

TEST REPORT

Job No. : GPEM2602000162EC
Test Report No. : F690501-RF-EMC004685
Applicant : Xirgo Technologies, LLC
Product Name : Video Telematics
Model Name : XVD-302
Standards : FCC Part 15 Subpart B
FCC ID : GKM-XVD-302
Date of Receipt : February 11, 2026
Date of Test : March 9, 2026 ~ March 10, 2026
Date of Issue : March 19, 2026
Test Result : Complied

- 1) This test report does not assure KOLAS accreditation.
2) The results of this test report are effective only to the items tested.
3) The SGS Korea is not responsible for the sampling, the results of this test report apply to the sample as received.

	Tested by (Name, signature)	Approved by (Name, signature)
Affirmation	Dojun Lee 	Paul Kang 

SGS Korea Co., Ltd. Gunpo Laboratory

4, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, 15807, KOREA

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Revision History

Revision	Report Number	Description
0	F690501-RF-EMC004685	Initial

1. Test Laboratory

1.1 General information

Name	SGS Korea Co., Ltd.	
- Branch Site	4, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, Republic of Korea Tel. +82 31 428 5700 Fax. +82 31 427 5370	
- Branch Site-3	35, Giheungdanji-ro 121beon-gil, Giheung-gu, Yongin-si, Gyeonggi-do, Republic of Korea Tel. +82 31 548 0710 Fax. +82 31 548 0719	
- Branch Site-4	12, Dongtansandan 10-gil, Hwaseong-si, Gyeonggi-do, 18487, Republic of Korea Tel. +82 31 8007 5302 Fax. +82 31 427 2370	
Website	http://www.sgsgroup.kr/ee	

SGS Korea Co., Ltd. has been accredited by the agencies listed in the following table;

Accreditation	Accreditation bodies	Accreditation No.
KC	MSIT- RRA	KR0150
FCC	FCC (MRA)	
ISED	ISED (MRA)	
Vietnam-MIC	Vietnam-MIC	
Japan EMI	VCCI	C-14102, T-11156, R-13662, G-20037
KOLAS	KATS - KOLAS	Testing No.123
CBTL	IECEE	TL 146
SDPPI	SDPPI	-

2. General Information of E.U.T.

2.1 Applicant Information

Applicant	Xirgo Technologies, LLC
Applicant Address	2100 GOLF RD, STE 290, ROLLING MEADOWS, IL. 60008, United States
Manufacturer	Xirgo Technologies, LLC
Manufacturer Address	2100 GOLF RD, STE 290, ROLLING MEADOWS, IL. 60008, United States

2.2 General Information of E.U.T.

Classification	Description
Product Name	Video Telematics
Model Name	XVD-302
Alt. Model Name	XVD-302NA
Model Differences	In the derivative model, the Bluetooth pairing button (a small physical button) has been removed for design considerations. The Bluetooth pairing function is now included in the large physical button.
Serial No.	-
EMI Classification	Class B
Internal Clock Frequency	38.4 MHz(Wireless: 5 825 MHz)
Rated Power	DC (10 – 32) V
Tested Power	DC 12 V, DC 24 V
H/W Version	V100
S/W Version	1.0.0
Port	DC IN, U-SIM connector, Micro SD card connector
Components	Main body, Micro SD card
Function	Black box for a vehicle

2.3 Configurations of E.U.T

Description	Model	Serial No.	Manufacturer	Note
Micro SD card	420T	-	Transcend	-
Camera 1	-	K6510082	-	-
Camera 2	-	-	-	-
Sub board	PHOENIX SUB V100	-	-	-
Speaker	-	-	UNISON	-
Main board	KP2S MAIN V100	-	-	-
RF Module	SUS609-LD	-	NETPRISMA INC.	FCC ID: 2BEY3SU S600LDA
Battery	-	-	-	-

3. E.U.T. Operation and Test Configuration

3.1 Peripheral Equipments

Description	Model	Serial No.	Manufacturer	Note.
DC Power Supply	IT6720	-	ITECH	
U-SIM	-	-	-	-

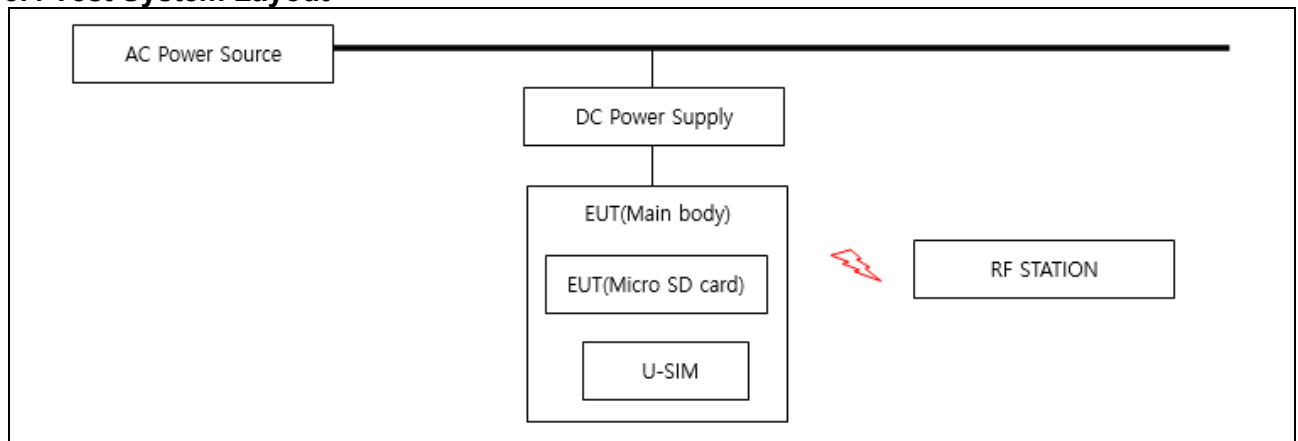
3.2 Cable List

Start		END		Cable Spec.		Used core
Name	I/O Port	Name	I/O Port	Length (m)	Shield	
EUT (Main body)	DC IN	DC Power Supply	DC OUT	2.8	Unshielded	-
	Micro SD card connector	EUT (Micro SD card)	-	-	-	-
	U-SIM connector	U-SIM	-	-	-	-
	-	RF STATION	-	-	-	-

3.3 Operating Modes and Conditions

Operating mode	Operating condition
01 Operating	The camera and recording function of the EUT is activated and the GNSS signal is received from the RF station.

3.4 Test System Layout



3.5 Modifications to the test items during testing

- ☒ No modifications done during testing
- ☐ Modification done during testing (see details below)

No. Description of modification (if any)

1

2

4. Test Results

4.1 Summary

Test Items	Standards	Test Results
Conducted Emission	FCC Part 15 Subpart B Section 15.107 ANSI C63.4a:2017	N/A
Radiated Emission	FCC Part 15 Subpart B Section 15.109 ANSI C63.4a:2017	Complied

4.2 Note

- 1 Test Methods of all test items are performed according to the basic standard in subclause 4.1.
- 2

Emission Test

5.1 Test Method and Limits

Test Items	Measuring Frequency Range	RBW	Measuring Distance
Conducted Emission	0.15 MHz - 30 MHz	9 kHz	-
Radiated Emission	30 MHz - 1 GHz	120 kHz	10 m or 3 m
	Above 1 GHz	1 MHz	3 m

5.2 Test Limits

Frequency Range	Limits(dBμV)		Class
	Quasi-peak	CISPR-Average	
0.15 MHz - 0.5 MHz	79	66	Class A
0.5 MHz - 30 MHz	73	60	
0.15 MHz - 0.5 MHz	66 to 56 ^{Note1}	56 to 46 ^{Note1}	Class B
0.5 MHz - 5 MHz	56	46	
5 MHz - 30 MHz	60	50	

[Table 2.1 Conducted Emission Limits]

Frequency Range	Limits(dBμV/m)	Class
	Quasi-peak	
30 MHz - 88 MHz	39.0	Class A (10 m method)
88 MHz - 216 MHz	43.5	
216 MHz - 960 MHz	46.5	
960 MHz - 1 GHz	49.5	
30 MHz - 88 MHz	40.0	Class B (3 m method)
88 MHz - 216 MHz	43.5	
216 MHz - 960 MHz	46.0	
960 MHz - 1 GHz	54.0	

[Table 2.2 Radiated Emission Limits below 1 GHz]

Frequency Range	Limits(dBμV)		Class
	Peak	CISPR-Average	
Above 1 GHz	79.5	59.5	Class A
	74.0	54.0	Class B

[Table 2.3 Radiated Emission Limits Above 1 GHz ^{Note2}]

Note 1. The lower limit shall apply at the transition frequencies. The limit decreases linearly with the logarithm of that frequency.

Note 2. The limits of class A equipment is extrapolated using an extrapolation factor of 20 dB/decade because it was measured at 3 m distance not 10 m distance.

5.3 Radiated Emission

5.3.1 Test Equipments

Equipment	Model	Manufacturer	Serial No	Cal Interval (Months)	Cal Date	Cal Due. Date
EMI TEST RECEIVER	ESU40	R&S	100075	12	2026-01-28	2027-01-28
TRILOG BROADBAND ANTENNA	VULB 9163	SCHWARZBECK	9163-437	12	2025-06-02	2026-06-02
Double Ridged Horn Antenna	HF907	R&S	100208	12	2026-03-06	2027-03-06
Horn Antenna	BBHA9170	SCHWARZBECK	BBHA9170454	12	2025-07-18	2026-07-18
PRE-AMPLIFIER	AM-1431	MITEQ	1336160	12	2025-06-09	2026-06-09
AMPLIFIER	SCU 18	R&S	10070	12	2025-08-26	2026-08-26
RF STATION	MP9000	ADIVC	121056	12	2025-10-24	2026-10-24
RF Cable	EMH-1Lab-RE-01	-	-	6	2026-01-05	2026-07-05
RF Cable	EMH-1Lab-RE-04	-	-	6	2026-01-05	2026-07-05
RF Cable	EMH-1Lab-RE-05	-	-	6	2026-01-05	2026-07-05
RF Cable	EMH-1Lab-RE-06	-	-	6	2026-01-05	2026-07-05
RF Cable	EMD-RE-05	-	-	6	2026-01-05	2026-07-05
RF Cable	EMD-RE-06	-	-	6	2026-01-05	2026-07-05

Note. Measuring software is below

- Branch Site : ELECTRA(V5.02.0) from R&S
- Branch Site-3 : EMC32(V10.40.10) from R&S
- Branch Site-4 : EMC32(V10.40.10) from R&S

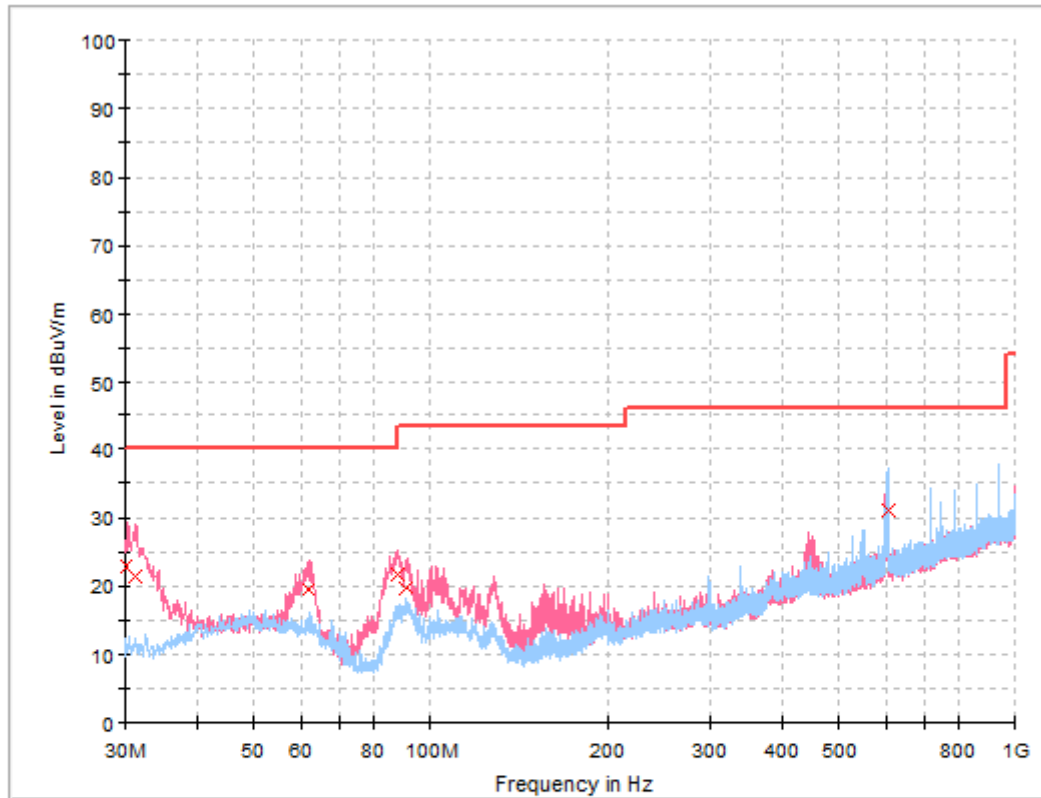
5.3.2 Environment Conditions

Test Site	10 m SEMI-ANECHOIC CHAMBER in Branch site-3
Temperature	(Minimum 17.6, Maximum 21.5) °C
Humidity	(Minimum 28.0, Maximum 36.0) % R.H.
Atmospheric Pressure	(Minimum 101.0, Maximum 101.2) kPa
Test Date	2026-03-09 (Below 1 GHz) 2026-03-10 (Above 1 GHz)

5.3.3 Test Result

Below 1 GHz (3 m method)

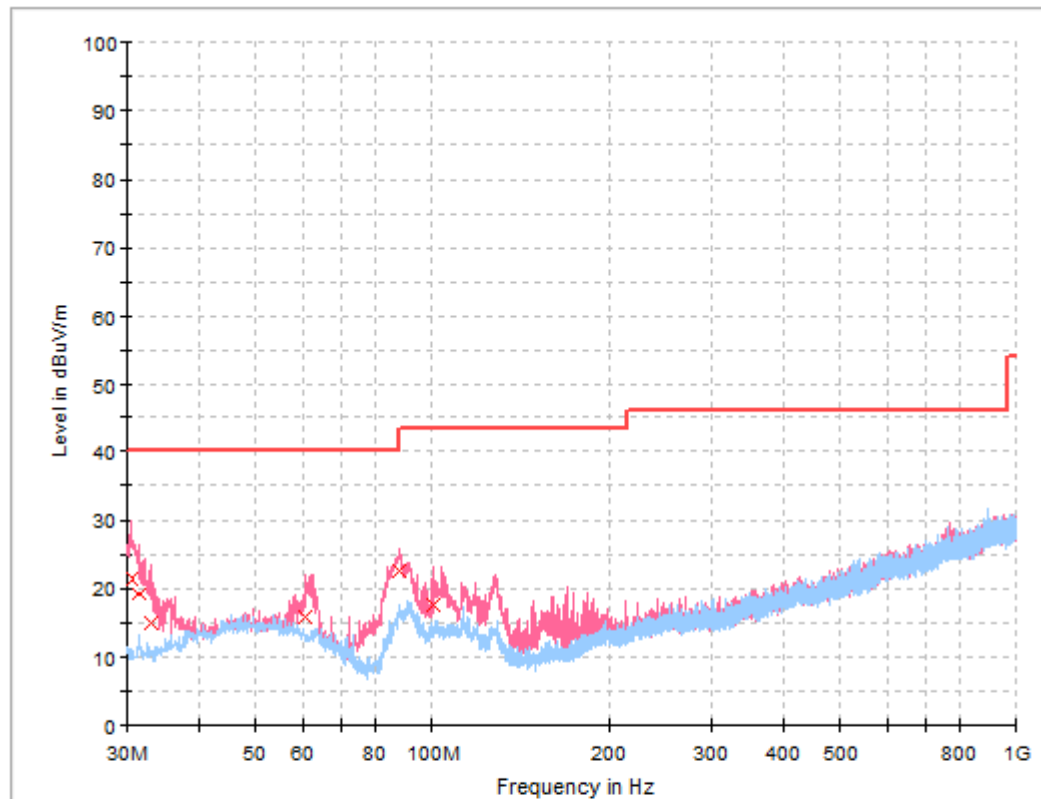
01 Mode_12 Vd.c.



Final Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
30.291	22.76	40.00	17.24	15 000.0	120.000	125.0	V	0.0	-20.9
31.358	21.42	40.00	18.58	15 000.0	120.000	200.0	V	283.0	-21.1
61.913	19.38	40.00	20.62	15 000.0	120.000	315.0	V	0.0	-18.5
88.200	21.84	43.50	21.66	15 000.0	120.000	145.0	V	283.0	-21.3
90.819	19.71	43.50	23.79	15 000.0	120.000	100.0	V	0.0	-20.5
605.307	31.22	46.00	14.78	15 000.0	120.000	300.0	H	0.0	-7.5

01 Mode_24 Vd.c.



Final Result

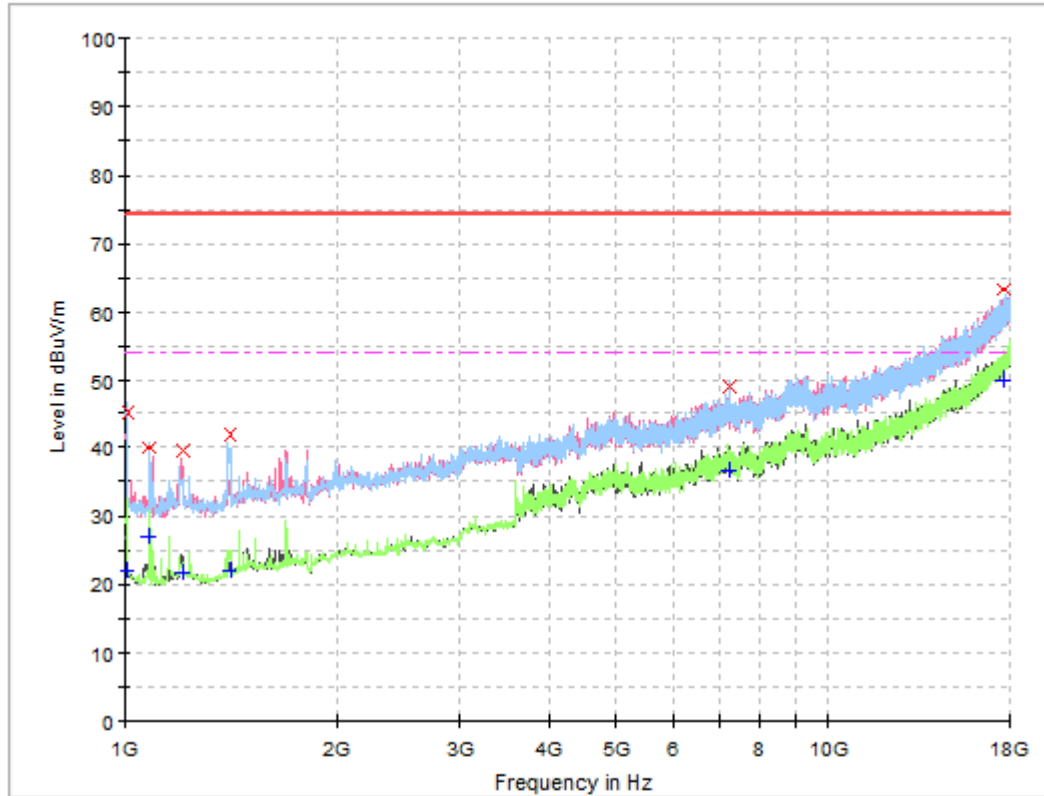
Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
30.679	21.42	40.00	18.58	15 000.0	120.000	125.0	V	263.0	-21.0
31.552	19.31	40.00	20.69	15 000.0	120.000	160.0	V	34.0	-21.1
33.104	15.18	40.00	24.82	15 000.0	120.000	180.0	V	0.0	-21.0
60.749	15.95	40.00	24.05	15 000.0	120.000	216.0	V	0.0	-18.1
87.909	22.45	40.00	17.55	15 000.0	120.000	100.0	V	112.0	-21.4
101.101	17.56	43.50	25.94	15 000.0	120.000	130.0	V	0.0	-18.6

Note. Measurement Uncertainty: See Appendix A

- POL H = Horizontal
- POL V = Vertical
- Margin = Limit – Quasi Peak
- Corr. = Antenna Factor + Cable loss – Amplifier Gain

Above 1 GHz (3 m method)

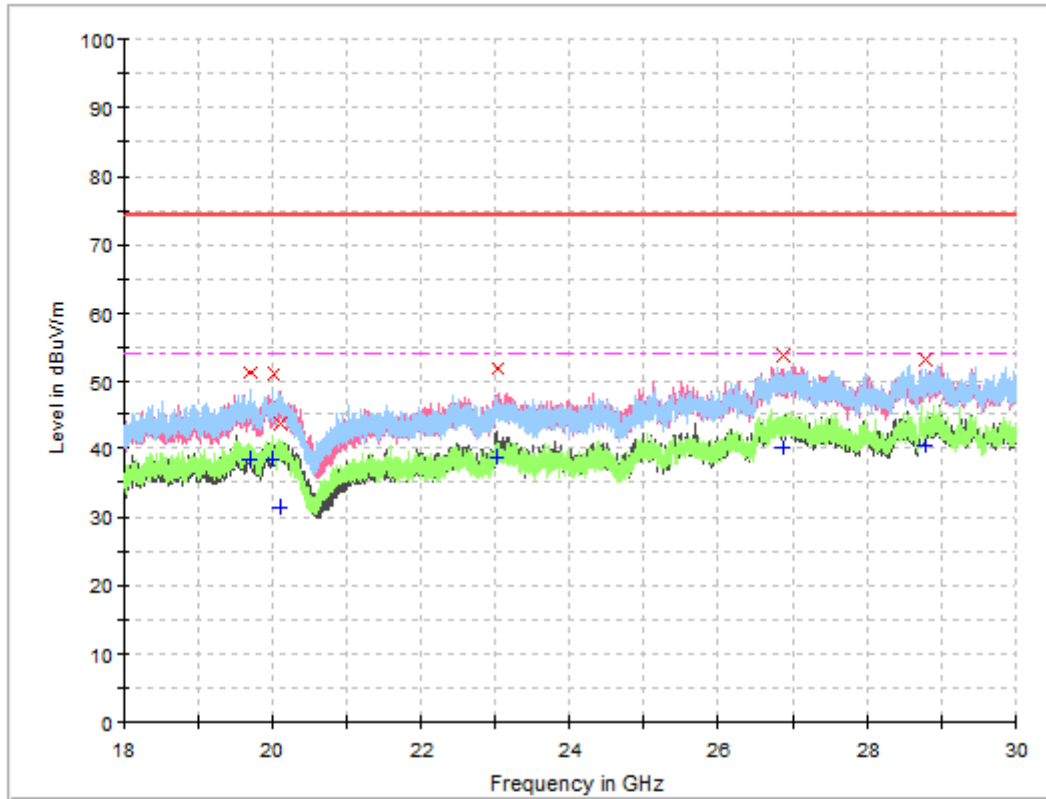
01 Mode_12 Vd.c. (1 GHz ~ 18 GHz)



Final Result

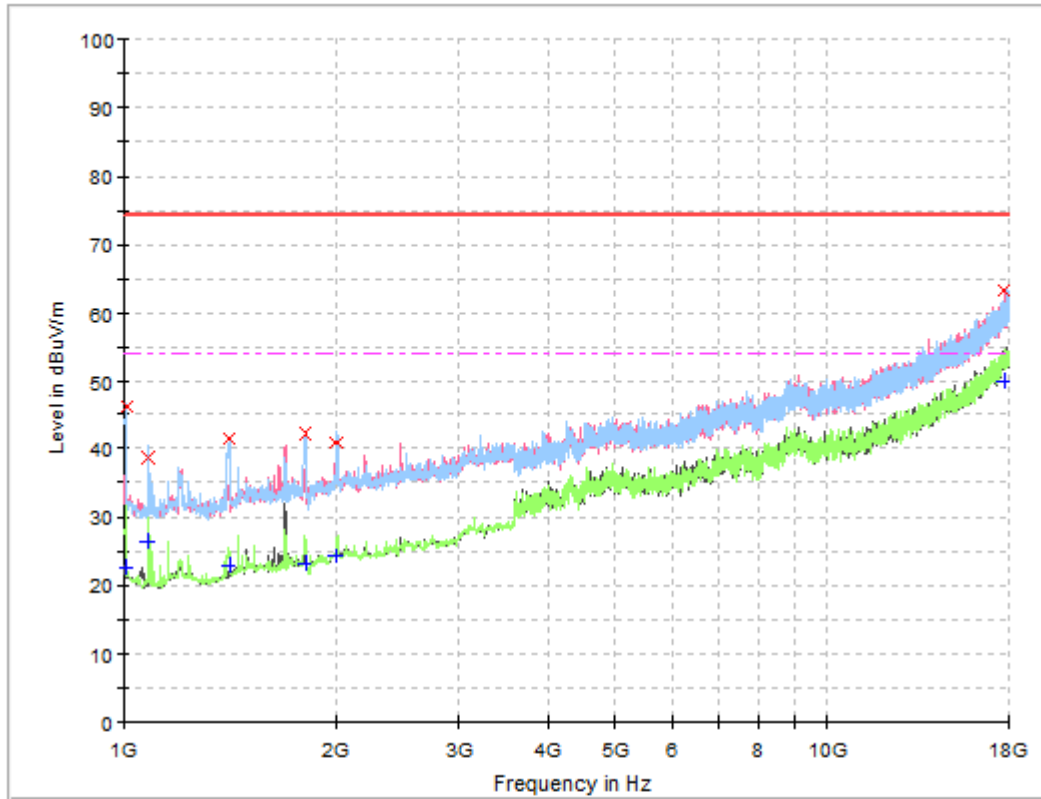
Frequency (MHz)	MaxPeak (dBuV/m)	CAverage (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1 010.200	45.16	---	74.00	28.84	15 000.0	1 000.000	100.0	H	206.0	-15.6
1 010.200	---	22.06	54.00	31.94	15 000.0	1 000.000	100.0	H	206.0	-15.6
1 086.700	40.06	---	74.00	33.94	15 000.0	1 000.000	100.0	H	79.0	-15.7
1 086.700	---	26.95	54.00	27.05	15 000.0	1 000.000	100.0	H	79.0	-15.7
1 210.800	39.42	---	74.00	34.58	15 000.0	1 000.000	100.0	V	53.0	-15.8
1 210.800	---	21.77	54.00	32.23	15 000.0	1 000.000	100.0	V	53.0	-15.8
1 413.100	42.10	---	74.00	31.90	15 000.0	1 000.000	100.0	H	279.0	-14.7
1 413.100	---	22.08	54.00	31.92	15 000.0	1 000.000	100.0	H	279.0	-14.7
7 225.400	49.05	---	74.00	24.95	15 000.0	1 000.000	100.0	H	279.0	4.1
7 225.400	---	36.66	54.00	17.34	15 000.0	1 000.000	100.0	H	279.0	4.1
17 614.100	63.21	---	74.00	10.79	15 000.0	1 000.000	100.0	V	24.0	20.2
17 614.100	---	49.73	54.00	4.27	15 000.0	1 000.000	100.0	V	24.0	20.2

01 Mode_12 Vd.c. (18 GHz ~ 30 GHz)

**Final Result**

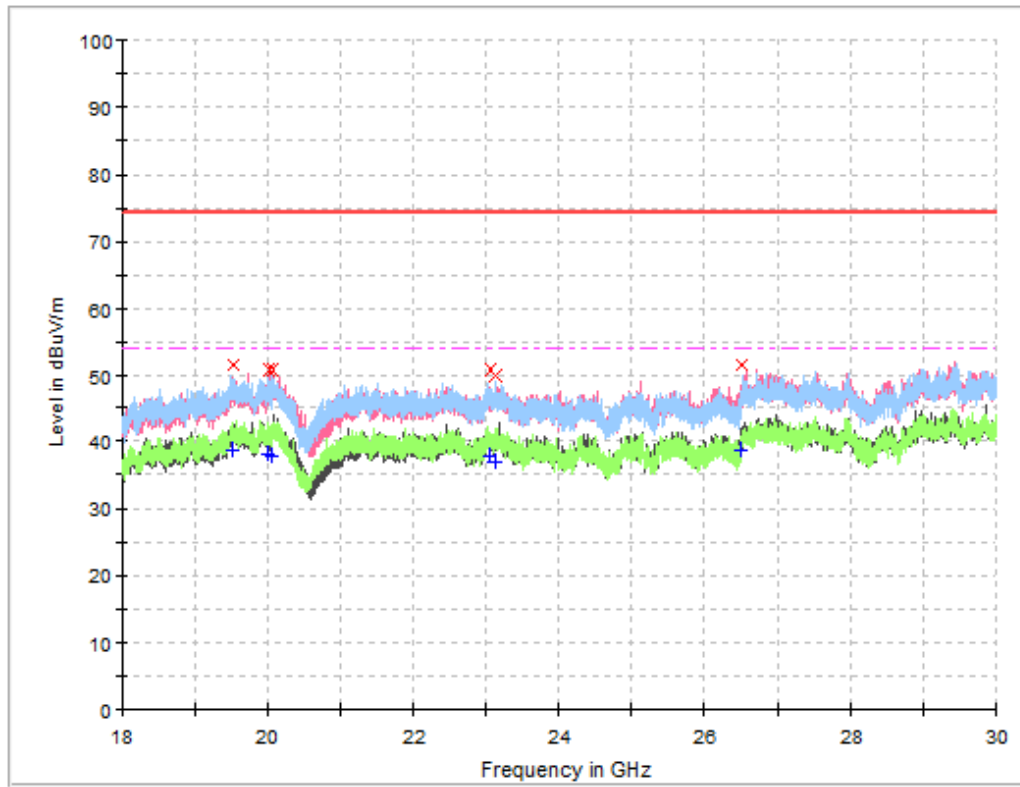
Frequency (MHz)	MaxPeak (dBuV/m)	CAverage (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
19 717.200	---	38.41	54.00	15.59	15 000.0	1 000.000	100.0	H	0.0	3.8
19 717.200	51.17	---	74.00	22.83	15 000.0	1 000.000	100.0	H	0.0	3.8
20 028.000	---	38.44	54.00	15.56	15 000.0	1 000.000	100.0	H	0.0	4.5
20 028.000	51.06	---	74.00	22.94	15 000.0	1 000.000	100.0	H	0.0	4.5
20 108.400	43.86	---	74.00	30.14	15 000.0	1 000.000	100.0	V	155.0	4.5
20 108.400	---	31.61	54.00	22.39	15 000.0	1 000.000	100.0	V	155.0	4.5
23 030.400	---	38.77	54.00	15.23	15 000.0	1 000.000	100.0	V	155.0	4.4
23 030.400	51.72	---	74.00	22.28	15 000.0	1 000.000	100.0	V	155.0	4.4
26 870.400	53.86	---	74.00	20.14	15 000.0	1 000.000	100.0	V	0.0	6.6
26 870.400	---	40.11	54.00	13.89	15 000.0	1 000.000	100.0	V	0.0	6.6
28 773.600	---	40.28	54.00	13.72	15 000.0	1 000.000	100.0	V	178.0	7.8
28 773.600	53.26	---	74.00	20.74	15 000.0	1 000.000	100.0	V	178.0	7.8

01 Mode_24 Vd.c. (1 GHz ~ 18 GHz)

**Final Result**

Frequency (MHz)	MaxPeak (dBuV/m)	CAverage (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1 010.200	46.35	---	74.00	27.65	15 000.0	1 000.000	100.0	H	77.0	-15.6
1 010.200	---	22.53	54.00	31.47	15 000.0	1 000.000	100.0	H	77.0	-15.6
1 086.700	---	26.55	54.00	27.45	15 000.0	1 000.000	100.0	H	77.0	-15.7
1 086.700	38.61	---	74.00	35.39	15 000.0	1 000.000	100.0	H	77.0	-15.7
1 411.400	41.58	---	74.00	32.42	15 000.0	1 000.000	100.0	H	77.0	-14.7
1 411.400	---	22.71	54.00	31.29	15 000.0	1 000.000	100.0	H	77.0	-14.7
1 814.300	---	23.04	54.00	30.96	15 000.0	1 000.000	100.0	H	14.0	-12.7
1 814.300	42.47	---	74.00	31.53	15 000.0	1 000.000	100.0	H	14.0	-12.7
1 999.600	---	24.36	54.00	29.64	15 000.0	1 000.000	100.0	H	267.0	-11.0
1 999.600	40.83	---	74.00	33.17	15 000.0	1 000.000	100.0	H	267.0	-11.0
17 739.900	---	49.74	54.00	4.26	15 000.0	1 000.000	100.0	V	231.0	20.7
17 739.900	63.29	---	74.00	10.71	15 000.0	1 000.000	100.0	V	231.0	20.7

01 Mode_24 Vd.c. (18 GHz ~ 30 GHz)



Final Result

Frequency (MHz)	MaxPeak (dBuV/m)	CAverage (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
19 534.800	51.45	---	74.00	22.55	15 000.0	1 000.000	100.0	V	190.0	3.2
19 534.800	---	38.81	54.00	15.19	15 000.0	1 000.000	100.0	V	190.0	3.2
20 018.400	50.81	---	74.00	23.19	15 000.0	1 000.000	100.0	H	355.0	4.5
20 018.400	---	38.27	54.00	15.73	15 000.0	1 000.000	100.0	H	355.0	4.5
20 070.000	50.58	---	74.00	23.42	15 000.0	1 000.000	100.0	H	0.0	4.5
20 070.000	---	38.00	54.00	16.00	15 000.0	1 000.000	100.0	H	0.0	4.5
23 067.600	50.63	---	74.00	23.37	15 000.0	1 000.000	100.0	V	136.0	4.5
23 067.600	---	37.90	54.00	16.10	15 000.0	1 000.000	100.0	V	136.0	4.5
23 131.200	49.90	---	74.00	24.10	15 000.0	1 000.000	100.0	H	221.0	4.5
23 131.200	---	37.16	54.00	16.84	15 000.0	1 000.000	100.0	H	221.0	4.5
26 503.200	51.42	---	74.00	22.58	15 000.0	1 000.000	100.0	V	0.0	6.7
26 503.200	---	38.58	54.00	15.42	15 000.0	1 000.000	100.0	V	0.0	6.7

Note. Measurement Uncertainty: See Appendix A

- AF = Antenna Factor
 - POL H = Horizontal
 - H = Height
 - Corr. = AF + CL – AMP
 - CL = Cable Loss
 - POL V = Vertical
 - Margin = Limit – Result
 - AMP = Amplifier Gain
 - A = Angle
- ** The value of 'Level' includes 'Corr.'.

Ex) In case

Freq ; 100 MHz, level ; 30 dB(μV/m), AF ; 10 dB/m, CL ; 4 dB, Amp ; 25 dB

Result = Level + AF + CL – Amp

= 30 + 10 + 4 - 25

= 19

Margin = Limit – Result

= 43.5 – 19

= 24.5

Appendix A: Measurement Uncertainty

Test Method		Measurement Uncertainty	
Conducted Emission	ENV216	3.0 dB	(The confidence level is 95 %, $k=2$)
	ESH2-Z5	2.8 dB	(The confidence level is 95 %, $k=2$)
	ESH3-Z6	3.0 dB	(The confidence level is 95 %, $k=2$)
Conducted Emission - Signal	ISN T800	5.3 dB	(The confidence level is 95 %, $k=2$)
	ISNT8-Cat6	5.4 dB	(The confidence level is 95 %, $k=2$)
	ISN S751	6.8 dB	(The confidence level is 95 %, $k=2$)
Disturbance Voltage at Antenna Terminal		2.4 dB	(The confidence level is 95 %, $k=2$)
Radiated Emission	9 kHz - 30 MHz	Horizontal	3.4 dB (The confidence level is 95 %, $k=2$)
		Vertical	3.4 dB (The confidence level is 95 %, $k=2$)
	30 MHz - 1 000 MHz	Horizontal	4.6 dB (The confidence level is 95 %, $k=2$)
		Vertical	5.0 dB (The confidence level is 95 %, $k=2$)
	1 GHz - 18 GHz	Horizontal	3.6 dB (The confidence level is 95 %, $k=2$)
		Vertical	3.6 dB (The confidence level is 95 %, $k=2$)

Table A.1 Measurement Uncertainty of Branch Site

Test Method		Measurement Uncertainty	
Conducted Emission		ENV216	3.3 dB (The confidence level is 95 %, $k=2$)
		ESH3-Z6	3.3 dB (The confidence level is 95 %, $k=2$)
		ESH2-Z5	3.2 dB (The confidence level is 95 %, $k=2$)
		NNLK8129	3.2 dB (The confidence level is 95 %, $k=2$)
Conducted Emission - Signal		ISN T800	5.5 dB (The confidence level is 95 %, $k=2$)
		ISN ST08	6.6 dB (The confidence level is 95 %, $k=2$)
Radiated Emission	9 kHz - 30 MHz	Horizontal	3.5 dB (The confidence level is 95 %, $k=2$)
		Vertical	3.5 dB (The confidence level is 95 %, $k=2$)
	30 MHz - 1 000 MHz	Horizontal	4.4 dB (The confidence level is 95 %, $k=2$)
		Vertical	5.0 dB (The confidence level is 95 %, $k=2$)
	1 GHz - 18 GHz	Horizontal	3.8 dB (The confidence level is 95 %, $k=2$)
		Vertical	4.1 dB (The confidence level is 95 %, $k=2$)

Table A.2 Measurement Uncertainty of Branch Site-3

Test Method		Measurement Uncertainty
Conducted Emission	ENV216	3.5 dB (The confidence level is 95 %, $k=2$)
	ESH2-Z6	3.4 dB (The confidence level is 95 %, $k=2$)
	ESH3-Z5	3.4 dB (The confidence level is 95 %, $k=2$)
	NNLK8129	3.4 dB (The confidence level is 95 %, $k=2$)
Conducted Emission - Signal	ISN T800	5.6 dB (The confidence level is 95 %, $k=2$)
	ISN ST08	5.6 dB (The confidence level is 95 %, $k=2$)
Radiated Emission	9 kHz - 30 MHz (Triple Loop Ant.)	2.6 dB (The confidence level is 95 %, $k=2$)
	9 kHz - 30 MHz (Loop Ant.)	Horizontal 4.2 dB (The confidence level is 95 %, $k=2$)
		Vertical 4.2 dB (The confidence level is 95 %, $k=2$)
	30 MHz - 1 000 MHz	Horizontal 5.4 dB (The confidence level is 95 %, $k=2$)
		Vertical 5.7 dB (The confidence level is 95 %, $k=2$)
	1 GHz - 18 GHz	Horizontal 4.6 dB (The confidence level is 95 %, $k=2$)
		Vertical 4.6 dB (The confidence level is 95 %, $k=2$)

Table A.3 Measurement Uncertainty of Branch Site-4

- End of Test Report -