EN 301 511 V12.5.1 (2017-03)

TEST REPORT

For

Xiamen Milesight IoT Co., Ltd.

4/F, NO. 63-2 Wanghai Road, 2nd Software Park, Xiamen, China

Tested Model: UG65-L00E-868M-EA
Multiple Models: UG65-L00E-868M, UG65-868M-EA, UG65-868M, UG65-L04EU-868M-EA, UG65-L04EU-868M

Report Type:	**Product Type:**
Original Report	LoRaWAN Gateway

Report Number: RXM200911053-11

Report Date: 2020-12-30

Nancy Wang

Reviewed By: RF Engineer

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Note: BACL is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with an asterisk '*'. Customer model name, addresses, names, trademarks etc. are not considered data.

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product	LoRaWAN Gateway
Tested Model	UG65-L00E-868M-EA
Multiple Models	UG65-L00E-868M, UG65-868M-EA, UG65-868M, UG65-L04EU-868M-EA, UG65-L04EU-868M
Model Differences	Refer to the DoS letter
Frequency Range	EGSM900: 880-915MHz(TX), 925-960MHz(RX) DCS1800: 1710-1785MHz(TX), 1805-1880MHz(RX)
Transmit Power	EGSM900:32.33dBm(GMSK), 26.16dBm(8PSK) DCS 1800: 28.81dBm(GMSK), 25.17dBm(8PSK)
Modulation Technique	GMSK/8PSK
Voltage Range	DC 12.0V from adapter or DC 48V from POE
Date of Test	2020-10-11 to 2020-11-03
Sample serial number	RXM200911053-RF-S1(Assigned by BACL, Shenzhen)
Received date	2020-09-11
Sample/EUT Status	Good condition
Normal/Extreme Condition*	N.V.: Nominal Voltage: $12V_{DC}$ L.V.: Low Voltage $9V_{DC}$; N.V.: Normal Voltage 12 V_{DC}; H.V.: High Voltage 24 V_{DC} Note: the extreme condition was declared by manufacturer.
Adapter information	Model: OH-1015A1201000U3-VDE Input: AC 100-240V, 50/60Hz, 0.35A Output: DC 12.0V, 1.0 A, 12.0W

Objective

This test report is in accordance with EN 301 511 V12.5.1 (2017-03), Global System for Mobile communications (GSM); Mobile Stations (MS) equipment; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU.

In order to determine compliance, the manufacturer or a contracted laboratory makes measurements and takes the necessary steps to ensure that the equipment complies with the appropriate technical standards.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product maybe which result in lowering the immunity should be checked to ensure compliance has been maintained (i.e., printed circuit board layout changes, different line filter, different power supply, harnessing and/or I/O cable changes, etc.).

Test Methodology

All measurements contained in this report were conducted as specified in EN 301 511 V12.5.1 (2017-03).

All radiated and conducted emissions measurement was performed at Bay Area Compliance Laboratory Corporation. The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Measurement Uncertainty

Parameter		Uncertainty
RF output power, Conducted		±0.73dB
Spurious Emission, Conducted		±1.60dB
Spurious Emissions, Radiated	Below 1GHz	±4.75dB
	Above 1GHz	±4.88dB
Temperature		±1 °C
Supply voltages		±0.4%
Humidity		±1%

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

SYSTEM TEST CONFIGURATION

Justification

The EUT and test equipment were configured for testing according to EN 301 511 V12.5.1 (2017-03).

EUT Exercise Software

No exercise software.

Special Accessories

No special accessory.

Equipment Modifications

No modification was made to the EUT.

Support Equipment List and Details

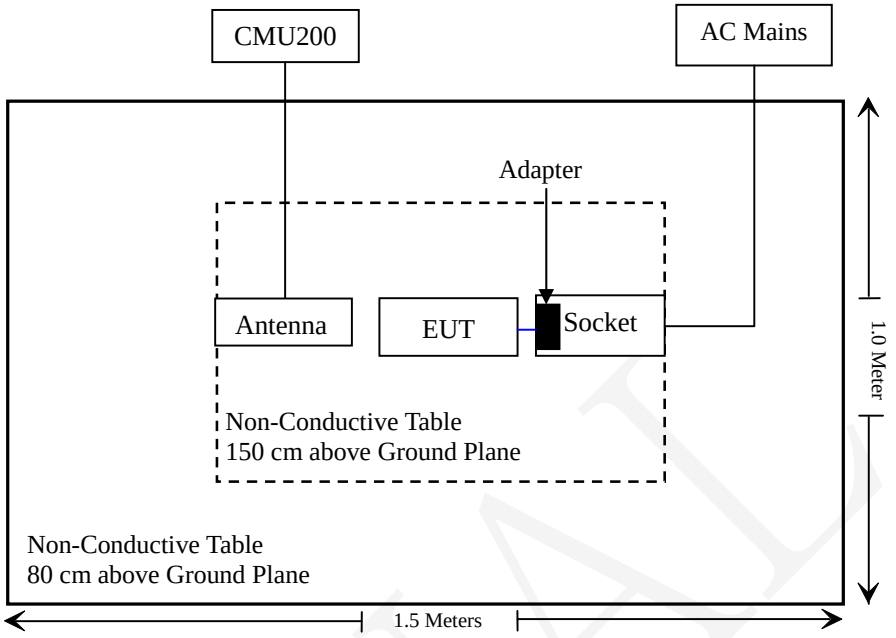
Manufacturer	Description	Model	Serial Number
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	106891
SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO.,LTD.	POE	G0720-480-050	G0720-480-050

External I/O Cable

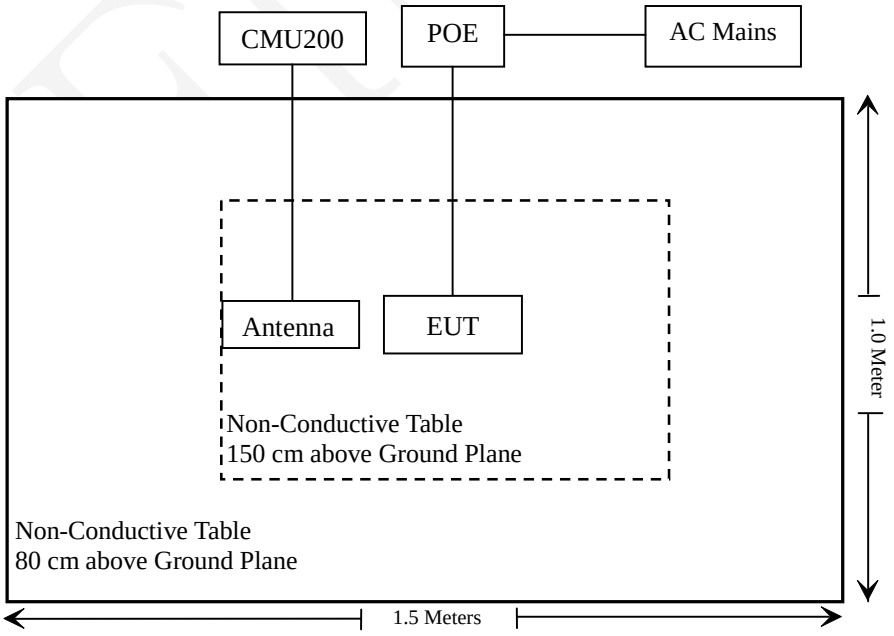
Cable Description	Length (m)	From/Port	To
Un-Shielding Un-Detachable AC Cable	1.0	Socket	AC Mains
Un-Shielding Un-Detachable DC Cable	2.5	Adapter	EUT
Un-Shielding Detachable AC Cable	1.2	POE	AC Mains
Un-Shielding Detachable RJ45 Cable	3.0	POE	EUT

Block Diagram of Test Setup

For Adapter:



For POE:



SUMMARY OF TEST REPORT

EN 301 511 V12.5.1 (2017-03)	Description of Test	Result
Section 4.2.1	Transmitter – Frequency error and phase error	Compliance*
Section 4.2.2	Transmitter – Frequency error under multi path and interference conditions	Compliance*
Section 4.2.3	Transmitter – Frequency error and Phase Error in HSCSD Multi slot Configuration	Not Applicable
Section 4.2.4	Frequency error and phase error in GPRS multi slot configuration	Compliance*
Section 4.2.5	Transmitter output power and burst timing	Compliance*
Section 4.2.6	Transmitter – Output RF spectrum	Compliance*
Section 4.2.7	Transmitter output power and burst timing in HSCSD multi slot configuration	Not Applicable
Section 4.2.8	Transmitter – Output RF spectrum in HSCSD multi slot configuration	Not Applicable
Section 4.2.9	Transmitter - Output RF spectrum for MS supporting the R-GSM or ER-GSM frequency band	Not Applicable
Section 4.2.10	Transmitter output power in GPRS multi slot configuration	Compliance*
Section 4.2.11	Output RF spectrum in GPRS multi slot configuration	Compliance*
Section 4.2.12	Conducted spurious emissions – MS allocated a channel	Compliance*
Section 4.2.13	Conducted spurious emission – MS in idle mode	Compliance*
Section 4.2.14	Conducted spurious emissions for MS supporting the R-GSM or ER-GSM frequency band - MS allocated a channel	Not Applicable
Section 4.2.15	Conducted spurious emissions for MS supporting the R-GSM or ER-GSM frequency band - MS in idle mode	Not Applicable
Section 4.2.16	Radiated spurious emissions – MS allocated a channel	Compliance
Section 4.2.17	Radiated spurious emissions – MS in idle mode	Compliance
Section 4.2.18	Radiated spurious emissions for MS supporting the R-GSM or ER-GSM frequency band - MS allocated a channel	Not Applicable
Section 4.2.19	Radiated spurious emissions for MS supporting the R-GSM or ER-GSM frequency band - MS in idle mode	Not Applicable
Section 4.2.20	Receiver blocking and spurious responses – speech channels	Compliance*
Section 4.2.21	Receiver Blocking and spurious response - speech channels for MS supporting the R-GSM or ER-GSM frequency band	Not Applicable
Section 4.2.22	Improved Receiver Blocking and spurious response - speech channels for 8W MS supporting the R-GSM or ER-GSM frequency band	Not Applicable
Section 4.2.23	Improved Receiver Blocking and spurious response - speech channels for 2W MS supporting the R-GSM or ER-GSM frequency band	Not Applicable
Section 4.2.24	Improved Receiver Blocking and spurious response - control channels for 8W MS supporting the R-GSM or ER-GSM frequency band not supporting speech	Not Applicable
Section 4.2.25	Improved Receiver Blocking and spurious response - control channels for 2W MS supporting the R-GSM or ER-GSM frequency band not supporting speech	Not Applicable
Section 4.2.26	Frequency error and modulation accuracy in EGPRS configuration	Compliance*

EN 301 511 V12.5.1 (2017-03)	Description of Test	Result
Section 4.2.27	Frequency error under multi path and interference conditions in EGPRS configuration	Compliance*
Section 4.2.28	EGPRS Transmitter output power	Compliance*
Section 4.2.29	Output RF spectrum in EGPRS configuration	Compliance*
Section 4.2.30	Blocking and spurious response in EGPRS configuration	Compliance*
Section 4.2.31	Blocking and spurious response in DLMC configuration	Not Applicable
Section 4.2.32	Intermodulation rejection – speech channels	Compliance*
Section 4.2.33	Intermodulation rejection – control channels	Not Applicable
Section 4.2.34	Intermodulation rejection - EGPRS	Compliance*
Section 4.2.35	AM suppression - speech channels	Compliance*
Section 4.2.36	AM suppression - control channels	Not Applicable
Section 4.2.37	AM suppression - packet channels	Not Applicable
Section 4.2.38	Adjacent channel rejection – speech channels (TCH/FS)	Compliance*
Section 4.2.39	Adjacent channel rejection – control channels	Not Applicable
Section 4.2.40	Adjacent channel rejection - EGPRS	Compliance*
Section 4.2.41	Adjacent channel rejection in DLMC configuration	Not Applicable
Section 4.2.42	Reference sensitivity - TCH/FS	Compliance*
Section 4.2.43	Reference sensitivity - FACCH/F	Compliance*
Section 4.2.44	Minimum Input level for Reference Performance - GPRS	Compliance*
Section 4.2.45	Minimum Input level for Reference Performance - EGPRS	Compliance*
Section 4.2.46	Reference sensitivity - TCH/FS for MS supporting the R-GSM or ER-GSM band	Not Applicable

Note: Compliance*: The EUT has a certified LTE module (Model: EC25-EC). The related test items can refers to the module report: R1805A0247-R1, which was issued by TA Technology (Shanghai) Co., Ltd. on 07-03-2018.

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test					
R&S	EMI Test Receiver	ESR3	102455	2020/08/04	2021/08/03
Sonoma instrument	Pre-amplifier	310 N	186238	2020/08/04	2021/08/03
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2017/12/22	2020/12/21
COM-POWER	Dipole Antenna	AD-100	721027	NCR	NCR
Unknown	Cable 2	RF Cable 2	F-03-EM197	2019/11/29	2020/11/28
Unknown	Cable	Chamber Cable 1	F-03-EM236	2019/11/29	2020/11/28
Rohde & Schwarz	Spectrum Analyzer	FSV40-N	102259	2020/08/04	2021/08/03
COM-POWER	Pre-amplifier	PA-122	181919	2019/11/29	2020/11/28
Sunol Sciences	Horn Antenna	DRH-118	A052604	2017/12/22	2020/12/21
A.H.System	Horn Antenna	SAS-200/571	135	2018/09/01	2021/08/31
Insulted Wire Inc.	RF Cable	SPS-2503-3150	02222010	2019/11/29	2020/11/28
Unknown	RF Cable	W1101-EQ1 OUT	F-19-EM005	2019/11/29	2020/11/28
Unknown	High Pass filter	1.3GHz	101120	2020/04/20	2021/04/19
Agilent	Signal Generator	N5183A	MY51040755	2019/12/04	2020/12/03
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	106891	2020/09/12	2021/09/11

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

§4.2.16 - RADIATED SPURIOUS EMISSIONS – MS ALLOCATED A CHANNEL

Applicable Standard

Requirements: According to EN 301 511 V12.5.1 (2017-03), section 4.2.16, the radiated spurious power emitted by the MS, when allocated channel, shall be no more than the levels in table 12.7 under normal and extreme voltage conditions.

Table 12.7

Frequency range		Power level in dBm		
		GSM 400, GSM 700, T-GSM 810, GSM 850, GSM 900	DCS 1 800	PCS 1 900
30 MHz to	1 GHz	-36	-36	-36
1 GHz to	4 GHz	-30		-30
1 GHz to	1 710 MHz		-30	
1 710 MHz to	1 785 MHz		-36	
1 785 MHz to	4 GHz		-30	

Test Procedure

a) Initially the test antenna is closely coupled to the MS and any spurious emission radiated by the MS is detected by the test antenna and receiver in the range 30 MHz to 4 GHz.

NOTE 1: This is a qualitative step to identify the frequency and presence of spurious emissions which are to be measured in subsequent steps.

b) The test antenna separation is set to the appropriate measurement distance and at each frequency at which an emission has been detected, the MS shall be rotated to obtain maximum response and the effective radiated power of the emission determined by a substitution measurement. In case of an anechoic shielded chamber pre-calibration may be used instead of a substitution measurement.

c) The measurement bandwidth, based on a 5 pole synchronously tuned filter, is set according to table 12.8. The power indication is the peak power detected by the measuring system.
The measurement on any frequency shall be performed for at least one TDMA frame period, with the exception of the idle frame.

NOTE 2: This ensures that both the active times (MS transmitting) and the quiet times are measured.

NOTE 3: For these filter bandwidths some difficulties may be experienced with noise floor above required measurement limit. This will depend on the gain of the test antenna, and adjustment of the measuring system bandwidth is permissible. Alternatively, for test frequencies above 900 MHz, the test antenna separation from the MS may be reduced to 1 meter.

d) The measurements are repeated with the test antenna in the orthogonal polarization plane.

e) The test is repeated under extreme voltage test conditions (see [annex 1, TC2.2]).

Table 12.8

Frequency range	Frequency offset	Filter bandwidth	Approx video bandwidth
30 MHz to 50 MHz	-	10 kHz	30 kHz
50 MHz to 500 MHz excl. relevant TX band: GSM 450: 450,4 MHz to 457,6 MHz; GSM 480: 478,8 MHz to 486 MHz	-	100 kHz	300 kHz
500 MHz to 4 GHz, Excl. relevant TX band: GSM 750: 777 MHz to 792 MHz GSM 850: 824 MHz to 849 MHz P-GSM: 890 MHz to 915 MHz; E-GSM: 880 MHz to 915 MHz; DCS: 1 710 MHz to 1 785 MHz. PCS 1 900: 1 850 MHz to 1 910 MHz Relevant TX band:	0 to 10 MHz >= 10 MHz >= 20 MHz >= 30 MHz (offset from edge of relevant TX band)	100 kHz 300 kHz 1 MHz 3 MHz	300 kHz 1 MHz 3 MHz 3 MHz
GSM 450: 450,4 MHz to 457,6 MHz GSM 480: 478,8 MHz to 486 MHz GSM 750: 777 MHz to 792 MHz GSM 850: 824 MHz to 849 MHz P-GSM: 890 MHz to 915 MHz E-GSM: 880 MHz to 915 MHz DCS: 1 710 MHz to 1 785 MHz PCS 1 900: 1 850 MHz to 1 910 MHz	1,8 MHz to 6,0 MHz > 6,0 MHz (offset from carrier)	30 kHz 100 kHz	100 kHz 300 kHz
NOTE 1: The filter and video bandwidths, and frequency offsets are only correct for measurements on an MS transmitting on a channel in the Mid ARFCN range. NOTE 2: Due to practical implementation of a SS, the video bandwidth is restricted to a maximum of 3 MHz.			

Test Data

Environmental Conditions

Temperature:	28~31.7 ℃
Relative Humidity:	54~58 %
ATM Pressure:	100.9~101.0 kPa

The testing was performed by Holland Yang on 2020-10-11 for below 1GHz and Leven Gan on 2020-11-03 for above 1GHz.

Test Results

Below 1GHz:

GSM 900 Band

Scan 30 MHz -4 GHz, Middle Channel, and Normal Voltage Condition, High Voltage Condition and Low Voltage Condition, and worst case as below:

Frequency (MHz)	Receiver Reading (dBµV)	Turntable Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	EN 301 511	
			Height (m)	Polar (H/V)	SG Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)		Limit (dBm)	Margin (dB)
For Adapter										
216.0	37.60	306	2.0	H	-62.4	0.57	0.0	-62.97	-36	26.97
216.0	38.47	142	1.6	V	-60.8	0.57	0.0	-61.37	-36	25.37
For POE										
215.9	37.67	102	1.0	H	-62.4	0.57	0.0	-62.97	-36	26.97
215.9	38.42	282	2.1	V	-60.9	0.57	0.0	-61.47	-36	25.47

DCS1800 Band

Scan 30 MHz - 4 GHz, Middle Channel, and Normal Voltage Condition, High Voltage Condition and Low Voltage Condition, and worst case as below:

Frequency (MHz)	Receiver Reading (dBµV)	Turntable Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	EN 301 511	
			Height (m)	Polar (H/V)	SG Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)		Limit (dBm)	Margin (dB)
For Adapter										
215.9	37.52	284	1.1	H	-62.5	0.57	0.0	-63.07	-36	27.07
215.9	38.49	131	1.1	V	-60.8	0.57	0.0	-61.37	-36	25.37
For POE										
216.0	37.65	197	1.8	H	-62.4	0.57	0.0	-62.97	-36	26.97
216.0	38.44	340	1.5	V	-60.9	0.57	0.0	-61.47	-36	25.47

Above 1GHz:

GSM 900 Band

Scan 30 MHz -4 GHz, Middle Channel, and Normal Voltage Condition, High Voltage Condition and Low Voltage Condition, and worst case as below:

Frequency (MHz)	Receiver Reading (dBµV)	Turntable Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	EN 301 511	
			Height (m)	Polar (H/V)	SG Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)		Limit (dBm)	Margin (dB)
1804.00	58.10	281	1.8	H	-46.9	1.30	9.30	-38.90	-30	8.90
1804.00	53.30	263	2.2	V	-51.3	1.30	9.30	-43.30	-30	13.30
2706.00	54.79	4	1.4	H	-48.3	2.00	10.40	-39.90	-30	9.90
2706.00	56.54	211	1.2	V	-46.2	2.00	10.40	-37.80	-30	7.80

DCS1800 Band

Scan 30 MHz - 4 GHz, Middle Channel, and Normal Voltage Condition, High Voltage Condition and Low Voltage Condition, and worst case as below:

Frequency (MHz)	Receiver Reading (dBµV)	Turntable Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	EN 301 511	
			Height (m)	Polar (H/V)	SG Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)		Limit (dBm)	Margin (dB)
3495.60	56.26	347	2.1	H	-44.5	1.50	12.00	-34.00	-30	4.00
3495.60	56.34	213	2.0	V	-45.2	1.50	12.00	-34.70	-30	4.70

Note 1: The unit of antenna gain is dBd for frequency below 1GHz and is dBi for frequency above 1GHz.
Note 2:
Absolute Level = SG Level - Cable loss + Antenna Gain
Margin = Limit- Absolute Level

§4.2.17 - RADIATED SPURIOUS EMISSIONS – MS IN IDLE MODE

Applicable Standard

Requirements: According to EN 301 511 V12.5.1 (2017-03), section 4.2.17, the radiated spurious power emitted by the MS, when in idle mode, shall be no more than the levels in table 12.9 under normal and extreme voltage conditions.

Table 12.9

Frequency range		Power level in dBm	
		GSM 400, GSM 900, DCS 1 800	GSM 700, GSM 850, PCS 1 900
30 MHz to	880 MHz	-57	-57
880 MHz to	915 MHz	-59	-57
915 MHz to	1 000 MHz	-57	-57
1 GHz to	1 710 MHz	-47	
1 710 MHz to	1 785 MHz	-53	
1 785 MHz to	4 GHz	-47	
1 GHz to	1 850 MHz		-47
1 850 MHz to	1 910 MHz		-53
1 910 MHz to	4GHz		-47

Test Procedure

a) Initially the test antenna is closely coupled to the MS and any spurious emission radiated by the MS is detected by the test antenna and receiver in the range 30 MHz to 4 GHz.

NOTE 1: This is a qualitative step to identify the frequency and presence of spurious emissions which are to be measured in subsequent steps.

b) The test antenna separation is set to the appropriate measurement distance and at each frequency at which a spurious emission has been detected the MS is rotated to obtain a maximum response. The effective radiated power of the emission is determined by a substitution measurement. In case of an anechoic shielded chamber pre-calibration may be used instead of a substitution measurement.

c) The measurement bandwidth based on a 5 pole synchronously tuned filter shall be according to table 12.10. The power indication is the peak power detected by the measuring system.

The measurement time on any frequency shall be such that it includes the time during which the MS receives a TDMA frame containing the paging channel.

NOTE 2: For these filter bandwidths some difficulties may be experienced with noise floor above required measurement limit. This will depend on the gain of the test antenna, and adjustment of the measuring system bandwidth is permissible. Alternatively, for test frequencies above 900 MHz, the test antenna separation from the MS may be reduced to 1 meter.

Table 12.10

Frequency range	Filter bandwidth	Video bandwidth
30 MHz to 50 MHz	10 kHz	30 kHz
50 MHz to 4 GHz	100 kHz	300 kHz

d) The measurements are repeated with the test antenna in the orthogonal polarization plane.
e) The test is repeated under extreme voltage test conditions (see [Annex 1, TC2.2]).

Test Data

Environmental Conditions

Temperature:	28~31.7 ℃
Relative Humidity:	54~58 %
ATM Pressure:	100.9~101.0 kPa

The testing was performed by Holland Yang on 2020-10-11 for below 1GHz and Leven Gan on 2020-11-03 for above 1GHz.

Test Results

Below 1GHz:

GSM 900 Band

Scan 30 MHz -4 GHz, Middle Channel, and Normal Voltage Condition, High Voltage Condition and Low Voltage Condition, and worst case as below:

Frequency (MHz)	Receiver Reading (dBµV)	Turntable Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	EN 301 511	
			Height (m)	Polar (H / V)	SG Level (dBm)	Cable loss(dB)	Antenna Gain (dBd/dBi)		Limit (dBm)	Margin (dB)
For Adapter										
215.9	37.64	38	1.7	H	-62.4	0.57	0.0	-62.97	-57	5.97
215.9	38.52	322	1.4	V	-60.8	0.57	0.0	-61.37	-57	4.37
For POE										
215.9	37.56	114	2.3	H	-62.5	0.57	0.0	-63.07	-57	6.07
215.9	38.48	233	1.8	V	-60.8	0.57	0.0	-61.37	-57	4.37

DCS1800 Band

Scan 30 MHz -4 GHz, Middle Channel, and Normal Voltage Condition, High Voltage Condition and Low Voltage Condition, and worst case as below:

Frequency (MHz)	Receiver Reading (dBµV)	Turntable Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	EN 301 511	
			Height (m)	Polar (H / V)	SG Level (dBm)	Cable loss(dB)	Antenna Gain (dBd/dBi)		Limit (dBm)	Margin (dB)
For Adapter										
216.0	37.52	270	1.9	H	-62.5	0.57	0.0	-63.07	-57	6.07
216.0	38.60	251	2.3	V	-60.7	0.57	0.0	-61.27	-57	4.27
For POE										
216.1	37.65	65	1.6	H	-62.4	0.57	0.0	-62.97	-57	5.97
216.1	38.53	308	1.3	V	-60.8	0.57	0.0	-61.37	-57	4.37

Above 1GHz:

GSM 900 Band

Scan 30 MHz -4 GHz, Middle Channel, and Normal Voltage Condition, High Voltage Condition and Low Voltage Condition, and worst case as below:

Frequency (MHz)	Receiver Reading (dBµV)	Turntable Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	EN 301 511	
			Height (m)	Polar (H/V)	SG Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)		Limit (dBm)	Margin (dB)
1326.30	42.32	230	1.4	H	-66.5	1.60	7.30	-60.80	-47	13.80
1326.30	42.60	324	1.8	V	-66.1	1.60	7.30	-60.40	-47	13.40

DCS1800 Band

Scan 30 MHz - 4 GHz, Middle Channel, and Normal Voltage Condition, High Voltage Condition and Low Voltage Condition, and worst case as below:

Frequency (MHz)	Receiver Reading (dBµV)	Turntable Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	EN 301 511	
			Height (m)	Polar (H/V)	SG Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)		Limit (dBm)	Margin (dB)
1425.16	41.95	117	2.0	H	-66.3	1.60	7.90	-60.00	-47	13.00
1425.16	41.57	39	2.0	V	-67.0	1.60	7.90	-60.70	-47	13.70

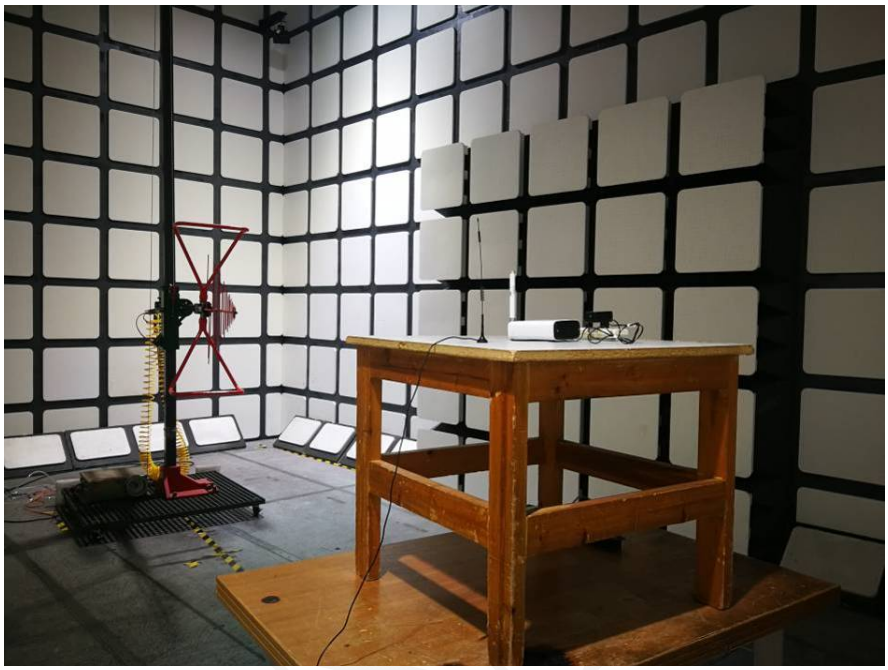
Note 1: The unit of antenna gain is dBd for frequency below 1GHz and is dBi for frequency above 1GHz.
Note 2:
Absolute Level = SG Level - Cable loss + Antenna Gain
Margin = Limit- Absolute Level

EXHIBIT A - EUT PHOTOGRAPHS

Please refer to the Attachment.

EXHIBIT B - TEST SETUP PHOTOGRAPHS

Radiated Spurious Emissions Test View (Below 1GHz, For Adapter)



Radiated Spurious Emissions Test View (Below 1GHz, For POE)

Radiated Spurious Emissions Test View (Above 1GHz)

*******END OF REPORT*******