CISPR 22 Radiated Disturbances

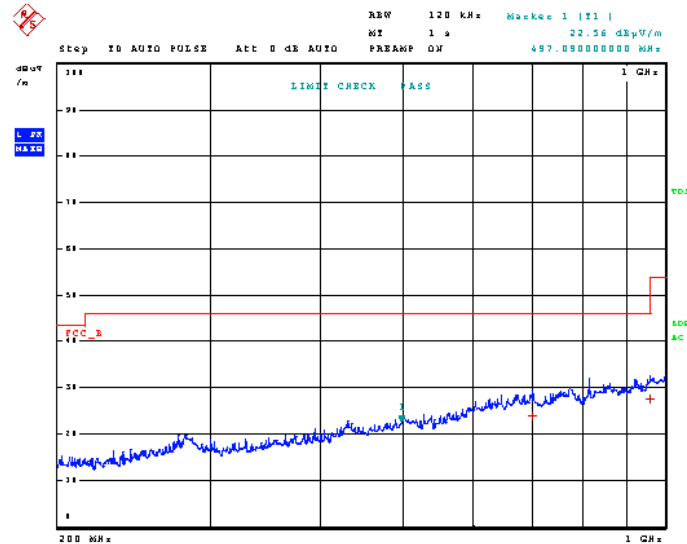
Polarity

Horizontal

Time Domain Scan (1 Range)

Scan Start: 200 MHz
Scan Stop: 1 GHz
Detector: Trace 1: MAX PEAK
Transducer: TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
200.000000 MHz	1.000000 GHz	30.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1





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8.1.20 25MHz, 200 MHz to 1000 MHz, Vertical Polarity Table

30.Dec 20 10:49

Test Spec CISPR 22 Radiated Disturbances
Polarity
Horizontal

Final Measurement

Meas Time: 1 s
Margin: 20 dB
Subranges: 2

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	702.140000000 MHz	23.86	Quasi Peak	-22.14
1	959.750000000 MHz	27.54	Quasi Peak	-18.46

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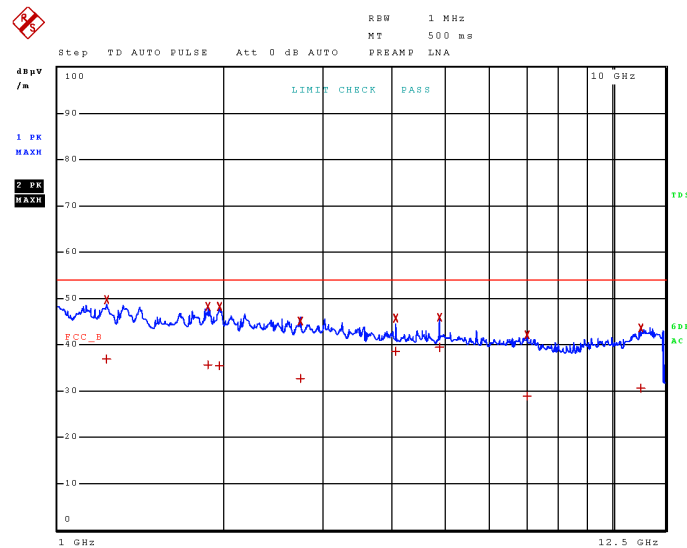
8.1.21 25MHz, above 1000 MHz, Horizontal Polarity Plot

29.Dec 20 17:56

Time Domain Scan (1 Range)

Scan Start: 1 GHz
Scan Stop: 12.5 GHz
Detector: Trace 1: MAX PEAK Trace 2: MAX PEAK
Transducer: TDS_05

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
1.000000 GHz	12.500000 GHz	250.00 kHz	1.00 MHz	100 μ s	Auto	35 dB	INPUT1





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8.1.22 25MHz, above 1000 MHz, Horizontal Polarity Table

29.Dec 20 17:56

Final Measurement

Meas Time: 500 ms
Margin: 40 dB
Subranges: 16

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
1	1.224250000 GHz	36.94	CISPR Averag	-17.06
2	1.224250000 GHz	49.77	Max Peak	
1	1.867750000 GHz	35.51	CISPR Averag	-18.49
2	1.867750000 GHz	48.13	Max Peak	
1	1.960000000 GHz	35.48	CISPR Averag	-18.52
2	1.960000000 GHz	48.27	Max Peak	
1	2.736000000 GHz	32.61	CISPR Averag	-21.39
2	2.736000000 GHz	45.05	Max Peak	
1	4.077500000 GHz	38.62	CISPR Averag	-15.38
2	4.077500000 GHz	45.61	Max Peak	
1	4.892750000 GHz	39.40	CISPR Averag	-14.60
2	4.892750000 GHz	45.87	Max Peak	
1	7.036750000 GHz	28.99	CISPR Averag	-25.01
2	7.036750000 GHz	42.02	Max Peak	
1	11.295750000 GHz	30.51	CISPR Averag	-23.49
2	11.295750000 GHz	43.57	Max Peak	

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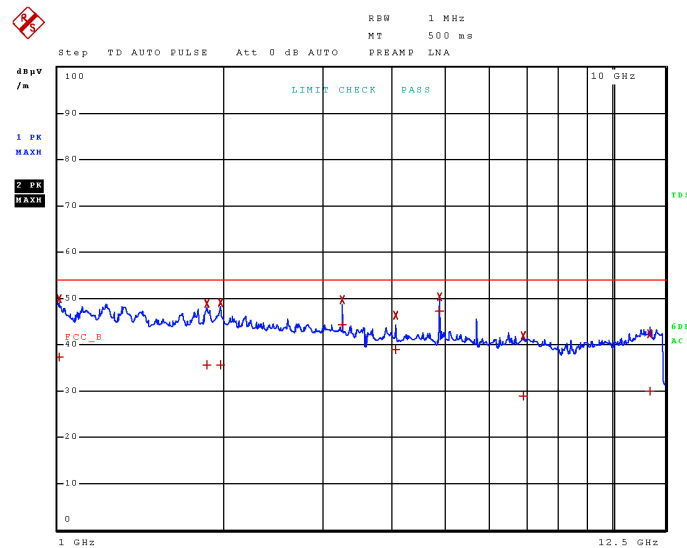
8.1.23 25MHz, above 1000 MHz, Vertical Polarity Plot

29.Dec 20 17:52

Time Domain Scan (1 Range)

Scan Start: 1 GHz
Scan Stop: 12.5 GHz
Detector: Trace 1: MAX PEAK Trace 2: MAX PEAK
Transducer: TDS_05

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
1.000000 GHz	12.500000 GHz	250.00 kHz	1.00 MHz	100 μ s	Auto	35 dB	INPUT1





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8.1.24 25MHz, above 1000 MHz, Vertical Polarity Table

29 Dec 20 17:52

Final Measurement

Meas Time: 500 ms
Margin: 40 dB
Subranges: 16

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	1.005250000 GHz	37.29	CISPR Averag	-16.71
2	1.005250000 GHz	49.89	Max Peak	
1	1.857500000 GHz	35.54	CISPR Averag	-18.46
2	1.857500000 GHz	48.78	Max Peak	
1	1.963250000 GHz	35.61	CISPR Averag	-18.39
2	1.963250000 GHz	49.08	Max Peak	
1	3.261750000 GHz	44.15	CISPR Averag	-9.85
2	3.261750000 GHz	49.75	Max Peak	
1	4.077250000 GHz	38.88	CISPR Averag	-15.12
2	4.077250000 GHz	46.22	Max Peak	
1	4.892750000 GHz	47.22	CISPR Averag	-6.78
2	4.892750000 GHz	50.30	Max Peak	
1	6.934250000 GHz	28.85	CISPR Averag	-25.15
2	6.934250000 GHz	41.94	Max Peak	
1	11.739000000 GHz	30.00	CISPR Averag	-24.00
2	11.739000000 GHz	42.35	Max Peak	

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8.1.25 54MHz, 30 MHz to 200 MHz, Horizontal Polarity Plot



30.Dec 20 11:08

Test Spec CISPR 22 Radiated Disturbances

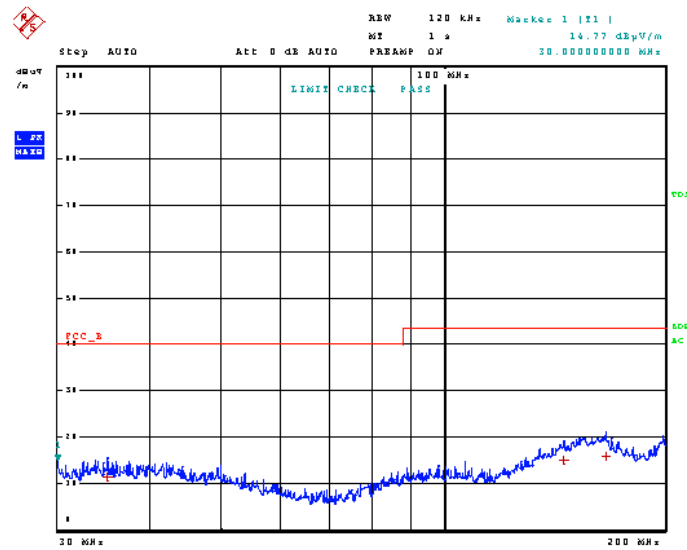
Polarity

Vertical

Stepped Scan (1 Range)

Scan Start: 30 MHz
Scan Stop: 200 MHz
Detector: Trace 1: MAX PEAK
Transducer: TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
30.000000 MHz	200.000000 MHz	40.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1





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8.1.26 54MHz, 30 MHz to 200 MHz, Horizontal Polarity Table

30.Dec 20 11:08

Test Spec CISPR 22 Radiated Disturbances
Polarity
Vertical

Final Measurement

Meas Time: 1 s
Margin: 25 dB
Subranges: 3

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	35.040000000 MHz	11.54	Quasi Peak	-28.46
1	145.720000000 MHz	15.06	Quasi Peak	-28.44
1	166.160000000 MHz	15.83	Quasi Peak	-27.67

Page 2 of 2

8.1.27 54MHz, 30 MHz to 200 MHz, Vertical Polarity Plot



30.Dec 20 11:09

Test Spec CISPR 22 Radiated Disturbances

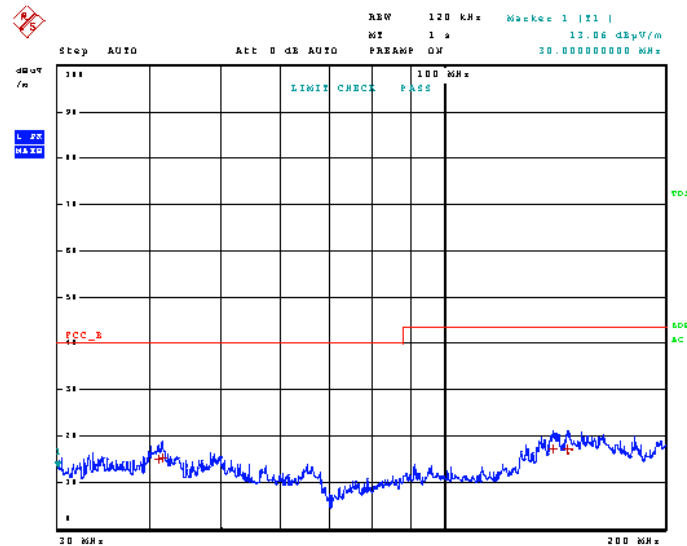
Polarity

Vertical

Stepped Scan (1 Range)

Scan Start: 30 MHz
 Scan Stop: 200 MHz
 Detector: Trace 1: MAX PEAK
 Transducer: TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
30.000000 MHz	200.000000 MHz	40.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1



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8.1.28 54MHz, 30 MHz to 200 MHz, Vertical Polarity Table

30.Dec 20 11:09

Test Spec CISPR 22 Radiated Disturbances

Polarity

Vertical

Final Measurement

Meas Time: 1 s
Margin: 25 dB
Subranges: 4

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	41.040000000 MHz	15.02	Quasi Peak	-24.98
1	41.480000000 MHz	15.26	Quasi Peak	-24.74
1	141.160000000 MHz	17.27	Quasi Peak	-26.23
1	147.640000000 MHz	17.10	Quasi Peak	-26.40

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8.1.29 54MHz, 200 MHz to 1000 MHz, Horizontal Polarity Plot



30 Dec 20 10:50

Test Spec CISPR 22 Radiated Disturbances

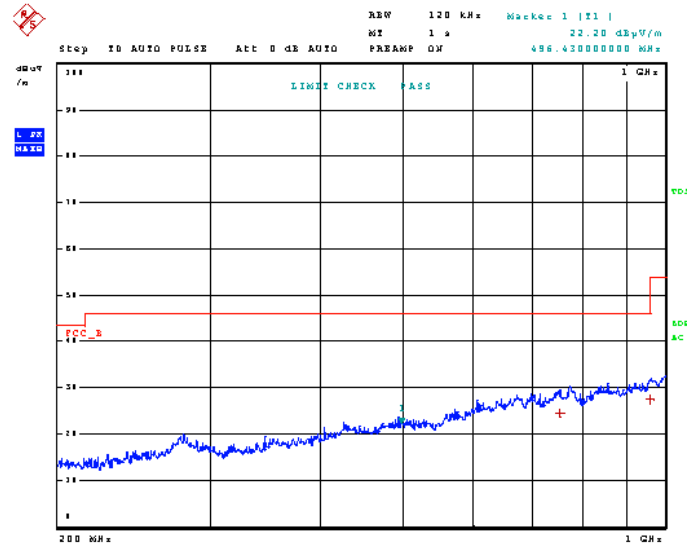
Polarity

Horizontal

Time Domain Scan (1 Range)

Scan Start: 200 MHz
Scan Stop: 1 GHz
Detector: Trace 1: MAX PEAK
Transducer: TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
200.000000 MHz	1.000000 GHz	30.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1



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8.1.30 54MHz, 200 MHz to 1000 MHz, Horizontal Polarity Table

30.Dec 20 10:50

Test Spec CISPR 22 Radiated Disturbances
Polarity
Horizontal

Final Measurement

Meas Time: 1 s
Margin: 20 dB
Subranges: 2

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	756.590000000 MHz	24.38	Quasi Peak	-21.62
1	959.450000000 MHz	27.47	Quasi Peak	-18.53

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8.1.31 54MHz, 200 MHz to 1000 MHz, Vertical Polarity Plot



30.Dec 20 10:50

Test Spec CISPR 22 Radiated Disturbances

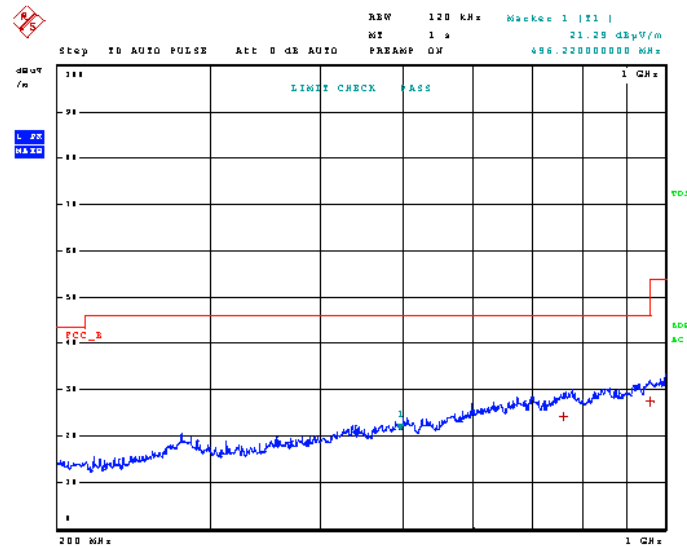
Polarity

Horizontal

Time Domain Scan (1 Range)

Scan Start: 200 MHz
Scan Stop: 1 GHz
Detector: Trace 1: MAX PEAK
Transducer: TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
200.000000 MHz	1.000000 GHz	30.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1





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8.1.32 54MHz, 200 MHz to 1000 MHz, Vertical Polarity Table

30.Dec 20 10:50

Test Spec CISPR 22 Radiated Disturbances
Polarity
Horizontal

Final Measurement

Meas Time: 1 s
Margin: 20 dB
Subranges: 2

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
1	762.080000000 MHz	24.23	Quasi Peak	-21.77
1	958.730000000 MHz	27.50	Quasi Peak	-18.50

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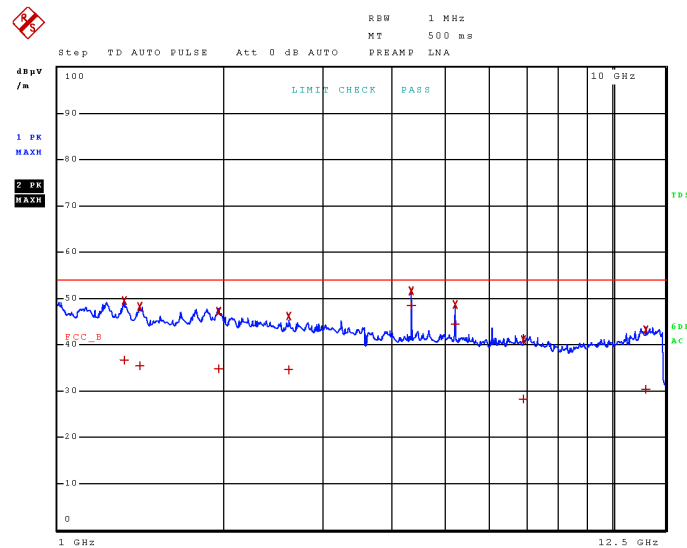
8.1.33 54MHz, above 1000 MHz, Horizontal Polarity Plot

29.Dec 20 18:19

Time Domain Scan (1 Range)

Scan Start: 1 GHz
Scan Stop: 12.5 GHz
Detector: Trace 1: MAX PEAK Trace 2: MAX PEAK
Transducer: TDS_05

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
1.000000 GHz	12.500000 GHz	250.00 kHz	1.00 MHz	100 μ s	Auto	35 dB	INPUT1





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8.1.34 54MHz, above 1000 MHz, Horizontal Polarity Table

29.Dec 20 18:19

Final Measurement

Meas Time: 500 ms
Margin: 40 dB
Subranges: 16

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
1	1.317250000 GHz	36.66	CISPR Averag	-17.34
2	1.317250000 GHz	49.54	Max Peak	
1	1.405750000 GHz	35.50	CISPR Averag	-18.50
2	1.405750000 GHz	48.11	Max Peak	
1	1.946750000 GHz	34.86	CISPR Averag	-19.14
2	1.946750000 GHz	47.14	Max Peak	
1	2.608250000 GHz	34.63	CISPR Averag	-19.37
2	2.608250000 GHz	46.05	Max Peak	
1	4.347250000 GHz	48.43	CISPR Averag	-5.57
2	4.347250000 GHz	51.65	Max Peak	
1	5.216750000 GHz	44.35	CISPR Averag	-9.65
2	5.216750000 GHz	48.65	Max Peak	
1	6.921250000 GHz	28.35	CISPR Averag	-25.65
2	6.921250000 GHz	40.98	Max Peak	
1	11.539750000 GHz	30.34	CISPR Averag	-23.66
2	11.539750000 GHz	43.24	Max Peak	

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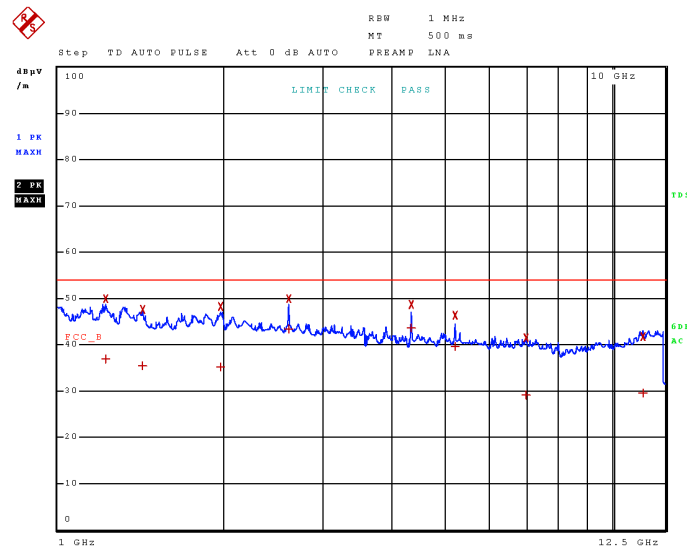
8.1.35 54MHz, above 1000 MHz, Vertical Polarity Plot

29.Dec 20 18:17

Time Domain Scan (1 Range)

Scan Start: 1 GHz
Scan Stop: 12.5 GHz
Detector: Trace 1: MAX PEAK Trace 2: MAX PEAK
Transducer: TDS_05

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
1.000000 GHz	12.500000 GHz	250.00 kHz	1.00 MHz	100 μ s	Auto	35 dB	INPUT1





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8.1.36 54MHz, above 1000 MHz, Vertical Polarity Table

29.Dec 20 18:17

Final Measurement

Meas Time: 500 ms
Margin: 40 dB
Subranges: 16

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
1	1.220750000 GHz	36.83	CISPR Averag	-17.17
2	1.220750000 GHz	49.84	Max Peak	
1	1.420000000 GHz	35.35	CISPR Averag	-18.65
2	1.420000000 GHz	47.54	Max Peak	
1	1.967250000 GHz	35.11	CISPR Averag	-18.89
2	1.967250000 GHz	48.11	Max Peak	
1	2.608250000 GHz	43.44	CISPR Averag	-10.56
2	2.608250000 GHz	49.82	Max Peak	
1	4.347250000 GHz	43.64	CISPR Averag	-10.36
2	4.347250000 GHz	48.72	Max Peak	
1	5.216750000 GHz	39.69	CISPR Averag	-14.31
2	5.216750000 GHz	46.38	Max Peak	
1	6.995250000 GHz	29.07	CISPR Averag	-24.93
2	6.995250000 GHz	41.54	Max Peak	
1	11.406000000 GHz	29.56	CISPR Averag	-24.44
2	11.406000000 GHz	41.79	Max Peak	

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30.Dec 20 11:07

Test Spec CISPR 22 Radiated Disturbances

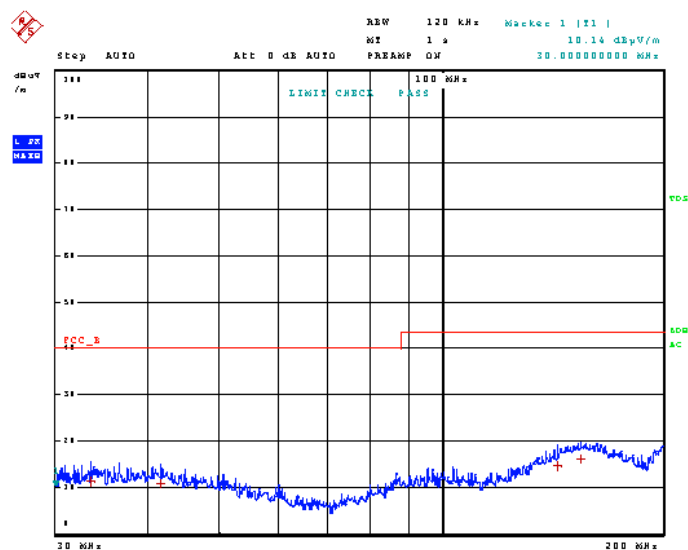
Polarity

Vertical

Stepped Scan (1 Range)

Scan Start:	30 MHz
Scan Stop:	200 MHz
Detector:	Trace 1: MAX PEAK
Transducer:	TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
30.000000 MHz	200.000000 MHz	40.00 kHz	120.00 kHz	50 μs	Auto	20 dB	INPUT1



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8.1.38 108MHz, 30 MHz to 200 MHz, Horizontal Polarity Table

30.Dec 20 11:07

Test Spec CISPR 22 Radiated Disturbances
Polarity
Vertical

Final Measurement

Meas Time: 1 s
Margin: 25 dB
Subranges: 4

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	33.480000000 MHz	11.34	Quasi Peak	-28.66
1	41.640000000 MHz	10.78	Quasi Peak	-29.22
1	143.400000000 MHz	14.56	Quasi Peak	-28.94
1	154.360000000 MHz	16.16	Quasi Peak	-27.34

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8.1.39 108MHz, 30 MHz to 200 MHz, Vertical Polarity Plot



30.Dec 20 11:06

Test Spec CISPR 22 Radiated Disturbances

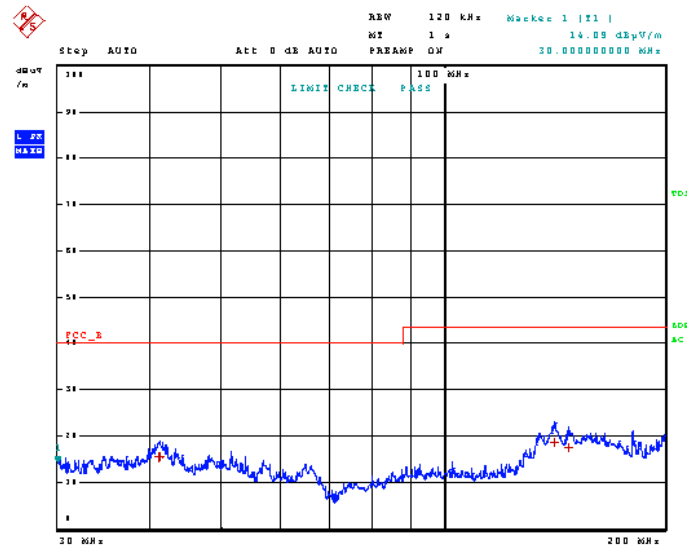
Polarity

Vertical

Stepped Scan (1 Range)

Scan Start: 30 MHz
Scan Stop: 200 MHz
Detector: Trace 1: MAX PEAK
Transducer: TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
30.000000 MHz	200.000000 MHz	40.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1



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8.1.40 108MHz, 30 MHz to 200 MHz, Vertical Polarity Table

30.Dec 20 11:06

Test Spec CISPR 22 Radiated Disturbances

Polarity

Vertical

Final Measurement

Meas Time: 1 s

Margin: 25 dB

Subranges: 4

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	41.120000000 MHz	15.52	Quasi Peak	-24.48
1	41.240000000 MHz	15.57	Quasi Peak	-24.43
1	141.400000000 MHz	18.59	Quasi Peak	-24.91
1	148.000000000 MHz	17.62	Quasi Peak	-25.88

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8.1.41 108MHz, 200 MHz to 1000 MHz, Horizontal Polarity Plot



30.Dec 20 10:36

Test Spec CISPR 22 Radiated Disturbances

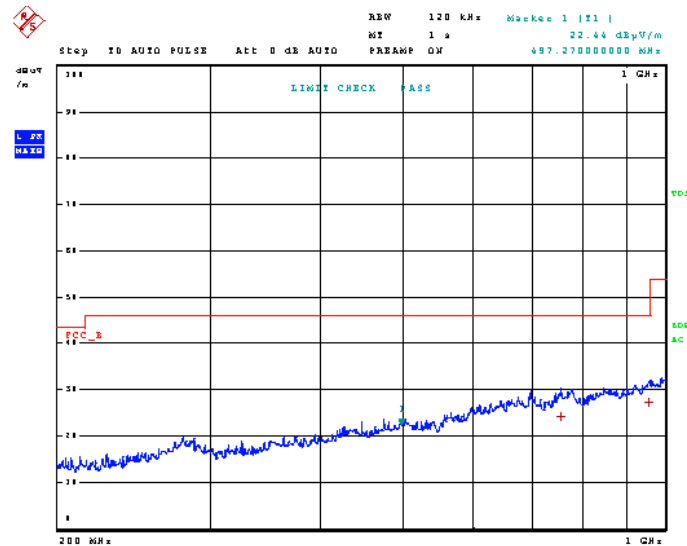
Polarity

Horizontal

Time Domain Scan (1 Range)

Scan Start: 200 MHz
Scan Stop: 1 GHz
Detector: Trace 1: MAX PEAK
Transducer: TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
200.000000 MHz	1.000000 GHz	30.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1





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8.1.42 108MHz, 200 MHz to 1000 MHz, Horizontal Polarity Table

30.Dec 20 10:36

Test Spec CISPR 22 Radiated Disturbances
Polarity
Horizontal

Final Measurement

Meas Time: 1 s
Margin: 20 dB
Subranges: 2

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	759.620000000 MHz	24.25	Quasi Peak	-21.75
1	957.710000000 MHz	27.30	Quasi Peak	-18.70

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8.1.43 108MHz, 200 MHz to 1000 MHz, Vertical Polarity Plot



30.Dec 20 10:37

Test Spec CISPR 22 Radiated Disturbances

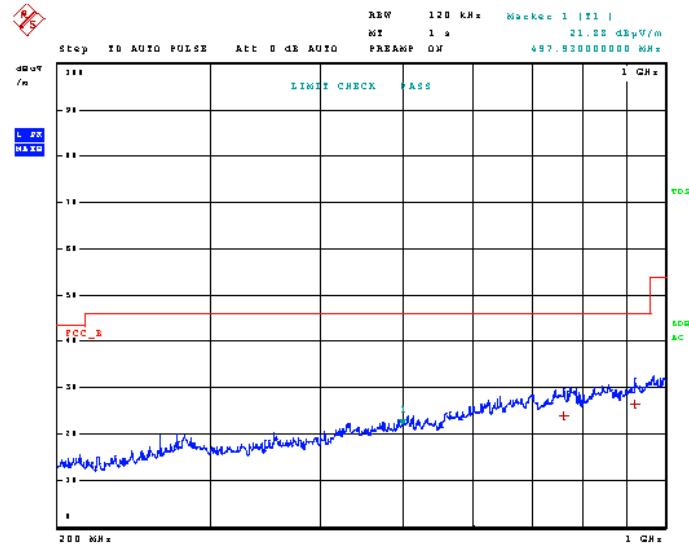
Polarity

Horizontal

Time Domain Scan (1 Range)

Scan Start: 200 MHz
Scan Stop: 1 GHz
Detector: Trace 1: MAX PEAK
Transducer: TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
200.000000 MHz	1.000000 GHz	30.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1



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8.1.44 108MHz, 200 MHz to 1000 MHz, Vertical Polarity Table

30.Dec 20 10:37

Test Spec CISPR 22 Radiated Disturbances
Polarity
Horizontal

Final Measurement

Meas Time: 1 s
Margin: 20 dB
Subranges: 2

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	764.180000000 MHz	24.14	Quasi Peak	-21.86
1	922.280000000 MHz	26.32	Quasi Peak	-19.68

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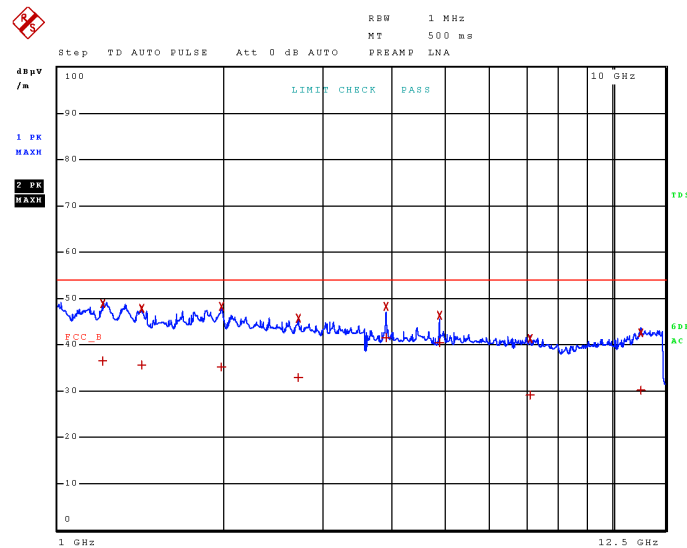
8.1.45 108MHz, above 1000 MHz, Horizontal Polarity Plot

29.Dec 20 17:59

Time Domain Scan (1 Range)

Scan Start: 1 GHz
Scan Stop: 12.5 GHz
Detector: Trace 1: MAX PEAK Trace 2: MAX PEAK
Transducer: TDS_05

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
1.000000 GHz	12.500000 GHz	250.00 kHz	1.00 MHz	100 μ s	Auto	35 dB	INPUT1





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8.1.46 108MHz, above 1000 MHz, Horizontal Polarity Table

29.Dec 20 17:59

Final Measurement

Meas Time: 500 ms
Margin: 40 dB
Subranges: 16

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
1	1.206750000 GHz	36.50	CISPR Averag	-17.50
2	1.206750000 GHz	48.90	Max Peak	
1	1.415750000 GHz	35.67	CISPR Averag	-18.33
2	1.415750000 GHz	47.75	Max Peak	
1	1.973500000 GHz	35.17	CISPR Averag	-18.83
2	1.973500000 GHz	48.13	Max Peak	
1	2.714000000 GHz	32.78	CISPR Averag	-21.22
2	2.714000000 GHz	45.65	Max Peak	
1	3.910000000 GHz	41.54	CISPR Averag	-12.46
2	3.910000000 GHz	48.19	Max Peak	
1	4.887500000 GHz	40.35	CISPR Averag	-13.65
2	4.887500000 GHz	46.25	Max Peak	
1	7.118000000 GHz	29.09	CISPR Averag	-24.91
2	7.118000000 GHz	41.22	Max Peak	
1	11.275750000 GHz	30.05	CISPR Averag	-23.95
2	11.275750000 GHz	42.47	Max Peak	

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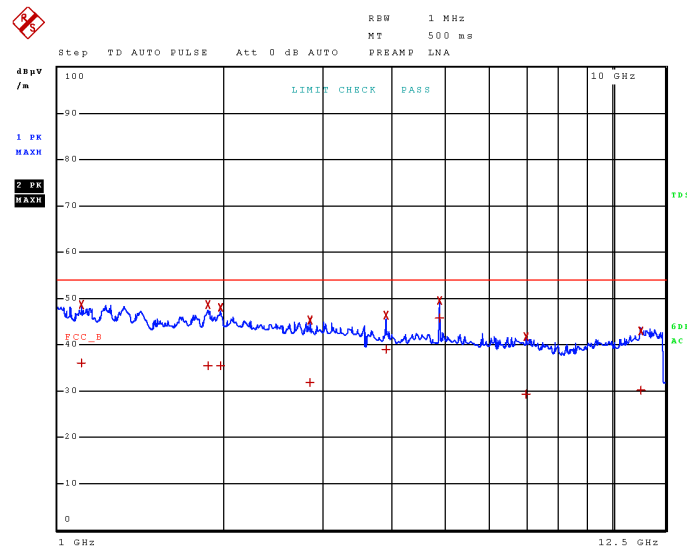
8.1.47 108MHz, above 1000 MHz, Vertical Polarity Plot

29.Dec 20 18:01

Time Domain Scan (1 Range)

Scan Start: 1 GHz
Scan Stop: 12.5 GHz
Detector: Trace 1: MAX PEAK Trace 2: MAX PEAK
Transducer: TDS_05

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
1.000000 GHz	12.500000 GHz	250.00 kHz	1.00 MHz	100 μ s	Auto	35 dB	INPUT1





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8.1.48 108MHz, above 1000 MHz, Vertical Polarity Table

29.Dec 20 18:01

Final Measurement

Meas Time: 500 ms
Margin: 40 dB
Subranges: 16

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
1	1.101250000 GHz	36.09	CISPR Averag	-17.91
2	1.101250000 GHz	48.63	Max Peak	
1	1.868000000 GHz	35.43	CISPR Averag	-18.57
2	1.868000000 GHz	48.59	Max Peak	
1	1.963000000 GHz	35.46	CISPR Averag	-18.54
2	1.963000000 GHz	47.96	Max Peak	
1	2.850000000 GHz	31.83	CISPR Averag	-22.17
2	2.850000000 GHz	45.18	Max Peak	
1	3.910000000 GHz	38.95	CISPR Averag	-15.05
2	3.910000000 GHz	46.41	Max Peak	
1	4.887500000 GHz	45.80	CISPR Averag	-8.20
2	4.887500000 GHz	49.38	Max Peak	
1	7.015250000 GHz	29.29	CISPR Averag	-24.71
2	7.015250000 GHz	41.66	Max Peak	
1	11.282500000 GHz	30.06	CISPR Averag	-23.94
2	11.282500000 GHz	42.90	Max Peak	

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8.1.49 174MHz, 30 MHz to 200 MHz, Horizontal Polarity Plot



30.Dec 20 10:59

Test Spec CISPR 22 Radiated Disturbances

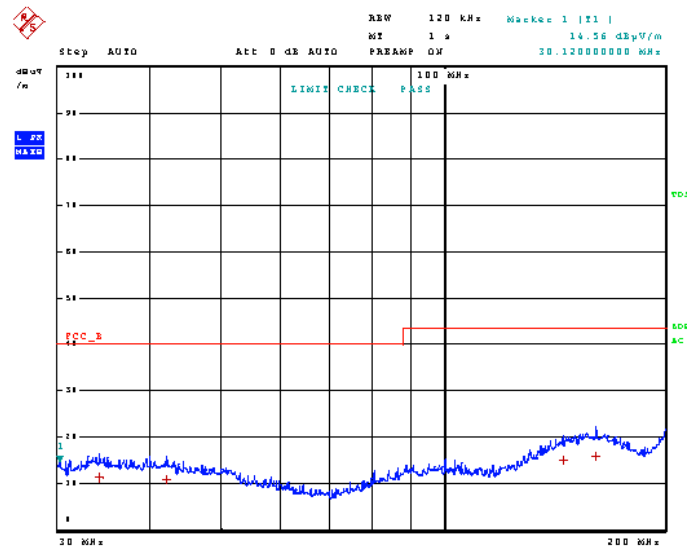
Polarity

Vertical

Stepped Scan (1 Range)

Scan Start: 30 MHz
Scan Stop: 200 MHz
Detector: Trace 1: MAX PEAK
Transducer: TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
30.000000 MHz	200.000000 MHz	40.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1





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8.1.50 174MHz, 30 MHz to 200 MHz, Horizontal Polarity Table

30.Dec 20 10:59

Test Spec CISPR 22 Radiated Disturbances
Polarity
Vertical

Final Measurement

Meas Time: 1 s
Margin: 25 dB
Subranges: 4

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	34.040000000 MHz	11.24	Quasi Peak	-28.76
1	42.080000000 MHz	10.81	Quasi Peak	-29.19
1	145.360000000 MHz	14.98	Quasi Peak	-28.52
1	161.360000000 MHz	15.88	Quasi Peak	-27.62

Page 2 of 2



8.1.51 174MHz, 30 MHz to 200 MHz, Vertical Polarity Plot



30.Dec 20 11:00

Test Spec CISPR 22 Radiated Disturbances

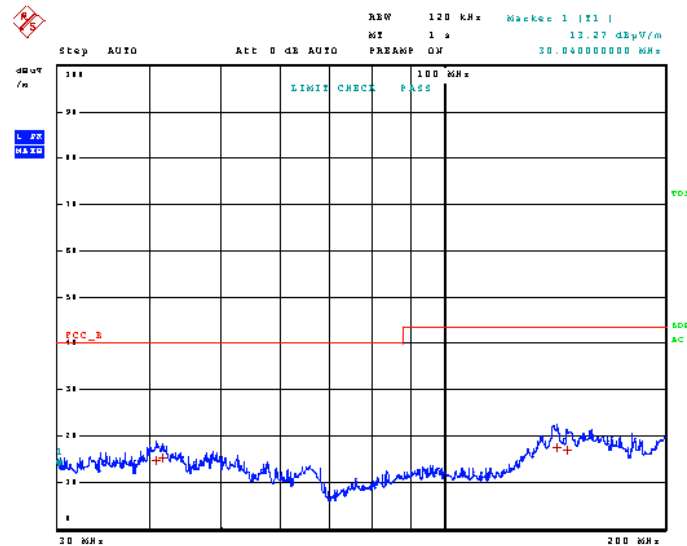
Polarity

Vertical

Stepped Scan (1 Range)

Scan Start: 30 MHz
Scan Stop: 200 MHz
Detector: Trace 1: MAX PEAK
Transducer: TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
30.000000 MHz	200.000000 MHz	40.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1





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8.1.52 174MHz, 30 MHz to 200 MHz, Vertical Polarity Table

30.Dec 20 11:00

Test Spec CISPR 22 Radiated Disturbances
Polarity
Vertical

Final Measurement

Meas Time: 1 s
Margin: 25 dB
Subranges: 4

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	40.800000000 MHz	14.90	Quasi Peak	-25.10
1	41.680000000 MHz	15.24	Quasi Peak	-24.76
1	142.720000000 MHz	17.45	Quasi Peak	-26.05
1	147.200000000 MHz	16.83	Quasi Peak	-26.67

Page 2 of 2



8.1.53 174MHz, 200 MHz to 1000 MHz, Horizontal Polarity Plot



30.Dec 20 10:39

Test Spec CISPR 22 Radiated Disturbances

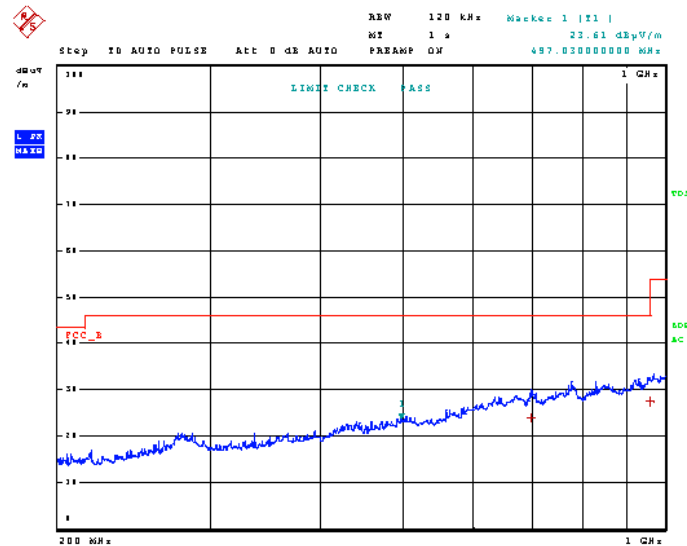
Polarity

Horizontal

Time Domain Scan (1 Range)

Scan Start: 200 MHz
Scan Stop: 1 GHz
Detector: Trace 1: MAX PEAK
Transducer: TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
200.000000 MHz	1.000000 GHz	30.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1





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8.1.54 174MHz, 200 MHz to 1000 MHz, Horizontal Polarity Table

30.Dec 20 10:39

Test Spec CISPR 22 Radiated Disturbances

Polarity

Horizontal

Final Measurement

Meas Time: 1 s

Margin: 20 dB

Subranges: 2

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	699.860000000 MHz	23.85	Quasi Peak	-22.15
1	959.000000000 MHz	27.45	Quasi Peak	-18.55

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8.1.55 174MHz, 200 MHz to 1000 MHz, Vertical Polarity Plot



30.Dec 20 10:41

Test Spec CISPR 22 Radiated Disturbances

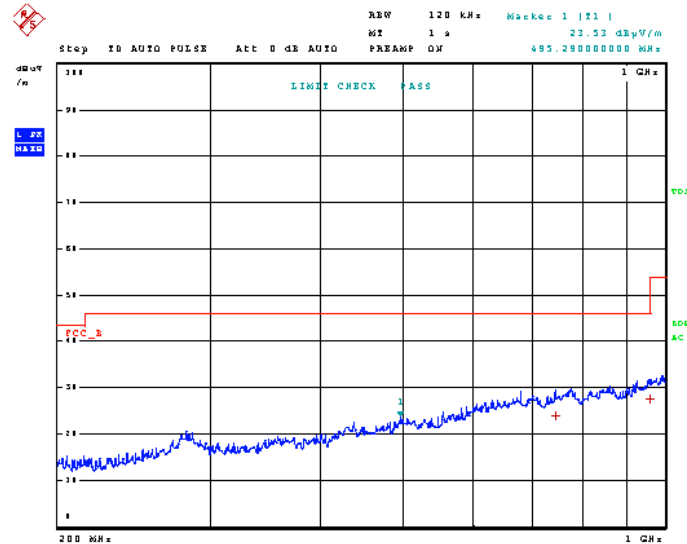
Polarity

Horizontal

Time Domain Scan (1 Range)

Scan Start: 200 MHz
Scan Stop: 1 GHz
Detector: Trace 1: MAX PEAK
Transducer: TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
200.000000 MHz	1.000000 GHz	30.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1



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8.1.56 174MHz, 200 MHz to 1000 MHz, Vertical Polarity Table

30.Dec 20 10:41

Test Spec CISPR 22 Radiated Disturbances
Polarity
Horizontal

Final Measurement

Meas Time: 1 s
Margin: 20 dB
Subranges: 2

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
1	747.350000000 MHz	23.92	Quasi Peak	-22.08
1	959.840000000 MHz	27.54	Quasi Peak	-18.46

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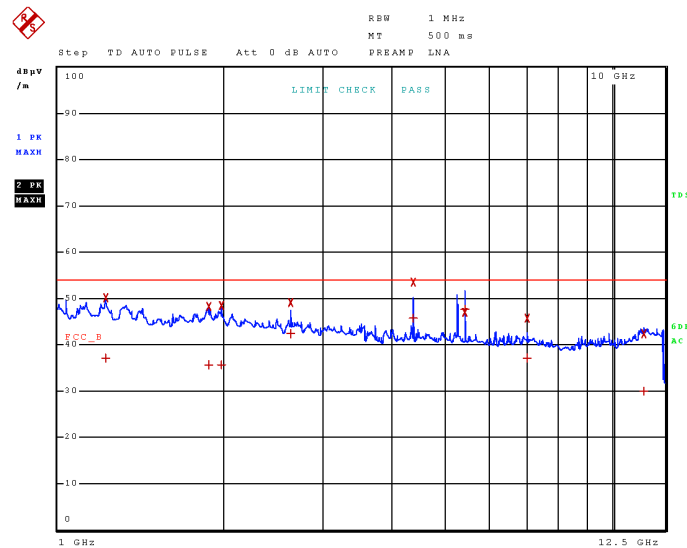
8.1.57 174MHz, above 1000 MHz, Horizontal Polarity Plot

29.Dec 20 17:47

Time Domain Scan (1 Range)

Scan Start: 1 GHz
Scan Stop: 12.5 GHz
Detector: Trace 1: MAX PEAK Trace 2: MAX PEAK
Transducer: TDS_05

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
1.000000 GHz	12.500000 GHz	250.00 kHz	1.00 MHz	100 μ s	Auto	35 dB	INPUT1





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8.1.58 174MHz, above 1000 MHz, Horizontal Polarity Table

29.Dec 20 17:47

Final Measurement

Meas Time: 500 ms
Margin: 40 dB
Subranges: 16

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
1	1.221000000 GHz	37.15	CISPR Averag	-16.85
2	1.221000000 GHz	50.19	Max Peak	
1	1.869000000 GHz	35.67	CISPR Averag	-18.33
2	1.869000000 GHz	48.22	Max Peak	
1	1.970500000 GHz	35.53	CISPR Averag	-18.47
2	1.970500000 GHz	48.33	Max Peak	
1	2.633500000 GHz	42.29	CISPR Averag	-11.71
2	2.633500000 GHz	49.06	Max Peak	
1	4.389250000 GHz	45.66	CISPR Averag	-8.34
2	4.389250000 GHz	53.37	Max Peak	
1	5.432250000 GHz	47.63	CISPR Averag	-6.37
2	5.432250000 GHz	46.90	Max Peak	
1	7.023000000 GHz	37.07	CISPR Averag	-16.93
2	7.023000000 GHz	45.67	Max Peak	
1	11.451500000 GHz	29.97	CISPR Averag	-24.03
2	11.451500000 GHz	42.29	Max Peak	

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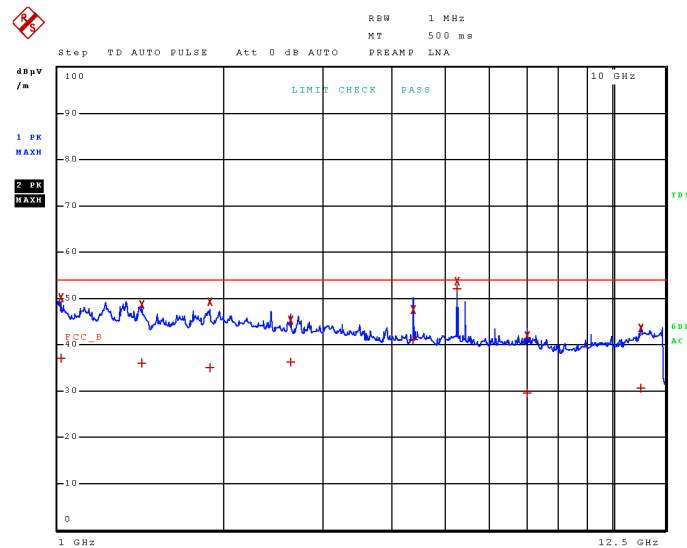
8.1.59 174MHz, above 1000 MHz, Vertical Polarity Plot

29.Dec 20 17:49

Time Domain Scan (1 Range)

Scan Start: 1 GHz
Scan Stop: 12.5 GHz
Detector: Trace 1: MAX PEAK Trace 2: MAX PEAK
Transducer: TDS_05

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
1.000000 GHz	12.500000 GHz	250.00 kHz	1.00 MHz	100 μ s	Auto	35 dB	INPUT1





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8.1.60 174MHz, above 1000 MHz, Vertical Polarity Table

29.Dec 20 17:49

Final Measurement

Meas Time: 500 ms
Margin: 40 dB
Subranges: 16

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
1	1.011000000 GHz	37.07	CISPR Averag	-16.93
2	1.011000000 GHz	50.20	Max Peak	
1	1.413500000 GHz	36.04	CISPR Averag	-17.96
2	1.413500000 GHz	48.72	Max Peak	
1	1.881500000 GHz	35.08	CISPR Averag	-18.92
2	1.881500000 GHz	49.27	Max Peak	
1	2.633500000 GHz	36.27	CISPR Averag	-17.73
2	2.633500000 GHz	45.23	Max Peak	
1	4.389250000 GHz	41.16	CISPR Averag	-12.84
2	4.389250000 GHz	47.56	Max Peak	
1	5.267000000 GHz	52.04	CISPR Averag	-1.96
2	5.267000000 GHz	53.69	Max Peak	
1	7.022500000 GHz	29.55	CISPR Averag	-24.45
2	7.022500000 GHz	42.00	Max Peak	
1	11.291250000 GHz	30.51	CISPR Averag	-23.49
2	11.291250000 GHz	43.55	Max Peak	

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8.1.61 406MHz, 30 MHz to 200 MHz, Horizontal Polarity Plot



30.Dec 20 11:03

Test Spec CISPR 22 Radiated Disturbances

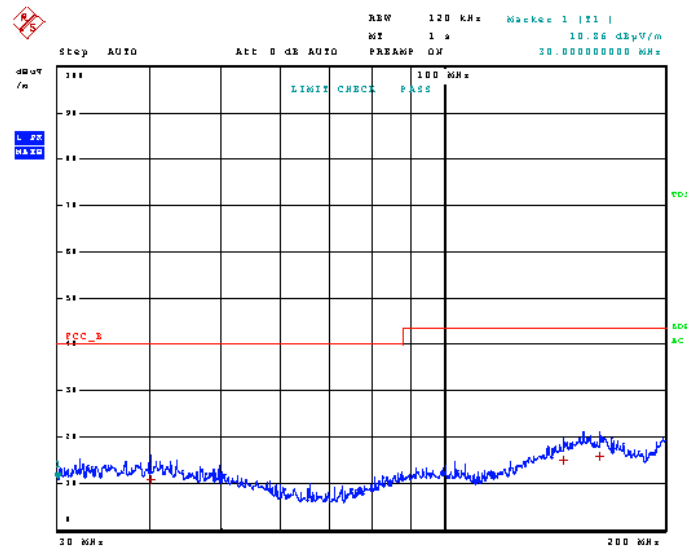
Polarity

Vertical

Stepped Scan (1 Range)

Scan Start: 30 MHz
Scan Stop: 200 MHz
Detector: Trace 1: MAX PEAK
Transducer: TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
30.000000 MHz	200.000000 MHz	40.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1



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8.1.62 406MHz, 30 MHz to 200 MHz, Horizontal Polarity Table

30.Dec 20 11:03

Test Spec CISPR 22 Radiated Disturbances
Polarity
Vertical

Final Measurement

Meas Time: 1 s
Margin: 25 dB
Subranges: 3

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	39.960000000 MHz	10.74	Quasi Peak	-29.26
1	145.440000000 MHz	15.00	Quasi Peak	-28.50
1	163.320000000 MHz	15.95	Quasi Peak	-27.55

Page 2 of 2



30.Dec 20 11:04

Test Spec CISPR 22 Radiated Disturbances

Polarity

Vertical

Stepped Scan (1 Range)

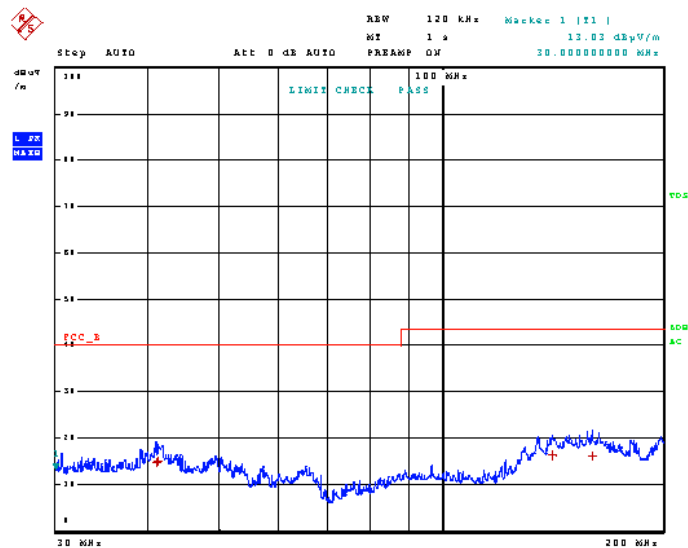
Scan Start: 30 MHz

Scan Stop: 200 MHz

Detector: Trace 1: MAX PEAK

Transducer: TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
30.000000 MHz	200.000000 MHz	40.00 kHz	120.00 kHz	50 μs	Auto	20 dB	INPUT1





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8.1.64 406MHz, 30 MHz to 200 MHz, Vertical Polarity Table

30.Dec 20 11:04

Test Spec CISPR 22 Radiated Disturbances
Polarity
Vertical

Final Measurement

Meas Time: 1 s
Margin: 25 dB
Subranges: 4

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	41.040000000 MHz	14.76	Quasi Peak	-25.24
1	41.280000000 MHz	14.97	Quasi Peak	-25.03
1	141.560000000 MHz	16.27	Quasi Peak	-27.23
1	159.920000000 MHz	16.13	Quasi Peak	-27.37

Page 2 of 2



8.1.65 406MHz, 200 MHz to 1000 MHz, Horizontal Polarity Plot



30 Dec 20 10:38

Test Spec CISPR 22 Radiated Disturbances

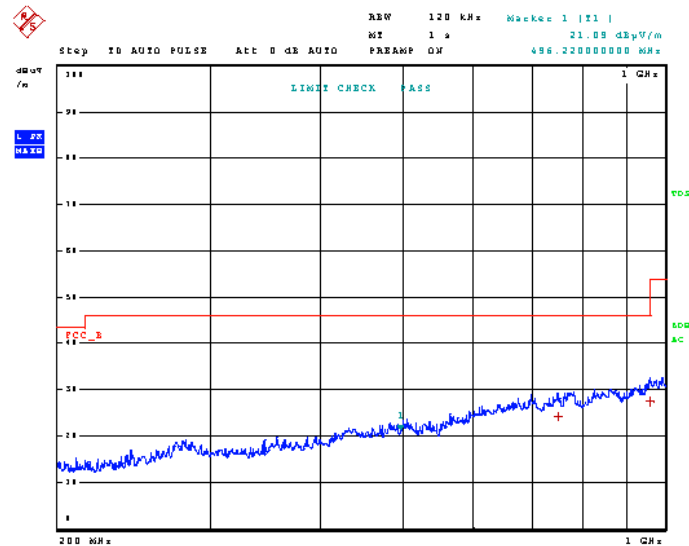
Polarity

Horizontal

Time Domain Scan (1 Range)

Scan Start: 200 MHz
Scan Stop: 1 GHz
Detector: Trace 1: MAX PEAK
Transducer: TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
200.000000 MHz	1.000000 GHz	30.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1





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8.1.66 406MHz, 200 MHz to 1000 MHz, Horizontal Polarity Table

30.Dec 20 10:38

Test Spec CISPR 22 Radiated Disturbances
Polarity
Horizontal

Final Measurement

Meas Time: 1 s
Margin: 20 dB
Subranges: 2

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
1	752.390000000 MHz	24.28	Quasi Peak	-21.72
1	959.360000000 MHz	27.45	Quasi Peak	-18.55

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Test Spec CISPR 22 Radiated Disturbances

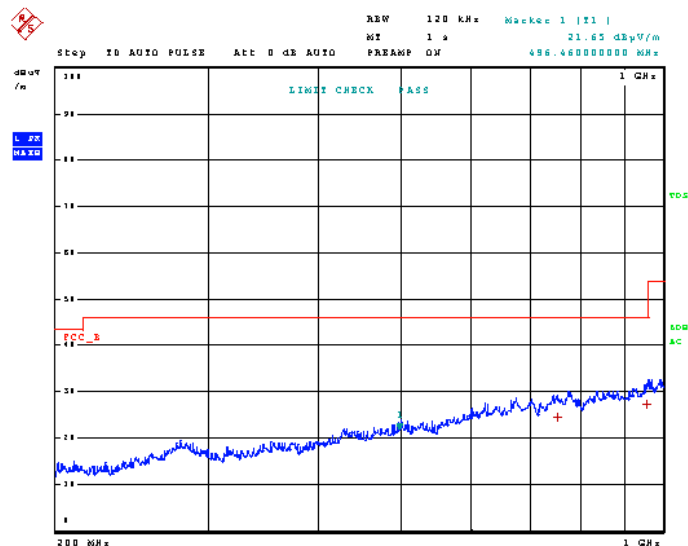
Polarity

Horizontal

Time Domain Scan (1 Range)

Scan Start:	200 MHz
Scan Stop:	1 GHz
Detector:	Trace 1: MAX PEAK
Transducer:	TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
200.000000 MHz	1.000000 GHz	30.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1





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8.1.68 406MHz, 200 MHz to 1000 MHz, Vertical Polarity Table

30.Dec 20 10:38

Test Spec CISPR 22 Radiated Disturbances
Polarity
Horizontal

Final Measurement

Meas Time: 1 s
Margin: 20 dB
Subranges: 2

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	755.000000000 MHz	24.41	Quasi Peak	-21.59
1	957.020000000 MHz	27.23	Quasi Peak	-18.77

Page 2 of 2



29.Dec 20 18:06

Scan Start: 1 GHz
Scan Stop: 12.5 GHz
Detector: Trace 1: MAX PEAK Trace 2: MAX PEAK
Transducer: TDS_05

TDS

6 DE



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8.1.70 406MHz, above 1000 MHz, Horizontal Polarity Table

29.Dec 20 18:06

Final Measurement

Meas Time: 500 ms
Margin: 40 dB
Subranges: 16

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
1	1.323500000 GHz	36.48	CISPR Averag	-17.52
2	1.323500000 GHz	49.00	Max Peak	
1	1.413250000 GHz	35.68	CISPR Averag	-18.32
2	1.413250000 GHz	48.92	Max Peak	
1	1.951500000 GHz	35.27	CISPR Averag	-18.73
2	1.951500000 GHz	47.90	Max Peak	
1	2.742000000 GHz	39.85	CISPR Averag	-14.15
2	2.742000000 GHz	48.20	Max Peak	
1	3.588000000 GHz	31.31	CISPR Averag	-22.69
2	3.588000000 GHz	44.35	Max Peak	
1	5.484000000 GHz	44.44	CISPR Averag	-9.56
2	5.484000000 GHz	48.65	Max Peak	
1	7.028750000 GHz	28.92	CISPR Averag	-25.08
2	7.028750000 GHz	41.89	Max Peak	
1	11.247500000 GHz	29.37	CISPR Averag	-24.63
2	11.247500000 GHz	42.10	Max Peak	

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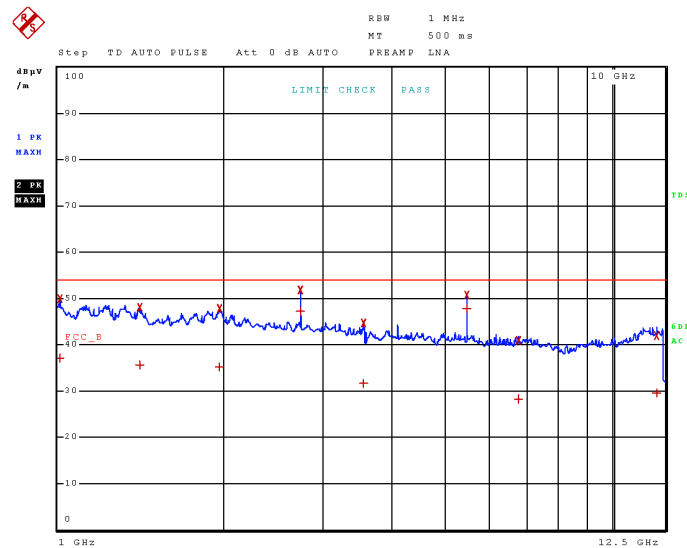
8.1.71 406MHz, above 1000 MHz, Vertical Polarity Plot

29.Dec 20 18:04

Time Domain Scan (1 Range)

Scan Start: 1 GHz
Scan Stop: 12.5 GHz
Detector: Trace 1: MAX PEAK Trace 2: MAX PEAK
Transducer: TDS_05

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
1.000000 GHz	12.500000 GHz	250.00 kHz	1.00 MHz	100 μ s	Auto	35 dB	INPUT1





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8.1.72 406MHz, above 1000 MHz, Vertical Polarity Table

29.Dec 20 18:04

Final Measurement

Meas Time: 500 ms
Margin: 40 dB
Subranges: 16

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
1	1.006000000 GHz	37.06	CISPR Averag	-16.94
2	1.006000000 GHz	49.81	Max Peak	
1	1.404000000 GHz	35.62	CISPR Averag	-18.38
2	1.404000000 GHz	48.04	Max Peak	
1	1.958250000 GHz	35.24	CISPR Averag	-18.76
2	1.958250000 GHz	47.77	Max Peak	
1	2.742000000 GHz	47.19	CISPR Averag	-6.81
2	2.742000000 GHz	51.79	Max Peak	
1	3.569000000 GHz	31.61	CISPR Averag	-22.39
2	3.569000000 GHz	44.55	Max Peak	
1	5.484000000 GHz	47.71	CISPR Averag	-6.29
2	5.484000000 GHz	50.72	Max Peak	
1	6.784250000 GHz	28.35	CISPR Averag	-25.65
2	6.784250000 GHz	40.89	Max Peak	
1	12.066000000 GHz	29.48	CISPR Averag	-24.52
2	12.066000000 GHz	42.01	Max Peak	

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8.1.73 512MHz, 30 MHz to 200 MHz, Horizontal Polarity Plot



30.Dec 20 11:10

Test Spec CISPR 22 Radiated Disturbances

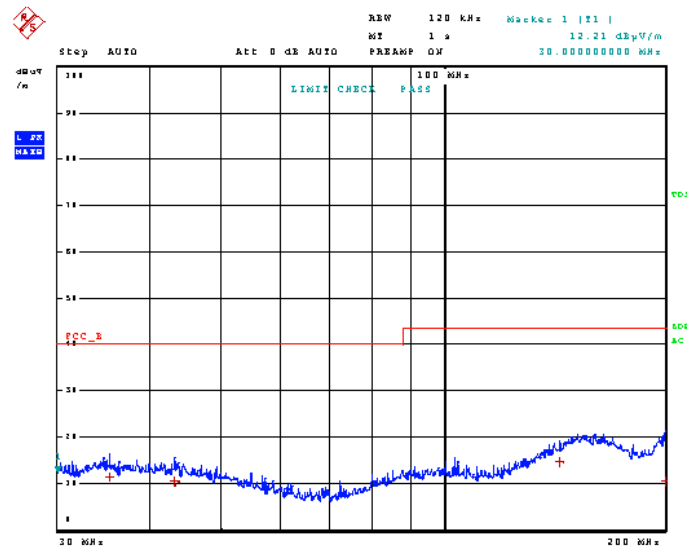
Polarity

Vertical

Stepped Scan (1 Range)

Scan Start: 30 MHz
Scan Stop: 200 MHz
Detector: Trace 1: MAX PEAK
Transducer: TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
30.000000 MHz	200.000000 MHz	40.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1





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8.1.74 512MHz, 30 MHz to 200 MHz, Horizontal Polarity Table

30.Dec 20 11:10

Test Spec CISPR 22 Radiated Disturbances

Polarity

Vertical

Final Measurement

Meas Time: 1 s

Margin: 25 dB

Subranges: 4

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	35.160000000 MHz	11.47	Quasi Peak	-28.53
1	43.200000000 MHz	10.35	Quasi Peak	-29.65
1	143.600000000 MHz	14.58	Quasi Peak	-28.92
1	200.000000000 MHz	10.32	Quasi Peak	-33.18

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8.1.75 512MHz, 30 MHz to 200 MHz, Vertical Polarity Plot



30.Dec 20 11:10

Test Spec CISPR 22 Radiated Disturbances

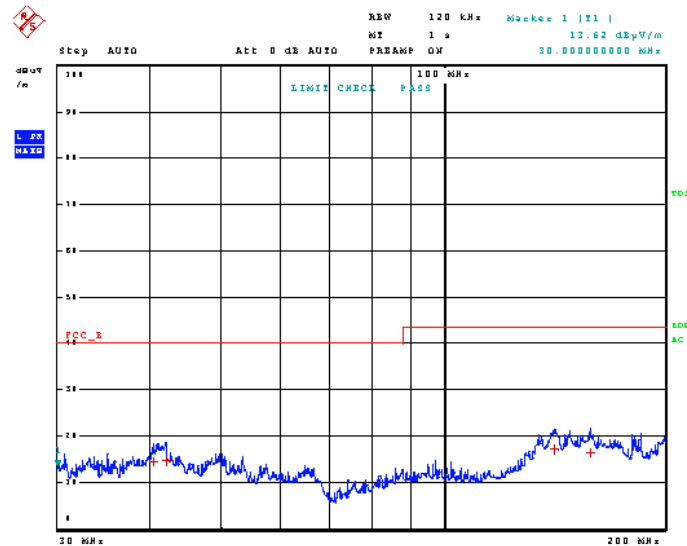
Polarity

Vertical

Stepped Scan (1 Range)

Scan Start: 30 MHz
 Scan Stop: 200 MHz
 Detector: Trace 1: MAX PEAK
 Transducer: TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
30.000000 MHz	200.000000 MHz	40.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1



Page 1 of 2



Timco Engineering, Inc., an IIA Company
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(352) 472-5500 / testing@timcoengr.com

8.1.76 512MHz, 30 MHz to 200 MHz, Vertical Polarity Table

30.Dec 20 11:10

Test Spec CISPR 22 Radiated Disturbances
Polarity
Vertical

Final Measurement

Meas Time: 1 s
Margin: 25 dB
Subranges: 4

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	40.360000000 MHz	14.48	Quasi Peak	-25.52
1	42.000000000 MHz	14.65	Quasi Peak	-25.35
1	141.200000000 MHz	17.16	Quasi Peak	-26.34
1	158.280000000 MHz	16.49	Quasi Peak	-27.01

Page 2 of 2

8.1.77 512MHz, 200 MHz to 1000 MHz, Horizontal Polarity Plot



30 Dec 20 10:43

Test Spec CISPR 22 Radiated Disturbances

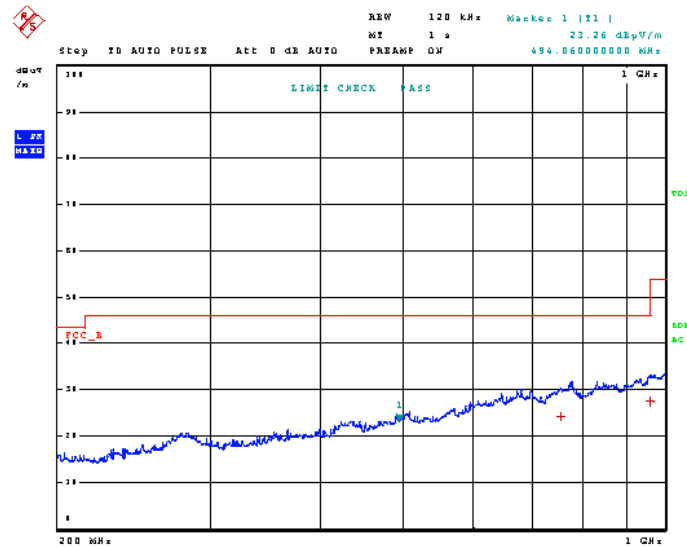
Polarity

Horizontal

Time Domain Scan (1 Range)

Scan Start: 200 MHz
Scan Stop: 1 GHz
Detector: Trace 1: MAX PEAK
Transducer: TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
200.000000 MHz	1.000000 GHz	30.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1



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8.1.78 512MHz, 200 MHz to 1000 MHz, Horizontal Polarity Table

30.Dec 20 10:43

Test Spec CISPR 22 Radiated Disturbances

Polarity

Horizontal

Final Measurement

Meas Time: 1 s

Margin: 20 dB

Subranges: 2

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	759.620000000 MHz	24.25	Quasi Peak	-21.75
1	959.360000000 MHz	27.52	Quasi Peak	-18.48

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8.1.79 512MHz, 200 MHz to 1000 MHz, Vertical Polarity Plot



30.Dec 20 10:42

Test Spec CISPR 22 Radiated Disturbances

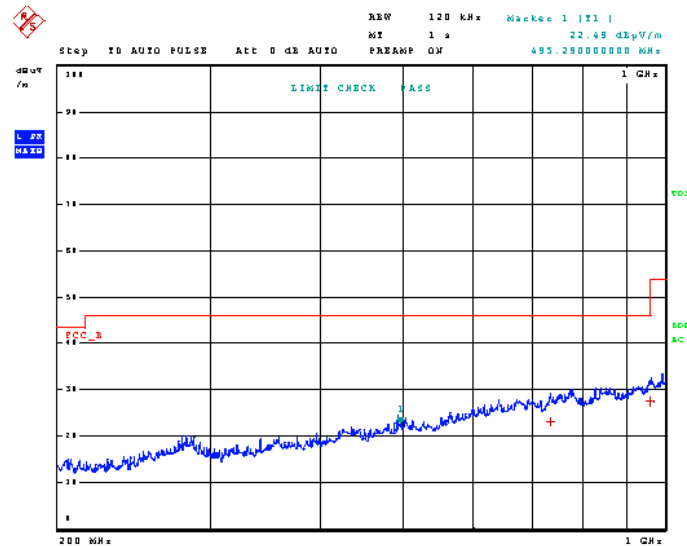
Polarity

Horizontal

Time Domain Scan (1 Range)

Scan Start: 200 MHz
Scan Stop: 1 GHz
Detector: Trace 1: MAX PEAK
Transducer: TDS_01

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
200.000000 MHz	1.000000 GHz	30.00 kHz	120.00 kHz	50 μ s	Auto	20 dB	INPUT1



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8.1.80 512MHz, 200 MHz to 1000 MHz, Vertical Polarity Table

30.Dec 20 10:42

Test Spec CISPR 22 Radiated Disturbances
Polarity
Horizontal

Final Measurement

Meas Time: 1 s
Margin: 20 dB
Subranges: 2

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	736.760000000 MHz	23.05	Quasi Peak	-22.95
1	958.670000000 MHz	27.38	Quasi Peak	-18.62

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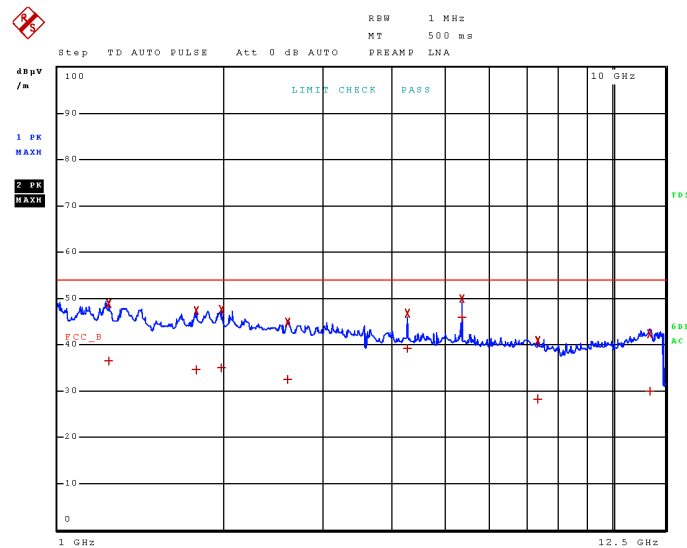
8.1.81 512MHz, above 1000 MHz, Horizontal Polarity Plot

29.Dec 20 18:11

Time Domain Scan (1 Range)

Scan Start: 1 GHz
Scan Stop: 12.5 GHz
Detector: Trace 1: MAX PEAK Trace 2: MAX PEAK
Transducer: TDS_05

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
1.000000 GHz	12.500000 GHz	250.00 kHz	1.00 MHz	100 μ s	Auto	35 dB	INPUT1





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8.1.82 512MHz, above 1000 MHz, Horizontal Polarity Table

29.Dec 20 18:11

Final Measurement

Meas Time: 500 ms
Margin: 40 dB
Subranges: 16

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
1	1.234750000 GHz	36.39	CISPR Averag	-17.61
2	1.234750000 GHz	48.78	Max Peak	
1	1.775750000 GHz	34.64	CISPR Averag	-19.36
2	1.775750000 GHz	47.46	Max Peak	
1	1.974500000 GHz	34.96	CISPR Averag	-19.04
2	1.974500000 GHz	47.68	Max Peak	
1	2.600750000 GHz	32.42	CISPR Averag	-21.58
2	2.600750000 GHz	44.89	Max Peak	
1	4.282750000 GHz	39.08	CISPR Averag	-14.92
2	4.282750000 GHz	46.70	Max Peak	
1	5.353500000 GHz	45.94	CISPR Averag	-8.06
2	5.353500000 GHz	49.80	Max Peak	
1	7.365750000 GHz	28.26	CISPR Averag	-25.74
2	7.365750000 GHz	40.78	Max Peak	
1	11.707500000 GHz	29.93	CISPR Averag	-24.07
2	11.707500000 GHz	42.25	Max Peak	

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29.Dec 20 18:14

Scan Start: 1 GHz
Scan Stop: 12.5 GHz
Detector: Trace 1: MAX PEAK Trace 2: MAX PEAK
Transducer: TDS_05

TDS

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8.1.84 512MHz, above 1000 MHz, Vertical Polarity Table

29.Dec 20 18:14

Final Measurement

Meas Time: 500 ms
Margin: 40 dB
Subranges: 16

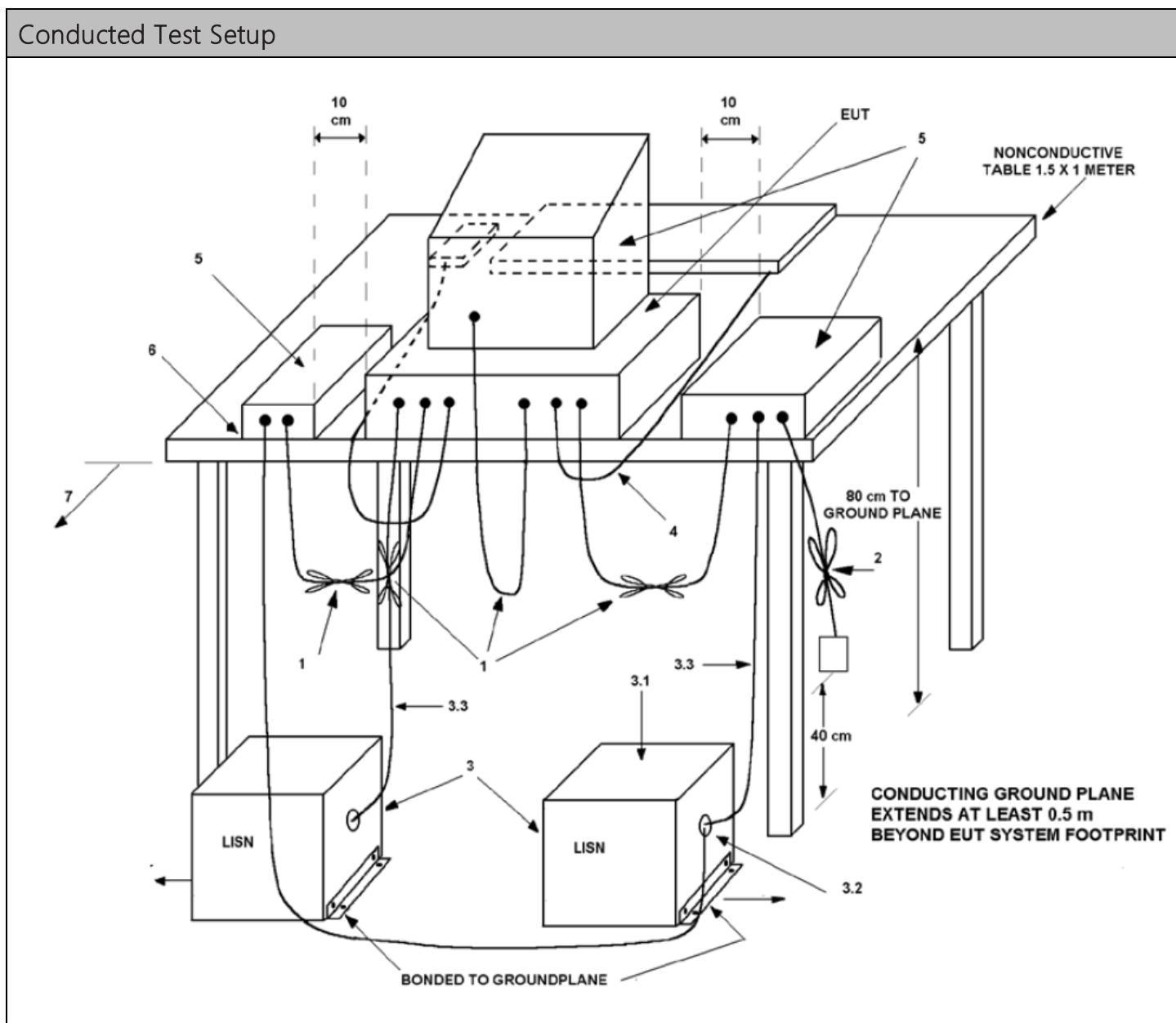
Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
1	1.000750000 GHz	37.06	CISPR Averag	-16.94
2	1.000750000 GHz	49.74	Max Peak	
1	1.403000000 GHz	35.57	CISPR Averag	-18.43
2	1.403000000 GHz	48.41	Max Peak	
1	1.965000000 GHz	35.26	CISPR Averag	-18.74
2	1.965000000 GHz	47.61	Max Peak	
1	2.607000000 GHz	32.56	CISPR Averag	-21.44
2	2.607000000 GHz	44.93	Max Peak	
1	4.282750000 GHz	40.55	CISPR Averag	-13.45
2	4.282750000 GHz	46.94	Max Peak	
1	5.353500000 GHz	41.79	CISPR Averag	-12.21
2	5.353500000 GHz	47.08	Max Peak	
1	7.220500000 GHz	28.61	CISPR Averag	-25.39
2	7.220500000 GHz	40.80	Max Peak	
1	11.469250000 GHz	29.66	CISPR Averag	-24.34
2	11.469250000 GHz	42.28	Max Peak	

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8.2 Conducted Emissions

Limits from FCC 15.107 and test procedure from ANSI C63.4-2014.





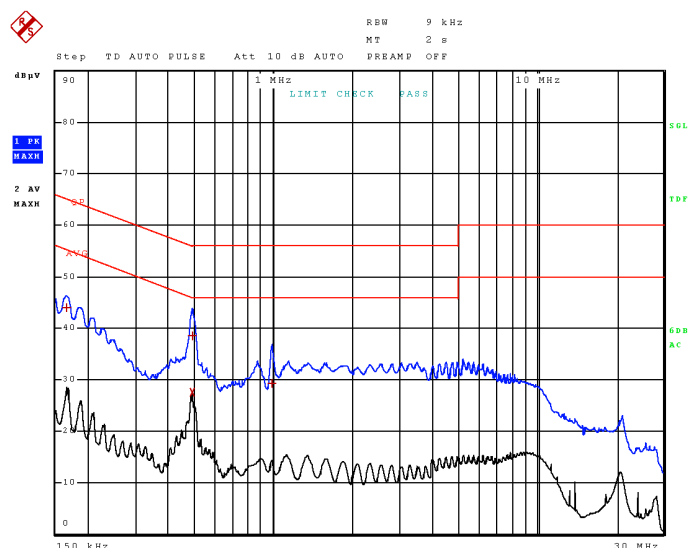
8.2.1 Scanning, Line 1 Plot & Table

29.Dec 20 16:29

Time Domain Scan (1 Range)

Scan Start: 150 kHz
Scan Stop: 30 MHz
Detector: Trace 1: MAX PEAK Trace 2: Average
Transducer: tdf_21

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
150.000000 kHz	30.000000 MHz	2.25 kHz	9.00 kHz	500 ms	Auto	0 dB	INPUT2



Final Measurement

Meas Time: 2 s
Margin: 20 dB
Subranges: 4

Trace	Frequency	Level (dBμV)	Detector	Delta Limit/dB
1	163.50000000 kHz	43.98	Quasi Peak	-21.30
1	489.75000000 kHz	38.56	Quasi Peak	-17.61
2	489.75000000 kHz	27.50	Average	-18.67
1	989.25000000 kHz	29.20	Quasi Peak	-26.80



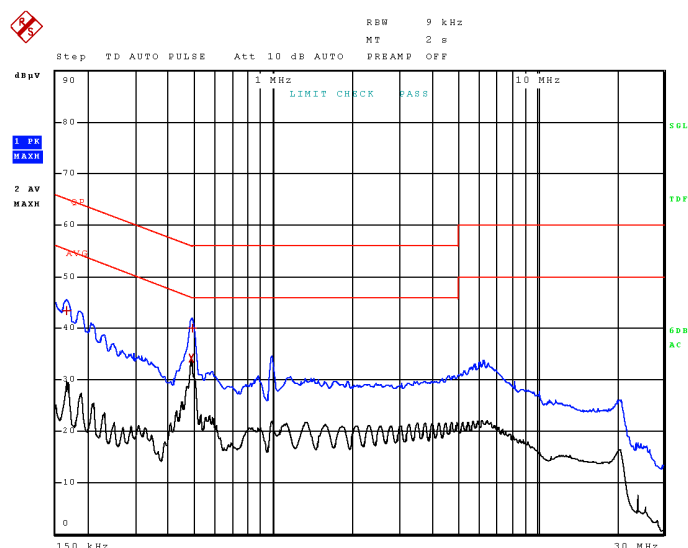
8.2.2 Scanning, Line 2 Plot & Table

29.Dec 20 16:33

Time Domain Scan (1 Range)

Scan Start: 150 kHz
Scan Stop: 30 MHz
Detector: Trace 1: MAX PEAK Trace 2: Average
Transducer: tdf_21

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
150.000000 kHz	30.000000 MHz	2.25 kHz	9.00 kHz	500 ms	Auto	0 dB	INPUT2



Final Measurement

Meas Time: 2 s
Margin: 20 dB
Subranges: 3

Trace	Frequency	Level (dBμV)	Detector	Delta Limit/dB
1	163.500000000 kHz	43.44	Quasi Peak	-21.84
2	487.500000000 kHz	34.10	Average	-12.11
1	492.000000000 kHz	39.98	Quasi Peak	-16.15



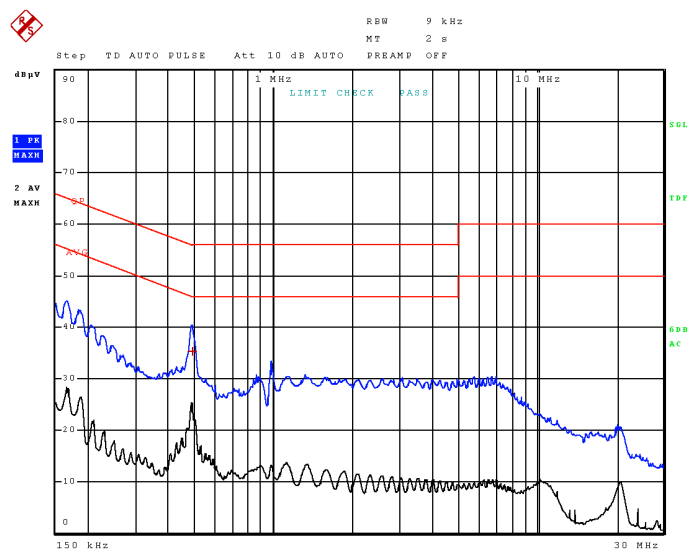
8.2.3 25MHz, Line 1 Plot & Table

29 Dec 20 16:42

Time Domain Scan (1 Range)

Scan Start: 150 kHz
Scan Stop: 30 MHz
Detector: Trace 1: MAX PEAK Trace 2: Average
Transducer: tdf_21

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
150.000000 kHz	30.000000 MHz	2.25 kHz	9.00 kHz	500 ms	Auto	0 dB	INPUT2



Final Measurement

Meas Time: 2 s
Margin: 20 dB
Subranges: 1

Trace	Frequency	Level (dBμV)	Detector	Delta Limit/dB
1	489.75000000 kHz	35.19	Quasi Peak	-20.99



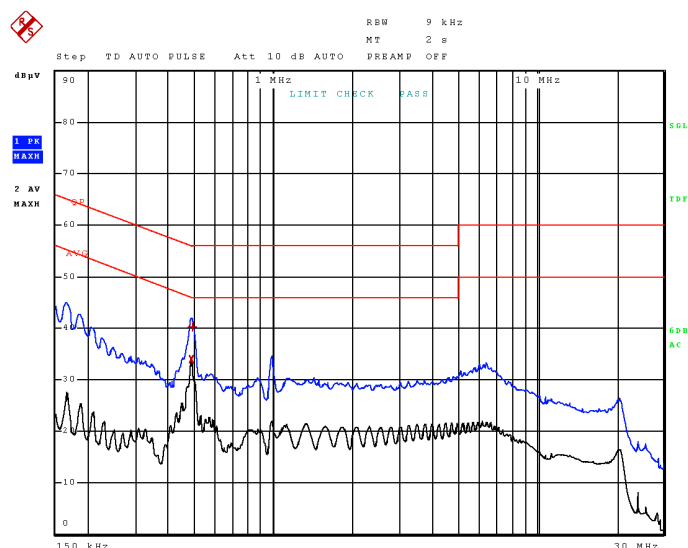
8.2.4 25MHz, Line 2 Plot & Table

29.Dec 20 16:40

Time Domain Scan (1 Range)

Scan Start: 150 kHz
Scan Stop: 30 MHz
Detector: Trace 1: MAX PEAK Trace 2: Average
Transducer: tdf_21

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
150.000000 kHz	30.000000 MHz	2.25 kHz	9.00 kHz	500 ms	Auto	0 dB	INPUT2



Final Measurement

Meas Time: 2 s
Margin: 20 dB
Subranges: 2

Trace	Frequency	Level (dBμV)	Detector	Delta Limit/dB
2	487.50000000 kHz	33.88	Average	-12.33
1	489.75000000 kHz	40.15	Quasi Peak	-16.02



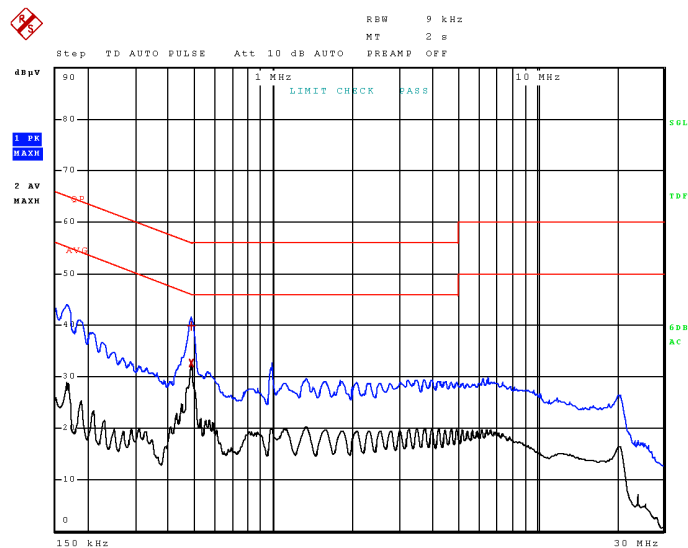
8.2.5 54MHz, Line 1 Plot & Table

29 Dec 20 17:17

Time Domain Scan (1 Range)

Scan Start: 150 kHz
 Scan Stop: 30 MHz
 Detector: Trace 1: MAX PEAK Trace 2: Average
 Transducer: tdf_21

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
150.000000 kHz	30.000000 MHz	2.25 kHz	9.00 kHz	500 ms	Auto	0 dB	INPUT2



Final Measurement

Meas Time: 2 s
 Margin: 20 dB
 Subranges: 2

Trace	Frequency	Level (dBμV)	Detector	Delta Limit/dB
1	485.250000000 kHz	39.89	Quasi Peak	-16.36
2	487.500000000 kHz	32.55	Average	-13.66



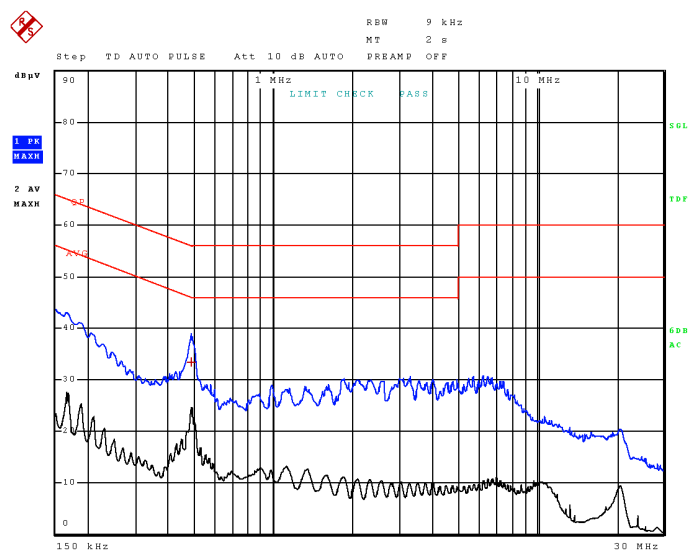
8.2.6 54MHz, Line 2 Plot & Table

29.Dec 20 17:16

Time Domain Scan (1 Range)

Scan Start: 150 kHz
Scan Stop: 30 MHz
Detector: Trace 1: MAX PEAK Trace 2: Average
Transducer: tdf_21

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
150.000000 kHz	30.000000 MHz	2.25 kHz	9.00 kHz	500 ms	Auto	0 dB	INPUT2



Final Measurement

Meas Time: 2 s
Margin: 20 dB
Subranges: 1

Trace	Frequency	Level (dBμV)	Detector	Delta Limit/dB
1	487.500000000 kHz	33.46	Quasi Peak	-22.75



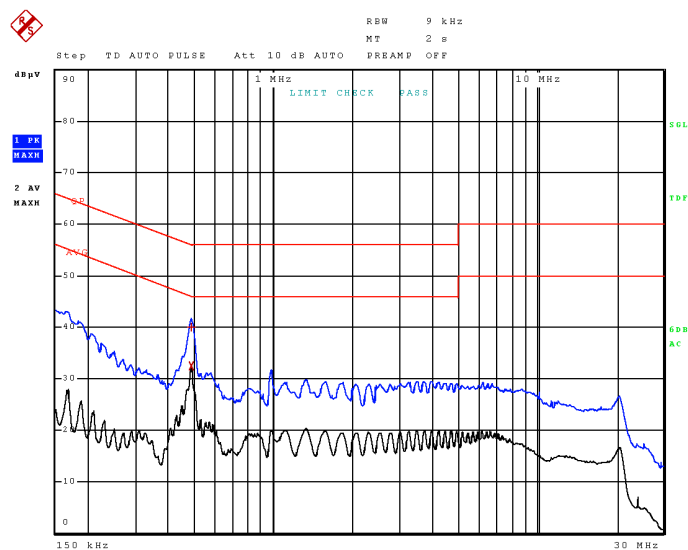
8.2.7 108MHz, Line 1 Plot & Table

29.Dec 20 17:25

Time Domain Scan (1 Range)

Scan Start: 150 kHz
Scan Stop: 30 MHz
Detector: Trace 1: MAX PEAK Trace 2: Average
Transducer: tdf_21

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
150.000000 kHz	30.000000 MHz	2.25 kHz	9.00 kHz	500 ms	Auto	0 dB	INPUT2



Final Measurement

Meas Time: 2 s
Margin: 20 dB
Subranges: 2

Trace	Frequency	Level (dBμV)	Detector	Delta Limit/dB
1	487.500000000 kHz	39.90	Quasi Peak	-16.31
2	487.500000000 kHz	32.40	Average	-13.81



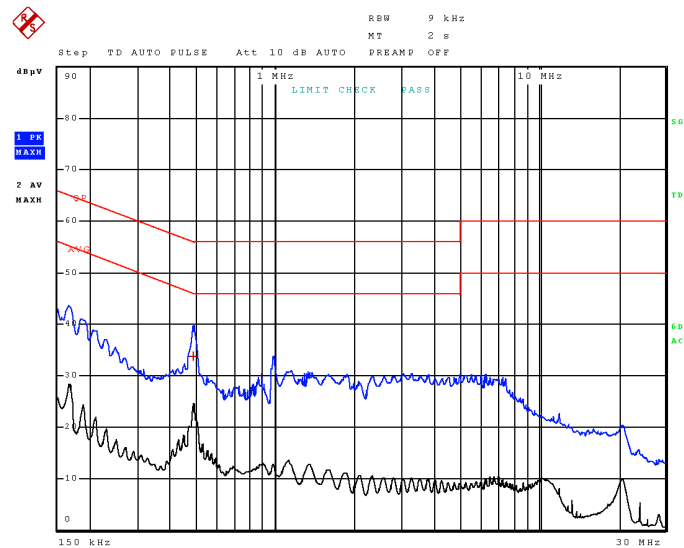
8.2.8 108MHz, Line 2 Plot & Table

29.Dec 20 17:26

Time Domain Scan (1 Range)

Scan Start: 150 kHz
Scan Stop: 30 MHz
Detector: Trace 1: MAX PEAK Trace 2: Average
Transducer: tdf_21

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
150.000000 kHz	30.000000 MHz	2.25 kHz	9.00 kHz	500 ms	Auto	0 dB	INPUT2



Final Measurement

Meas Time: 2 s
Margin: 20 dB
Subranges: 1

Trace	Frequency	Level (dBμV)	Detector	Delta Limit/dB
1	485.25000000 kHz	33.66	Quasi Peak	-22.59



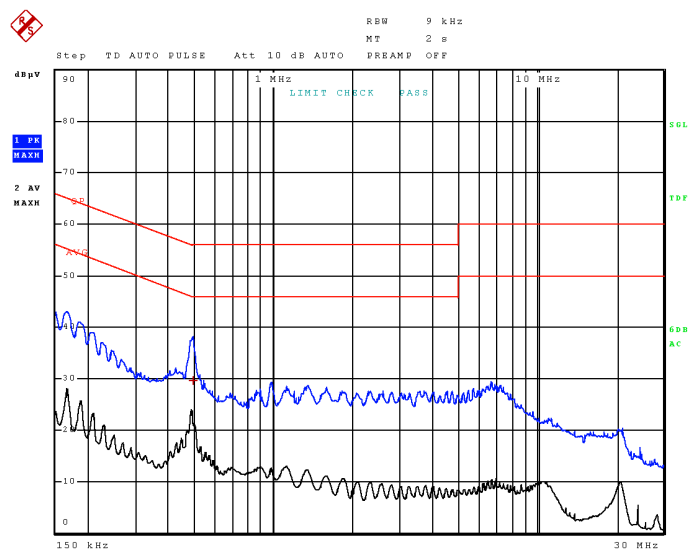
8.2.9 174MHz, Line 1 Plot & Table

29.Dec 20 17:38

Time Domain Scan (1 Range)

Scan Start: 150 kHz
Scan Stop: 30 MHz
Detector: Trace 1: MAX PEAK Trace 2: Average
Transducer: tdf_21

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
150.000000 kHz	30.000000 MHz	2.25 kHz	9.00 kHz	500 ms	Auto	0 dB	INPUT2



Final Measurement

Meas Time: 2 s
Margin: 20 dB
Subranges: 1

Trace	Frequency	Level (dBμV)	Detector	Delta Limit/dB
1	494.25000000 kHz	29.57	Quasi Peak	-26.53



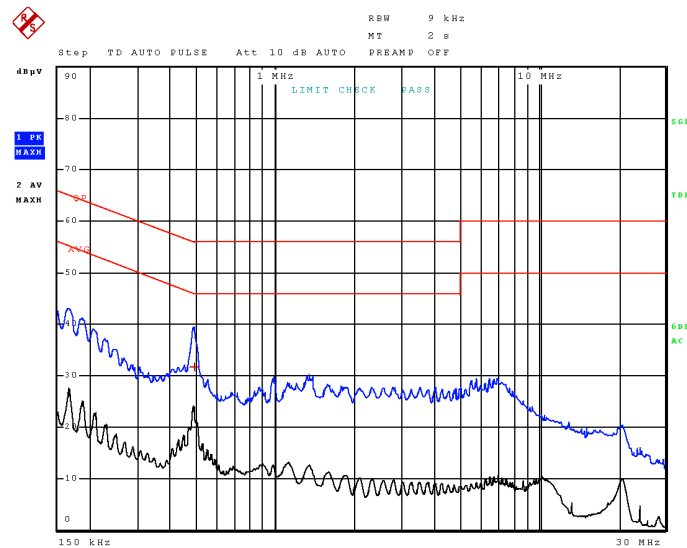
8.2.10 174MHz, Line 2 Plot & Table

29.Dec 20 17:40

Time Domain Scan (1 Range)

Scan Start: 150 kHz
Scan Stop: 30 MHz
Detector: Trace 1: MAX PEAK Trace 2: Average
Transducer: tdf_21

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
150.000000 kHz	30.000000 MHz	2.25 kHz	9.00 kHz	500 ms	Auto	0 dB	INPUT2



Final Measurement

Meas Time: 2 s
Margin: 20 dB
Subranges: 1

Trace	Frequency	Level (dBμV)	Detector	Delta Limit/dB
1	492.000000000 kHz	31.70	Quasi Peak	-24.44



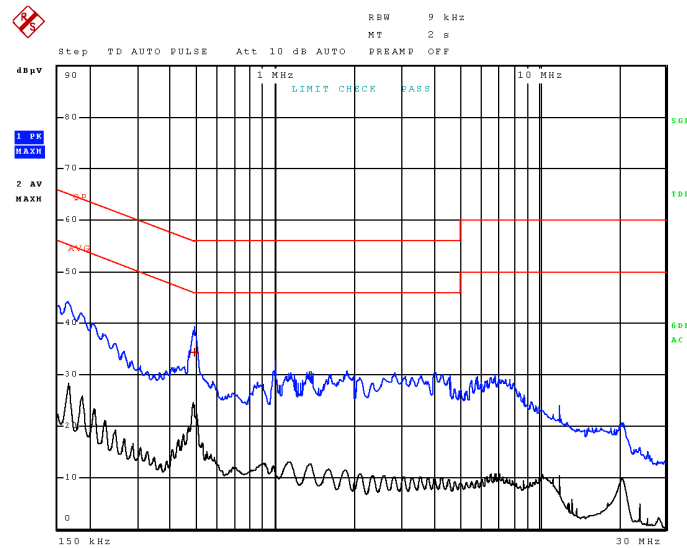
8.2.11 406MHz, Line 1 Plot & Table

29 Dec 20 16:49

Time Domain Scan (1 Range)

Scan Start: 150 kHz
Scan Stop: 30 MHz
Detector: Trace 1: MAX PEAK Trace 2: Average
Transducer: tdf_21

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
150.000000 kHz	30.000000 MHz	2.25 kHz	9.00 kHz	500 ms	Auto	0 dB	INPUT2



Final Measurement

Meas Time: 2 s
Margin: 20 dB
Subranges: 1

Trace	Frequency	Level (dBμV)	Detector	Delta Limit/dB
1	489.75000000 kHz	34.39	Quasi Peak	-21.78



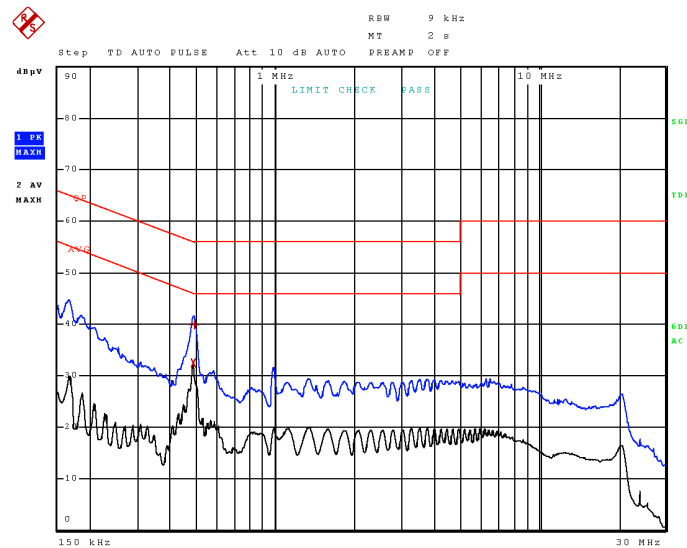
8.2.12 406MHz, Line 2 Plot & Table

29.Dec 20 16:51

Time Domain Scan (1 Range)

Scan Start: 150 kHz
Scan Stop: 30 MHz
Detector: Trace 1: MAX PEAK Trace 2: Average
Transducer: tdf_21

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
150.000000 kHz	30.000000 MHz	2.25 kHz	9.00 kHz	500 ms	Auto	0 dB	INPUT2



Final Measurement

Meas Time: 2 s
Margin: 20 dB
Subranges: 2

Trace	Frequency	Level (dBμV)	Detector	Delta Limit/dB
2	487.50000000 kHz	32.43	Average	-13.78
1	489.75000000 kHz	39.73	Quasi Peak	-16.44



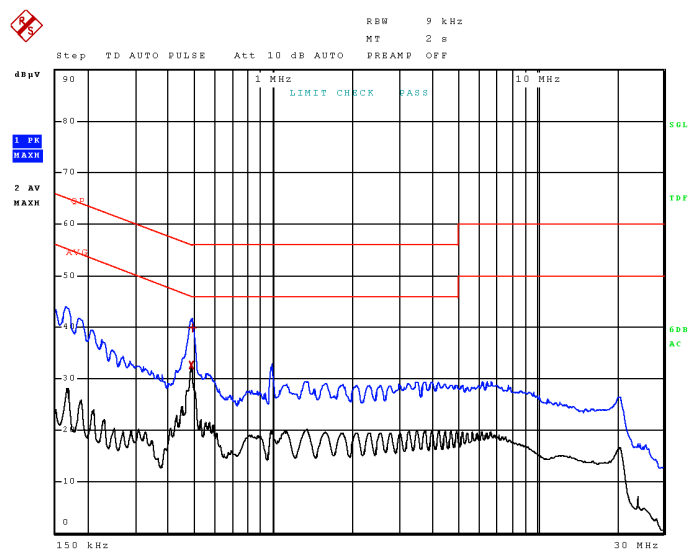
8.2.13 512MHz, Line 1 Plot & Table

29.Dec 20 16:52

Time Domain Scan (1 Range)

Scan Start: 150 kHz
Scan Stop: 30 MHz
Detector: Trace 1: MAX PEAK Trace 2: Average
Transducer: tdf_21

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
150.000000 kHz	30.000000 MHz	2.25 kHz	9.00 kHz	500 ms	Auto	0 dB	INPUT2



Final Measurement

Meas Time: 2 s
Margin: 20 dB
Subranges: 2

Trace	Frequency	Level (dBμV)	Detector	Delta Limit/dB
2	487.50000000 kHz	32.59	Average	-13.62
1	489.75000000 kHz	39.76	Quasi Peak	-16.41



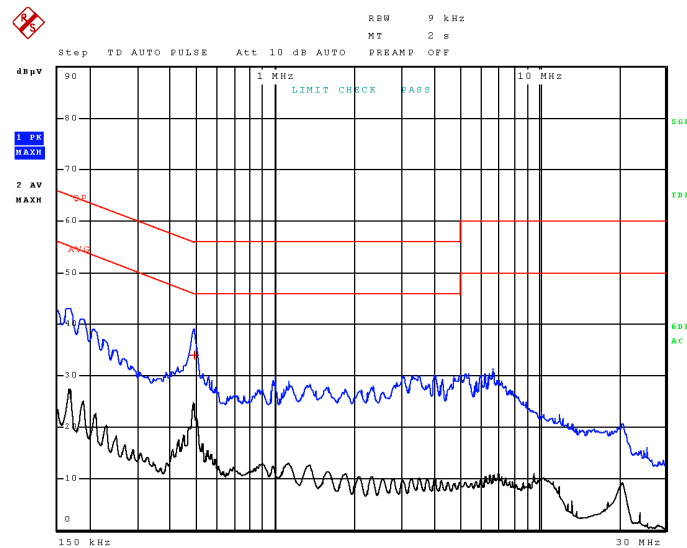
8.2.14 512MHz, Line 2 Plot & Table

29.Dec 20 17:14

Time Domain Scan (1 Range)

Scan Start: 150 kHz
Scan Stop: 30 MHz
Detector: Trace 1: MAX PEAK Trace 2: Average
Transducer: tdf_21

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
150.000000 kHz	30.000000 MHz	2.25 kHz	9.00 kHz	500 ms	Auto	0 dB	INPUT2



Final Measurement

Meas Time: 2 s
Margin: 20 dB
Subranges: 1

Trace	Frequency	Level (dBμV)	Detector	Delta Limit/dB
1	489.75000000 kHz	34.02	Quasi Peak	-22.15



9. ANNEX-A - Photographs of the EUT

Photographs of the EUT and any manufacturer supplied accessories to be used with the EUT are in a separate document.

10. ANNEX-B – Test Setup Photographs

Test setup photographs are located in a separate document.

11. History of Test Report Changes

Test Report #	Revision #	Description	Date of Issue
TR_4959-20_FCC_15B_Scanning Reciever_1	1	Initial release	12/28/2020



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END OF TEST REPORT
