

CFR 47 FCC PART 15 SUBPART C

TEST REPORT

For

Data Recorder

MODEL NUMBER: AKRI-1

FCC ID: 2A6BYAKRI-1

REPORT NUMBER: 4790307922-4

ISSUE DATE: Apr. 19, 2022

Prepared for

ANKON Technologies Co., Ltd.

Prepared by

UL-CCIC COMPANY LIMITED No. 2, Chengwan Road, Suzhou Industrial Park, Suzhou 215122, China Tel: +86 769 22038881 Fax: +86 769 33244054 Website: www.ul.com

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Revision History

Rev.	Issue Date	Revisions	Revised By
V0	04/19/2022	Initial Issue	



Summary of Test Results					
Clause	Test Items	FCC/IC Rules	Test Results		
1	6dB Bandwidth	FCC Part 15.247 (a) (2)	Pass		
2	Conducted Output Power	FCC Part 15.247 (b) (3)	Pass		
3	Power Spectral Density	FCC Part 15.247 (e)	Pass		
4	Conducted Bandedge and Spurious Emission	FCC Part 15.247 (d)	Pass		
5	Radiated Bandedge and Spurious Emission	FCC Part 15.247 (d) FCC Part 15.209 FCC Part 15.205	Pass		
6	Conducted Emission Test for AC Power Port	FCC Part 15.207	N/A (See Note 1)		
7	Antenna Requirement	FCC Part 15.203	Pass		
Note: 1) The RF modules cannot be operated when charging.					

2) The measurement result for the sample received is <Pass> according to < ANSI C63.10-2013,

FCC CFR 47 Part 2, FCC CFR 47 Part 15C> when <Accuracy Method> decision rule is applied.



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1. ATTESTATION OF TEST RESULTS

Applicant Information

1.	
Company Name:	ANKON Technologies Co., Ltd.
Address:	B3-2, B3-3, D3-4 Biolake, No.666, Hi-Tech Road, East Lake New
	Technology Development Zone, Wuhan, 430075 Hubei, China
Manufacturer Information	
Company Name:	ANKON Technologies Co., Ltd.
Address:	B3-2, B3-3, D3-4 Biolake, No.666, Hi-Tech Road, East Lake New
	Technology Development Zone, Wuhan, 430075 Hubei, China
Factory Information	
Company Name:	ANKON Technologies Co., Ltd.
Address:	B3-2, B3-3, D3-4 Biolake, No.666, Hi-Tech Road, East Lake New
Address.	Technology Development Zone, Wuhan, 430075 Hubei, China
EUT Description	
EUT Name:	Data Recorder
Model:	AKRI-1
Sample Number:	4759652, 4759659
Sample Received Date:	Mar. 12, 2022
Date of Tested:	Mar. 16, 2022 ~ Apr. 19, 2022

APPLICABLE STANDARDS			
STANDARD TEST RESULTS			
CFR 47 FCC PART 15 SUBPART C	PASS		

Prepared By:

Tom Tang

Reviewed By:

Leon Wu

Leon Wu

Senior Engineer Project

Tom Tang Project Engineer

Authorized By:

Chris Zhong

Chris Zhong Laboratory Leader



2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC KDB 558074 D01 15.247 Meas Guidance v05r02, KDB 414788 D01 Radiated Test Site v01r01, CFR 47 FCC Part 2, CFR 47 FCC Part 15, ANSI C63.10-2013.

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	A2LA (Certificate No.: 4829.01) UL-CCIC COMPANY LIMITED has been assessed and proved to be in compliance with A2LA. FCC (FCC Designation No.: CN1247) UL-CCIC COMPANY LIMITED has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules. IC (IC Designation No.: 25056; CAB No.: CN0073) UL-CCIC COMPANY LIMITED has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules.
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Note 1: All tests measurement facilities use to collect the measurement data are located at No. 2, Chengwan Road, Suzhou Industrial Park, Suzhou 215122, People's Republic of China

Note 2: For below 30MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. These measurements below 30MHz had been correlated to measurements performed on an OFS.

Note 3: The test anechoic chamber in UL-CCIC COMPANY LIMITED had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.



4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognize national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Item	Uncertainty		
Conduction emission	3.1dB		
Radiation Emission test (include Fundamental emission) (9KHz-30MHz)	3.4dB		
Radiation Emission test (include Fundamental emission) (30MHz-1GHz)	3.4dB		
Radiation Emission test (1GHz to 26GHz) (include Fundamental emission)	3.9dB (1GHz-18Gz)		
	4.2dB (18GHz-26Gz)		
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.			

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

EUT Name	Data Recorder
Model	AKRI-1
Radio Technology	915MHz RF
Operation frequency	905MHz ~ 925MHz
Modulation	GFSK, 8-FSK
Data Rate	0.3Mbps, 4Mbps
Power Supply	DC 4.2V

5.2. MAXIMUM OUTPUT POWER

Number of Transmit Chains	Frequency	Channel Number	Max Conducted Power
(NTX)	(MHz)		(dBm)
1 & 2	905-925	1-21[21]	7.23

5.3. CHANNEL LIST

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	905	7	911	13	917	19	923
2	906	8	912	14	918	20	924
3	907	9	913	15	919	21	925
4	908	10	914	16	920		
5	909	11	915	17	921		
6	910	12	916	18	922		

5.4. TEST CHANNEL CONFIGURATION

Test Mode	Test Channel	Frequency	
TX	CH 1, CH 11, CH 21	905MHz, 915MHz, 925MHz	

5.5. THE WORSE CASE CONFIGURATIONS

The Worse Case Power Setting Parameter under 902 ~ 928MHz Band				
Test Software	DAQ-Mobile			
Transmit Antenna Number	Test Channel			
	NCB: 4MHz			
Number	CH 1	CH 11	CH 21	
1 & 2	905 915 925			

5.6. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna	Frequency (MHz)	Antenna Type	MAX Antenna Gain (dBi)
1	905-925	Loop Antenna	-5.0
2	905-925	Meandered IFA Antenna	-10.0

Note: Both the two type antennas were test, the result of the Loop Antenna was worse case and recorded in the report.

Transmit and Receive Mode	Description
⊠2TX, 2RX	ANT 1 & ANT 2 can be used as transmitting/receiving antenna.

5.7. THE WORSE CASE CONFIGURATIONS

For the product, there are 14 transmission modules with two type antennas, but only one module of the modules transmits at one time, the result of the Loop Antenna was worse case and recorded in the report.

Pre-test the 0.3Mbps and 4Mbps data rates, the data rate 0.3Mbps was the worse-case and recorded in this test report.



5.8. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Item	Equipment	Brand Name	Model Name	P/N
1	Laptop	ThinkPad	ThinkPad X1 Carbon 5th	/

I/O CABLES

Cable No	Port	Connector Type	Cable Type	Cable Length(m)	Remarks
1	USB	USB	USB Cable	1	/

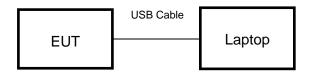
ACCESSORIES

Item	Accessory	Brand Name	Model Name	Description
1	Adapter	UE	UE10WCP1-05200SPA	/

TEST SETUP

The EUT can work in engineering mode with a software through a laptop.

SETUP DIAGRAM FOR TESTS





6. MEASURING INSTRUMENT AND SOFTWARE USED

		Cor	nducted	Emis	sions	(Instru	ment)		
Used	Equipment	Manufacturer	Model	No.	Seri	al No.	Upper Last Cal.	Last Cal.	Next Cal.
\checkmark	EMI Test Receiver	R&S	ESR3		12	6700	2020-12-05	2021-12-04	2022-12-03
\checkmark	Two-Line V-Network	R&S	ENV2	216	12	6701	2020-12-05	2021-12-04	2022-12-03
	Artificial Mains Networks	R&S	ENY	81	12	6711	2020-10-13	2021-10-12	2022-10-11
	Software								
Used	Des	cription		Ma	Inufac	turer	Name	Version	
\checkmark	Test Software for (Conducted distur	bance		R&S	5	EMC32	Ver. 9.25	
		Ra	diated E	Emiss	ions (Instrum	nent)		
Used	Equipment	Manufacturer	Model	No.	Seri	al No.	Upper Last Cal.	Last Cal.	Next Cal.
\checkmark	Spectrum Analyzer	Keysight	N901	0B	15	5727	2020-05-10	2021-05-09	2022-05-08
\checkmark	EMI test receiver	R&S	ESR	26	12	6703	2020-12-05	2021-12-04	2022-12-03
	Receiver Antenna (9kHz-30MHz)	Schwarzbeck	FMZB [·]	1513	15	5456	2018-06-15	2021-06-03	2024-06-02
	Receiver Antenna (30MHz-1GHz)	SunAR RF Motion	JB1	1	17	7821	2019-01-19	2022-01-18	2025-01-17
\checkmark	Receiver Antenna (1GHz-18GHz)	R&S	HF907		12	6705	2019-01-27	2022-02-28	2025-02-27
\checkmark	Receiver Antenna (18GHz-26.5GHz)	Schwarzbeck	BBHAS	9170	12	6706	2019-01-05	2022-01-04	2025-01-03
V	Pre-amplification (To 18GHz)	Compliance Direction System Inc.	PAP-1G	18-50	17	8825	2021-03-26	2022-03-01	2023-02-28
	Pre-amplification (To 26.5GHz)	R&S	SCU-2		13	5391	2020-12-05	2021-12-04	2022-12-03
V	Highpass Filter	Wainwright	WHKX 2700-3 18000-4	000-		2	2020-05-10	2021-05-09	2022-05-08
				Soft	ware				
Used	Desci	ription	Ма	anufac	turer		Name	Version	
\checkmark	Test Software for R	adiated disturbar		Tonsce			TS+	Ver. 2.5	
			Oth	er ins	trum	ents			
Used	Equipment	Manufacturer	Model	No.	Seri	al No.	Upper Last Cal.	Last Cal.	Next Cal.
\checkmark	Spectrum Analyzer	Keysight	N901	0B	15	5368	2020-05-10	2021-05-09	2022-05-08
	Power Meter	Keysight	U2021	IXA	15	5370	2020-05-10	2021-05-09	2022-05-08



7. MEASUREMENT METHODS

No.	Test Item	KDB Name	Section
1	6dB Bandwidth and 99% Occupied Bandwidth	KDB 558074 D01 15.247 Meas Guidance v05r02	8.2
2	Peak Output Power	KDB 558074 D01 15.247 Meas Guidance v05r02	8.3.1.3/8.3.2.3
3	Power Spectral Density	KDB 558074 D01 15.247 Meas Guidance v05r02	8.4
4	Out-of-band emissions in non- restricted bands	KDB 558074 D01 15.247 Meas Guidance v05r02	8.5
5	Out-of-band emissions in restricted bands	KDB 558074 D01 15.247 Meas Guidance v05r02	8.6
6	Band-edge	KDB 558074 D01 15.247 Meas Guidance v05r02	8.7
7	Conducted Emission Test for AC Power Port	ANSI C63.10-2013	6.2



8. ANTENNA PORT TEST RESULTS

8.1. ON TIME AND DUTY CYCLE

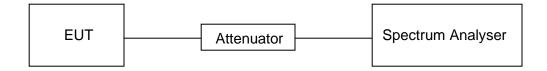
<u>LIMITS</u>

None; for reporting purposes only

PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method

TEST SETUP





TEST ENVIRONMENT

Temperature	20°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	DC 4.2V

RESULTS

On Time (msec)	Period (msec)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (db)	1/T Minimum VBW (kHz)	Final setting For VBW (kHz)
2.200	2.460	0.8943	89.43%	0.49	0.45	0.5

Note:

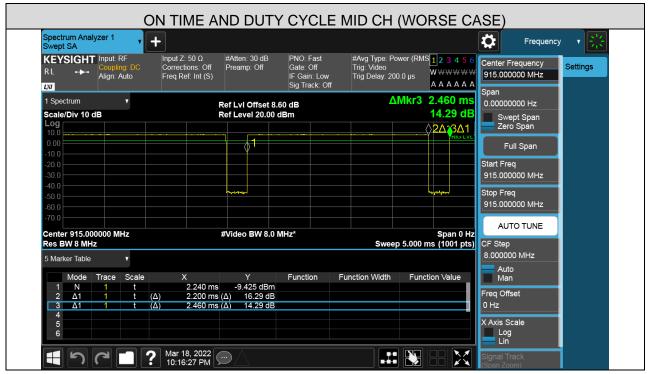
Duty Cycle Correction Factor= $10\log(1/x)$.

Where: x is Duty Cycle (Linear)

Where: T is On Time

If that calculated VBW is not available on the analyzer then the next higher value should be used.

TEST GRAPHS





8.2. 6 dB BANDWIDTH

<u>LIMITS</u>

CFR 47 FCC Part15 (15.247) Subpart C					
Section Test Item Limit Frequency Range (MHz)					
CFR 47 FCC 15.247(a)(2)	6 dB Bandwidth	≥ 500kHz	902-928		

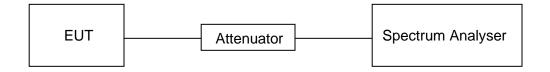
TEST PROCEDURE

Connect the UUT to the spectrum analyser and use the following settings:

Center Frequency	The centre frequency of the channel under test
Detector	Peak
RBW	100K
VBW	≥3 × RBW
Trace	Max hold
Sweep	Auto couple

Allow the trace to stabilize and measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB to the maximum level measured in the fundamental emission.

TEST SETUP





TEST ENVIRONMENT

Temperature	20°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	DC 4.2V

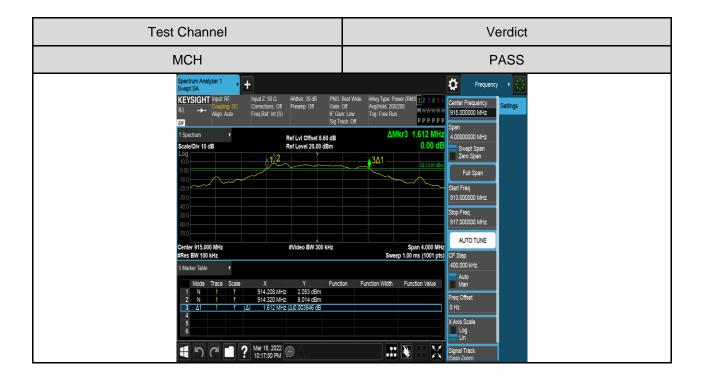
RESULTS

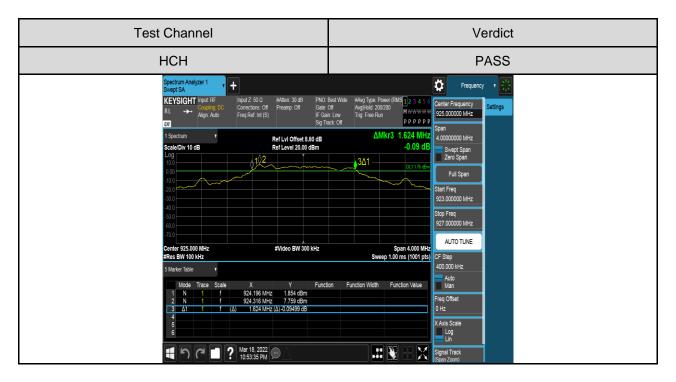
Channel	Frequency	6dB bandwidth (MHz)
Low	905	1.604
Middle	915	1.612
High	925	1.624

TEST GRAPHS

Test Channel	Verdict
LCH	PASS
Spectrum Analyzer 1 Swept SA KEYSIGHT Input: RF RL →→ Align: Auto Freq Ref. Int (S) Control Freq Ref. Int (S)	Off Gete Off Avglikid: 200200 UserMar Frequency Settings IF Gain Low Ting Free Run P P P P P P Sig Track: Off P P P P P P Span
	fiset 2.56 dB Δ/Mkr3 1.604 MHz 4.00000000 MHz 20.00 dBm -0.10 dB Swept Span Zaro Span 3Δ1 0.12 trafe Full Span
	Start Freq 93.00000 MHz Stop Freq 907.00000 MHz
Center 95.000 MHz #Video #Res BW 100 kHz S Marker Table • Mode Trace Scale X	W 300 kHz Span 4.000 MHz Span 4.000 MHz CF Silep 400.000 kHz CF Silep 400.000 kHz Auto
1 N 1 f 904.212 MHz 2.2	5 dBm Freq Offset 1 dBm 0 Hz 0 H
E 7 7 E ? Mar 18, 2022	Lin Signal Track (Shan Zoom)









8.3. CONDUCTED OUTPUT POWER

<u>LIMITS</u>

CFR 47 FCC Part15 (15.247) Subpart C			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC 15.247(b)(3)	Output Power	1 watt or 30dBm (See note1)	902-928

Note:

1. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

TEST PROCEDURE

Place the EUT on the table and set it in the transmitting mode.

Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the Power sensor.

Measure the power of each channel.

Average Detector used for Average result.

TEST SETUP



TEST ENVIRONMENT

Temperature	20°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	DC 4.2V

<u>RESULT</u>

Test Channel	Measurement Output Power (AV)	10log(1/x) Factor	Maximum Conducted Output Power (AV)	LIMIT (dBm)
	dBm	dB	dBm	
Low	6.74	0.49	7.23	30
Middle	6.62	0.49	7.11	30
High	6.15	0.49	6.64	30



8.4. POWER SPECTRAL DENSITY

LIMITS

CFR 47 FCC Part15 (15.247) Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	
CFR 47 FCC §15.247 (e) Power Spectral Density 8 dBm/3 kHz (See note1) 902-928				
Note: 1. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum				

1. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

TEST PROCEDURE

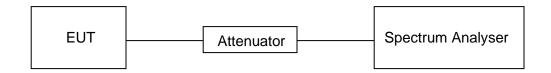
Center Frequency	The centre frequency of the channel under test
Detector	Peak
RBW	3 kHz ≤ RBW ≤100 kHz
VBW	≥3 × RBW
Span	1.5 x DTS bandwidth
Trace	Max hold
Sweep time	Auto couple.

Connect the UUT to the spectrum analyser and use the following settings:

Allow trace to fully stabilize and use the peak marker function to determine the maximum amplitude level within the RBW.

If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

TEST SETUP



TEST ENVIRONMENT

Temperature	20°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	DC 4.2V

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RESULTS

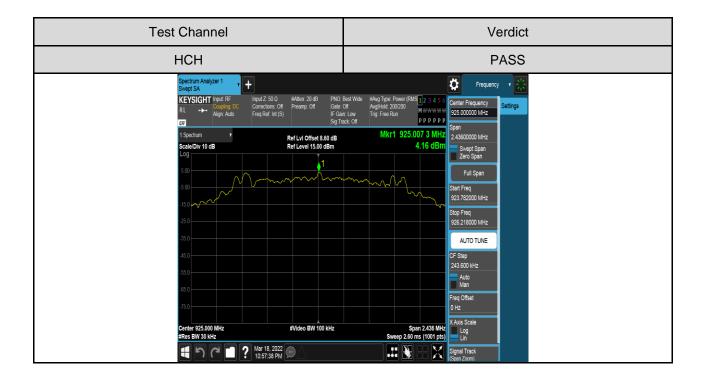
Test Channel	Power Spectral Density (dBm/30kHz)	Limit (dBm/3kHz)	Result
Low	4.81	8	PASS
Middle	4.61	8	PASS
High	4.16	8	PASS

TEST GRAPHS





Test Channel			Verdict	
MCH			PASS	
Spectrum Analyzer 1 T Swept SA KEEVSIGHT Input: RF Input: Cogning DC	rections: Off Preamp: Off Gale O IF Gain: Sig Trac Ref Lvi Offset 8.60 dB Ref Level 15.00 dBm	est Wide #Aug Tope: Power (RMS 11 2 3 4 5 6 # Aug Hold: 200200 MWWWWWW P P P P P P Mkr1 915.012 1 MHz 4.61 dBm	Center Frequency Center Frequency 915 000000 MHz 241800000 MHz 2405 Span 2419 Span Full Span Start Freq 913 J791000 MHz Stop Freq 916 209000 MHz CF Step 241 300 KHz CF Step 241 300 KHz CF Step 241 300 KHz CF Step CF Ste	
Center \$15.000 MHz #Res BW 30 kHz ## \$7 CP II 2 102	#Video BW 100 kHz ar 18, 2022	Span 2.418 MHz Sweep 2.60 ms (1001 pts)	X Axis Scale Log Lin Signal Track (Span Zoom)	





8.5. CONDUCTED BANDEDGE AND SPURIOUS EMISSIONS

LIMITS

CFR 47 FCC Part15 (15.247) Subpart C			
Section Test Item Limit			
CFR 47 FCC §15.247 (d)	Conducted Bandedge and Spurious Emissions	at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power	

TEST PROCEDURE

Connect the UUT to the spectrum analyser and use the following settings:

Center Frequency	The centre frequency of the channel under test
Detector	Peak
RBW	100K
VBW	≥3 × RBW
Span	1.5 x DTS bandwidth
Trace	Max hold
Sweep time	Auto couple.

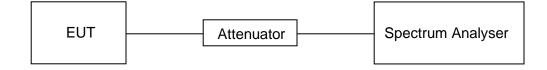
Use the peak marker function to determine the maximum PSD level.

Span	Set the center frequency and span to encompass frequency range to be measured	
Detector	Peak	
RBW	100K	
VBW	≥3 × RBW	
measurement points	≥span/RBW	
Trace	Max hold	
Sweep time	Auto couple.	
the the week week and the four tests to the method for the method of the second states of the second		

Use the peak marker function to determine the maximum amplitude level.



TEST SETUP



TEST ENVIRONMENT

Temperature	20°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	DC 4.2V

PART 1: REFERENCE LEVEL MEASUREMENT

TEST RESULTS TABLE

Test Channel	Result[dBm]	
LCH	8.38	
MCH	8.30	
НСН	8.02	

TEST GRAPHS





Test Channel		МСН
Control Contr	#Atten 30.dB PNO Best Wide #Avg Type Power (RMS Preamp: Off Gate: Off Avg]Hold 200/200 IF Gant Low Trig Free Run Sig Track Off	M WWWWW 915.00000 MHz P P P P P
	Ref LvI Offset 8.60 dB Mkr1 914.3 Ref Level 28.60 dBm	8.30 dBm Swept Span Zero Span
8 60 -1.40		Full Span Start Freq 913.791000 MHz Stop Freq
-11.4 -21.4 		916 209000 MHz AUTO TUNE CF Step
41.4		Auto Man Freq Offset 0 Hz
#Res BW 100 kHz	Sweep 1.00 n	an 2.418 MHz Axis Scale Log Lin
Har 18, 2022 In 22:30 PM In 2		Signal Track (Scen Zoom)



PART 2: CONDUCTED BANDEDGE

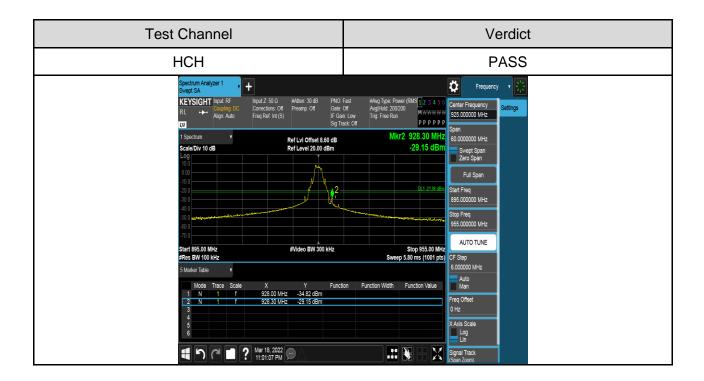
TEST RESULTS TABLE

Test Channel	Result	Verdict
LCH	Refer to the Test Graph	PASS
НСН	Refer to the Test Graph	PASS

TEST GRAPHS

Test Channel	Verdict
LCH	PASS
-00 -700 -700 -700 Start 877.00 MHz #Video BW 300 kHz #Res BW 100 kHz #Video BW 300 kHz 5 Marter Table • Mode Trace Scale X Y Mode Trace Scale X Y 2 N 1 f 2 N 1 f 901.80 MHz 3 - - - - 4 5 - - - 6 - - - - -	Stop 927.000000 MHz Sweep 4.80 ms (1001 pts) tion Function Width Function Value Freq Offset 0 Hz X-Axis Scale Log Lin Signal Track Signal Track Signal Track





PART 3: CONDUCTED SPURIOUS EMISSION

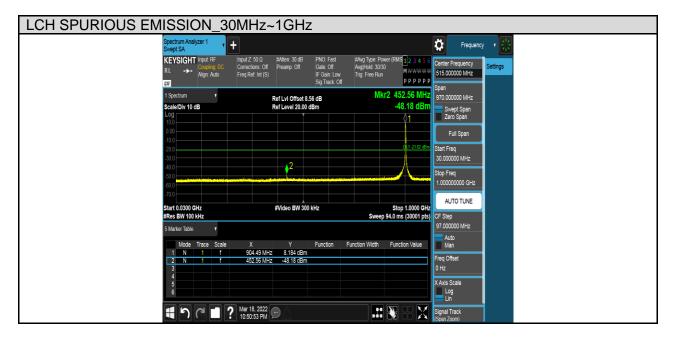
TEST RESULTS TABLE

Test Channel	Result	Verdict
LCH	Refer to the Test Graph	PASS
MCH	Refer to the Test Graph	PASS
НСН	Refer to the Test Graph	PASS



TEST GRAPHS

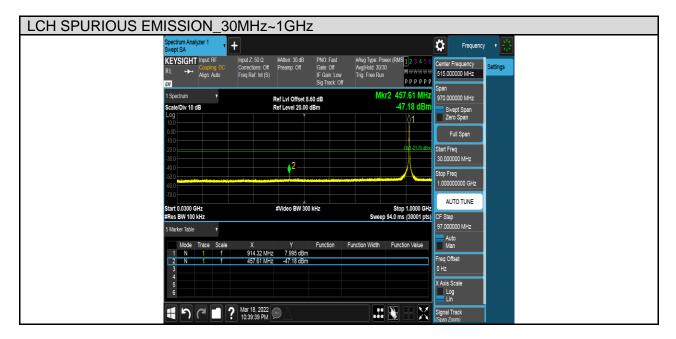
Channel	Verdict
LCH	PASS



LCH SPURIOUS EMISSION_1GHz~26.5GHz Ö ectrum / ent SA + Frequency v PNO: Fast Gate: Off IF Gain: Lo Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) #Avg Type: P Avg|Hold: 30/ Trig: Free Ru KEYSIGHT Input RI Center Frequency Settings Align: Auto 13.750000000 GHz рррррр LUI Mkr1 26.385 25 GH Ref LvI Offset 8.56 dB Ref Level 15.00 dBm 25.5000000 GHz -53.82 dB le/Div 10 dB Swept Span Zero Span Start Freq 1.000000000 GHz Stop Freq 26.5000 00 GHz AUTO TUNE Start 1.00 GHz #Res BW 100 kHz #Video BW 300 kHz Stop 26.50 GHz Sweep 2.44 s (30001 pts) CF Step . 2.550000000 GHz Marker Tabl Auto Man Function Valu Mode Trace Scale Functio ion Width 26.385 25 GHz -53.82 dBm req Offset X Axis Scale Log Lin (Mar 18, 2022) (PM X Signal Track



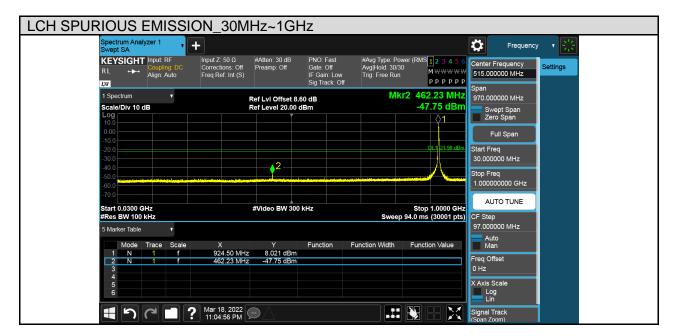
Channel	Verdict	
MCH	PASS	

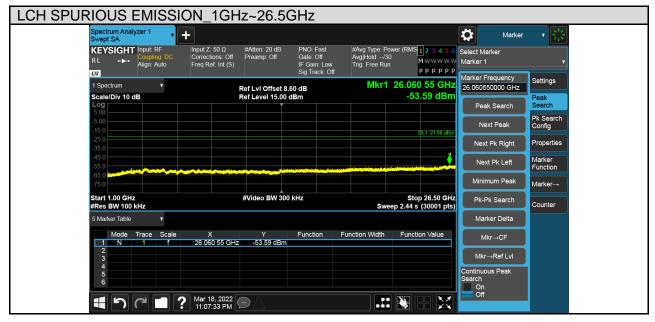






Channel	Verdict
HCH	PASS







9. RADIATED TEST RESULTS

<u>LIMITS</u>

Please refer to CFR 47 FCC §15.205 and §15.209

Radiation Disturbance Test Limit for FCC (Class B) (9KHz-1GHz)

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3

Note: 1) At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided: measurements are not made in the near field except where it can be shown that near field measurements are appropriate due to the characteristics of the device; and it can be demonstrated that the signal levels needed to be measured at the distance employed can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 meters unless it can be further demonstrated that measurements at a distance of 30 meters or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements; inverse-linear-distance-squared for power density measurements).

(2) At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed below 30 MHz, when performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). This paragraph (f) shall not apply to Access BPL devices operating below 30 MHz.



Radiation Disturbance Test Limit for FCC (Above 1G)

	dB(uV/m) (at 3 meters)	
Frequency (MHz)	Peak	Average
Above 1000	74	54

FCC Restricted bands of operation:

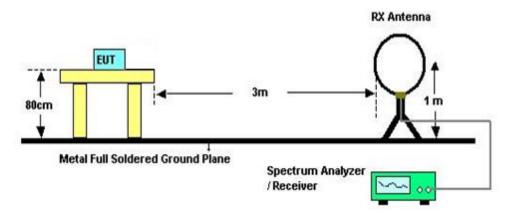
MHz	MHz	MHz	GHz	
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15	
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46	
2.1735-2.1905	16.80425-16.80475	960-1240		
4.125-4.128	25.5-25.67	1300-1427		
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2	
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5	
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7	
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4	
6.31175-6.31225	123-138	2200-2300	14.47-14.5	
8.291-8.294	4 149.9-150.05		15.35-16.2	
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4	
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12	
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0	
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8	
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5	
12.57675-12.57725	322-335.4	3600-4400	(2)	
13.36-13.41				

Note: ¹Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz. ²Above 38.6



TEST SETUP AND PROCEDURE

Below 30MHz



The setting of the spectrum analyser

RBW	200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz)
VBW	200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz)
Sweep	Auto
Detector	Peak/QP/ Average
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013

2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both Horizontal, Face-on and Face-off polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 0.8 meter above ground.

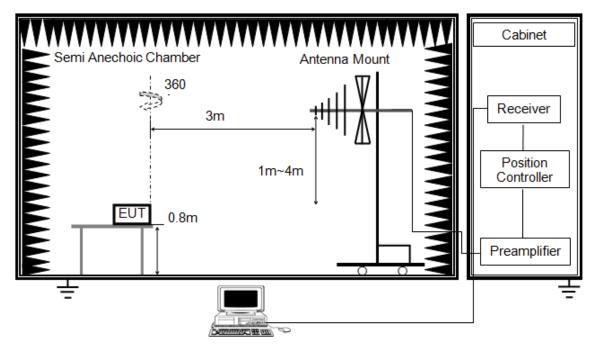
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a 1m height antenna tower.

5. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

6. Although these tests were performed other than open field site, adequate comparison measurements were confirmed against 30m open field site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field site based on KDB 414788.



Below 1G



The setting of the spectrum analyser

RBW	120K
VBW	300K
Sweep	Auto
Detector	Peak/QP
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 0.8 meter above ground.

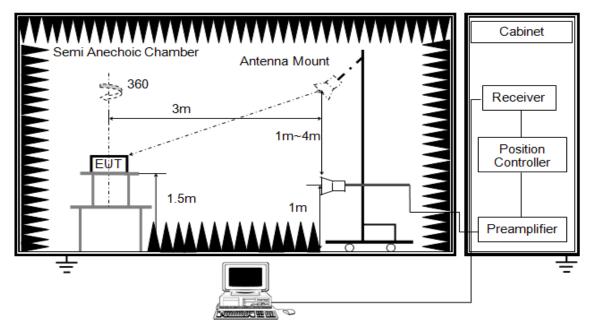
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

6. For the actual test configuration, please refer to the related item in this test report (Photographs of the Test Configuration)



Above 1G



The setting of the spectrum analyser

RBW	1M	
	PEAK:3M AVG: See note6	
Sweep	Auto	
Detector	Peak/Average(10Hz)	
Trace	Max hold	

1. The testing follows the guidelines in ANSI C63.10-2013.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 1.5m above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

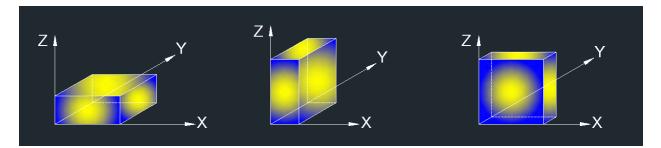
5. For measurement above 1GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.

6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with set VBW ≤RBW/100, but not less than list in section 7.1 with average detector, max hold to run for at least 50 traces for average measurements.

7. For the actual test configuration, please refer to the related item in this test report (Photographs of the Test Configuration)



X axis, Y axis, Z axis positions:



Note 1: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

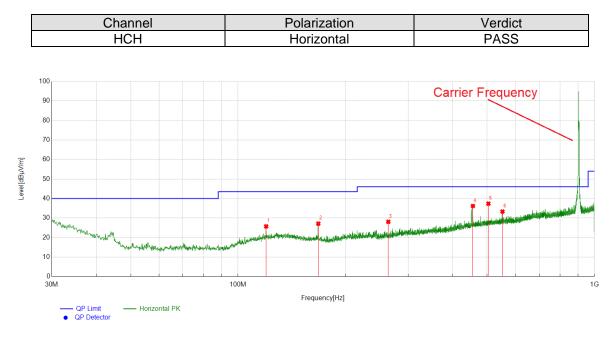
Note 2: For the product, there are 14 transmission modules with two type antennas, but only one module of the modules transmits at one time, the result of the Loop Antenna was worse case and recorded in the report.

TEST ENVIRONMENT

Temperature	20°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	DC 4.2V



9.1. SPURIOUS EMISSIONS BELOW 1 GHz



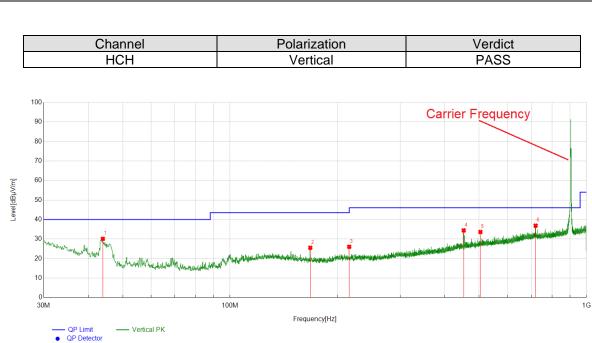
SPURIOUS EMISSIONS 30MHz TO 1GHz (WORST-CASE CONFIGURATION)

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	119.928	5.27	20.47	25.74	43.50	-17.76	Peak
2	167.9478	8.21	18.93	27.14	43.50	-16.36	Peak
3	263.9874	8.19	19.91	28.10	46.00	-17.90	Peak
4	455.9696	10.68	25.51	36.19	46.00	-9.81	Peak
5	503.9894	10.98	26.40	37.38	46.00	-8.62	Peak
6	552.0092	6.37	26.97	33.34	46.00	-12.66	Peak

Note: 1. Result Level = Read Level + Correct Factor.

2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.

3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	43.9694	11.75	18.36	30.11	40.00	-9.89	Peak
2	167.9478	6.62	18.93	25.55	43.50	-17.95	Peak
3	215.9676	6.29	19.76	26.05	43.50	-17.45	Peak
4	452.4772	9.00	25.43	34.43	46.00	-11.57	Peak
5	503.9894	7.24	26.40	33.64	46.00	-12.36	Peak
6	720.03	7.24	29.63	36.87	46.00	-9.13	Peak

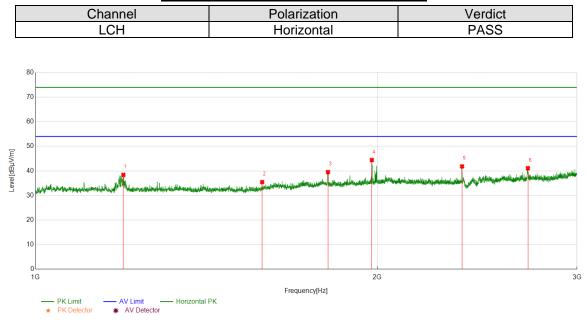
Note: 1. Result Level = Read Level + Correct Factor.

If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
 Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

Note: All constructions and test modes have been tested, only the worst data record in the report.



9.2. SPURIOUS EMISSIONS (1GHz~3GHz)



HARMONICS AND SPURIOUS EMISSIONS

PK Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	1195.0244	44.99	-6.61	38.38	74.00	-35.62	Peak
2	1583.823	41.36	-5.92	35.44	74.00	-38.56	Peak
3	1809.8512	44.01	-4.48	39.53	74.00	-34.47	Peak
4	1978.3723	47.86	-3.43	44.43	74.00	-29.57	Peak
5	2375.922	44.60	-2.78	41.82	74.00	-32.18	Peak
6	2715.2144	42.50	-1.40	41.10	74.00	-32.90	Peak

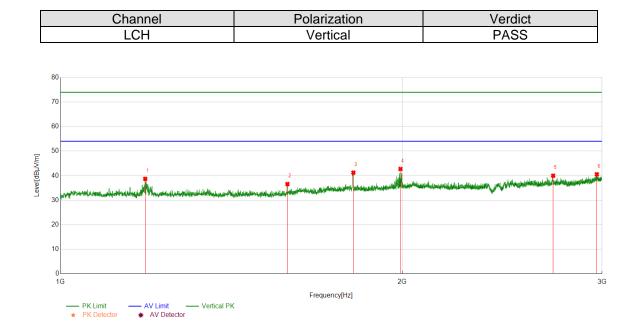
Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

4. Peak: Peak detector.

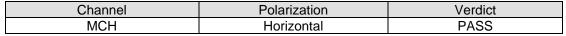
5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

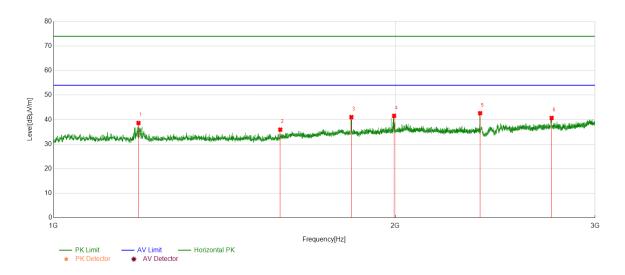


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	1187.5234	45.25	-6.55	38.70	74.00	-35.30	Peak
2	1584.5731	42.46	-5.88	36.58	74.00	-37.42	Peak
3	1811.3514	45.68	-4.45	41.23	74.00	-32.77	Peak
4	1993.1241	45.92	-3.20	42.72	74.00	-31.28	Peak
5	2716.7146	41.39	-1.41	39.98	74.00	-34.02	Peak
6	2968.4961	40.21	0.35	40.56	74.00	-33.44	Peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

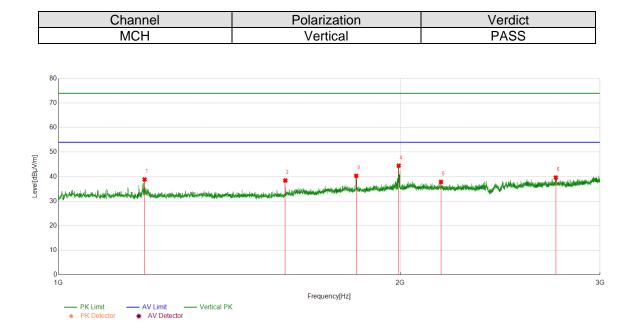






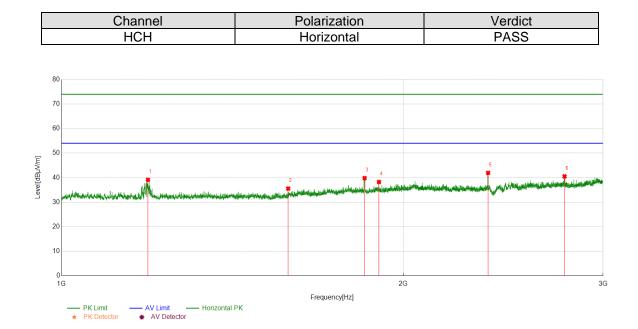
No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	1188.0235	45.20	-6.55	38.65	74.00	-35.35	Peak
2	1584.073	41.85	-5.91	35.94	74.00	-38.06	Peak
3	1829.8537	45.16	-4.12	41.04	74.00	-32.96	Peak
4	1995.6245	44.72	-3.16	41.56	74.00	-32.44	Peak
5	2376.172	45.42	-2.78	42.64	74.00	-31.36	Peak
6	2746.9684	42.24	-1.54	40.70	74.00	-33.30	Peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



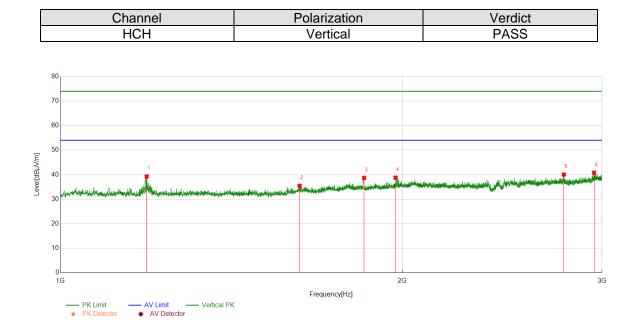
No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	1190.7738	45.42	-6.56	38.86	74.00	-35.14	Peak
2	1584.073	44.35	-5.91	38.44	74.00	-35.56	Peak
3	1829.3537	44.47	-4.12	40.35	74.00	-33.65	Peak
4	1993.8742	47.67	-3.19	44.48	74.00	-29.52	Peak
5	2172.3966	41.08	-3.20	37.88	74.00	-36.12	Peak
6	2742.4678	41.19	-1.55	39.64	74.00	-34.36	Peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	1191.5239	45.71	-6.57	39.14	74.00	-34.86	Peak
2	1583.823	41.49	-5.92	35.57	74.00	-38.43	Peak
3	1849.3562	43.99	-4.16	39.83	74.00	-34.17	Peak
4	1904.113	41.90	-3.64	38.26	74.00	-35.74	Peak
5	2375.922	44.74	-2.78	41.96	74.00	-32.04	Peak
6	2774.7218	42.02	-1.50	40.52	74.00	-33.48	Peak

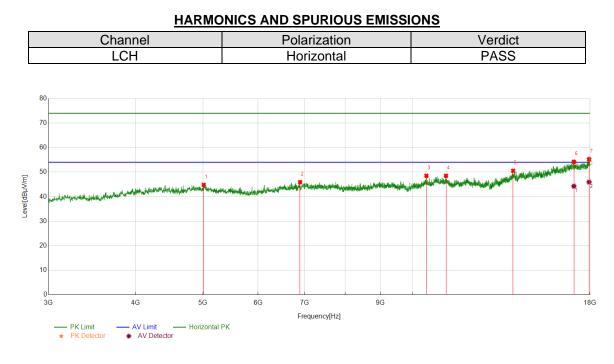
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	1191.0239	45.84	-6.56	39.28	74.00	-34.72	Peak
2	1624.328	40.82	-5.34	35.48	74.00	-38.52	Peak
3	1851.3564	42.85	-4.15	38.70	74.00	-35.30	Peak
4	1973.3717	42.24	-3.44	38.80	74.00	-35.20	Peak
5	2776.222	41.58	-1.52	40.06	74.00	-33.94	Peak
6	2951.994	40.94	-0.15	40.79	74.00	-33.21	Peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

9.3. SPURIOUS EMISSIONS (3GHz~18GHz)



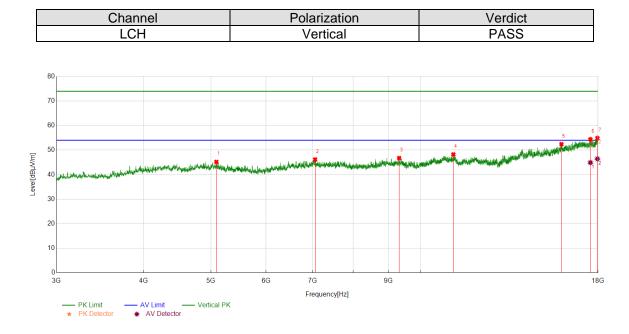
PK Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	5014.0018	39.12	5.67	44.79	74.00	-29.21	Peak
2	6896.7371	37.56	8.36	45.92	74.00	-28.08	Peak
3	10474.6843	37.67	10.83	48.50	74.00	-25.50	Peak
4	11176.022	37.10	11.40	48.50	74.00	-25.50	Peak
5	13955.1194	36.71	13.83	50.54	74.00	-23.46	Peak
6	17064.258	35.66	18.40	54.06	74.00	-19.94	Peak
7	17943.743	35.99	19.24	55.23	74.00	-18.77	Peak

AV Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	17064.258	25.86	18.40	44.26	54.00	-9.74	AV
2	17943.743	26.69	19.24	45.93	54.00	-8.07	AV

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

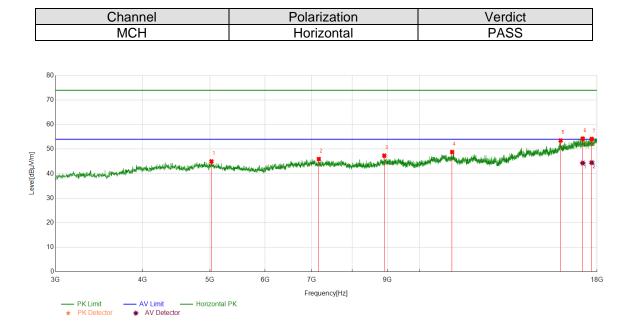


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	5090.8864	39.89	5.31	45.20	74.00	-28.80	Peak
2	7058.0073	37.54	8.65	46.19	74.00	-27.81	Peak
3	9321.4152	37.81	8.94	46.75	74.00	-27.25	Peak
4	11151.644	36.88	11.37	48.25	74.00	-25.75	Peak
5	15946.6183	35.92	16.52	52.44	74.00	-21.56	Peak
6	17551.819	36.25	18.19	54.44	74.00	-19.56	Peak
7	17962.4953	35.83	19.17	55.00	74.00	-19.00	Peak

AV Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	17551.819	26.73	18.19	44.92	54.00	-9.08	AV
2	17962.4953	27.27	19.17	46.44	54.00	-7.56	AV

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

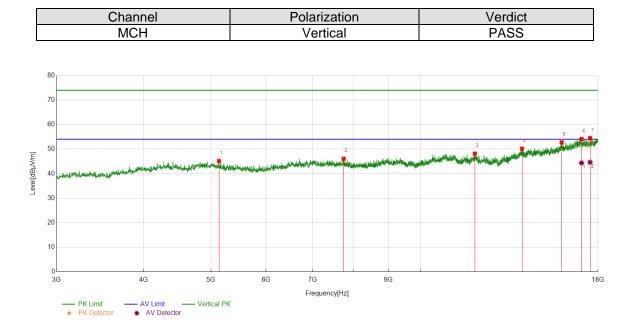


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	5025.2532	39.25	5.75	45.00	74.00	-29.00	Peak
2	7168.6461	37.46	8.51	45.97	74.00	-28.03	Peak
3	8903.2379	38.64	8.69	47.33	74.00	-26.67	Peak
4	11144.143	37.40	11.42	48.82	74.00	-25.18	Peak
5	15957.8697	37.00	16.51	53.51	74.00	-20.49	Peak
6	17167.3959	36.33	17.87	54.20	74.00	-19.80	Peak
7	17686.8359	35.68	18.27	53.95	74.00	-20.05	Peak

AV Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	17167.3959	26.45	17.87	44.32	54.00	-9.68	AV
2	17686.8359	26.21	18.27	44.48	54.00	-9.52	AV

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

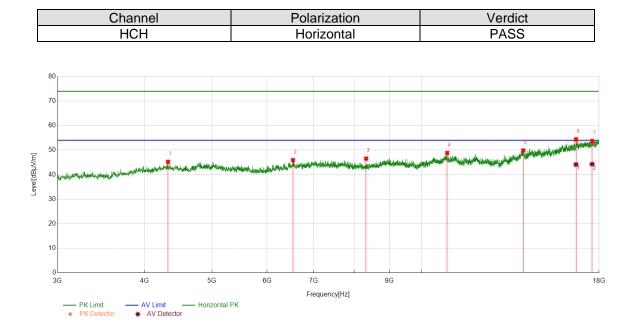


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	5135.892	39.80	5.35	45.15	74.00	-28.85	Peak
2	7757.4697	38.15	7.90	46.05	74.00	-27.95	Peak
3	11974.8719	36.41	11.74	48.15	74.00	-25.85	Peak
4	13996.3745	36.04	14.13	50.17	74.00	-23.83	Peak
5	15957.8697	36.24	16.51	52.75	74.00	-21.25	Peak
6	17041.7552	35.67	18.30	53.97	74.00	-20.03	Peak
7	17533.0666	36.47	17.84	54.31	74.00	-19.69	Peak

AV Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	17041.7552	26.07	18.30	44.37	54.00	-9.63	AV
2	17533.0666	26.79	17.84	44.63	54.00	-9.37	AV

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

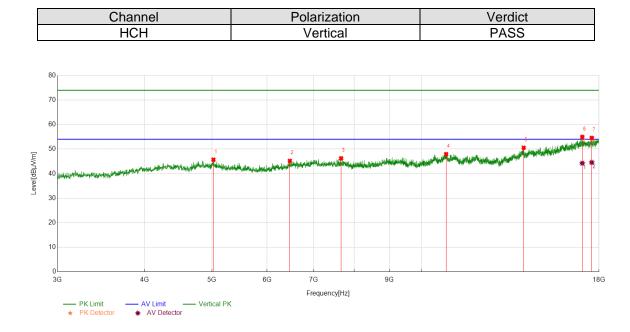


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	4323.9155	40.53	4.72	45.25	74.00	-28.75	Peak
2	6538.5673	38.10	7.82	45.92	74.00	-28.08	Peak
3	8329.4162	39.07	7.48	46.55	74.00	-27.45	Peak
4	10890.9864	37.25	11.60	48.85	74.00	-25.15	Peak
5	14005.7507	35.61	14.24	49.85	74.00	-24.15	Peak
6	16679.835	36.47	17.90	54.37	74.00	-19.63	Peak
7	17591.1989	36.18	17.50	53.68	74.00	-20.32	Peak

AV Result:

No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	16679.835	26.23	17.90	44.13	54.00	-9.87	AV
2	17591.1989	26.79	17.50	44.29	54.00	-9.71	AV

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

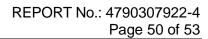


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	5025.2532	39.94	5.75	45.69	74.00	-28.31	Peak
2	6471.0589	37.78	7.42	45.20	74.00	-28.80	Peak
3	7667.4584	38.21	8.03	46.24	74.00	-27.76	Peak
4	10853.4817	36.26	11.68	47.94	74.00	-26.06	Peak
5	14028.2535	35.98	14.56	50.54	74.00	-23.46	Peak
6	17028.6286	36.59	18.42	55.01	74.00	-18.99	Peak
7	17572.4466	36.18	18.18	54.36	74.00	-19.64	Peak

AV Result:

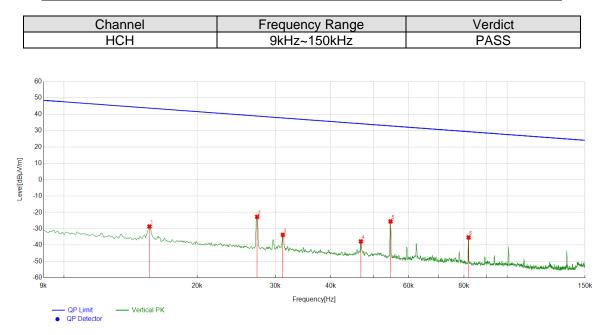
No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	[MHz]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
1	17028.6286	25.83	18.42	44.25	54.00	-9.75	AV
2	17572.4466	26.38	18.18	44.56	54.00	-9.44	AV

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.
- 4. Peak: Peak detector.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





9.4. SPURIOUS EMISSIONS BELOW 30MHz



SPURIOUS EMISSIONS Below 30MHz (WORST CASE CONFIGURATION-FACE ON)

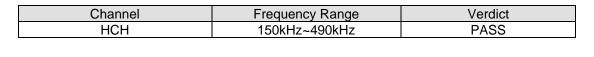
No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.0156	33.24	-61.89	-28.65	43.75	-72.40	Peak
2	0.0273	39.05	-61.77	-22.72	38.87	-61.59	Peak
3	0.0312	28.04	-61.74	-33.70	37.71	-71.41	Peak
4	0.0468	24.02	-61.74	-37.72	34.19	-71.91	Peak
5	0.0546	36.26	-61.75	-25.49	32.86	-58.35	Peak
6	0.0819	26.53	-61.83	-35.30	29.33	-64.63	Peak

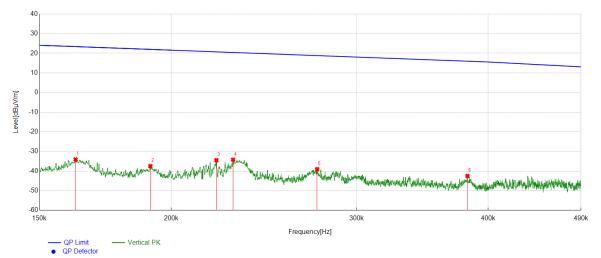
Note: 1. Measurement = Reading Level + Correct Factor.

2. Result 300m= Result 3m-80 dBuV/m

3. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.



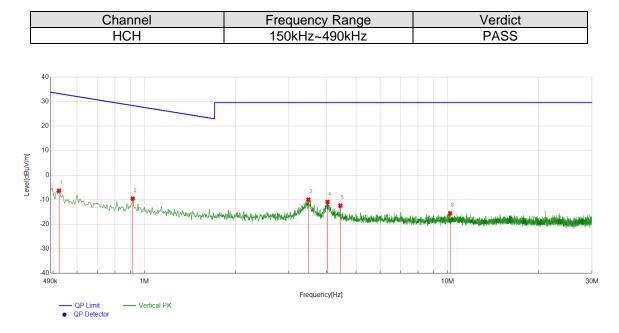




No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.1623	27.75	-61.85	-34.10	23.40	-57.50	Peak
2	0.1911	24.36	-61.86	-37.50	21.98	-59.48	Peak
3	0.2208	27.39	-61.87	-34.48	20.72	-55.20	Peak
4	0.229	27.68	-61.87	-34.19	20.40	-54.59	Peak
5	0.2752	22.84	-61.89	-39.05	18.81	-57.86	Peak
6	0.3823	19.39	-61.90	-42.51	15.95	-58.46	Peak

- 2. Result 300m= Result 3m-80 dBuV/m
- 3. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.





No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.5225	15.58	-21.89	-6.31	33.24	-39.55	Peak
2	0.915	12.35	-21.87	-9.52	28.38	-37.90	Peak
3	3.4767	11.74	-21.75	-10.01	29.54	-39.55	Peak
4	4.0197	10.85	-21.74	-10.89	29.54	-40.43	Peak
5	4.43	9.33	-21.74	-12.41	29.54	-41.95	Peak
6	10.1998	6.06	-21.59	-15.53	29.54	-45.07	Peak

Note: 1. Measurement = Reading Level + Correct Factor.

- 2. Result 30m= Result 3m-40 dBuV/m
- 3. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

Note: All constructions and test modes have been tested, only the worst data record in the report.

10. ANTENNA REQUIREMENTS

APPLICABLE REQUIREMENTS

Please refer to FCC §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Please refer to FCC §15.247(b)(4)

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Complies

END OF REPORT