



FCC RADIO TEST REPORT

FCC ID : UZ7ET65WW
Equipment : Tablet
Brand Name : Zebra
Model Name : ET65WW
Applicant : Zebra Technologies Corporation
3 Overlook Point, Lincolnshire, IL 60069 USA
Manufacturer : Zebra Technologies Corporation
3 Overlook Point, Lincolnshire, IL 60069 USA
Standard : FCC 47 CFR Part 2, 22(H), 24(E), 27(L)

The product was received on Jul. 15, 2024 and testing was performed from Aug. 07, 2024 to Aug. 27, 2024. We, Sporton International Inc. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this partial report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

Sporton International Inc. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)



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History of this test report

Report No.	Version	Description	Issue Date
FG471511A	01	Initial issue of report	Sep. 30, 2024

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1046	Conducted Output Power	Pass	-
	§22.913 (a)(5)	Effective Radiated Power (WCDMA Band V)		
	§24.232 (c)	Equivalent Isotropic Radiated Power (WCDMA Band II)		
	§27.50 (d)(4)	Equivalent Isotropic Radiated Power (WCDMA Band IV)		
4.4	§2.1053 §22.917 (a) §24.238 (a) §27.53 (h)	Field Strength of Spurious Radiation (WCDMA Band V) (WCDMA Band II) (WCDMA Band IV)	Pass	30.65 dB under the limit at 5197.00 MHz

Remark:

- For host device, Field Strength of Spurious Radiation, Effective Radiated Power and Equivalent Isotropic Radiated Power are verified and comply with the limit in this test report.
- For host device, the Conducted Output Power is no difference after compared to module (Model: RM520N-GL)

Conformity Assessment Condition:

- The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
- The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty".

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Keven Cheng
Report Producer: Clio Lo



1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Tablet
Brand Name	Zebra
Model Name	ET65WW
FCC ID	UZ7ET65WW
EUT supports Radios application	WCDMA/HSPA/LTE/5G NR/NFC/GNSS WLAN 11a/b/g/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80/VHT160 WLAN 11ax HE20/HE40/HE80/HE160 WLAN 11be EHT20/ EHT40/ EHT80/EHT160/EHT320 Bluetooth BR/EDR/LE
HW Version	EV
SW Version	Windows 11 PRO
MFD	10JUL24
EUT Stage	Identical Prototype

Remark: The EUT's information above is declared by manufacturer.

Specification of Accessories				
Adaptor with CLA cable	Brand Name	FSP	Model Number	FSP045-A2BR3
Power Cord	Brand Name	Zebra	Part Number	1411-01X5000
Battery 1	Brand Name	ZEBRA	Model Number	BT-000484
Battery 2	Brand Name	ZEBRA	Model Number	BT-000484A
Expansion pack	Brand Name	Zebra	Model Number	ET60WW-OS6DPS00A1-00

SKU List					
	SKU1	SKU2	SKU3	SKU5	SKU6
OS	Pro	Pro	Pro	Pro	Pro
CPU	i7 Vpro	i7 Non Vpro	i5 Vpro	i5 Non Vpro	i5 Non Vpro
Memory	32G RAM	32G RAM	16G RAM	16G RAM	8G RAM
DDR Vendor	Hynix	Hynix	Samsung	Hynix	Hynix
STORAGE	512GB	512GB	256GB	256GB	128GB
TPM (Touch Sensor)	Sigmasense	Sigmasense	Sigmasense	Sigmasense	Sigmasense
WWAN	YES	YES	YES	YES	YES
WLAN + BT	YES	YES	YES	YES	YES
BCR	YES	YES	No	No	No
FPR	YES	No	No	No	Yes
Panel	Standard	Standard	Standard	Standard	Standard
Sensors	Standard	Standard	Standard	Standard	Standard
Battery	Standard	Standard	Standard	Standard	Standard
NFC	Yes	Yes	Yes	Yes	Yes
RS232/RJ45 (PWB)	Yes	Yes	Yes	Yes	Yes

1.2 Product Specification of Equipment Under Test

Product Specification is subject to this standard	
Tx Frequency	WCDMA: Band V: 826.4 MHz ~ 846.6 MHz Band II: 1852.4 MHz ~ 1907.6 MHz Band IV: 1712.4 MHz ~ 1752.6 MHz
Rx Frequency	WCDMA: Band V: 871.4 MHz ~ 891.6 MHz Band II: 1932.4 MHz ~ 1987.6 MHz Band IV: 2112.4 MHz ~ 2152.6 MHz
Maximum Output Power to Antenna	WCDMA: Band V: 24.12 dBm Band II: 23.61 dBm Band IV: 23.71 dBm
Antenna Type	Fixed Internal Antenna
Antenna Gain	Cellular Band: -2.1 dBi PCS Band: 3.4 dBi AWS Band: 0.64 dBi
Type of Modulation	WCDMA: QPSK (Uplink) HSDPA: 64QAM (Downlink) HSUPA: QPSK (Uplink)

Remark: The EUT's information above is declared by manufacturer. Please refer to Disclaimer in report summary.

1.3 Modification of EUT

No modifications made to the EUT during the testing.



1.4 Testing Location

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	Sporton Site No. TH03-HY
Test Engineer	Eric Wu
Temperature (°C)	21~23
Relative Humidity (%)	47.8~49.8

Test Site	Sporton International Inc. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	Sporton Site No. 03CH22-HY (TAF Code: 3786)
Test Engineer	Fred Tseng and Karl Hou
Temperature (°C)	20.5~21.4
Relative Humidity (%)	54.5~63.1
Remark	The Field Strength of Spurious Radiation test item subcontracted to Sporton International Inc. Wensan Laboratory.

Note: The test site complies with ANSI C63.4 2014 requirement.

FCC Designation No.: TW1190 and TW3786

1.5 Applicable Standards

According to the specifications declared by the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ ANSI C63.26-2015
- ♦ FCC 47 CFR Part 2, 22(H), 24(E), 27(L)
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- ♦ FCC KDB 412172 D01 Determining ERP and EIRP v01r01
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01

Remark:

1. All the test items were validated and recorded in accordance with the standards without any modification during the testing.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.
3. The TAF code is not including all the FCC KDB listed without accreditation.



2 Test Configuration of Equipment Under Test

2.1 Test Mode

Antenna port conducted and radiated test items were performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

For radiated measurement, the measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in three orthogonal axis (X: flat, Y: portrait, Z: landscape), and adjusting the measurement antenna orientation, following C63.26 exploratory test procedures and only the worst case emissions were reported in this report.

Radiated emissions were investigated as following frequency range:

1. 30 MHz to 9000 MHz for WCDMA Band V
2. 30 MHz to 18000 MHz for WCDMA Band IV
3. 30 MHz to 19100 MHz for WCDMA Band II

All modes, data rates and positions were investigated.

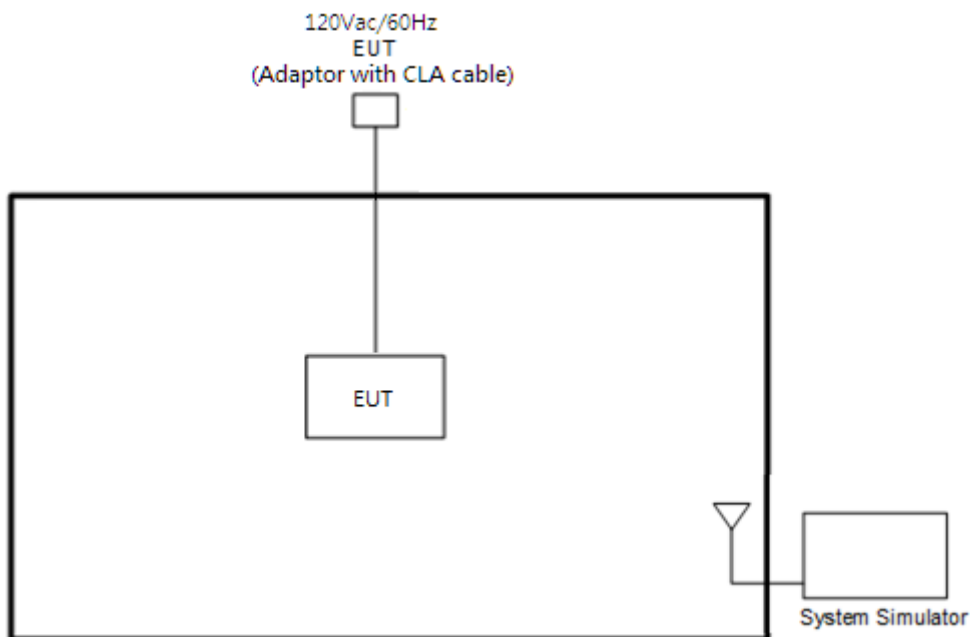
Test modes are chosen to be reported as the worst case configuration below:

Test Modes		
Band	Radiated TCs	Conducted TCs
WCDMA Band V	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link
WCDMA Band II	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link
WCDMA Band IV	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link

Remark: All the radiated test cases were performed with Battery 1 and SKU 1.

2.2 Connection Diagram of Test System

<EUT with Adapter>



<EUT without Accessory>



2.3 Support Unit used in test configuration

Item	Equipment	Brand Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m
2.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m



2.4 Frequency List of Low/Middle/High Channels

Frequency List				
Band	Channel/Frequency(MHz)	Lowest	Middle	Highest
WCDMA Band V	Channel	4132	4182	4233
	Frequency	826.4	836.4	846.6
WCDMA Band II	Channel	9262	9400	9538
	Frequency	1852.4	1880.0	1907.6
WCDMA Band IV	Channel	1312	1413	1513
	Frequency	1712.4	1732.6	1752.6

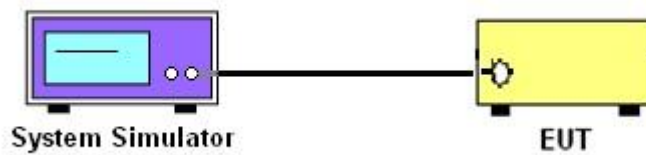
3 Conducted Test Result

3.1 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.1.1 Test Setup

3.1.2 Conducted Output Power



3.1.3 Test Result of Conducted Test

Please refer to Appendix A.

3.2 Conducted Output Power and ERP/EIRP

3.2.1 Description of the Conducted Output Power and ERP/EIRP

A system simulator was used to establish communication with the EUT. Its parameters were set to enforce EUT transmitting at the maximum power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

The ERP of mobile transmitters must not exceed 7 Watts for WCDMA Band V

The EIRP of mobile transmitters must not exceed 2 Watts for WCDMA Band II

The EIRP of mobile transmitters must not exceed 1 Watts for WCDMA Band IV

According to KDB 412172 D01 Power Approach,

$EIRP = P_T + G_T - L_C$, $ERP = EIRP - 2.15$, where

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

L_C = signal attenuation in the connecting cable between the transmitter and antenna in dB

3.2.2 Test Procedures

1. The transmitter output port is connected to the system simulator.
2. Set EUT at maximum power through system simulator.
3. Select the lowest, middle, and the highest channels for each band and different modulation.
4. Measure the maximum burst average power for GSM and maximum average power for other modulation signal.

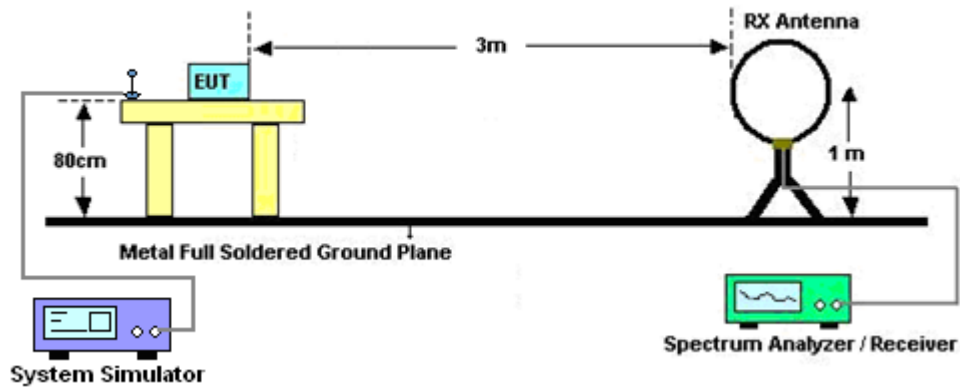
4 Radiated Test Items

4.1 Measuring Instruments

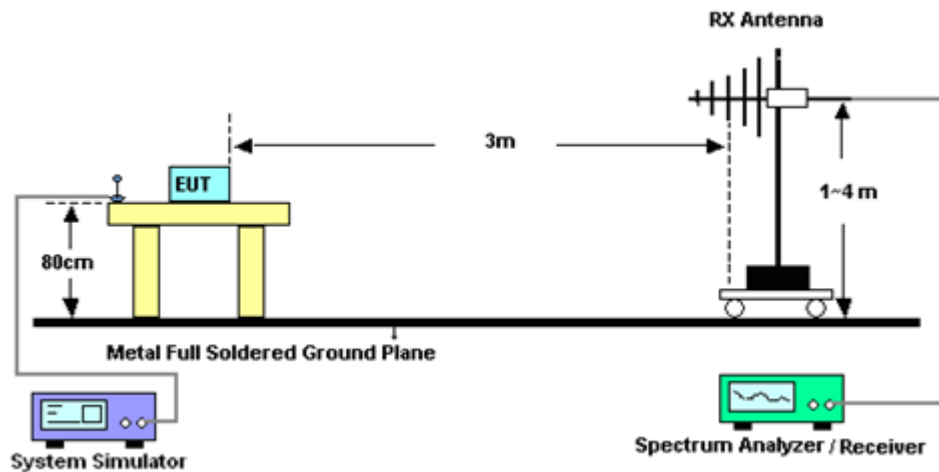
Please refer to the measuring equipment list in this test report.

4.2 Test Setup

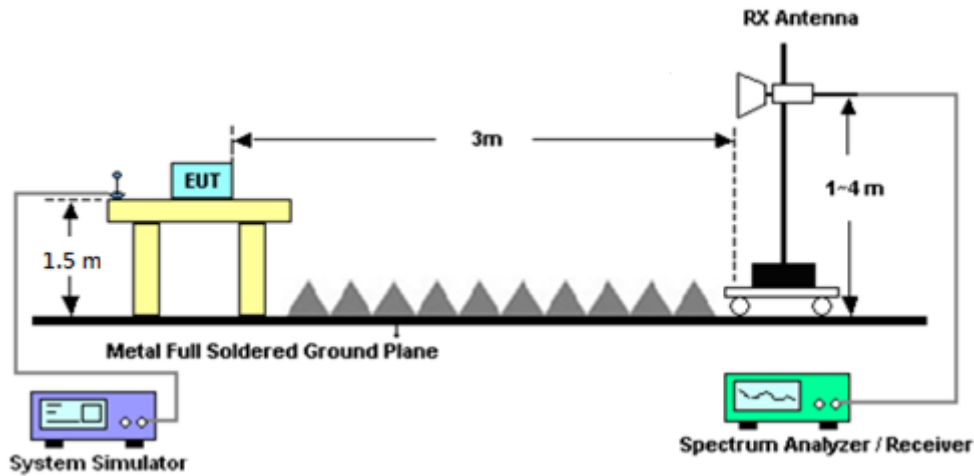
For radiated test below 30MHz



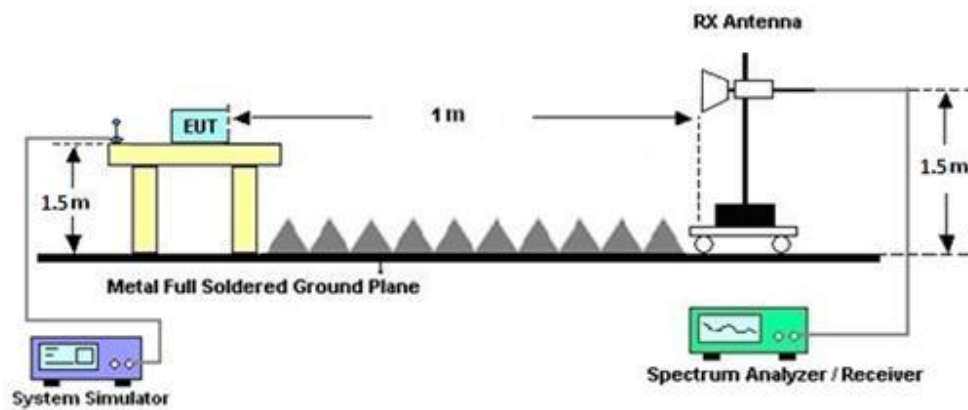
For radiated test from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



4.3 Test Result of Radiated Test

Please refer to Appendix B.

Note:

The low frequency, which starts from 9 kHz to 30 MHz, is pre-scanned and the result which is 20 dB lower than the limit line is not reported.

There is adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

4.4 Field Strength of Spurious Radiation Measurement

4.4.1 Description of Field Strength of Spurious Radiated Measurement

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

4.4.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 7 and ANSI C63.26-2015 section 5.5.4 Radiated measurement using the field strength method.

1. The EUT is placed on a rotatable wooden table 0.8 meters for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz above the ground.
2. The EUT is set 3 meters away from the receiving antenna, which is mounted on the antenna tower.
3. The table is rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between one meter and four meters to search for the maximum spurious emission for both horizontal and vertical polarizations.
5. Make the measurement with the spectrum analyzer's RBW = 1 MHz, VBW = 3 MHz, taking record of maximum spurious emission.
6. To convert spectrum reading E(dBuV/m) to EIRP(dBm)
$$\text{EIRP(dBm)} = \text{Level (dBuV/m)} + 20\log(d) - 104.77,$$
where d is the distance at which field strength limit is specified in the rules
7. Field Strength Level (dBm) = Spectrum Reading (dBm) + Antenna Factor + Cable Loss + Read Level - Preamp Factor.
8. ERP (dBm) = EIRP (dBm) - 2.15
9. The RF fundamental frequency shall be excluded against the limit line in the operating frequency band.



5 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	Rohde & Schwarz	FSP30	101329	9kHz~30GHz	Sep. 20, 2023	Avg. 23, 2024	Sep. 19, 2024	Conducted (TH03-HY)
Programmable Power Supply	GW Instek	PSS-2005	EL890001	1V~20V 0.5A~4A	Sep. 12, 2023	Avg. 23, 2024	Sep. 11, 2024	Conducted (TH03-HY)
Base Station (Measure)	Rohde & Schwarz	CMU200	117995	GSM / GPRS / WCDMA / CDMA	Aug. 08, 2024	Avg. 23, 2024	Aug. 07, 2025	Conducted (TH03-HY)
Hygrometer	TECPEL	DTM-303A	TP201996	N/A	Nov. 07, 2023	Avg. 23, 2024	Nov. 06, 2024	Conducted (TH03-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9kHz~30MHz	Sep. 12, 2023	Aug. 07, 2024~ Aug. 27, 2024	Sep. 11, 2024	Radiation (03CH22-HY)
Bilog Antenna with 6dB	TESEQ & WOKEN	CBL 6111D & 00802N1D-06	63304 & 002	30MHz~1GHz	Oct. 15, 2023	Aug. 07, 2024~ Aug. 27, 2024	Oct. 14, 2024	Radiation (03CH22-HY)
Amplifier	SONOMA	310N	421581	N/A	Jul. 14, 2024	Aug. 07, 2024~ Aug. 27, 2024	Jul. 13, 2025	Radiation (03CH22-HY)
Double Ridged Guide Horn Antenna	RFSPIN	DRH18-E	LE2C04A18EN	1GHz~18GHz	Jul. 11, 2024	Aug. 07, 2024~ Aug. 27, 2024	Jul. 10, 2025	Radiation (03CH22-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	1224	18GHz~40GHz	Jun. 24, 2024	Aug. 07, 2024~ Aug. 27, 2024	Jun. 23, 2025	Radiation (03CH22-HY)
Amplifier	EMEC	EM01G18GA	060877	N/A	Sep. 28, 2023	Aug. 07, 2024~ Aug. 27, 2024	Sep. 27, 2024	Radiation (03CH22-HY)
Preamplifier	EMEC	EM18G40G	060872	18-40GHz	Sep. 06, 2023	Aug. 07, 2024~ Aug. 27, 2024	Sep. 05, 2024	Radiation (03CH22-HY)
Signal Analyzer	Keysight	N9010B	MY62170278	10Hz~44GHz	Aug. 31, 2023	Aug. 07, 2024~ Aug. 27, 2024	Aug. 30, 2024	Radiation (03CH22-HY)
Hygrometer	TECPEL	DTM-303A	TP211469	N/A	Jan. 03, 2024	Aug. 07, 2024~ Aug. 27, 2024	Jan. 02, 2025	Radiation (03CH22-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Aug. 07, 2024~ Aug. 27, 2024	N/A	Radiation (03CH22-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Aug. 07, 2024~ Aug. 27, 2024	N/A	Radiation (03CH22-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Aug. 07, 2024~ Aug. 27, 2024	N/A	Radiation (03CH22-HY)
Software	Audix	E3 6.09824_2019 122	RK-002347	N/A	N/A	Aug. 07, 2024~ Aug. 27, 2024	N/A	Radiation (03CH22-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/2	9kHz~30MHz	Mar. 06, 2024	Aug. 07, 2024~ Aug. 27, 2024	Mar. 05, 2025	Radiation (03CH22-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804390/2,8046 11/2,804615/2	N/A	Oct. 24, 2023	Aug. 07, 2024~ Aug. 27, 2024	Oct. 23, 2024	Radiation (03CH22-HY)

6 Measurement Uncertainty

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.03 dB
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.42 dB
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Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.91 dB
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Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power) & ERP / EIRP

WCDMA Band V Maximum Average Power [dBm] (GT - LC = -2.1 dB)					
Channel	4132	4182	4233	ERP (dBm)	ERP (W)
Frequency	826.4	836.4	846.6		
RMC 12.2K	24.07	24.10	24.12	19.87	0.0971
HSDPA Subtest-1	23.05	23.13	23.06		
HSDPA Subtest-2	23.03	23.09	23.05		
HSDPA Subtest-3	22.54	22.58	22.52		
HSDPA Subtest-4	22.51	22.59	22.58		
HSUPA Subtest-1	23.04	23.16	23.11		
HSUPA Subtest-2	21.06	21.13	21.11		
HSUPA Subtest-3	22.03	22.11	22.08		
HSUPA Subtest-4	21.04	21.12	21.07		
HSUPA Subtest-5	23.05	23.12	23.10		
Limit	ERP < 7W			Result	Pass

WCDMA Band II Maximum Average Power [dBm] (GT - LC = 3.4 dB)					
Channel	9262	9400	9538	EIRP (dBm)	EIRP (W)
Frequency	1852.4	1880	1907.6		
RMC 12.2K	23.57	23.61	23.60	27.01	0.5023
HSDPA Subtest-1	22.59	22.65	22.65		
HSDPA Subtest-2	22.59	22.65	22.64		
HSDPA Subtest-3	22.10	22.13	22.12		
HSDPA Subtest-4	22.10	22.12	22.15		
HSUPA Subtest-1	22.53	22.58	22.62		
HSUPA Subtest-2	20.54	20.60	20.60		
HSUPA Subtest-3	21.53	21.63	21.61		
HSUPA Subtest-4	20.54	20.59	20.60		
HSUPA Subtest-5	22.50	22.60	22.60		
Limit	EIRP < 2W			Result	Pass

WCDMA Band IV Maximum Average Power [dBm] (GT - LC = 0.64 dB)					
Channel	1312	1413	1513	EIRP (dBm)	EIRP (W)
Frequency	1712.4	1732.6	1752.6		
RMC 12.2K	23.61	23.71	23.65	24.35	0.2723
HSDPA Subtest-1	22.60	22.71	22.68		
HSDPA Subtest-2	22.57	22.71	22.67		
HSDPA Subtest-3	22.09	22.23	22.14		
HSDPA Subtest-4	22.08	22.18	22.16		
HSUPA Subtest-1	22.60	22.71	22.62		
HSUPA Subtest-2	20.61	20.67	20.62		
HSUPA Subtest-3	21.56	21.70	21.63		
HSUPA Subtest-4	20.58	20.67	20.65		
HSUPA Subtest-5	22.60	22.70	22.60		
Limit	EIRP < 1W			Result	Pass



Appendix B. Test Results of Radiated Test

B1. Summary of each worse mode

Mode	Part	Band	Ch	Freq (MHz)	Level (dBm)	Det	Ant Factor (dB)	Amp\Cbl (dB)	Filter (dB)	EIRPCF (dB)	Reading (dBuV)	Limit (dBm)	Margin (dB)	Pol	Ant
1	Part 22H	WCDMA B5	M	1673	-56.65	RMS	24.53	-24.83	0.53	-95.23	38.35	-13.00	-43.65	V	0
1	Part 24E	WCDMA B2	M	5640	-44.68	RMS	33.14	-20.92	0.66	-95.23	37.67	-13.00	-31.68	V	0
1	Part 27L	WCDMA B4	M	5197	-43.65	RMS	32.61	-20.92	0.61	-95.23	39.28	-13.00	-30.65	V	0

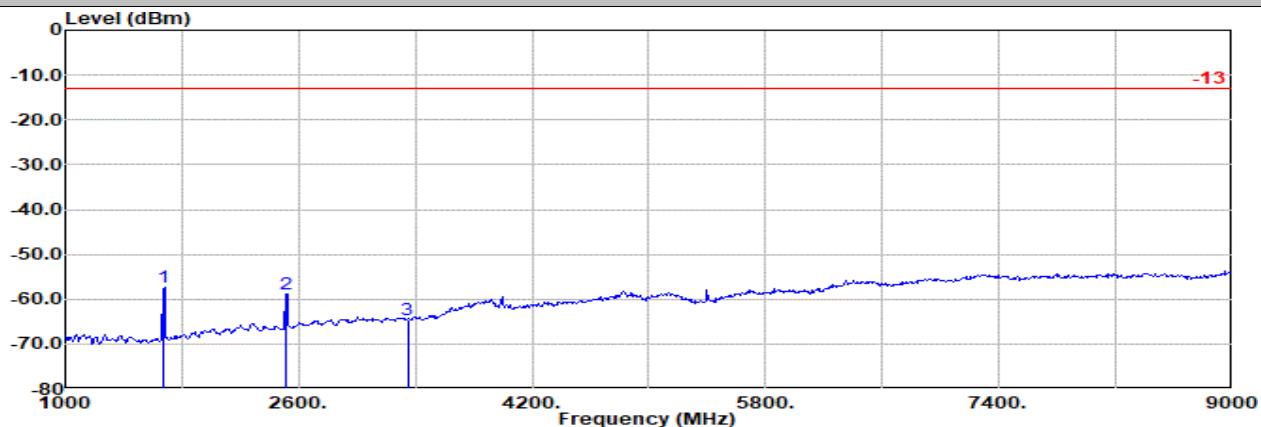


Ant. 0

Part 22H Mode 1

WCDMA B5 10M Ch4183 1RB0 QPSK

M

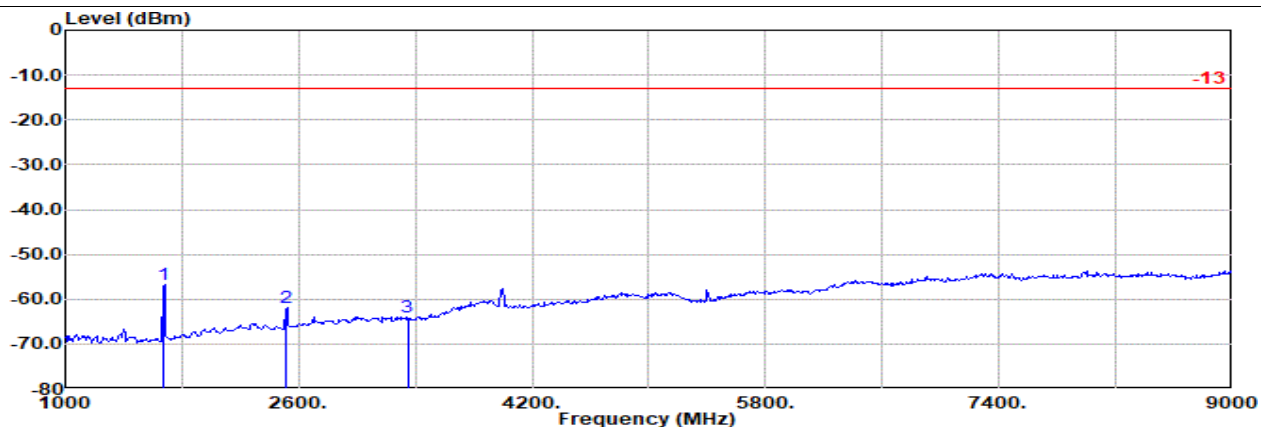


Site : 03CH22-HY

Condition: -13 3m DRH18-E_LE2C04A18EN_240711 Horizontal

: WCDMA B5 Ch4183

	Freq	Level	Detector	Ant Factor	Amp\Cb	Filter	EIRPCF	Readin	Limit	Margin	Pol
	MHz	dBm			dB/m	dB	dB	dB	dBm	dB	
1	1673.00	-57.42	RMS	24.53	-24.83	0.53	-95.23	0.00	-13.00	-44.42	Horizontal
2	2509.00	-58.72	RMS	26.79	-23.68	0.31	-95.23	33.09	-13.00	-45.72	Horizontal
3	3346.00	-64.63	RMS	28.39	-22.74	0.26	-95.23	24.69	-13.00	-51.63	Horizontal



Site : 03CH22-HY

Condition: -13 3m DRH18-E_LE2C04A18EN_240711 Vertical

: WCDMA B5 Ch4183

	Freq	Level	Detector	Ant Factor	Amp\Cb	Filter	EIRPCF	Readin	Limit	Margin	Pol
	MHz	dBm			dB/m	dB	dB	dB	dBm	dB	
1	1673.00	-56.65	RMS	24.53	-24.83	0.53	-95.23	38.35	-13.00	-43.65	Vertical
2	2509.00	-61.92	RMS	26.79	-23.68	0.31	-95.23	29.89	-13.00	-48.92	Vertical
3	3346.00	-64.10	RMS	28.39	-22.74	0.26	-95.23	25.22	-13.00	-51.10	Vertical

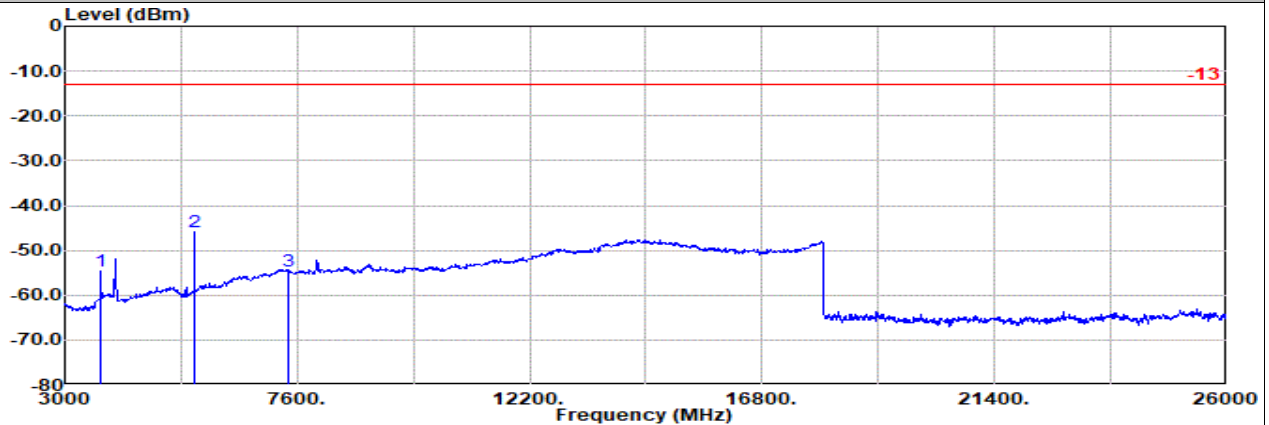


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Part 24E Mode 1

WCDMA B2 Ch9262

L

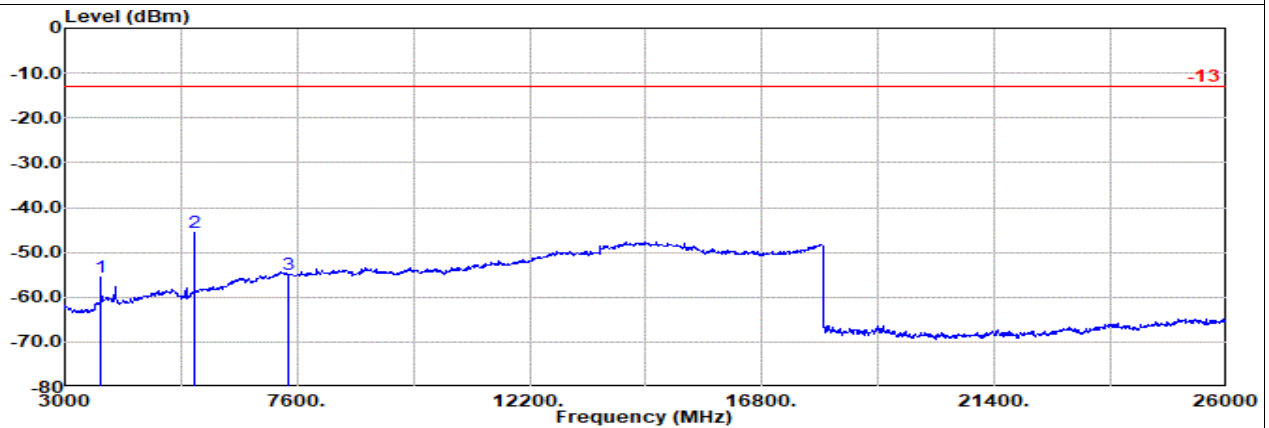


Site : 03CH22-HY

Condition: -13 3m DRH18-E_LE2C04A18EN_240711 Horizontal

: WCDMA 1900 Ch9262

	Freq MHz	Level dBm	Detector	Ant Amp\Cb Filter		EIRPCF	Readin g	Limit	Margin	Pol
				Factor	1					
1	3705.00	-54.64	RMS	29.63	-22.49	1.08	-95.23	32.37	-13.00	-41.64 Horizontal
2	5557.00	-45.92	RMS	32.81	-20.97	0.69	-95.23	36.78	-13.00	-32.92 Horizontal
3	7410.00	-54.68	RMS	37.14	-20.43	0.64	-95.23	23.20	-13.00	-41.68 Horizontal



Site : 03CH22-HY

Condition: -13 3m DRH18-E_LE2C04A18EN_240711 Vertical

: WCDMA 1900 Ch9262

	Freq MHz	Level dBm	Detector	Ant Amp\Cb Filter		EIRPCF	Readin g	Limit	Margin	Pol
				Factor	1					
1	3705.00	-55.55	RMS	29.63	-22.49	1.08	-95.23	31.46	-13.00	-42.55 Vertical
2	5557.00	-45.62	RMS	32.81	-20.97	0.69	-95.23	37.08	-13.00	-32.62 Vertical
3	7410.00	-54.81	RMS	37.14	-20.43	0.64	-95.23	23.07	-13.00	-41.81 Vertical

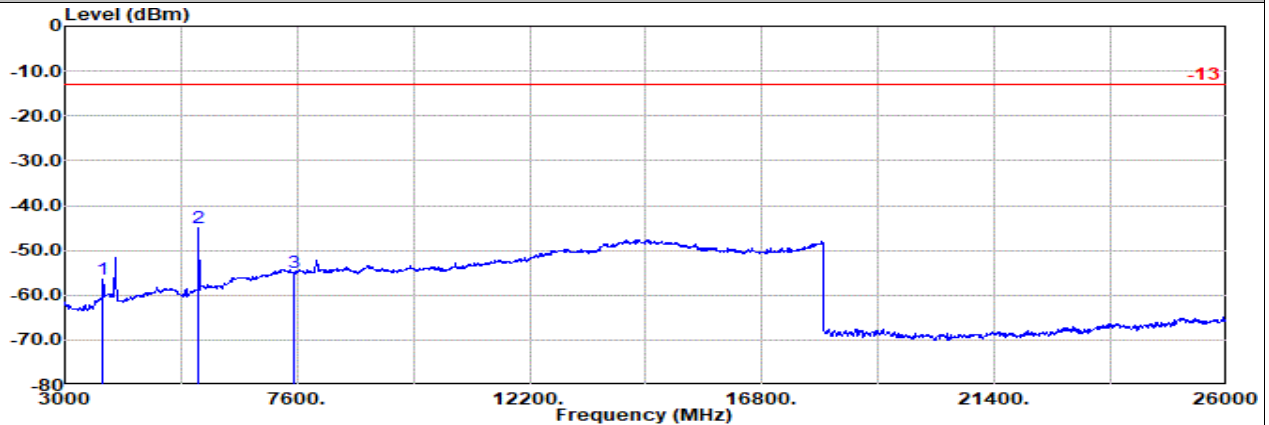


Ant. 0

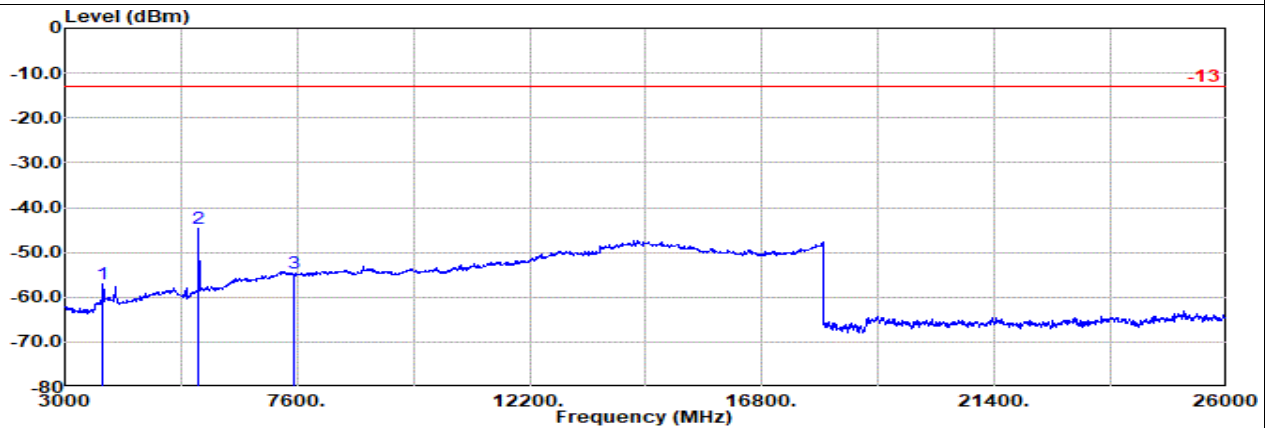
Part 24E Mode 1

WCDMA B2 Ch9400

M



	Freq	Level	Detector	Ant Factor	Amp\Cb	Filter	EIRPCF	Readin	Limit	Margin	Pol
	MHz	dBm						g			
1	3760.00	-56.47	RMS	29.94	-22.44	1.02	-95.23	30.24	-13.00	-43.47	Horizontal
2	5640.00	-44.87	RMS	33.14	-20.92	0.66	-95.23	37.48	-13.00	-31.87	Horizontal
3	7520.00	-54.96	RMS	37.02	-20.37	0.61	-95.23	23.01	-13.00	-41.96	Horizontal



	Freq	Level	Detector	Ant Factor	Amp\Cb	Filter	EIRPCF	Readin	Limit	Margin	Pol
	MHz	dBm						g			
1	3760.00	-57.15	RMS	29.94	-22.44	1.02	-95.23	29.56	-13.00	-44.15	Vertical
2	5640.00	-44.68	RMS	33.14	-20.92	0.66	-95.23	37.67	-13.00	-31.68	Vertical
3	7520.00	-54.68	RMS	37.02	-20.37	0.61	-95.23	23.29	-13.00	-41.68	Vertical

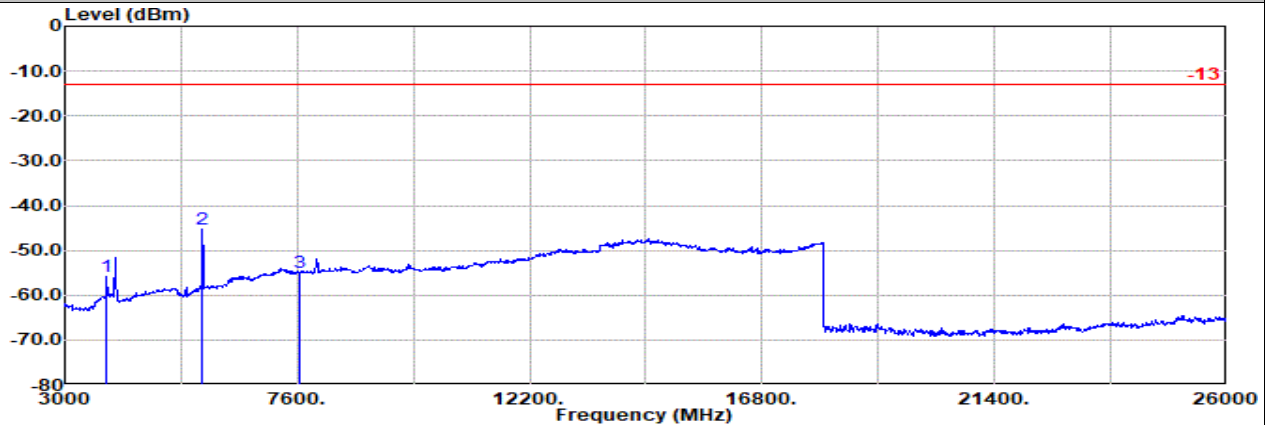


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Part 24E Mode 1

WCDMA B2 Ch9538

H

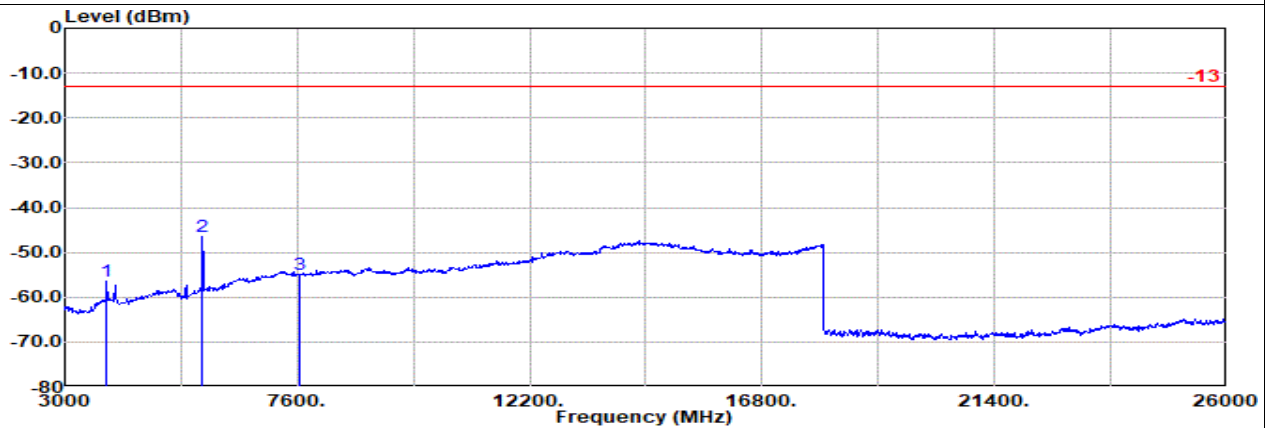


Site : 03CH22-HY

Condition: -13 3m DRH18-E_LE2C04A18EN_240711 Horizontal

: WCDMA 1900 Ch9538

	Freq	Level	Detector	Ant Amp\Cb Filter		EIRPCF	Readin	Limit	Margin	Pol
				Factor	1					
	MHz	dBm		dB/m	dB	dB	dBuV	dBm	dB	
1	3815.00	-55.98	RMS	30.28	-22.40	0.98	-95.23	30.39	-13.00	-42.98 Horizontal
2	5723.00	-45.35	RMS	33.70	-20.85	0.65	-95.23	36.38	-13.00	-32.35 Horizontal
3	7630.00	-54.98	RMS	36.96	-20.36	0.59	-95.23	23.06	-13.00	-41.98 Horizontal



Site : 03CH22-HY

Condition: -13 3m DRH18-E_LE2C04A18EN_240711 Vertical

: WCDMA 1900 Ch9538

	Freq	Level	Detector	Ant Amp\Cb Filter		EIRPCF	Readin	Limit	Margin	Pol
				Factor	1					
	MHz	dBm		dB/m	dB	dB	dBuV	dBm	dB	
1	3815.00	-56.30	RMS	30.28	-22.40	0.98	-95.23	30.07	-13.00	-43.30 Vertical
2	5723.00	-46.51	RMS	33.70	-20.85	0.65	-95.23	35.22	-13.00	-33.51 Vertical
3	7630.00	-55.06	RMS	36.96	-20.36	0.59	-95.23	22.98	-13.00	-42.06 Vertical

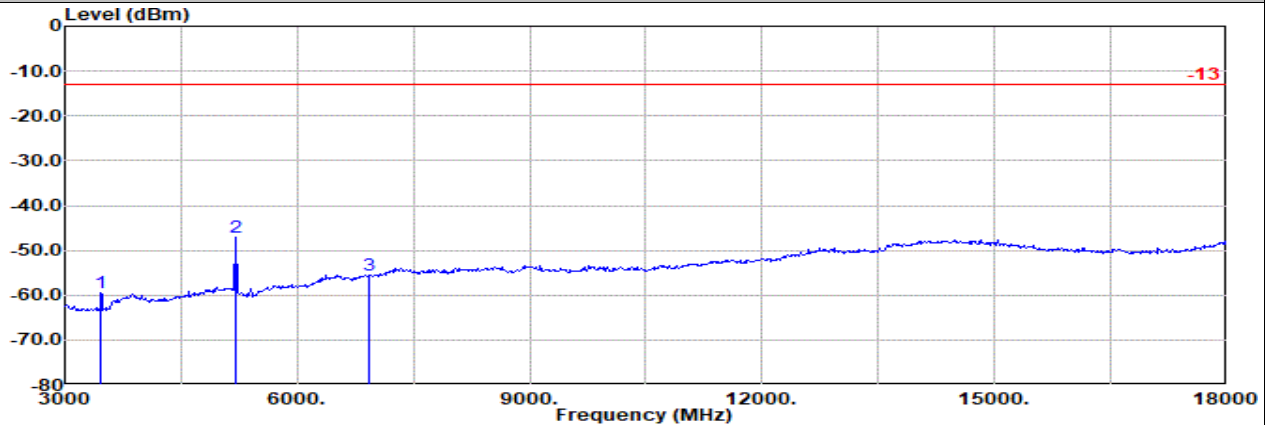


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Part 27L Mode 1

WCDMA B4 10M Ch1413 1RB0 QPSK

M

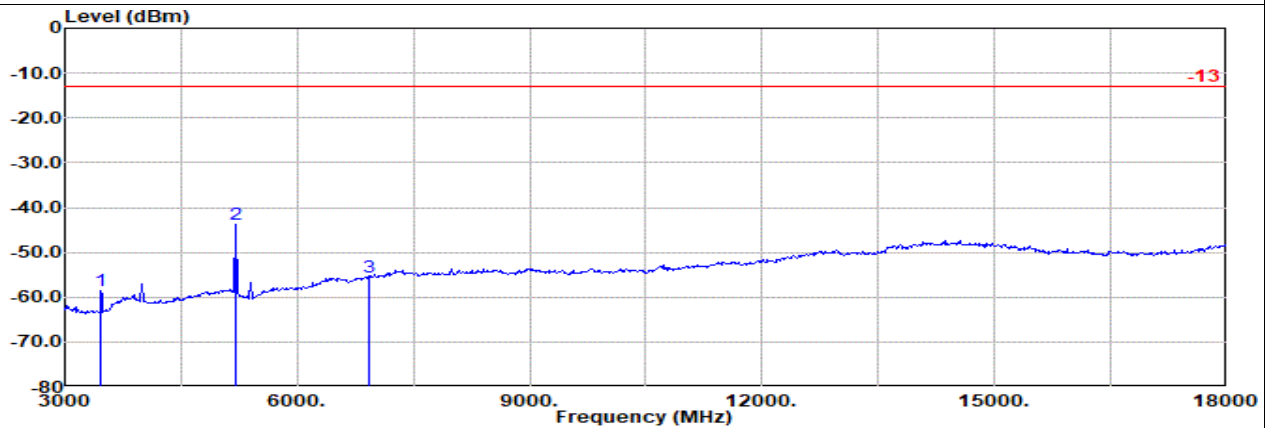


Site : 03CH22-HY

Condition: -13 3m DRH18-E_LE2C04A18EN_240711 Horizontal

: WCDMA B4 Ch1413

	Freq	Level	Detector	Ant Factor	Amp\Cb	Filter	EIRPCF	Readin	Limit	Margin	Pol
	MHz	dBm			dB	dB	dB	dBuV	dBm	dB	
1	3465.00	-59.55	RMS	28.66	-22.69	1.40	-95.23	28.31	-13.00	-46.55	Horizontal
2	5197.00	-47.24	RMS	32.61	-20.92	0.61	-95.23	35.69	-13.00	-34.24	Horizontal
3	6930.00	-55.52	RMS	36.64	-20.61	0.57	-95.23	23.11	-13.00	-42.52	Horizontal



Site : 03CH22-HY

Condition: -13 3m DRH18-E_LE2C04A18EN_240711 Vertical

: WCDMA B4 Ch1413

	Freq	Level	Detector	Ant Factor	Amp\Cb	Filter	EIRPCF	Readin	Limit	Margin	Pol
	MHz	dBm			dB	dB	dB	dBuV	dBm	dB	
1	3465.00	-58.69	RMS	28.66	-22.69	1.40	-95.23	29.17	-13.00	-45.69	Vertical
2	5197.00	-43.65	RMS	32.61	-20.92	0.61	-95.23	39.28	-13.00	-30.65	Vertical
3	6930.00	-55.68	RMS	36.64	-20.61	0.57	-95.23	22.95	-13.00	-42.68	Vertical

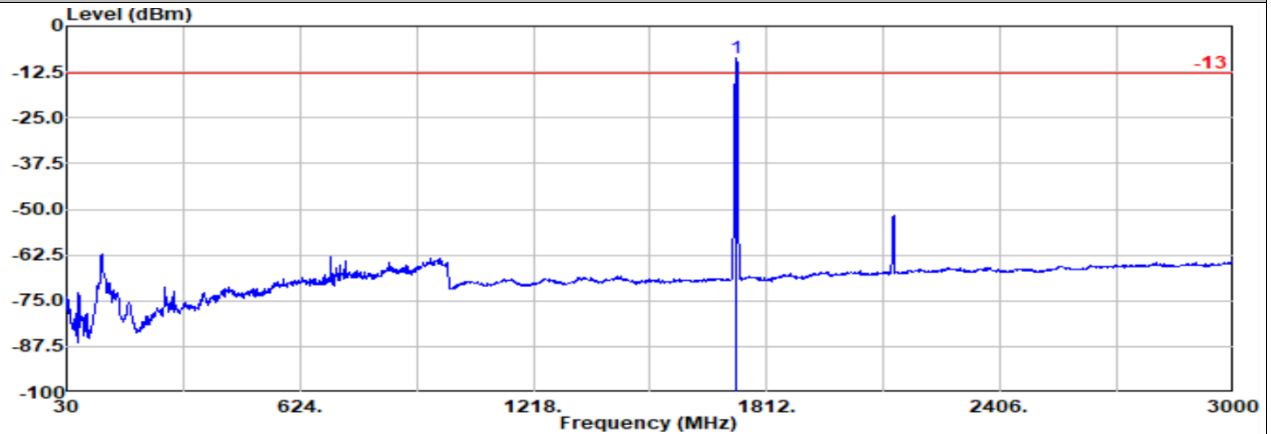


Ant. 0

Part 27L Mode 1

WCDMA B4 Ch1413

M



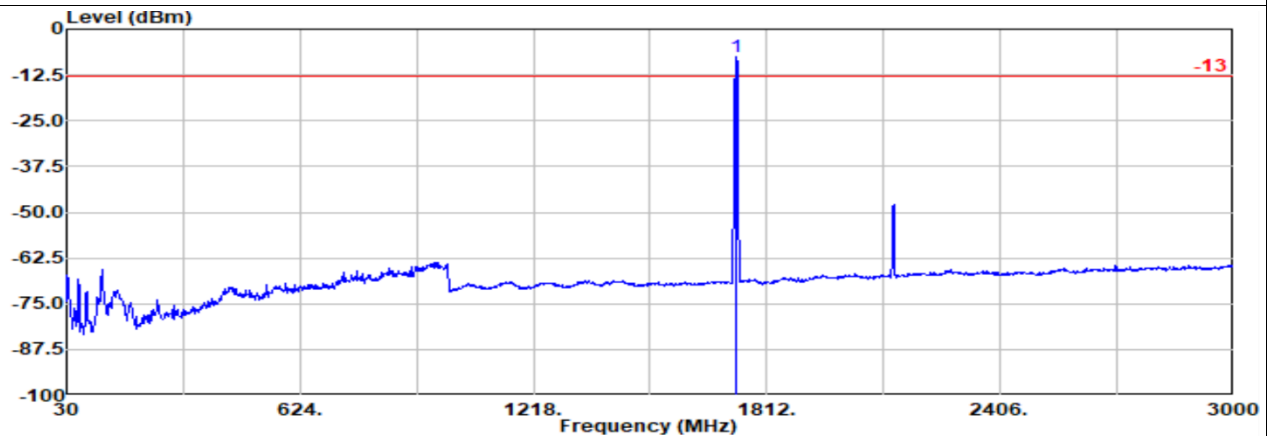
Site : 03CH22-HY

Condition: -13 3m DRH18-E_LE2C04A18EN_240711 Horizontal

: WCDMA B4 Ch1413

: #1 is fundamental signal which can be ignored.

	Freq	Level	Detector	Ant Factor	Amp\Cb	Filter	EIRPCF	Readin	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	1732.00	-8.78	RMS	24.68	-24.75	0.00	-95.23	86.52	-13.00	4.22	Horizontal



Site : 03CH22-HY

Condition: -13 3m DRH18-E_LE2C04A18EN_240711 Vertical

: WCDMA B4 Ch1413

: #1 is fundamental signal which can be ignored.

	Freq	Level	Detector	Ant Factor	Amp\Cb 1	Filter	EIRPCF	Readin g	Limit	Margin	Pol
	MHz	dBm		dB/m	dB	dB	dB	dBuV	dBm	dB	
1	1732.00	-7.59	RMS	24.68	-24.75	0.00	-95.23	87.71	-13.00	5.41	Vertical

Remark: #1 is fundamental signal which can be ignored.