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# FCC Test Report

**FCC ID** : SQGBT700  
**Equipment** : Class 1 Bluetooth Data Module  
**Model No.** : BT740-SA, BT730-SA, BT740-SC, BT730-SC  
**Brand Name** : Laird  
**Applicant** : Laird Technologies  
**Address** : 11160 Thompson Ave. / Lenexa, Kansas /  
66219 / USA  
**Standard** : 47 CFR FCC Part 15.247  
**Received Date** : Mar. 21, 2013  
**Tested Date** : Mar. 21 ~ Apr. 09, 2013

We, International Certification Corp., would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It may be duplicated completely for legal use with the approval of the applicant. It shall not be reproduced except in full without the written approval of our laboratory.

Approved & Reviewed by:

  
\_\_\_\_\_  
Gary Chang / Manager





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## Release Record

Report No.	Version	Description	Issued Date
FR332501	Rev. 01	Initial issue	Apr. 22, 2013



## Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 11.317MHz 10.19 (Margin 39.81dB) - AV	Pass
15.247(d) 15.209	Radiated Emissions	[dBuV/m at 3m]: 7323.00MHz 73.00 (Margin 1.00dB) - Peak	Pass
15.247(d)	Band Edge	Meet the requirement of limit	Pass
15.247(b)(1)	Conducted Output Power	Power [dBm]: BR: 19.34 EDR: 20.01	Pass
15.247(a)(1)(iii)	Number of Hopping Channels	Meet the requirement of limit	Pass
15.247(a)(1)	Hopping Channel Separation	Meet the requirement of limit	Pass
15.247(a)(1)(iii)	Dwell Time	Meet the requirement of limit	Pass
15.203	Antenna Requirement	Meet the requirement of limit	Pass



# 1 General Description

## 1.1 Information

### 1.1.1 Product Details

The following models are provided to this EUT.

Model Name	Description	Difference
BT740-SA	Class 1 Bluetooth Data Module	CCL Interface Express Subsystem 2.1+EDR. Integrated Antenna
BT740-SC	Class 1 Bluetooth Data Module	CCL Interface Express Subsystem 2.1+EDR. No integrated antenna, only U.FL RF connector for external antenna
BT730-SA	Class 1 Bluetooth Data Module	CSR Unified Stack 2.0 EDR. Integrated Antenna.
BT730-SC	Class 1 Bluetooth Data Module	CSR Unified Stack 2.0 EDR. No integrated antenna, only U.FL RF connector for external antenna
<ul style="list-style-type: none"> <li>✦ Hardware is the same on all of these modules. Only difference is the Bluetooth firmware installed.</li> <li>✦ The above models, model BT740-SA and BT740-SC were selected as representative ones for the final test and only its data was recorded in this report.</li> </ul>		

### 1.1.2 Specification of the Equipment under Test (EUT)

RF General Information				
Frequency Range (MHz)	Bluetooth Mode	Ch. Frequency (MHz)	Channel Number	Data Rate
2400-2483.5	BR V2.1	2402-2480	0-78 [79]	1 Mbps
2400-2483.5	EDR V2.1	2402-2480	0-78 [79]	2 Mbps
2400-2483.5	EDR V2.1	2402-2480	0-78 [79]	3 Mbps
<p>Note 1: RF output power specifies that Maximum Peak Conducted Output Power.</p> <p>Note 2: Bluetooth BR uses a GFSK.</p> <p>Note 3: Bluetooth EDR uses a combination of <math>\pi/4</math>-DQPSK and 8DPSK.</p>				

### 1.1.3 Antenna Details

Ant. No.	EUT Model	Type	Gain (dBi)	Connector	ANT Brand/Model
1	BT740-SA BT730-SA	Chip	0.5	---	ACX/AT3216-B2R7HAAT
2	BT740-SC BT730-SC	ceramic Patch	2	UFL	EZURiO/ACC-008
3		PCB	2	UFL	Laird/NanoBlue-IP04(MAF94045)
4		Dipole	2	UFL	NEARSON/S181FL-L-RMM-2450S
5		Dipole	2	UFL	Laird/WTC2450-IP04-K
6		Dipole	1.5	UFL	Laird/WRR2400-IP04-B

**Note:** Ant 4 and Ant 5 had been pretested and found that Ant 4 was the worst case and was selected for final test.



### 1.1.4 EUT Operational Condition

<b>Supply Voltage</b>	<input type="checkbox"/> AC mains	<input checked="" type="checkbox"/> DC	
<b>Type of DC Source</b>	<input type="checkbox"/> Internal DC supply	<input type="checkbox"/> External DC adapter	<input checked="" type="checkbox"/> 3.3Vdc & 5Vdc from host

### 1.1.5 Accessories

N/A

### 1.1.6 Channel List

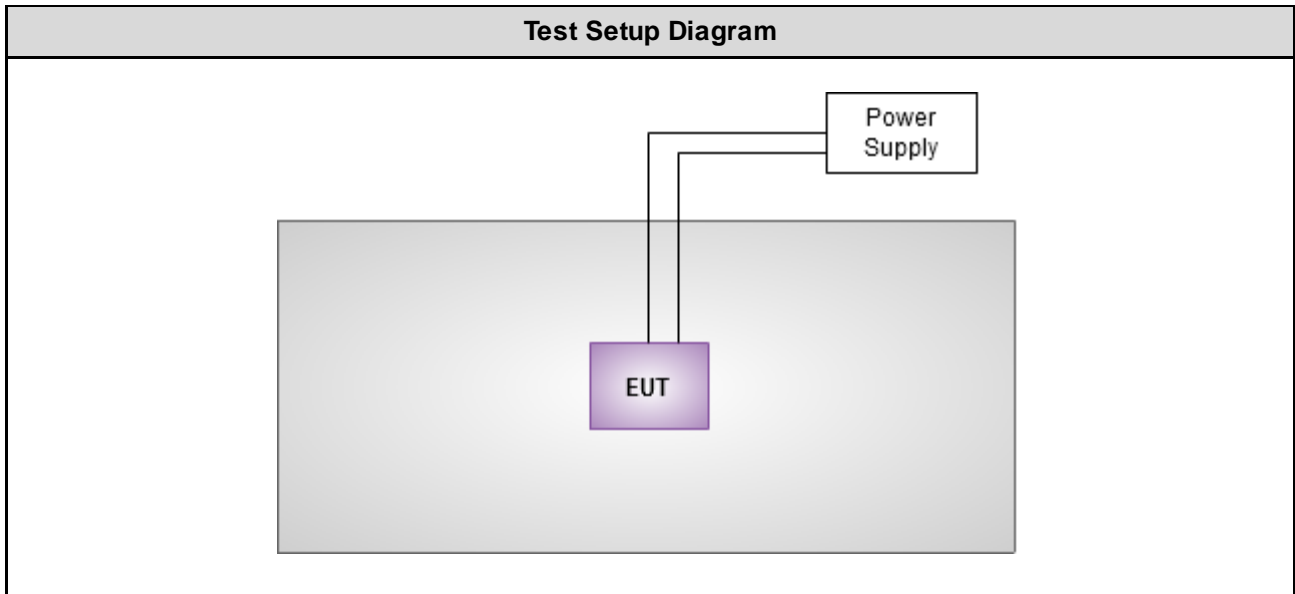
Frequency band (MHz)				2400~2483.5			
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	20	2422	40	2442	60	2462
1	2403	21	2423	41	2443	61	2463
2	2404	22	2424	42	2444	62	2464
3	2405	23	2425	43	2445	63	2465
4	2406	24	2426	44	2446	64	2466
5	2407	25	2427	45	2447	65	2467
6	2408	26	2428	46	2448	66	2468
7	2409	27	2429	47	2449	67	2469
8	2410	28	2430	48	2450	68	2470
9	2411	29	2431	49	2451	69	2471
10	2412	30	2432	50	2452	70	2472
11	2413	31	2433	51	2453	71	2473
12	2414	32	2434	52	2454	72	2474
13	2415	33	2435	53	2455	73	2475
14	2416	34	2436	54	2456	74	2476
15	2417	35	2437	55	2457	75	2477
16	2418	36	2438	56	2458	76	2478
17	2419	37	2439	57	2459	77	2479
18	2420	38	2440	58	2460	78	2480
19	2421	39	2441	59	2461		



### 1.1.7 Test Tool

Test tool	Blue test 3 V2.5
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### 1.2 Test Setup Chart



### 1.3 Local Support Equipment List

Support Equipment List						
No.	Equipment	Brand	Model	S/N	FCC ID	Length (m)
1	Power Supply	GW	GPR-3060D	---	---	DC line, 10m



## 1.4 The Equipment List

EMI	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
EMC Receiver	R&S	ESCS 30	100169	Dec. 12, 2012	Dec. 11, 2013
LISN	SCHWARZBECK MESS-ELEKTRONIK	Schwarzbeck 8127	8127-667	Dec. 04, 2012	Dec. 03, 2013
LISN (Support Unit)	SCHWARZBECK MESS-ELEKTRONIK	Schwarzbeck 8127	8127-666	Dec. 04, 2012	Dec. 03, 2013
ISN	TESEQ	ISN T800	23342	Feb. 17, 2013	Feb. 16, 2014
ISN	TESEQ	ISN T400	21653	Jun. 22, 2012	Jun. 21, 2013
ISN	TESEQ	ISN T8-Cat6	27262	Sep. 17, 2012	Sep. 16, 2013
ISN	TESEQ	ISN ST08	22589	Jan. 24, 2013	Jan. 23, 2014
RF Current Probe	FCC	F-33-4	121630	Dec. 04, 2012	Dec. 03, 2013
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Dec. 25, 2012	Dec. 24, 2013
ESH3-Z6 V-Network	R&S	ESH3-Z6	100920	Nov 21, 2012	Nov 20, 2013
Note: Calibration Interval of instruments listed above is one year.					

EMI	Radiated Emission above 1GHz				
Test Site	966 chamber 2 / (03CH02-WS)				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
3m semi-anechoic chamber	RIKEN	SAC-03	03CH02-WS	Jan. 02, 2013	Jan. 01, 2014
Amplifier	Burgeon	BPA-530	100218	Dec. 14, 2012	Dec. 13, 2013
Amplifier	Agilent	83017A	MY39501309	Dec. 18, 2012	Dec. 17, 2013
Spectrum Analyzer	R&S	FSV40	101499	Jan. 28, 2013	Jan. 27, 2014
Horn Antenna 1G-18G	Schwarzbeck	BBHA 9120D	BBHA 9120 D 1095	Jan. 29, 2013	Jan. 28, 2014
Receiver	R&S	ESR	101657	Jan. 30, 2013	Jan. 29, 2014
Bilog Antenna	Schwarzbeck	VULB9168	VULB9168-524	Jan. 11, 2013	Jan. 10, 2014
RF Cable-R03m	Woken	CFD400NL-LW	CFD400NL-003	Dec. 25, 2012	Dec. 24, 2013
RF Cable-R10m	Woken	CFD400NL-LW	CFD400NL-004	Dec. 25, 2012	Dec. 24, 2013
control	EM Electronics	EM1000	060608	N/A	N/A
Note: Calibration Interval of instruments listed above is one year.					





<b>RF</b>	RF Conducted				
<b>Test Site</b>	RF Conducted (TH01-WS)				
<b>Instrument</b>	<b>Manufacturer</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Calibration Date</b>	<b>Calibration Until</b>
Spectrum Analyzer	R&S	FSV 40	101486	Nov. 14, 2012	Nov. 13, 2013
Spectrum Analyzer	R&S	FSP 40	100593	Aug. 14, 2012	Aug. 13, 2013
DC Power Source	G.W.	GPC-6030D	C671845	Jun. 19, 2012	Jun. 18, 2013
AC Power Source	G.W.	APS-9102	EL920581	Jul. 02, 2012	Jul. 01, 2013
Temp. and Humidity Chamber	Giant Force	GTH-225-20-SP-SD	MAA1112-007	Nov. 21, 2012	Nov. 20, 2013
Signal Generator	R&S	SMR40	100116	Jun. 26, 2012	Jun. 25, 2013
Power Sensor	Anritsu	MA2411B	1027452	Sep. 08, 2012	Sep. 07, 2013
Power Meter	Anritsu	ML2495A	1124009	Sep. 08, 2012	Sep. 07, 2013
RF Cable-2m	HUBER+SUHNER	SUCOFLEX_104	SN 345675/4	NA	NA
RF Cable-3m	HUBER+SUHNER	SUCOFLEX_104	SN 345669/4	NA	NA

## 1.5 Test Standards

According to the specification of EUT, the EUT must comply with following standards and KDB documents.

47 CFR FCC Part 15.247

FCC Public notice DA00-705

ANSI C63.10-2009

Note: The EUT has been tested and complied with FCC part 15B requirement. FCC Part 15B test results are issued to another report.

## 1.6 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

Measurement Uncertainty	
Parameters	Uncertainty
Bandwidth	±35.286 Hz
Conducted power	±0.536 dB
Frequency error	±35.286 Hz
Temperature	±0.3 °C
Conducted emission	±2.946 dB
AC conducted emission	±2.43 dB
Radiated emission	±2.49 dB



## 2 Test Configuration

### 2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
AC Conduction	CO01-WS	22°C / 52%	Skys Huang
Radiated Emissions	03CH02-WS	25°C / 65%	Anderson Hong Aska Huang
RF Conducted	TH01-WS	23°C / 61%	Felix Sung

➤ FCC site registration No.: 657002

➤ IC site registration No.: 10807A-2

### 2.2 The Worst Test Modes and Channel Details

The Worst Test Modes and Channel Details	
Test Item(s)	Conducted Emissions
Modulation, Data rate	8DPSK/3Mbps
Test channel (MHz)	2402
Packet Type	3DH5
Test Condition	Continoustransmitting
Test Mode	Operating Mode Description
A	Model BT740-SA, Chip antenna
B	Model BT740-SC, ceramic Patch antenna
C	Model BT740-SC, PCB antenna
D	Model BT740-SC, Dipole antenna

The Worst Test Modes and Channel Details	
Test Item(s)	Conducted Output Power, Hopping Channel Separation, Band Edge Number Of Hopping Channels, Dwell Time
Modulation, Data rate	GFSK/1Mbps, 8DPSK/3Mbps
Test channel (MHz)	2402, 2441, 2480
Packet Type	GFSK/DH5, 8DPSK/3DH5
Test Condition	Continoustransmitting
Test Mode	Operating Mode Description
A	Model BT740-SA
B	Model BT740-SC



The Worst Test Modes and Channel Details	
<b>Test Item(s)</b>	<b>Radiated emission (below 1GHz)</b>
<b>Modulation, Data rate</b>	8DPSK/3Mbps
<b>Test channel (MHz)</b>	2402
<b>Packet Type</b>	3DH5
<b>Test Condition</b>	Continoustransmitting
<b>Test Mode</b>	Operating Mode Description
A	Model BT740-SA, Chip antenna
B	Model BT740-SC, ceramic Patch antenna
C	Model BT740-SC, PCB antenna
D	Model BT740-SC, Dipole antenna
<b>Test Item(s)</b>	<b>Radiated emission (above 1GHz)</b>
<b>Modulation, Data rate</b>	GFSK/1Mbps, 8DPSK/3Mbps
<b>Test channel (MHz)</b>	2402, 2441, 2480
<b>Packet Type</b>	GFSK/DH5, 8DPSK/3DH5
<b>Test Condition</b>	Continoustransmitting
<b>Test Mode</b>	Operating Mode Description
A	Model BT740-SA, Chip antenna
B	Model BT740-SC, ceramic Patch antenna
C	Model BT740-SC, PCB antenna
D	Model BT740-SC, Dipole antenna
<b>Note:</b>	
1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The worst orientation was found at <b>Y-plane</b> for model BT740-SA and <b>Z-plane</b> for model BT740-SC. The test results were shown in this report.	
2. The EUT supports two DC voltage options, 3.3Vdc and 5Vdc. Both options were assessed and 5Vdc was found to be the worst case and was selected for the final test.	



### 3 Transmitter Test Results

#### 3.1 Conducted Emissions

##### 3.1.1 Limit of Conducted Emissions

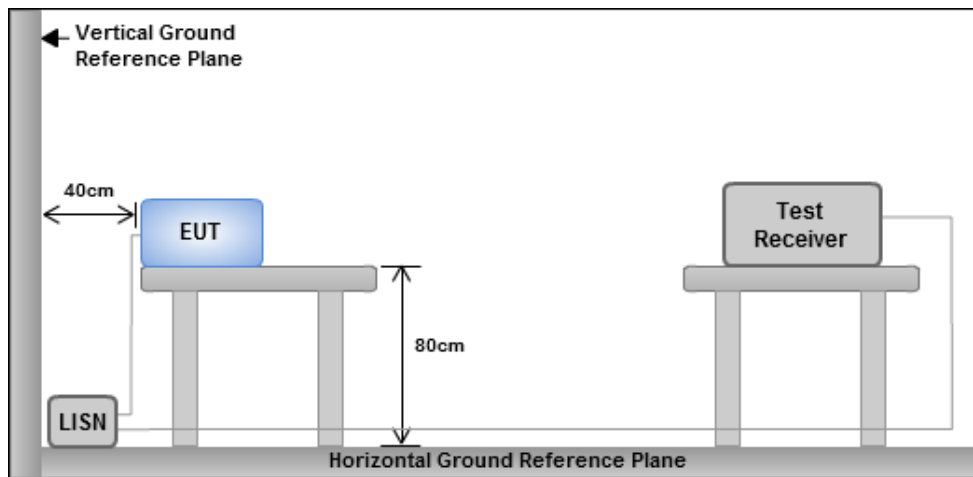
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

Note 1: \* Decreases with the logarithm of the frequency.

##### 3.1.2 Test Procedures

1. The device is placed on a test table, raised 80 cm above the reference ground plane. The vertical conducting plane is located 40 cm to the rear of the device.
2. The device is connected to line impedance stabilization network (LISN) and other accessories are connected to other LISN. Measured levels of AC power line conducted emission are across the 50 Ω LISN port.
3. AC conducted emission measurements is made over frequency range from 150 kHz to 30 MHz.

##### 3.1.3 Test Setup

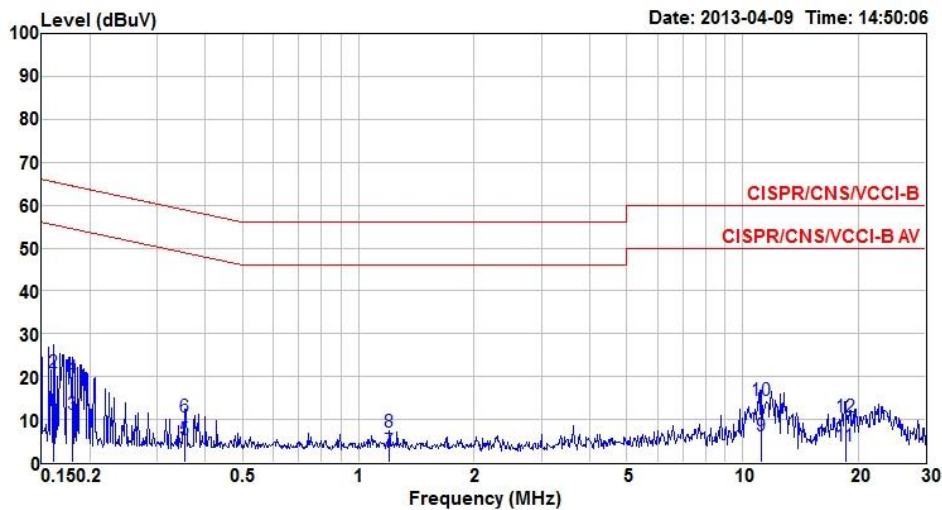


- Note: 1. Support units were connected to second LISN.  
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes



### 3.1.4 Test Result of Conducted Emissions

Power Phase	Line	Test Freq. (MHz)	2402
Test Mode	A		

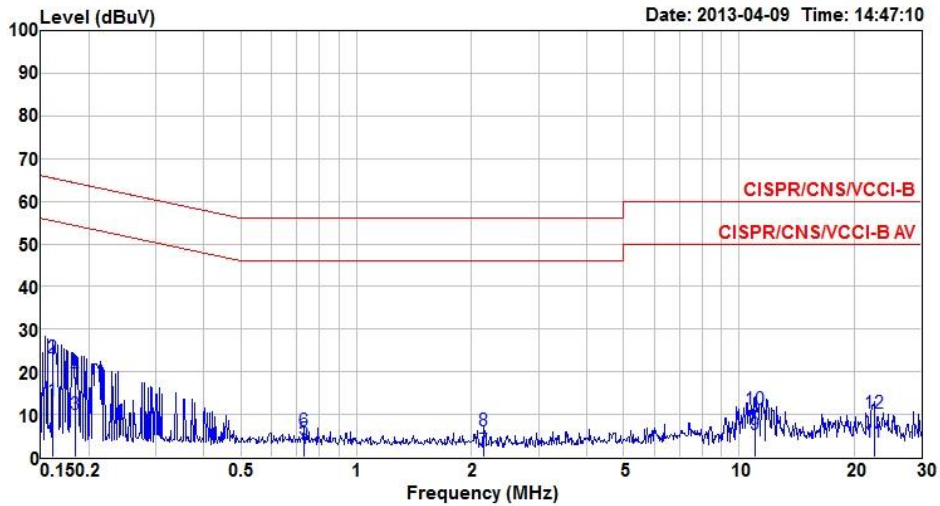


	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.161	11.77	55.43	-43.66	11.65	0.03	0.09	Average
2	0.161	21.00	65.43	-44.43	20.88	0.03	0.09	QP
3	0.181	11.17	54.46	-43.29	11.00	0.03	0.14	Average
4	0.181	19.69	64.46	-44.77	19.52	0.03	0.14	QP
5	0.354	5.44	48.87	-43.43	5.34	0.03	0.07	Average
6	0.354	10.50	58.87	-48.37	10.40	0.03	0.07	QP
7	1.203	2.56	46.00	-43.44	2.45	0.04	0.07	Average
8	1.203	6.98	56.00	-49.02	6.87	0.04	0.07	QP
9	11.198	6.30	50.00	-43.70	6.03	0.15	0.12	Average
10	11.198	14.42	60.00	-45.58	14.15	0.15	0.12	QP
11	18.524	3.77	50.00	-46.23	3.48	0.12	0.17	Average
12	18.524	10.54	60.00	-49.46	10.25	0.12	0.17	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).  
 2: Over Limit (dBuV) = Limit Line (dBuV) – Level (dBuV).



Power Phase	Neutral	Test Freq. (MHz)	2402
Test Mode	A		

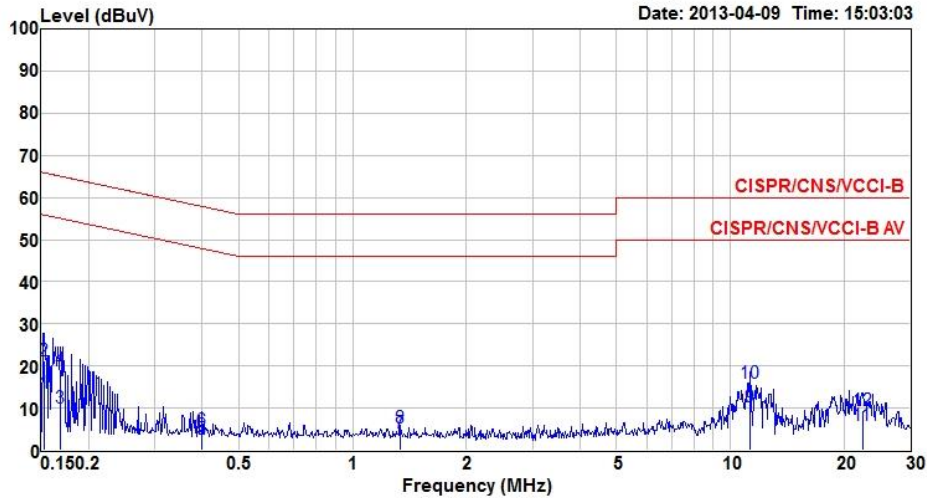


	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.161	13.36	55.43	-42.07	13.25	0.02	0.09	Average
2	0.161	23.27	65.43	-42.16	23.16	0.02	0.09	QP
3	0.184	10.13	54.28	-44.15	9.96	0.02	0.15	Average
4	0.184	18.77	64.28	-45.51	18.60	0.02	0.15	QP
5	0.727	4.12	46.00	-41.88	3.98	0.10	0.04	Average
6	0.727	6.24	56.00	-49.76	6.10	0.10	0.04	QP
7	2.155	1.62	46.00	-44.38	1.41	0.04	0.17	Average
8	2.155	6.27	56.00	-49.73	6.06	0.04	0.17	QP
9	11.021	5.19	50.00	-44.81	4.94	0.14	0.11	Average
10	11.021	11.34	60.00	-48.66	11.09	0.14	0.11	QP
11	22.535	3.63	50.00	-46.37	3.13	0.14	0.36	Average
12	22.535	10.37	60.00	-49.63	9.87	0.14	0.36	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).  
 2: Over Limit (dBuV) = Limit Line (dBuV) – Level (dBuV).



Power Phase	Line	Test Freq. (MHz)	2402
Test Mode	B		

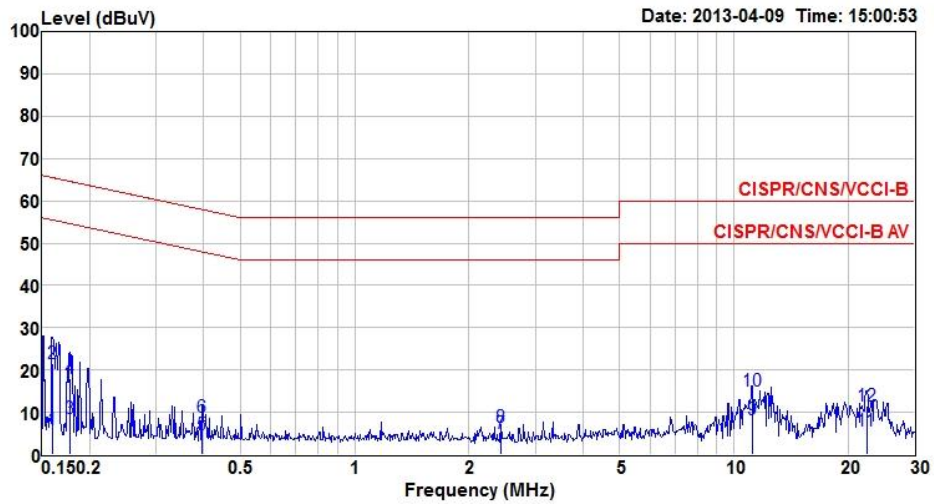


	Freq	Level	Limit	Over	Read	LISN	cable	
	MHz	dBuV	Line	Limit	Level	factor	loss	Remark
			dBuV	dB	dBuV	dB	dB	
1	0.152	13.47	55.87	-42.40	13.37	0.03	0.07	Average
2	0.152	21.11	65.87	-44.76	21.01	0.03	0.07	QP
3	0.169	10.16	55.03	-44.87	10.02	0.03	0.11	Average
4	0.169	19.30	65.03	-45.73	19.16	0.03	0.11	QP
5	0.400	2.74	47.86	-45.12	2.66	0.03	0.05	Average
6	0.400	4.85	57.86	-53.01	4.77	0.03	0.05	QP
7	1.338	4.27	46.00	-41.73	4.14	0.04	0.09	Average
8	1.338	5.23	56.00	-50.77	5.10	0.04	0.09	QP
9	11.317	10.19	50.00	-39.81	9.91	0.16	0.12	Average
10	11.317	15.93	60.00	-44.07	15.65	0.16	0.12	QP
11	22.416	5.82	50.00	-44.18	5.33	0.14	0.35	Average
12	22.416	9.53	60.00	-50.47	9.04	0.14	0.35	QP

Note 1: Level (dBUV) = Read Level (dBUV) + LISN Factor (dB) + Cable Loss (dB).  
 2: Over Limit (dBUV) = Limit Line (dBUV) – Level (dBUV).



Power Phase	Neutral	Test Freq. (MHz)	2402
Test Mode	B		



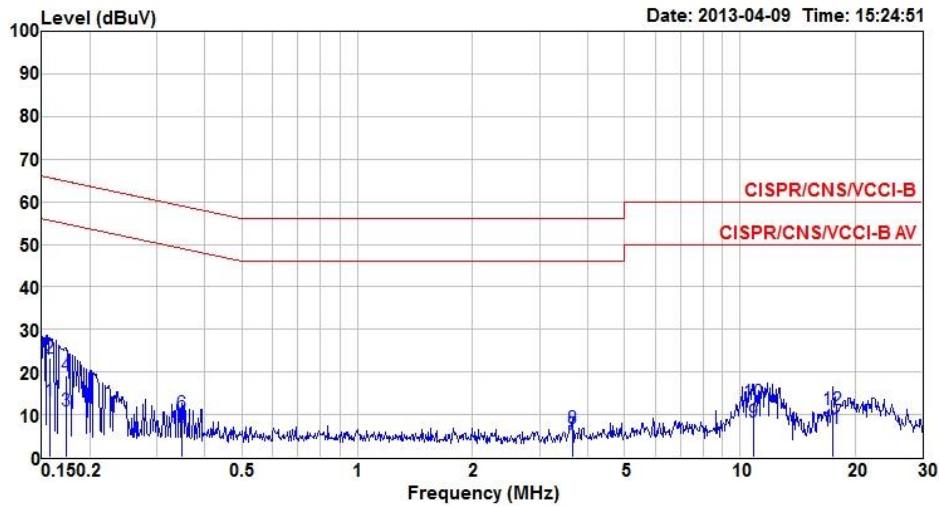
	Freq	Level	Limit	Over	Read	LISN	cable	Remark
	MHz	dBuV	Line	Limit	Level	factor	loss	
			dBuV	dB	dBuV	dB	dB	
1	0.160	5.95	55.47	-49.52	5.84	0.02	0.09	Average
2	0.160	21.42	65.47	-44.05	21.31	0.02	0.09	QP
3	0.178	8.53	54.59	-46.06	8.38	0.02	0.13	Average
4	0.178	18.04	64.59	-46.55	17.89	0.02	0.13	QP
5	0.396	4.65	47.95	-43.30	4.58	0.02	0.05	Average
6	0.396	8.84	57.95	-49.11	8.77	0.02	0.05	QP
7	2.435	5.13	46.00	-40.87	4.91	0.04	0.18	Average
8	2.435	6.65	56.00	-49.35	6.43	0.04	0.18	QP
9	11.198	8.39	50.00	-41.61	8.13	0.14	0.12	Average
10	11.198	14.95	60.00	-45.05	14.69	0.14	0.12	QP
11	22.416	5.64	50.00	-44.36	5.15	0.14	0.35	Average
12	22.416	11.49	60.00	-48.51	11.00	0.14	0.35	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).  
 2: Over Limit (dBuV) = Limit Line (dBuV) – Level (dBuV).





Power Phase	Line	Test Freq. (MHz)	2402
Test Mode	C		

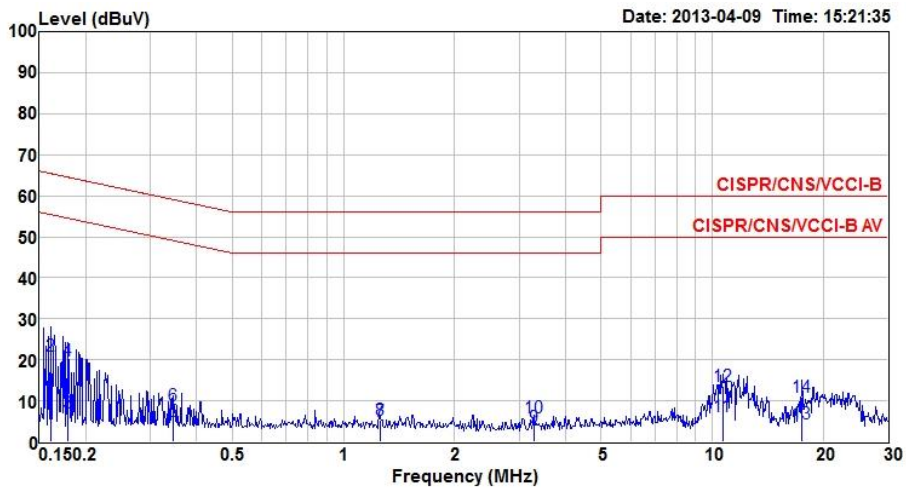


	Freq	Level	Limit	Over	Read	LISN	cable	
	MHz	dBuV	Line	Limit	Level	factor	loss	Remark
			dBuV	dB	dBuV	dB	dB	
1	0.157	13.14	55.60	-42.46	13.03	0.03	0.08	Average
2	0.157	23.30	65.60	-42.30	23.19	0.03	0.08	QP
3	0.173	10.89	54.81	-43.92	10.74	0.03	0.12	Average
4	0.173	19.26	64.81	-45.55	19.11	0.03	0.12	QP
5	0.348	6.95	49.00	-42.05	6.84	0.03	0.08	Average
6	0.348	10.40	59.00	-48.60	10.29	0.03	0.08	QP
7	3.661	5.26	46.00	-40.74	4.97	0.06	0.23	Average
8	3.661	6.71	56.00	-49.29	6.42	0.06	0.23	QP
9	10.847	8.32	50.00	-41.68	8.07	0.14	0.11	Average
10	10.847	12.95	60.00	-47.05	12.70	0.14	0.11	QP
11	17.475	6.78	50.00	-43.22	6.50	0.12	0.16	Average
12	17.475	11.34	60.00	-48.66	11.06	0.12	0.16	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).  
 2: Over Limit (dBuV) = Limit Line (dBuV) – Level (dBuV).



Power Phase	Neutral	Test Freq. (MHz)	2402
Test Mode	C		

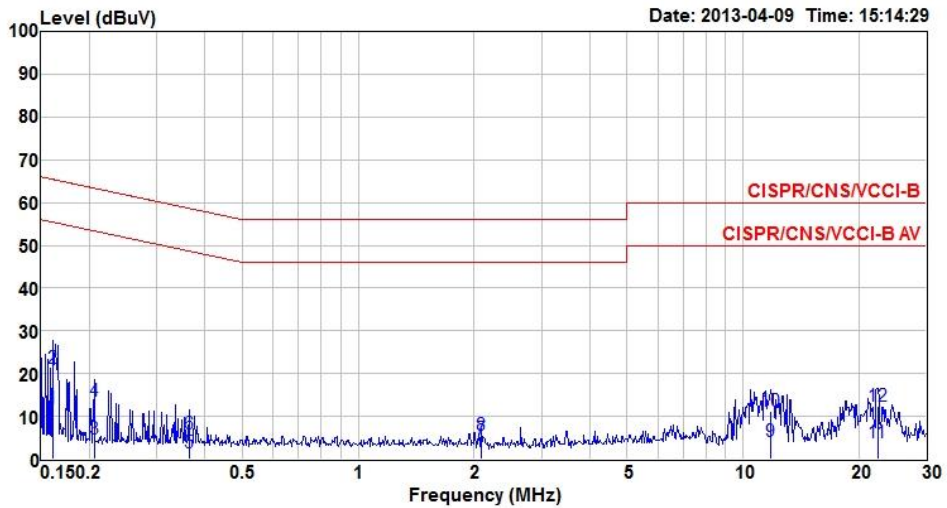


	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.161	8.55	55.43	-46.88	8.44	0.02	0.09	Average
2	0.161	21.07	65.43	-44.36	20.96	0.02	0.09	QP
3	0.179	7.07	54.55	-47.48	6.92	0.02	0.13	Average
4	0.179	19.84	64.55	-44.71	19.69	0.02	0.13	QP
5	0.345	5.00	49.09	-44.09	4.90	0.02	0.08	Average
6	0.345	8.85	59.09	-50.24	8.75	0.02	0.08	QP
7	1.255	4.89	46.00	-41.11	4.78	0.03	0.08	Average
8	1.255	5.23	56.00	-50.77	5.12	0.03	0.08	QP
9	3.293	3.57	46.00	-42.43	3.30	0.05	0.22	Average
10	3.293	5.85	56.00	-50.15	5.58	0.05	0.22	QP
11	10.676	6.26	50.00	-43.74	6.02	0.13	0.11	Average
12	10.676	13.47	60.00	-46.53	13.23	0.13	0.11	QP
13	17.475	4.31	50.00	-45.69	4.04	0.11	0.16	Average
14	17.475	11.07	60.00	-48.93	10.80	0.11	0.16	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).  
 2: Over Limit (dBuV) = Limit Line (dBuV) – Level (dBuV).



<b>Power Phase</b>	Line	<b>Test Freq. (MHz)</b>	2402
<b>Test Mode</b>	D		

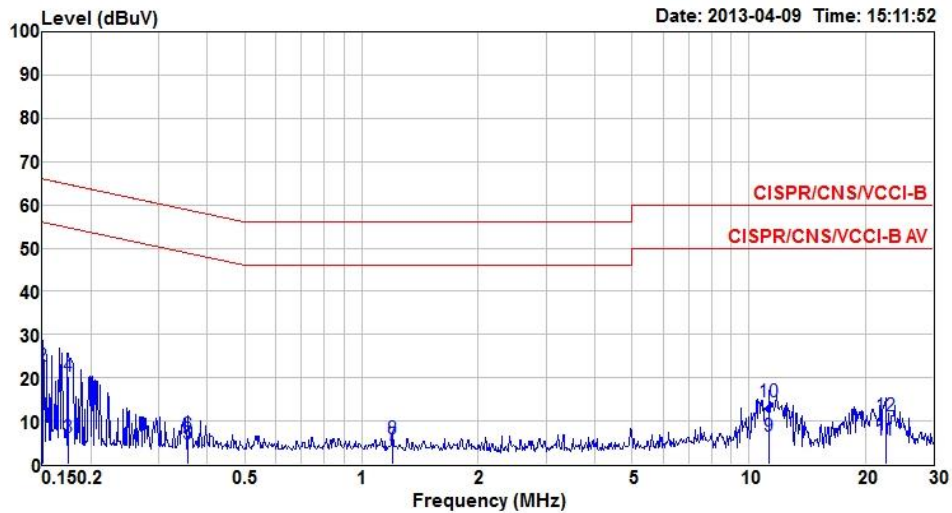


	Freq	Level	Limit	Over	Read	LISN	cable	Remark
	MHz	dBuV	Line	Limit	Level	factor	loss	
			dBuV	dB	dBuV	dB	dB	
1	0.161	11.72	55.43	-43.71	11.60	0.03	0.09	Average
2	0.161	21.14	65.43	-44.29	21.02	0.03	0.09	QP
3	0.206	4.75	53.36	-48.61	4.55	0.03	0.17	Average
4	0.206	13.49	63.36	-49.87	13.29	0.03	0.17	QP
5	0.363	1.50	48.65	-47.15	1.40	0.03	0.07	Average
6	0.363	5.91	58.65	-52.74	5.81	0.03	0.07	QP
7	2.088	4.61	46.00	-41.39	4.40	0.05	0.16	Average
8	2.088	5.63	56.00	-50.37	5.42	0.05	0.16	QP
9	11.807	4.20	50.00	-45.80	3.91	0.17	0.12	Average
10	11.807	11.26	60.00	-48.74	10.97	0.17	0.12	QP
11	22.416	3.92	50.00	-46.08	3.43	0.14	0.35	Average
12	22.416	12.39	60.00	-47.61	11.90	0.14	0.35	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).  
 2: Over Limit (dBuV) = Limit Line (dBuV) – Level (dBuV).



<b>Power Phase</b>	Neutral	<b>Test Freq. (MHz)</b>	2402
<b>Test Mode</b>	D		



	Freq	Level	Limit	Over	Read	LISN	cable	Remark
	MHz	dBuV	Line	Limit	Level	factor	loss	
			dBuV	dB	dBuV	dB	dB	
1	0.151	11.85	55.96	-44.11	11.77	0.02	0.06	Average
2	0.151	22.59	65.96	-43.37	22.51	0.02	0.06	QP
3	0.175	6.11	54.72	-48.61	5.97	0.02	0.12	Average
4	0.175	20.37	64.72	-44.35	20.23	0.02	0.12	QP
5	0.356	4.83	48.83	-44.00	4.74	0.02	0.07	Average
6	0.356	6.83	58.83	-52.00	6.74	0.02	0.07	QP
7	1.203	4.48	46.00	-41.52	4.38	0.03	0.07	Average
8	1.203	5.99	56.00	-50.01	5.89	0.03	0.07	QP
9	11.317	6.54	50.00	-43.46	6.27	0.15	0.12	Average
10	11.317	14.60	60.00	-45.40	14.33	0.15	0.12	QP
11	22.535	5.49	50.00	-44.51	4.99	0.14	0.36	Average
12	22.535	11.16	60.00	-48.84	10.66	0.14	0.36	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).  
 2: Over Limit (dBuV) = Limit Line (dBuV) – Level (dBuV).



### 3.2 Unwanted Emissions into Restricted Frequency Bands

#### 3.2.1 Limit of Unwanted Emissions into Restricted Frequency Bands

Restricted Band Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

**Note 1:**  
Quasi-Peak value is measured for frequency below 1GHz except for 9–90 kHz, 110–490 kHz frequency band. Peak and average value are measured for frequency above 1GHz. The limit on average radio frequency emission is as above table. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit

**Note 2:**  
Measurements may be performed at a distance other than what is specified provided. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor as below, Frequency at or above 30 MHz: 20 dB/decade Frequency below 30 MHz: 40 dB/decade.

#### 3.2.2 Test Procedures

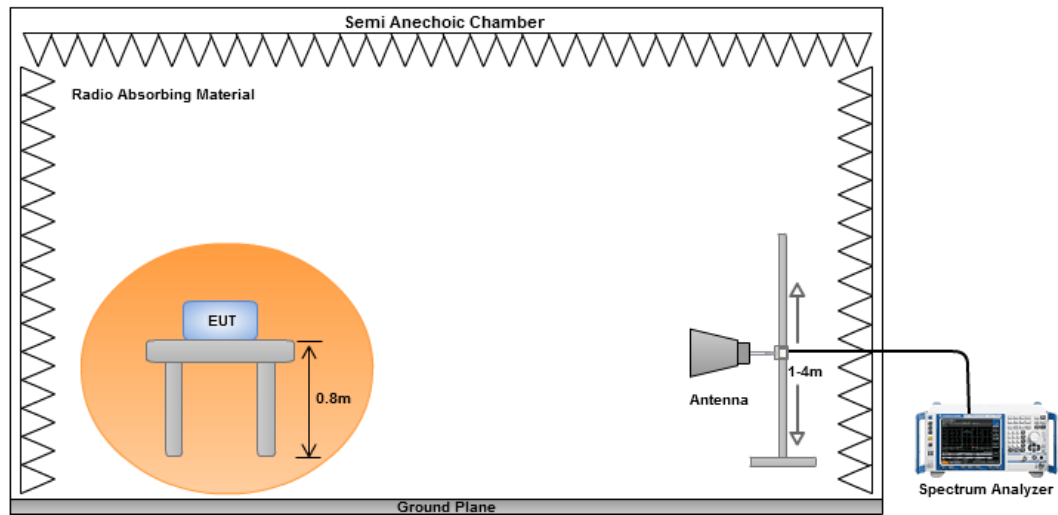
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. The EUT is placed at a height of 0.8 m test table above the ground plane.
2. Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m ~ 4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3 m.
3. This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

Note:

1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
  2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
  3. RBW=1MHz, VBW=10Hz and Peak detector is for average measured value of radiated emission above 1GHz
- DH5 packet is the worst case since DH5 has more TX slots than other packet types.
4. Hopping randomly between 79 channels is 1600 times per second (0.625 ms time slot). The duty factor is  $20 * \log(0.625 * 5 / 100) = -30.1 \text{ dB}$ . Average value = Peak reading + duty factor



### 3.2.3 Test Setup



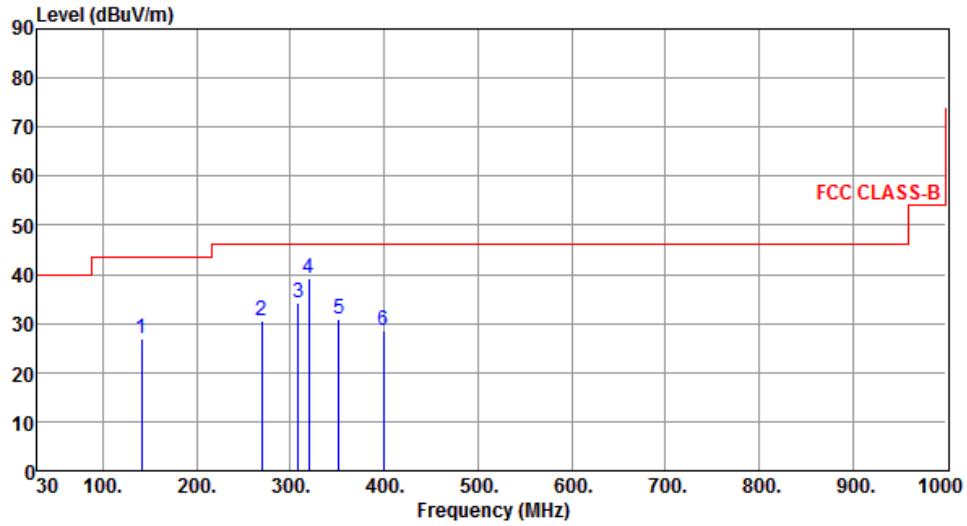


### 3.2.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

Polarization	Horizontal	Test Freq. (MHz)	2402																																																															
Test Mode	A																																																																	
<p>The graph plots Level (dBuV/m) on the y-axis (0 to 90) against Frequency (MHz) on the x-axis (30 to 1000). A red line represents the FCC CLASS-B limit, which is constant at 40 dBuV/m from 30 MHz to 100 MHz, then steps up to 45 dBuV/m from 100 MHz to 1000 MHz. Six blue vertical lines represent measured peaks, labeled 1 through 6. Peak 2 is the highest, exceeding the 45 dBuV/m limit.</p>																																																																		
	<table border="1"> <thead> <tr> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Limit dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>27.12</td> <td>46.00</td> <td>-18.88</td> <td>44.27</td> <td>-17.15</td> <td>Peak</td> <td>-----</td> <td>-----</td> </tr> <tr> <td>2</td> <td>39.65</td> <td>46.00</td> <td>-6.35</td> <td>54.76</td> <td>-15.11</td> <td>Peak</td> <td>-----</td> <td>-----</td> </tr> <tr> <td>3</td> <td>30.82</td> <td>46.00</td> <td>-15.18</td> <td>45.16</td> <td>-14.34</td> <td>Peak</td> <td>-----</td> <td>-----</td> </tr> <tr> <td>4</td> <td>29.93</td> <td>46.00</td> <td>-16.07</td> <td>43.84</td> <td>-13.91</td> <td>Peak</td> <td>-----</td> <td>-----</td> </tr> <tr> <td>5</td> <td>30.41</td> <td>46.00</td> <td>-15.59</td> <td>43.46</td> <td>-13.05</td> <td>Peak</td> <td>-----</td> <td>-----</td> </tr> <tr> <td>6</td> <td>30.94</td> <td>46.00</td> <td>-15.06</td> <td>37.23</td> <td>-6.29</td> <td>Peak</td> <td>-----</td> <td>-----</td> </tr> </tbody> </table>	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	27.12	46.00	-18.88	44.27	-17.15	Peak	-----	-----	2	39.65	46.00	-6.35	54.76	-15.11	Peak	-----	-----	3	30.82	46.00	-15.18	45.16	-14.34	Peak	-----	-----	4	29.93	46.00	-16.07	43.84	-13.91	Peak	-----	-----	5	30.41	46.00	-15.59	43.46	-13.05	Peak	-----	-----	6	30.94	46.00	-15.06	37.23	-6.29	Peak	-----	-----		
Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																										
1	27.12	46.00	-18.88	44.27	-17.15	Peak	-----	-----																																																										
2	39.65	46.00	-6.35	54.76	-15.11	Peak	-----	-----																																																										
3	30.82	46.00	-15.18	45.16	-14.34	Peak	-----	-----																																																										
4	29.93	46.00	-16.07	43.84	-13.91	Peak	-----	-----																																																										
5	30.41	46.00	-15.59	43.46	-13.05	Peak	-----	-----																																																										
6	30.94	46.00	-15.06	37.23	-6.29	Peak	-----	-----																																																										
<p>Note 1: Level (dBuV/m) = Read Level (dBuV/m) + Antenna Factor (dB) + Cable Loss (dB) - Preamp Factor (dB).            2: Over Limit (dBuV/m) = Limit Line (dBuV/m) - Level (dBuV/m).</p>																																																																		



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2402
<b>Test Mode</b>	A		



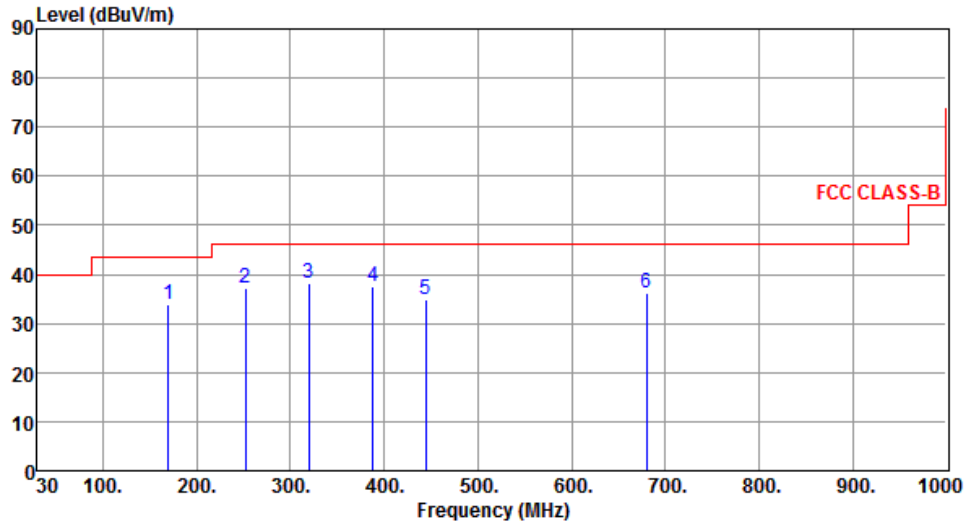
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	141.55	27.00	43.50	-16.50	43.65	-16.65	Peak	-----	-----
2	269.59	30.56	46.00	-15.44	47.06	-16.50	Peak	-----	-----
3	308.39	34.15	46.00	-11.85	49.54	-15.39	Peak	-----	-----
4	320.03	39.28	46.00	-6.72	54.39	-15.11	Peak	-----	-----
5	352.04	31.03	46.00	-14.97	45.37	-14.34	Peak	-----	-----
6	399.57	28.43	46.00	-17.57	41.48	-13.05	Peak	-----	-----

Note 1: Level (dBuV/m) = Read Level (dBuV/m) + Antenna Factor (dB) + Cable Loss (dB) - Preamp Factor (dB).  
 2: Over Limit (dBuV/m) = Limit Line (dBuV/m) – Level (dBuV/m).





<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2402
<b>Test Mode</b>	B		

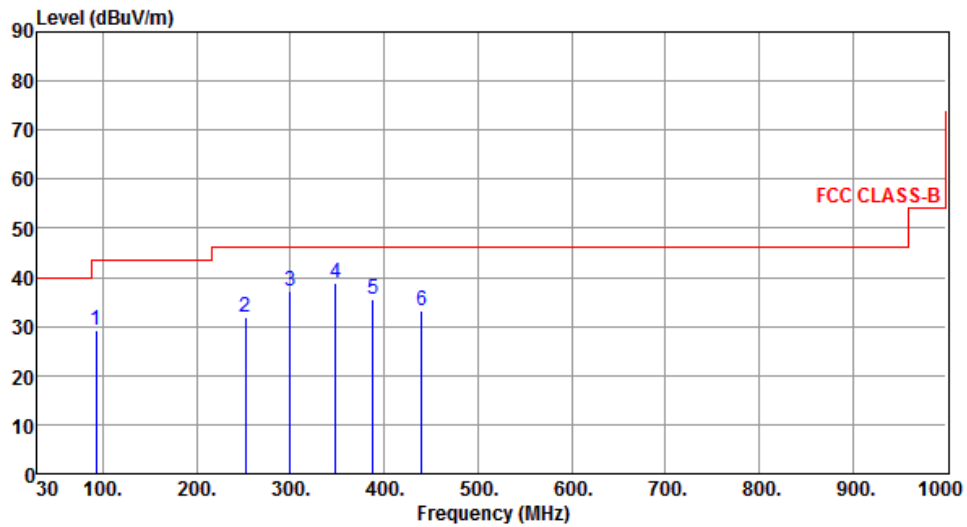


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	169.68	33.79	43.50	-9.71	50.55	-16.76	Peak	-----	-----
2	252.13	37.29	46.00	-8.71	54.57	-17.28	Peak	-----	-----
3	320.03	38.25	46.00	-7.75	53.36	-15.11	Peak	-----	-----
4	387.93	37.38	46.00	-8.62	50.74	-13.36	Peak	-----	-----
5	444.19	34.88	46.00	-11.12	46.81	-11.93	Peak	-----	-----
6	679.90	36.31	46.00	-9.69	44.12	-7.81	Peak	-----	-----

Note 1: Level (dBuV/m) = Read Level (dBuV/m) + Antenna Factor (dB) + Cable Loss (dB) - Preamp Factor (dB).  
 2: Over Limit (dBuV/m) = Limit Line (dBuV/m) – Level (dBuV/m).



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2402
<b>Test Mode</b>	B		

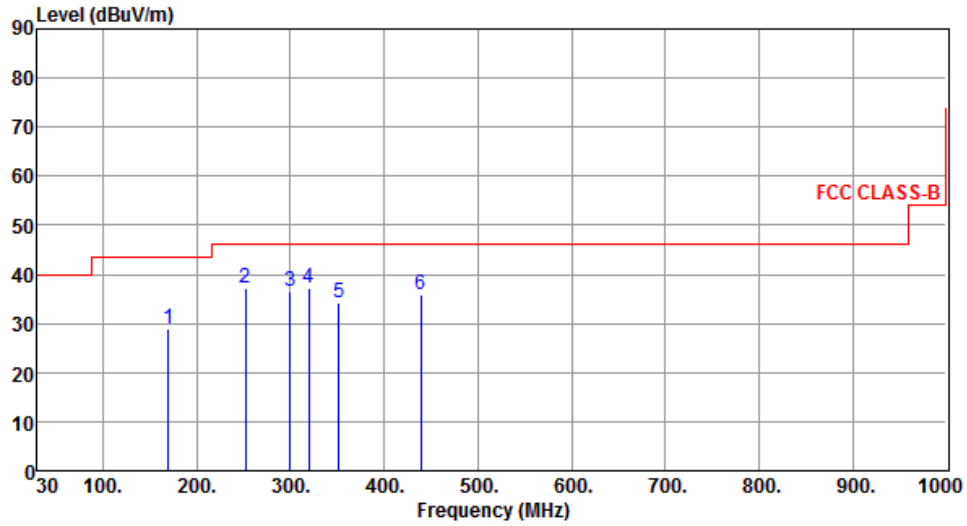


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	93.05	29.10	43.50	-14.40	51.11	-22.01	Peak	-----	-----
2	252.13	31.78	46.00	-14.22	49.06	-17.28	Peak	-----	-----
3	299.66	37.25	46.00	-8.75	52.84	-15.59	Peak	-----	-----
4	348.16	38.96	46.00	-7.04	53.39	-14.43	Peak	-----	-----
5	387.93	35.65	46.00	-10.35	49.01	-13.36	Peak	-----	-----
6	440.31	33.12	46.00	-12.88	45.15	-12.03	Peak	-----	-----

Note 1: Level (dBuV/m) = Read Level (dBuV/m) + Antenna Factor (dB) + Cable Loss (dB) - Preamp Factor (dB).  
 2: Over Limit (dBuV/m) = Limit Line (dBuV/m) – Level (dBuV/m).



<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2402
<b>Test Mode</b>	C		

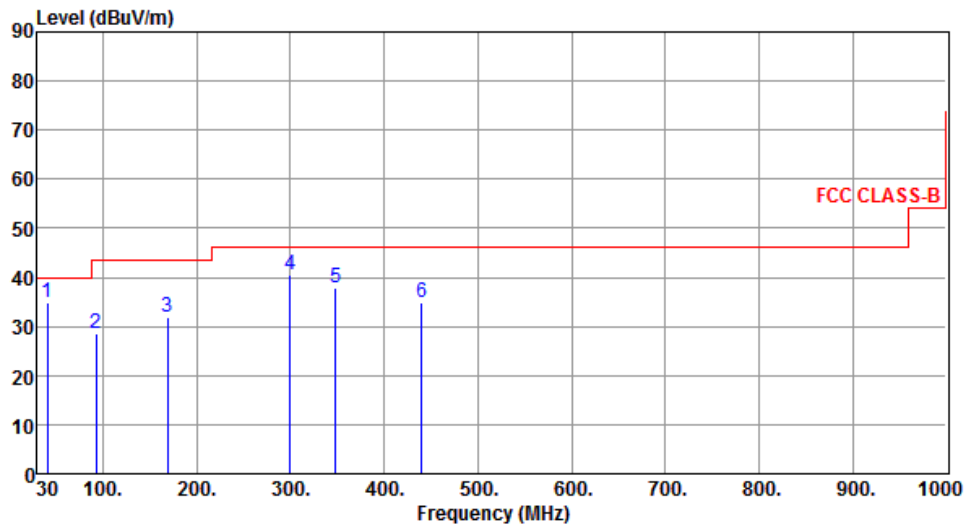


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	169.68	28.97	43.50	-14.53	45.73	-16.76	Peak	-----	-----
2	252.13	37.09	46.00	-8.91	54.37	-17.28	Peak	-----	-----
3	299.66	36.61	46.00	-9.39	52.20	-15.59	Peak	-----	-----
4	320.03	37.15	46.00	-8.85	52.26	-15.11	Peak	-----	-----
5	352.04	34.10	46.00	-11.90	48.44	-14.34	Peak	-----	-----
6	439.34	35.81	46.00	-10.19	47.86	-12.05	Peak	-----	-----

Note 1: Level (dBuV/m) = Read Level (dBuV/m) + Antenna Factor (dB) + Cable Loss (dB) - Preamp Factor (dB).  
 2: Over Limit (dBuV/m) = Limit Line (dBuV/m) – Level (dBuV/m).



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2402
<b>Test Mode</b>	C		

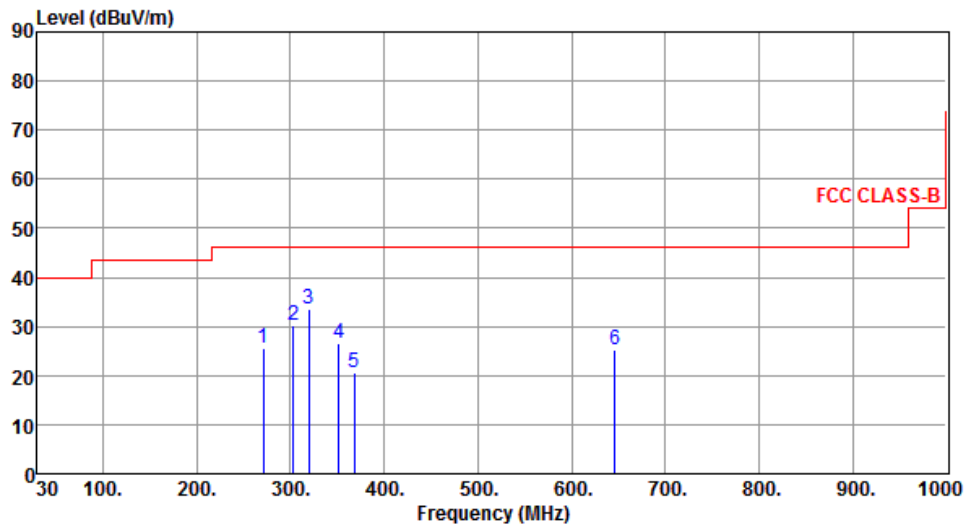


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	40.67	34.90	40.00	-5.10	51.24	-16.34	Peak	-----	-----
2	93.05	28.69	43.50	-14.81	50.70	-22.01	Peak	-----	-----
3	168.71	31.83	43.50	-11.67	48.55	-16.72	Peak	-----	-----
4	299.66	40.42	46.00	-5.58	56.01	-15.59	Peak	-----	-----
5	348.16	37.83	46.00	-8.17	52.26	-14.43	Peak	-----	-----
6	440.31	34.83	46.00	-11.17	46.86	-12.03	Peak	-----	-----

Note 1: Level (dBuV/m) = Read Level (dBuV/m) + Antenna Factor (dB) + Cable Loss (dB) - Preamp Factor (dB).  
 2: Over Limit (dBuV/m) = Limit Line (dBuV/m) – Level (dBuV/m).



<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2402
<b>Test Mode</b>	D		

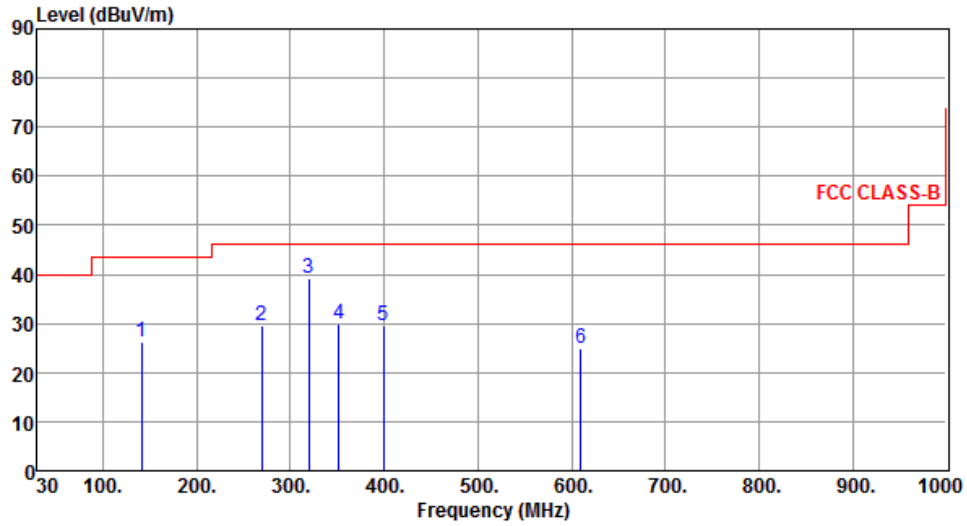


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	271.53	25.69	46.00	-20.31	42.11	-16.42	Peak	-----	-----
2	303.54	30.07	46.00	-15.93	45.56	-15.49	Peak	-----	-----
3	320.03	33.57	46.00	-12.43	48.68	-15.11	Peak	-----	-----
4	352.04	26.54	46.00	-19.46	40.88	-14.34	Peak	-----	-----
5	368.53	20.50	46.00	-25.50	34.39	-13.89	Peak	-----	-----
6	645.95	25.37	46.00	-20.63	33.70	-8.33	Peak	-----	-----

Note 1: Level (dBuV/m) = Read Level (dBuV/m) + Antenna Factor (dB) + Cable Loss (dB) - Preamp Factor (dB).  
 2: Over Limit (dBuV/m) = Limit Line (dBuV/m) – Level (dBuV/m).



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2402
<b>Test Mode</b>	D		



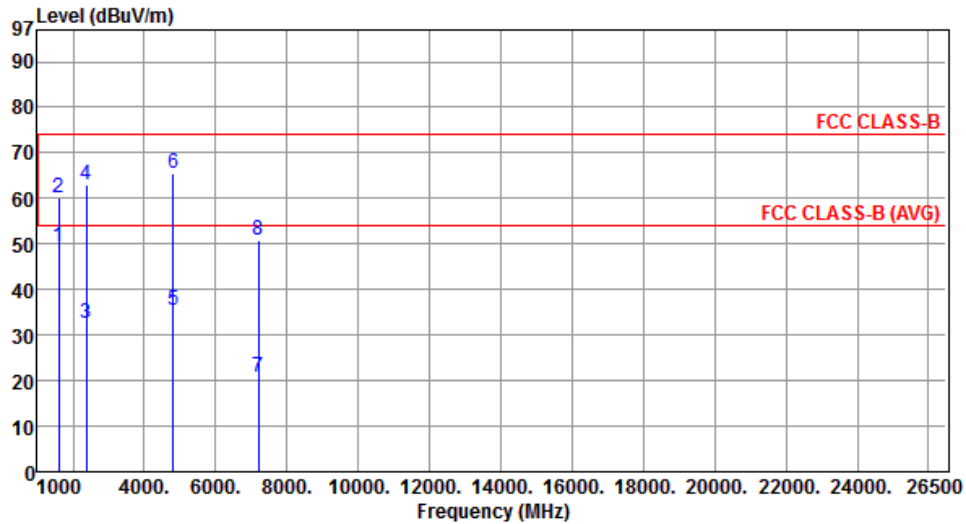
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	141.55	26.16	43.50	-17.34	42.81	-16.65	Peak	-----	-----
2	269.59	29.48	46.00	-16.52	45.98	-16.50	Peak	-----	-----
3	320.03	39.11	46.00	-6.89	54.22	-15.11	Peak	-----	-----
4	352.04	29.82	46.00	-16.18	44.16	-14.34	Peak	-----	-----
5	399.57	29.53	46.00	-16.47	42.58	-13.05	Peak	-----	-----
6	610.06	24.77	46.00	-21.23	33.55	-8.78	Peak	-----	-----

Note 1: Level (dBuV/m) = Read Level (dBuV/m) + Antenna Factor (dB) + Cable Loss (dB) - Preamp Factor (dB).  
 2: Over Limit (dBuV/m) = Limit Line (dBuV/m) – Level (dBuV/m).



### 3.2.5 Transmitter Radiated Unwanted Emissions (Above 1GHz) for GFSK

<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2402
<b>Test Mode</b>	A		

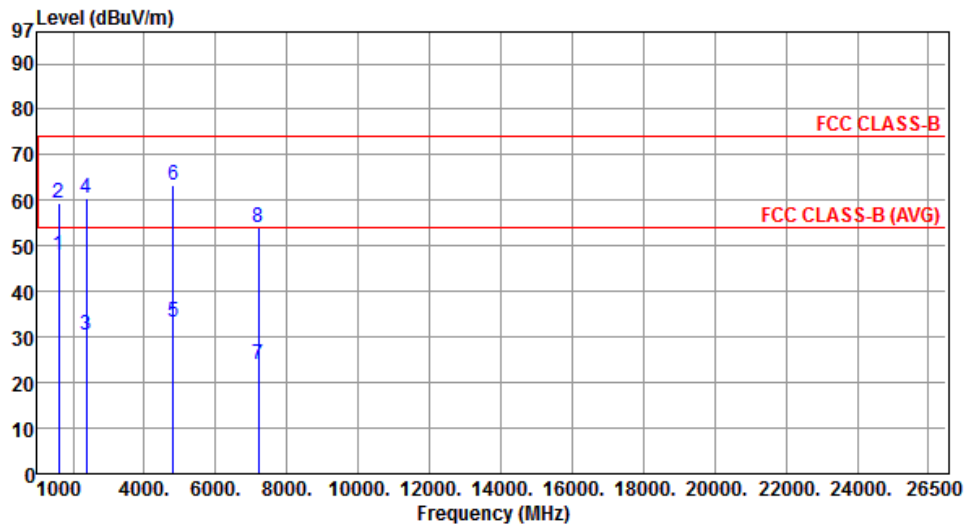


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1602.00	49.51	54.00	-4.49	55.51	-6.00	Average	-----	-----
2	1602.00	60.21	74.00	-13.79	66.21	-6.00	Peak	-----	-----
3	2370.00	32.74	54.00	-21.26	35.74	-3.00	Average	-----	-----
4	2370.00	62.84	74.00	-11.16	65.84	-3.00	Peak	-----	-----
5	4804.00	35.53	54.00	-18.47	30.88	4.65	Average	-----	-----
6	4804.00	65.63	74.00	-8.37	60.98	4.65	Peak	-----	-----
7	7206.00	20.89	54.00	-33.11	11.49	9.40	Average	-----	-----
8	7206.00	50.99	74.00	-23.01	41.59	9.40	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2402
<b>Test Mode</b>	A		



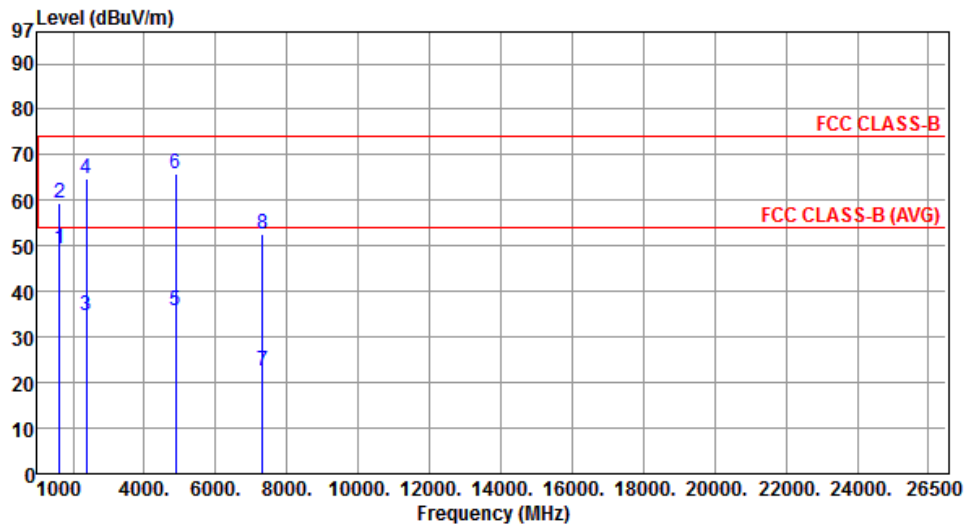
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1602.00	48.12	54.00	-5.88	54.12	-6.00	Average	-----	-----
2	1602.00	59.34	74.00	-14.66	65.34	-6.00	Peak	-----	-----
3	2370.00	30.51	54.00	-23.49	33.51	-3.00	Average	-----	-----
4	2370.00	60.61	74.00	-13.39	63.61	-3.00	Peak	-----	-----
5	4804.00	33.33	54.00	-20.67	28.68	4.65	Average	-----	-----
6	4804.00	63.43	74.00	-10.57	58.78	4.65	Peak	-----	-----
7	7206.00	24.03	54.00	-29.97	14.63	9.40	Average	-----	-----
8	7206.00	54.13	74.00	-19.87	44.73	9.40	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.





<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2441
<b>Test Mode</b>	A		

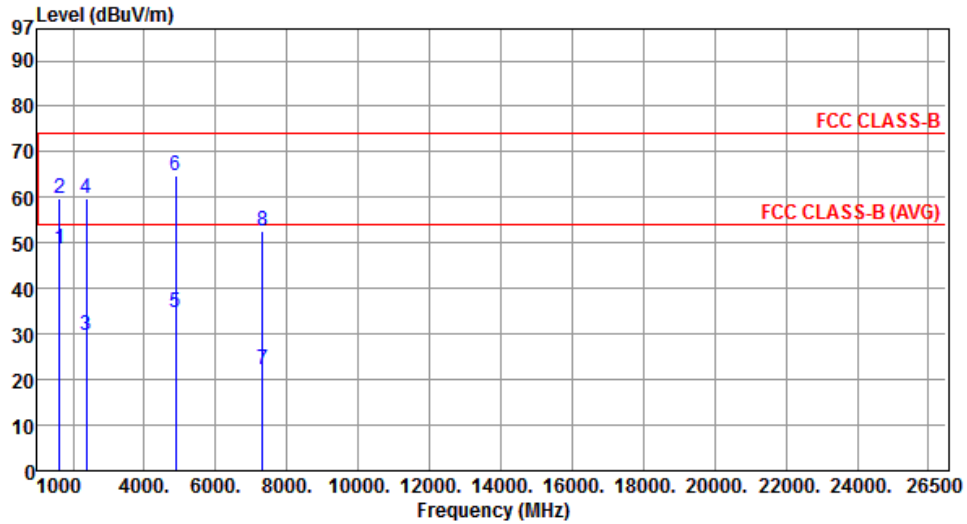


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1628.00	49.53	74.00	-24.47	55.42	-5.89	Average	-----	-----
2	1628.00	59.57	74.00	-14.43	65.46	-5.89	Peak	-----	-----
3	2377.00	34.55	74.00	-39.45	37.52	-2.97	Average	-----	-----
4	2377.00	64.65	74.00	-9.35	67.62	-2.97	Peak	-----	-----
5	4882.00	35.85	74.00	-38.15	31.07	4.78	Average	-----	-----
6	4882.00	65.95	74.00	-8.05	61.17	4.78	Peak	-----	-----
7	7323.00	22.54	74.00	-51.46	12.95	9.59	Average	-----	-----
8	7323.00	52.64	74.00	-21.36	43.05	9.59	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2441
<b>Test Mode</b>	A		

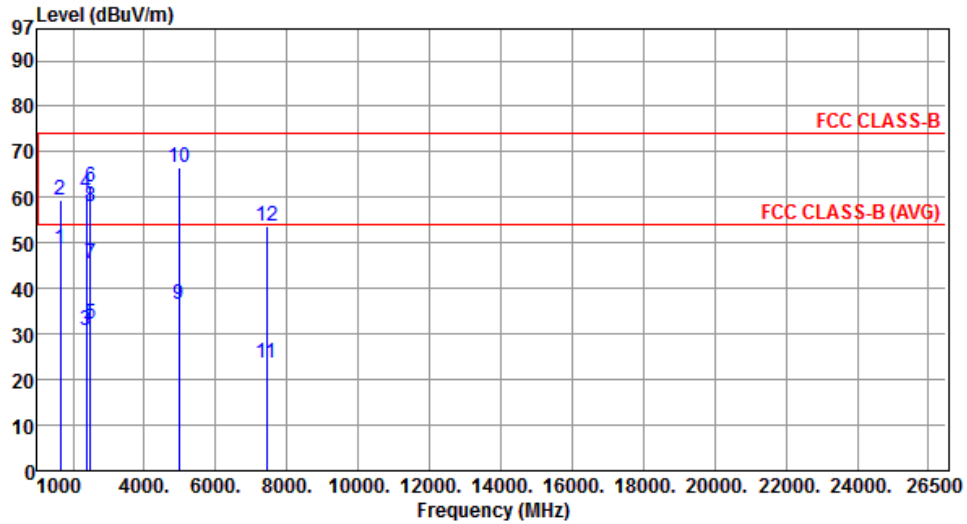


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1628.00	48.55	54.00	-5.45	54.44	-5.89	Average	-----	-----
2	1628.00	59.64	74.00	-14.36	65.53	-5.89	Peak	-----	-----
3	2377.00	29.76	54.00	-24.24	32.73	-2.97	Average	-----	-----
4	2377.00	59.86	74.00	-14.14	62.83	-2.97	Peak	-----	-----
5	4882.00	34.68	54.00	-19.32	29.90	4.78	Average	-----	-----
6	4882.00	64.78	74.00	-9.22	60.00	4.78	Peak	-----	-----
7	7323.00	22.35	54.00	-31.65	12.76	9.59	Average	-----	-----
8	7323.00	52.45	74.00	-21.55	42.86	9.59	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2480
<b>Test Mode</b>	A		

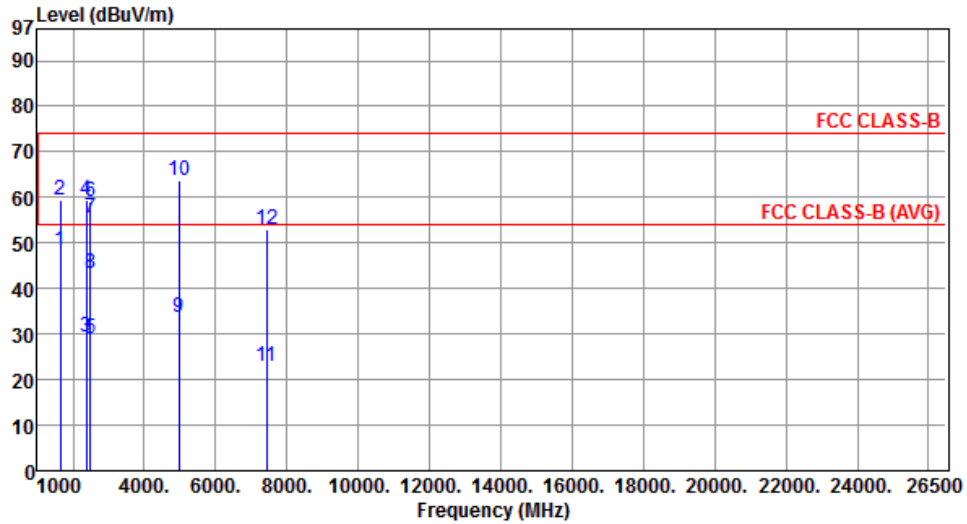


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1653.00	48.69	54.00	-5.31	54.48	-5.79	Average	-----	-----
2	1653.00	59.26	74.00	-14.74	65.05	-5.79	Peak	-----	-----
3	2383.00	30.79	54.00	-23.21	33.72	-2.93	Average	-----	-----
4	2383.00	60.89	74.00	-13.11	63.82	-2.93	Peak	-----	-----
5	2483.50	32.14	54.00	-21.86	34.56	-2.42	Average	-----	-----
6	2483.50	62.24	74.00	-11.76	64.66	-2.42	Peak	-----	-----
7	2485.50	45.61	54.00	-8.39	48.02	-2.41	Average	-----	-----
8	2485.50	57.90	74.00	-16.10	60.31	-2.41	Peak	-----	-----
9	4960.00	36.43	54.00	-17.57	31.52	4.91	Average	-----	-----
10	4960.00	66.53	74.00	-7.47	61.62	4.91	Peak	-----	-----
11	7440.00	23.76	54.00	-30.24	14.00	9.76	Average	-----	-----
12	7440.00	53.86	74.00	-20.14	44.10	9.76	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2480
<b>Test Mode</b>	A		

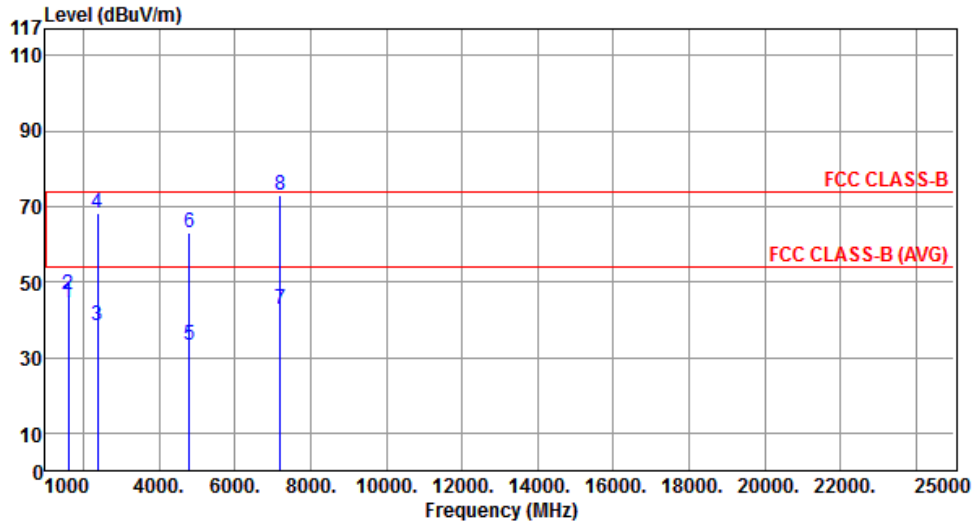


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1653.00	48.24	54.00	-5.76	54.03	-5.79	Average	-----	-----
2	1653.00	59.45	74.00	-14.55	65.24	-5.79	Peak	-----	-----
3	2383.00	29.35	54.00	-24.65	32.28	-2.93	Average	-----	-----
4	2383.00	59.45	74.00	-14.55	62.38	-2.93	Peak	-----	-----
5	2483.50	28.89	54.00	-25.11	31.31	-2.42	Average	-----	-----
6	2483.50	58.99	74.00	-15.01	61.41	-2.42	Peak	-----	-----
7	2483.50	55.42	74.00	-18.58	57.84	-2.42	Peak	-----	-----
8	2485.50	43.15	54.00	-10.85	45.56	-2.41	Average	-----	-----
9	4960.00	33.49	54.00	-20.51	28.58	4.91	Average	-----	-----
10	4960.00	63.59	74.00	-10.41	58.68	4.91	Peak	-----	-----
11	7440.00	22.78	54.00	-31.22	13.02	9.76	Average	-----	-----
12	7440.00	52.88	74.00	-21.12	43.12	9.76	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2402
<b>Test Mode</b>	B		

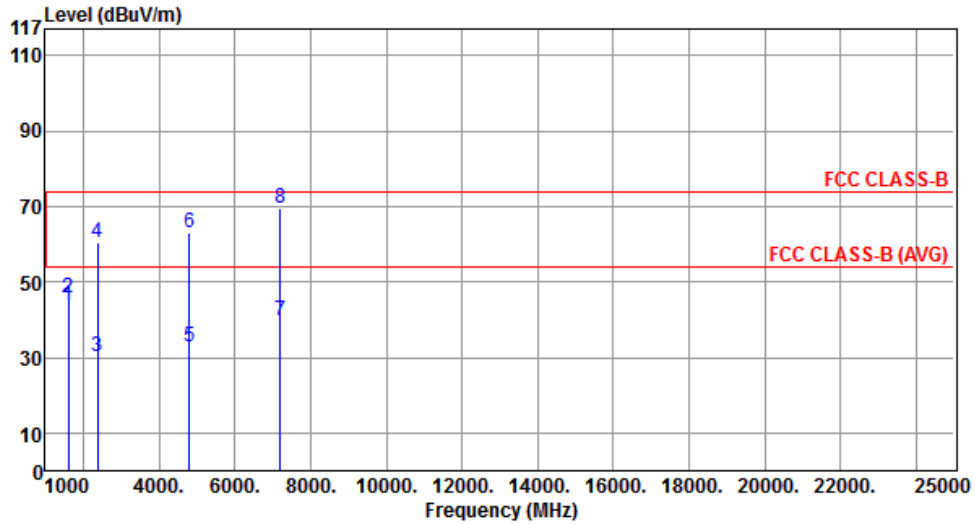


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1602.00	44.35	54.00	-9.65	50.35	-6.00	Average	-----	-----
2	1602.00	46.61	74.00	-27.39	52.61	-6.00	Peak	-----	-----
3	2370.00	38.26	54.00	-15.74	41.26	-3.00	Average	-----	-----
4	2370.00	68.36	74.00	-5.64	71.36	-3.00	Peak	-----	-----
5	4804.00	33.03	54.00	-20.97	28.38	4.65	Average	-----	-----
6	4804.00	63.13	74.00	-10.87	58.48	4.65	Peak	-----	-----
7	7206.00	42.66	54.00	-11.34	33.26	9.40	Average	-----	-----
8	7206.00	72.76	74.00	-1.24	63.36	9.40	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2402
<b>Test Mode</b>	B		

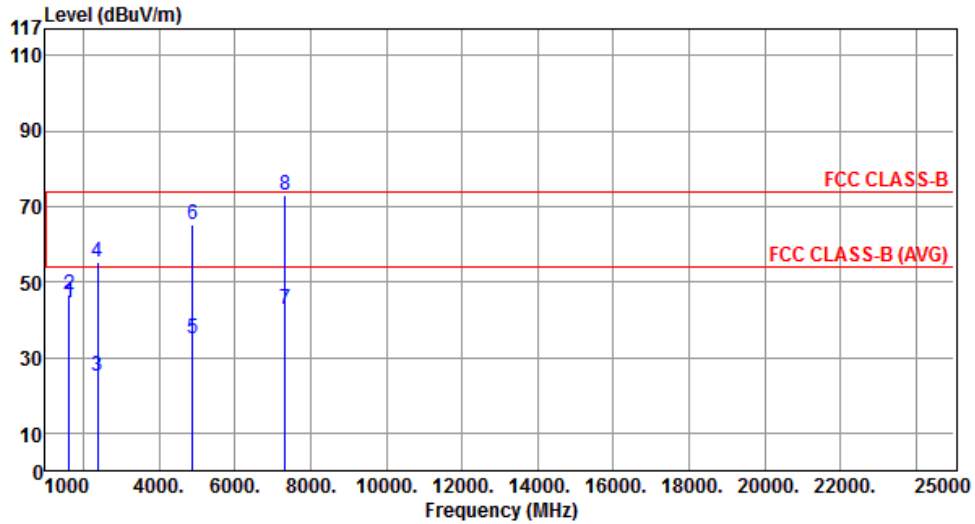


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1602.00	43.68	54.00	-10.32	49.68	-6.00	Average	-----	-----
2	1602.00	45.86	74.00	-28.14	51.86	-6.00	Peak	-----	-----
3	2370.00	30.38	54.00	-23.62	33.38	-3.00	Average	-----	-----
4	2370.00	60.48	74.00	-13.52	63.48	-3.00	Peak	-----	-----
5	4804.00	33.02	54.00	-20.98	28.37	4.65	Average	-----	-----
6	4804.00	63.12	74.00	-10.88	58.47	4.65	Peak	-----	-----
7	7206.00	39.56	54.00	-14.44	30.16	9.40	Average	-----	-----
8	7206.00	69.66	74.00	-4.34	60.26	9.40	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2441
<b>Test Mode</b>	B		

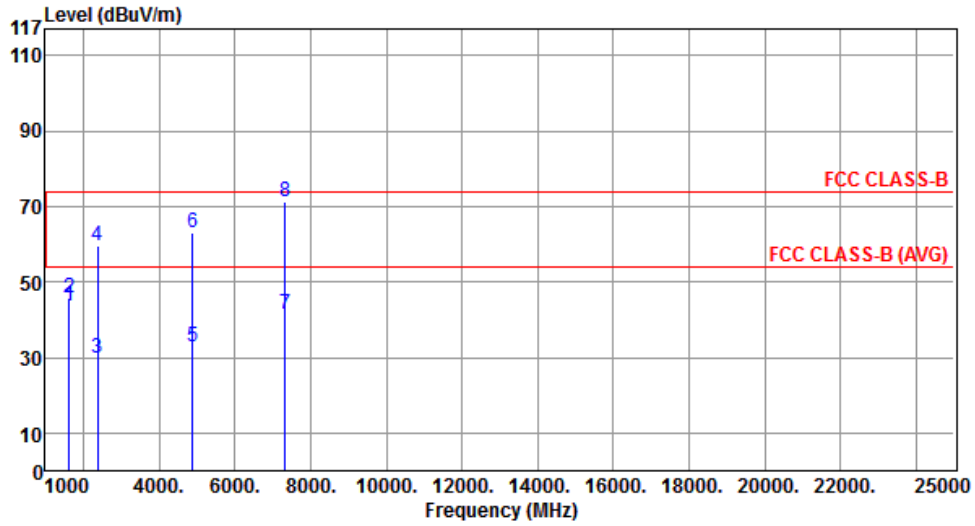


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1626.00	44.51	54.00	-9.49	50.41	-5.90	Average	-----	-----
2	1626.00	46.79	74.00	-27.21	52.69	-5.90	Peak	-----	-----
3	2377.00	24.96	54.00	-29.04	27.93	-2.97	Average	-----	-----
4	2377.00	55.06	74.00	-18.94	58.03	-2.97	Peak	-----	-----
5	4882.00	35.06	54.00	-18.94	30.28	4.78	Average	-----	-----
6	4882.00	65.16	74.00	-8.84	60.38	4.78	Peak	-----	-----
7	7323.00	42.81	54.00	-11.19	33.22	9.59	Average	-----	-----
8	7323.00	72.91	74.00	-1.09	63.32	9.59	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2441
<b>Test Mode</b>	B		



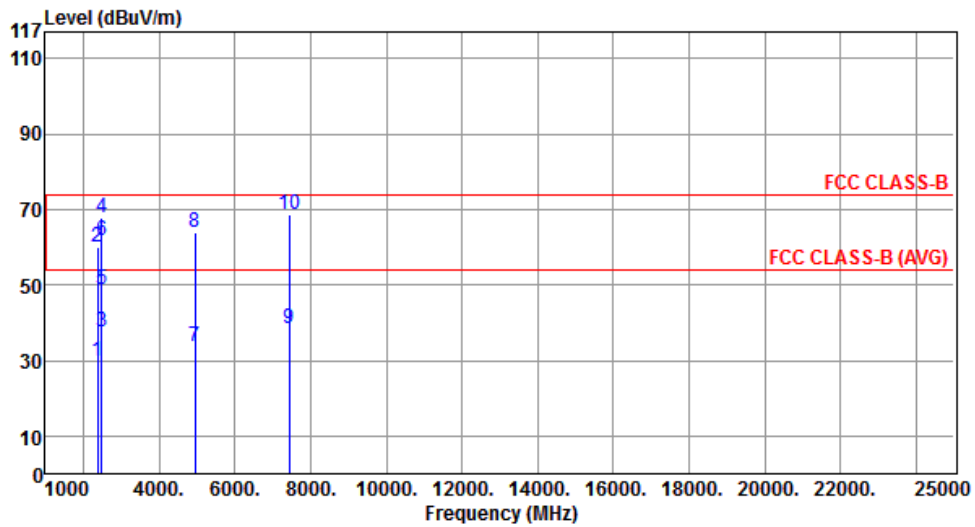
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1626.00	43.62	54.00	-10.38	49.52	-5.90	Average	-----	-----
2	1626.00	45.86	74.00	-28.14	51.76	-5.90	Peak	-----	-----
3	2377.00	29.62	54.00	-24.38	32.59	-2.97	Average	-----	-----
4	2377.00	59.72	74.00	-14.28	62.69	-2.97	Peak	-----	-----
5	4882.00	32.87	54.00	-21.13	28.09	4.78	Average	-----	-----
6	4882.00	62.97	74.00	-11.03	58.19	4.78	Peak	-----	-----
7	7323.00	41.25	54.00	-12.75	31.66	9.59	Average	-----	-----
8	7323.00	71.35	74.00	-2.65	61.76	9.59	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.





<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2480
<b>Test Mode</b>	B		

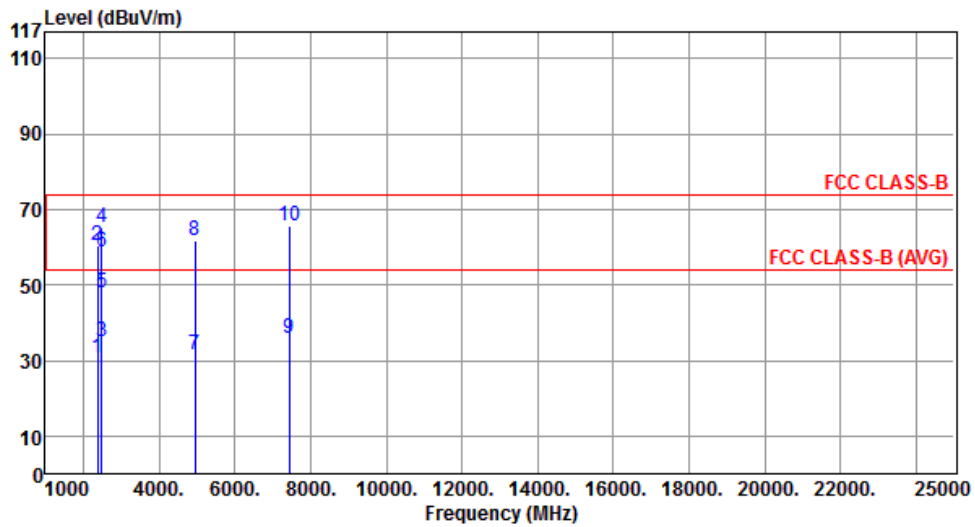


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2383.00	29.99	54.00	-24.01	32.92	-2.93	Average	-----	-----
2	2383.00	60.09	74.00	-13.91	63.02	-2.93	Peak	-----	-----
3	2483.50	37.52	54.00	-16.48	39.94	-2.42	Average	-----	-----
4	2483.50	67.62	74.00	-6.38	70.04	-2.42	Peak	-----	-----
5	2485.50	48.93	54.00	-5.07	51.34	-2.41	Average	-----	-----
6	2485.50	61.61	74.00	-12.39	64.02	-2.41	Peak	-----	-----
7	4960.00	33.75	54.00	-20.25	28.84	4.91	Average	-----	-----
8	4960.00	63.85	74.00	-10.15	58.94	4.91	Peak	-----	-----
9	7440.00	38.59	54.00	-15.41	28.83	9.76	Average	-----	-----
10	7440.00	68.69	74.00	-5.31	58.93	9.76	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2480
<b>Test Mode</b>	B		

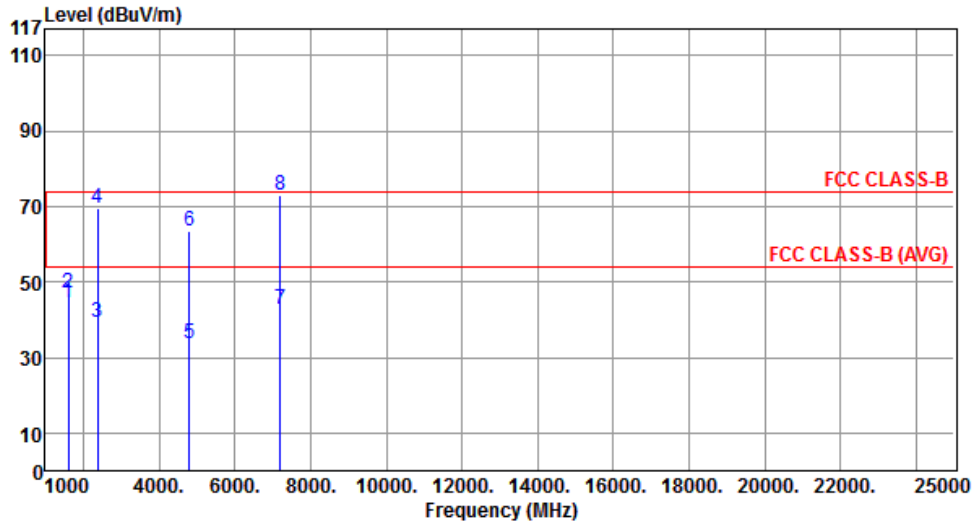


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2383.00	30.54	54.00	-23.46	33.47	-2.93	Average	-----	-----
2	2383.00	60.64	74.00	-13.36	63.57	-2.93	Peak	-----	-----
3	2483.50	35.16	54.00	-18.84	37.58	-2.42	Average	-----	-----
4	2483.50	65.26	74.00	-8.74	67.68	-2.42	Peak	-----	-----
5	2485.50	47.96	54.00	-6.04	50.37	-2.41	Average	-----	-----
6	2485.50	58.89	74.00	-15.11	61.30	-2.41	Peak	-----	-----
7	4960.00	31.68	54.00	-22.32	26.77	4.91	Average	-----	-----
8	4960.00	61.78	74.00	-12.22	56.87	4.91	Peak	-----	-----
9	7440.00	35.73	54.00	-18.27	25.97	9.76	Average	-----	-----
10	7440.00	65.83	74.00	-8.17	56.07	9.76	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2402
<b>Test Mode</b>	C		

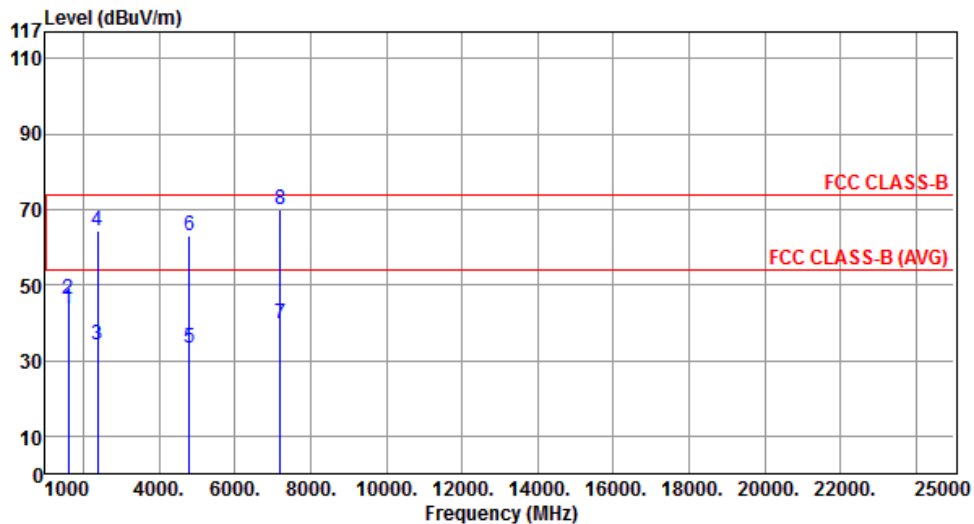


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1602.00	44.62	54.00	-9.38	50.62	-6.00	Average	-----	-----
2	1602.00	46.91	74.00	-27.09	52.91	-6.00	Peak	-----	-----
3	2370.00	39.25	54.00	-14.75	42.25	-3.00	Average	-----	-----
4	2370.00	69.35	74.00	-4.65	72.35	-3.00	Peak	-----	-----
5	4804.00	33.51	54.00	-20.49	28.86	4.65	Average	-----	-----
6	4804.00	63.61	74.00	-10.39	58.96	4.65	Peak	-----	-----
7	7206.00	42.76	54.00	-11.24	33.36	9.40	Average	-----	-----
8	7206.00	72.86	74.00	-1.14	63.46	9.40	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2402
<b>Test Mode</b>	C		

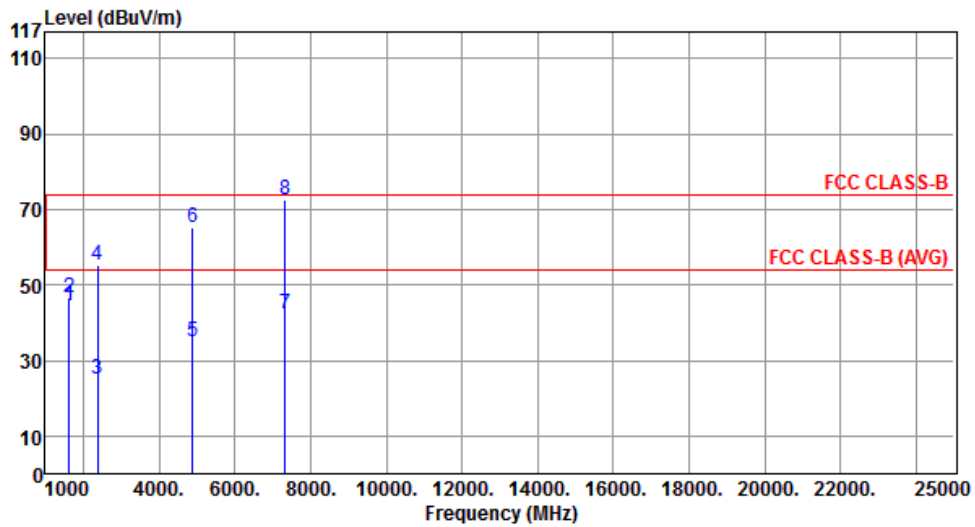


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1602.00	43.56	54.00	-10.44	49.56	-6.00	Average	-----	-----
2	1602.00	46.29	74.00	-27.71	52.29	-6.00	Peak	-----	-----
3	2370.00	34.21	54.00	-19.79	37.21	-3.00	Average	-----	-----
4	2370.00	64.31	74.00	-9.69	67.31	-3.00	Peak	-----	-----
5	4804.00	33.11	54.00	-20.89	28.46	4.65	Average	-----	-----
6	4804.00	63.21	74.00	-10.79	58.56	4.65	Peak	-----	-----
7	7206.00	39.68	54.00	-14.32	30.28	9.40	Average	-----	-----
8	7206.00	69.78	74.00	-4.22	60.38	9.40	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2441
<b>Test Mode</b>	C		

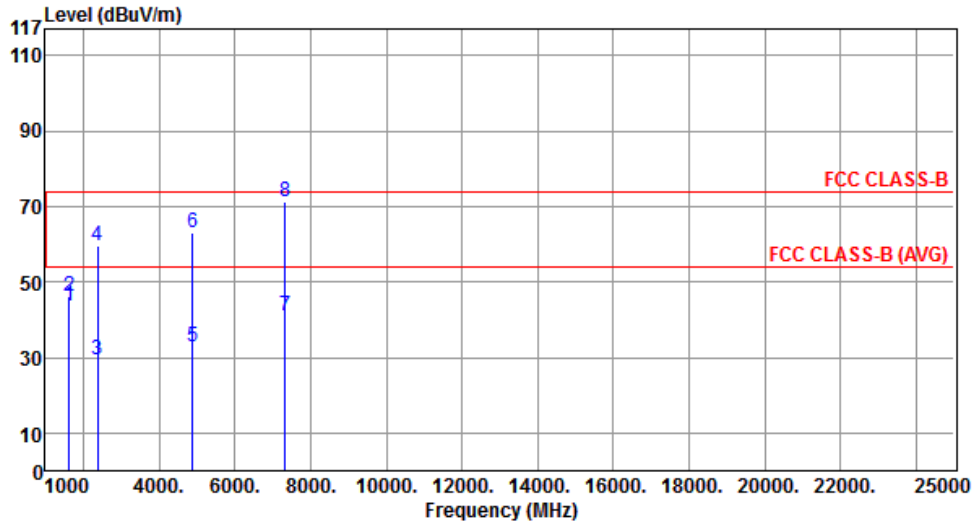


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1626.00	44.35	54.00	-9.65	50.25	-5.90	Average	-----	-----
2	1626.00	46.61	74.00	-27.39	52.51	-5.90	Peak	-----	-----
3	2377.00	25.15	54.00	-28.85	28.12	-2.97	Average	-----	-----
4	2377.00	55.25	74.00	-18.75	58.22	-2.97	Peak	-----	-----
5	4882.00	35.09	54.00	-18.91	30.31	4.78	Average	-----	-----
6	4882.00	65.19	74.00	-8.81	60.41	4.78	Peak	-----	-----
7	7323.00	42.50	54.00	-11.50	32.91	9.59	Average	-----	-----
8	7323.00	72.60	74.00	-1.40	63.01	9.59	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2441
<b>Test Mode</b>	C		

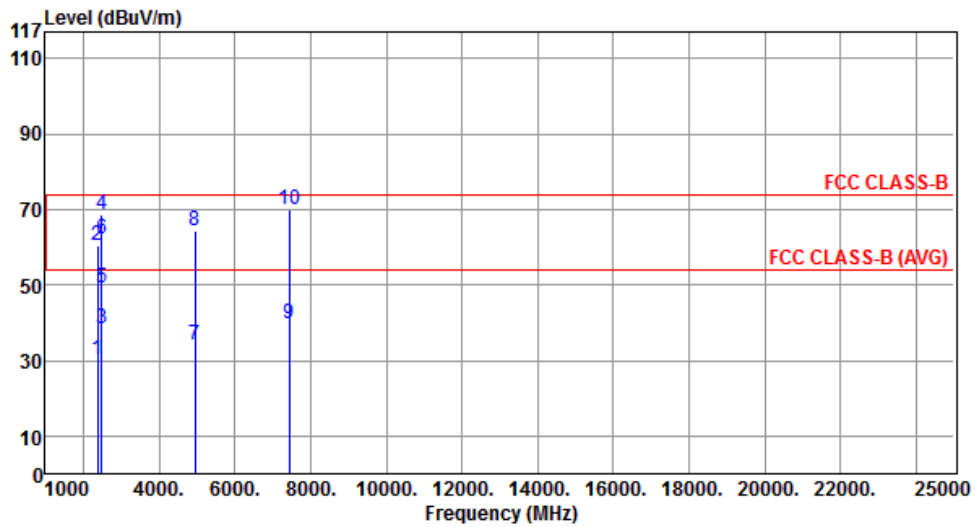


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1626.00	43.55	54.00	-10.45	49.45	-5.90	Average	-----	-----
2	1626.00	46.16	74.00	-27.84	52.06	-5.90	Peak	-----	-----
3	2377.00	29.53	54.00	-24.47	32.50	-2.97	Average	-----	-----
4	2377.00	59.63	74.00	-14.37	62.60	-2.97	Peak	-----	-----
5	4882.00	33.00	54.00	-21.00	28.22	4.78	Average	-----	-----
6	4882.00	63.10	74.00	-10.90	58.32	4.78	Peak	-----	-----
7	7323.00	41.17	54.00	-12.83	31.58	9.59	Average	-----	-----
8	7323.00	71.27	74.00	-2.73	61.68	9.59	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2480
<b>Test Mode</b>	C		

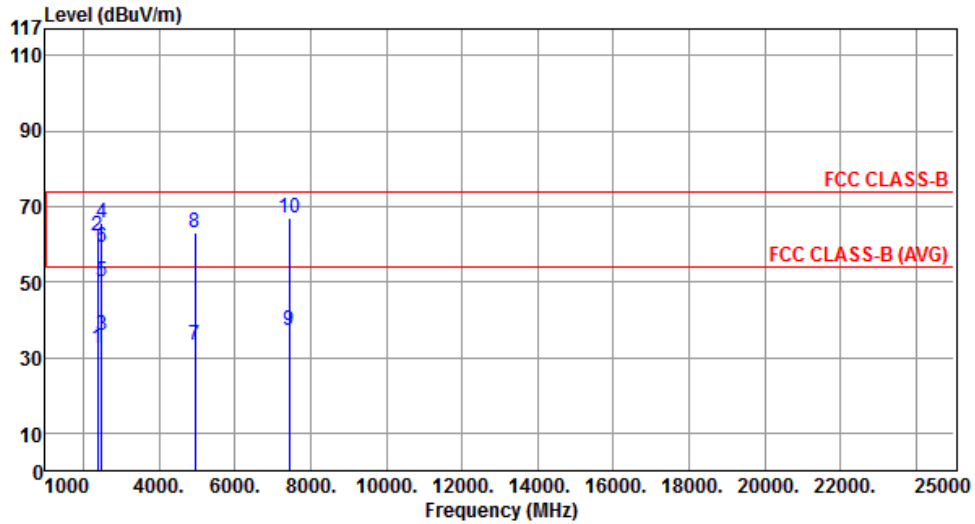


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2383.00	30.22	54.00	-23.78	33.15	-2.93	Average	-----	-----
2	2383.00	60.32	74.00	-13.68	63.25	-2.93	Peak	-----	-----
3	2483.50	38.41	54.00	-15.59	40.83	-2.42	Average	-----	-----
4	2483.50	68.51	74.00	-5.49	70.93	-2.42	Peak	-----	-----
5	2485.50	49.26	54.00	-4.74	51.67	-2.41	Average	-----	-----
6	2485.50	62.35	74.00	-11.65	64.76	-2.41	Peak	-----	-----
7	4960.00	34.19	54.00	-19.81	29.28	4.91	Average	-----	-----
8	4960.00	64.29	74.00	-9.71	59.38	4.91	Peak	-----	-----
9	7440.00	39.92	54.00	-14.08	30.16	9.76	Average	-----	-----
10	7440.00	70.02	74.00	-3.98	60.26	9.76	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2480
<b>Test Mode</b>	C		



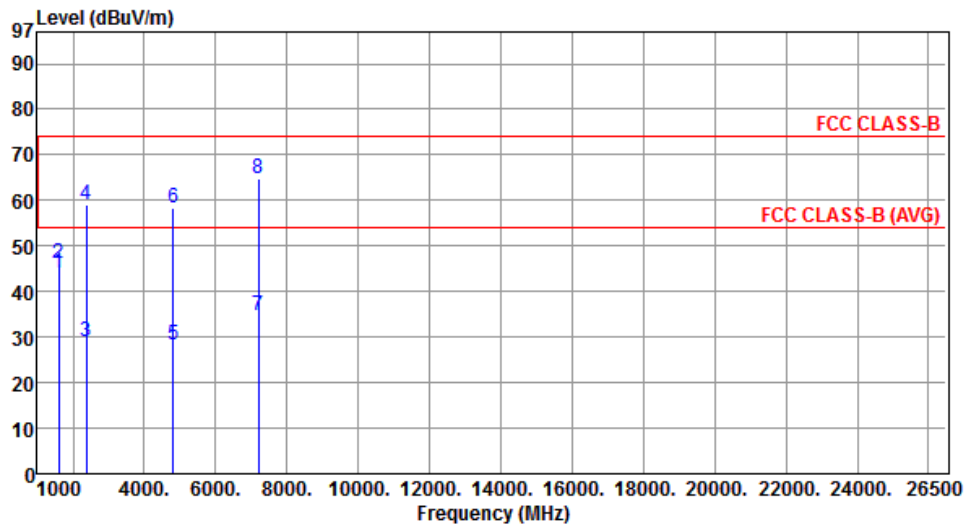
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2383.00	32.23	54.00	-21.77	35.16	-2.93	Average	-----	-----
2	2383.00	62.33	74.00	-11.67	65.26	-2.93	Peak	-----	-----
3	2483.50	35.66	54.00	-18.34	38.08	-2.42	Average	-----	-----
4	2483.50	65.76	74.00	-8.24	68.18	-2.42	Peak	-----	-----
5	2485.50	49.94	54.00	-4.06	52.35	-2.41	Average	-----	-----
6	2485.50	59.16	74.00	-14.84	61.57	-2.41	Peak	-----	-----
7	4960.00	33.12	54.00	-20.88	28.21	4.91	Average	-----	-----
8	4960.00	63.22	74.00	-10.78	58.31	4.91	Peak	-----	-----
9	7440.00	36.92	54.00	-17.08	27.16	9.76	Average	-----	-----
10	7440.00	67.02	74.00	-6.98	57.26	9.76	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.





<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2402
<b>Test Mode</b>	D		

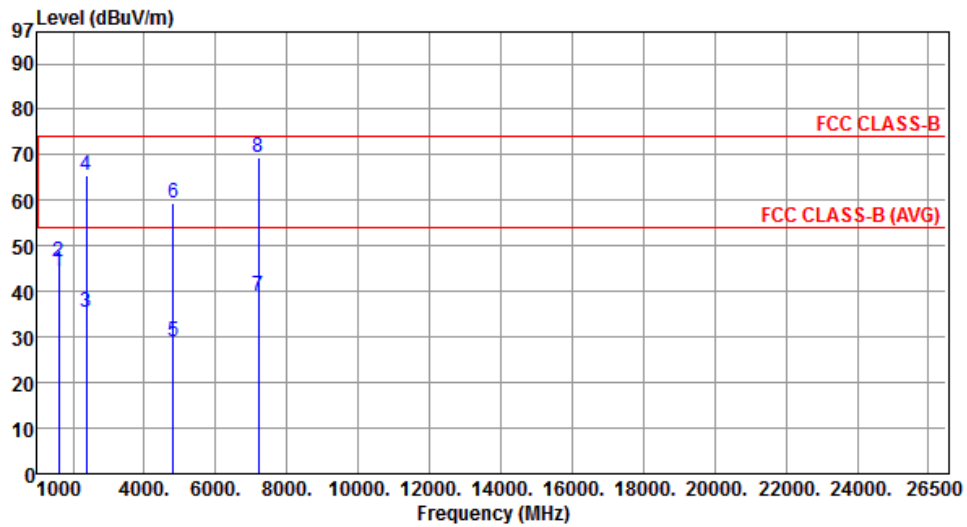


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1602.00	43.88	54.00	-10.12	49.88	-6.00	Average	-----	-----
2	1602.00	46.04	74.00	-27.96	52.04	-6.00	Peak	-----	-----
3	2370.00	28.82	54.00	-25.18	31.82	-3.00	Average	-----	-----
4	2370.00	58.92	74.00	-15.08	61.92	-3.00	Peak	-----	-----
5	4804.00	28.24	54.00	-25.76	23.59	4.65	Average	-----	-----
6	4804.00	58.34	74.00	-15.66	53.69	4.65	Peak	-----	-----
7	7206.00	34.55	54.00	-19.45	25.15	9.40	Average	-----	-----
8	7206.00	64.65	74.00	-9.35	55.25	9.40	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2402
<b>Test Mode</b>	D		

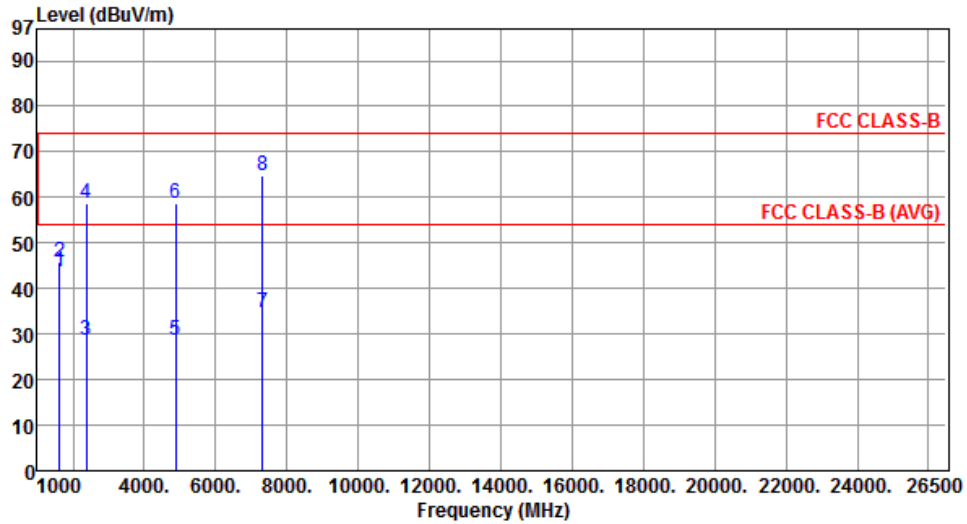


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1602.00	44.21	54.00	-9.79	50.21	-6.00	Average	-----	-----
2	1602.00	46.58	74.00	-27.42	52.58	-6.00	Peak	-----	-----
3	2370.00	35.41	54.00	-18.59	38.41	-3.00	Average	-----	-----
4	2370.00	65.51	74.00	-8.49	68.51	-3.00	Peak	-----	-----
5	4804.00	29.17	54.00	-24.83	24.52	4.65	Average	-----	-----
6	4804.00	59.27	74.00	-14.73	54.62	4.65	Peak	-----	-----
7	7206.00	39.18	54.00	-14.82	29.78	9.40	Average	-----	-----
8	7206.00	69.28	74.00	-4.72	59.88	9.40	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2441
<b>Test Mode</b>	D		

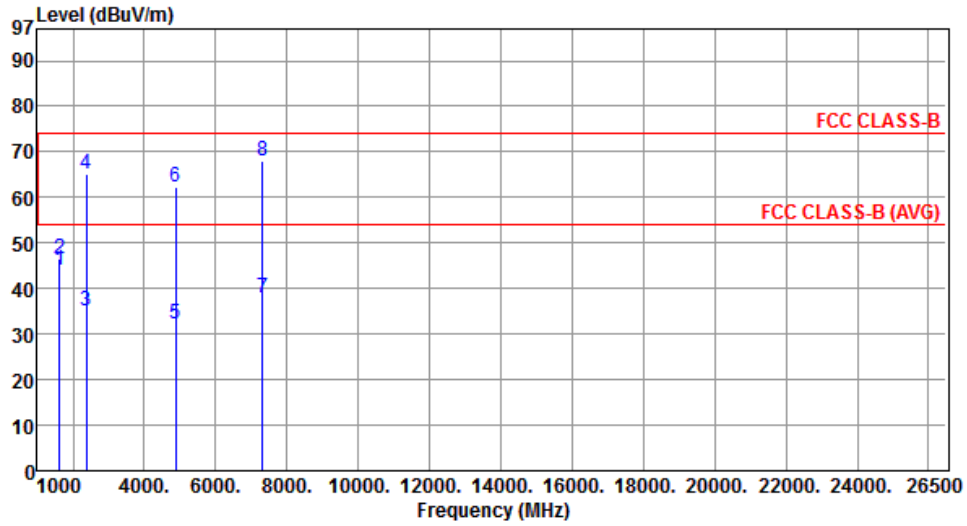


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1626.00	43.65	54.00	-10.35	49.55	-5.90	Average	-----	-----
2	1626.00	45.91	74.00	-28.09	51.81	-5.90	Peak	-----	-----
3	2377.00	28.52	54.00	-25.48	31.49	-2.97	Average	-----	-----
4	2377.00	58.62	74.00	-15.38	61.59	-2.97	Peak	-----	-----
5	4882.00	28.46	54.00	-25.54	23.68	4.78	Average	-----	-----
6	4882.00	58.56	74.00	-15.44	53.78	4.78	Peak	-----	-----
7	7323.00	34.79	54.00	-19.21	25.20	9.59	Average	-----	-----
8	7323.00	64.89	74.00	-9.11	55.30	9.59	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2441
<b>Test Mode</b>	D		

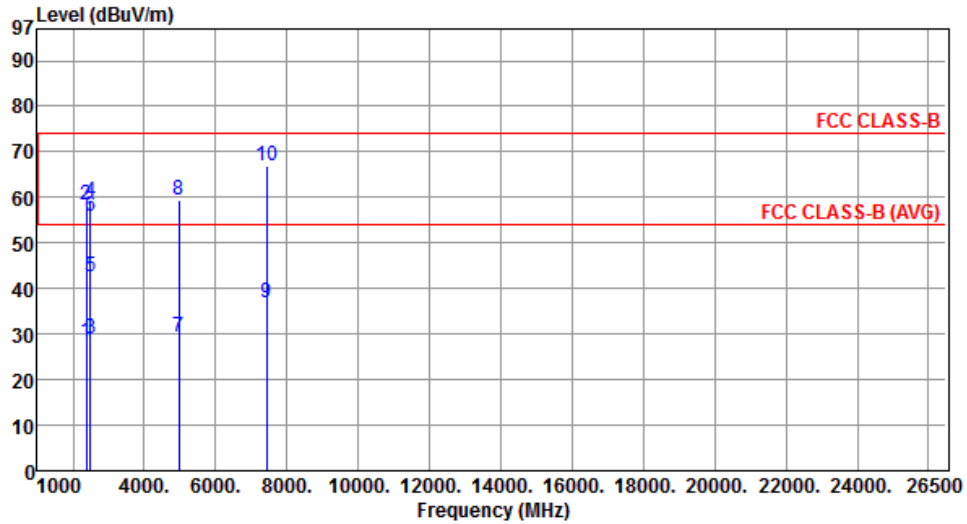


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1626.00	44.07	54.00	-9.93	49.97	-5.90	Average	-----	-----
2	1626.00	46.42	74.00	-27.58	52.32	-5.90	Peak	-----	-----
3	2377.00	35.14	54.00	-18.86	38.11	-2.97	Average	-----	-----
4	2377.00	65.24	74.00	-8.76	68.21	-2.97	Peak	-----	-----
5	4882.00	32.30	54.00	-21.70	27.52	4.78	Average	-----	-----
6	4882.00	62.40	74.00	-11.60	57.62	4.78	Peak	-----	-----
7	7323.00	38.03	54.00	-15.97	28.44	9.59	Average	-----	-----
8	7323.00	68.13	74.00	-5.87	58.54	9.59	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2480
<b>Test Mode</b>	D		

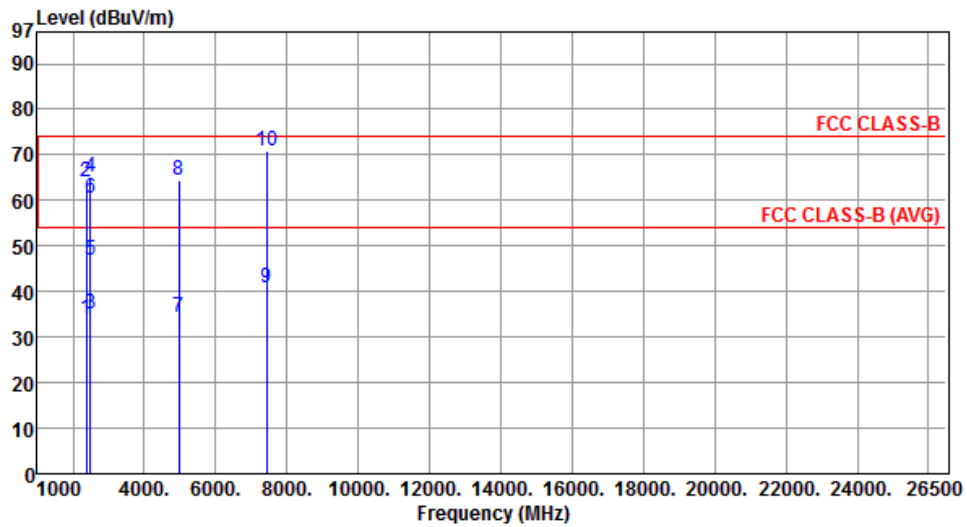


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2383.00	28.42	54.00	-25.58	31.35	-2.93	Average	-----	-----
2	2383.00	58.52	74.00	-15.48	61.45	-2.93	Peak	-----	-----
3	2483.50	28.85	54.00	-25.15	31.27	-2.42	Average	-----	-----
4	2483.50	58.95	74.00	-15.05	61.37	-2.42	Peak	-----	-----
5	2485.50	42.50	54.00	-11.50	44.91	-2.41	Average	-----	-----
6	2485.50	56.00	74.00	-18.00	58.41	-2.41	Peak	-----	-----
7	4960.00	29.31	54.00	-24.69	24.40	4.91	Average	-----	-----
8	4960.00	59.41	74.00	-14.59	54.50	4.91	Peak	-----	-----
9	7440.00	36.85	54.00	-17.15	27.09	9.76	Average	-----	-----
10	7440.00	66.95	74.00	-7.05	57.19	9.76	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2480
<b>Test Mode</b>	D		



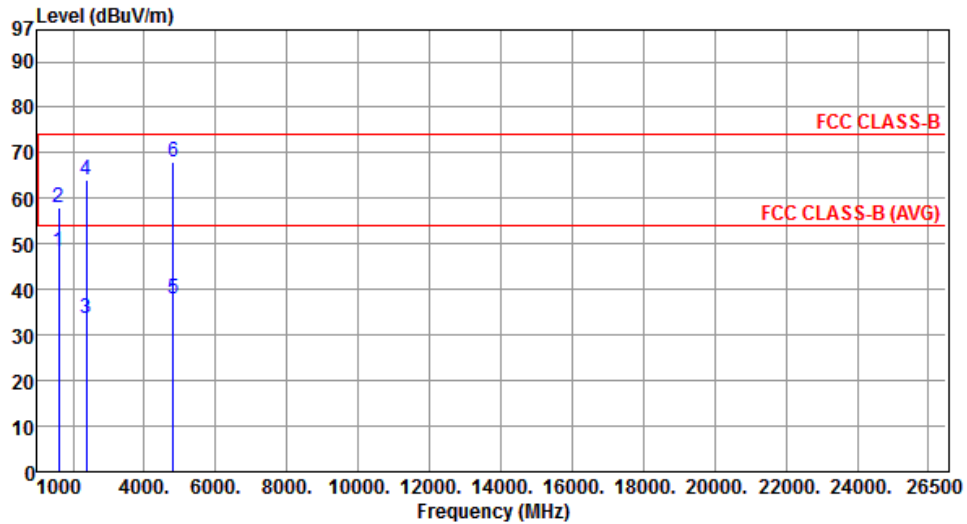
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2383.00	33.88	54.00	-20.12	36.81	-2.93	Average	-----	-----
2	2383.00	63.98	74.00	-10.02	66.91	-2.93	Peak	-----	-----
3	2483.50	34.97	54.00	-19.03	37.39	-2.42	Average	-----	-----
4	2483.50	65.07	74.00	-8.93	67.49	-2.42	Peak	-----	-----
5	2485.50	46.83	54.00	-7.17	49.24	-2.41	Average	-----	-----
6	2485.50	60.39	74.00	-13.61	62.80	-2.41	Peak	-----	-----
7	4960.00	34.49	54.00	-19.51	29.58	4.91	Average	-----	-----
8	4960.00	64.59	74.00	-9.41	59.68	4.91	Peak	-----	-----
9	7440.00	40.89	54.00	-13.11	31.13	9.76	Average	-----	-----
10	7440.00	70.99	74.00	-3.01	61.23	9.76	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



### 3.2.6 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 8DPSK

<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2402
<b>Test Mode</b>	A		

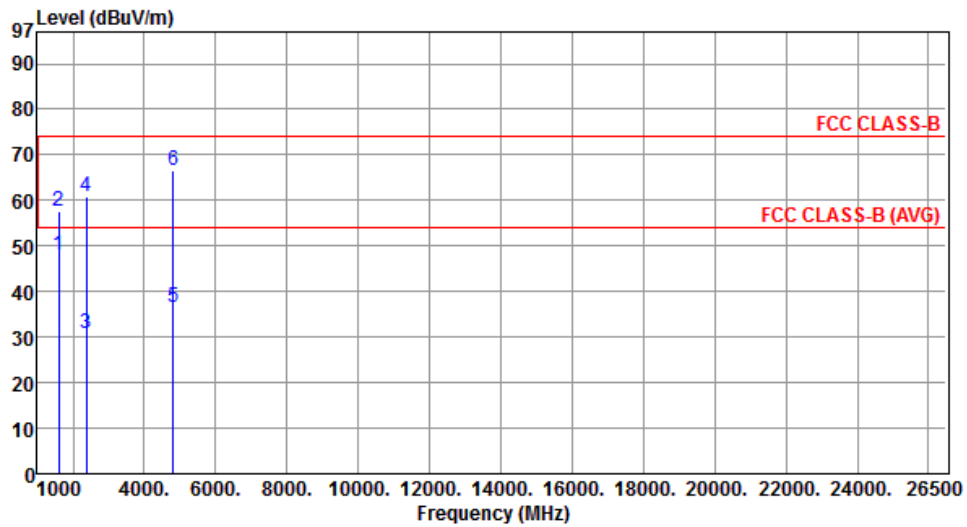


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1602.00	48.24	54.00	-5.76	54.24	-6.00	Average	-----	-----
2	1602.00	58.12	74.00	-15.88	64.12	-6.00	Peak	-----	-----
3	2370.00	33.81	54.00	-20.19	36.81	-3.00	Average	-----	-----
4	2370.00	63.91	74.00	-10.09	66.91	-3.00	Peak	-----	-----
5	4804.00	38.03	54.00	-15.97	33.38	4.65	Average	-----	-----
6	4804.00	68.13	74.00	-5.87	63.48	4.65	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2402
<b>Test Mode</b>	A		



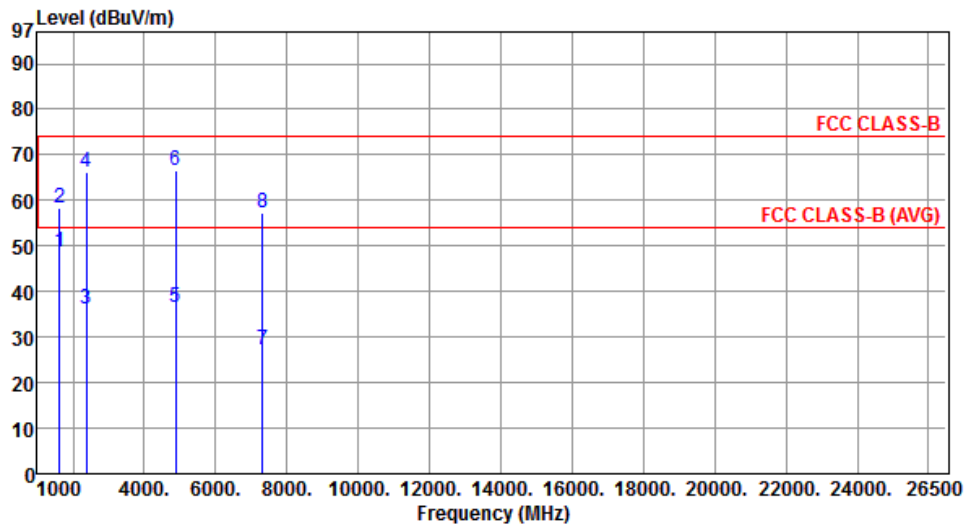
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1602.00	47.82	54.00	-6.18	53.82	-6.00	Average	-----	-----
2	1602.00	57.63	74.00	-16.37	63.63	-6.00	Peak	-----	-----
3	2370.00	30.75	54.00	-23.25	33.75	-3.00	Average	-----	-----
4	2370.00	60.85	74.00	-13.15	63.85	-3.00	Peak	-----	-----
5	4804.00	36.49	54.00	-17.51	31.84	4.65	Average	-----	-----
6	4804.00	66.59	74.00	-7.41	61.94	4.65	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.





<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2441
<b>Test Mode</b>	A		

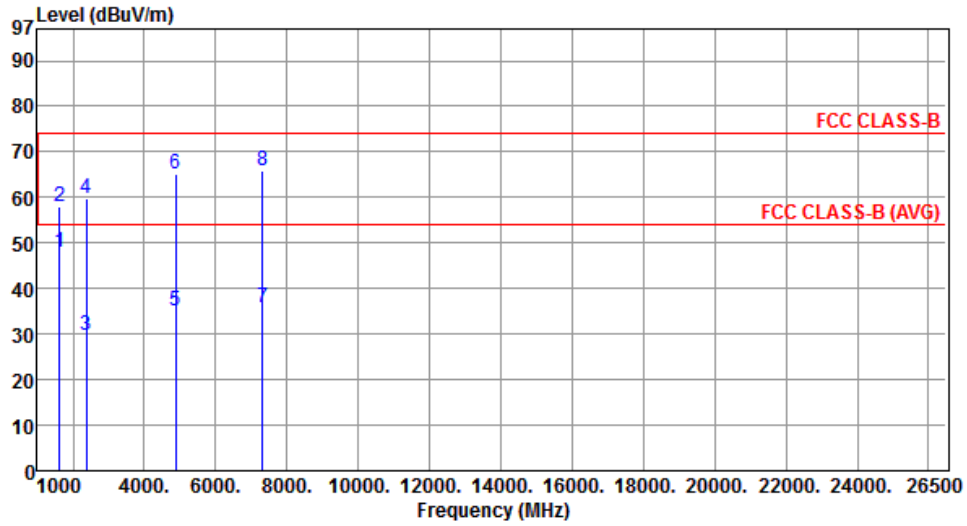


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1628.00	48.53	54.00	-5.47	54.42	-5.89	Average	-----	-----
2	1628.00	58.46	74.00	-15.54	64.35	-5.89	Peak	-----	-----
3	2377.00	36.11	54.00	-17.89	39.08	-2.97	Average	-----	-----
4	2377.00	66.21	74.00	-7.79	69.18	-2.97	Peak	-----	-----
5	4882.00	36.63	54.00	-17.37	31.85	4.78	Average	-----	-----
6	4882.00	66.73	74.00	-7.27	61.95	4.78	Peak	-----	-----
7	7323.00	27.22	54.00	-26.78	17.63	9.59	Average	-----	-----
8	7323.00	57.32	74.00	-16.68	47.73	9.59	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2441
<b>Test Mode</b>	A		

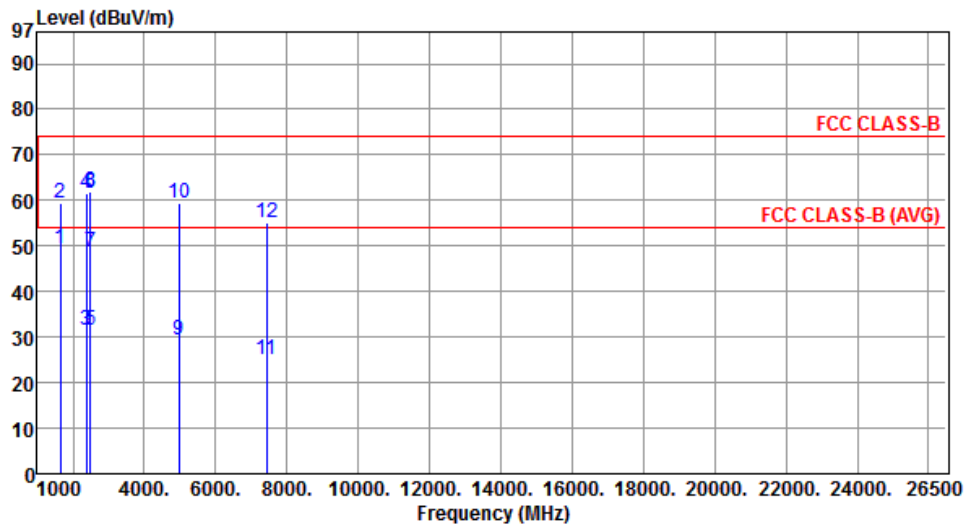


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1628.00	48.12	54.00	-5.88	54.01	-5.89	Average	-----	-----
2	1628.00	57.89	74.00	-16.11	63.78	-5.89	Peak	-----	-----
3	2377.00	29.75	54.00	-24.25	32.72	-2.97	Average	-----	-----
4	2377.00	59.85	74.00	-14.15	62.82	-2.97	Peak	-----	-----
5	4882.00	35.11	54.00	-18.89	30.33	4.78	Average	-----	-----
6	4882.00	65.21	74.00	-8.79	60.43	4.78	Peak	-----	-----
7	7323.00	35.87	54.00	-18.13	26.28	9.59	Average	-----	-----
8	7323.00	65.97	74.00	-8.03	56.38	9.59	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2480
<b>Test Mode</b>	A		

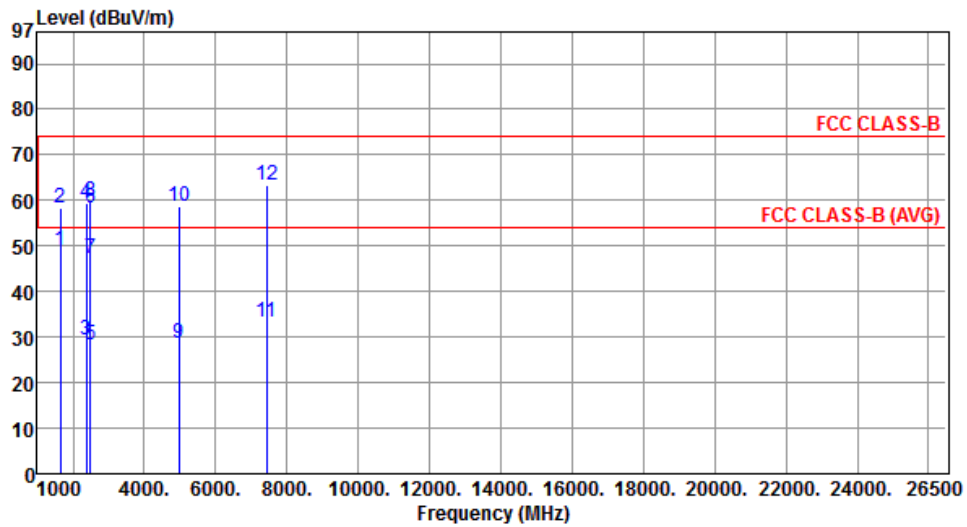


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1653.00	49.38	54.00	-4.62	55.17	-5.79	Average	-----	-----
2	1653.00	59.25	74.00	-14.75	65.04	-5.79	Peak	-----	-----
3	2383.00	31.55	54.00	-22.45	34.48	-2.93	Average	-----	-----
4	2383.00	61.65	74.00	-12.35	64.58	-2.93	Peak	-----	-----
5	2483.50	31.46	54.00	-22.54	33.88	-2.42	Average	-----	-----
6	2483.50	61.56	74.00	-12.44	63.98	-2.42	Peak	-----	-----
7	2485.50	48.77	54.00	-5.23	51.18	-2.41	Average	-----	-----
8	2485.50	61.87	74.00	-12.13	64.28	-2.41	Peak	-----	-----
9	4960.00	29.46	54.00	-24.54	24.55	4.91	Average	-----	-----
10	4960.00	59.56	74.00	-14.44	54.65	4.91	Peak	-----	-----
11	7440.00	25.15	54.00	-28.85	15.39	9.76	Average	-----	-----
12	7440.00	55.25	74.00	-18.75	45.49	9.76	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2480
<b>Test Mode</b>	A		

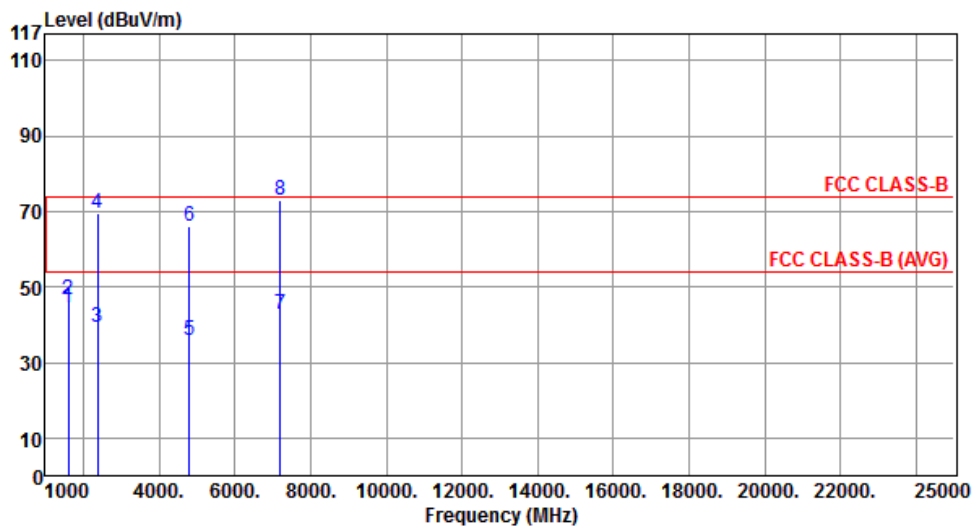


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1653.00	48.92	54.00	-5.08	54.71	-5.79	Average	-----	-----
2	1653.00	58.44	74.00	-15.56	64.23	-5.79	Peak	-----	-----
3	2383.00	29.36	54.00	-24.64	32.29	-2.93	Average	-----	-----
4	2383.00	59.46	74.00	-14.54	62.39	-2.93	Peak	-----	-----
5	2483.50	28.21	54.00	-25.79	30.63	-2.42	Average	-----	-----
6	2483.50	58.31	74.00	-15.69	60.73	-2.42	Peak	-----	-----
7	2485.50	47.16	54.00	-6.84	49.57	-2.41	Average	-----	-----
8	2485.50	59.61	74.00	-14.39	62.02	-2.41	Peak	-----	-----
9	4960.00	28.52	54.00	-25.48	23.61	4.91	Average	-----	-----
10	4960.00	58.62	74.00	-15.38	53.71	4.91	Peak	-----	-----
11	7440.00	33.15	54.00	-20.85	23.39	9.76	Average	-----	-----
12	7440.00	63.25	74.00	-10.75	53.49	9.76	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2402
<b>Test Mode</b>	B		

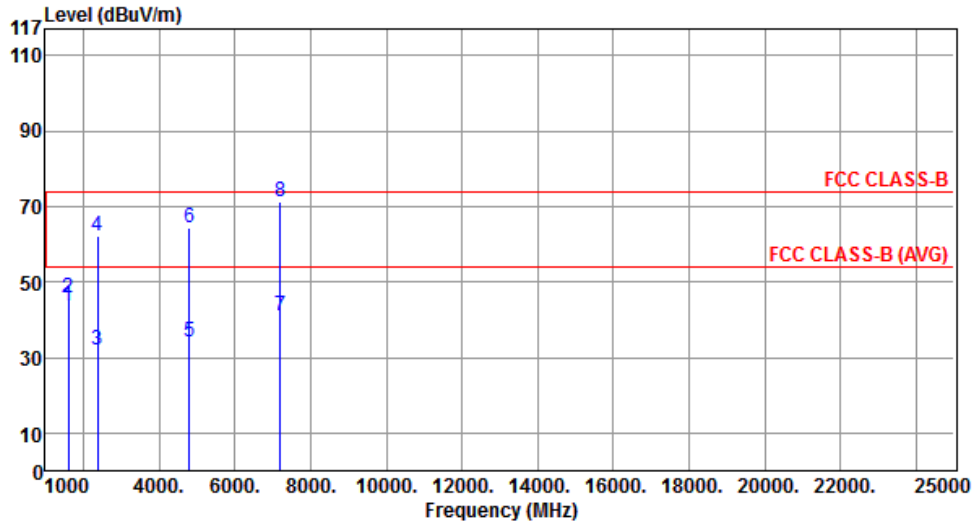


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1602.00	44.55	54.00	-9.45	50.55	-6.00	Average	-----	-----
2	1602.00	46.73	74.00	-27.27	52.73	-6.00	Peak	-----	-----
3	2386.00	39.47	54.00	-14.53	42.39	-2.92	Average	-----	-----
4	2386.00	69.57	74.00	-4.43	72.49	-2.92	Peak	-----	-----
5	4804.00	35.80	54.00	-18.20	31.15	4.65	Average	-----	-----
6	4804.00	65.90	74.00	-8.10	61.25	4.65	Peak	-----	-----
7	7206.00	42.89	54.00	-11.11	33.49	9.40	Average	-----	-----
8	7206.00	72.99	74.00	-1.01	63.59	9.40	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2402
<b>Test Mode</b>	B		

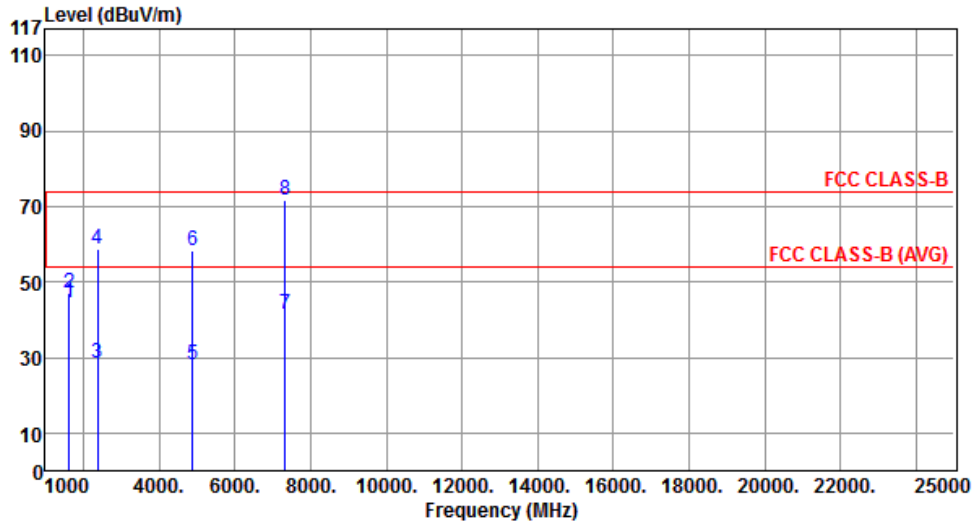


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1602.00	43.67	54.00	-10.33	49.67	-6.00	Average	-----	-----
2	1602.00	45.81	74.00	-28.19	51.81	-6.00	Peak	-----	-----
3	2386.00	32.03	54.00	-21.97	34.95	-2.92	Average	-----	-----
4	2386.00	62.13	74.00	-11.87	65.05	-2.92	Peak	-----	-----
5	4804.00	34.25	54.00	-19.75	29.60	4.65	Average	-----	-----
6	4804.00	64.35	74.00	-9.65	59.70	4.65	Peak	-----	-----
7	7206.00	41.14	54.00	-12.86	31.74	9.40	Average	-----	-----
8	7206.00	71.24	74.00	-2.76	61.84	9.40	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2441
<b>Test Mode</b>	B		

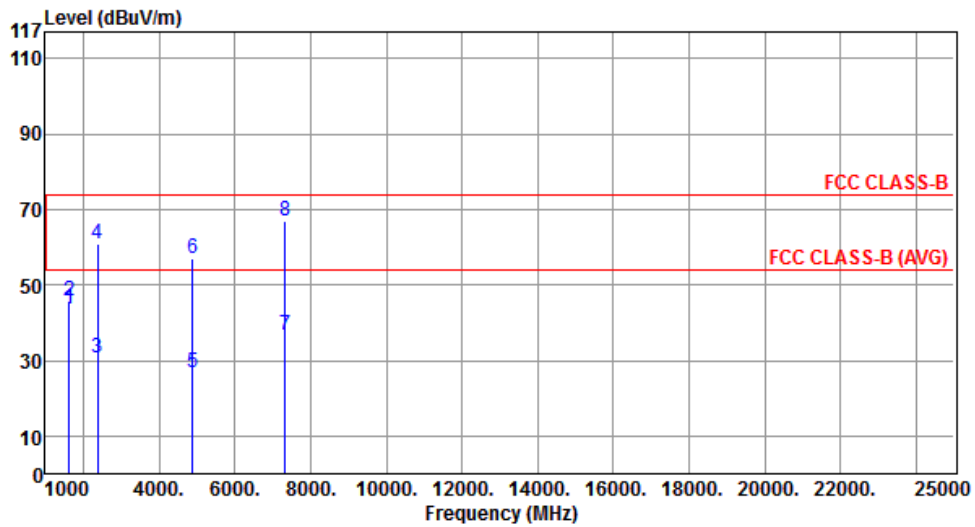


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1626.00	44.58	54.00	-9.42	50.48	-5.90	Average	-----	-----
2	1626.00	46.89	74.00	-27.11	52.79	-5.90	Peak	-----	-----
3	2377.00	28.68	54.00	-25.32	31.65	-2.97	Average	-----	-----
4	2377.00	58.78	74.00	-15.22	61.75	-2.97	Peak	-----	-----
5	4882.00	28.02	54.00	-25.98	23.24	4.78	Average	-----	-----
6	4882.00	58.12	74.00	-15.88	53.34	4.78	Peak	-----	-----
7	7323.00	41.46	54.00	-12.54	31.87	9.59	Average	-----	-----
8	7323.00	71.56	74.00	-2.44	61.97	9.59	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2441
<b>Test Mode</b>	B		



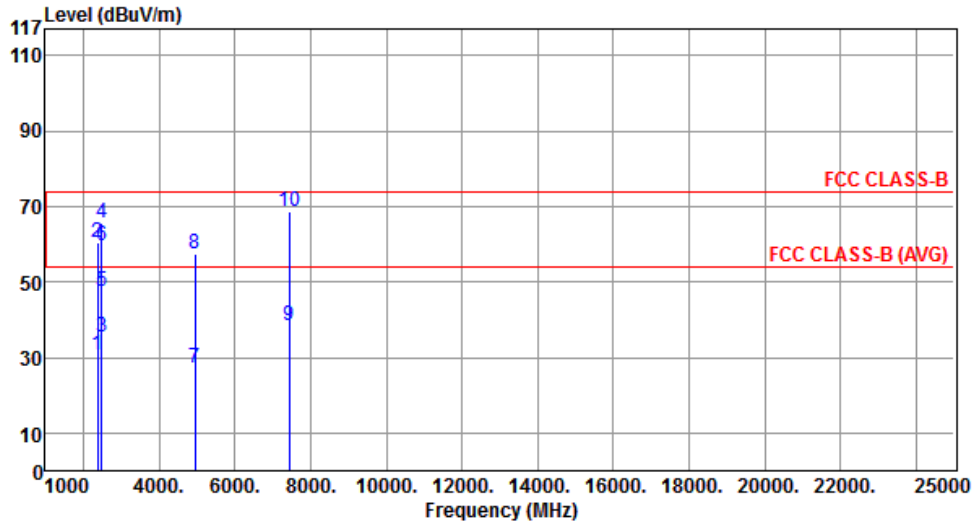
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1626.00	43.64	54.00	-10.36	49.54	-5.90	Average	-----	-----
2	1626.00	45.88	74.00	-28.12	51.78	-5.90	Peak	-----	-----
3	2377.00	30.79	54.00	-23.21	33.76	-2.97	Average	-----	-----
4	2377.00	60.89	74.00	-13.11	63.86	-2.97	Peak	-----	-----
5	4882.00	26.83	54.00	-27.17	22.05	4.78	Average	-----	-----
6	4882.00	56.93	74.00	-17.07	52.15	4.78	Peak	-----	-----
7	7323.00	36.71	54.00	-17.29	27.12	9.59	Average	-----	-----
8	7323.00	66.81	74.00	-7.19	57.22	9.59	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.





<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2480
<b>Test Mode</b>	B		

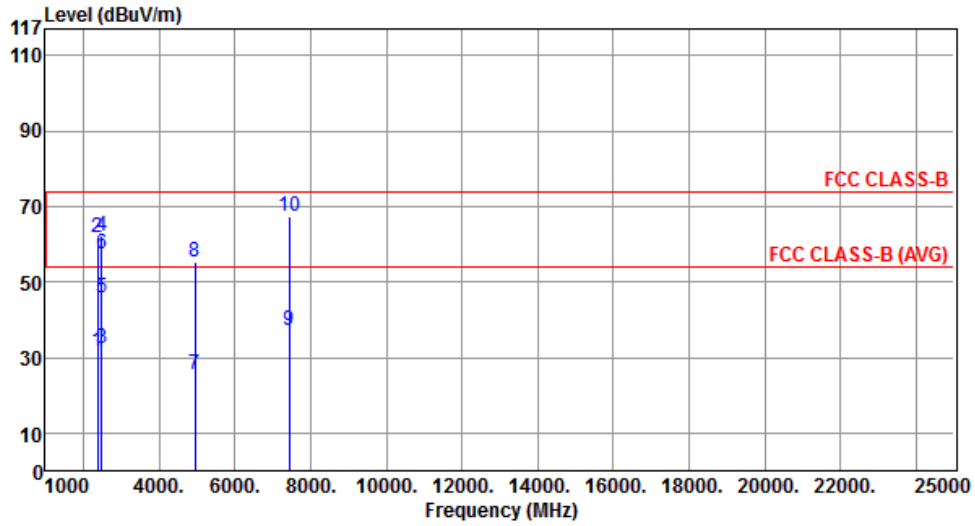


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2383.00	30.52	54.00	-23.48	33.45	-2.93	Average	-----	-----
2	2383.00	60.62	74.00	-13.38	63.55	-2.93	Peak	-----	-----
3	2483.50	35.38	54.00	-18.62	37.80	-2.42	Average	-----	-----
4	2483.50	65.48	74.00	-8.52	67.90	-2.42	Peak	-----	-----
5	2485.50	47.58	54.00	-6.42	49.99	-2.41	Average	-----	-----
6	2485.50	59.47	74.00	-14.53	61.88	-2.41	Peak	-----	-----
7	4960.00	27.19	54.00	-26.81	22.28	4.91	Average	-----	-----
8	4960.00	57.29	74.00	-16.71	52.38	4.91	Peak	-----	-----
9	7440.00	38.39	54.00	-15.61	28.63	9.76	Average	-----	-----
10	7440.00	68.49	74.00	-5.51	58.73	9.76	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2480
<b>Test Mode</b>	B		

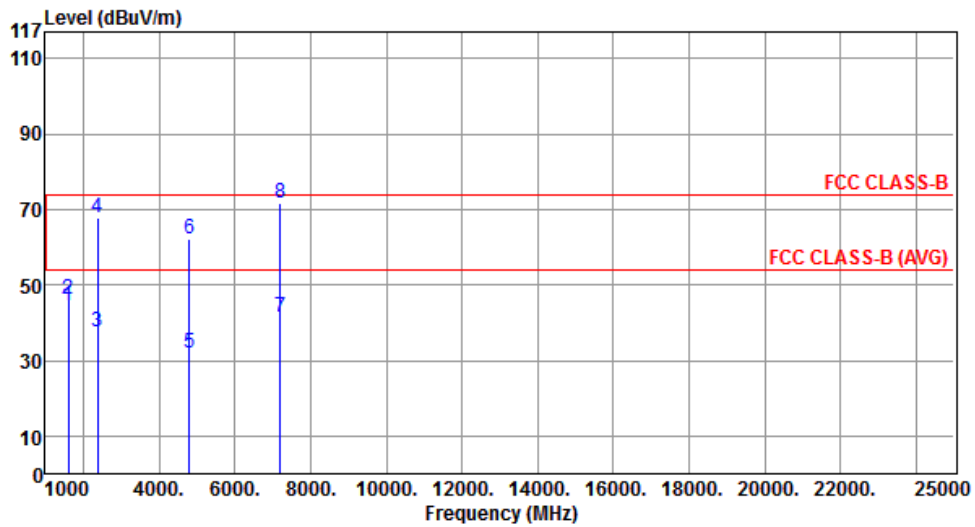


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2383.00	31.55	54.00	-22.45	34.48	-2.93	Average	-----	-----
2	2383.00	61.65	74.00	-12.35	64.58	-2.93	Peak	-----	-----
3	2483.50	32.28	54.00	-21.72	34.70	-2.42	Average	-----	-----
4	2483.50	62.38	74.00	-11.62	64.80	-2.42	Peak	-----	-----
5	2485.50	45.61	54.00	-8.39	48.02	-2.41	Average	-----	-----
6	2485.50	57.45	74.00	-16.55	59.86	-2.41	Peak	-----	-----
7	4960.00	25.28	54.00	-28.72	20.37	4.91	Average	-----	-----
8	4960.00	55.38	74.00	-18.62	50.47	4.91	Peak	-----	-----
9	7440.00	37.28	54.00	-16.72	27.52	9.76	Average	-----	-----
10	7440.00	67.38	74.00	-6.62	57.62	9.76	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2402
<b>Test Mode</b>	C		

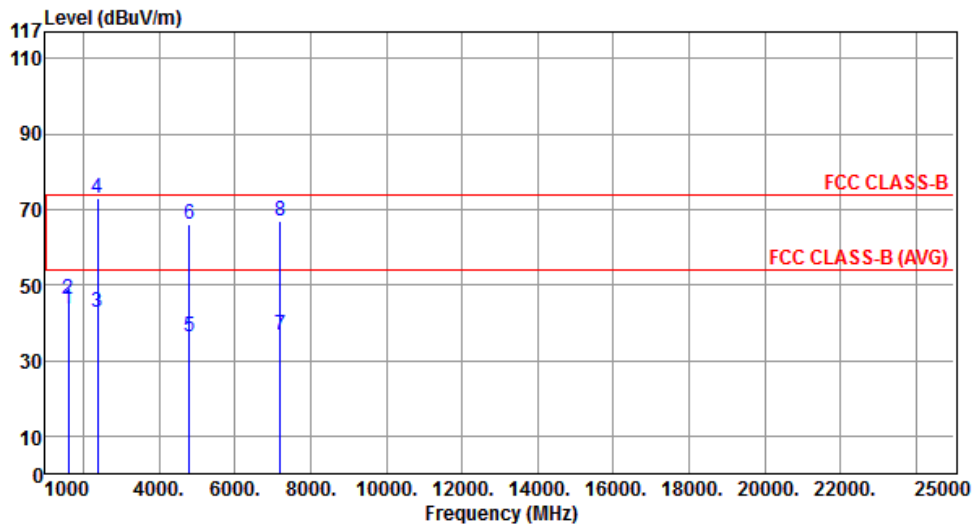


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1602.00	44.59	54.00	-9.41	50.59	-6.00	Average	-----	-----
2	1602.00	46.36	74.00	-27.64	52.36	-6.00	Peak	-----	-----
3	2386.00	37.69	54.00	-16.31	40.61	-2.92	Average	-----	-----
4	2386.00	67.79	74.00	-6.21	70.71	-2.92	Peak	-----	-----
5	4804.00	32.08	54.00	-21.92	27.43	4.65	Average	-----	-----
6	4804.00	62.18	74.00	-11.82	57.53	4.65	Peak	-----	-----
7	7206.00	41.50	54.00	-12.50	32.10	9.40	Average	-----	-----
8	7206.00	71.60	74.00	-2.40	62.20	9.40	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2402
<b>Test Mode</b>	C		

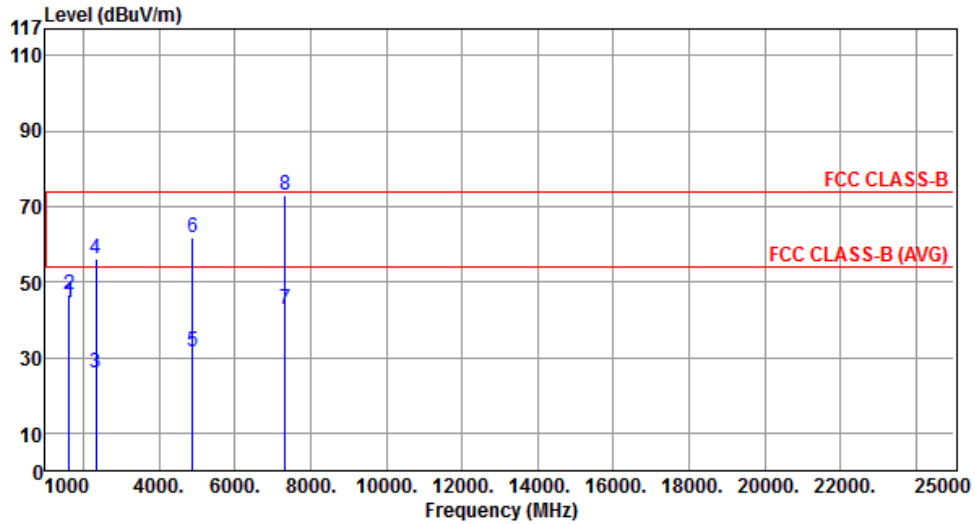


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1602.00	43.56	54.00	-10.44	49.56	-6.00	Average	-----	-----
2	1602.00	46.11	74.00	-27.89	52.11	-6.00	Peak	-----	-----
3	2386.00	42.83	54.00	-11.17	45.75	-2.92	Average	-----	-----
4	2386.00	72.93	74.00	-1.07	75.85	-2.92	Peak	-----	-----
5	4804.00	36.13	54.00	-17.87	31.48	4.65	Average	-----	-----
6	4804.00	66.23	74.00	-7.77	61.58	4.65	Peak	-----	-----
7	7206.00	36.83	54.00	-17.17	27.43	9.40	Average	-----	-----
8	7206.00	66.93	74.00	-7.07	57.53	9.40	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2441
<b>Test Mode</b>	C		

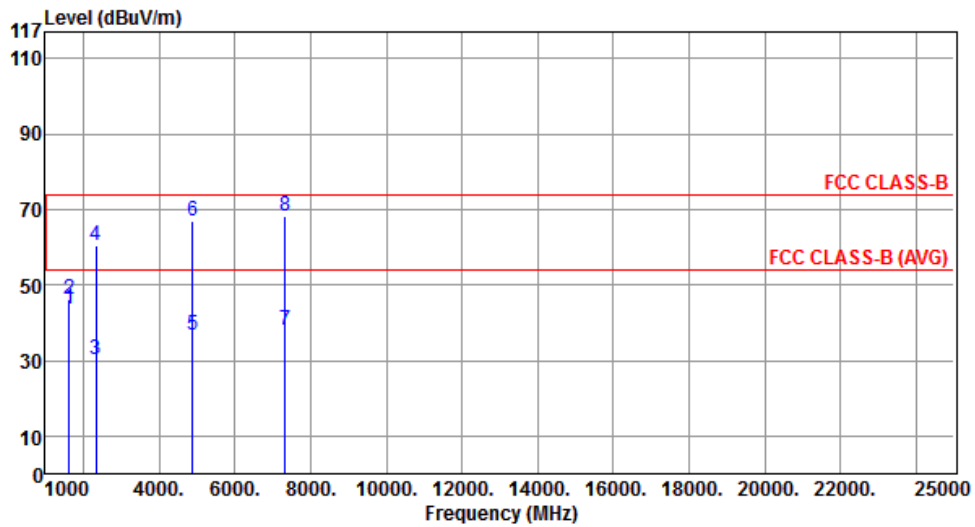


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1626.00	44.53	54.00	-9.47	50.43	-5.90	Average	-----	-----
2	1626.00	46.79	74.00	-27.21	52.69	-5.90	Peak	-----	-----
3	2344.00	25.89	54.00	-28.11	29.03	-3.14	Average	-----	-----
4	2344.00	55.99	74.00	-18.01	59.13	-3.14	Peak	-----	-----
5	4882.00	31.70	54.00	-22.30	26.92	4.78	Average	-----	-----
6	4882.00	61.80	74.00	-12.20	57.02	4.78	Peak	-----	-----
7	7323.00	42.90	54.00	-11.10	33.31	9.59	Average	-----	-----
8	7323.00	73.00	74.00	-1.00	63.41	9.59	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2441
<b>Test Mode</b>	C		

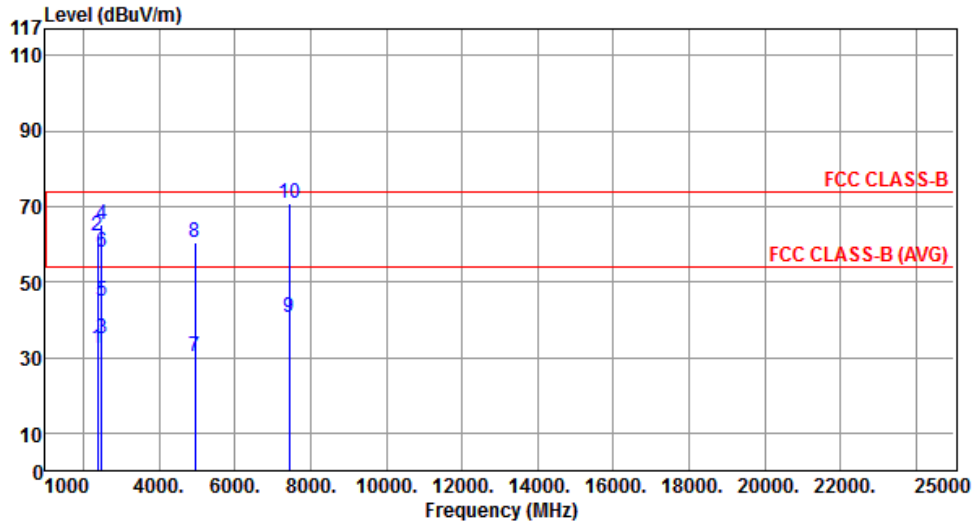


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1626.00	43.47	54.00	-10.53	49.37	-5.90	Average	-----	-----
2	1626.00	46.21	74.00	-27.79	52.11	-5.90	Peak	-----	-----
3	2344.00	30.18	54.00	-23.82	33.32	-3.14	Average	-----	-----
4	2344.00	60.28	74.00	-13.72	63.42	-3.14	Peak	-----	-----
5	4882.00	36.77	54.00	-17.23	31.99	4.78	Average	-----	-----
6	4882.00	66.87	74.00	-7.13	62.09	4.78	Peak	-----	-----
7	7323.00	38.20	54.00	-15.80	28.61	9.59	Average	-----	-----
8	7323.00	68.30	74.00	-5.70	58.71	9.59	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2480
<b>Test Mode</b>	C		

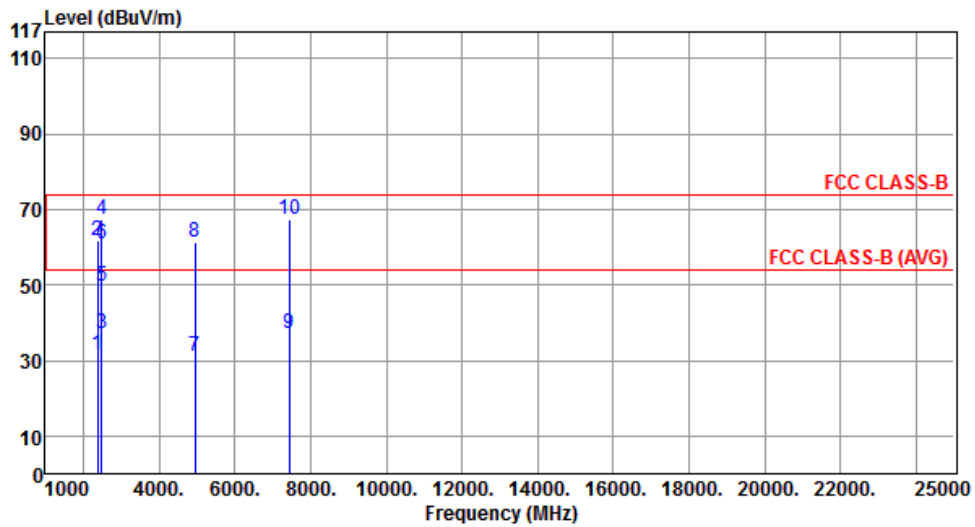


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2383.00	32.21	54.00	-21.79	35.14	-2.93	Average	-----	-----
2	2383.00	62.31	74.00	-11.69	65.24	-2.93	Peak	-----	-----
3	2483.50	35.17	54.00	-18.83	37.59	-2.42	Average	-----	-----
4	2483.50	65.27	74.00	-8.73	67.69	-2.42	Peak	-----	-----
5	2485.50	44.93	54.00	-9.07	47.34	-2.41	Average	-----	-----
6	2485.50	57.98	74.00	-16.02	60.39	-2.41	Peak	-----	-----
7	4960.00	30.31	54.00	-23.69	25.40	4.91	Average	-----	-----
8	4960.00	60.41	74.00	-13.59	55.50	4.91	Peak	-----	-----
9	7440.00	40.59	54.00	-13.41	30.83	9.76	Average	-----	-----
10	7440.00	70.69	74.00	-3.31	60.93	9.76	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2480
<b>Test Mode</b>	C		



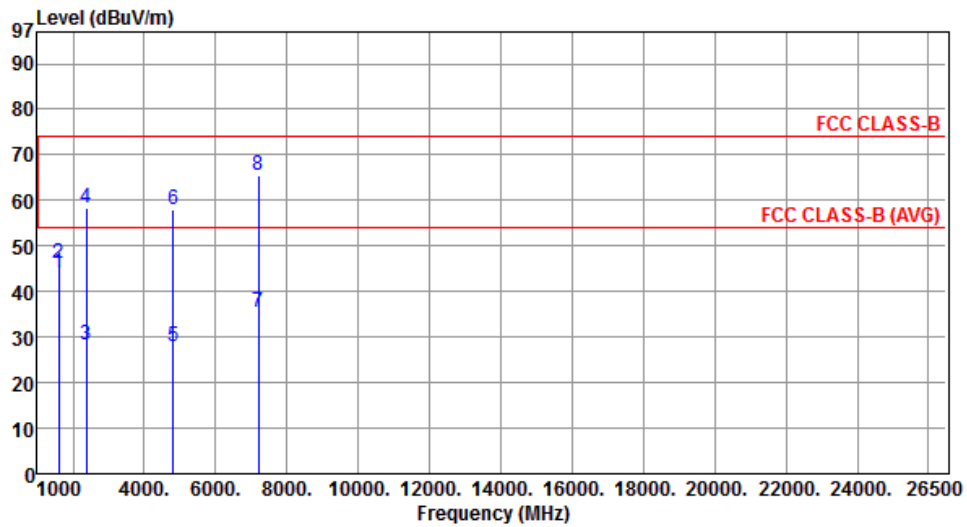
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2383.00	31.64	54.00	-22.36	34.57	-2.93	Average	-----	-----
2	2383.00	61.74	74.00	-12.26	64.67	-2.93	Peak	-----	-----
3	2483.50	37.25	54.00	-16.75	39.67	-2.42	Average	-----	-----
4	2483.50	67.35	74.00	-6.65	69.77	-2.42	Peak	-----	-----
5	2485.50	49.73	54.00	-4.27	52.14	-2.41	Average	-----	-----
6	2485.50	60.79	74.00	-13.21	63.20	-2.41	Peak	-----	-----
7	4960.00	31.28	54.00	-22.72	26.37	4.91	Average	-----	-----
8	4960.00	61.38	74.00	-12.62	56.47	4.91	Peak	-----	-----
9	7440.00	37.12	54.00	-16.88	27.36	9.76	Average	-----	-----
10	7440.00	67.22	74.00	-6.78	57.46	9.76	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.





<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2402
<b>Test Mode</b>	D		

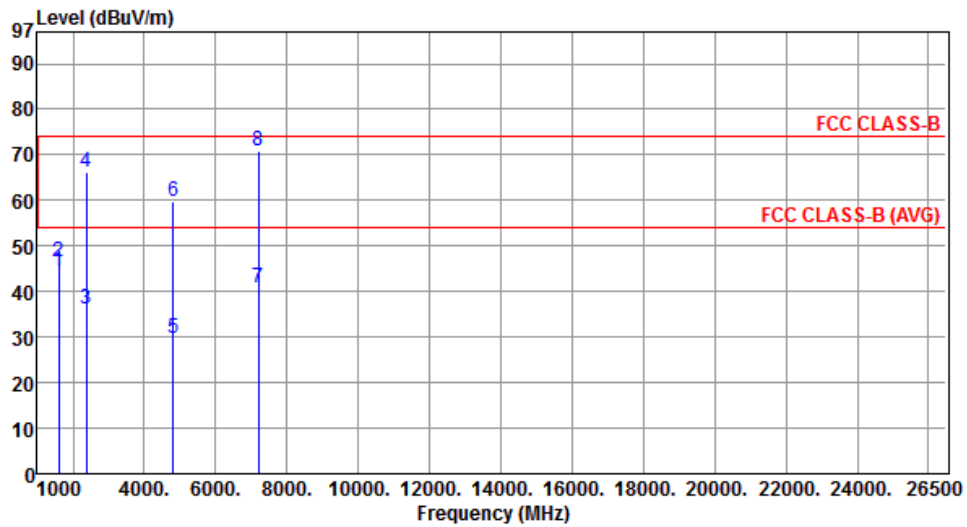


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1602.00	43.85	54.00	-10.15	49.85	-6.00	Average	-----	-----
2	1602.00	46.04	74.00	-27.96	52.04	-6.00	Peak	-----	-----
3	2370.00	28.35	54.00	-25.65	31.35	-3.00	Average	-----	-----
4	2370.00	58.45	74.00	-15.55	61.45	-3.00	Peak	-----	-----
5	4804.00	27.85	54.00	-26.15	23.20	4.65	Average	-----	-----
6	4804.00	57.95	74.00	-16.05	53.30	4.65	Peak	-----	-----
7	7206.00	35.33	54.00	-18.67	25.93	9.40	Average	-----	-----
8	7206.00	65.43	74.00	-8.57	56.03	9.40	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2402
<b>Test Mode</b>	D		

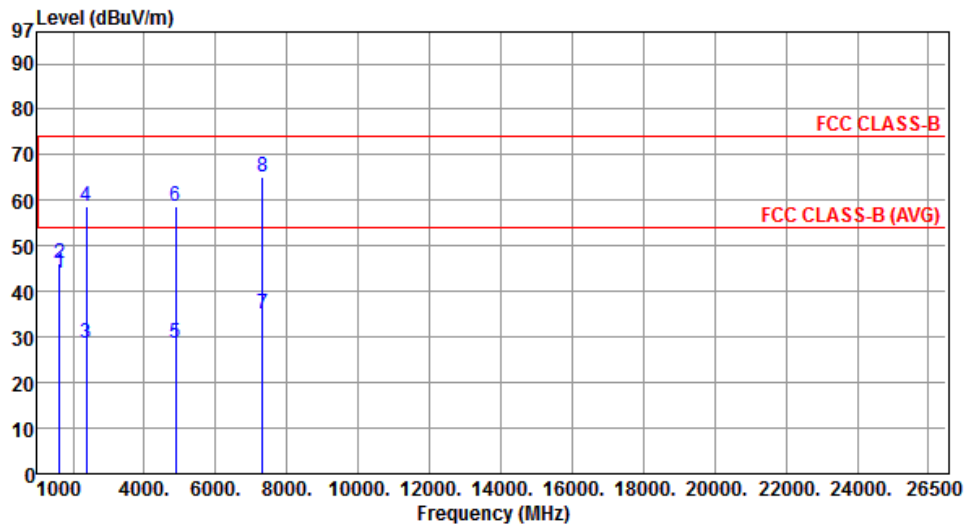


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1602.00	44.24	54.00	-9.76	50.24	-6.00	Average	-----	-----
2	1602.00	46.59	74.00	-27.41	52.59	-6.00	Peak	-----	-----
3	2370.00	36.19	54.00	-17.81	39.19	-3.00	Average	-----	-----
4	2370.00	66.29	74.00	-7.71	69.29	-3.00	Peak	-----	-----
5	4804.00	29.55	54.00	-24.45	24.90	4.65	Average	-----	-----
6	4804.00	59.65	74.00	-14.35	55.00	4.65	Peak	-----	-----
7	7206.00	40.83	54.00	-13.17	31.43	9.40	Average	-----	-----
8	7206.00	70.93	74.00	-3.07	61.53	9.40	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2441
<b>Test Mode</b>	D		

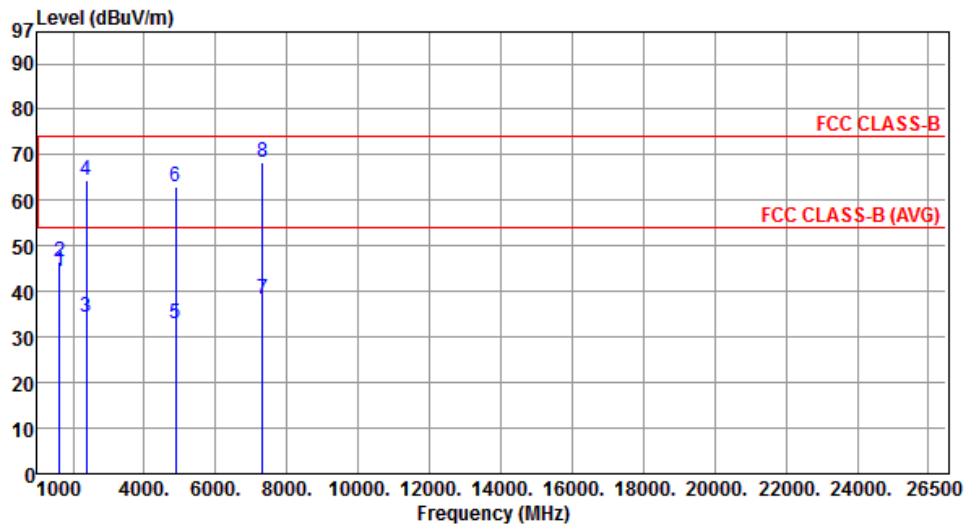


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1626.00	43.85	54.00	-10.15	49.75	-5.90	Average	-----	-----
2	1626.00	46.02	74.00	-27.98	51.92	-5.90	Peak	-----	-----
3	2377.00	28.54	54.00	-25.46	31.51	-2.97	Average	-----	-----
4	2377.00	58.64	74.00	-15.36	61.61	-2.97	Peak	-----	-----
5	4882.00	28.74	54.00	-25.26	23.96	4.78	Average	-----	-----
6	4882.00	58.84	74.00	-15.16	54.06	4.78	Peak	-----	-----
7	7323.00	35.15	54.00	-18.85	25.56	9.59	Average	-----	-----
8	7323.00	65.25	74.00	-8.75	55.66	9.59	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2441
<b>Test Mode</b>	D		

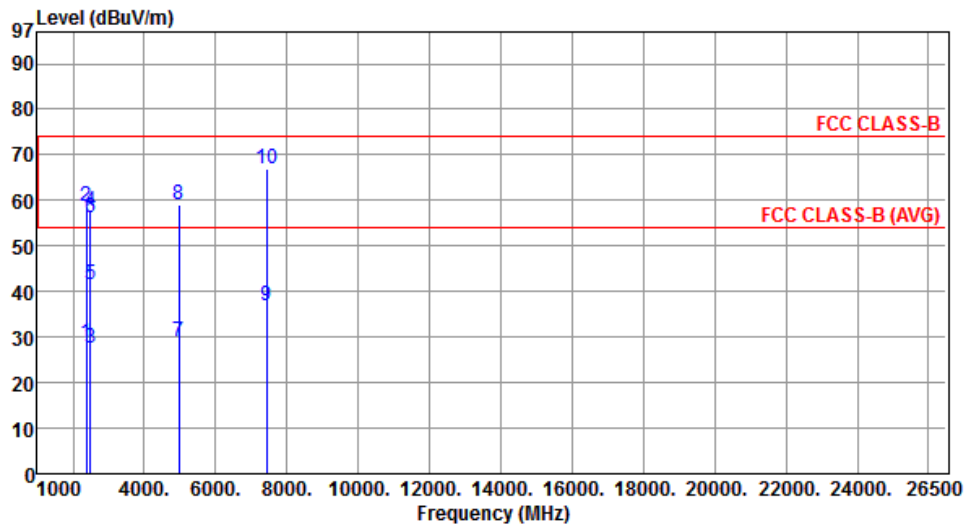


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1626.00	44.23	54.00	-9.77	50.13	-5.90	Average	-----	-----
2	1626.00	46.58	74.00	-27.42	52.48	-5.90	Peak	-----	-----
3	2377.00	34.35	54.00	-19.65	37.32	-2.97	Average	-----	-----
4	2377.00	64.45	74.00	-9.55	67.42	-2.97	Peak	-----	-----
5	4882.00	32.85	54.00	-21.15	28.07	4.78	Average	-----	-----
6	4882.00	62.95	74.00	-11.05	58.17	4.78	Peak	-----	-----
7	7323.00	38.35	54.00	-15.65	28.76	9.59	Average	-----	-----
8	7323.00	68.45	74.00	-5.55	58.86	9.59	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Horizontal	<b>Test Freq. (MHz)</b>	2480
<b>Test Mode</b>	D		

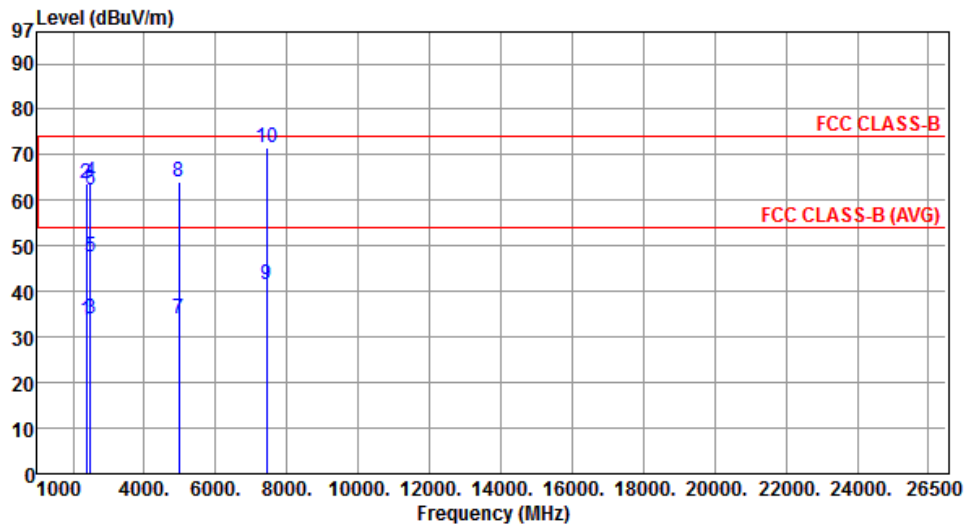


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2383.00	28.54	54.00	-25.46	31.47	-2.93	Average	-----	-----
2	2383.00	58.64	74.00	-15.36	61.57	-2.93	Peak	-----	-----
3	2483.50	27.68	54.00	-26.32	30.10	-2.42	Average	-----	-----
4	2483.50	57.78	74.00	-16.22	60.20	-2.42	Peak	-----	-----
5	2485.50	41.56	54.00	-12.44	43.97	-2.41	Average	-----	-----
6	2485.50	56.14	74.00	-17.86	58.55	-2.41	Peak	-----	-----
7	4960.00	28.85	54.00	-25.15	23.94	4.91	Average	-----	-----
8	4960.00	58.95	74.00	-15.05	54.04	4.91	Peak	-----	-----
9	7440.00	36.81	54.00	-17.19	27.05	9.76	Average	-----	-----
10	7440.00	66.91	74.00	-7.09	57.15	9.76	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



<b>Polarization</b>	Vertical	<b>Test Freq. (MHz)</b>	2480
<b>Test Mode</b>	D		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2383.00	33.55	54.00	-20.45	36.48	-2.93	Average	-----	-----
2	2383.00	63.65	74.00	-10.35	66.58	-2.93	Peak	-----	-----
3	2483.50	33.86	54.00	-20.14	36.28	-2.42	Average	-----	-----
4	2483.50	63.96	74.00	-10.04	66.38	-2.42	Peak	-----	-----
5	2485.50	47.48	54.00	-6.52	49.89	-2.41	Average	-----	-----
6	2485.50	62.20	74.00	-11.80	64.61	-2.41	Peak	-----	-----
7	4960.00	33.85	54.00	-20.15	28.94	4.91	Average	-----	-----
8	4960.00	63.95	74.00	-10.05	59.04	4.91	Peak	-----	-----
9	7440.00	41.42	54.00	-12.58	31.66	9.76	Average	-----	-----
10	7440.00	71.52	74.00	-2.48	61.76	9.76	Peak	-----	-----

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.  
 Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



### 3.3 Unwanted Emissions into Non-Restricted Frequency Bands

#### 3.3.1 Limit of Unwanted Emissions into Non-Restricted Frequency Bands

- The peak output power measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz.
- The peak power in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum in-band peak PSD level in 100 kHz.

#### 3.3.2 Test Procedures

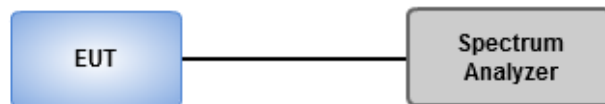
##### Reference Level Measurement

1. Set the RBW = 100 kHz, VBW = 300 kHz, Detector = peak.
2. Set Sweep time = auto couple, Trace mode = max hold.
3. Allow trace to fully stabilize.
4. Use the peakmarker function to determine the maximum amplitude level.

##### Unwanted Emissions Level Measurement

1. Set RBW = 100 kHz, VBW = 300 kHz, Detector = peak.
2. Trace Mode = max hold, Sweep = auto couple.
3. Allow the trace to stabilize.
4. Use peakmarker function to determine maximum amplitude of all unwanted emissions within any 100 kHz bandwidth.

#### 3.3.3 Test Setup





### 3.3.4 Unwanted Emissions into Non-Restricted Frequency Bands for GFSK

Transmitter Radiated Bandedge Emissions Result								
Modulation	GFSK, Hopping off			Test Mode	A			
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] - [o] (dB)	Limit (dB)	Level Type	Pol. note 1
2390-2400	2402	112.13	2400	60.68	51.45	20	PK	H
2390-2400	2402	109.12	2400	57.55	51.57	20	PK	V
2500-2690	2480	112.30	2512.2	54.90	57.40	20	PK	H
2500-2690	2480	109.51	2511.9	52.84	56.67	20	PK	V
Low Bandedge - H				Up Bandedge - H				
Low Bandedge - V				Up Bandedge - V				
Note 1: Measurement worst emissions of receive antenna polarization: H (Horizontal) or V (Vertical)								

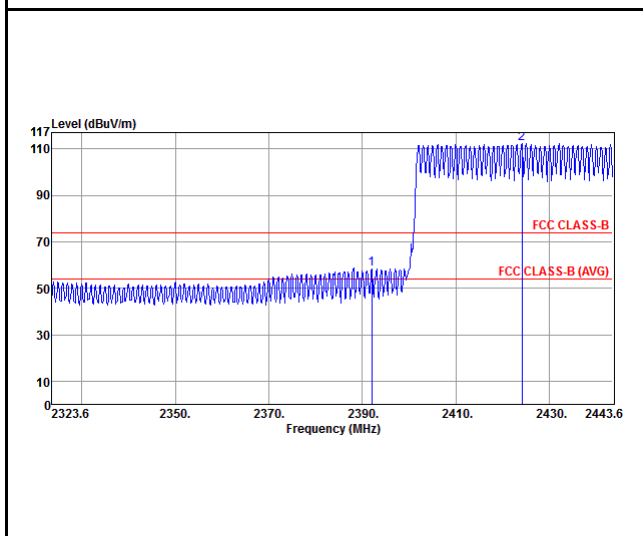




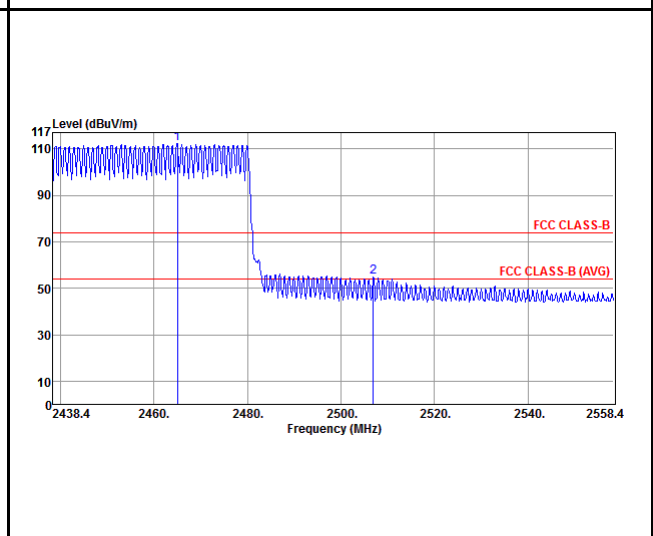
**Transmitter Radiated Bandedge Emissions Result**

Modulation		GFSK, Hopping on		Test Mode		A		
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] - [o] (dB)	Limit (dB)	Level Type	Pol. note 1
2390-2400	hopping	112.44	2392.00	58.45	53.99	20	PK	H
2390-2400	hopping	109.72	2392.96	56.32	53.40	20	PK	V
2500-2690	hopping	112.10	2506.92	54.65	57.45	20	PK	H
2500-2690	hopping	109.86	2506.92	51.97	57.89	20	PK	V

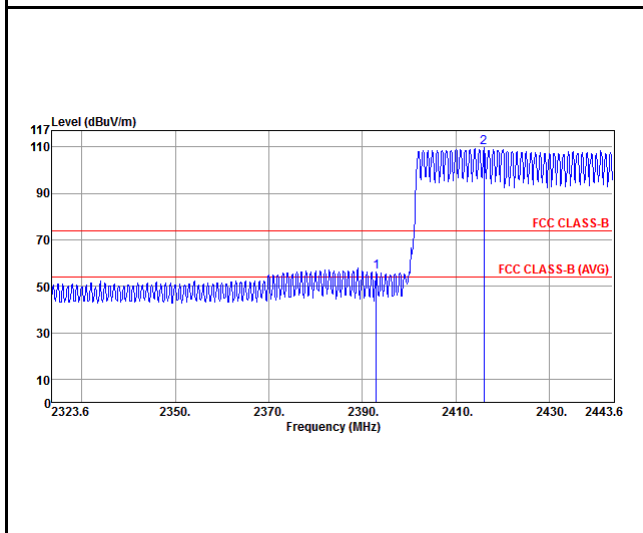
**Low Bandedge - H**



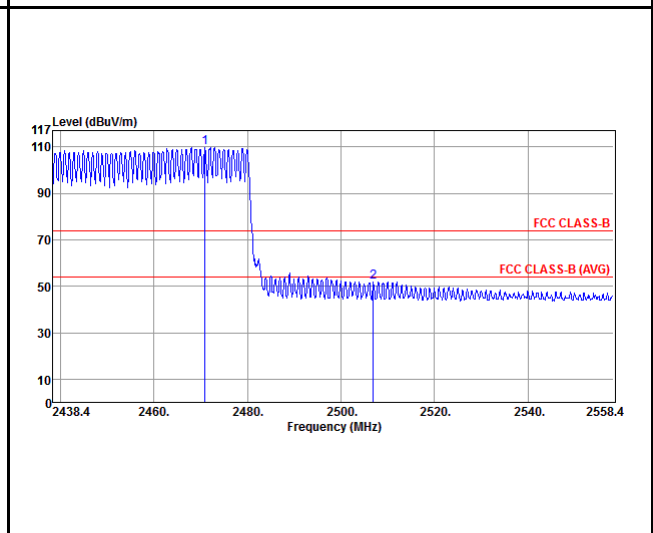
**Up Bandedge - H**



**Low Bandedge - V**



**Up Bandedge - V**



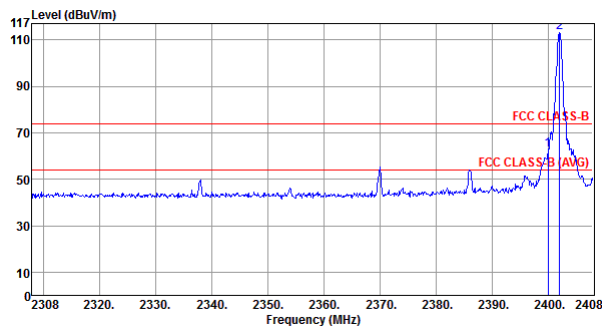
Note 1: Measurement worst emissions of receive antenna polarization: H (Horizontal) or V (Vertical)



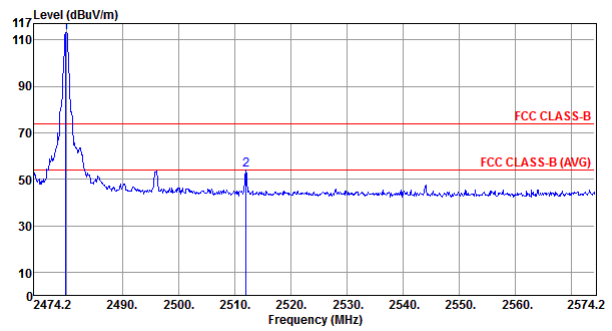
**Transmitter Radiated Bandedge Emissions Result**

Modulation		GFSK, Hopping off		Test Mode		B		
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] - [o] (dB)	Limit (dB)	Level Type	Pol. note 1
2390-2400	2402	113.21	2400	62.59	50.62	20	PK	H
2390-2400	2402	110.18	2400	58.63	51.55	20	PK	V
2500-2690	2480	113.25	2512.0	53.90	59.35	20	PK	H
2500-2690	2480	110.61	2511.9	52.56	58.05	20	PK	V

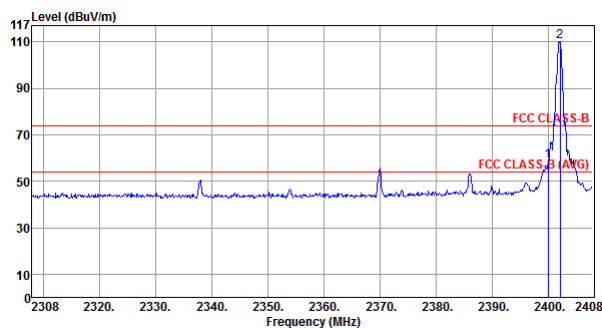
**Low Bandedge - H**



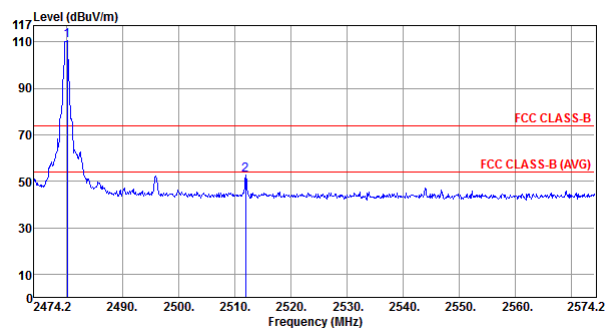
**Up Bandedge - H**



**Low Bandedge - V**



**Up Bandedge - V**



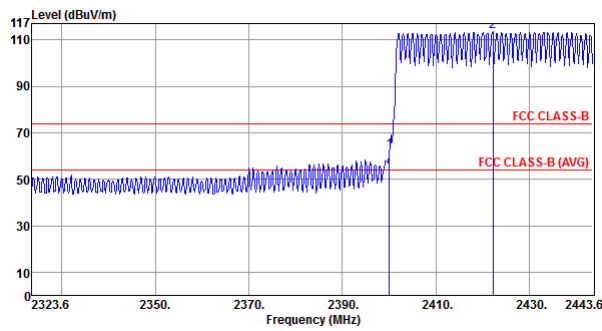
Note 1: Measurement worst emissions of receive antenna polarization: H (Horizontal) or V (Vertical)



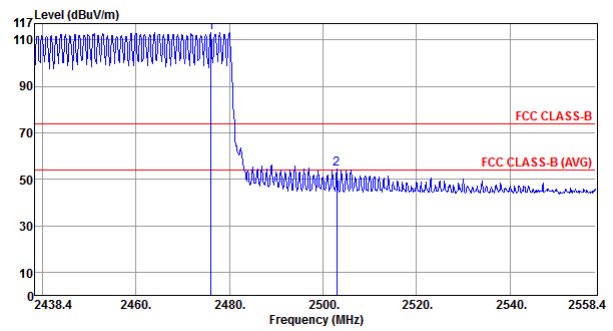
**Transmitter Radiated Bandedge Emissions Result**

Modulation	GFSK, Hopping on			Test Mode	B			
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] - [o] (dB)	Limit (dB)	Level Type	Pol. note 1
2390-2400	hopping	113.52	2400	61.97	51.55	20	PK	H
2390-2400	hopping	110.36	2400	57.64	52.72	20	PK	V
2500-2690	hopping	113.17	2502.96	54.22	58.95	20	PK	H
2500-2690	hopping	110.59	2502.96	52.06	58.53	20	PK	V

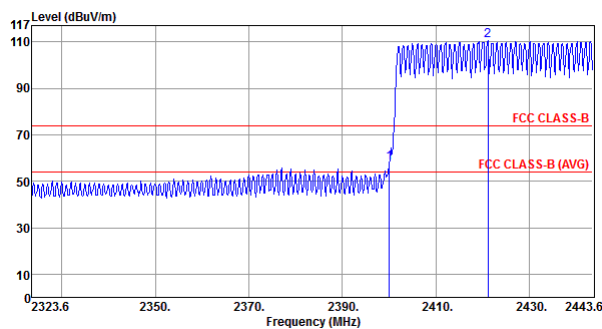
**Low Bandedge - H**



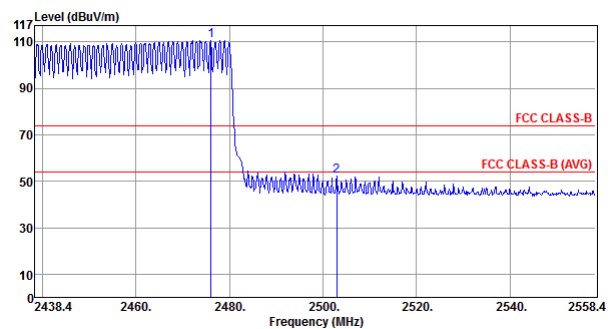
**Up Bandedge - H**



**Low Bandedge - V**



**Up Bandedge - V**



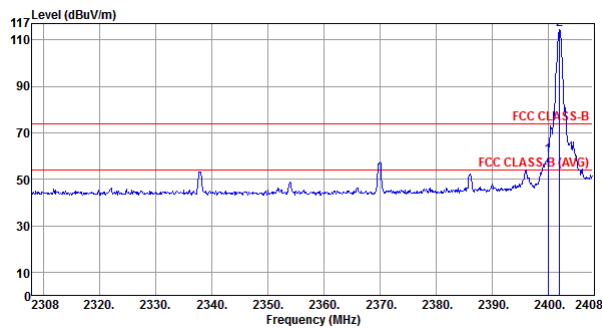
Note 1: Measurement worst emissions of receive antenna polarization: H (Horizontal) or V (Vertical)



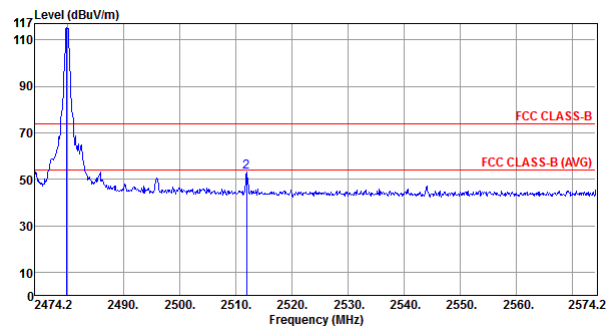
**Transmitter Radiated Bandedge Emissions Result**

Modulation	GFSK, Hopping off			Test Mode	C			
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] - [o] (dB)	Limit (dB)	Level Type	Pol. note 1
2390-2400	2402	114.21	2400	59.95	54.26	20	PK	H
2390-2400	2402	106.23	2400	57.51	48.72	20	PK	V
2500-2690	2480	115.09	2511.9	52.90	62.19	20	PK	H
2500-2690	2480	106.80	2511.9	49.07	57.73	20	PK	V

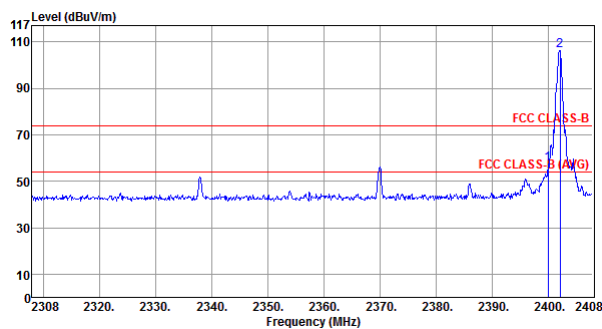
**Low Bandedge - H**



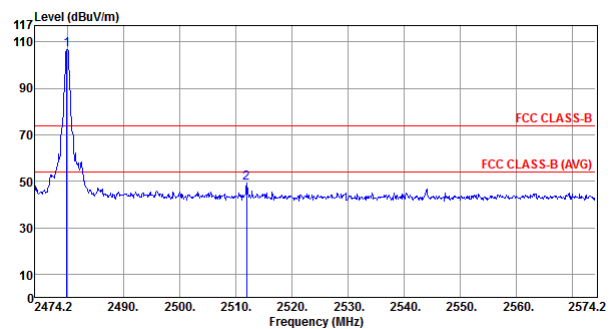
**Up Bandedge - H**



**Low Bandedge - V**



**Up Bandedge - V**



Note 1: Measurement worst emissions of receive antenna polarization: H (Horizontal) or V (Vertical)

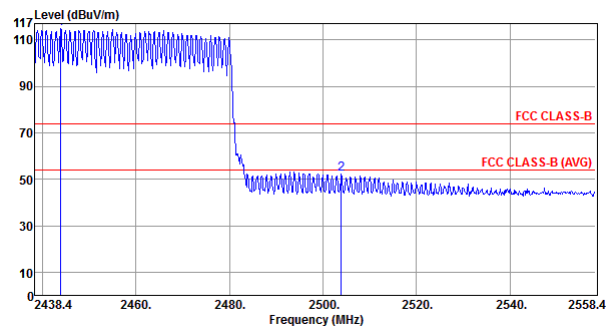
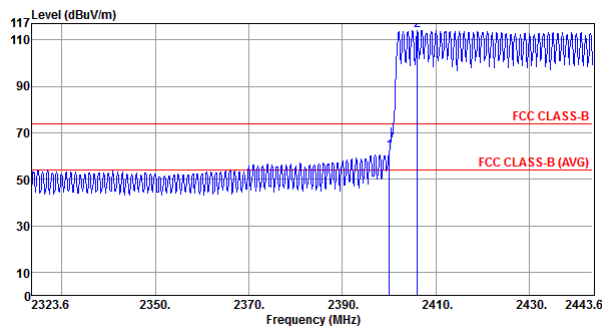


**Transmitter Radiated Bandedge Emissions Result**

Modulation	GFSK, Hopping on			Test Mode	C			
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] - [o] (dB)	Limit (dB)	Level Type	Pol. note 1
2390-2400	hopping	114.15	2400	61.73	52.42	20	PK	H
2390-2400	hopping	106.63	2393.20	56.79	49.84	20	PK	V
2500-2690	hopping	114.73	2503.92	52.11	62.62	20	PK	H
2500-2690	hopping	106.56	2505	50.13	56.43	20	PK	V

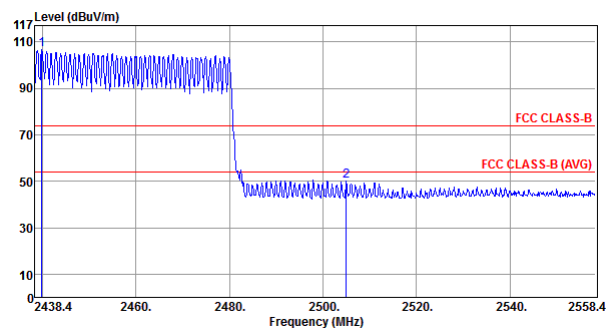
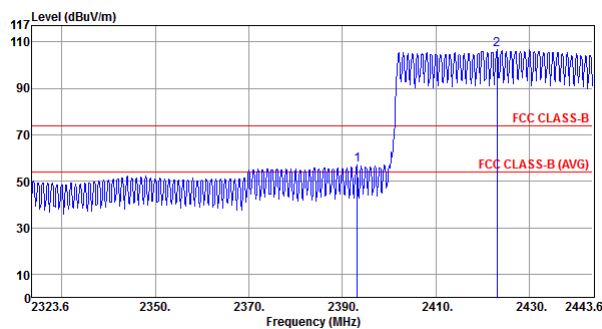
**Low Bandedge - H**

**Up Bandedge - H**



**Low Bandedge - V**

**Up Bandedge - V**



Note 1: Measurement worst emissions of receive antenna polarization: H (Horizontal) or V (Vertical)



**Transmitter Radiated Bandedge Emissions Result**

Modulation		GFSK, Hopping off			Test Mode		D		
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] - [o] (dB)	Limit (dB)	Level Type	Pol. note 1	
2390-2400	2402	110.25	2400	60.64	49.61	20	PK	H	
2390-2400	2402	115.77	2400	61.74	54.03	20	PK	V	
2500-2690	2480	110.28	2511.9	53.36	56.92	20	PK	H	
2500-2690	2480	116.38	2512.0	52.89	63.49	20	PK	V	

Low Bandedge - H		Up Bandedge - H	
Low Bandedge - V		Up Bandedge - V	

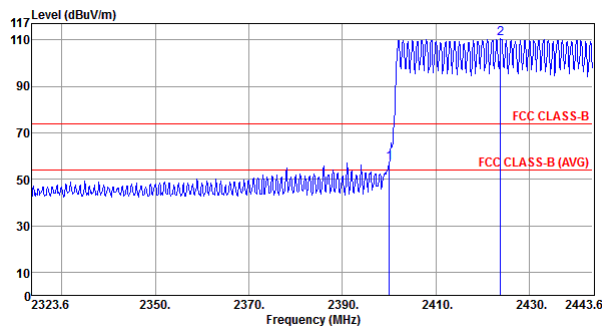
Note 1: Measurement worst emissions of receive antenna polarization: H (Horizontal) or V (Vertical)



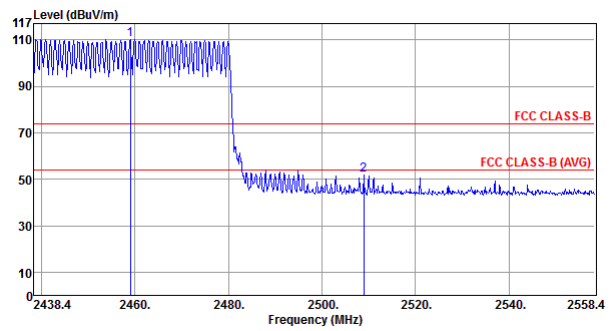
**Transmitter Radiated Bandedge Emissions Result**

Modulation	GFSK, Hopping on			Test Mode	D			
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] - [o] (dB)	Limit (dB)	Level Type	Pol. note 1
2390-2400	hopping	110.47	2400	56.94	53.53	20	PK	H
2390-2400	hopping	116.04	2400	57.14	58.90	20	PK	V
2500-2690	hopping	110.22	2508.96	51.76	58.46	20	PK	H
2500-2690	hopping	116.27	2502.00	51.47	64.80	20	PK	V

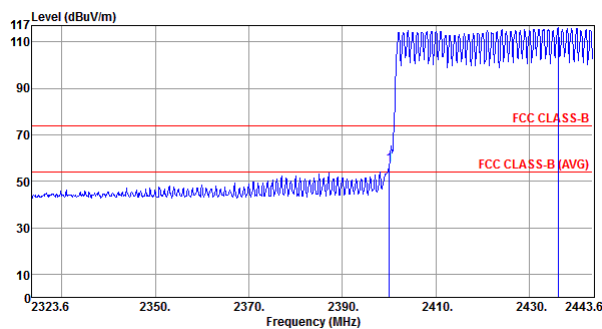
**Low Bandedge - H**



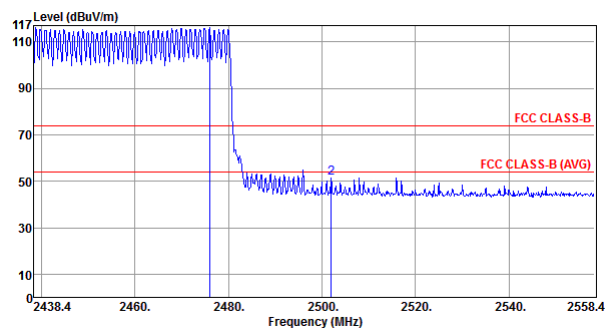
**Up Bandedge - H**



**Low Bandedge - V**



**Up Bandedge - V**



Note 1: Measurement worst emissions of receive antenna polarization: H (Horizontal) or V (Vertical)



### 3.3.5 Unwanted Emissions into Non-Restricted Frequency Bands for 8DPSK

Transmitter Radiated Bandedge Emissions Result								
Modulation	8DPSK, Hopping off			Test Mode	A			
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] - [o] (dB)	Limit (dB)	Level Type	Pol. note 1
2390-2400	2402	112.96	2399.7	68.32	44.64	20	PK	H
2390-2400	2402	110.60	2399.9	64.97	45.63	20	PK	V
2500-2690	2480	114.43	2511.9	56.07	58.36	20	PK	H
2500-2690	2480	111.67	2511.9	55.27	56.40	20	PK	V
Low Bandedge - H				Up Bandedge - H				
Low Bandedge - V				Up Bandedge - V				
Note 1: Measurement worst emissions of receive antenna polarization: H (Horizontal) or V (Vertical)								

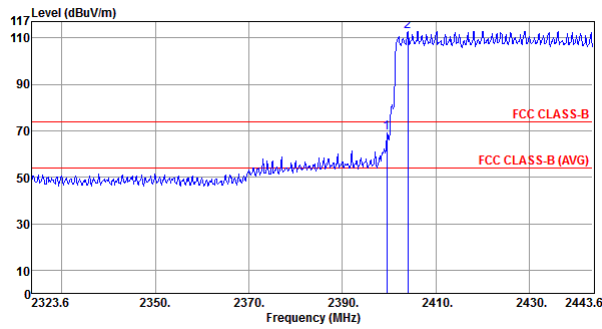




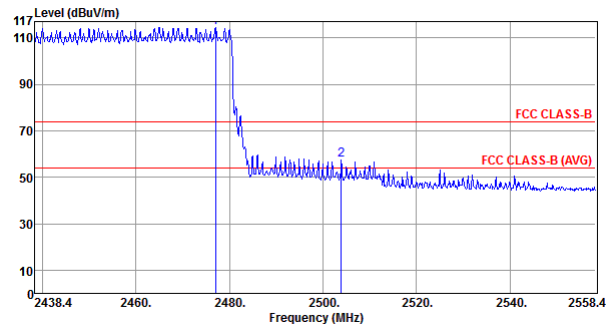
**Transmitter Radiated Bandedge Emissions Result**

Modulation	8DPSK, Hopping on			Test Mode	A			
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] - [o] (dB)	Limit (dB)	Level Type	Pol. note 1
2390-2400	hopping	112.89	2399.56	69.00	43.89	20	PK	H
2390-2400	hopping	110.43	2399.56	66.57	43.86	20	PK	V
2500-2690	hopping	114.37	2503.92	57.32	57.05	20	PK	H
2500-2690	hopping	111.06	2511.12	55.21	55.85	20	PK	V

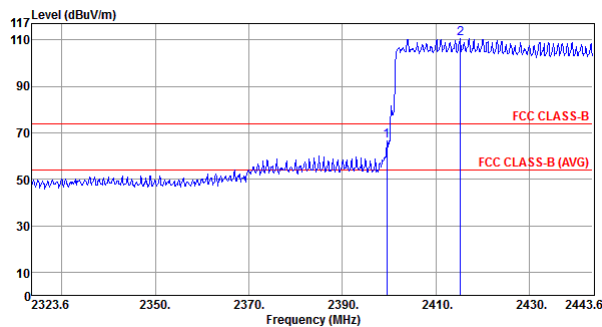
**Low Bandedge - H**



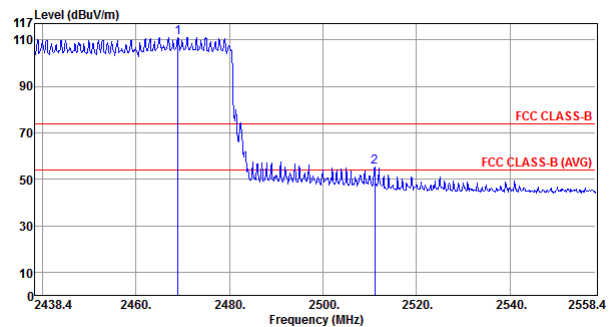
**Up Bandedge - H**



**Low Bandedge - V**



**Up Bandedge - V**



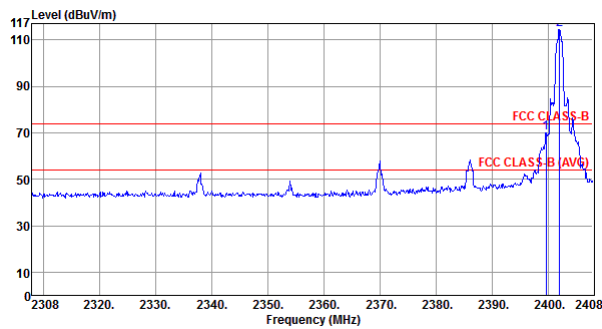
Note 1: Measurement worst emissions of receive antenna polarization: H (Horizontal) or V (Vertical)



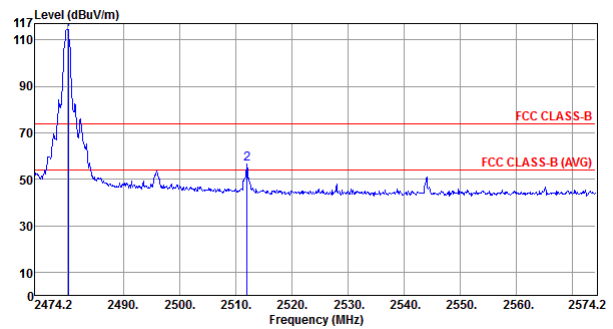
**Transmitter Radiated Bandedge Emissions Result**

Modulation		8DPSK, Hopping off		Test Mode		B		
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] - [o] (dB)	Limit (dB)	Level Type	Pol. note 1
2390-2400	2402	114.40	2399.7	69.96	44.44	20	PK	H
2390-2400	2402	111.25	2399.6	67.82	43.43	20	PK	V
2500-2690	2480	114.33	2512.0	56.73	57.60	20	PK	H
2500-2690	2480	111.66	2511.9	54.17	57.49	20	PK	V

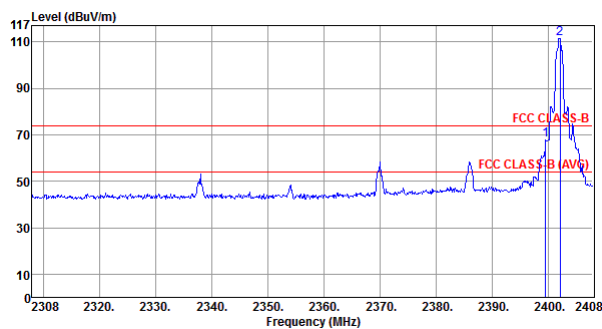
**Low Bandedge - H**



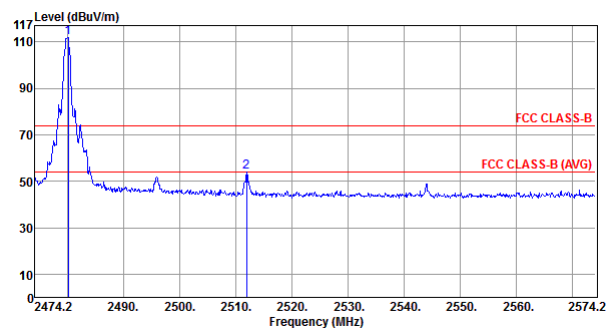
**Up Bandedge - H**



**Low Bandedge - V**



**Up Bandedge - V**



Note 1: Measurement worst emissions of receive antenna polarization: H (Horizontal) or V (Vertical)

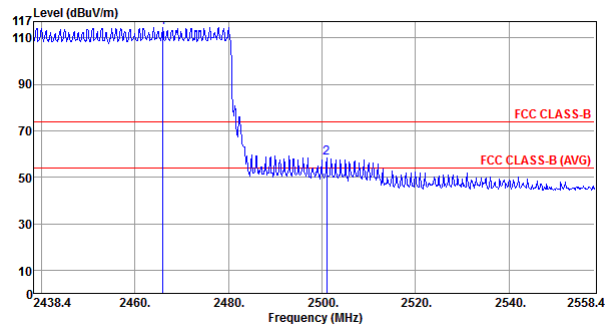
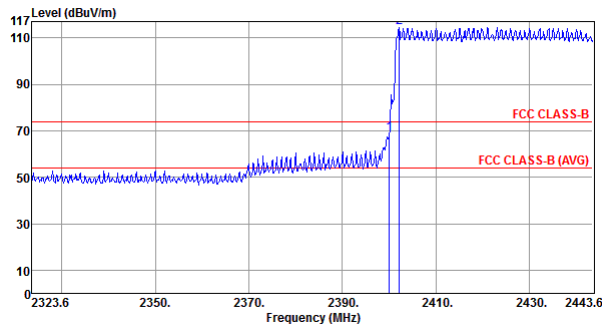


**Transmitter Radiated Bandedge Emissions Result**

Modulation		8DPSK, Hopping on		Test Mode		B		
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] - [o] (dB)	Limit (dB)	Level Type	Pol. note 1
2390-2400	hopping	114.43	2400.00	68.50	45.93	20	PK	H
2390-2400	hopping	111.21	2399.56	67.55	43.66	20	PK	V
2500-2690	hopping	114.33	2501.04	58.27	56.06	20	PK	H
2500-2690	hopping	111.91	2501.04	55.65	56.26	20	PK	V

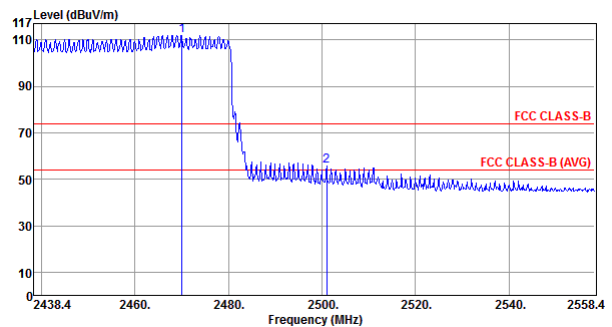
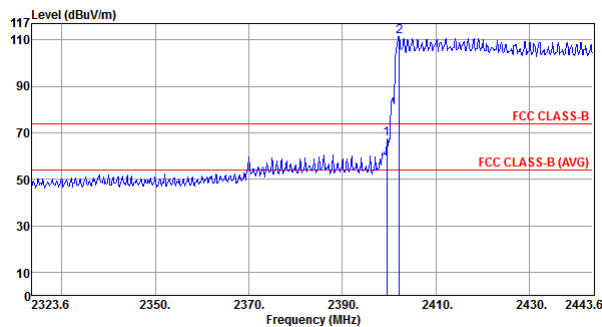
**Low Bandedge - H**

**Up Bandedge - H**



**Low Bandedge - V**

**Up Bandedge - V**



Note 1: Measurement worst emissions of receive antenna polarization: H (Horizontal) or V (Vertical)



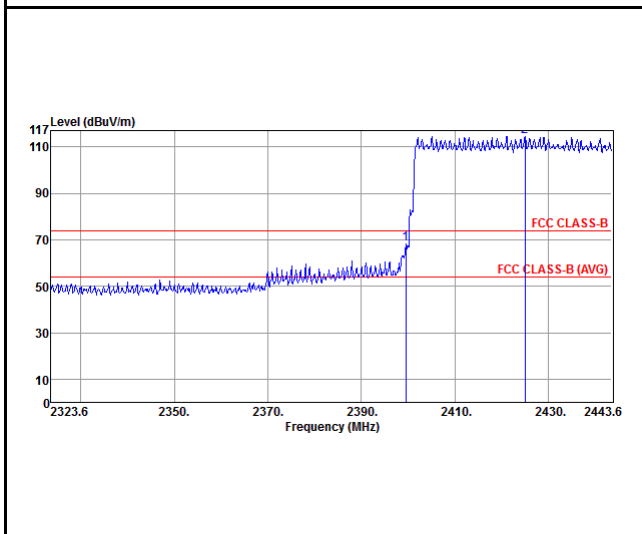
Transmitter Radiated Bandedge Emissions Result								
Modulation	8DPSK, Hopping off			Test Mode	C			
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] - [o] (dB)	Limit (dB)	Level Type	Pol. note 1
2390-2400	2402	114.35	2399.7	69.56	44.79	20	PK	H
2390-2400	2402	106.16	2399.6	64.98	41.18	20	PK	V
2500-2690	2480	114.27	2512.0	56.41	57.86	20	PK	H
2500-2690	2480	106.76	2512.0	53.00	53.76	20	PK	V
Low Bandedge - H				Up Bandedge - H				
Low Bandedge - V				Up Bandedge - V				
<p>Note 1: Measurement worst emissions of receive antenna polarization: H (Horizontal) or V (Vertical)</p>								



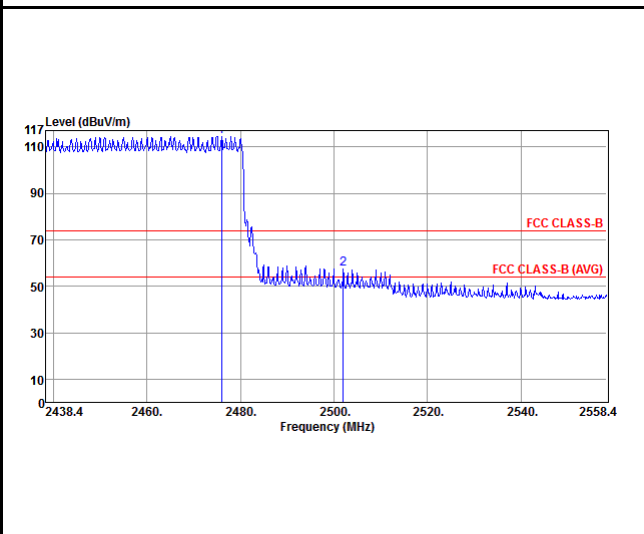
**Transmitter Radiated Bandedge Emissions Result**

Modulation		8DPSK, Hopping on		Test Mode		C		
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] - [o] (dB)	Limit (dB)	Level Type	Pol. note 1
2390-2400	hopping	114.40	2399.56	68.08	46.32	20	PK	H
2390-2400	hopping	106.77	2399.56	63.07	43.70	20	PK	V
2500-2690	hopping	114.34	2502.00	57.54	56.80	20	PK	H
2500-2690	hopping	106.74	2508.96	51.65	55.09	20	PK	V

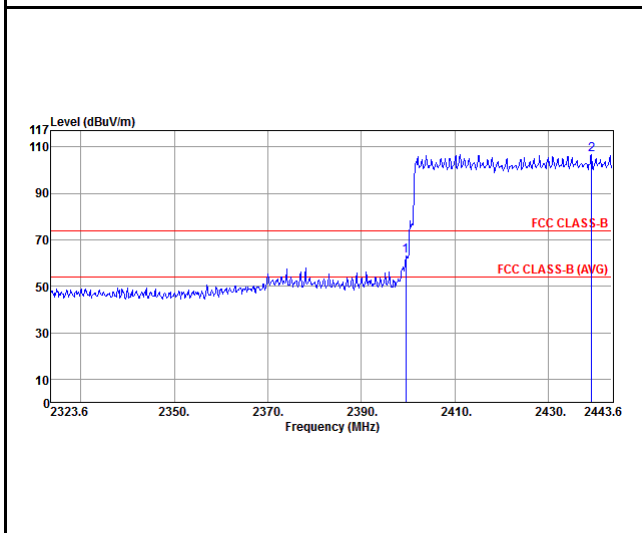
**Low Bandedge - H**



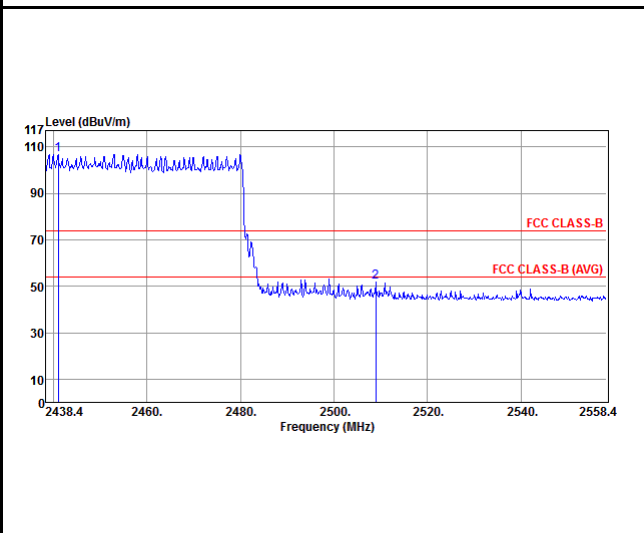
**Up Bandedge - H**



**Low Bandedge - V**



**Up Bandedge - V**



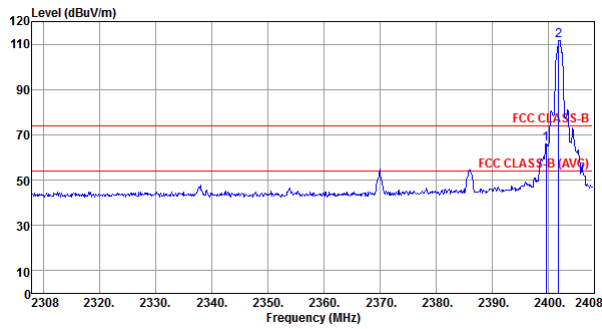
Note 1: Measurement worst emissions of receive antenna polarization: H (Horizontal) or V (Vertical)



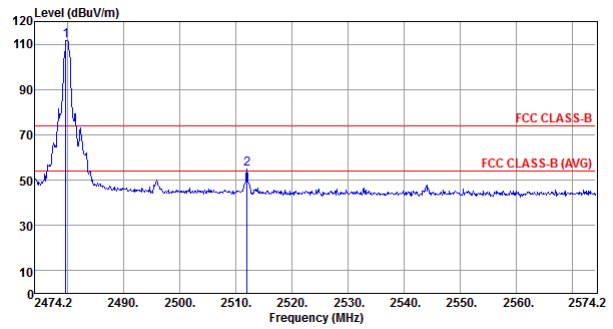
**Transmitter Radiated Bandedge Emissions Result**

Modulation		8DPSK, Hopping off		Test Mode		D		
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] - [o] (dB)	Limit (dB)	Level Type	Pol. note 1
2390-2400	2402	111.54	2399.7	65.92	45.62	20	PK	H
2390-2400	2402	117.01	2399.6	70.52	46.49	20	PK	V
2500-2690	2480	111.55	2512.0	55.04	56.51	20	PK	H
2500-2690	2480	117.50	2512.0	56.93	60.57	20	PK	V

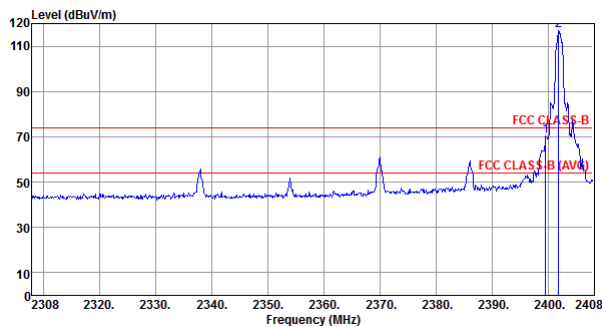
**Low Bandedge - H**



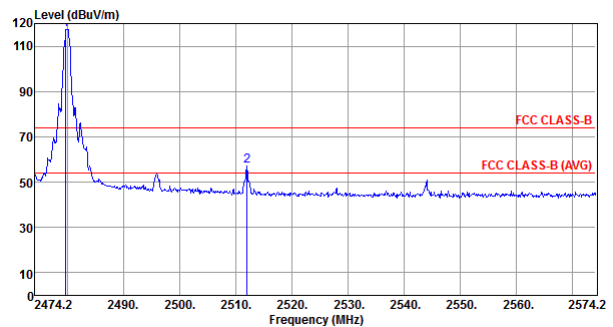
**Up Bandedge - H**



**Low Bandedge - V**



**Up Bandedge - V**



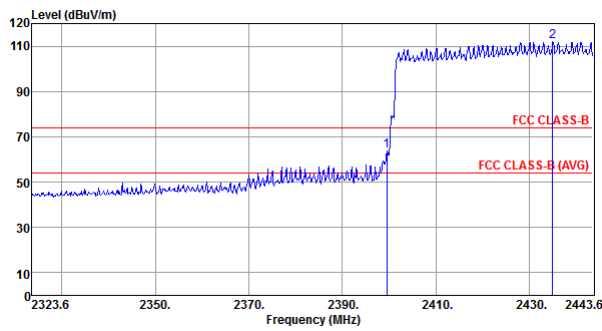
Note 1: Measurement worst emissions of receive antenna polarization: H (Horizontal) or V (Vertical)



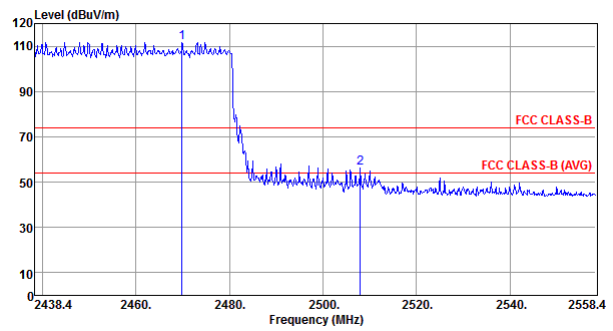
**Transmitter Radiated Bandedge Emissions Result**

Modulation		8DPSK, Hopping on		Test Mode		D		
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] - [o] (dB)	Limit (dB)	Level Type	Pol. note 1
2390-2400	hopping	111.81	2399.56	63.95	47.86	20	PK	H
2390-2400	hopping	117.30	2399.56	67.32	49.98	20	PK	V
2500-2690	hopping	111.70	2508.00	56.25	55.45	20	PK	H
2500-2690	hopping	117.24	2501.04	57.25	59.99	20	PK	V

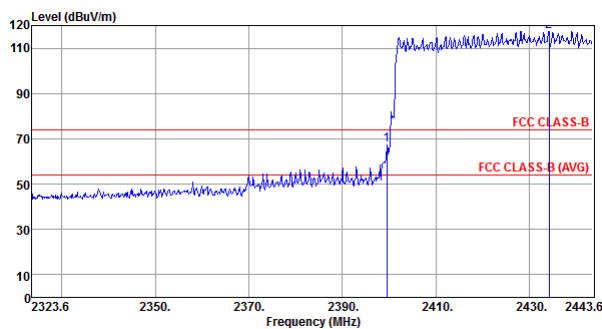
**Low Bandedge - H**



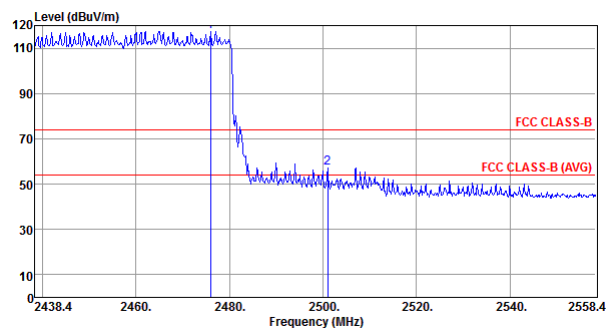
**Up Bandedge - H**



**Low Bandedge - V**



**Up Bandedge - V**



Note 1: Measurement worst emissions of receive antenna polarization: H (Horizontal) or V (Vertical)



### 3.4 Conducted Output Power

#### 3.4.1 Limit of Unwanted Emissions into Non-Restricted Frequency Bands

- 1 Watt  
For frequency hopping systems operating in the 2400–2483.5 MHz band employing at least 75 non overlapping hopping channels, and all frequency hopping systems in the 5725–5850 MHz band.
- 0.125 Watt  
For all other frequency hopping systems in the 2400–2483.5 MHz band.
- 0.125 Watt  
For Frequency hopping systems operating in the 2400–2483.5 MHz band have hopping channel carrier frequencies that are separated by two-thirds of the 20 dB bandwidth of the hopping channel.

#### 3.4.2 Test Procedures

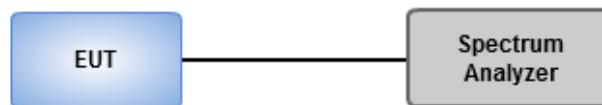
Procedure for Peak Power

1. Set RBW=3MHz, VBW=10MHz, Sweep time = Auto, Detector=Peak Trace max hold
- 2 Allow trace to stabilize
- 3 Use the marker-to-peak function to set the marker to the peak of the emission.
- 4 The indicated level is the peak output power

Procedure for Average Power (Average power is for reference only)

1. Set RBW=3MHz, VBW=10MHz, Sweep time = Auto, Detector=RMS Trace max hold
- 2 Allow trace to stabilize
- 3 Use the marker-to-peak function to set the marker to the peak of the emission.
- 4 The indicated level is the average output power

#### 3.4.3 Test Setup







### 3.4.4 Test Result of Conducted Output Power

Test Mode	A			
Modulation Mode	Freq. (MHz)	Peak Output Power (mW)	Peak Output Power (dBm)	Limit (mW)
GFSK	2402	74.99	18.75	125
GFSK	2441	70.15	18.46	125
GFSK	2480	60.53	17.82	125
8DPSK	2402	88.51	19.47	125
8DPSK	2441	68.39	18.35	125
8DPSK	2480	56.89	17.55	125

Test Mode	A		
Modulation Mode	Freq. (MHz)	AV Output Power (mW)	AV Output Power (dBm)
GFSK	2402	70.31	18.47
GFSK	2441	68.87	18.38
GFSK	2480	60.12	17.79
8DPSK	2402	82.04	19.14
8DPSK	2441	66.83	18.25
8DPSK	2480	54.70	17.38

Note : Average power is for reference only



Test Mode	B			
Modulation Mode	Freq. (MHz)	Peak Output Power (mW)	Peak Output Power (dBm)	Limit (mW)
GFSK	2402	85.90	19.34	125
GFSK	2441	72.28	18.59	125
GFSK	2480	51.52	17.12	125
8DPSK	2402	100.23	20.01	125
8DPSK	2441	87.90	19.44	125
8DPSK	2480	70.79	18.50	125

Test Mode	B		
Modulation Mode	Freq. (MHz)	AV Output Power (mW)	AV Output Power (dBm)
GFSK	2402	80.35	19.05
GFSK	2441	70.15	18.46
GFSK	2480	52.84	17.23
8DPSK	2402	84.72	19.28
8DPSK	2441	81.10	19.09
8DPSK	2480	60.81	17.84

Note : Average power is for reference only



## 3.5 Number of Hopping Frequency

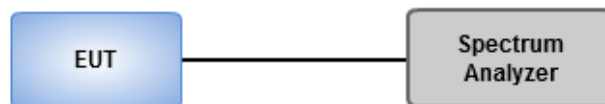
### 3.5.1 Limit of Number of Hopping Frequency

Frequency hopping systems in the 2400–2483.5 MHz band shall use at least 15 channels.

### 3.5.2 Test Procedures

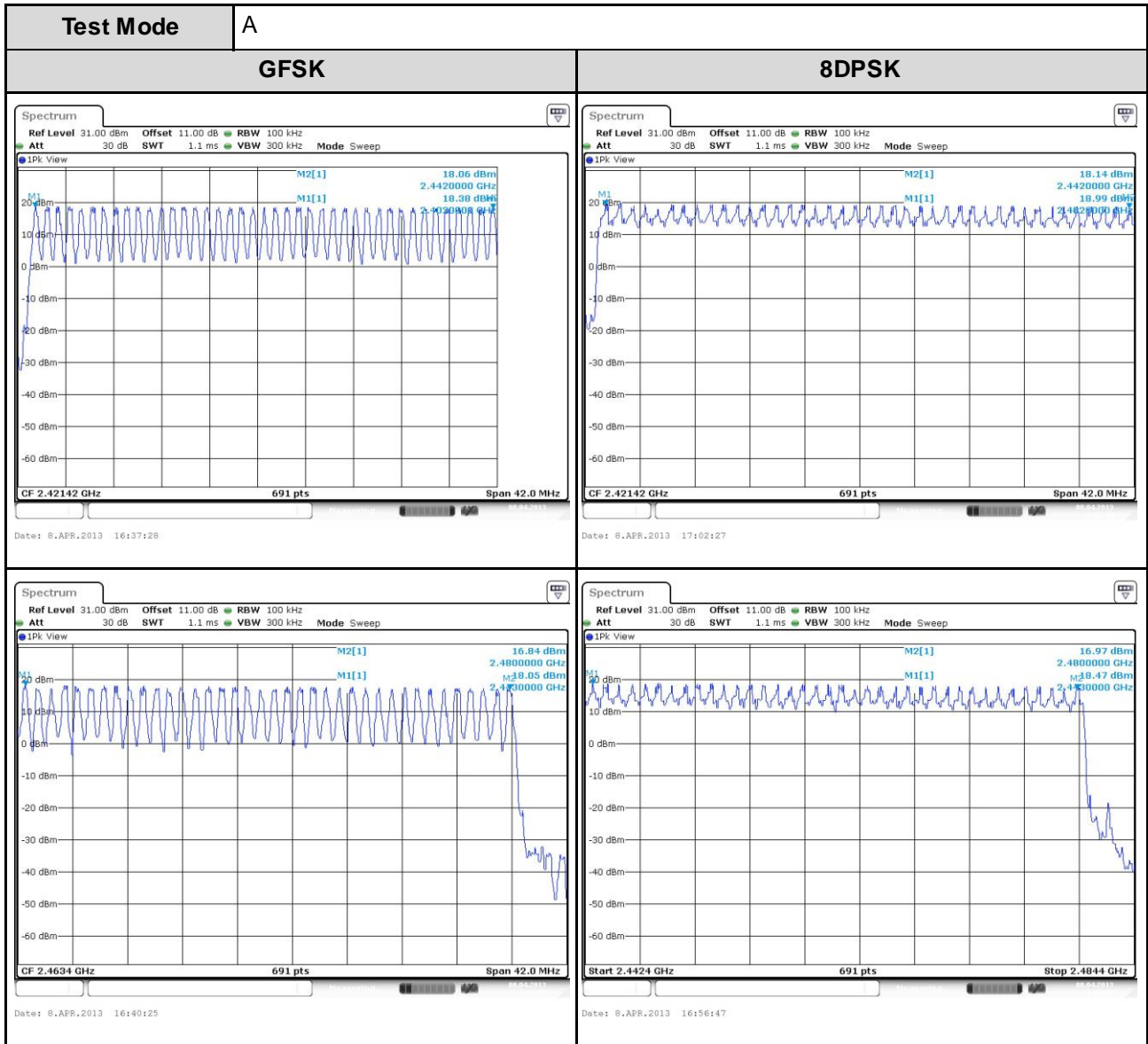
1. Set RBW = 100kHz, VBW = 300kHz, Sweep time = Auto, Detector = Peak Trace max hold.
2. Allow trace to stabilize.

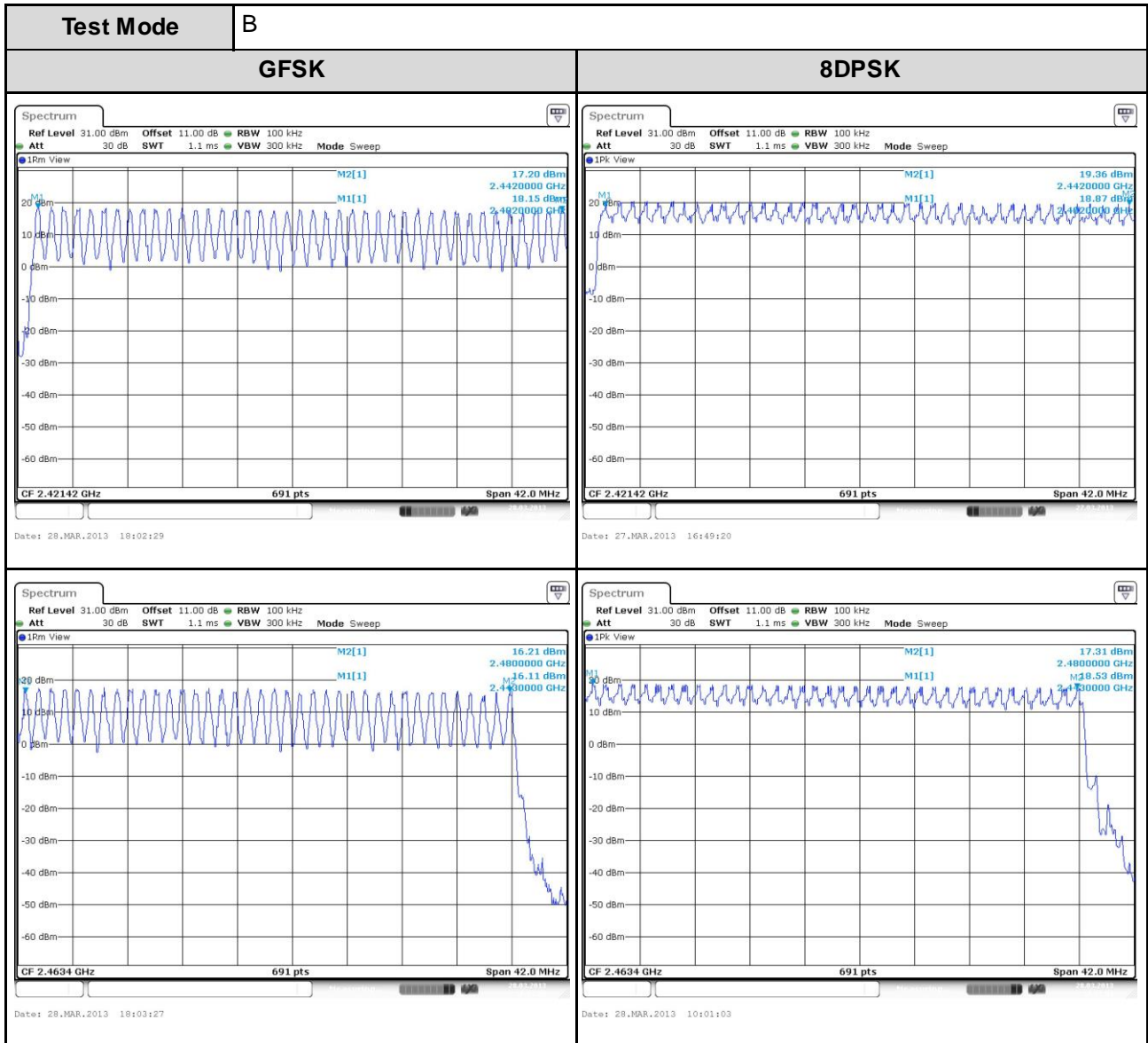
### 3.5.3 Test Setup





### 3.5.4 Test Result of Number of Hopping Frequency





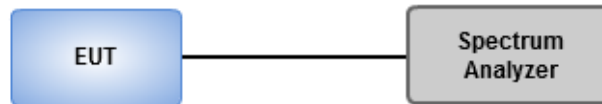


## 3.6 20dB and Occupied bandwidth

### 3.6.1 Test Procedures

1. Set RBW=300kHz, VBW=300kHz, Sweep time = Auto, Detector=Peak Trace max hold
2. Allow trace to stabilize
3. Use N dB function of spectrum analyzer to measuring 20 dB bandwidth
4. Use Occupied bandwidth function of spectrum analyzer to measuring 99% occupied bandwidth

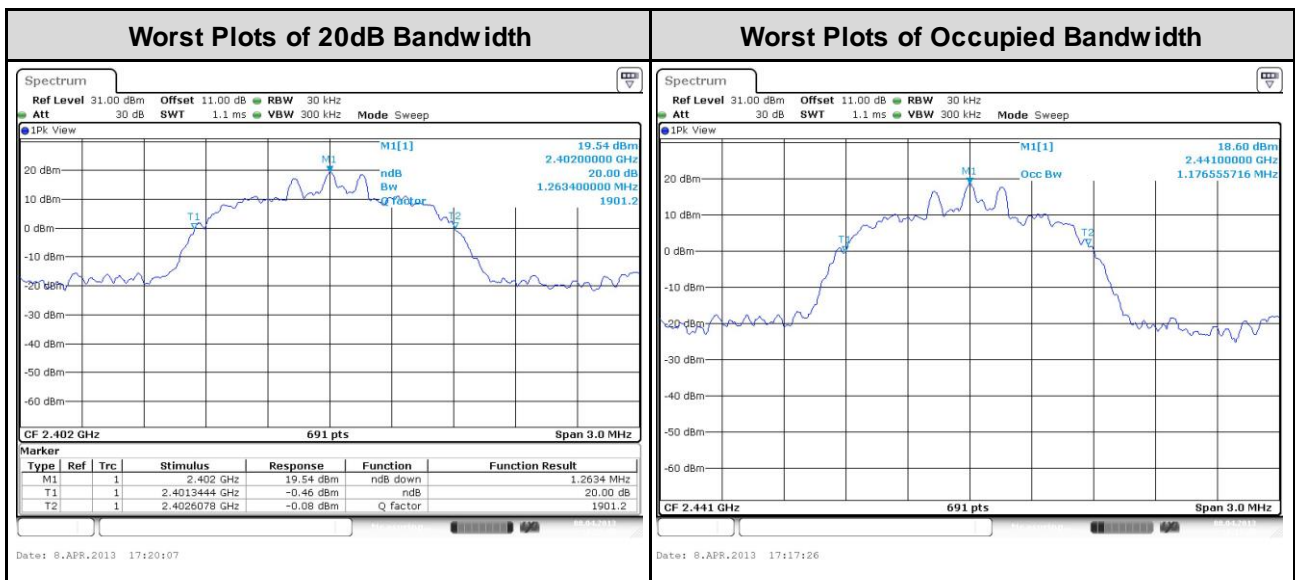
### 3.6.2 Test Setup





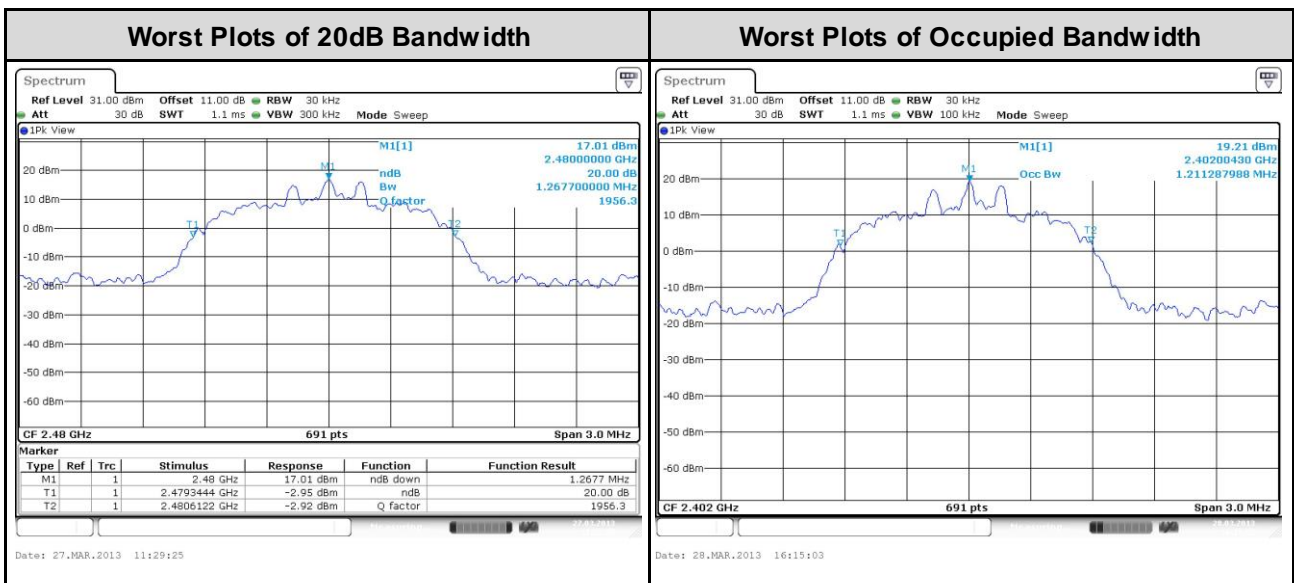
### 3.6.3 Test result of Channel Separation

Test Mode	A		
Modulation Mode	Freq. (MHz)	20dB Bandwidth (MHz)	Occupied Bandwidth (MHz)
GFSK	2402	0.8379	0.8857
GFSK	2441	0.8336	0.8900
GFSK	2480	0.8423	0.8857
8DPSK	2402	1.2634	1.1548
8DPSK	2441	1.2634	1.1766
8DPSK	2480	1.2634	1.1722





Test Mode	B		
Modulation Mode	Freq. (MHz)	20dB Bandwidth (MHz)	Occupied Bandwidth (MHz)
GFSK	2402	0.8379	0.8857
GFSK	2441	0.8336	0.8857
GFSK	2480	0.8249	0.8987
8DPSK	2402	1.2634	1.2112
8DPSK	2441	1.2677	1.2112
8DPSK	2480	1.2677	1.2069







## 3.7 Channel Separation

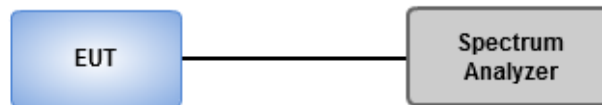
### 3.7.1 Limit of Channel Separation

- Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.
- Frequency hopping systems operating in the 2400–2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater.

### 3.7.2 Test Procedures

1. Set RBW=100kHz, VBW=300kHz, Sweep time = Auto, Detector=Peak Trace max hold
2. Allow trace to stabilize
3. Use the marker-delta function to determine the separation between the peaks of the adjacent channels. The EUT shall show compliance with the appropriate regulatory limit

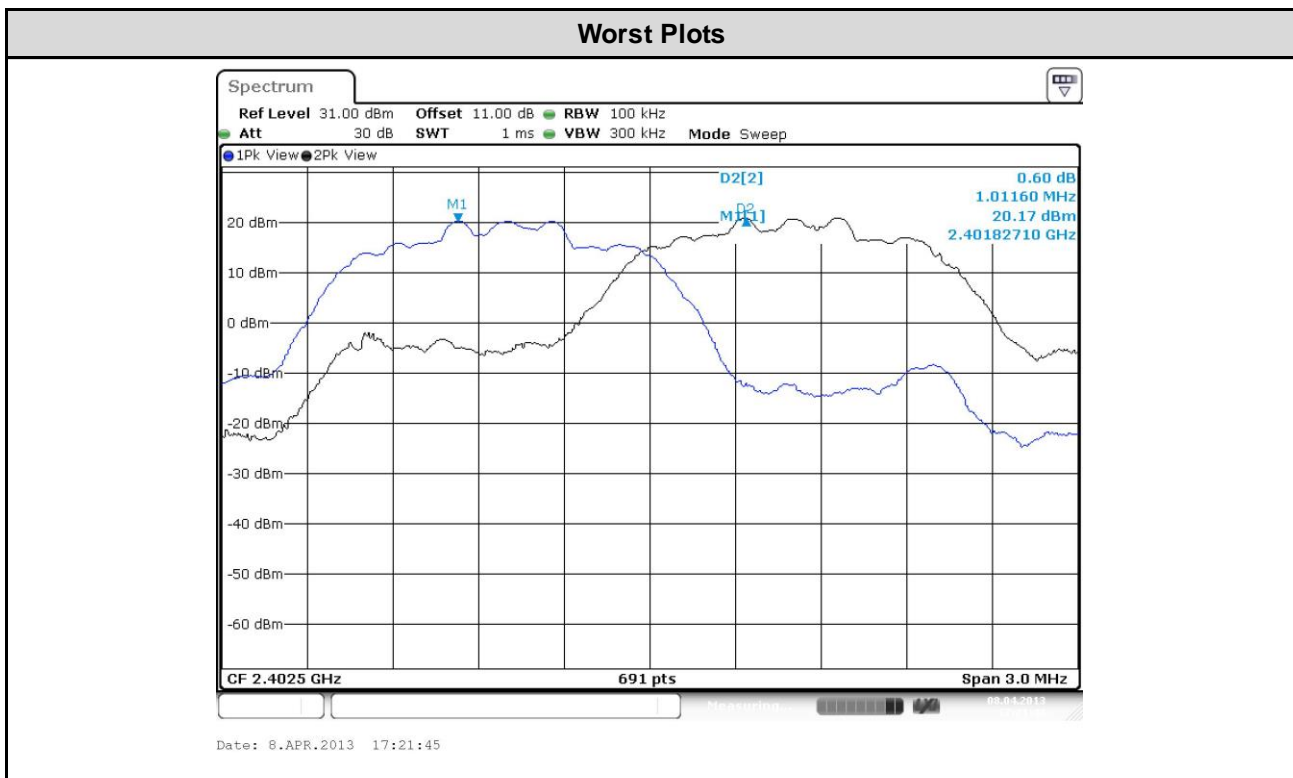
### 3.7.3 Test Setup





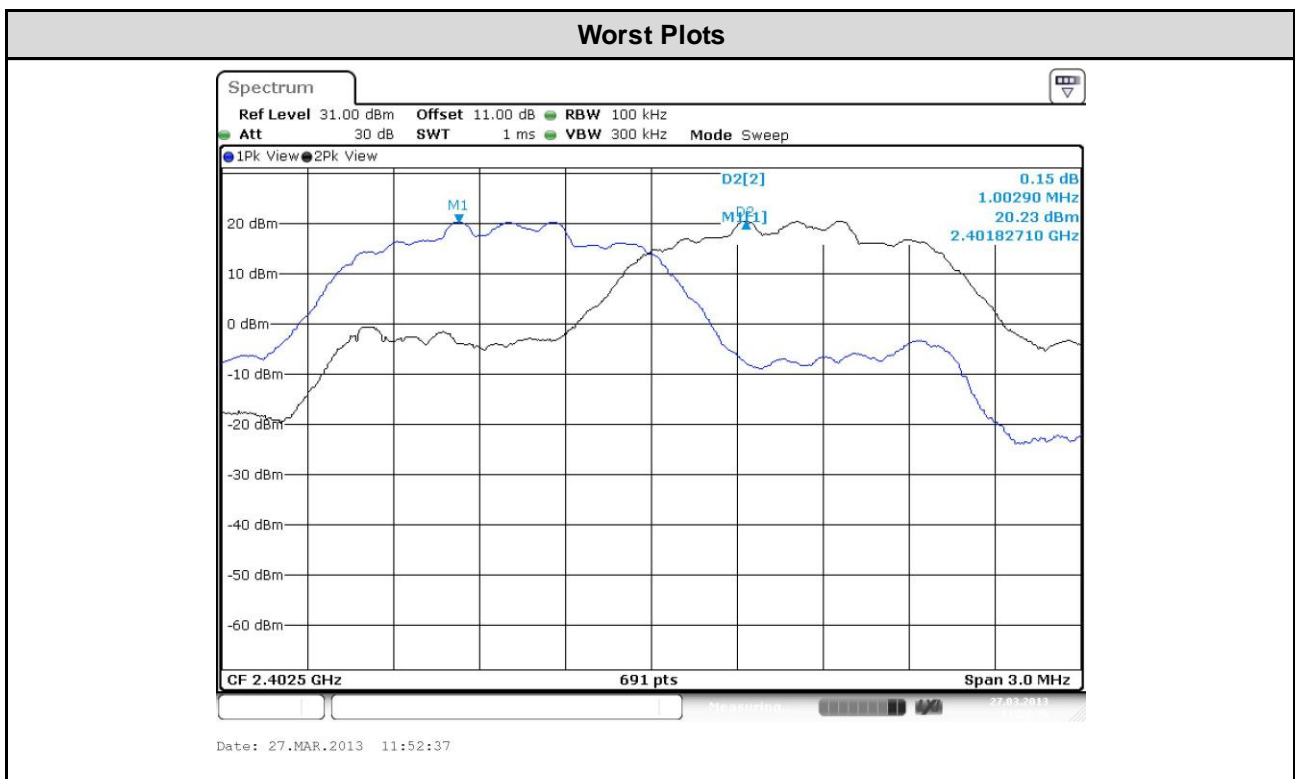
### 3.7.4 Test result of Channel Separation

Test Mode	A			
Modulation Mode	Freq. (MHz)	Channel Separation (MHz)	20dB Bandwidth (MHz)	Minimum Limit (MHz)
GFSK	2402	1.0029	0.8379	0.558600
GFSK	2441	1.0072	0.8336	0.555733
GFSK	2480	1.0029	0.8423	0.561533
8DPSK	2402	1.0116	1.2634	0.842267
8DPSK	2441	1.0029	1.2634	0.842267
8DPSK	2480	1.0029	1.2634	0.842267





Test Mode	B			
Modulation Mode	Freq. (MHz)	Channel Separation (MHz)	20dB Bandwidth (MHz)	Minimum Limit (MHz)
GFSK	2402	1.0029	0.8379	0.558600
GFSK	2441	1.0029	0.8336	0.555733
GFSK	2480	1.0029	0.8249	0.549933
8DPSK	2402	1.0029	1.2634	0.842267
8DPSK	2441	1.0029	1.2677	0.845133
8DPSK	2480	1.0029	1.2677	0.845133





## 3.8 Number of Dwell Time

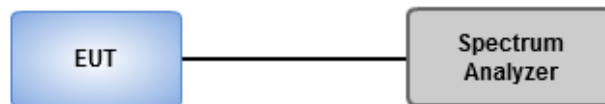
### 3.8.1 Limit of Dwell time

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

### 3.8.2 Test Procedures

1. Set RBW=100kHz, VBW=300kHz, Sw, Detector=Peak, Span=0Hz, Trace max hold  
Sweep time=1ms(DH1), 2ms(DH3), 4ms(DH5)
2. Enable gating and trigger function of spectrum analyzer to measure burst on time.
3. DH1 Packet permit maximum  $1600 / 79 / 2 = 10.12$  hops per second in each channel (1 time slot RX, 1 time slot TX). So, the dwell time is the time duration of the pulse times  $10.12 \times 31.6 = 320$  within 31.6 seconds.  
DH3 Packet permit maximum  $1600 / 79 / 4 = 5.06$  hops per second in each channel (3 time slots RX, 1 time slot TX). So, the dwell time is the time duration of the pulse times  $5.06 \times 31.6 = 160$  within 31.6 seconds  
DH5 Packet permit maximum  $1600 / 79 / 6 = 3.37$  hops per second in each channel (5 time slots RX, 1 time slot TX). So, the dwell time is the time duration of the pulse times  $3.37 \times 31.6 = 106.6$  within 31.6 seconds

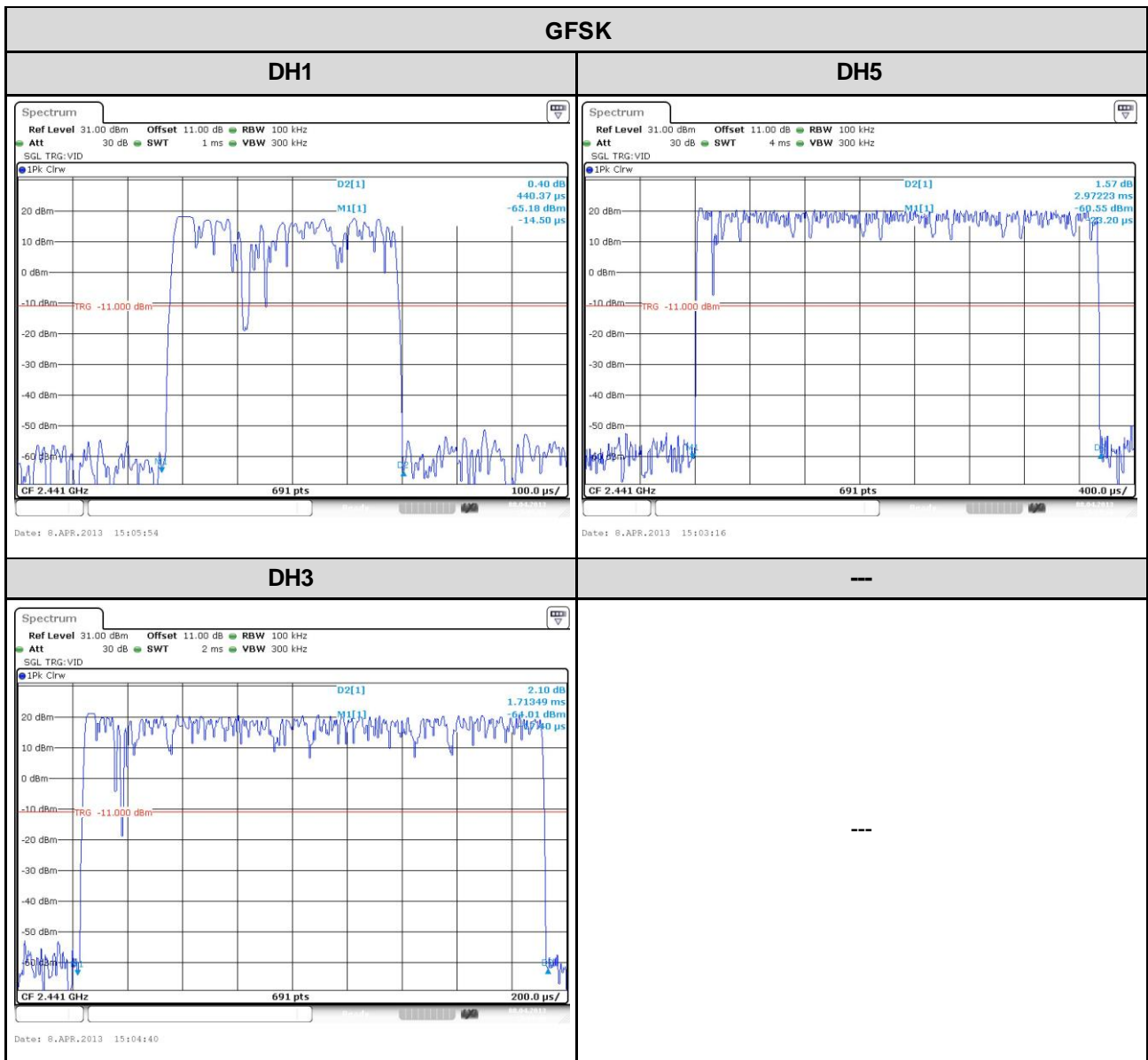
### 3.8.3 Test Setup

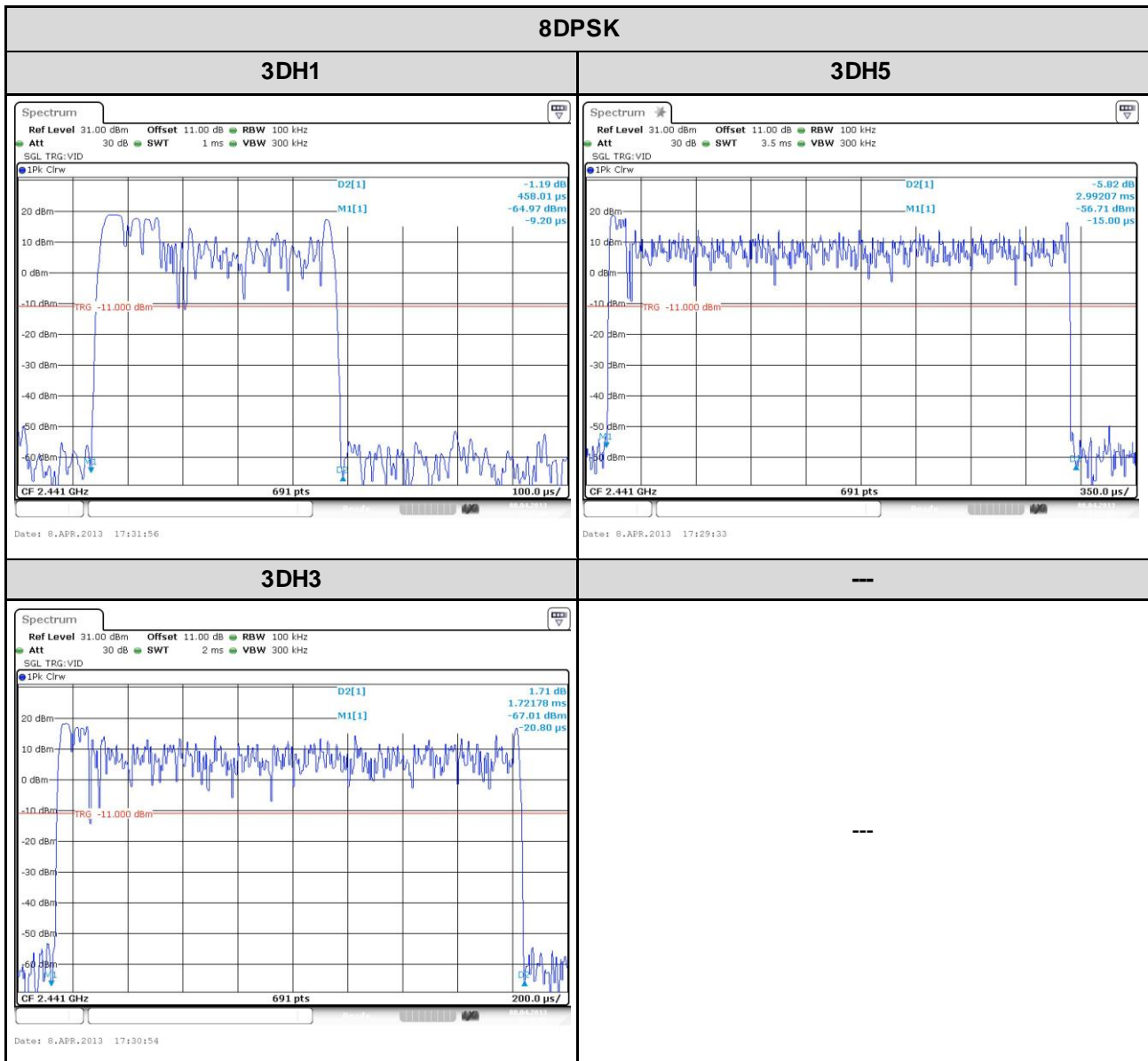




### 3.8.4 Test Result of Dwell Time

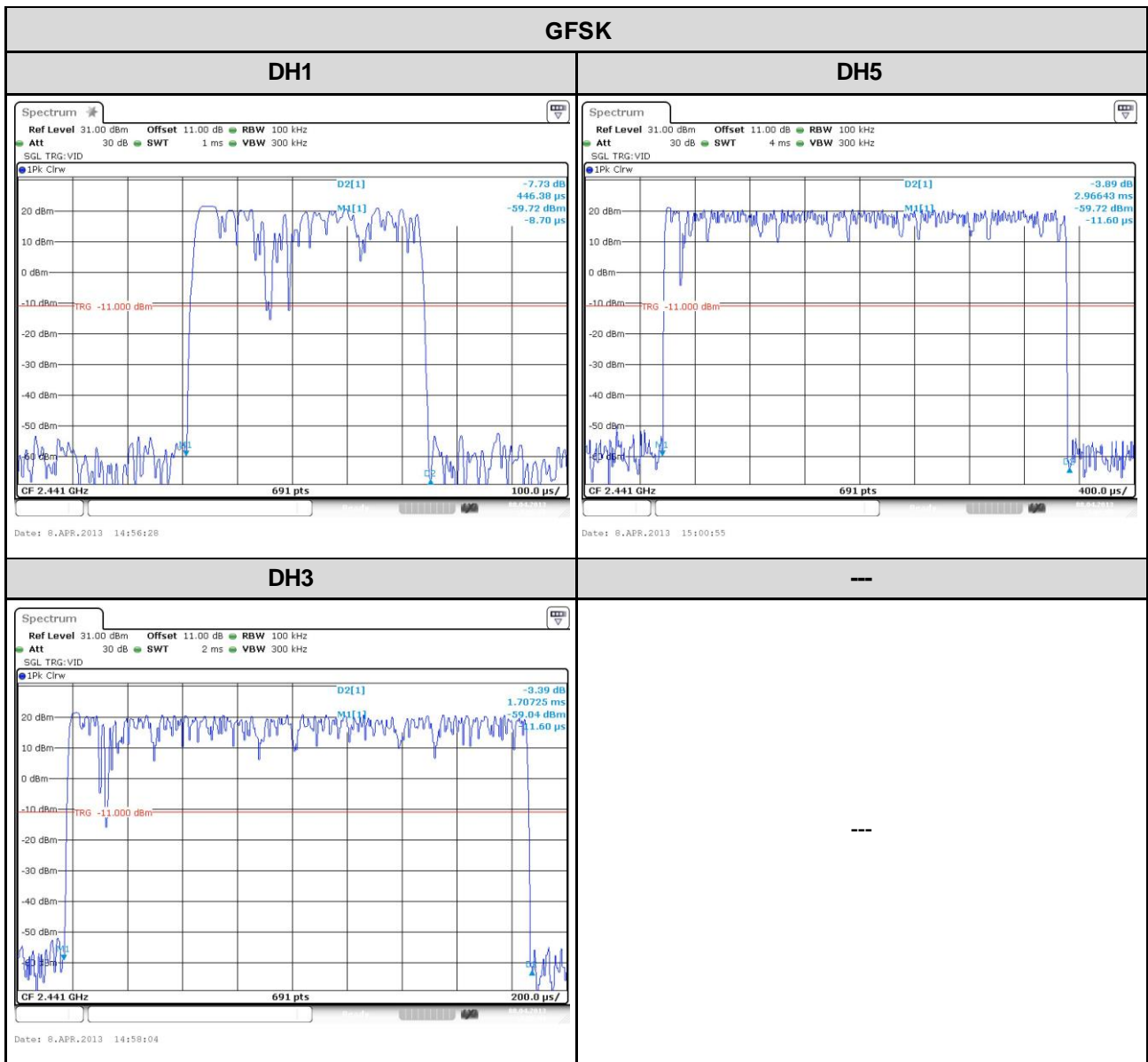
Test Mode		A			
Modulation Mode	Freq. (MHz)	Number of transmission in a 31.6 (79Hopping*0.4)	Length of transmission time (msec)	Result (msec)	Limit (msec)
GFSK	2402	320	0.44037	140.9184	400
GFSK	2441	160	1.71349	274.1584	400
GFSK	2480	106.6	2.97223	316.8397	400
8DPSK	2402	320	0.45801	146.5632	400
8DPSK	2441	160	1.72178	275.4848	400
8DPSK	2480	106.6	2.99207	318.9547	400

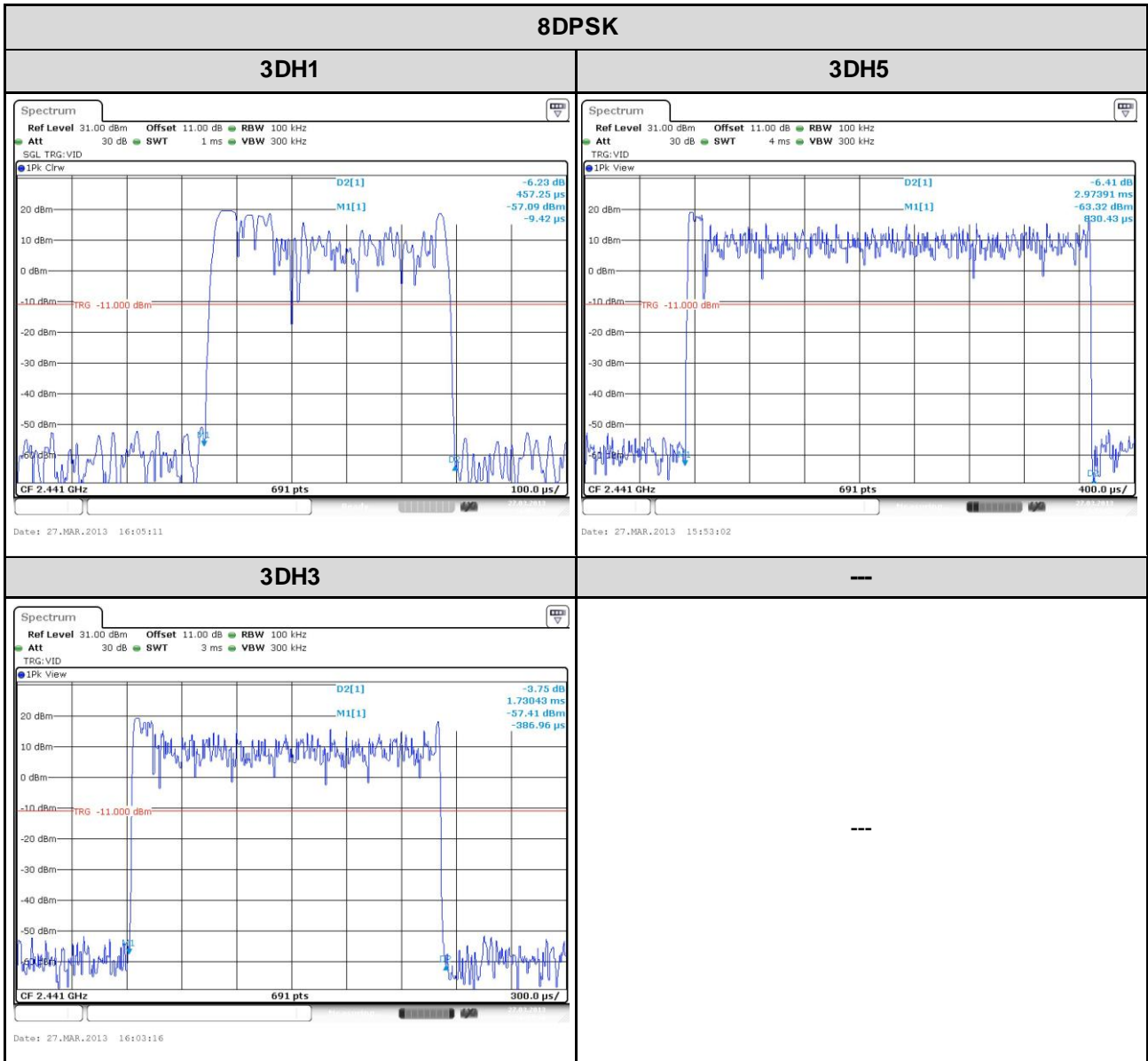






Test Mode		B			
Modulation Mode	Freq. (MHz)	Number of transmission in a 31.6 (79Hopping*0.4)	Length of transmission time (msec)	Result (msec)	Limit (msec)
GFSK	2402	320	0.44638	142.84	400
GFSK	2441	160	1.70725	273.16	400
GFSK	2480	106.6	2.96643	316.22	400
8DPSK	2402	320	0.45725	146.32	400
8DPSK	2441	160	1.73043	276.87	400
8DPSK	2480	106.6	2.97391	317.02	400





—END—