

FCC and ISED Test Report

Manufacturer: Skyships Automotive Ltd.
Model: G7 Infotainment Head unit



In accordance with FCC 47 CFR Part 15B

Prepared for: Skyships Automotive Ltd.
Saling Barn, Piccotts Lane
Great Saling, Braintree
CM7 5DW

FCC ID: 2BA3IG7A01233 IC: N/A

COMMERCIAL-IN-CONFIDENCE

Document 75965807-01 Issue 01

SIGNATURE

A. Lawson

NAME	JOB TITLE	RESPONSIBLE FOR	ISSUE DATE
Andrew Lawson	Chief Engineer, EMC	Authorised Signatory	12 November 2025

Signatures in this approval box have checked this document in line with the requirements of TÜV SÜD document control rules.

ENGINEERING STATEMENT

The measurements shown in this report were made in accordance with the procedures described on test pages. All reported testing was carried out on a sample equipment to demonstrate limited compliance with FCC 47 CFR Part 15B. The sample tested was found to comply with the requirements defined in the applied rules.

RESPONSIBLE FOR	NAME	DATE	SIGNATURE
Testing	Sreemon Jayachandran Nair	12 November 2025	<i>[Signature]</i>

FCC Accreditation

492497/UK2010 Octagon House, Fareham Test Laboratory

ISED Accreditation

12669A/UK0003 Octagon House, Fareham Test Laboratory

EXECUTIVE SUMMARY

A sample of this product was tested and found to be compliant with FCC 47 CFR Part 15B: 2024 for the tests detailed in section 1.3.



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1 Report Summary

1.1 Report Modification Record

Alterations and additions to this report will be issued to the holders of each copy in the form of a complete document.

Issue	Description of Change	Date of Issue
1	First Issue	12-Nov-2025

Table 1

1.2 Introduction

Applicant	Skyships Automotive Ltd.
Manufacturer	Skyships Automotive Ltd.
Model Number(s)	G7 Infotainment Head unit
Serial Number(s)	0024580
Hardware Version(s)	A1
Software Version(s)	7.1
Number of Samples Tested	1
Test Specification/Issue/Date	FCC 47 CFR Part 15B: 2024
Order Number	PO05683
Date	16-September-2025
Date of Receipt of EUT	03-October-2025
Start of Test	15-October-2025
Finish of Test	16-October-2025
Name of Engineer(s)	Sreemon Jayachandran Nair
Related Document(s)	ANSI C63.4: 2014



1.3 Brief Summary of Results

A brief summary of the tests carried out in accordance with FCC 47 CFR Part 15B is shown below.

Section	Specification Clause	Test Description	Result	Comments/Base Standard
Configuration and Mode: DC Powered - Idle / Operating				
2.1	15.109	Radiated Emissions	Pass	ANSI C63.4: 2014
2.2	15.109	Radiated Magnetic Emissions	Pass	ANSI C63.4: 2014

Table 2



1.4 Declaration of Build Status

MAIN EUT			
MANUFACTURING DESCRIPTION	Automotive Infotainment Head unit - A vehicle infotainment controller containing FM receiver, GPS, and Bluetooth. The unit has no direct user interface and is controlled remotely from controls in the vehicle. It has three video outputs that drive remote displays.		
MANUFACTURER	Skyships Automotive Limited		
MODEL	G7 Infotainment Head unit		
MANUFACTURER DECLARED VARIANTS (IF APPLICABLE)	N/A		
PART NUMBER	A-01233		
SERIAL NUMBER (S/N)	0024580		
HARDWARE VERSION	A1		
SOFTWARE VERSION	7.1		
PSU VOLTAGE/FREQUENCY/CURRENT	13.7 V DC, 3 A		
Intended Operating Environment	Automotive		
Dimensions/Weight	310 x 155 x 31 mm, 1210 g		
Typical Installation	Vehicle		
HIGHEST INTERNALLY GENERATED FREQUENCY	2133 MHz		
FCC ID (if applicable)	2BA3IG7A01233		
INDUSTRY CANADA ID (if applicable)	N/A		
COUNTRY OF ORIGIN	UK		
RF CHARACTERISTICS (if applicable)			
TRANSMITTER FREQUENCY OPERATING RANGE (MHz)	704 – 5835 MHz		
RECEIVER FREQUENCY OPERATING RANGE (MHz)	88 – 5835 MHz		
INTERMEDIATE FREQUENCIES	N/A		
EMISSION DESIGNATOR(S): https://fccid.io/Emissions-Designator/	Multiple		
MODULATION TYPES: (i.e. GMSK, QPSK)	DQPSK, DSSS/CCK, OFDM, 2G, HSPA+, LTE FDD		
OUTPUT POWER (W or dBm)	32.26 dBm		
SEPARATE BATTERY/POWER SUPPLY (if applicable)			
MODULES (if applicable)			
MANUFACTURING DESCRIPTION	LTE Modem	N/A	N/A
MANUFACTURER	Telit	N/A	N/A
TYPE	Single Modular	N/A	N/A
POWER	32.06 dBm	N/A	N/A
FCC ID	RI7LE940B6NA	N/A	N/A
INDUSTRY CANADA ID	N/A	N/A	N/A
EMISSION DESIGNATOR	Multiple	N/A	N/A
DHSS/FHSS/COMBINED OR OTHER	N/A	N/A	N/A
COUNTRY OF ORIGIN	Italy	N/A	N/A

Table 3

I hereby declare that the information supplied is correct and complete.

Name: Adam Dickison

Position held: Director

Date 25 September 2025

Note: No responsibility will be accepted by TÜV SÜD as to the accuracy of the information declared on this Build State Declaration by the manufacturer.



1.5 Product Information

1.5.1 Technical Description

The Equipment under test (EUT) was a Skyships Automotive Limited, Model: G7 Infotainment Head unit.

The EUT's primary function is to provide a custom user interface inside a vehicle.

Additionally, the EUT has an FM receiver and GPS and Bluetooth transmit functionalities.

1.5.2 EUT Port/Cable Identification

Port	Max Cable Length specified	Usage	Type	Screened
DC Power	2.5 m	Power	Wire	Not Screened
Controller Area Network (CAN)	10 m	Data	Wire	Not Screened
Speaker	10 m	Data	Wire	Not Screened
Automotive Ethernet	10 m	Data	Wire	Not Screened
Video 1	10 m	Data	Coaxial	Screened
Video 2	10 m	Data	Coaxial	Screened
Video 3	10 m	Data	Coaxial	Screened
Camera 1	10 m	Data	Coaxial	Screened
Camera 2	10 m	Data	Coaxial	Screened
Camera 3	10 m	Data	Coaxial	Screened
Camera 4	10 m	Data	Coaxial	Screened
GPS Antenna	10 m	Signal	Coaxial	Screened
Wi-Fi Antenna	10 m	Signal	Coaxial	Screened
BT/Wi-Fi Antenna	10 m	Signal	Coaxial	Screened
Cellular Antenna 1	10 m	Signal	Coaxial	Screened
Cellular Antenna 2	10 m	Signal	Coaxial	Screened
FM Signal 1	10 m	Signal	Coaxial	Screened
FM Signal 2	10 m	Signal	Coaxial	Screened

Table 4



1.5.3 Test Configuration

Configuration	Description
DC Powered	The EUT was powered from a 13.7 V DC supply. The EUT had the following connections made: - Control Area Network(CAN) connected to the support equipment. - One speaker connected to support equipment. - One Automotive Ethernet cable connected to support laptop via media converter. - Three video output cables connected to support display screens. - Four camera cables connected to support cameras. - One coax cable connected to GPS antenna or GPS simulator. - One coax cable connected to BT/Wi-Fi antenna. - One coax cable connected to Wi-Fi antenna. - Two coax cables connected to cellular antennas. - Two coax cables connected to FM signal source.

Table 5

1.5.4 Modes of Operation

Mode	Description
Idle / Operating	The EUT was powered and operating with transmitters disabled.

Table 6

1.6 Deviations from the Standard

No deviations from the applicable test standard were made during testing.

1.7 EUT Modification Record

The table below details modifications made to the EUT during the test programme.

The modifications incorporated during each test are recorded on the appropriate test pages.

Modification State	Description of Modification still fitted to EUT	Modification Fitted By	Date Modification Fitted
Model: G7 Infotainment Head unit, Serial Number: 0024580			
0	As supplied by the customer	Not Applicable	Not Applicable

Table 7

1.8 Test Location

TÜV SÜD conducted the following tests at our Octagon House Test Laboratory.

Test Name	Name of Engineer(s)	Accreditation
Configuration and Mode: DC Powered - Idle / Operating		
Radiated Emissions	Sreemon Jayachandran Nair	UKAS
Radiated Magnetic Emissions	Sreemon Jayachandran Nair	UKAS

Table 8

Office Address:



TÜV SÜD
Octagon House
Concorde Way
Fareham
Hampshire
PO15 5RL
United Kingdom



2 Test Details

2.1 Radiated Emissions

2.1.1 Specification Reference

FCC 47 CFR Part 15B, Clause 15.109

2.1.2 Equipment Under Test and Modification State

G7 Infotainment Head unit, S/N: 0024580 - Modification State 0

2.1.3 Date of Test

15-October-2025 to 16-October-2025

2.1.4 Test Method

The EUT was set up in a semi-anechoic chamber in the centre of a remotely controlled turntable and placed on a non-conductive table 0.8 m above a reference ground plane

A Peak detector pre-scan of the EUT emissions profile was measured across the appropriate frequency range while varying the antenna-to-EUT azimuth and polarisation. Measurements were made using a 3 m distance between the declared antenna measurement point and the EUT.

Where all pre-scan peak emissions measured were greater than 20 dB below the test limit, no final measurements were made in accordance with ANSI C63.4.

Where any pre-scan peak emissions were within 20 dB of the test limit, the six highest pre-scan peak emissions seen across the frequency range were maximised by adjusting antenna height, polarisation and angle and then measured for at least 15 seconds using a Peak, Quasi-Peak or CISPR Average detector as appropriate to the test limit being measured against.

2.1.5 Example Calculation

Below 1 GHz:

Quasi-Peak level (dB μ V/m) = Receiver level (dB μ V) + Correction Factor (dB/m)
Margin (dB) = Quasi-Peak level (dB μ V/m) - Limit (dB μ V/m)

Above 1 GHz:

CISPR Average level (dB μ V/m) = Receiver level (dB μ V) + Correction Factor (dB/m)
Margin (dB) = CISPR Average level (dB μ V/m) - Limit (dB μ V/m)

Peak level (dB μ V/m) = Receiver level (dB μ V) + Correction Factor (dB/m)
Margin (dB) = Peak level (dB μ V/m) - Limit (dB μ V/m)

2.1.6 Example Test Setup Diagram

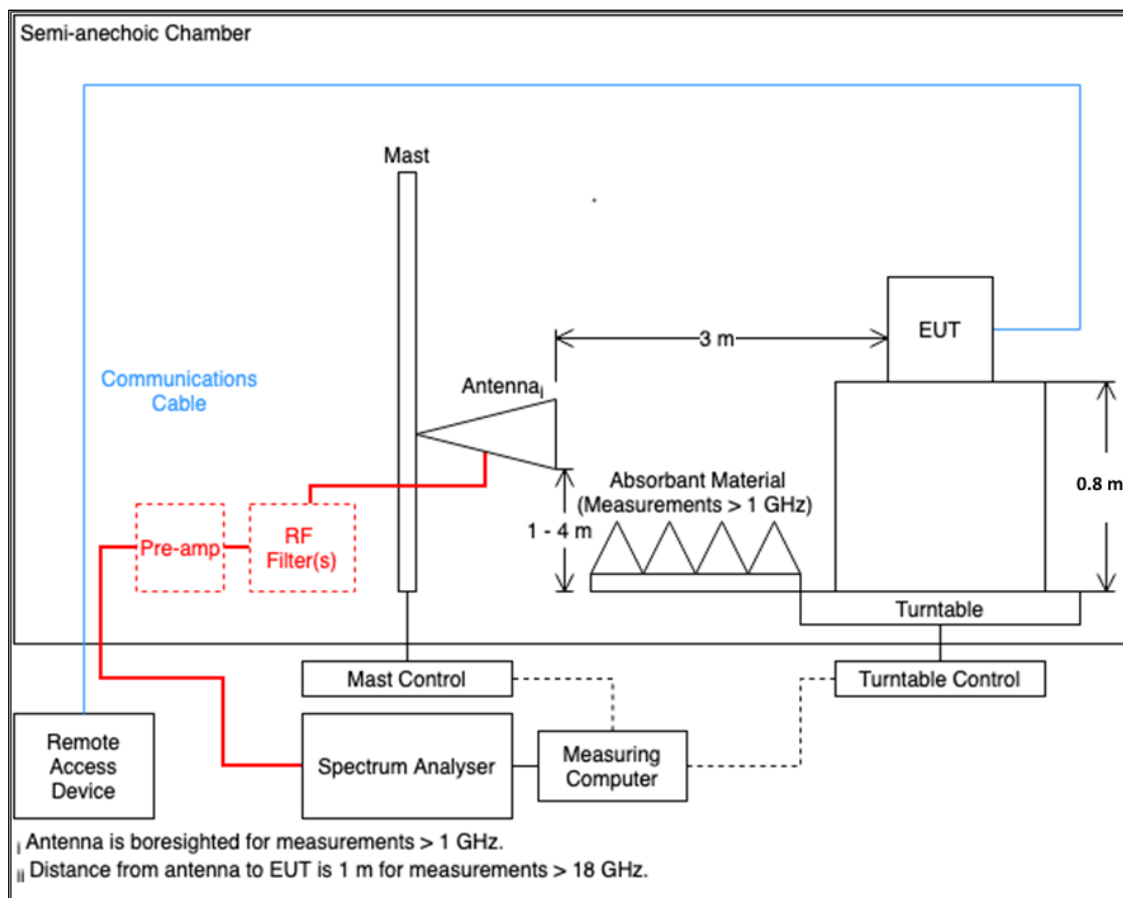


Figure 1 - Radiated Disturbance Example Test Setup

2.1.7 Environmental Conditions

Ambient Temperature 22.2 °C
Relative Humidity 43.2 %
Atmospheric Pressure 1010.0 mbar

2.1.8 Specification Limits

Required Specification Limits, Field Strength - Class B Test Limit at a 3 m Measurement Distance		
Frequency Range (MHz)	Test Limit (µV/m)	Test Limit (dBµV/m)
30 to 88	100	40.0
88 to 216	150	43.5
216 to 960	200	46.0
Above 960	500	54.0

Supplementary information:
 Note 1. A Quasi-peak detector is to be used for measurements below 1 GHz.
 Note 2. A CISPR Average detector is to be used for measurements above 1 GHz.
 Note 3. The Peak test limit above 1 GHz is 20 dB higher than the CISPR Average test limit.

Table 9

2.1.9 Test Results

Results for Configuration and Mode: DC Powered - Idle / Operating.

This test was performed to the requirements of Class B limits.

Performance assessment of the EUT made during this test: Pass.

Detailed results are shown below.

Highest frequency generated or used within the EUT: 2.113 GHz

Which necessitates an upper frequency test limit of: 10.5 GHz (Tested to 40 GHz on request of client)

Applied Supply Voltage: 13.6 V DC

The EUT is ceiling-mounted or similar equipment and has therefore been tested in two different orientations in accordance with ANSI C63.4 requirements.

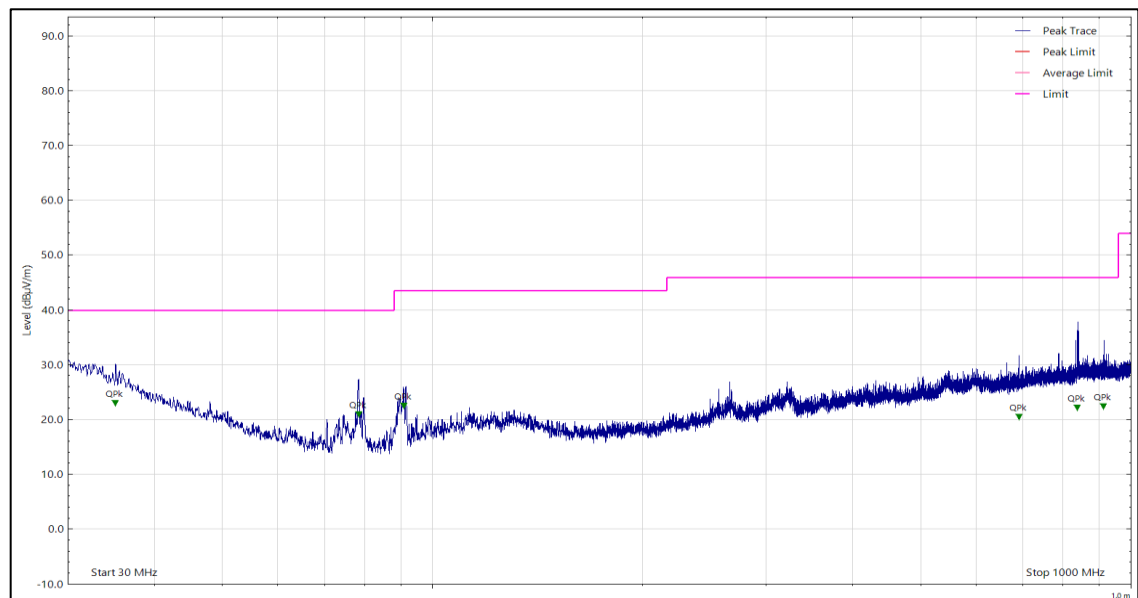


Figure 2 - 30 MHz to 1 GHz, Quasi-Peak, Horizontal - X Orientation

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
35.125	22.16	40.00	-17.84	Q-Peak	289	118	Horizontal
78.310	20.09	40.00	-19.91	Q-Peak	126	214	Horizontal
90.899	21.64	43.50	-21.86	Q-Peak	133	212	Horizontal
691.221	19.61	46.00	-26.39	Q-Peak	83	100	Horizontal
839.198	21.28	46.00	-24.72	Q-Peak	308	232	Horizontal
913.061	21.55	46.00	-24.45	Q-Peak	171	103	Horizontal

Table 10

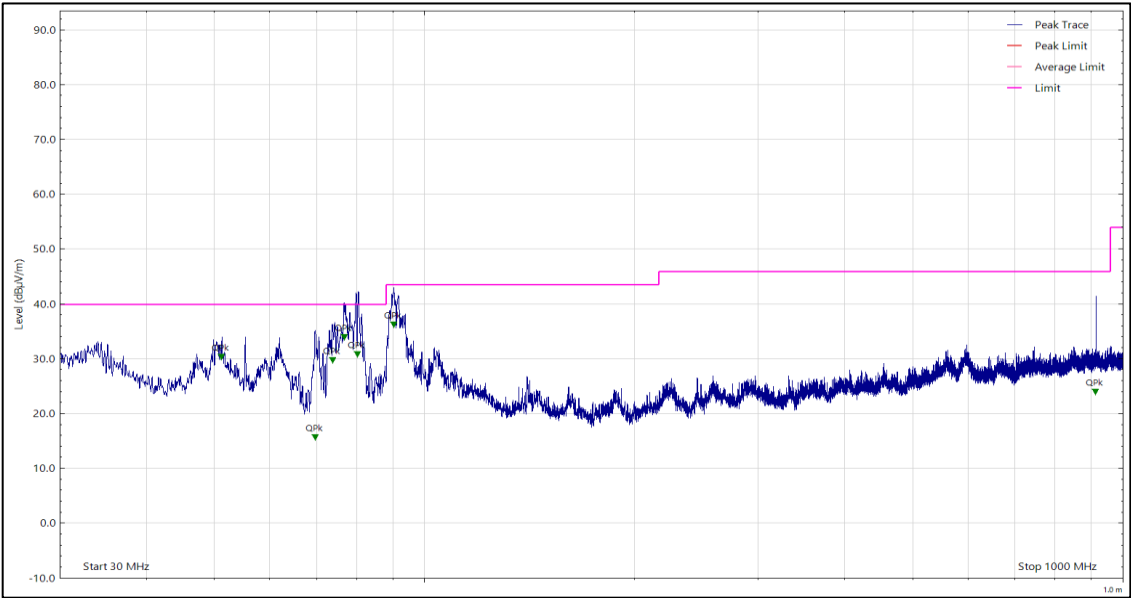


Figure 3 - 30 MHz to 1 GHz, Quasi-Peak, Vertical - X Orientation

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
51.207	29.48	40.00	-10.52	Q-Peak	358	110	Vertical
69.781	14.80	40.00	-25.20	Q-Peak	96	107	Vertical
73.849	28.92	40.00	-11.08	Q-Peak	0	100	Vertical
76.716	33.15	40.00	-6.85	Q-Peak	0	106	Vertical
80.074	29.95	40.00	-10.05	Q-Peak	164	110	Vertical
90.326	35.35	43.50	-8.15	Q-Peak	306	120	Vertical
913.526	23.10	46.00	-22.90	Q-Peak	75	110	Vertical

Table 11

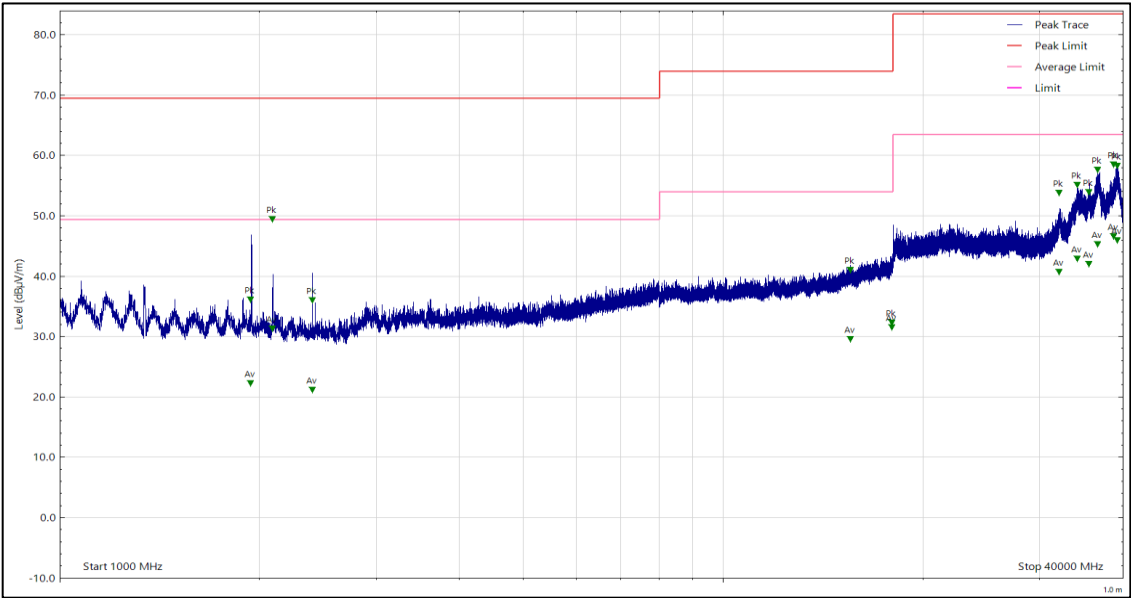


Figure 4 - 1 GHz to 40 GHz, Peak & CISPR Average, Horizontal - X Orientation



Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
1939.494	35.41	69.50	-34.09	Peak	251	399	Horizontal
1939.494	21.49	49.50	-28.01	CISPR Avg	251	399	Horizontal
2092.442	48.63	69.50	-20.87	Peak	103	309	Horizontal
2092.442	30.56	49.50	-18.94	CISPR Avg	103	309	Horizontal
2402.654	35.30	69.50	-34.20	Peak	346	107	Horizontal
2402.654	20.40	49.50	-29.10	CISPR Avg	346	107	Horizontal
15552.260	40.24	74.00	-33.76	Peak	351	351	Horizontal
15552.260	28.76	54.00	-25.24	CISPR Avg	351	351	Horizontal
17968.025	31.58	74.00	-42.42	Peak	61	107	Horizontal
17968.025	30.78	54.00	-23.22	CISPR Avg	61	107	Horizontal
32111.230	53.03	83.50	-30.47	Peak	74	100	Horizontal
32111.230	39.99	63.50	-23.51	CISPR Avg	74	100	Horizontal
34161.478	54.37	83.50	-29.13	Peak	296	100	Horizontal
34161.478	42.09	63.50	-21.41	CISPR Avg	296	100	Horizontal
35569.814	53.21	83.50	-30.29	Peak	269	100	Horizontal
35569.814	41.22	63.50	-22.28	CISPR Avg	269	100	Horizontal
36657.938	56.90	83.50	-26.60	Peak	77	100	Horizontal
36657.938	44.55	63.50	-18.95	CISPR Avg	77	100	Horizontal
38788.056	57.72	83.50	-25.78	Peak	360	100	Horizontal
38788.056	45.82	63.50	-17.68	CISPR Avg	360	100	Horizontal
39239.102	57.49	83.50	-26.01	Peak	0	100	Horizontal
39239.102	45.22	63.50	-18.28	CISPR Avg	0	100	Horizontal

Table 12

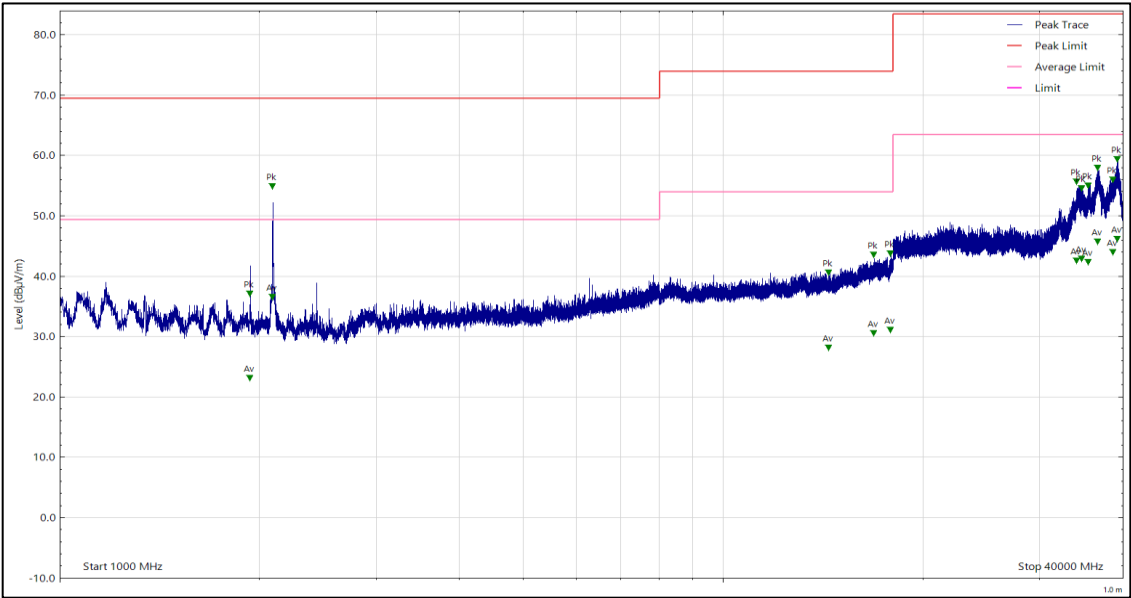


Figure 5 - 1 GHz to 40 GHz, Peak & CISPR Average, Vertical - X Orientation



Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
1932.063	36.33	69.50	-33.17	Peak	10	224	Vertical
1932.063	22.32	49.50	-27.18	CISPR Avg	10	224	Vertical
2092.829	54.17	69.50	-15.33	Peak	352	189	Vertical
2092.829	35.80	49.50	-13.70	CISPR Avg	352	189	Vertical
14402.096	39.84	74.00	-34.16	Peak	126	358	Vertical
14402.096	27.37	54.00	-26.63	CISPR Avg	126	358	Vertical
16870.788	42.77	74.00	-31.23	Peak	16	243	Vertical
16870.788	29.76	54.00	-24.24	CISPR Avg	16	243	Vertical
17860.440	42.98	74.00	-31.02	Peak	3	322	Vertical
17860.440	30.32	54.00	-23.68	CISPR Avg	3	322	Vertical
34036.719	54.88	83.50	-28.62	Peak	0	100	Vertical
34036.719	41.81	63.50	-21.69	CISPR Avg	0	100	Vertical
34685.640	53.86	83.50	-29.64	Peak	0	100	Vertical
34685.640	42.11	63.50	-21.39	CISPR Avg	0	100	Vertical
35482.402	54.26	83.50	-29.24	Peak	0	100	Vertical
35482.402	41.60	63.50	-21.90	CISPR Avg	0	100	Vertical
36686.969	57.15	83.50	-26.35	Peak	12	100	Vertical
36686.969	44.92	63.50	-18.58	CISPR Avg	12	100	Vertical
38640.680	55.22	83.50	-28.28	Peak	233	100	Vertical
38640.680	43.25	63.50	-20.25	CISPR Avg	233	100	Vertical
39265.629	58.61	83.50	-24.89	Peak	318	100	Vertical
39265.629	45.46	63.50	-18.04	CISPR Avg	318	100	Vertical

Table 13

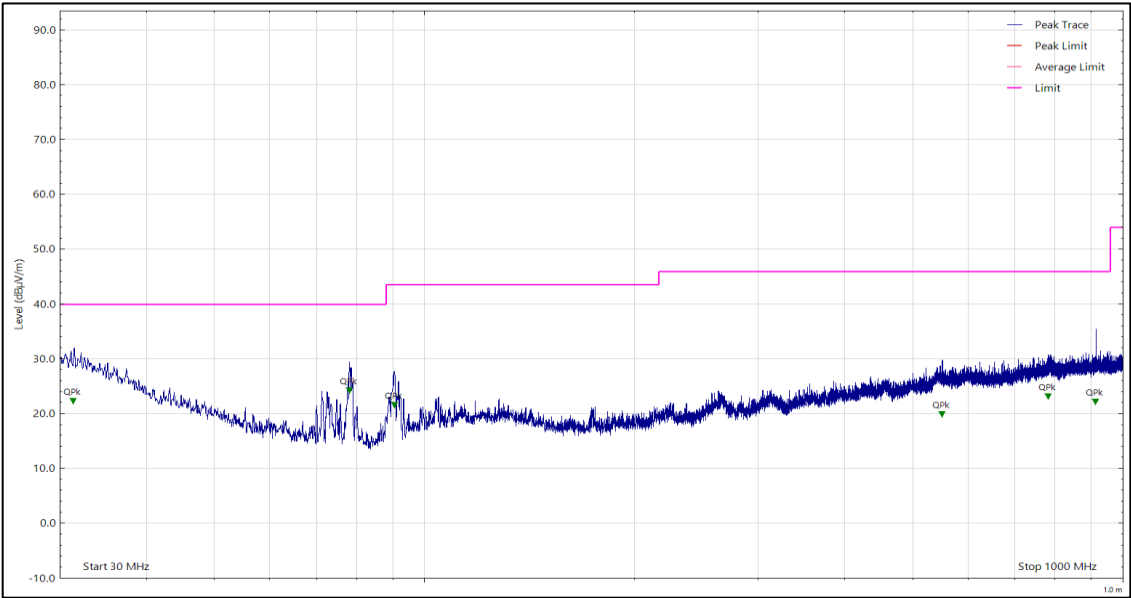


Figure 6 - 30 MHz to 1 GHz, Quasi-Peak, Horizontal - Y Orientation

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
31.341	21.45	40.00	-18.55	Q-Peak	313	100	Horizontal
78.076	23.37	40.00	-16.63	Q-Peak	154	217	Horizontal
90.553	20.77	43.50	-22.73	Q-Peak	254	193	Horizontal
551.405	19.08	46.00	-26.92	Q-Peak	295	327	Horizontal
782.207	22.31	46.00	-23.69	Q-Peak	291	105	Horizontal
913.058	21.29	46.00	-24.71	Q-Peak	186	101	Horizontal

Table 14

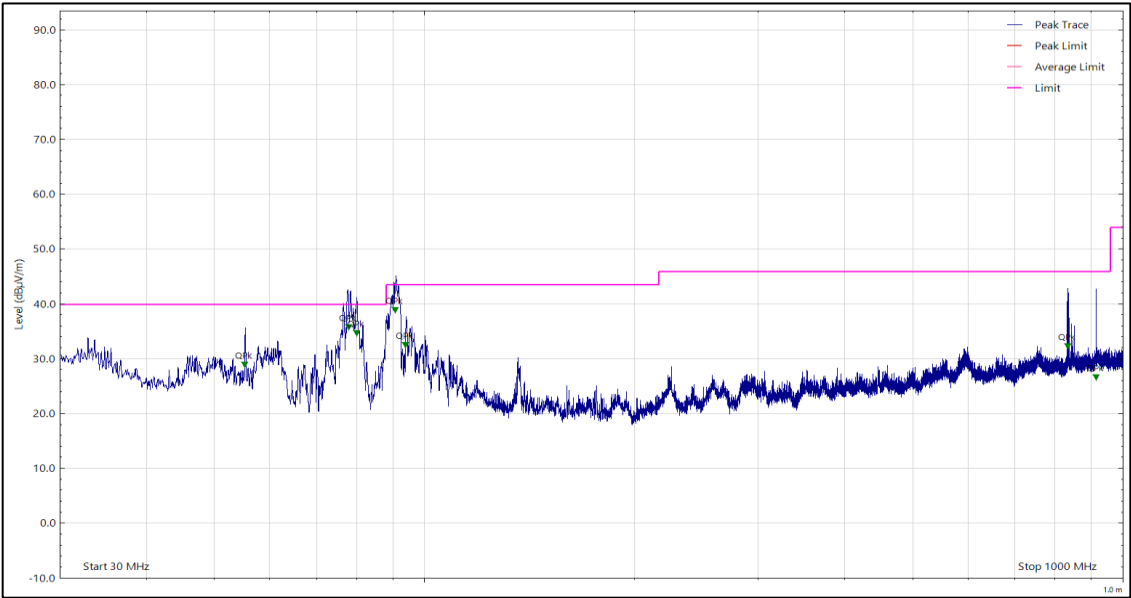


Figure 7 - 30 MHz to 1 GHz, Quasi-Peak, Vertical - Y Orientation

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
55.294	28.00	40.00	-12.00	Q-Peak	46	131	Vertical
77.773	34.87	40.00	-5.13	Q-Peak	206	109	Vertical
79.832	33.80	40.00	-6.20	Q-Peak	198	130	Vertical
90.686	37.97	43.50	-5.53	Q-Peak	229	129	Vertical
93.840	31.66	43.50	-11.84	Q-Peak	360	109	Vertical
833.519	31.40	46.00	-14.60	Q-Peak	180	103	Vertical
916.099	25.77	46.00	-20.23	Q-Peak	6	105	Vertical

Table 15

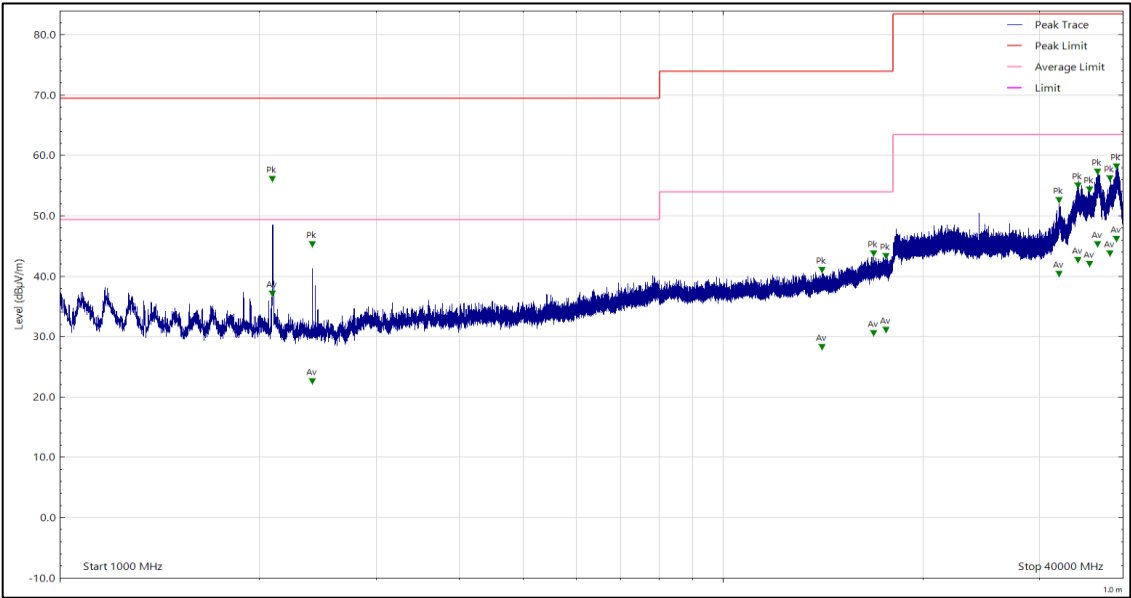


Figure 8 - 1 GHz to 40 GHz, Peak & CISPR Average, Horizontal - Y Orientation



Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
2092.979	55.39	69.50	-14.11	Peak	75	183	Horizontal
2092.979	36.38	49.50	-13.12	CISPR Avg	75	183	Horizontal
2402.340	44.55	69.50	-24.95	Peak	236	109	Horizontal
2402.340	21.85	49.50	-27.65	CISPR Avg	236	109	Horizontal
14073.790	40.28	74.00	-33.72	Peak	0	100	Horizontal
14073.790	27.50	54.00	-26.50	CISPR Avg	0	100	Horizontal
16858.675	42.96	74.00	-31.04	Peak	271	100	Horizontal
16858.675	29.74	54.00	-24.26	CISPR Avg	271	100	Horizontal
17575.806	42.60	74.00	-31.40	Peak	322	240	Horizontal
17575.806	30.29	54.00	-23.71	CISPR Avg	322	240	Horizontal
32056.633	51.89	83.50	-31.61	Peak	156	100	Horizontal
32056.633	39.63	63.50	-23.87	CISPR Avg	156	100	Horizontal
34248.264	54.26	83.50	-29.24	Peak	290	100	Horizontal
34248.264	41.91	63.50	-21.59	CISPR Avg	290	100	Horizontal
35658.112	53.57	83.50	-29.93	Peak	10	100	Horizontal
35658.112	41.30	63.50	-22.20	CISPR Avg	10	100	Horizontal
36657.951	56.55	83.50	-26.95	Peak	11	100	Horizontal
36657.951	44.52	63.50	-18.98	CISPR Avg	11	100	Horizontal
38289.279	55.43	83.50	-28.07	Peak	298	100	Horizontal
38289.279	43.03	63.50	-20.47	CISPR Avg	298	100	Horizontal
39148.609	57.37	83.50	-26.13	Peak	350	100	Horizontal
39148.609	45.42	63.50	-18.08	CISPR Avg	350	100	Horizontal

Table 16

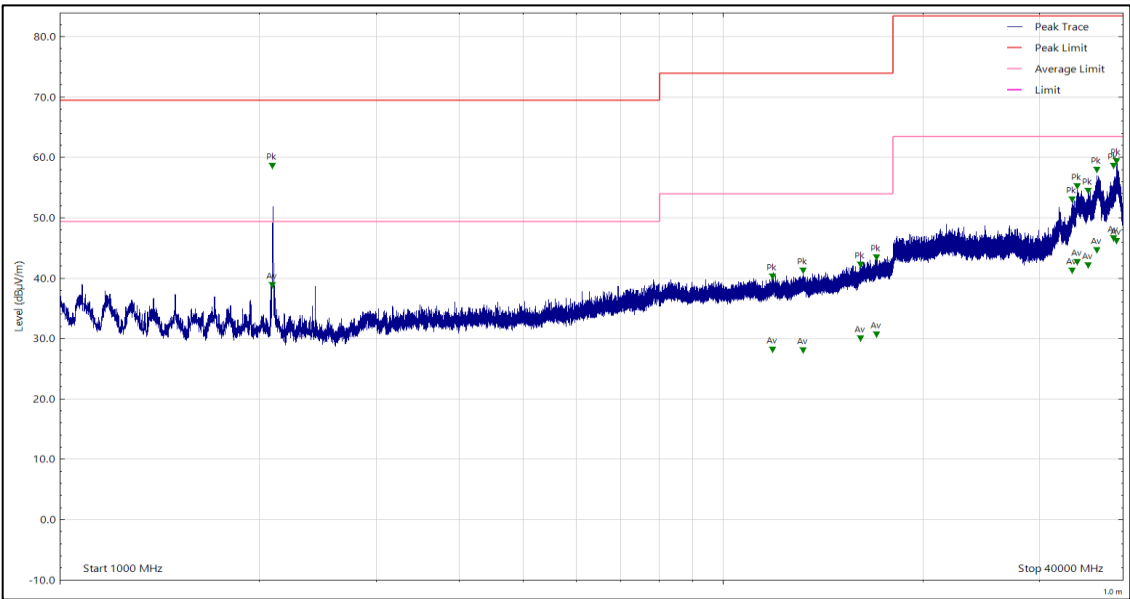


Figure 9 - 1 GHz to 40 GHz, Peak & CISPR Average, Vertical - Y Orientation



Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
2092.827	57.86	69.50	-11.64	Peak	183	100	Vertical
2092.827	38.06	49.50	-11.44	CISPR Avg	183	100	Vertical
11877.654	39.53	74.00	-34.47	Peak	223	258	Vertical
11877.654	27.44	54.00	-26.56	CISPR Avg	223	258	Vertical
13184.774	40.50	74.00	-33.50	Peak	340	251	Vertical
13184.774	27.33	54.00	-26.67	CISPR Avg	340	251	Vertical
16109.693	41.43	74.00	-32.57	Peak	199	260	Vertical
16109.693	29.24	54.00	-24.76	CISPR Avg	199	260	Vertical
17023.167	42.69	74.00	-31.31	Peak	357	106	Vertical
17023.167	29.95	54.00	-24.05	CISPR Avg	357	106	Vertical
33601.461	52.33	83.50	-31.17	Peak	46	100	Vertical
33601.461	40.47	63.50	-23.03	CISPR Avg	46	100	Vertical
34146.121	54.51	83.50	-28.99	Peak	88	100	Vertical
34146.121	41.94	63.50	-21.56	CISPR Avg	88	100	Vertical
35493.439	53.68	83.50	-29.82	Peak	265	100	Vertical
35493.439	41.39	63.50	-22.11	CISPR Avg	265	100	Vertical
36567.565	57.15	83.50	-26.35	Peak	314	100	Vertical
36567.565	43.87	63.50	-19.63	CISPR Avg	314	100	Vertical
38785.172	57.90	83.50	-25.60	Peak	197	100	Vertical
38785.172	45.87	63.50	-17.63	CISPR Avg	197	100	Vertical
39186.427	58.66	83.50	-24.84	Peak	59	100	Vertical
39186.427	45.44	63.50	-18.06	CISPR Avg	59	100	Vertical

Table 17



Figure 10 - Test Setup - 30 MHz to 1 GHz

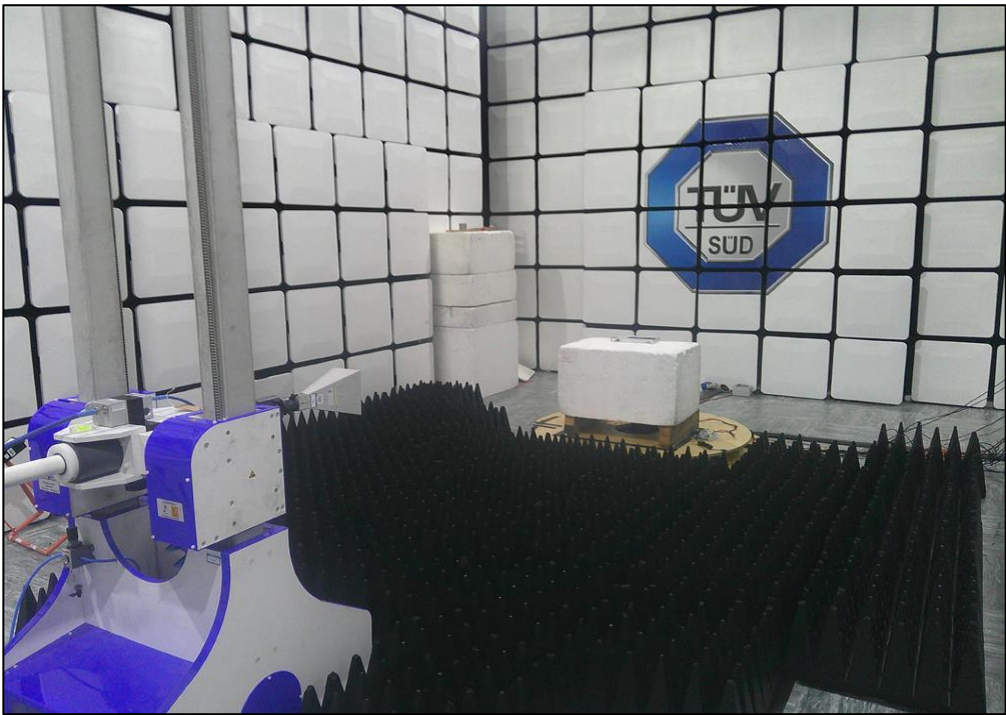


Figure 11 - Test Setup - 1 GHz to 8 GHz



Figure 12 - Test Setup - 8 GHz to 18 GHz

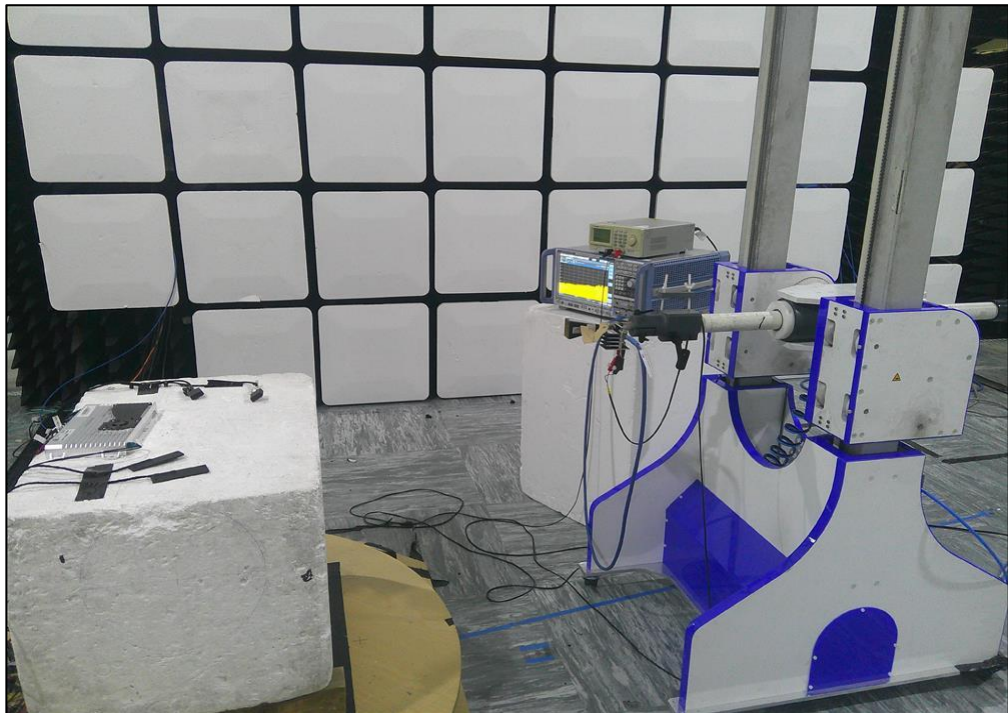


Figure 13 - Test Setup - 18 GHz to 40 GHz



2.1.10 Test Location and Test Equipment Used

This test was carried out in RF Chamber 11.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
RF Chamber 11	Rainford	Screened Room	5136	-	14-Nov-2027
Emissions Software	TUV SUD	EmX V3.5.5	5125	-	Software
EMI Test Receiver	Rohde & Schwarz	ESW44	5527	12	14-Aug-2026
Mast	Maturo	TAM 4.0-P	5158	-	TU
Mast and Turntable Controller	Maturo	Maturo NCD	5159	-	TU
Cable 2.92m	Junkosha	MWX241-01000KMS	5413	12	23-May-2026
Cable (N(m)-N(m), 8 m)	Teledyne	PR90-088-8MTR	5450	6	12-Mar-2026
Cable (K-Type to K-Type, 1 m)	Junkosha	MWX241-01000KMSKMS/A	5511	12	06-Jun-2026
2m Coaxial Cable Assy	Junkosha	MWX221-02000AMSAMS/A	6360	12	13-May-2026
Cable Assy 8m (N to N) 18GHz	Junkosha	MWX221-08000NMSNMS/B	7049	12	01-Jun-2026
Pre-Amplifier (1 GHz to 18 GHz)	Schwarzbeck	BBV 9718 C	5350	12	16-Dec-2025
Pre-Amplifier (8 - 18GHz)	Wright Technologies	APS06-0061	6306	12	18-Jul-2026
Pre-Amplifier (18 GHz to 40 GHz)	Narda	NARDA DB02-0447	237	12	30-Apr-2026
Antenna (Bilog with attenuator, 30 MHz to 3 GHz)	Schaffner	CBL6143	287	24	29-Aug-2026
Antenna (DRG, 1 GHz to 10.5 GHz)	Schwarzbeck	BBHA9120B	5215	12	05-Jul-2026
Antenna (DRG, 7.5 GHz to 18 GHz)	Schwarzbeck	HWRD750	5216	12	12-Jul-2026
Antenna (DRG, 18 GHz to 40 GHz)	Link Microtek Ltd	AM180HA-K-TU2	230	24	08-Oct-2026

Table 18

TU - Traceability Unscheduled



2.2 Radiated Magnetic Emissions

2.2.1 Specification Reference

FCC 47 CFR Part 15B, Clause 15.109

2.2.2 Equipment Under Test and Modification State

G7 Infotainment Head unit, S/N: 0024580 - Modification State 0

2.2.3 Date of Test

16-October-2025

2.2.4 Test Method

The EUT was set up on a non-conductive table 0.8 m above a reference ground plane within a semi-anechoic chamber on a remotely controlled turntable.

A pre-scan of the EUT emissions profile using a peak detector was made at a 3 m antenna distance whilst varying the antenna-to-EUT azimuth and polarisation.

For an EUT which could reasonable be used in multiple planes, pre-scans were performed with the EUT orientated in X, Y and Z planes with reference to the ground plane.

Using a list of the highest emissions detected during the pre-scan along with their bearing and associated antenna polarisation, the EUT was then formally measured using a Quasi-Peak, Peak or CISPR Average detector as appropriate.

The readings were maximised by adjusting the antenna polarisation and turntable azimuth, in accordance with the specification.

Where all pre-scan peak emissions measured were greater than 20 dB below the test limit, no final measurements were made in accordance with ANSI C63.4.

Where any pre-scan peak emissions were within 20 dB of the test limit, the six highest pre-scan peak emissions seen across the frequency range were maximised by adjusting antenna height, polarisation and angle and then measured for at least 15 seconds using a Peak, Quasi-Peak or CISPR Average detector as appropriate to the test limit being measured against.

2.2.5 Example Calculation

9 kHz to 30 MHz:

$$\begin{aligned}\text{Quasi-Peak level (dB}\mu\text{V/m)} &= \text{Receiver level (dB}\mu\text{V)} + \text{Correction Factor (dB/m)} \\ \text{Margin (dB)} &= \text{Quasi-Peak level (dB}\mu\text{V/m)} - \text{Limit (dB}\mu\text{V/m)}\end{aligned}$$

2.2.6 Example Test Setup Diagram

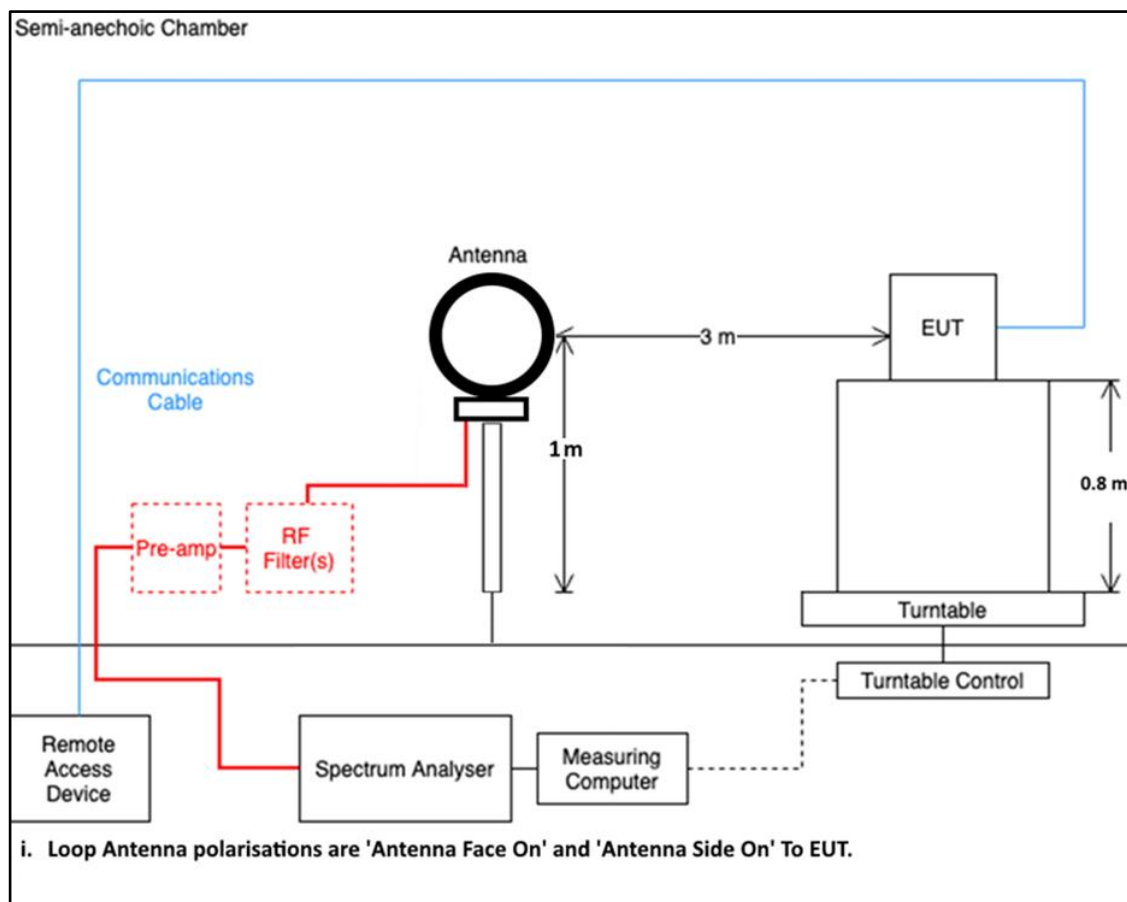


Figure 14 - Radiated Magnetic Disturbance Example Test Setup

2.2.7 Environmental Conditions

Ambient Temperature 22.2 °C
Relative Humidity 43.2 %
Atmospheric Pressure 1010.0 mbar

2.2.8 Specification Limits

Required Specification Limits, Magnetic Field Strength - FCC CFR 15.209 at a 3 m Measurement Distance					
Frequency (MHz)	Test Limit (µV/m)	Test Limit (dBµV/m)	Antenna Distance (m)	Correction For 3 m Antenna Distance (dB)	Quasi-Peak Test Limit At 3 m (dBµV/m)
0.009	266.67	48.52	300.00	120.00 ⁽¹⁾	168.52
0.49	4.90	13.80	300.00	120.00 ⁽¹⁾	133.80
0.49	4.90	13.80	30.00	40.00 ⁽²⁾	73.80
1.705	1.41	2.97	30.00	40.00 ⁽²⁾	62.97
1.705	30.00	29.54	30.00	40.00 ⁽²⁾	69.54
30	30.00	29.54	30.00	40.00 ⁽²⁾	69.54
Supplementary information:					
Note 1. Antenna Distance correction of 60 dB per decade in accordance with ANSI C63.10 Clause 7.7.2.					
Note 2. Antenna Distance correction of 40 dB per decade in accordance with ANSI C63.10 Clause 7.7.2.					

Table 19

2.2.9 Test Results

Results for Configuration and Mode: DC Powered - Idle / Operating.

Performance assessment of the EUT made during this test: Pass.

Detailed results are shown below.

Applied Supply Voltage: 13.6 V DC

The EUT is ceiling mounted or similar equipment and has therefore been tested in two different orientations in accordance with ANSI C63.4 requirements.

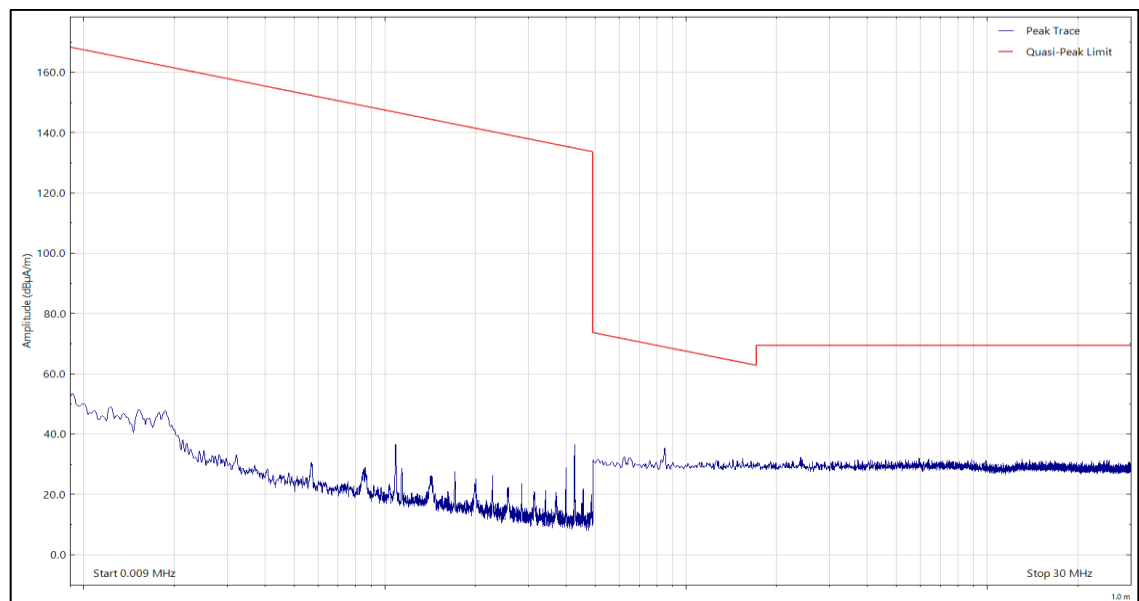


Figure 15 - 9 kHz to 30 MHz, Quasi-Peak, Face On - X Orientation

No final measurements were made as all peak emissions seen during the pre-scan were greater than 20 dB below the test limit.

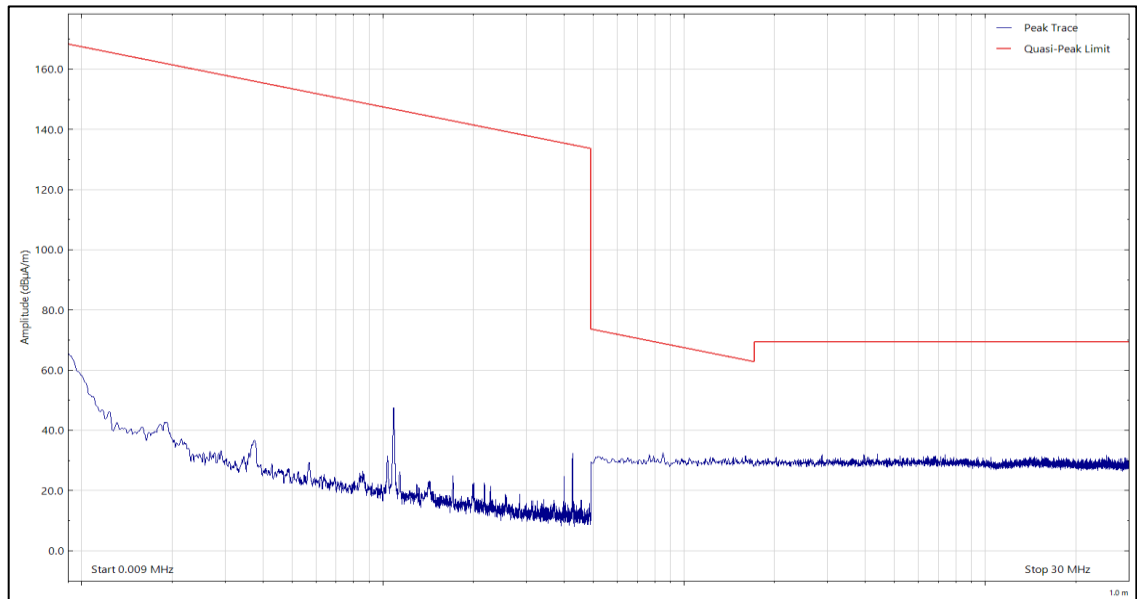


Figure 16 - 9 kHz to 30 MHz, Quasi-Peak, Side On - X Orientation

No final measurements were made as all peak emissions seen during the pre-scan were greater than 20 dB below the test limit.

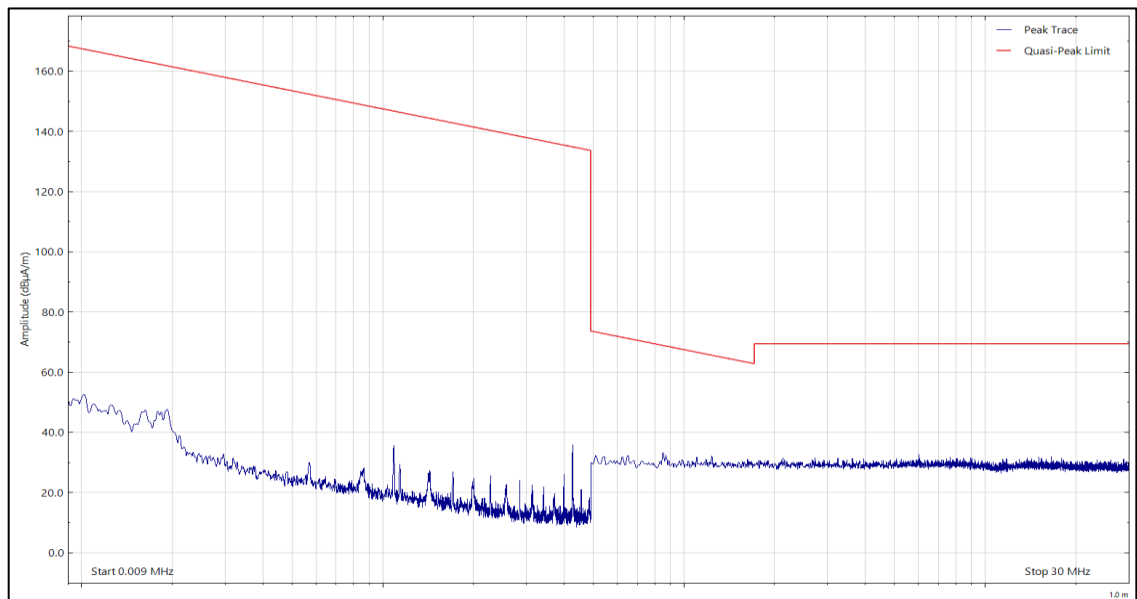


Figure 17 - 9 kHz to 30 MHz, Quasi-Peak, Face On - Y Orientation

No final measurements were made as all peak emissions seen during the pre-scan were greater than 20 dB below the test limit.

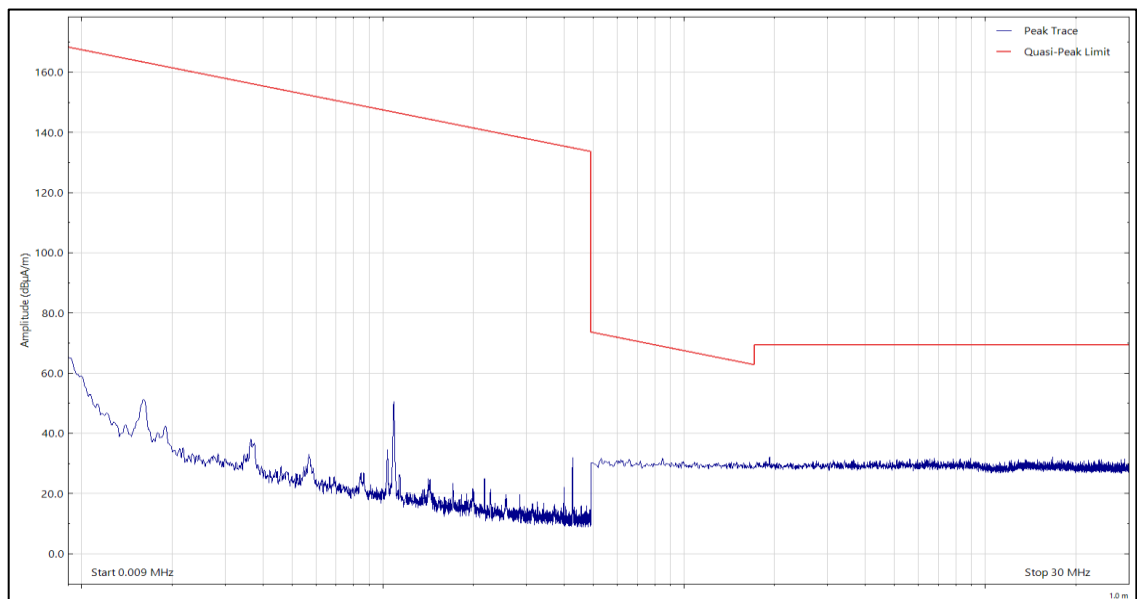


Figure 18 - 9 kHz to 30 MHz, Quasi-Peak, Side On - Y Orientation

No final measurements were made as all peak emissions seen during the pre-scan were greater than 20 dB below the test limit.



Figure 19 - Test Setup - 9 kHz to 30 MHz

2.2.10 Test Location and Test Equipment Used

This test was carried out in RF Chamber 11.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
RF Chamber 11	Rainford	Screened Room	5136	-	14-Nov-2027
Emissions Software	TUV SUD	EmX V3.5.5	5125	-	Software
EMI Test Receiver	Rohde & Schwarz	ESW44	5527	12	14-Aug-2026
Mast and Turntable Controller	Maturo	Maturo NCD	5159	-	TU
2m Coaxial Cable Assy	Junkosha	MWX221-02000AMSAMS/A	6360	12	13-May-2026
Cable Assy 8m (N to N) 18GHz	Junkosha	MWX221-08000NMSNMS/B	7049	12	01-Jun-2026
Antenna (Loop, 9 kHz to 30 MHz)	Teseq	HLA 6121	5616	24	16-Aug-2026

Table 20

TU - Traceability Unscheduled



3 Test Equipment Information

3.1 General Test Equipment Used

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Thermo-Hygro-Barometer	PCE Instruments	R084606	5472	12	18-Jun-2026

Table 21



4 Incident Reports

No incidents reports were raised.

5 Measurement Uncertainty

For a 95% confidence level, the measurement uncertainties for defined systems are:

Test Name	Measurement Uncertainty
Radiated Emissions	30 MHz to 1 GHz, Bilog Antenna ± 5.17 dB 1 GHz to 6 GHz, Horn Antenna ± 5.05 dB 6 GHz to 18 GHz, Horn Antenna ± 4.94 dB 18 GHz to 40 GHz, Horn Antenna ± 6.28 dB
Radiated Magnetic Emissions	9 kHz to 30 MHz, Loop Antenna ± 3.14 dB

Table 22

Worst case error for both Time and Frequency measurement 12 parts in 10^6 .

Measurement Uncertainty Decision Rule

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115:2021, Clause 4.4.3 (Procedure 2). The measurement results are directly compared with the test limit to determine conformance with the requirements of the standard.

Risk: The uncertainty of measurement about the measured result is negligible with regard to the final pass/fail decision. The measurement result can be directly compared with the test limit to determine conformance with the requirement (compare IEC Guide 115). The level of risk to falsely accept and falsely reject items is further described in ILAC-G8.