

FCC Radio Test Report

FCC ID: VGWHEI-28Y

This report concerns (check one): ☒Original Grant ☐Class II Change

Project No. : 1503060
Equipment : Tour MIC 900
Model Name : HEI-28Y
Applicant : BANKEN Co., Ltd.
Address : 1842-10 Kimagase, Noda-shi, Chiba-ken, 270-0222
Japan

Date of Receipt : Mar. 11, 2015
Date of Test : Mar. 11, 2015 ~ May 03, 2016
Issued Date : May 04, 2016
Tested by : BTL Inc.

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Declaration

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Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

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REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
BTL-FCCP-1-1503060	Original Issue.	May 04, 2016

1. CERTIFICATION

Equipment : Tour MIC 900
Brand Name : BANKEN
Model Name : HEI-28Y
Applicant : BANKEN Co., Ltd.
Date of Test : Mar. 11, 2015 ~ May 03, 2016
Test Sample : Engineering Sample
Standard(s) : FCC Part15, Subpart C (15.249) / ANSI C63.10-2013

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCCP-1-1503060) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of TAF according to the ISO-17025 quality assessment standard and technical standard(s).

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

Applied Standard(s): FCC Part15, Subpart C (15.249)			
Standard(s) Section	Test Item	Judgment	Remark
15.207(a)	Conducted Emission	N/A	NOTE(1)
15.205	Restricted Band of Operation	PASS	
15.209 15.249(a)	Radiated Emissions	PASS	
15.215(c)	20dB Bandwidth Test	PASS	

NOTE:

(1) "N/A" denotes test is not applicable to this device.

2.1 TEST FACILITY

The test facilities used to collect the test data in this report:

Radiated emission Test (Below 1 GHz):

CB08: (FCC RN: 538587; FCC DN: TW1054; IC Assigned Code: 4428C-1)
1F., No. 61, Ln. 77, Sing-ai Rd., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)

Radiated emission Test (Above 1 GHz):

CB08: (VCCI RN: G-91; FCC RN: 538587; FCC DN: TW1054; IC Assigned Code: 4428C-1)
1F., No. 61, Ln. 77, Sing-ai Rd., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)

2.2 MEASUREMENT UNCERTAINTY

The measurement uncertainty is not specified by FCC rules for reference only.

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately **95%**.

The measurement instrumentation uncertainty considerations contained in CISPR 16-4-2.

The BTL measurement uncertainty is less than the CISPR 16-4-2 U_{CISPR} requirement.

A. Radiated Measurement :

Test Site	Method	Measurement Frequency Range	U, (dB)
CB08 (3m)	CISPR	9kHz ~ 150kHz	4.00
		150kHz ~ 30MHz	4.00

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)
CB08 (3m)	CISPR	30 MHz ~ 200 MHz	V	3.06
		30 MHz ~ 200 MHz	H	2.58
		200 MHz ~ 1, 000 MHz	V	3.50
		200 MHz ~ 1, 000 MHz	H	3.10

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)
CB08 (3m)	CISPR	1GHz ~ 6GHz	V	4.14
		1GHz ~ 6GHz	H	4.14
		6GHz ~ 18GHz	V	5.34
		6GHz ~ 18GHz	H	5.34

Test Site	Method	Measurement Frequency Range	U, (dB)
CB08 (1m)	CISPR	18 ~ 26.5 GHz	4.66
		26.5 ~ 40 GHz	4.74

Note: unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

Our calculated Measurement Instrumentation Uncertainty is shown in the tables above. These are our U_{lab} values in CISPR 16-4-2 terminology.

Since Table 1 of CISPR 16-4-2 has values of measurement instrumentation uncertainty, called U_{CISPR} , as follows:

Conducted Disturbance (mains port) – 150 kHz – 30 MHz : 3.6 dB

Radiated Disturbance (electric field strength on an open area test site or alternative test site) – 30 MHz – 1000 MHz : 5.2 dB

It can be seen that our U_{lab} values are smaller than U_{CISPR} .

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	Tour MIC 900	
Brand Name	BANKEN	
Model Name	HEI-28Y	
Model Difference	N/A	
Product Description	Operation Frequency	918.0~925.5 MHz
	Modulation Technology	GFSK
	Bit Rate of Transmitter	50 kbps
	Field Strength	89.90 dBuV/m (AVG Max) 92.57 dBuV/m (Peak Max)
Power Source	Battery supplied.	
Power Rating	I/P: DC 3V	

Note:

- For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
- Channel List:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	918.0	07	921.0	13	924.0
02	918.5	08	921.5	14	924.5
03	919.0	09	922.0	15	925.0
04	919.5	10	922.5	16	925.5
05	920.0	11	923.0		
06	920.5	12	923.5		

3. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Integral antenna	N/A	2.14

3.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	TX Mode

The EUT system operated these modes were found to be the worst case during the pre-scanning test as following:

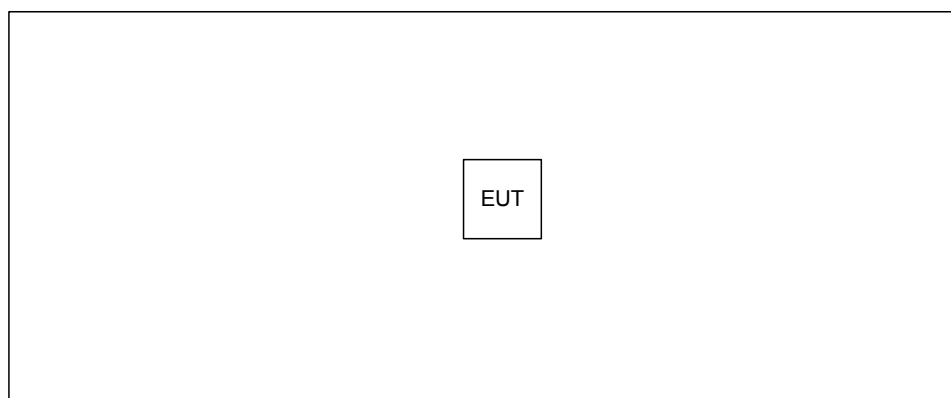
For Conducted Test	
Final Test Mode	Description
Mode 1	TX Mode

For Radiated Test	
Final Test Mode	Description
Mode 1	TX Mode NOTE (1)

Note:

(1) The measurements are performed at the high, middle, low available channels.

3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



3.5 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.
-	-	-	--	-	-

Item	Shielded Type	Ferrite Core	Length	Note
-	-	-	--	-

Note:

(1) The support equipment was authorized by Declaration of Conformity (DOC).

4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

Frequency of Emission (MHz)	Conducted Limit (dBμV)	
	Quasi-peak	Average
0.15 -0.5	66 to 56*	56 to 46*
0.50 -5.0	56	46
5.0 -30.0	60	50

Note:

- (1) The limit of " * " decreases with the logarithm of the frequency
- (2) The test result calculated as following:
 Measurement Value = Reading Level + Correct Factor
 Correct Factor = Insertion Loss + Cable Loss - Amplifier Gain(if use)
 Margin Level = Measurement Value - Limit Value

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

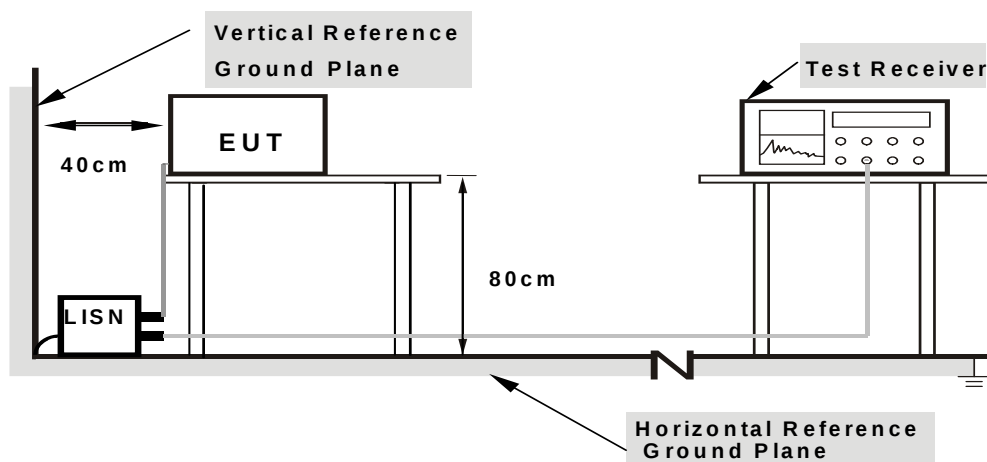
4.1.2 TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.1.3 DEVIATION FROM TEST STANDARD

No deviation

4.1.4 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

4.1.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical function (as a customer would normally use it), EUT was programmed to be in continuously transmitting/receiving data or hopping on mode.

4.1.6 EUT TEST CONDITIONS

Temperature: N/A
Relative Humidity: N/A
Test Voltage: DC 3V

4.1.7 TEST RESULTS

Please refer to the Attachment A.

Remark:

- (1) All readings are QP Mode value unless otherwise stated AVG in column of 『Note』 . If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform.In this case, a “ * ” marked in AVG Mode column of Interference Voltage Measured.
- (2) Measuring frequency range from 150KHz to 30MHz.
- (3) “ N/A” denotes test is not applicable to this device.

4.2 RADIATED EMISSION MEASUREMENT

4.2.1 RADIATED EMISSION LIMITS (FCC 15.209)

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

Harmonic emissions limits comply with below 54 dBuV/m at 3m. Other emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or comply with the radiated emissions limits specified in section 15.209(a) limit in the table below has to be followed.

Note:

- (1) The tighter limit applies at the band edges.
- (2) Emission level (dBuV/m)=20log Emission level (uV/m).

LIMITS OF RADIATED EMISSION MEASUREMENT (FCC 15.209)

FREQUENCY (MHz)	(dBuV/m) (at 3m)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

LIMITS OF RADIATED EMISSION MEASUREMENT (FCC Part 15.249)

FCC Part15 (15.249) , Subpart C	
Limit	Frequency Range(MHz)
Field strength of fundamental 50000 μ V/m (94 dB μ V/m) @ 3 m	2400-2483.5
Field strength of harmonics 500 μ V/m (54 dB μ V/m) @ 3 m	Above 2483.5

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9KHz~90KHz for PK/AVG detector
Start ~ Stop Frequency	90KHz~110KHz for QP detector
Start ~ Stop Frequency	110KHz~490KHz for PK/AVG detector
Start ~ Stop Frequency	490KHz~30MHz for QP detector
Start ~ Stop Frequency	30MHz~1000MHz for QP detector

4.2.2 TEST PROCEDURE

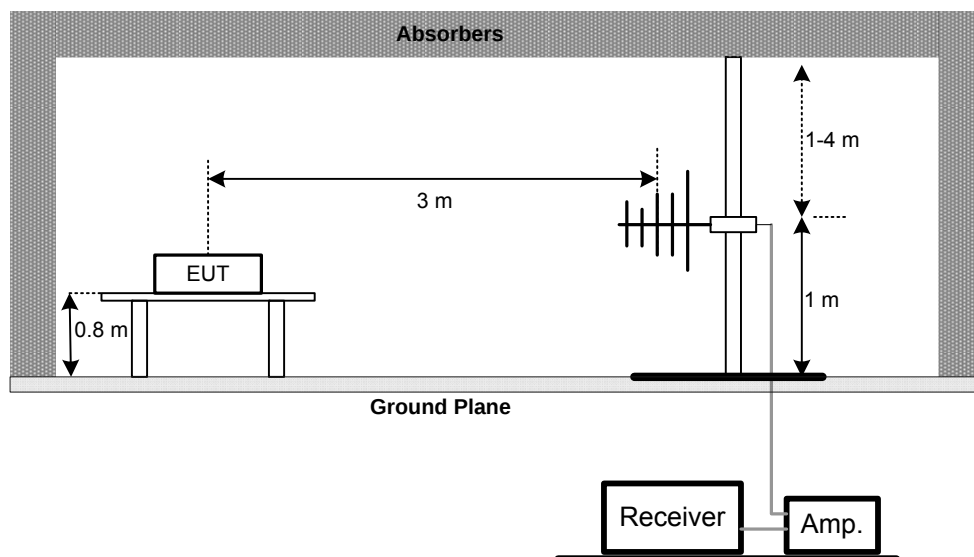
- The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)
- The height of the equipment or of the substitution antenna shall be 0.8 m or 1.5m, the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1GHz.
- The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform. (below 1GHz)
- All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform. (above 1GHz)
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.2.3 DEVIATION FROM TEST STANDARD

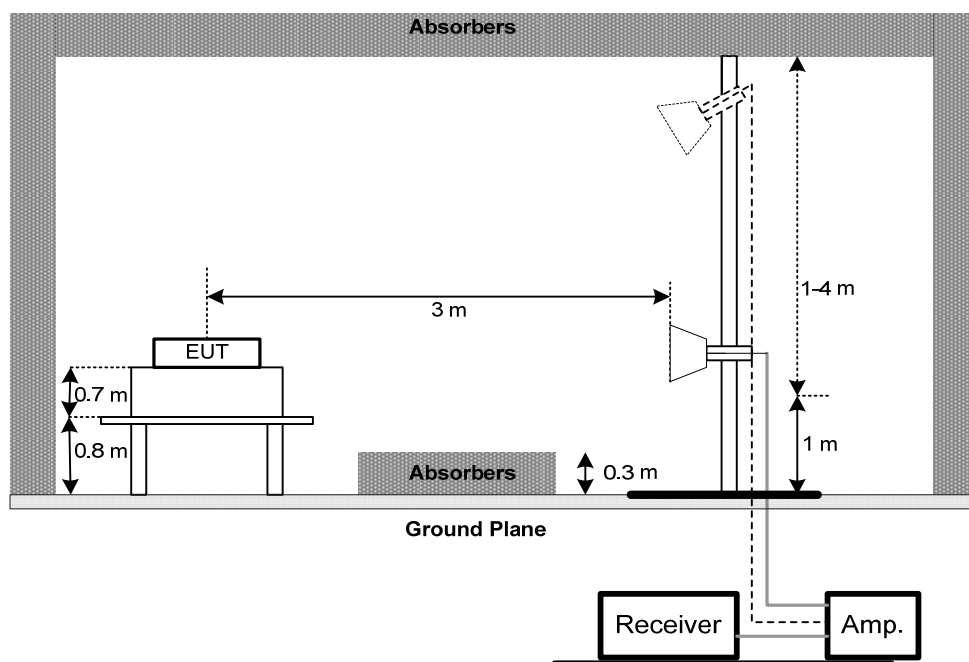
No deviation

4.2.4 TEST SETUP

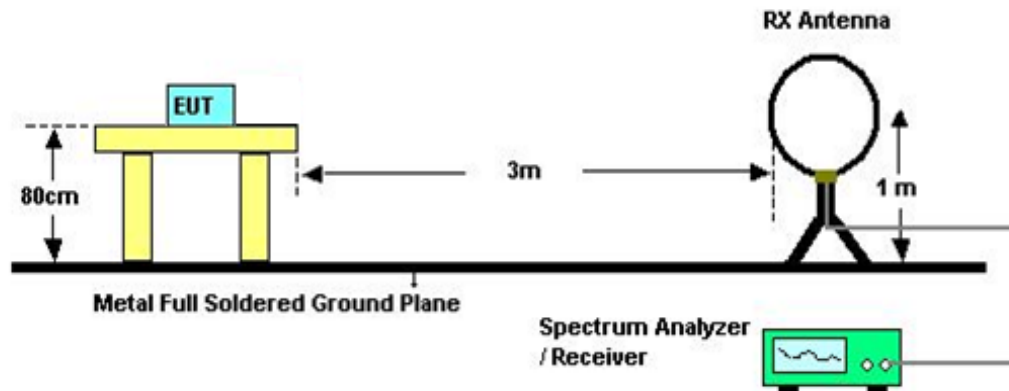
(A) Radiated Emission Test Set-Up Frequency Below 1 GHz



(B) Radiated Emission Test Set-Up Frequency Above 1 GHz



(C) For radiated emissions below 30MHz



4.2.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 4.1.5 unless otherwise a special operating condition is specified in the follows during the testing.

4.2.6 EUT TEST CONDITIONS

Temperature: 24°C

Relative Humidity: 60%

Test Voltage: DC 3V

4.2.7 TEST RESULTS (9KHZ TO 30MHZ)

Please refer to the Attachment B

Remark:

- (1) The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.
- (2) Distance extrapolation factor = $40 \log (\text{specific distance} / \text{test distance})$ (dB).
- (3) Limit line = specific limits (dBuV) + distance extrapolation factor.

4.2.8 TEST RESULTS (30MHZ TO 1000MHZ)

Please refer to the Attachment C.

Remark:

- (1) Measuring frequency range from 30MHz to 1000MHz.
- (2) If the peak scan value lower limit more than 20dB, then this signal data does not show in table.

4.2.9 TEST RESULTS (ABOVE 1000 MHZ)

Please refer to the Attachment D.

Remark:

- (1) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission
- (2) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (3) EUT Orthogonal Axis:
"X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand
- (4) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna
- (5) No limit: This is fundamental signal, the judgment is not applicable.
For fundamental signal judgment was referred to Peak output test.

5. BANDWIDTH TEST

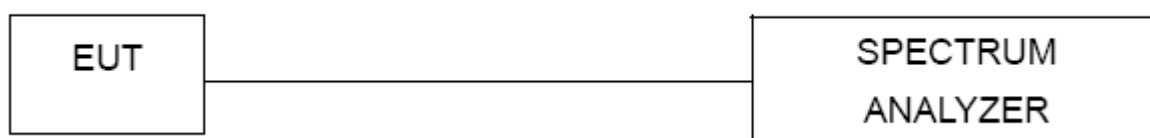
5.1 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Spectrum Setting: RBW= 100KHz, VBW=100KHz, Sweep time = Auto.

5.2 DEVIATION FROM STANDARD

No deviation.

5.3 TEST SETUP



5.4 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

5.5 EUT TEST CONDITIONS

Temperature: 24°C
Relative Humidity: 60%
Test Voltage: DC 3V

5.6 TEST RESULTS

Please refer to the Attachment E.

6. MEASUREMENT INSTRUMENTS LIST

Radiated Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-30	100854	May 27, 2017
2	Horn Antenna	Schwarzbeck	BBHA 9120	D-546	Nov. 05, 2016
3	Microwave Pre_amplifier	Agilent	8449B	3008A01714	Apr. 14, 2017
4	Microflex Cable	Harbour industries	27478LL142	1m	May 13, 2017
5	Microflex Cable	AISI	S104-SMAP-1	10m	Mar. 29, 2017
6	Microflex Cable	N/A	N/A	3m	May 10, 2017
7	Test Cable	LMR	LMR-400	966_10m	May 12, 2017
8	Test Cable	LMR	LMR-400	966_3m	May 12, 2017
9	Pre-Amplifier	EMC	EMC-330	980088	N/A
10	Log-Bicon Antenna	Schwarzbeck	VULB9168-35 2	9168-352	Jul. 25, 2017
11	Horn Antenna	Schwarzbeck	BBHA 9170	187	May 13, 2017
12	Loop Ant.	EMCO	6502	00042960	Nov. 16, 2016

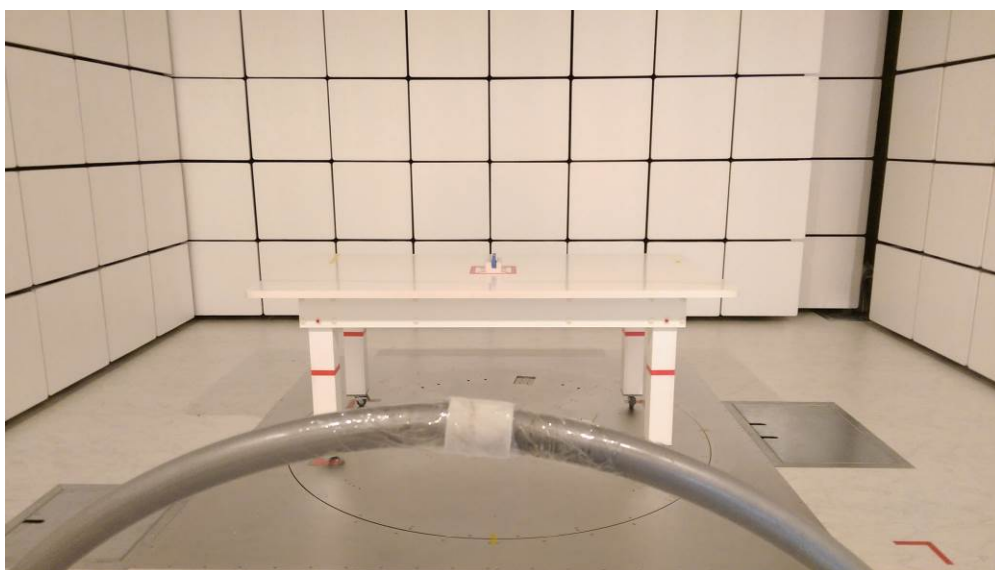
Bandwidth Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-30	100854	May 27, 2017

Remark: "N/A" denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

7. EUT TEST PHOTO

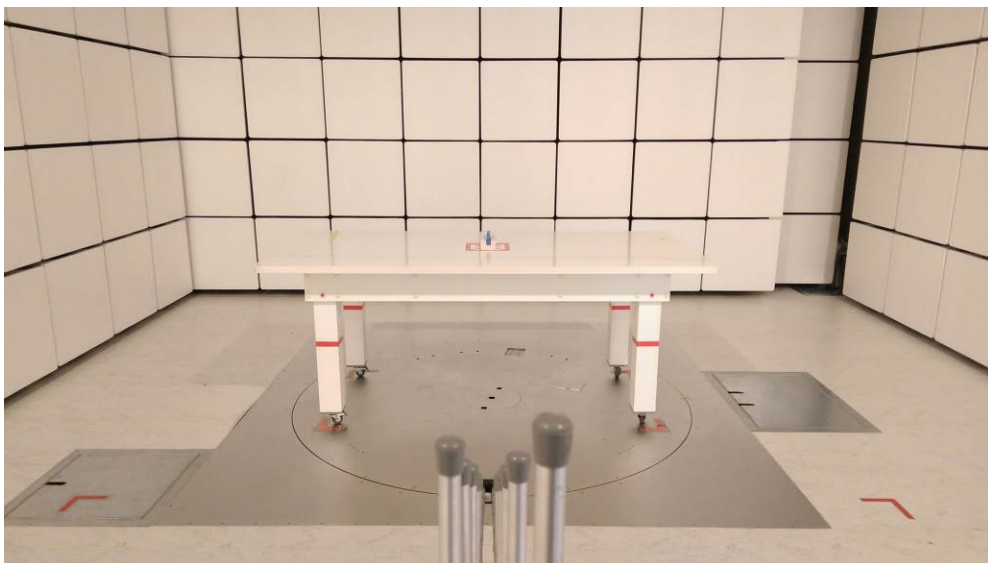
Radiated Measurement Photos

9K-30MHz



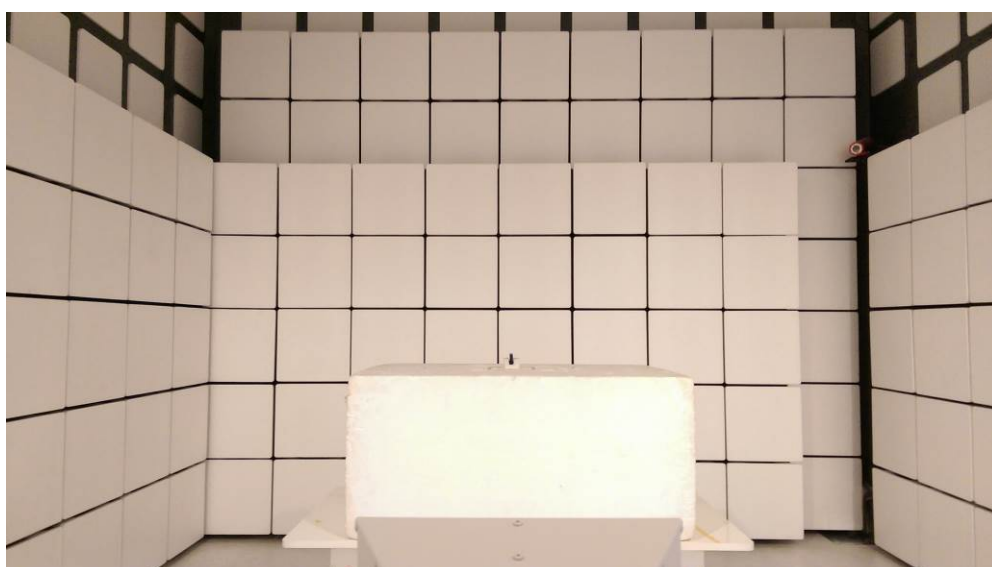
Radiated Measurement Photos

30MHz-1G



Radiated Measurement Photos

Above 1G



ATTACHMENT A - CONDUCTED EMISSION

Test Mode: N/A

Note: "N/A" denotes test is not applicable to this device.

ATTACHMENT B -RADIATED EMISSION (9KHZ TO 30MHZ)

Test Mode:	TX Mode
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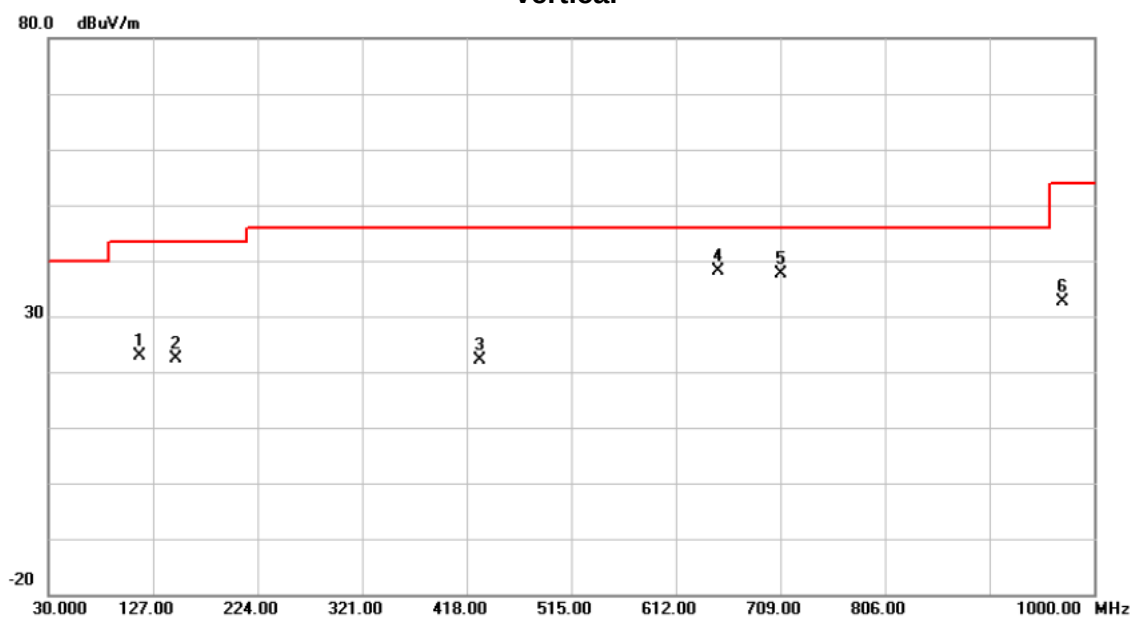
Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
0.1210	0°	42.57	12.24	54.81	85.95	-31.14	AVG
0.1210	0°	51.12	12.24	63.36	105.95	-42.59	PK
0.2920	0°	38.39	11.15	49.54	78.30	-28.76	AVG
0.2920	0°	46.76	11.15	57.91	98.30	-40.39	PK
0.4400	0°	38.38	11.18	49.56	74.74	-25.17	AVG
0.4400	0°	47.43	11.18	58.61	94.74	-36.12	PK
0.7420	0°	43.54	11.30	54.84	90.55	-35.71	QP
0.7660	0°	41.45	11.33	52.78	69.92	-17.14	QP
1.3490	0°	38.95	11.52	50.47	65.00	-14.53	QP

Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
0.1170	90°	41.52	12.26	53.78	86.24	-32.46	AVG
0.1170	90°	53.36	12.26	65.62	106.24	-40.62	PK
0.2900	90°	38.49	11.16	49.65	78.36	-28.71	AVG
0.2900	90°	45.55	11.16	56.71	98.36	-41.65	PK
0.4490	90°	39.34	11.19	50.53	74.56	-24.03	AVG
0.4490	90°	48.31	11.19	59.50	94.56	-35.06	PK
0.7410	90°	42.25	11.30	53.55	90.55	-37.00	QP
0.7690	90°	40.07	11.33	51.40	69.89	-18.49	QP
1.3480	90°	38.43	11.52	49.95	65.01	-15.06	QP

ATTACHMENT C -RADIATED EMISSION (30MHZ TO 1000MHZ)

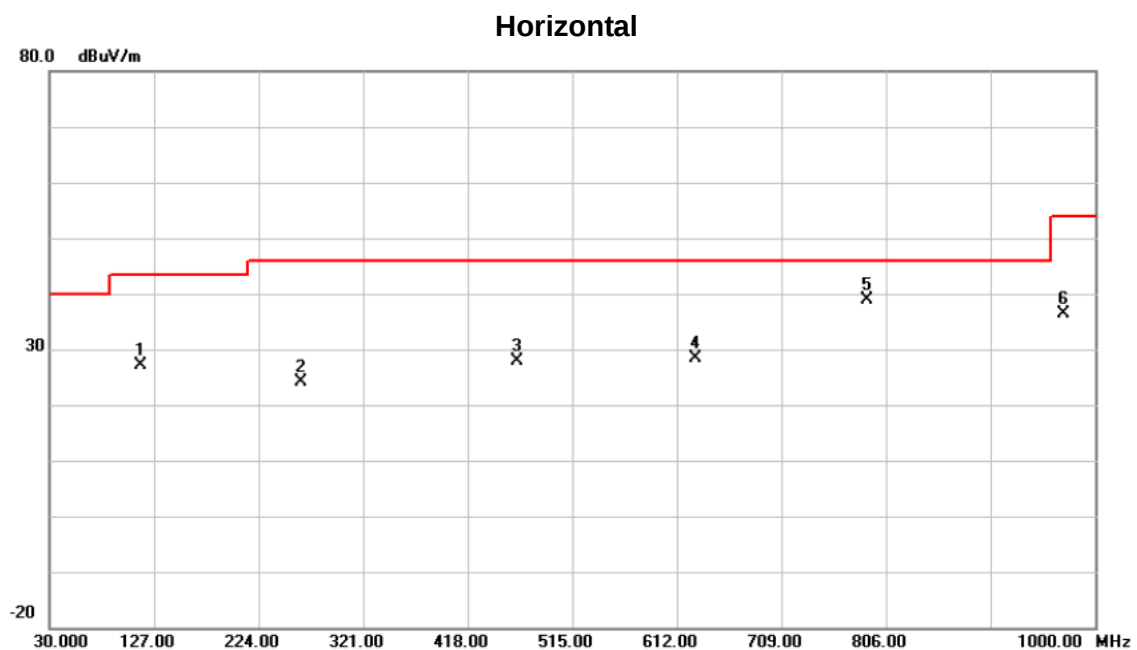
Test Mode	TX Mode_921.5 MHz (worse case)
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Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		114.8750	39.78	-16.95	22.83	43.50	-20.67	peak		
2		148.8250	36.54	-14.21	22.33	43.50	-21.17	peak		
3		430.1250	32.53	-10.37	22.16	46.00	-23.84	peak		
4	*	650.8000	45.13	-6.93	38.20	46.00	-7.80	peak		
5		709.0000	42.84	-5.31	37.53	46.00	-8.47	peak		
6		970.9000	34.02	-1.37	32.65	54.00	-21.35	peak		

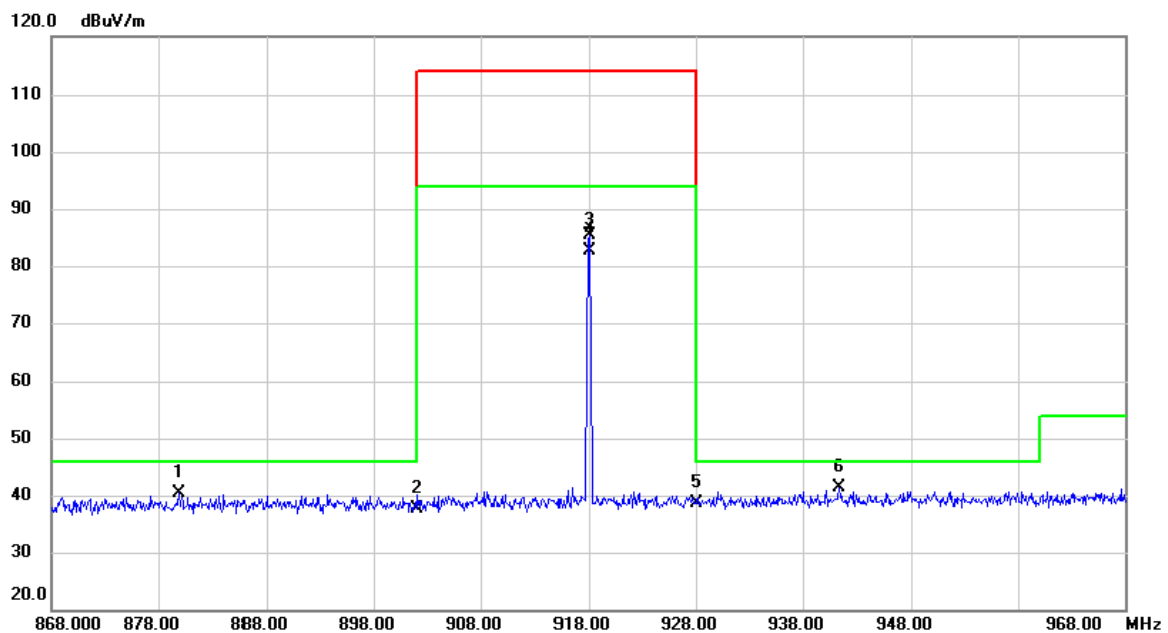
Test Mode	TX Mode_921.5 MHz (worse case)
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No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree	Comment
1		114.8750	44.17	-16.95	27.22	43.50	-16.28	peak		
2		262.8000	38.77	-14.54	24.23	46.00	-21.77	peak		
3		464.0750	37.57	-9.69	27.88	46.00	-18.12	peak		
4		628.9750	35.44	-7.16	28.28	46.00	-17.72	peak		
5	*	789.0250	43.81	-4.82	38.99	46.00	-7.01	peak		
6		970.9000	37.86	-1.37	36.49	54.00	-17.51	peak		

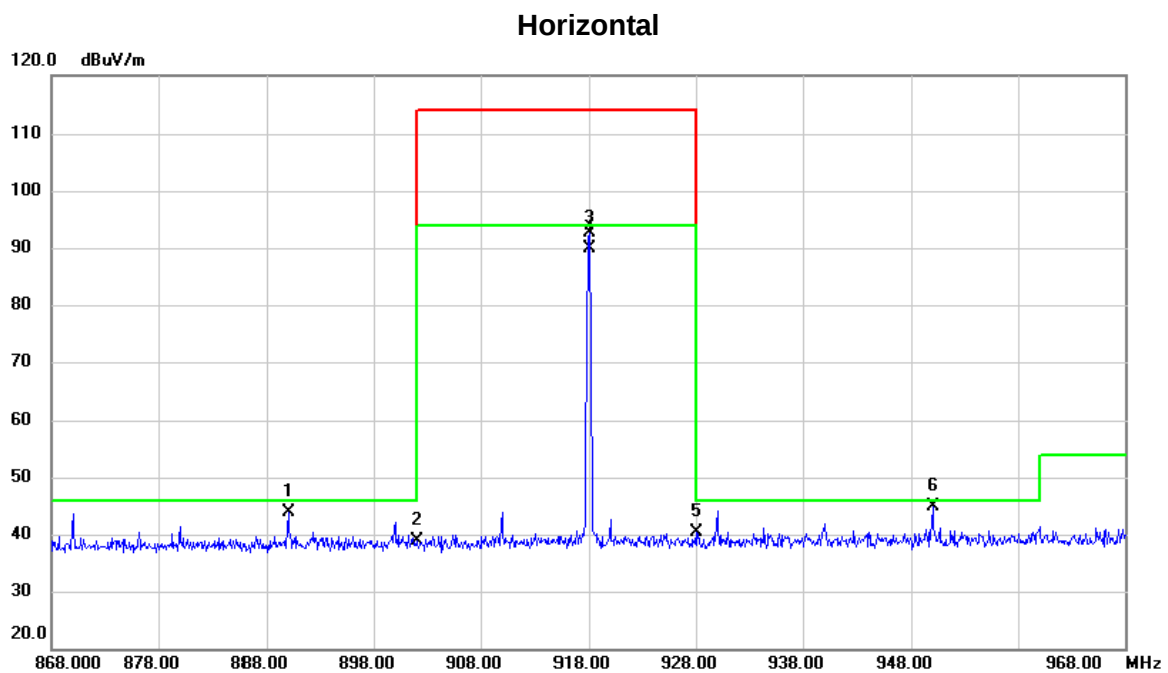
Test Mode	TX Mode_918.0 MHz
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Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		879.9000	14.05	26.34	40.39	46.00	-5.61	QP	
2		902.0000	10.99	26.68	37.67	46.00	-8.33	QP	
3		918.0000	58.44	26.99	85.43	114.00	-28.57	peak	
4		918.0000	55.64	26.99	82.63	94.00	-11.37	AVG	
5		928.0000	11.42	27.18	38.60	46.00	-7.40	QP	
6	*	941.4000	13.83	27.44	41.27	46.00	-4.73	QP	

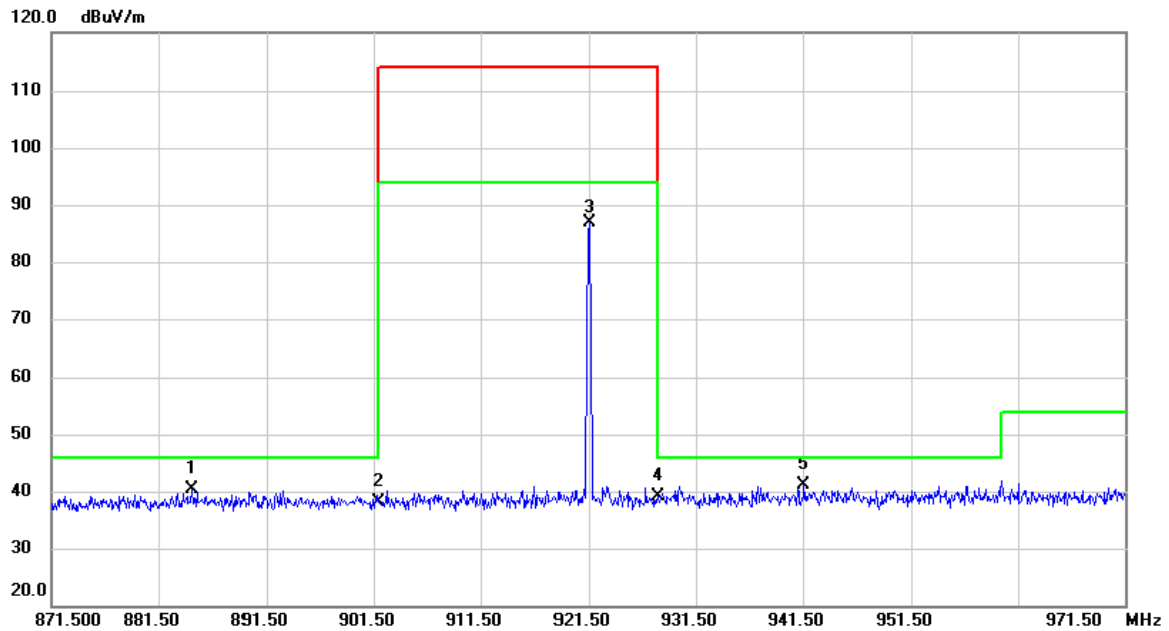
Test Mode	TX Mode_918.0 MHz
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No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		890.0000	17.42	26.49	43.91	46.00	-2.09	QP	
2		902.0000	12.19	26.68	38.87	46.00	-7.13	QP	
3		918.0000	65.58	26.99	92.57	114.00	-21.43	peak	
4		918.0000	62.78	26.99	89.77	94.00	-4.23	AVG	
5		928.0000	13.09	27.18	40.27	46.00	-5.73	QP	
6	*	950.0000	17.28	27.61	44.89	46.00	-1.11	QP	

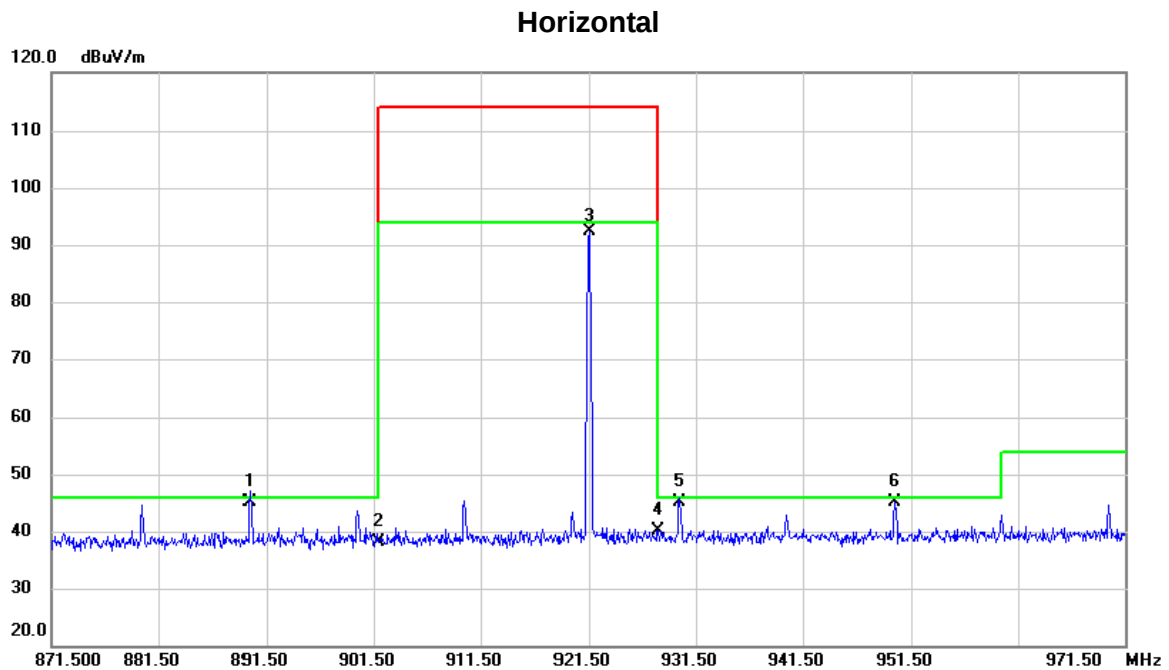
Test Mode TX Mode_921.5 MHz

Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		884.6000	13.99	26.40	40.39	46.00	-5.61	QP	
2		902.0000	11.39	26.68	38.07	46.00	-7.93	QP	
3		921.5000	59.75	27.06	86.81	114.00	-27.19	peak	
4		928.0000	11.91	27.18	39.09	46.00	-6.91	QP	
5	*	941.6000	13.72	27.44	41.16	46.00	-4.84	QP	

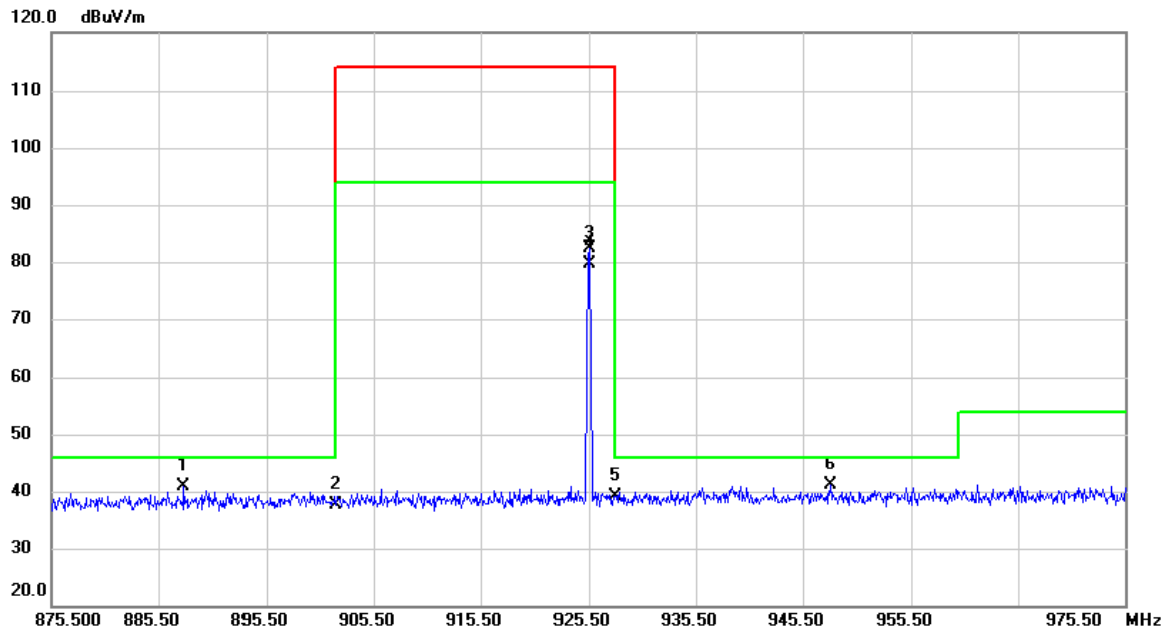
Test Mode	TX Mode_921.5 MHz
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No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	890.0000	18.64	26.49	45.13	46.00	-0.87	QP	
2		902.0000	11.46	26.68	38.14	46.00	-7.86	QP	
3		921.5000	65.37	27.06	92.43	114.00	-21.57	peak	
4		928.0000	12.87	27.18	40.05	46.00	-5.95	QP	
5		930.0000	17.79	27.22	45.01	46.00	-0.99	QP	
6		950.0000	17.48	27.61	45.09	46.00	-0.91	QP	

Test Mode TX Mode_925.5 MHz

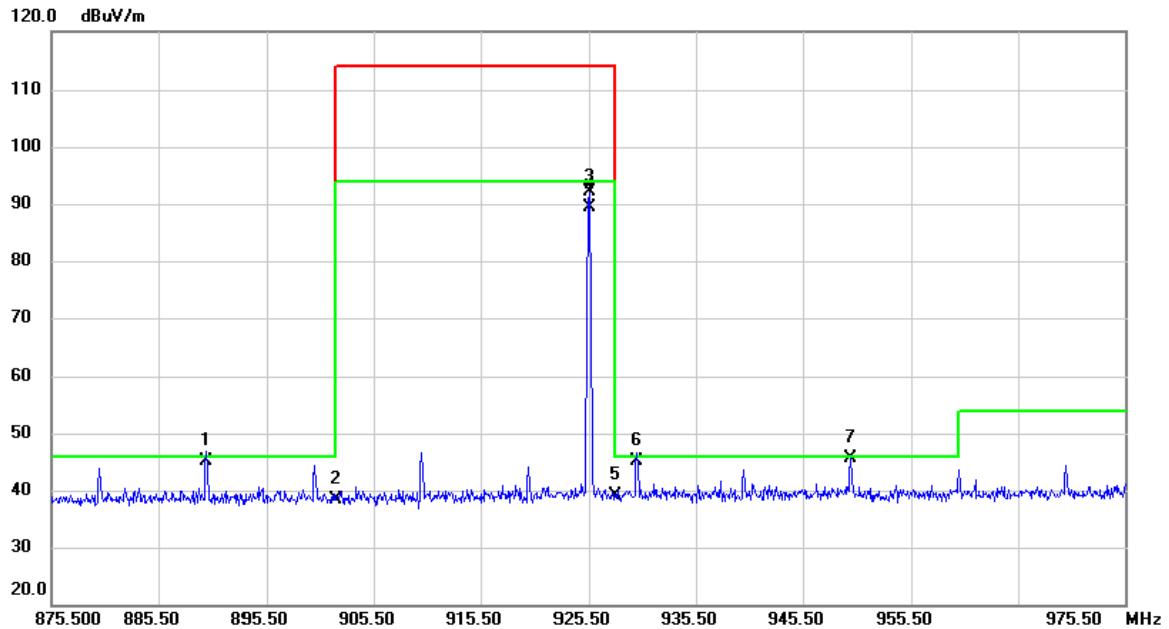
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		887.9000	14.30	26.46	40.76	46.00	-5.24	QP	
2		902.0000	10.98	26.68	37.66	46.00	-8.34	QP	
3		925.5000	55.27	27.14	82.41	114.00	-31.59	peak	
4		925.5000	52.47	27.14	79.61	94.00	-14.39	AVG	
5		928.0000	12.06	27.18	39.24	46.00	-6.76	QP	
6	*	948.1000	13.64	27.57	41.21	46.00	-4.79	QP	

Test Mode	TX Mode_925.5 MHz
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Horizontal

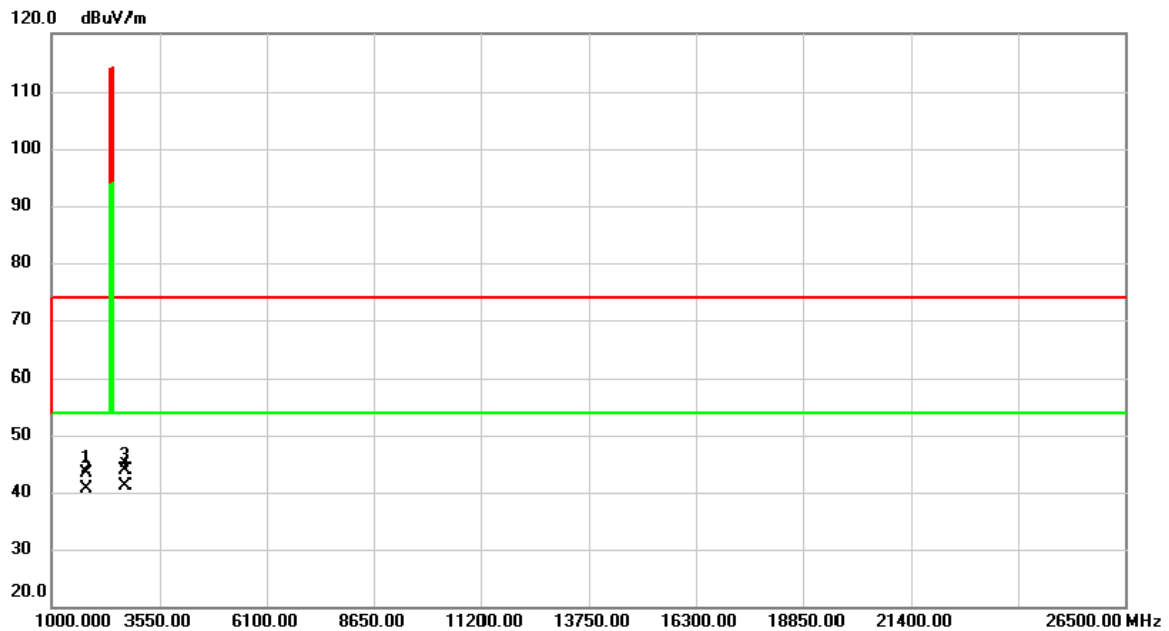


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		890.0000	18.53	26.49	45.02	46.00	-0.98	QP	
2		902.0000	11.76	26.68	38.44	46.00	-7.56	QP	
3		925.5000	64.99	27.14	92.13	114.00	-21.87	peak	
4		925.5000	62.19	27.14	89.33	94.00	-4.67	AVG	
5		928.0000	11.95	27.18	39.13	46.00	-6.87	QP	
6		930.0000	18.01	27.22	45.23	46.00	-0.77	QP	
7	*	950.0000	17.98	27.61	45.59	46.00	-0.41	QP	

ATTACHMENT D -RADIATED EMISSION (ABOVE 1000MHZ)

Test Mode	TX Mode_918.0 MHz
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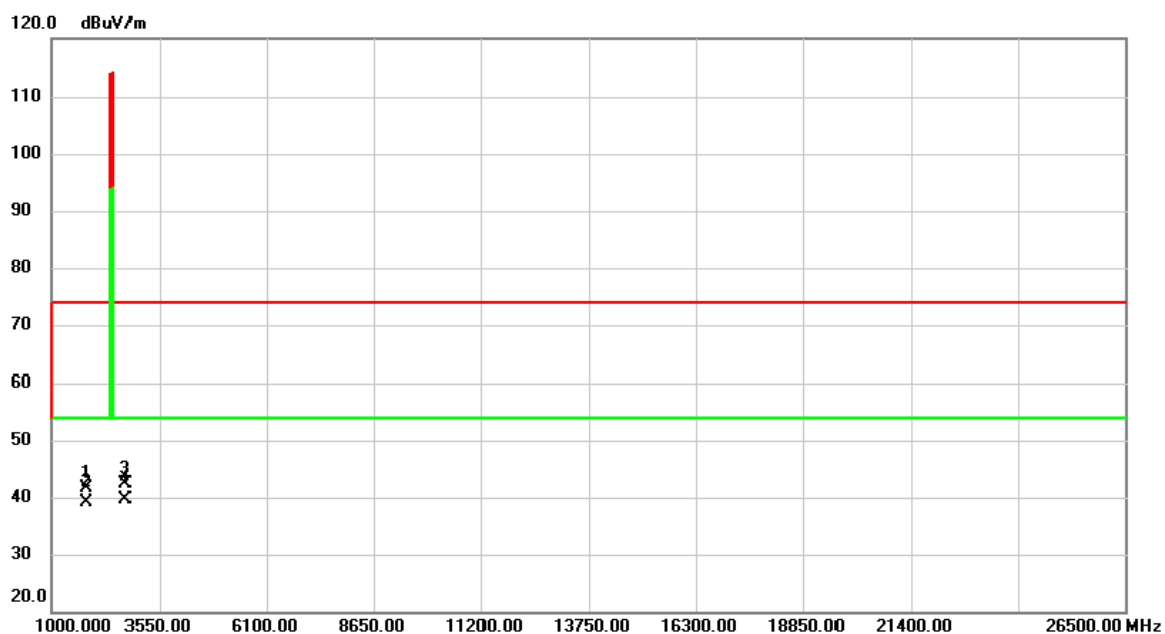
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		1836.000	45.56	-2.30	43.26	74.00	-30.74	peak	
2		1836.000	42.89	-2.30	40.59	54.00	-13.41	AVG	
3		2754.000	43.01	0.76	43.77	74.00	-30.23	peak	
4	*	2754.000	40.34	0.76	41.10	54.00	-12.90	AVG	

Test Mode	TX Mode_918.0 MHz
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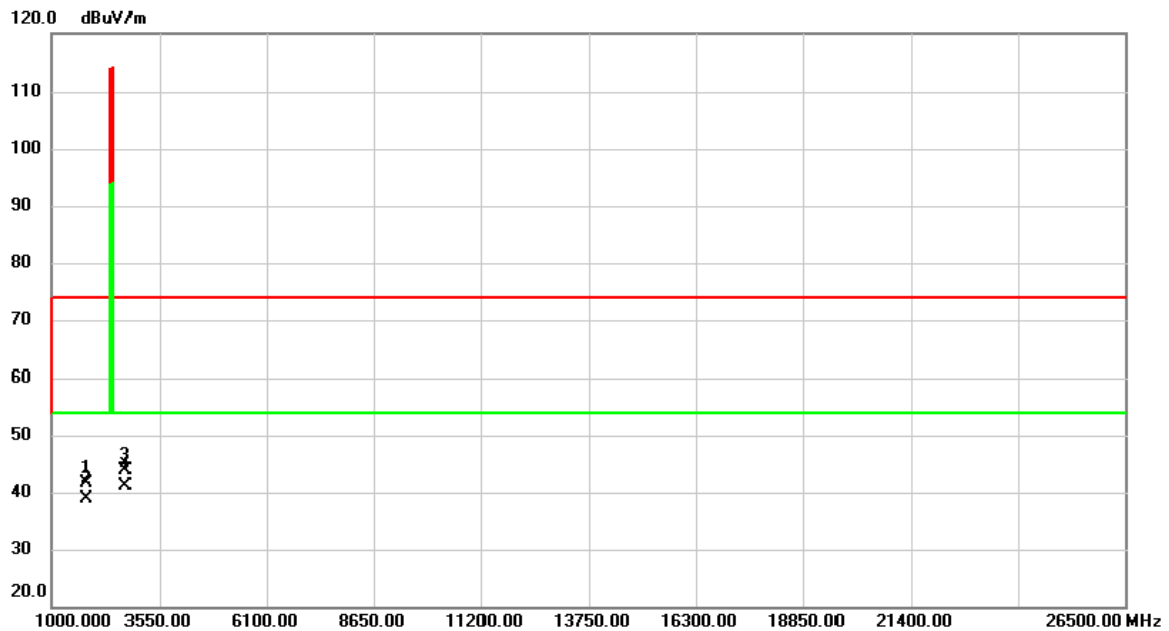
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		1836.000	44.01	-2.30	41.71	74.00	-32.29	peak	
2		1836.000	41.34	-2.30	39.04	54.00	-14.96	AVG	
3		2754.000	41.61	0.76	42.37	74.00	-31.63	peak	
4	*	2754.000	38.94	0.76	39.70	54.00	-14.30	AVG	

Test Mode	TX Mode_921.5 MHz
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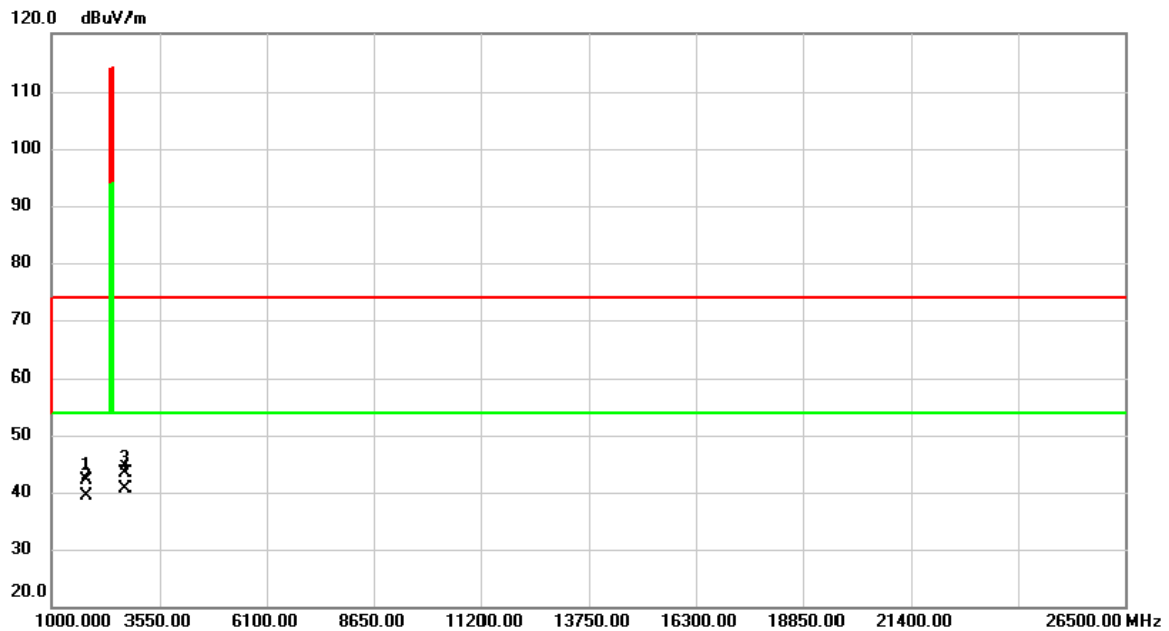
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		1843.000	43.95	-2.29	41.66	74.00	-32.34	peak	
2		1843.000	41.28	-2.29	38.99	54.00	-15.01	AVG	
3		2764.500	43.06	0.80	43.86	74.00	-30.14	peak	
4	*	2764.500	40.39	0.80	41.19	54.00	-12.81	AVG	

Test Mode	TX Mode_921.5 MHz
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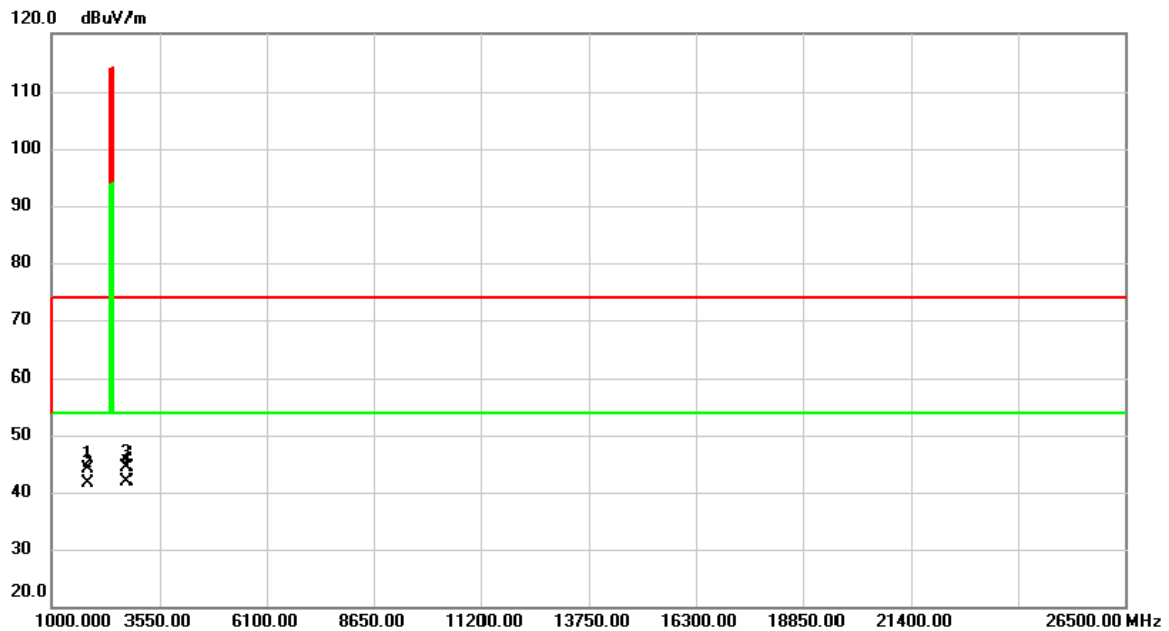
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		1842.850	44.32	-2.29	42.03	74.00	-31.97	peak	
2		1842.850	41.65	-2.29	39.36	54.00	-14.64	AVG	
3		2764.500	42.61	0.80	43.41	74.00	-30.59	peak	
4	*	2764.500	39.94	0.80	40.74	54.00	-13.26	AVG	

Test Mode	TX Mode_925.5 MHz
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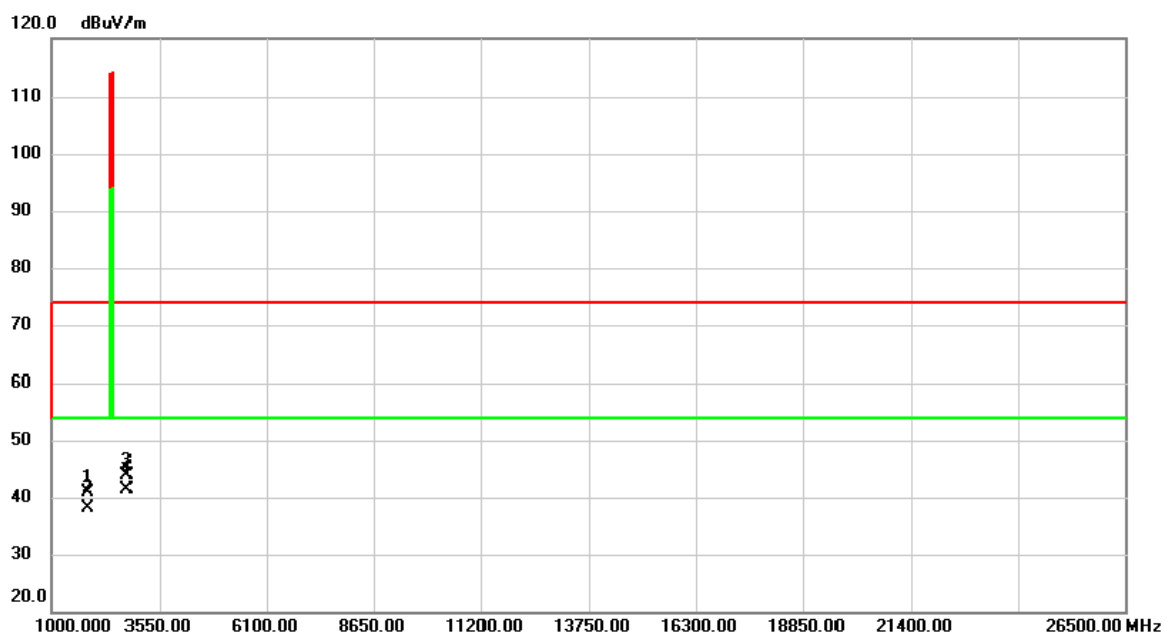
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		1851.000	46.43	-2.25	44.18	74.00	-29.82	peak	
2		1851.000	43.76	-2.25	41.51	54.00	-12.49	AVG	
3		2776.500	43.60	0.85	44.45	74.00	-29.55	peak	
4	*	2776.500	40.93	0.85	41.78	54.00	-12.22	AVG	

Test Mode	TX Mode_925.5 MHz
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Horizontal



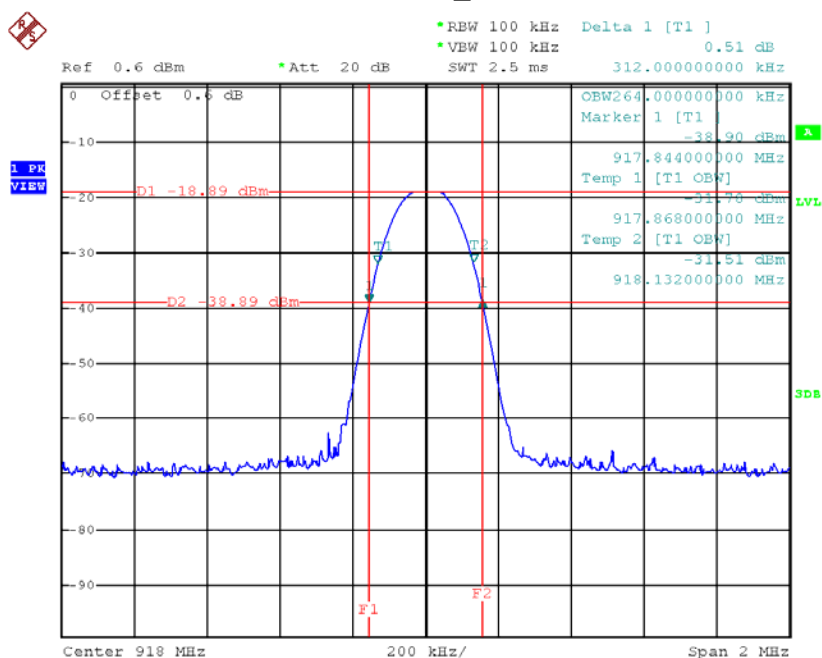
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		1851.650	43.14	-2.25	40.89	74.00	-33.11	peak	
2		1851.650	40.47	-2.25	38.22	54.00	-15.78	AVG	
3		2776.500	43.15	0.85	44.00	74.00	-30.00	peak	
4	*	2776.500	40.48	0.85	41.33	54.00	-12.67	AVG	

ATTACHMENT E - BANDWIDTH

Test Mode:	TX Mode_918.0 MHz/921.5 MHz/925.5 MHz
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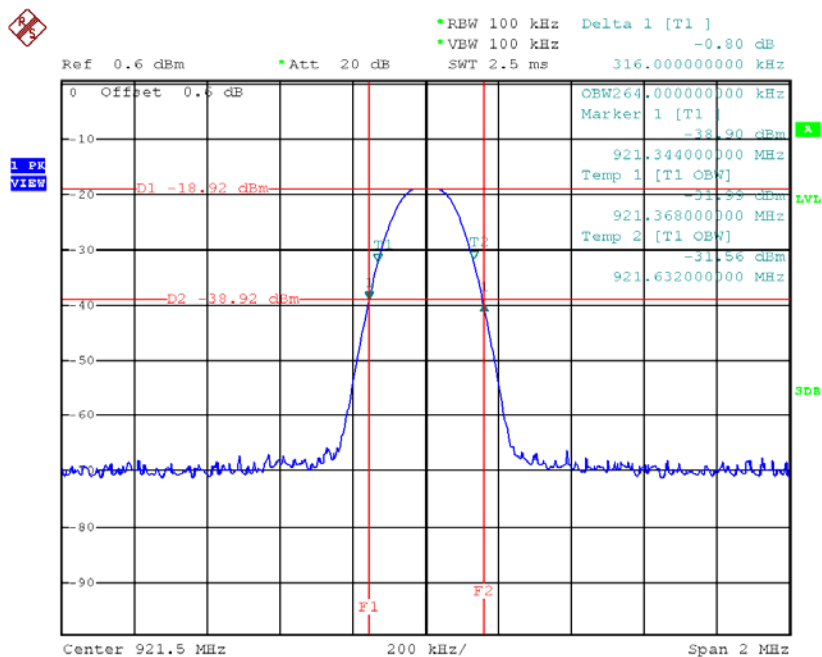
Frequency (MHz)	20dB Bandwidth (MHz)	99% Occupied BW (MHz)
918.0	0.31	0.26
921.5	0.32	0.26
925.5	0.31	0.26

TX Mode_918.0 MHz



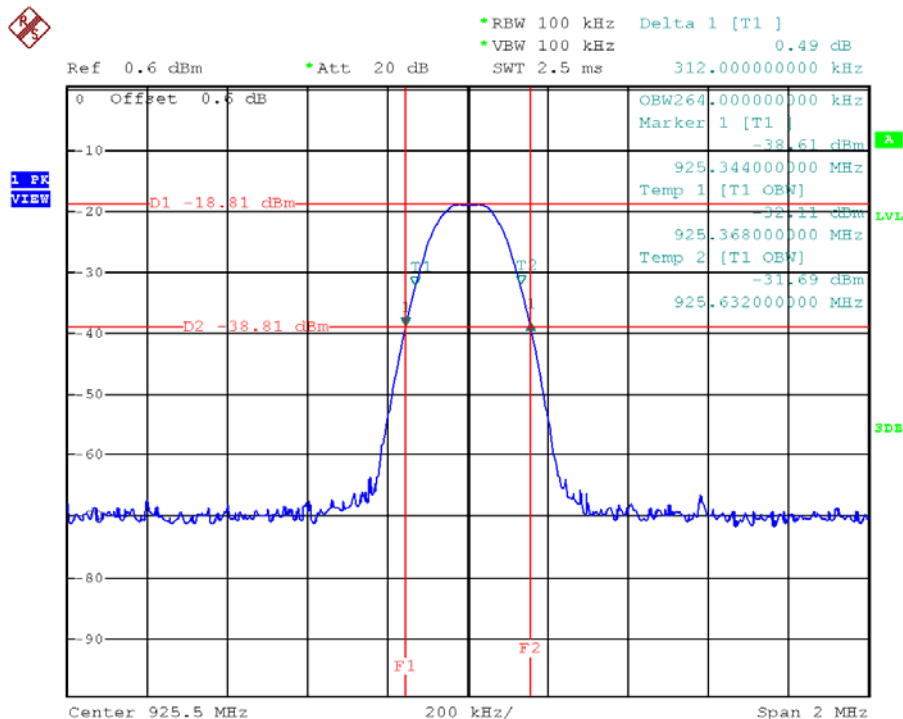
Date: 17.JUN.2015 16:20:15

TX Mode_921.5 MHz



Date: 17.JUN.2015 16:30:50

TX Mode_925.5 MHz



Date: 17.JUN.2015 16:33:55