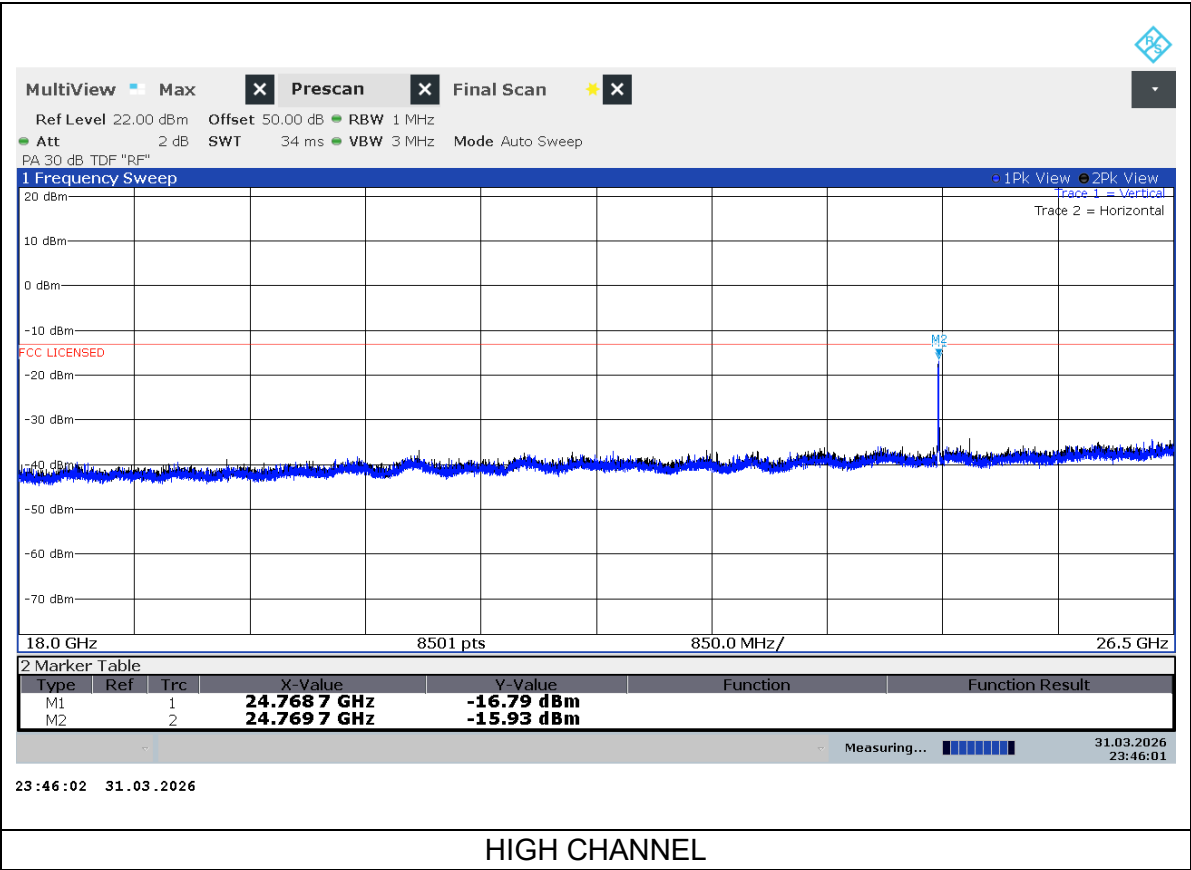


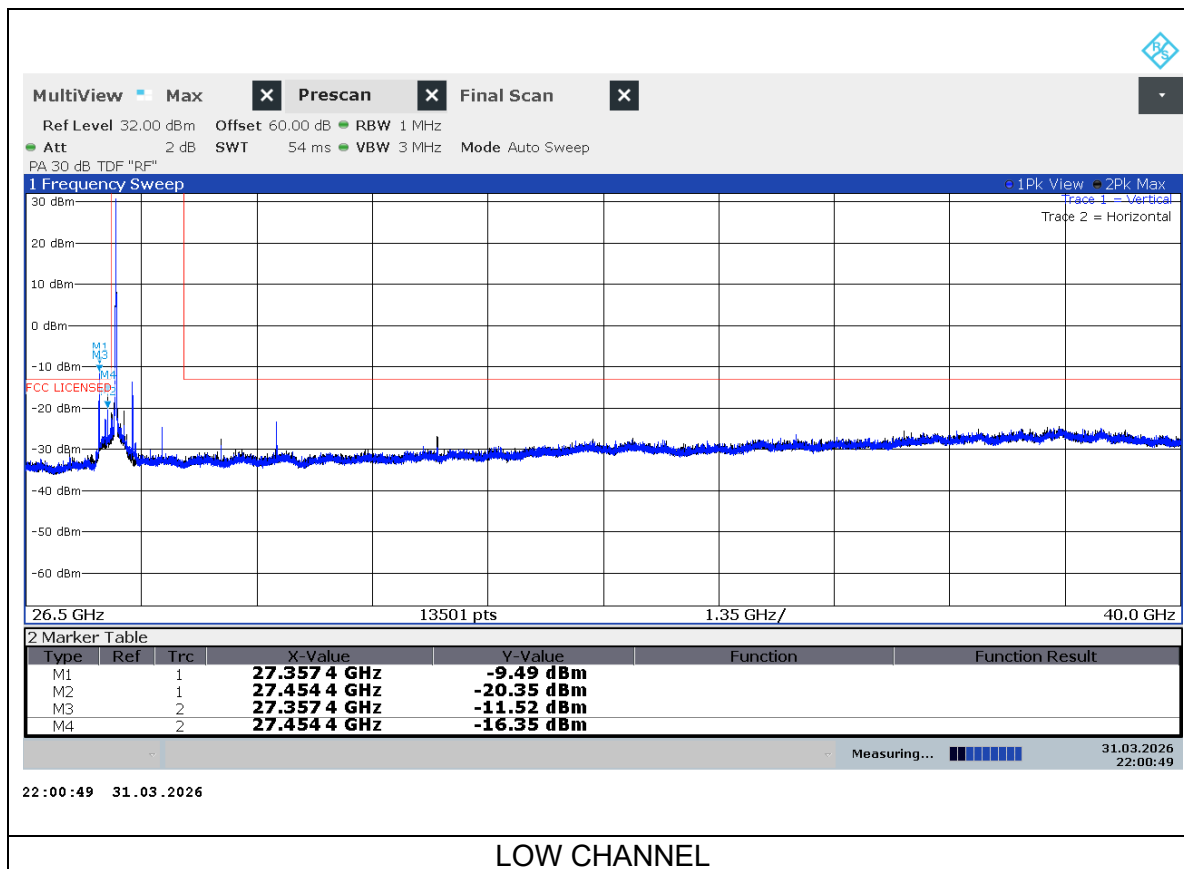


Marker	Frequency (GHz)	Det	Corrected Reading (dBm)	TRP Limit (dBm)	Margin (dB)	Polarity
1	24.768	RMS	-22.79	-13	-9.79	V
2	24.769	RMS	-22.87	-13	-9.87	H

PK – Peak detector
RMS - EIRP, Power RMS Average detector

8.4.4.5. SPURIOUS EMISSIONS 26.5 – 40GHz

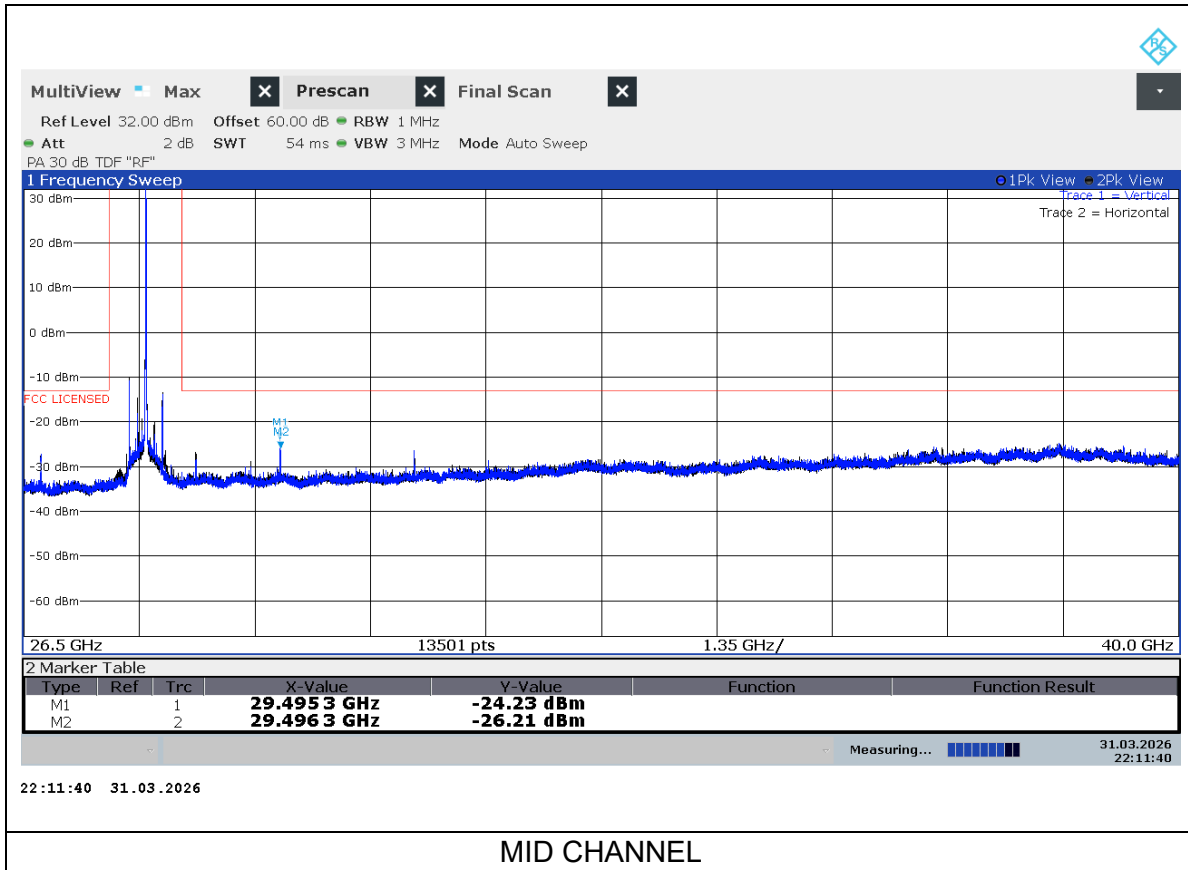
1CC CONFIGURATION



Marker	Frequency (GHz)	Det	Corrected Reading (dBm)	TRP Limit (dBm)	Margin (dB)	Polarity
1	27.35719	RMS	-22.7	-13	-9.7	V
2	27.4544	Pk	-20.35	-13	-7.35	V
3	27.35725	RMS	-21.35	-13	-8.35	H
4	27.45395	RMS	-20.47	-13	-7.47	H

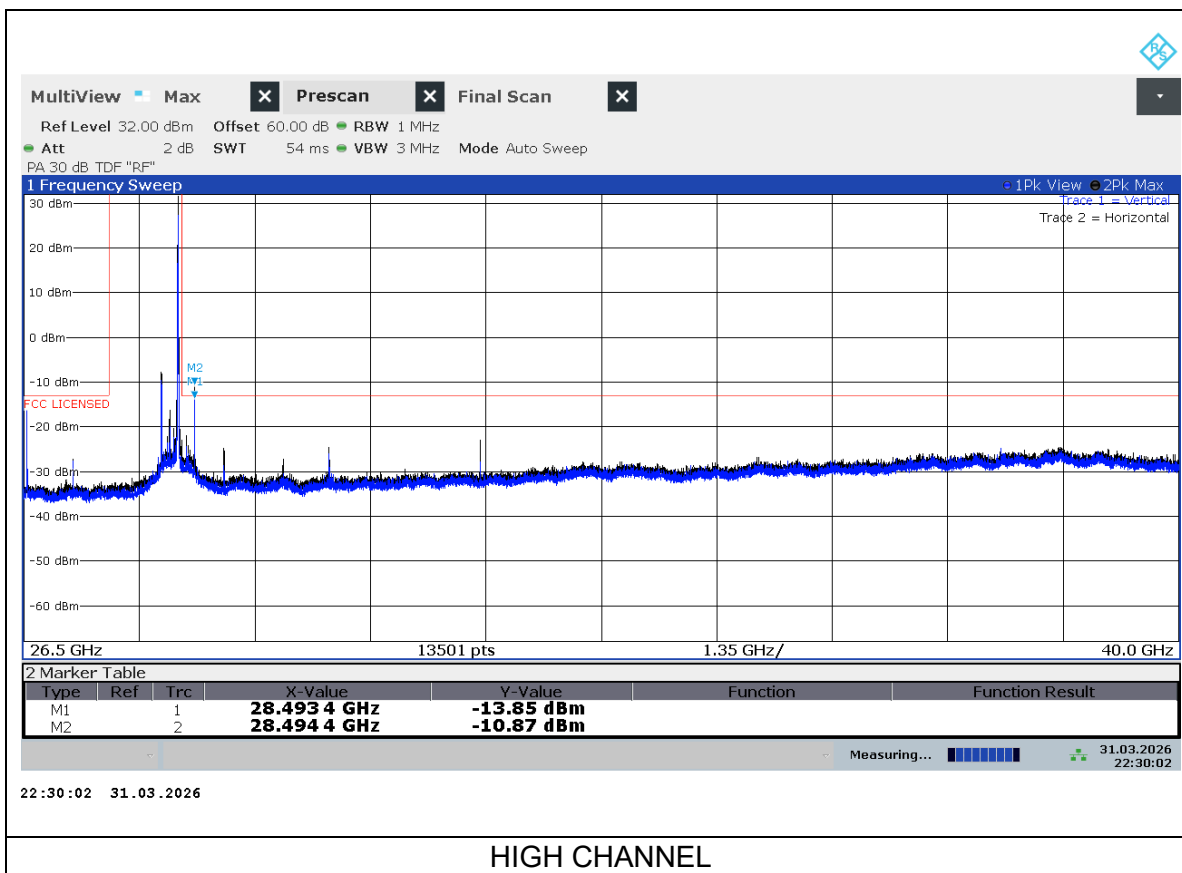
PK – Peak detector

RMS - EIRP, Power RMS Average detector



Marker	Frequency (GHz)	Det	Corrected Reading (dBm)	TRP Limit (dBm)	Margin (dB)	Polarity
1	29.4953	Pk	-24.23	-13	-11.23	V
2	29.4963	Pk	-26.21	-13	-13.21	H

PK – Peak detector
RMS - EIRP, Power RMS Average detector

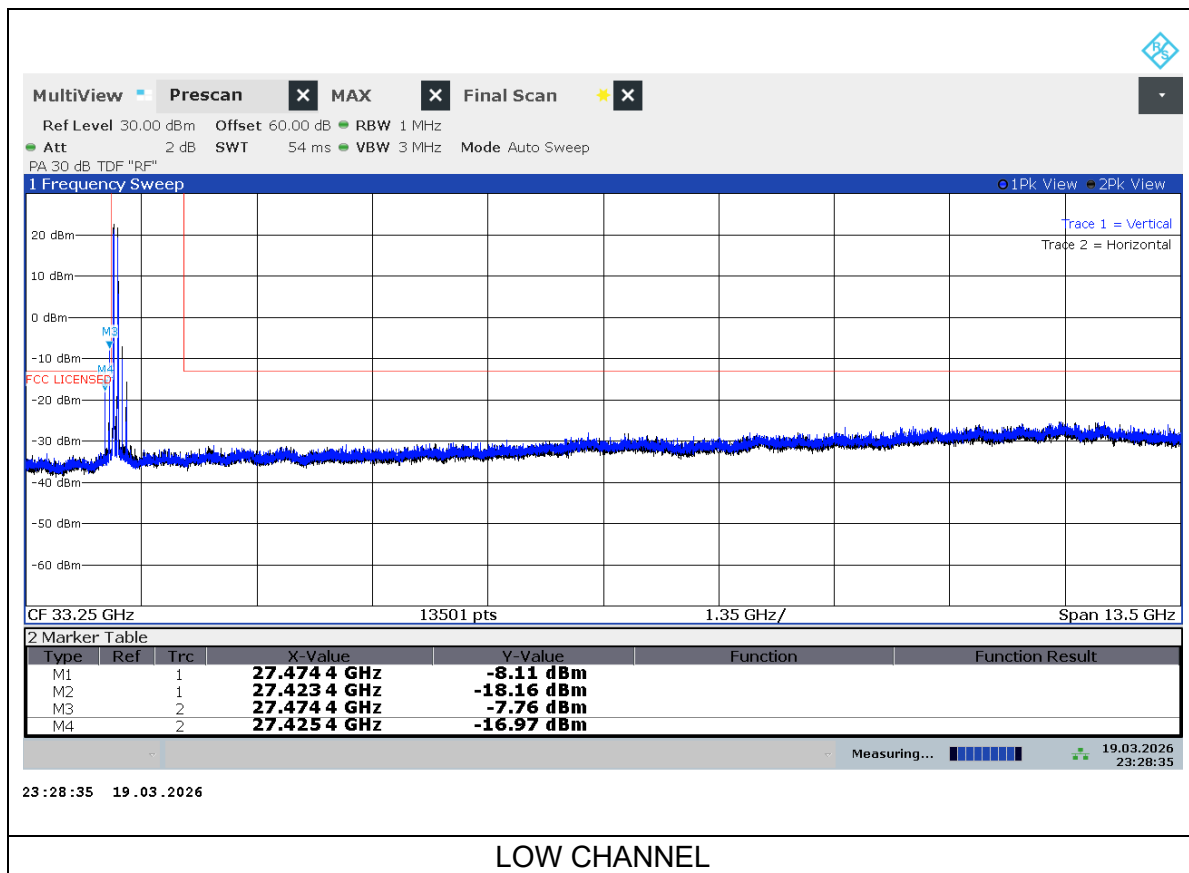


Marker	Frequency (GHz)	Det	Corrected Reading (dBm)	TRP Limit (dBm)	Margin (dB)	Polarity
1	28.49303	RMS	-31.42	-13	-18.42	V
2	28.4938	RMS	-26.65	-13	-13.65	H

PK – Peak detector

RMS - EIRP, Power RMS Average detector

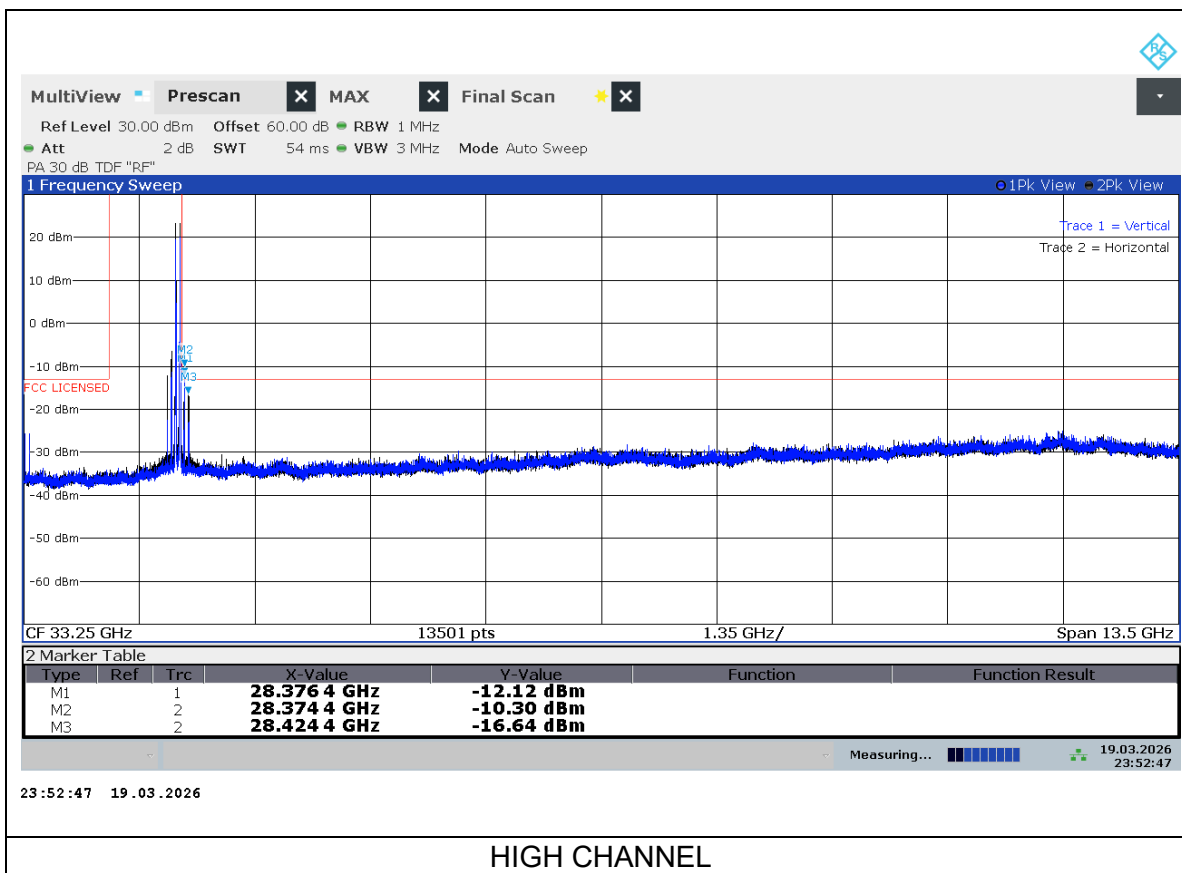
2CC CONFIGURATION – 50MHz BANDWIDTH



Marker	Frequency (GHz)	Det	Corrected Reading (dBm)	TRP Limit (dBm)	Margin (dB)	Polarity
1	27.474	RMS	-18.96	-13	-5.96	V
2	27.424	RMS	-32.98	-13	-19.98	V
3	27.474	RMS	-17.81	-13	-4.81	H
4	27.424	RMS	-31.85	-13	-18.85	H

PK – Peak detector

RMS - EIRP, Power RMS Average detector

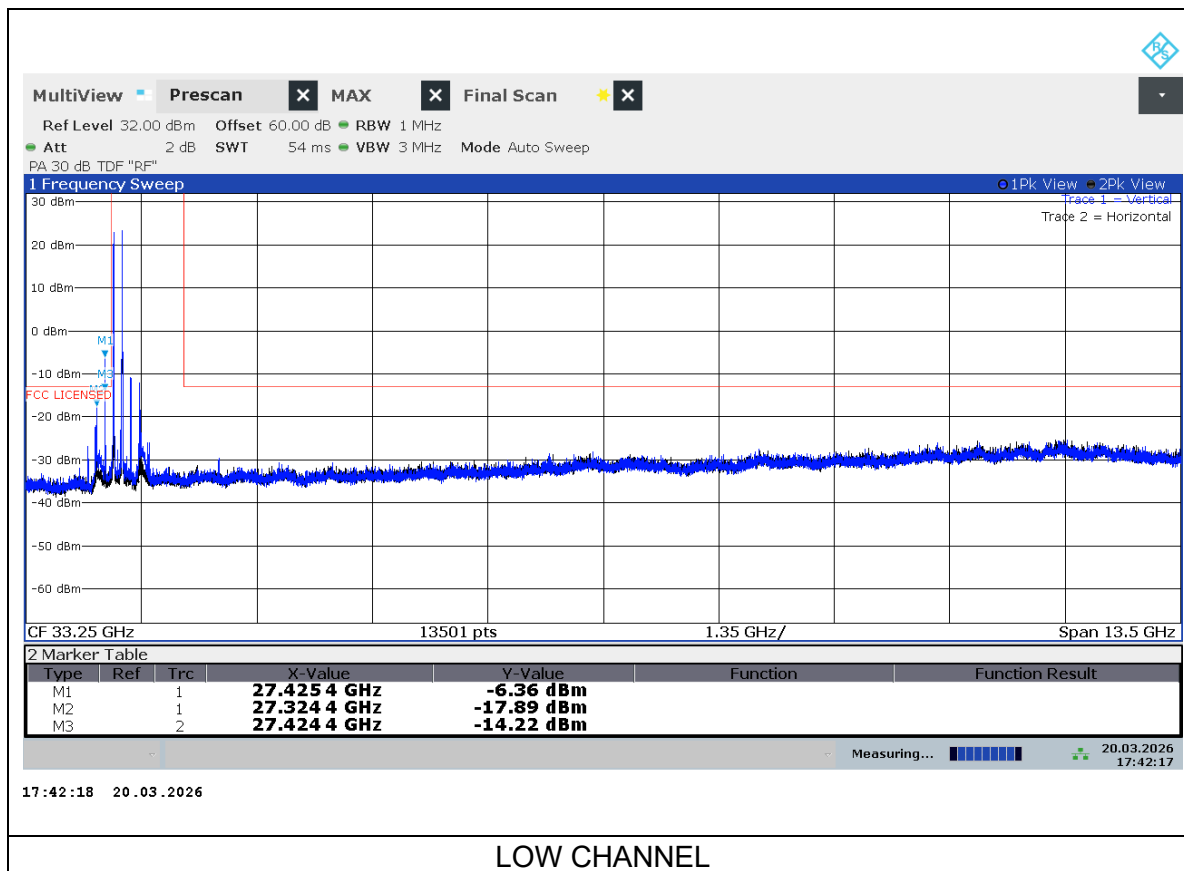


Marker	Frequency (GHz)	Det	Corrected Reading (dBm)	TRP Limit (dBm)	Margin (dB)	Polarity
1	28.373	RMS	-27.66	-13	-14.66	V
2	28.374	RMS	-23.51	-13	-10.51	H
3	28.424	RMS	-31.34	-13	-18.34	H

PK – Peak detector

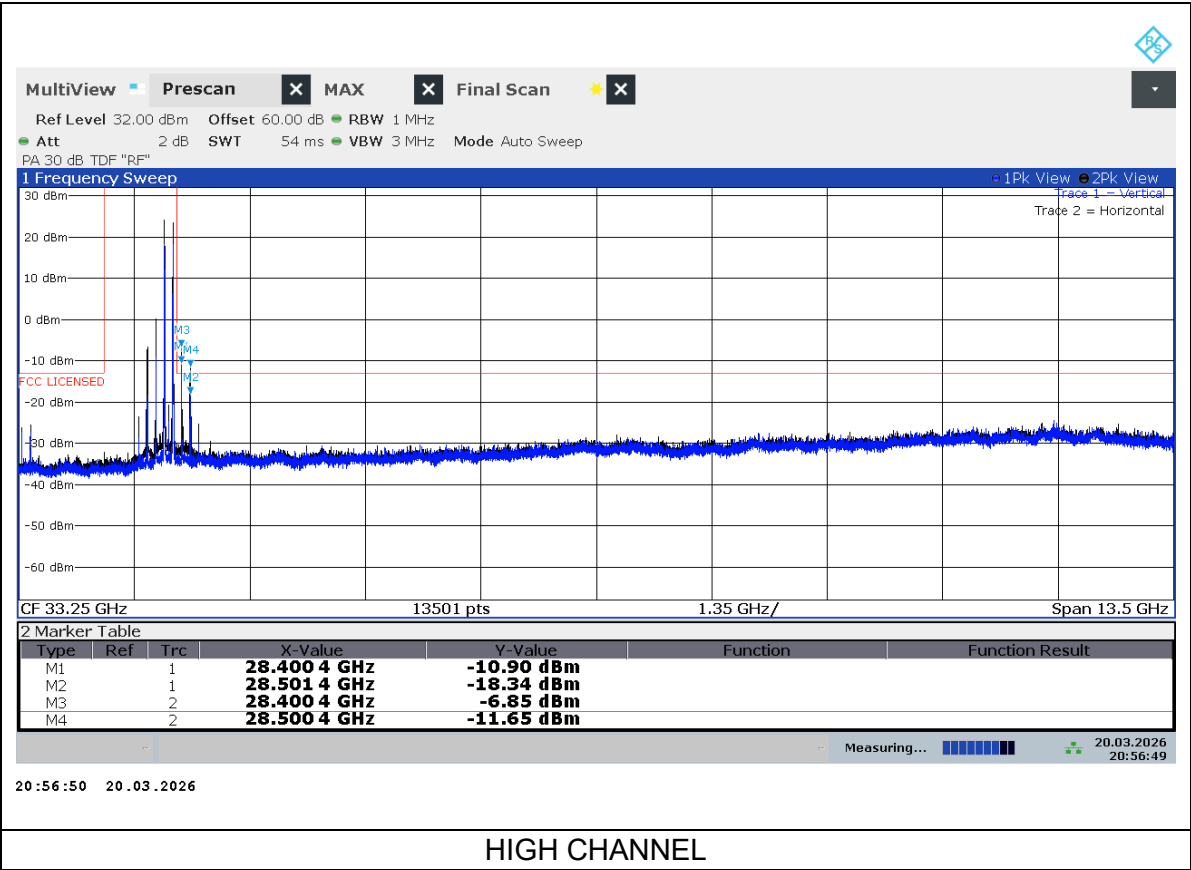
RMS - EIRP, Power RMS Average detector

2CC CONFIGURATION – 100MHz BANDWIDTH



Marker	Frequency (GHz)	Det	Corrected Reading (dBm)	TRP Limit (dBm)	Margin (dB)	Polarity
1	27.425	RMS	-16.35	-13	-3.35	V
2	27.326	RMS	-29.96	-13	-16.96	V
3	27.425	RMS	-25.64	-13	-12.64	H

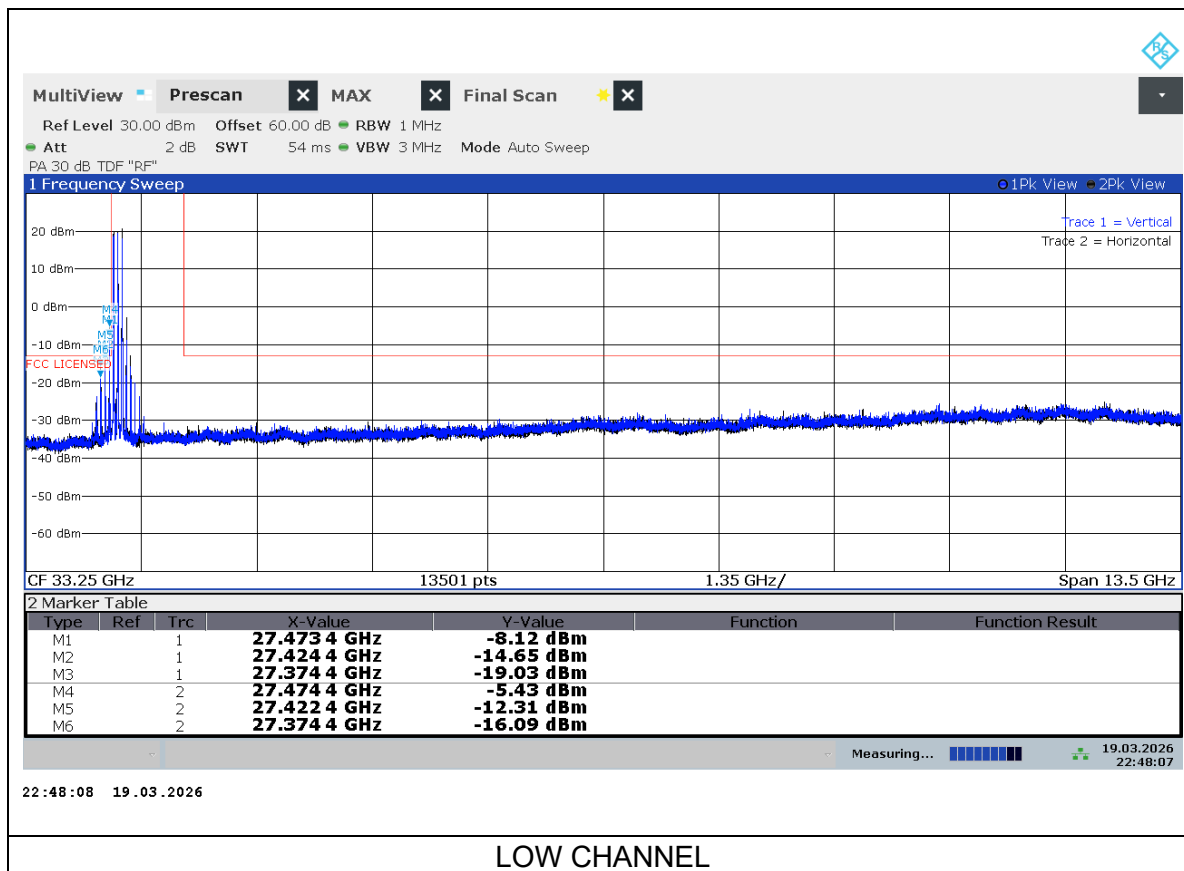
PK – Peak detector
RMS - EIRP, Power RMS Average detector



Marker	Frequency (GHz)	Det	Corrected Reading (dBm)	TRP Limit (dBm)	Margin (dB)	Polarity
1	28.4	RMS	-24.22	-13	-11.22	V
2	28.5	RMS	-33.84	-13	-20.84	V
3	28.4	RMS	-22.87	-13	-9.87	H
4	28.5	RMS	-25.62	-13	-12.62	H

PK – Peak detector
RMS - EIRP, Power RMS Average detector

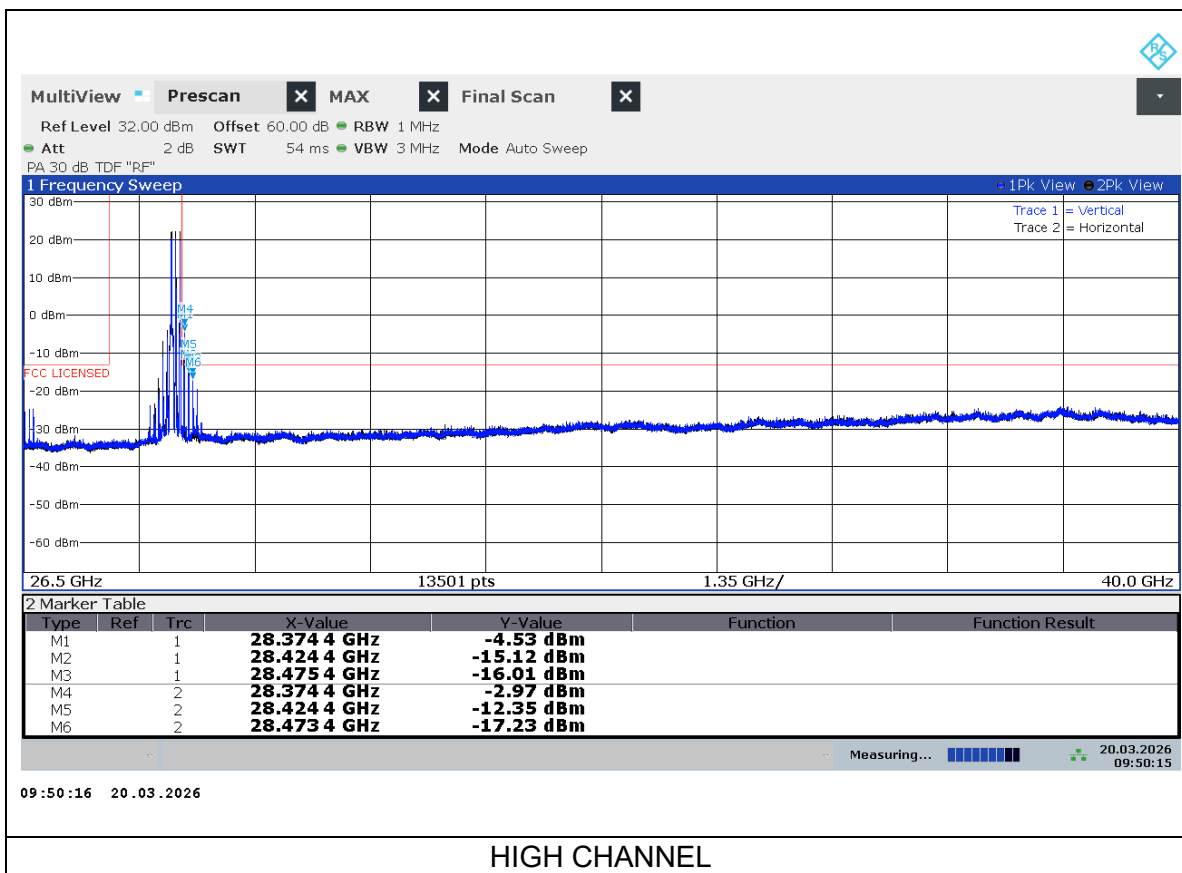
3CC CONFIGURATION – 50MHz BANDWIDTH



Marker	Frequency (GHz)	Det	Corrected Reading (dBm)	TRP Limit (dBm)	Margin (dB)	Polarity
1	27.474	RMS	-16.97	-13	-3.97	V
2	27.424	RMS	-22.47	-13	-9.47	V
3	27.374	RMS	-29.57	-13	-16.57	V
4	27.474	RMS	-18.32	-13	-5.32	H
5	27.424	RMS	-24.1	-13	-11.1	H
6	27.374	RMS	-29.54	-13	-16.54	H

PK – Peak detector

RMS - EIRP, Power RMS Average detector

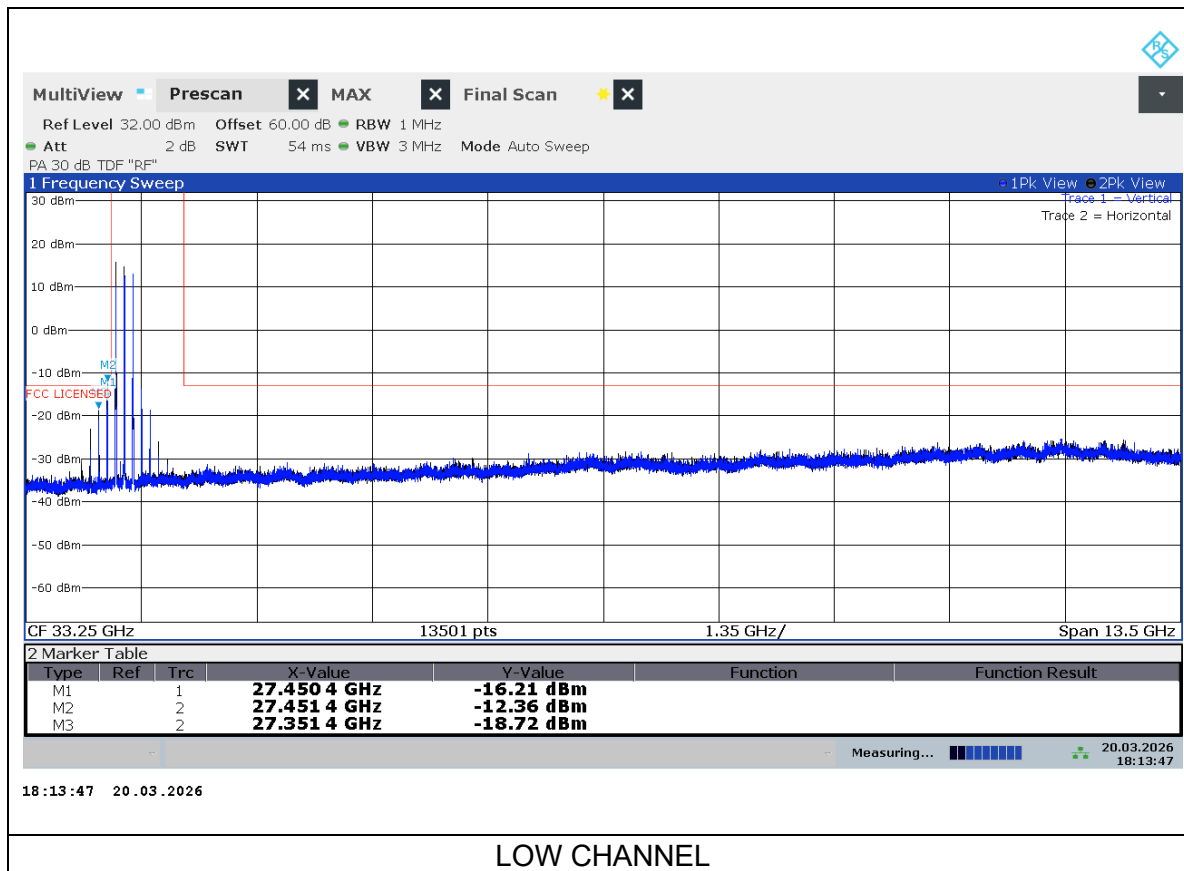


Marker	Frequency (GHz)	Det	Corrected Reading (dBm)	TRP Limit (dBm)	Margin (dB)	Polarity
1	28.375	RMS	-26.7	-13	-13.7	V
2	28.424	RMS	-28.77	-13	-15.77	V
3	28.474	RMS	-30.14	-13	-17.14	V
4	28.374	RMS	-21.8	-13	-8.8	H
5	28.424	RMS	-26	-13	-13	H
6	28.474	RMS	-30.94	-13	-17.94	H

PK – Peak detector

RMS - EIRP, Power RMS Average detector

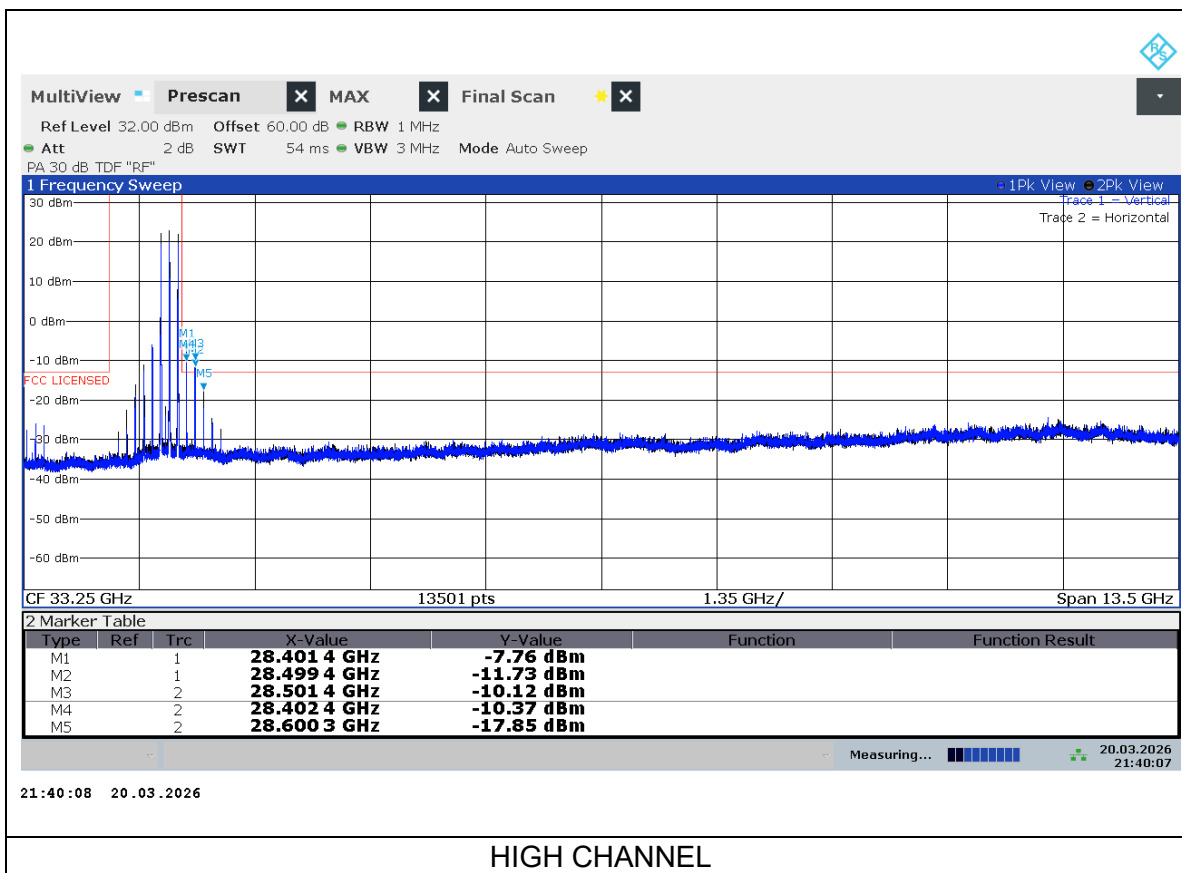
3CC CONFIGURATION – 100MHz BANDWIDTH



Marker	Frequency (GHz)	Det	Corrected Reading (dBm)	TRP Limit (dBm)	Margin (dB)	Polarity
1	27.451	RMS	-27.49	-13	-14.49	V
2	27.451	RMS	-23.87	-13	-10.87	H
3	27.351	RMS	-28.52	-13	-15.52	H

PK – Peak detector

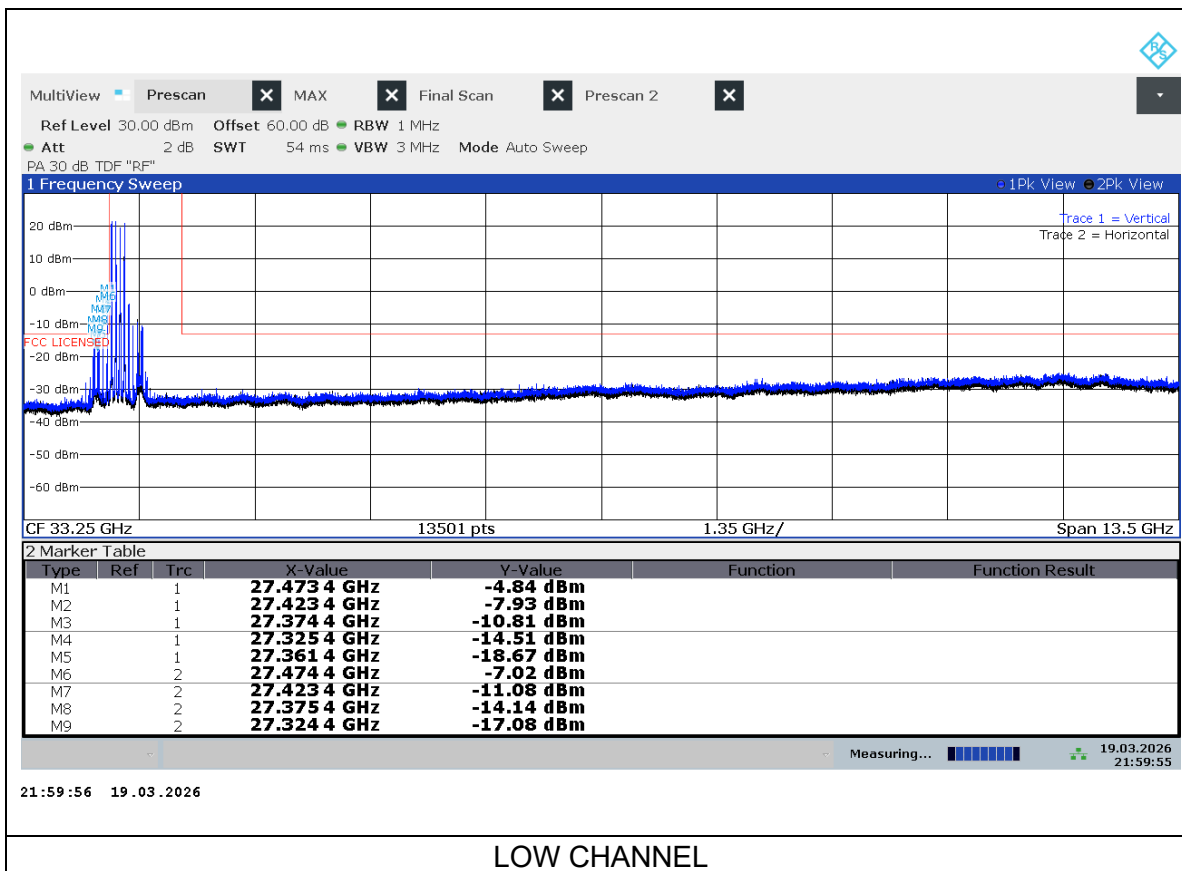
RMS - EIRP, Power RMS Average detector



Marker	Frequency (GHz)	Det	Corrected Reading (dBm)	TRP Limit (dBm)	Margin (dB)	Polarity
1	28.4	RMS	-20.82	-13	-7.82	V
2	28.5	RMS	-25.68	-13	-12.68	V
3	28.5	RMS	-23.84	-13	-10.84	H
4	28.4	RMS	-24.04	-13	-11.04	H
5	28.6	RMS	-30.28	-13	-17.28	H

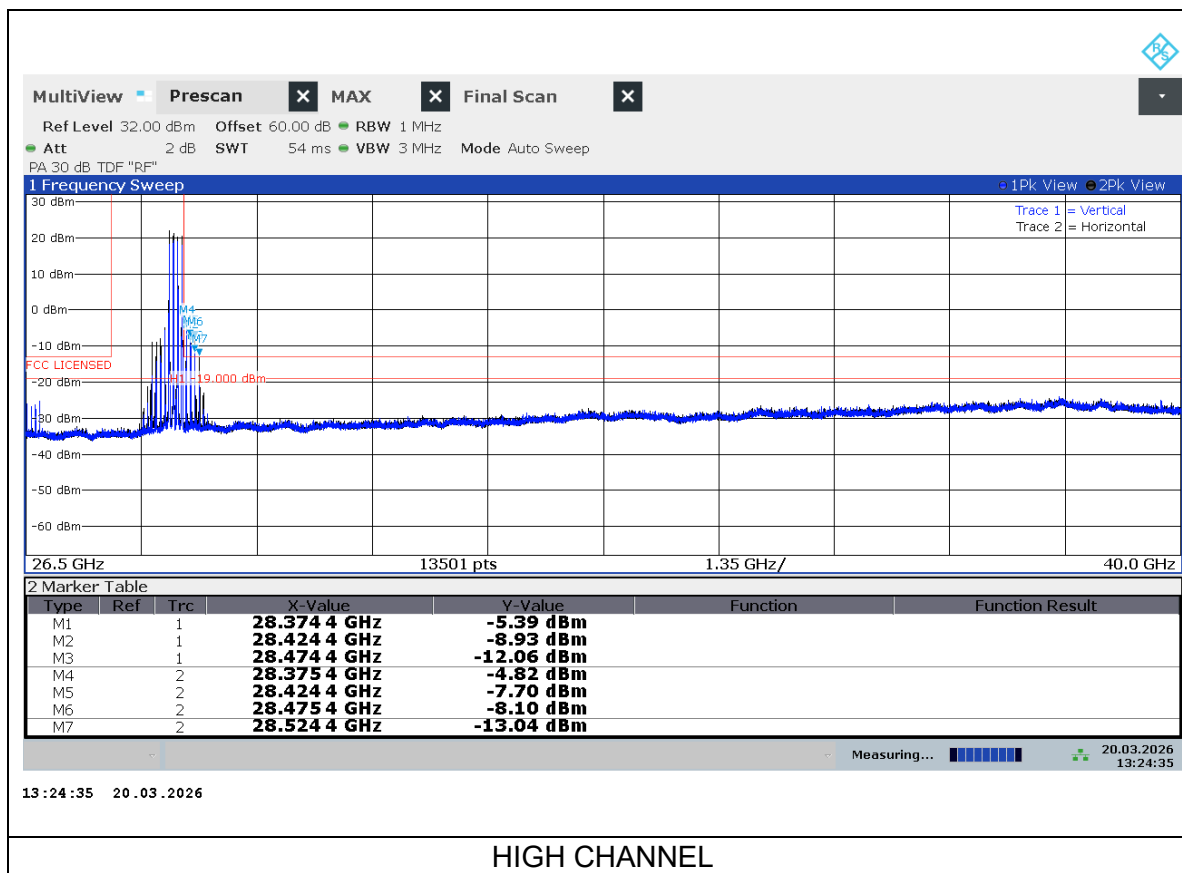
PK – Peak detector
RMS - EIRP, Power RMS Average detector

4CC CONFIGURATION – 50MHz BANDWIDTH



Marker	Frequency (GHz)	Det	Corrected Reading (dBm)	TRP Limit (dBm)	Margin (dB)	Polarity
1	27.475	RMS	-22.84	-13	-9.84	V
2	27.424	RMS	-24.71	-13	-11.71	V
3	27.374	RMS	-27.12	-13	-14.12	V
4	27.324	RMS	-30.15	-13	-17.15	V
5	27.36	RMS	-35.53	-13	-22.53	V
6	27.474	RMS	-19.15	-13	-6.15	H
7	27.424	RMS	-21.8	-13	-8.8	H
8	27.374	RMS	-27.33	-13	-14.33	H
9	27.324	RMS	-34.28	-13	-21.28	H

PK – Peak detector
RMS - EIRP, Power RMS Average detector

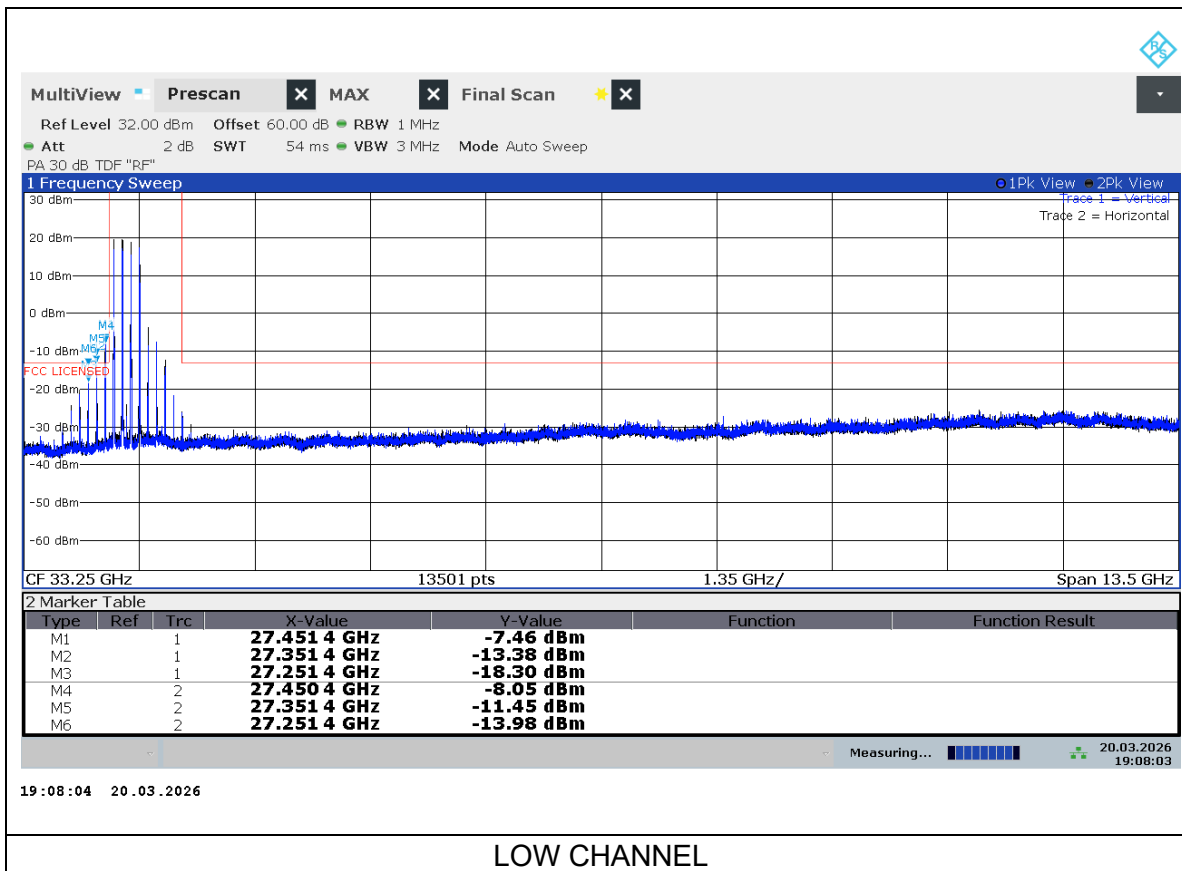


Marker	Frequency (GHz)	Det	Corrected Reading (dBm)	TRP Limit (dBm)	Margin (dB)	Polarity
1	28.374	RMS	-23.04	-13	-10.04	V
2	28.434	RMS	-23.59	-13	-10.59	V
3	28.474	RMS	-25.71	-13	-12.71	V
4	28.374	RMS	-20.33	-13	-7.33	H
5	28.424	RMS	-21.32	-13	-8.32	H
6	28.474	RMS	-21.39	-13	-8.39	H
7	28.524	RMS	-25.96	-13	-12.96	H

PK – Peak detector

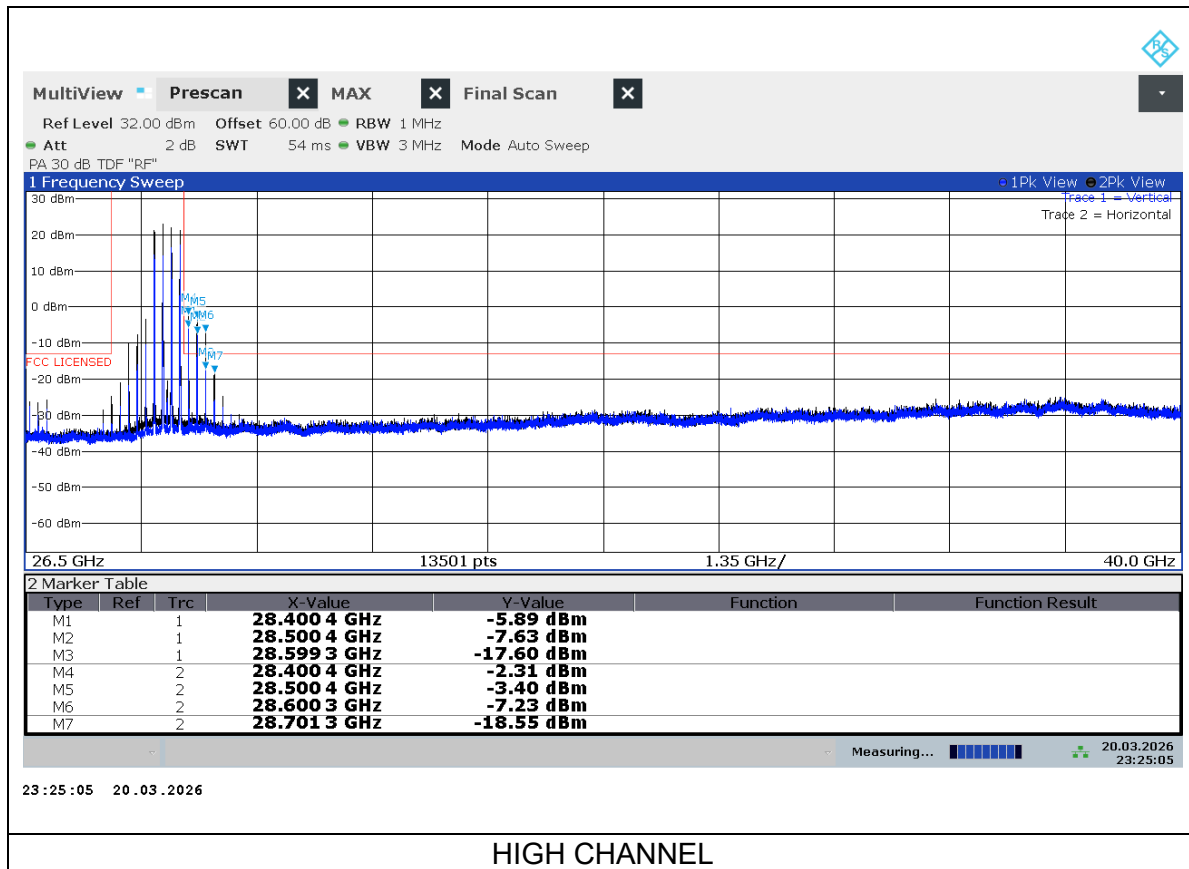
RMS - EIRP, Power RMS Average detector

4CC CONFIGURATION – 100MHz BANDWIDTH



Marker	Frequency (GHz)	Det	Corrected Reading (dBm)	TRP Limit (dBm)	Margin (dB)	Polarity
1	27.451	RMS	-21.09	-13	-8.09	V
2	27.351	RMS	-24.26	-13	-11.26	V
3	27.251	RMS	-29.05	-13	-16.05	V
4	27.451	RMS	-17.07	-13	-4.07	H
5	27.351	RMS	-19.83	-13	-6.83	H
6	27.251	RMS	-24.54	-13	-11.54	H

PK – Peak detector
RMS - EIRP, Power RMS Average detector



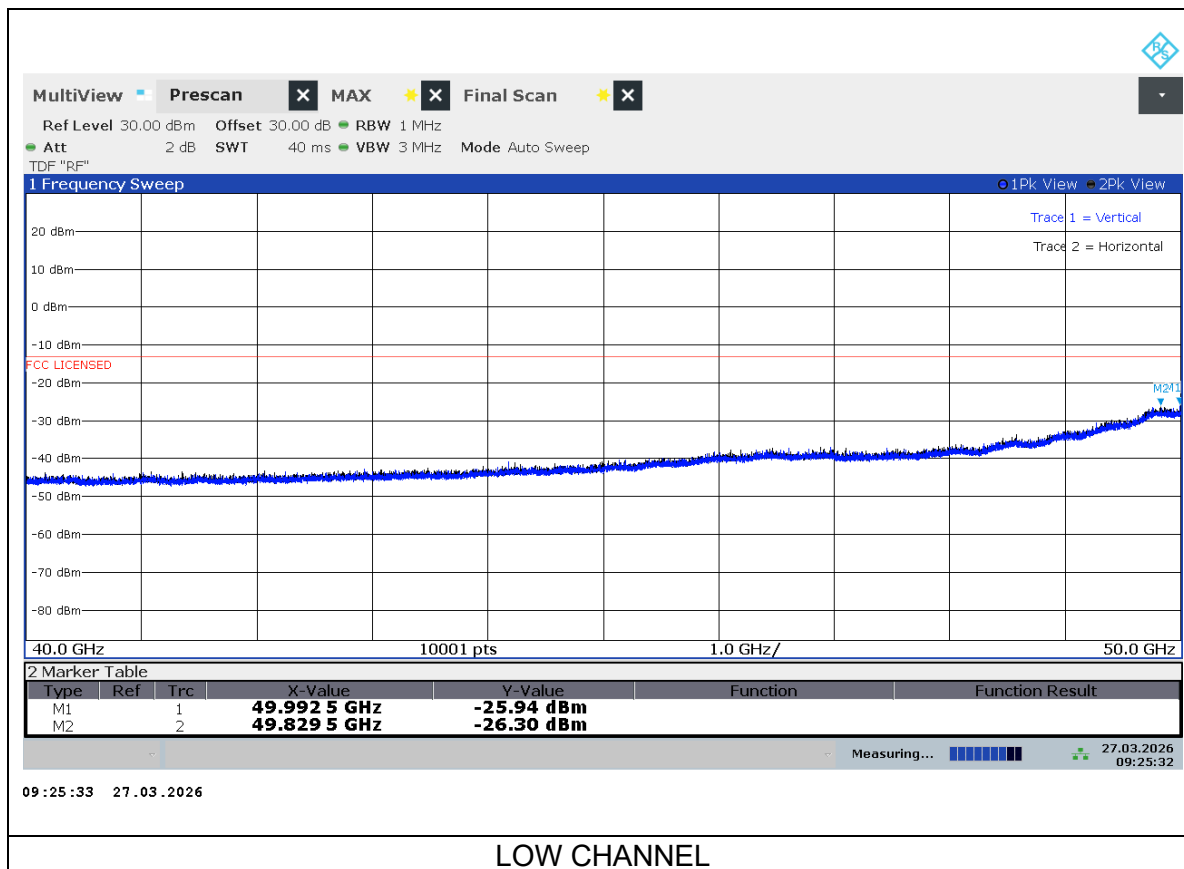
Marker	Frequency (GHz)	Det	Corrected Reading (dBm)	TRP Limit (dBm)	Margin (dB)	Polarity
1	28.4	RMS	-21.54	-13	-8.54	V
2	28.5	RMS	-23.42	-13	-10.42	V
3	28.6	RMS	-28.96	-13	-15.96	V
4	28.4	RMS	-22.04	-13	-9.04	H
5	28.5	RMS	-21.66	-13	-8.66	H
6	28.6	RMS	-23.5	-13	-10.5	H
7	28.7	RMS	-30.92	-13	-17.92	H

PK – Peak detector

RMS - EIRP, Power RMS Average detector

8.4.4.6. SPURIOUS EMISSIONS 40 – 50GHz

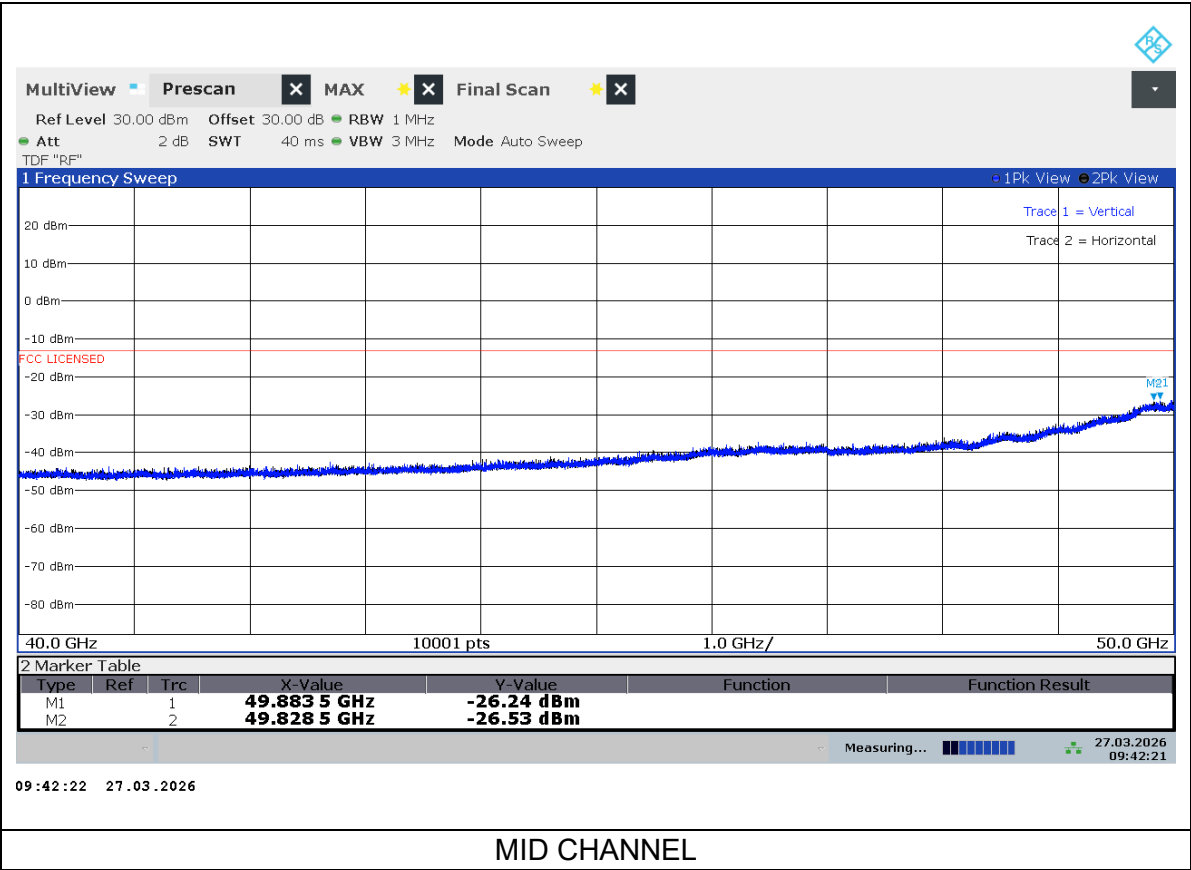
1CC CONFIGURATION



Marker	Frequency (GHz)	Det	Corrected Reading (dBm)	TRP Limit (dBm)	Margin (dB)	Polarity
1	49.9925	Pk	-25.94	-13	-12.94	V
2	49.8295	Pk	-26.3	-13	-13.3	H

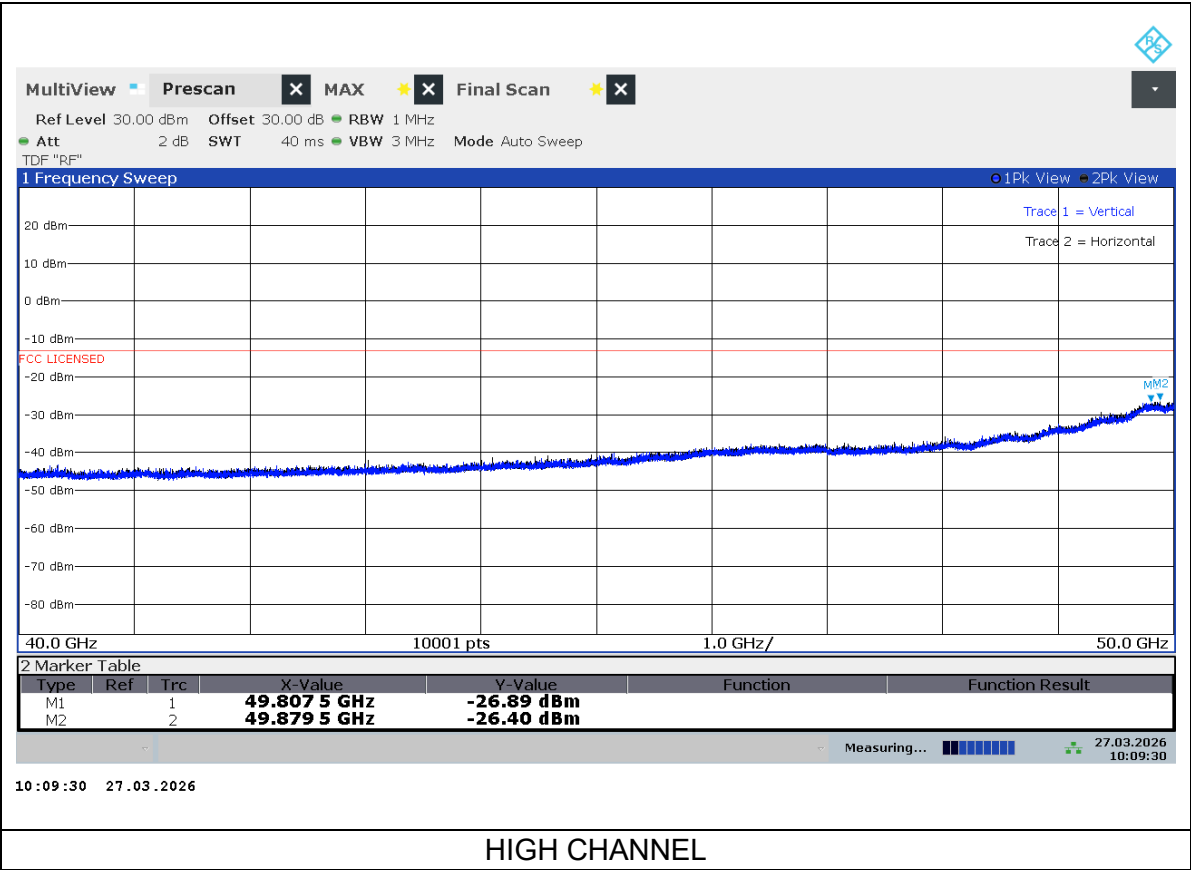
PK – Peak detector

RMS - EIRP, Power RMS Average detector



Marker	Frequency (GHz)	Det	Corrected Reading (dBm)	TRP Limit (dBm)	Margin (dB)	Polarity
1	49.8835	Pk	-26.24	-13	-13.24	V
2	49.8285	Pk	-26.53	-13	-13.53	H

PK – Peak detector
RMS - EIRP, Power RMS Average detector

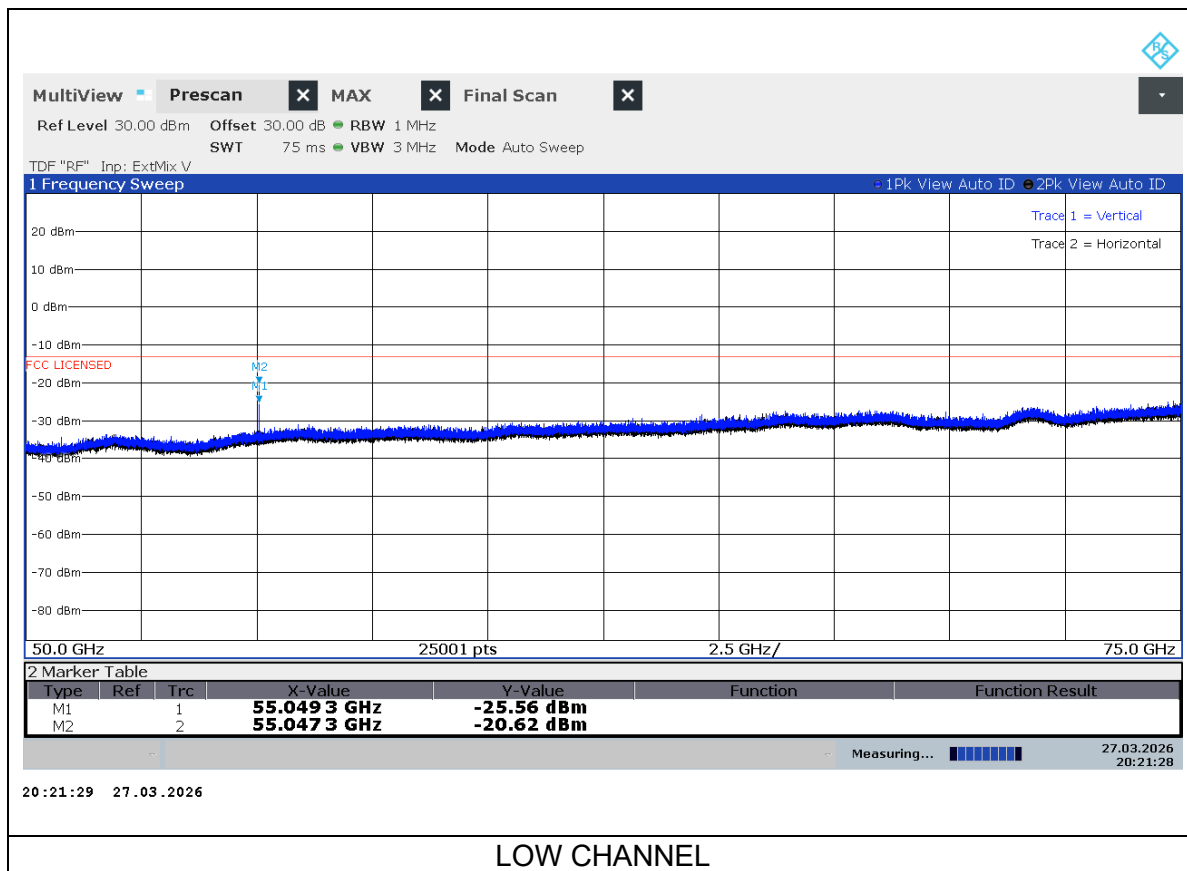


Marker	Frequency (GHz)	Det	Corrected Reading (dBm)	TRP Limit (dBm)	Margin (dB)	Polarity
1	49.8075	Pk	-26.89	-13	-13.89	V
2	49.8795	Pk	-26.4	-13	-13.4	H

PK – Peak detector
RMS - EIRP, Power RMS Average detector

8.4.4.7. SPURIOUS EMISSIONS 50 – 75GHz

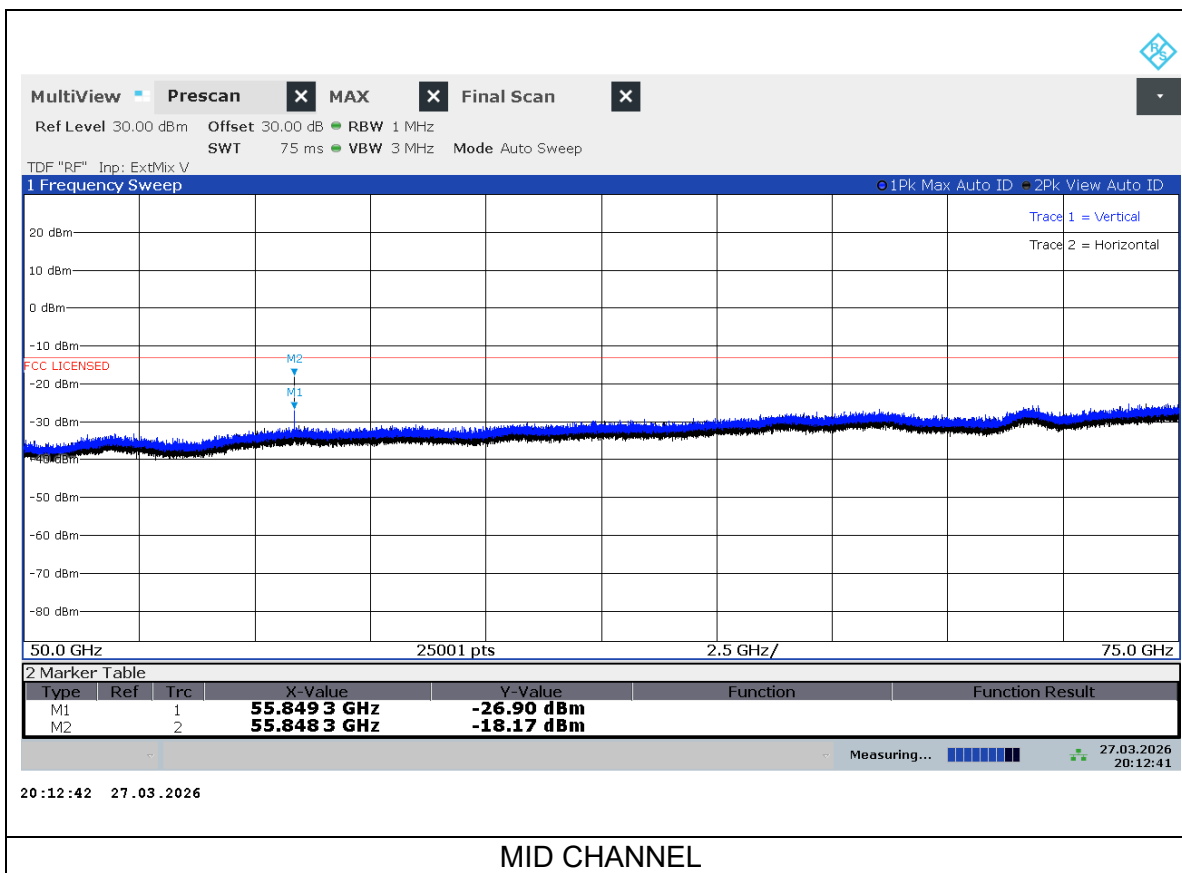
1CC CONFIGURATION



Marker	Frequency (GHz)	Det	Corrected Reading (dBm)	TRP Limit (dBm)	Margin (dB)	Polarity
1	55.0493	Pk	-25.56	-13	-12.56	V
2	55.0473	Pk	-20.62	-13	-7.62	H

PK – Peak detector

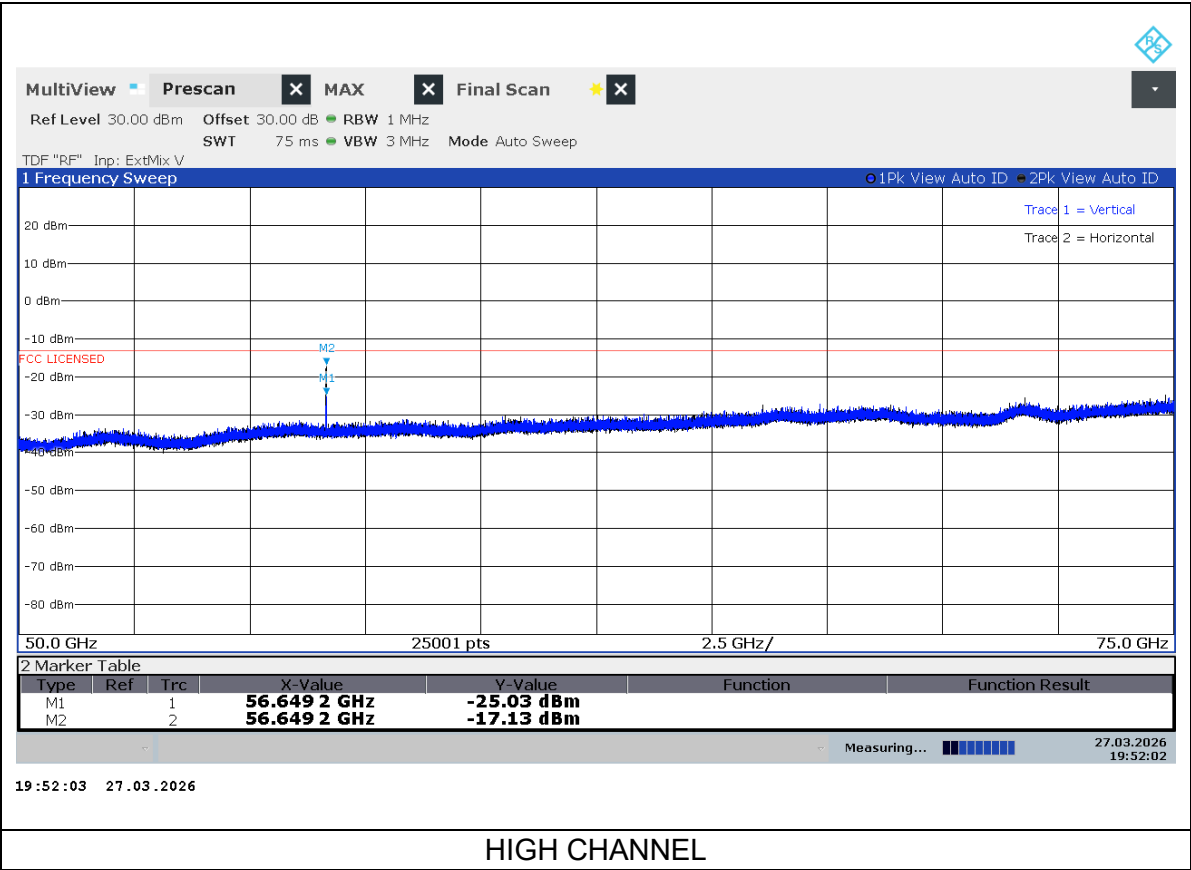
RMS - EIRP, Power RMS Average detector



Marker	Frequency (GHz)	Det	Corrected Reading (dBm)	TRP Limit (dBm)	Margin (dB)	Polarity
1	55.8493	Pk	-26.9	-13	-13.9	V
2	55.848721	RMS	-21.57	-13	-8.57	H

PK – Peak detector

RMS - EIRP, Power RMS Average detector

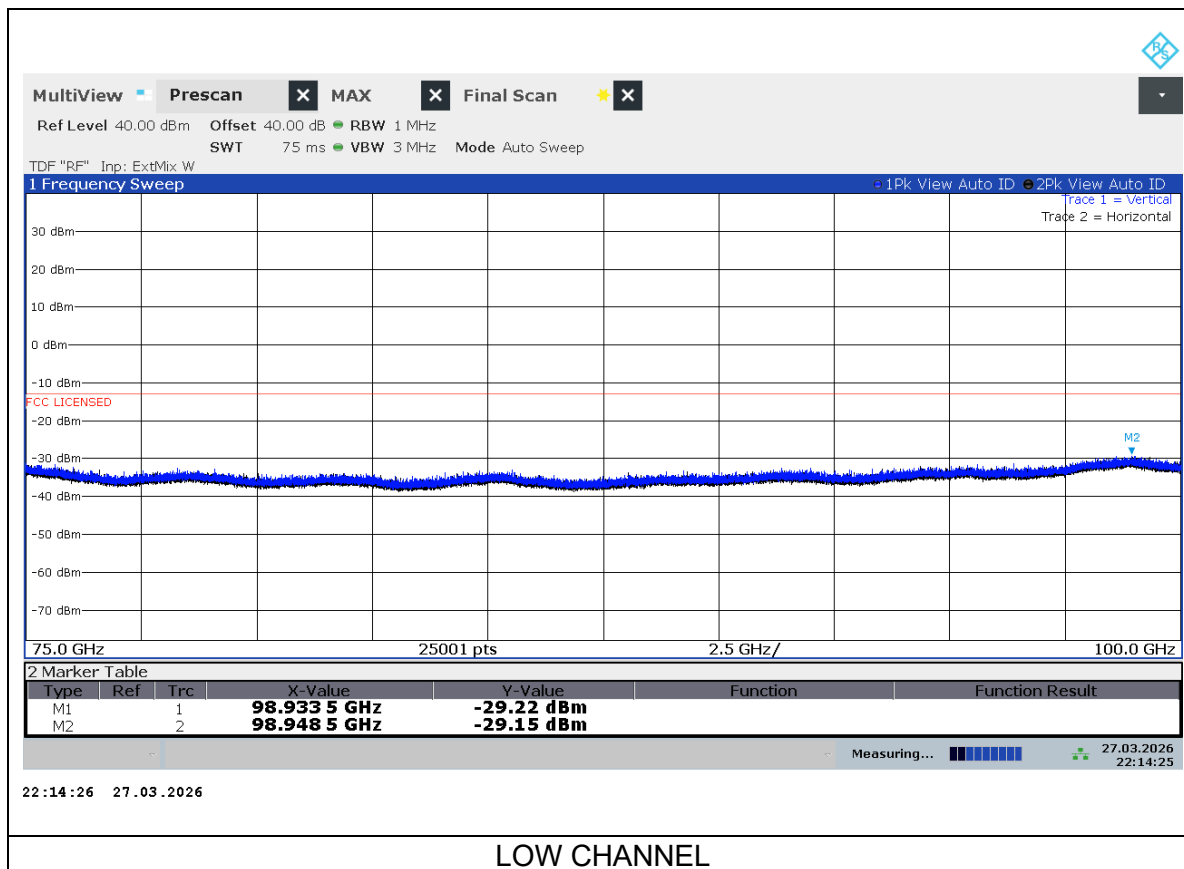


Marker	Frequency (GHz)	Det	Corrected Reading (dBm)	TRP Limit (dBm)	Margin (dB)	Polarity
1	56.6492	Pk	-25.03	-13	-12.03	V
2	56.648221	RMS	-21.22	-13	-8.22	H

PK – Peak detector
RMS - EIRP, Power RMS Average detector

8.4.4.8. SPURIOUS EMISSIONS 75 – 100GHz

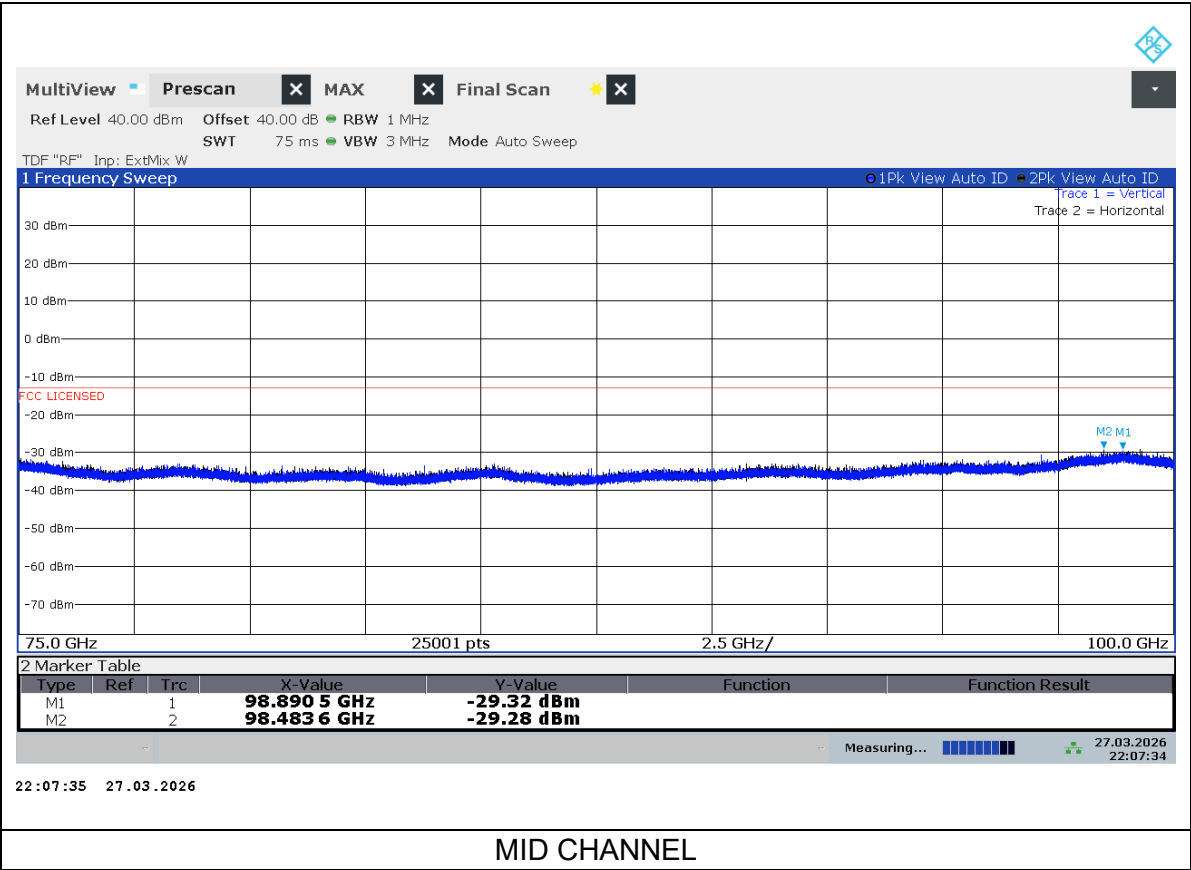
1CC CONFIGURATION



Marker	Frequency (GHz)	Det	Corrected Reading (dBm)	TRP Limit (dBm)	Margin (dB)	Polarity
1	98.9335	Pk	-29.22	-13	-16.22	V
2	98.9485	Pk	-29.15	-13	-16.15	H

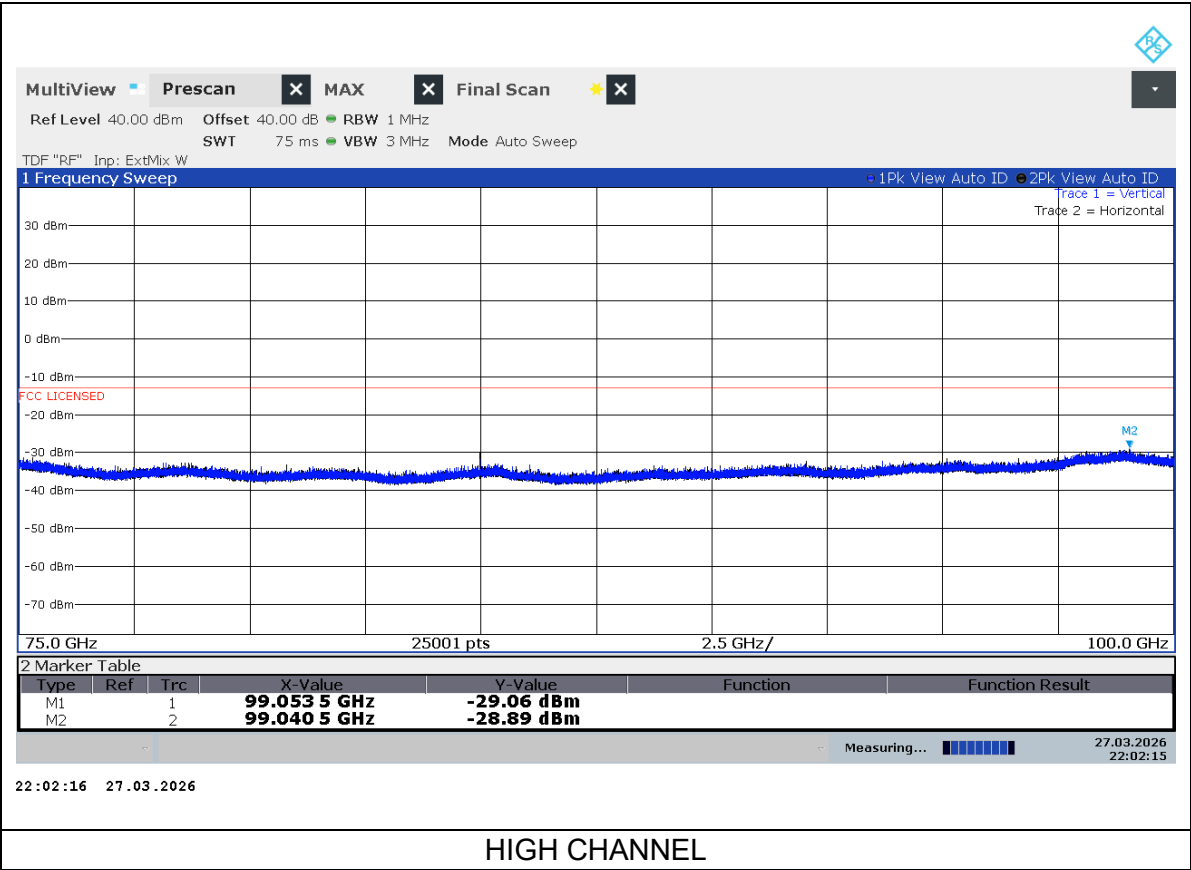
PK – Peak detector

RMS - EIRP, Power RMS Average detector



Marker	Frequency (GHz)	Det	Corrected Reading (dBm)	TRP Limit (dBm)	Margin (dB)	Polarity
1	98.8905	Pk	-29.32	-13	-16.32	V
2	98.4836	Pk	-29.28	-13	-16.28	H

PK – Peak detector
RMS - EIRP, Power RMS Average detector



Marker	Frequency (GHz)	Det	Corrected Reading (dBm)	TRP Limit (dBm)	Margin (dB)	Polarity
1	99.0535	Pk	-29.06	-13	-16.06	V
2	99.0405	Pk	-28.89	-13	-15.89	H

PK – Peak detector
RMS - EIRP, Power RMS Average detector

8.5. FREQUENCY STABILITY

RULE PART(S)

FCC: §2.1055

LIMIT

For reporting purposes only

TEST PROCEDURES

KDB 842590 D01 Upper Microwave Flexible Use Service v01r03 Section 4.5
ANSI C63.26-2015 Section 5.6

Test procedures for temperature variation:

- a. Position the EUT in temperature/humidity chamber with powered off.
 - b. Set chamber temperature to 50°C.
 - c. Power on EUT and allow sufficient time for the EUT to stabilize.
 - c. Record the frequency.
 - d. Decrease chamber temperature at 10°C intervals from 50°C to -30°C. Record the frequency at each temperature step after allowing sufficient time for temperature stabilization.
- Temp. = -30°C to +50°C

Test procedures for voltage variation:

- a. Test is performed at ambient room temperature (15°C to 25°C).
 - b. The primary supply voltage is varied from 85% to 115% of the nominal value for AC and DC powered equipment. For hand-carried, battery-powered equipment the primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.
 - c. Power on the EUT and record the frequency at the extreme voltage values.
- Nominal Voltage = 3.88 Vdc

The measurements were performed with an unmodulated carrier and the center frequency of each frequency band was recorded. For the low voltage (end-point) test condition, the battery was drained to < 5% capacity and measurements were performed in this state.

RESULTS

See the following page.

TESTED BY

Employee IDs: 116034/11322
Test Date: 2026-04-01
Test Location: Conducted 1

8.5.1. FREQUENCY STABILITY n258 SB1

Band:	n258 SB1			
Nominal Frequency:	24.35	GHz		
Nominal Voltage:	3.88	Vdc		
Temperature (°C)	Voltage (V)	Measured Frequency (GHz)	Delta (Hz)	ppm
-30	3.88	24.355155	70000	2.87
-20	3.88	24.355155	70000	2.87
-10	3.88	24.355155	70000	2.87
0	3.88	24.355135	50000	2.05
10	3.88	24.355115	30000	1.23
20	3.88	24.355085	Reference	
30	3.88	24.355065	-20000	-0.82
40	3.88	24.355045	-40000	-1.64
50	3.88	24.355035	-50000	-2.05
20	End-Point	24.355065	-20000	-0.82

The largest occupied bandwidth (Section 8.1) of all Low & High channels are smaller than the channel bandwidths by at least 3 MHz for all modes of operation, so the signal is at least 1.5 MHz from either edge of the channel. The channels are fully contained within the FCC-allocated band and the frequency stability is significantly less than 1.5 MHz, with maximum frequency shift of 70 kHz over the test conditions from above. Therefore, the signal is always contained within the allocated channel / band.

8.5.2. FREQUENCY STABILITY n258 SB2

Band:	n258 SB2			
Nominal Frequency:	25	GHz		
Nominal Voltage:	3.88	Vdc		
Temperature (°C)	Voltage (V)	Measured Frequency (GHz)	Delta (Hz)	ppm
-30	3.88	25.005085	50000	2.00
-20	3.88	25.005085	50000	2.00
-10	3.88	25.005085	50000	2.00
0	3.88	25.005075	40000	1.60
10	3.88	25.005045	10000	0.40
20	3.88	25.005035	Reference	
30	3.88	25.005005	-30000	-1.20
40	3.88	25.004965	-70000	-2.80
50	3.88	25.004965	-70000	-2.80
20	End-Point	25.005035	0	0.00

The largest occupied bandwidth (Section 8.1) of all Low & High channels are smaller than the channel bandwidths by at least 3 MHz for all modes of operation, so the signal is at least 1.5 MHz from either edge of the channel. The channels are fully contained within the FCC-allocated band and the frequency stability is significantly less than 1.5 MHz, with maximum frequency shift of 70 kHz over the test conditions from above. Therefore, the signal is always contained within the allocated channel / band.

8.5.1. FREQUENCY STABILITY n260

Band:	n260			
Nominal Frequency:	38.5	GHz		
Nominal Voltage:	3.88	Vdc		
Temperature (°C)	Voltage (V)	Measured Frequency (GHz)	Delta (Hz)	ppm
-30	3.88	38.505125	50000	1.30
-20	3.88	38.505155	80000	2.08
-10	3.88	38.505145	70000	1.82
0	3.88	38.505145	70000	1.82
10	3.88	38.505105	30000	0.78
20	3.88	38.505075	Reference	
30	3.88	38.505005	-70000	-1.82
40	3.88	38.504965	-110000	-2.86
50	3.88	38.504985	-90000	-2.34
20	End-Point	38.505005	-70000	-1.82

The largest occupied bandwidth (Section 8.1) of all Low & High channels are smaller than the channel bandwidths by at least 3 MHz for all modes of operation, so the signal is at least 1.5 MHz from either edge of the channel. The channels are fully contained within the FCC-allocated band and the frequency stability is significantly less than 1.5 MHz, with maximum frequency shift of 110 kHz over the test conditions from above. Therefore, the signal is always contained within the allocated channel / band.

8.5.2. FREQUENCY STABILITY n261

Band:	n261			
Nominal Frequency:	27.925	GHz		
Nominal Voltage:	3.88	Vdc		
Temperature (°C)	Voltage (V)	Measured Frequency (GHz)	Delta (Hz)	ppm
-30	3.88	27.93013	70000	2.51
-20	3.88	27.93013	70000	2.51
-10	3.88	27.93013	70000	2.51
0	3.88	27.93011	50000	1.79
10	3.88	27.93008	20000	0.72
20	3.88	27.93006	Reference	
30	3.88	27.93002	-40000	-1.43
40	3.88	27.93	-60000	-2.15
50	3.88	27.93	-60000	-2.15
20	End-Point	27.93008	20000	0.72

The largest occupied bandwidth (Section 8.1) of all Low & High channels are smaller than the channel bandwidths by at least 3 MHz for all modes of operation, so the signal is at least 1.5 MHz from either edge of the channel. The channels are fully contained within the FCC-allocated band and the frequency stability is significantly less than 1.5 MHz, with maximum frequency shift of 70 kHz over the test conditions from above. Therefore, the signal is always contained within the allocated channel / band.

9. SETUP PHOTOS

Please refer to report R16238088-EP1 for setup photos.

APPENDIX A

DOWNCONVERTER CERTIFICATE OF CONFORMANCE



Virginia Diodes, Inc
979 2nd St. SE
Suite 309
Charlottesville, VA 22902
Phone: 434-297-3257
Fax: 434-297-3258

Certificate of Conformance

To: Underwriters Laboratory LLC
2800 Perimeter Park Drive
Suite B
Morrisville, NC 27560
United States

From: Virginia Diodes, Inc
979 2nd St. SE
Suite 309
Charlottesville, VA 22902

Packing List No: 251376
Shipping Date: 4/24/2025

Today's Date: 04/24/2025
PO Number: 7202185350

<u>Quantity Shipped</u>	<u>Unit</u>	<u>Description</u>	<u>Order-Job Number</u>
1	EA	RETEST-WR15SAX-F - WR15SAX-F / SN: SAX 820	250149A-01
1	EA	RETEST-WR10SAX-F - WR10SAX-F / SN: SAX 821	250149A-02
1	EA	RETEST-WR6.5SAX-F - WR6.5SAX-F / SN: SAX 822	250149A-03
1	EA	RETEST-WR4.3SAX-F - WR4.3SAX-F / SN: SAX 823	250149A-04

The VDI product(s) in this shipment meet(s) the guidelines for performance specifications established in accordance with the corresponding Purchase Order. Data presented in the User Guide, where applicable, has been obtained in accordance with VDI's Quality Management System. All instruments, used to obtain data, which require calibration have been calibrated with equipment traceable to the National Institute of Standards and Technology (NIST) and through NIST to the International System of Units (SI).

Brandice Wroniewicz

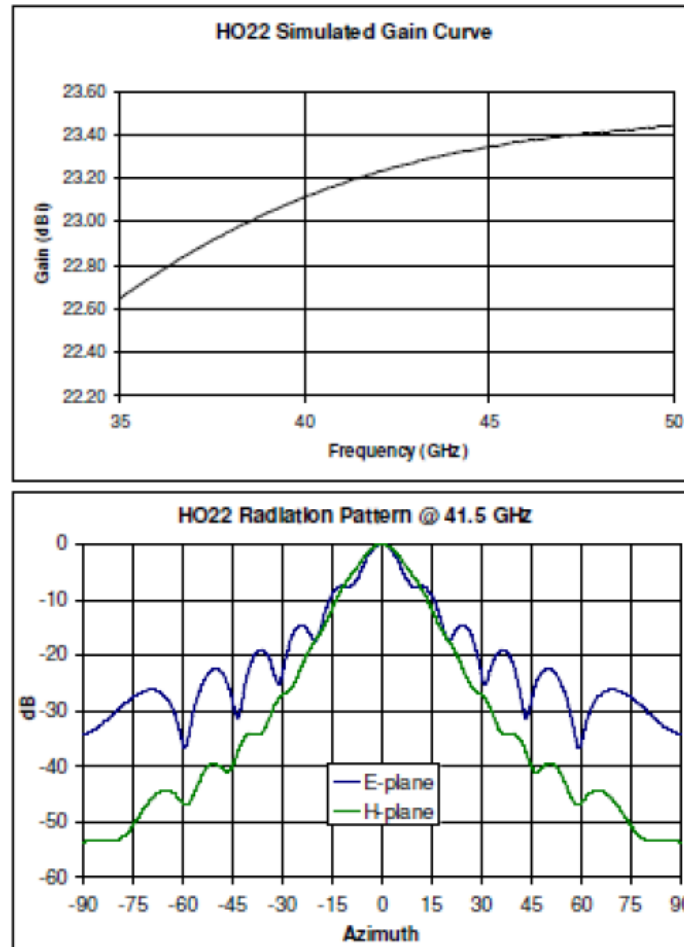
Authorized Signature
Virginia Diodes, Inc

DD

35-50 GHz CMI HO22R HORN ANTENNA



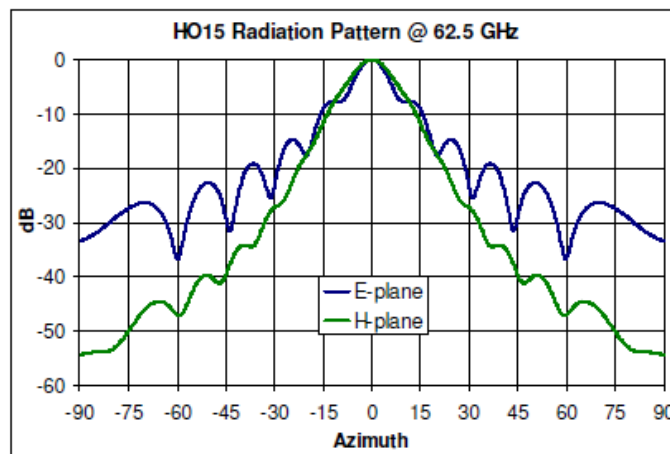
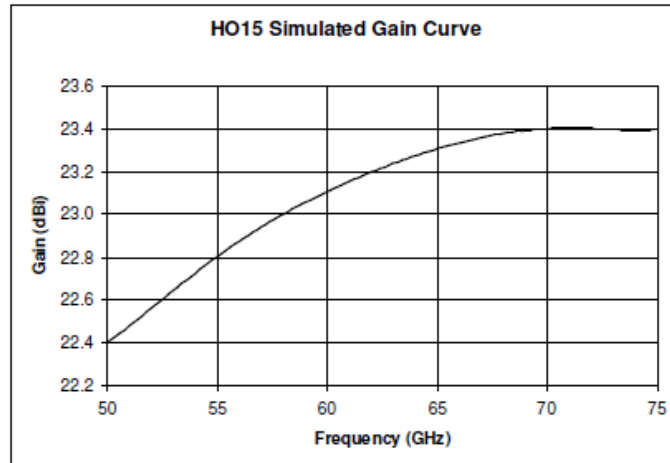
24 Boston Court
Longmont, CO 80501
303 651-0707 (P)
303 651-0706 (F)
www.custommicrowave.com



50-75 GHz CMI HO15R HORN ANTENNA



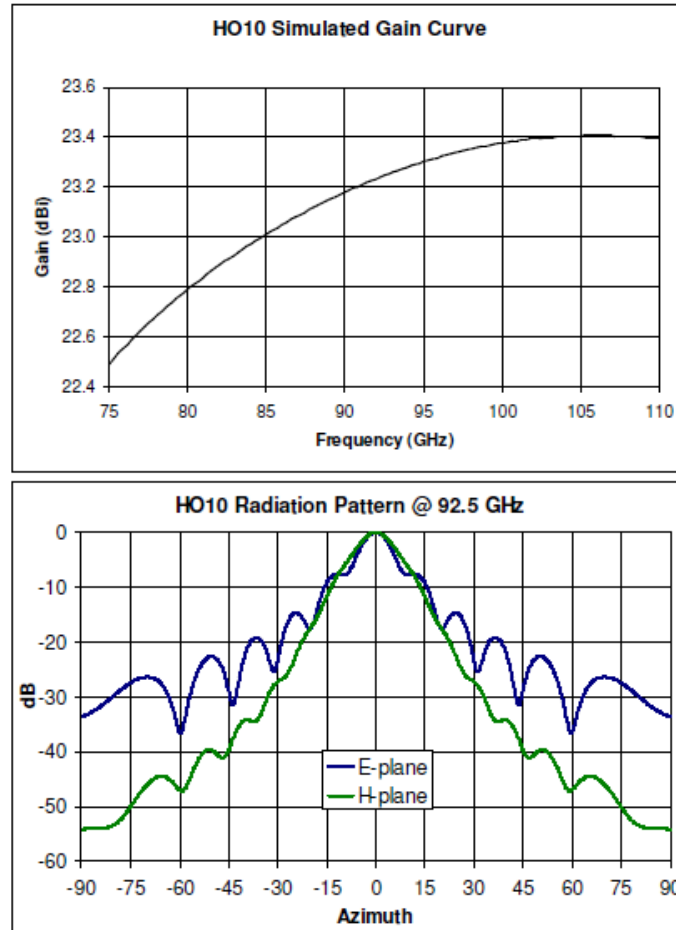
24 Boston Court
Longmont, CO 80501
303 651-0707(P)
303 651-0706(F)
www.custommicrowave.com



75-110 GHz CMI HO10R HORN ANTENNA



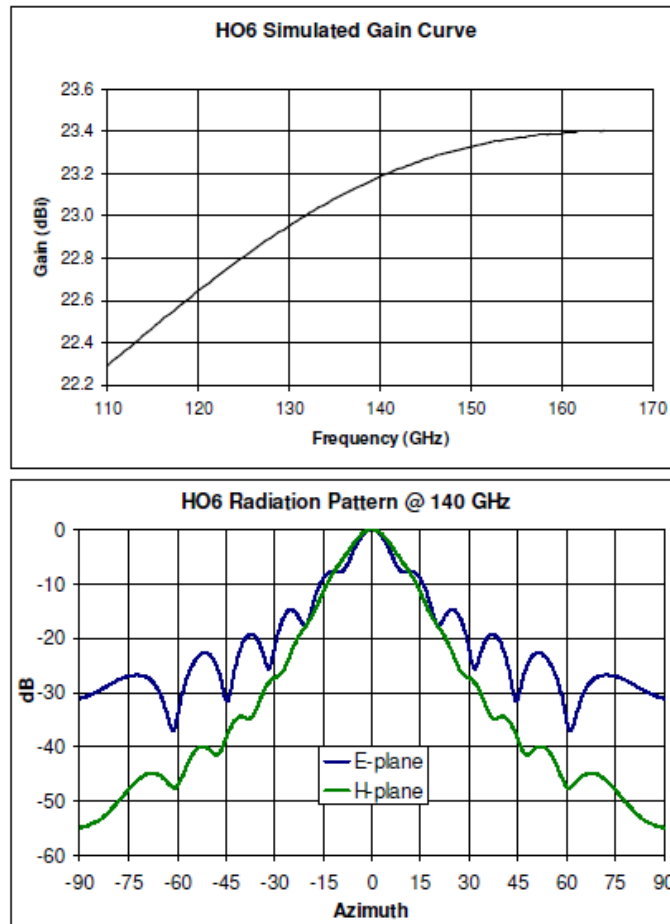
24 Boston Court
Longmont, CO 80501
303 651-0707(P)
303 651-0706(F)
www.custommicrowave.com



110-170 GHz CMI HO6R HORN ANTENNA



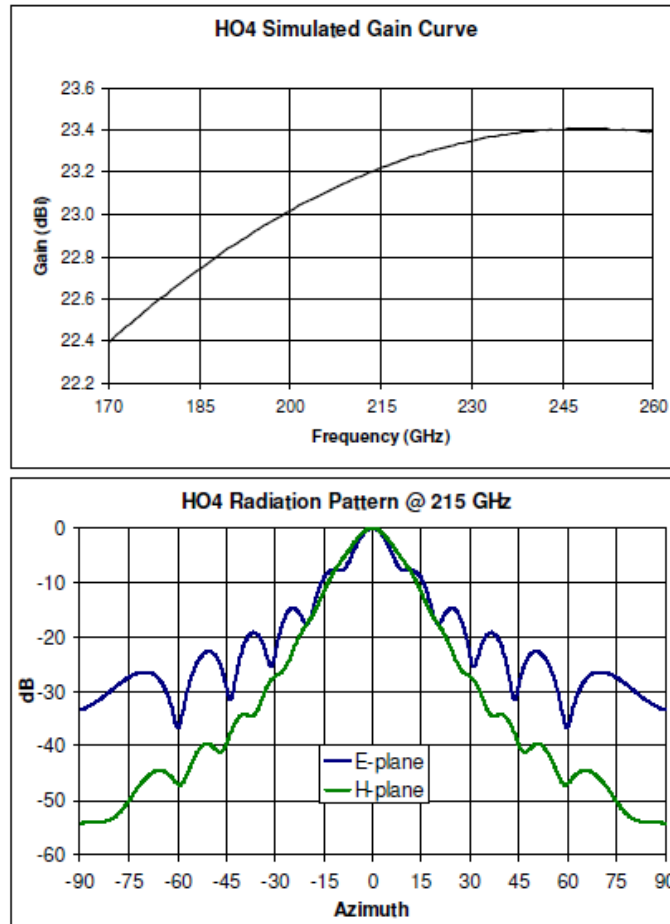
24 Boston Court
Longmont, CO 80501
303 651-0707(P)
303 651-0706(F)
www.custommicrowave.com



170-200 GHz CMI HO4R HORN ANTENNA



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303 651-0706(F)
www.custommicrowave.com



LABORATORY ACCREDITATION



Accredited Laboratory

A2LA has accredited

UL LLC

Durham, North Carolina

for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. This laboratory also meets the A2LA R256- Specific Requirements. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 6th day of March 2026.

A blue ink signature of Mr. Trace McInturff.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 0751.06
Valid to February 29, 2028

For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.

Rule Subpart/Technology	Test Method	Maximum Frequency (MHz)
<u>Unintentional Radiators</u> Part 15B	ANSI C63.4:2014	40000
<u>Industrial, Scientific, and Medical Equipment</u> Part 18	FCC MP-5:1986	260000
<u>Intentional Radiators</u> Part 15C	ANSI C63.10:2020	260000
<u>U-NII without DFS Intentional Radiators</u> Part 15E	ANSI C63.10:2020	40000
<u>U-NII with DFS Intentional Radiators</u> Part 15E	FCC KDB 905462 D02 (v02), April 8, 2016	40000
<u>UWB Intentional Radiators</u> FCC Part 15, Subpart F	ANSI C63.10:2020	200000
<u>Commercial Mobile Services (FCC Licensed Radio Service Equipment)</u> Parts 22 (cellular), 24, 25 (below 3 GHz), and 27	ANSI C63.26:2015	40000
<u>General Mobile Radio Services (FCC Licensed Radio Service Equipment)</u> Parts 22 (non-cellular), 90 (below 3 GHz), 95 (below 3 GHz), 97 (below 3 GHz), and 101 (below 3 GHz)	ANSI C63.26:2015	40000
<u>Microwave and Millimeter Bands Radio Services</u> Part 25 (above 3 GHz), Part 30, Part 74, Part 90 (above 3 GHz), Part 95 (above 3 GHz), Part 97 (above 3 GHz), Part 101	ANSI C63.26:2015	260000
<u>Citizens Broadband Radio Services (FCC Licensed Radio Service Equipment)</u> Part 96	ANSI C63.26:2015	40000
<u>RF Exposure</u> Devices Subject to SAR Requirements	IEEE Std 1528:2013	7200

NOTE: Accreditation does not imply acceptance to the FCC equipment authorization program. Please see the FCC website (<https://apps.fcc.gov/oetcf/eas/>) for a listing of FCC approved laboratories.

(A2LA Certificate No. 0751.06) Revised 03/27/2026



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END OF REPORT