RADIO TEST REPORT

Report No.:STS2107152W02

Issued for

CHEP

2901 Tasman Drive Suite 107 Santa Clara, CA 95054

Product Name:	Pallet Tracker
Brand Name:	CHEP
Model Name:	Gen 3 Ultra long
Series Model:	N/A
FCC ID:	2APRD-ULTRASHORT
Test Standard:	47 CFR Part 2, 22H, 24(E), 27, 90

Shenzhen STS Test Services Co., Ltd.
A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ,
Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China
TEL: +86-755 3688 6288 FAX: +86-755 3688 6277 E-mail:sts@stsapp.com

TEST RESULT CERTIFICATION

Applicant's Name.....:	CHEP
Address .....:	2901 Tasman Drive Suite 107 Santa Clara, CA 95054
Manufacturer's Name.....:	Minewing (Shenzhen) Electronics Integrated Co., Ltd
Address .....:	Floor #2, Building H2, Hongfa-Tech Park, No 32 TonG Tau Road, ShiYan Town, Bao'An District, Shenzhen, China, 518108

Product Description

Product Name .....:	Pallet Tracker
Brand Name .....:	CHEP
Model Name.....:	Gen 3 Ultra long
Series Model .....:	N/A
Test Standards.....:	47 CFR Part 2, 22H, 24(E), 27, 90
Test Procedure .....:	KDB 971168 D01 v03r01, ANSI C63.26 2015

This device described above has been tested by STS, the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.
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Date of Test.....:	
Date of receipt of test item.....:	10 Mar. 2021
Date (s) of performance of tests .:	10 Mar. 2021 ~ 02 Aug. 2021
Date of Issue .....:	02 Aug. 2021
Test Result .....:	Pass

Testing Engineer : Chris Chen
(Chris Chen)

Technical Manager : Sean She
(Sean she)

Authorized Signatory : Vita Li
(Vita Li)

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Revision History

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	12 Apr. 2021	STS2103072W06	ALL	Initial Issue
00	02 Aug. 2021	STS2107152W02	ALL	Increase the number of batteries and the growth of plastic casings, Update Model name and radiated data.

1. TEST FACTORY & MEASUREMENT UNCERTAINTY

1.1 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD
Add. : A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China
FCC test Firm Registration Number: 625569
IC test Firm Registration Number: 12108A
A2LA Certificate No.: 4338.01

1.2 MEASUREMENT UNCERTAINTY

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

No.	Item	Uncertainty
1	RF output power, conducted	±0.68dB
2	Unwanted Emissions, conducted	±2.988dB
3	All emissions, radiated 9K-30MHz	±2.84dB
4	All emissions, radiated 30M-1GHz	±4.39dB
5	All emissions, radiated 1G-6GHz	±5.10dB
6	All emissions, radiated>6G	±5.48dB
7	Conducted Emission (9KHz-150KHz)	±2.79dB
8	Conducted Emission (150KHz-30MHz)	±2.80dB

2. GENERAL INFORMATION

2.1 TECHNICAL SPECIFICATIONS AND REGULATIONS

2.1.1 PRODUCT DESCRIPTION

A major technical description of EUT is described as following:

Product Name	Pallet Tracker
Trade Name	CHEP
Model Name	Gen 3 Ultra long
Series Model	N/A
Model Difference	N/A
Frequency Bands	U.S. Bands: CAT-M FDD Band 2 CAT-M FDD Band 4 CAT-M FDD Band 5 CAT-M FDD Band 12 CAT-M FDD Band 13 CAT-M FDD Band 26
SIM Card	Only support Single SIM Card.
Antenna	PIFA
Antenna gain	Band2:3.50dBi, Band4:3.50dBi, Band5:1.60dBi, Band7:2.10dBi, Band12:0.40dBi, Band13:0.40dBi, Band26:1.60dBi
Battery	Rated Voltage: Rated Voltage:3V
Extreme Vol. Limits	2.7V to 3.3V (Nominal 3V)
Extreme Temp. Tolerance	-30℃ to +50℃
Hardware version number	48JKB101.SGB
Software version number	v01.02.0015

2.1.2 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD

Product Specification Subjective To This Standard	
Tx Frequency	CAT-M Band 2:1850~1910MHz CAT-M Band 4:1710~1755MHz CAT-M Band 5:824~849MHz CAT-M Band 12:699~716MHz CAT-M Band 13:777~787MHz CAT-M Band 26:814~849MHz
Rx Frequency	CAT-M Band 2:1930 ~1990MHz CAT-M Band 4:2110~2155MHz CAT-M Band 5:869~894MHz CAT-M Band 12:729~746MHz CAT-M Band 13:746~756MHz CAT-M Band 26:859~894MHz
Bandwidth	CAT-M Band 2: 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz CAT-M Band 4: 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz /20MHz CAT-M Band 5: 1.4MHz / 3MHz / 5MHz / 10MHz CAT-M Band 12: 1.4MHz / 3MHz / 5MHz / 10MHz CAT-M Band 13: 5MHz / 10MHz CAT-M Band 26: 1.4MHz / 3MHz / 5MHz / 10MHz/15MHz
Maximum Output Power	CAT-M Band 2: 22.82 dBm CAT-M Band 4: 22.61 dBm CAT-M Band 5: 23.36 dBm CAT-M Band 12: 23.49 dBm CAT-M Band 13: 23.51 dBm CAT-M Band 26: 23.85 dBm
Type of Modulation	QPSK /16QAM

RF Function	Band	UE Category UL	Modulation	Power Class	Ant Gain(dBi)	Ant Type	SIM Card
CAT-M	FDD:2/4/5/12/13/26	M1	QPSK, 16QAM	3	Band2:3.50dBi Band4:3.50dBi Band5:1.60dBi Band12:0.40dBi Band13:0.40dBi Band26:1.60dBi	PIFA	1 SIM 1 is used to tested.

2.1.3 EMISSION DESIGNATOR

CAT-M Band 2	Emission Designator	Emission Designator
BW(MHz)	(26dBc)QPSK	(26dBc)16QAM
1.4	1M27G7D	1M13W7D
3	1M27G7D	1M22W7D
5	1M33G7D	1M16W7D
10	1M27G7D	1M17W7D
15	1M29G7D	1M19W7D
20	1M31G7D	1M18W7D
CAT-M Band 4	Emission Designator	Emission Designator
BW(MHz)	(26dBc)QPSK	(26dBc)16QAM
1.4	1M28G7D	1M23W7D
3	1M27G7D	1M14W7D
5	1M30G7D	1M18W7D
10	1M30G7D	1M23W7D
15	1M34G7D	1M23W7D
20	1M33G7D	1M32W7D
CAT-M Band 5	Emission Designator	Emission Designator
BW(MHz)	(26dBc)QPSK	(26dBc)16QAM
1.4	1M28G7D	1M25W7D
3	1M32G7D	1M14W7D
5	1M29G7D	1M30W7D
10	1M31G7D	1M34W7D
CAT-M Band 12	Emission Designator	Emission Designator
BW(MHz)	(26dBc)QPSK	(26dBc)16QAM
1.4	1M30G7D	1M24W7D
3	1M28G7D	1M11W7D
5	1M30G7D	1M27W7D
10	1M29G7D	1M32W7D
CAT-M Band 13	Emission Designator	Emission Designator
BW(MHz)	(26dBc)QPSK	(26dBc)16QAM
5	1M31G7D	1M15W7D
10	1M29G7D	1M16W7D
CAT-M Band 26 (Part 22)	Emission Designator	Emission Designator
BW(MHz)	(26dBc)QPSK	(26dBc)16QAM
1.4	1M29G7D	1M24W7D
3	1M28G7D	1M13W7D
5	1M29G7D	1M29W7D
10	1M31G7D	1M31W7D
15	1M31G7D	1M31W7D
CAT-M Band 26 (Part 90)	Emission Designator	Emission Designator
BW(MHz)	(26dBc)QPSK	(26dBc)16QAM
1.4	1M29G7D	1M23W7D
3	1M29G7D	1M12W7D
5	1M32G7D	1M27W7D
10	1M27G7D	1M17W7D

2.1.4 TEST CONFIGURATION OF EQUIPMENT UNDER TEST

Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 v03r01 and ANSI C63.26 2015 Power Meas. License Digital Systems with maximum output power. Radiated measurements are performed by rotating the EUT in three different orthogonal test planes tofind the maximum emission.

Remark:

1. The mark ‘v’means that this configuration is chosen for testing
2. The mark ‘-’means that this bandwidth is not supported.
3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated.

ITEMS	Band	Bandwidth (MHz)						Modulation		RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	M	H
Max. Output Power	2	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	4	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	5	v	v	v	v			v	v	v	v	v	v	v	v
	12	v	v	v	v			v	v	v	v	v	v	v	v
	13			v	v			v	v	v	v	v		v	
	26	v	v	v	v	v		v	v	v	v	v	v	v	v
Peak&Avera Ratio	2						v	v	v	v		v	v	v	v
	4						v	v	v	v		v	v	v	v
	5				v			v	v	v		v	v	v	v
	12				v			v	v	v		v	v	v	v
	13				v			v	v	v		v		v	
	26					v		v	v	v		v	v	v	v
26dB&99% Bandwidth	2	v	v	v	v	v	v	v	v			v	v	v	v
	4	v	v	v	v	v	v	v	v			v	v	v	v
	5	v	v	v	v			v	v			v	v	v	v
	12	v	v	v	v			v	v			v	v	v	v
	13			v	v			v	v			v		v	
	26	v	v	v	v	v		v	v			v	v	v	v
Conducted Band Edge	2	v	v	v	v	v	v	v	v	v		v	v	v	v
	4	v	v	v	v	v	v	v	v	v		v	v	v	v
	5	v	v	v	v			v	v	v		v	v	v	v
	12	v	v	v	v			v	v	v		v	v	v	v
	13			v	v			v	v	v		v		v	
	26	v	v	v	v	v		v	v	v		v	v	v	v
Conducted Spurious Emission	2	v	v	v	v	v	v	v	v	v			v	v	v
	4	v	v	v	v	v	v	v	v	v			v	v	v
	5	v	v	v	v			v	v	v			v	v	v
	12	v	v	v	v			v	v	v			v	v	v
	13			v	v			v	v	v				v	
	26	v	v	v	v	v		v	v	v			v	v	v

Frequency Stability	2				v			v				v		v	
	4				v			v				v		v	
	5				v			v				v		v	
	12				v			v				v		v	
	13				v			v				v		v	
	26				v			v				v		v	
E.R.P.& E.I.R.P.	2	v	v	v	v	v	v	v	v	v			v	v	v
	4	v	v	v	v	v	v	v	v	v			v	v	v
	5	v	v	v	v			v	v	v			v	v	v
	12	v	v	v	v			v	v	v			v	v	v
	13			v	v			v	v	v				v	
	26	v	v	v	v	v		v	v	v			v	v	v
Radiated Spurious Emission	2	v	v	v	v	v	v	v		v			v	v	v
	4	v	v	v	v	v	v	v		v			v	v	v
	5	v	v	v	v			v		v			v	v	v
	12	v	v	v	v			v		v			v	v	v
	13			v	v			v		v				v	
	26	v	v	v	v	v		v		v			v	v	v

2.1.5 RELATED SUBMITTAL(S) / GRANT (S)

This submittal(s) (test report) is intended for filing to comply with the 47 CFR Part 2, 22H, 24(E), 27, 90.

2.1.6 SPECIAL ACCESSORIES

The battery and the charger, earphone supplied by the applicant were used as accessories and being tested with eut intended for fcc grant together.

2.1.7 EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commission’s requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.1.8 EUT EXERCISE

The Transmitter was operated in the maximum output power mode through Communication Tester. The TX frequency was fixed which was for the purpose of the measurements.

2.1.9 CONFIGURATION OF EUT SYSTEM

The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

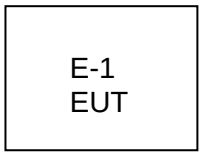


Table 2-1 Equipment Used in EUT System

Item	Equipment	Model No.	Length	Note
N/A	N/A	N/A	N/A	N/A

Note:

(1) For detachable type I/O cable should be specified the length in cm in 『Length』 column.

2.1.10 MEASUREMENT INSTRUMENTS

The radiated emission testing was performed according to the procedures of ANSI C63.26 2015 and FCC CFR 47 rules of 2.1046, 2.1047, 2.1049, 2.1051, 2.1053, 2.1055, 2.1057.

Radiation Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	ESCI	101427	2020.10.12	2021.10.11
Signal Analyzer	R&S	FSV 40-N	101823	2020.10.10	2021.10.09
Signal Generator	Agilent	83752A	3610A02740	2020.10.10	2021.10.09
Wireless Communications Test Set	R&S	CMW 500	133884	2021.03.04	2022.03.03
Bilog Antenna	TESEQ	CBL6111D	34678	2020.10.12	2022.10.11
Horn Antenna	SCHWARZBECK	BBHA 9120D	02014	2019.10.15	2021.10.14
Bilog Antenna	TESEQ	CBL6111D	45873	2020.10.12	2022.10.11
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1343	2020.10.12	2022.10.11
SHF-EHF Horn Antenna (18G-40GHz)	A-INFO	LB-180400-KF	J211020657	2020.10.12	2022.10.11
Pre-Amplifier (0.1M-3GHz)	EM	EM330	060665	2020.10.12	2021.10.11
Pre-Amplifier (1G-18GHz)	SKET	LNPA-01018G-45	SK2018080901	2020.10.12	2021.10.11
Pre-Amplifier (18G-40GHz)	SKET	LNPA-1840-50	SK2018101801	2020.10.10	2021.10.09
Turn table	EM	SC100_1	60531	N/A	N/A
Antenna mast	EM	SC100	N/A	N/A	N/A
Temperature & Humidity	HH660	Mieo	N/A	2020.10.13	2021.10.12
Test SW	BALUN	BL410-E/18.905			

RF Connected Test

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Universal Radio communication tester	R&S	CMU200	119907	2020.10.12	2021.10.11
Wireless Communications Test Set	R&S	CMW 500	133884	2021.03.04	2022.03.03
Signal Analyzer	Agilent	N9020A	MY52440124	2021.03.04	2022.03.03
Temperature& Humidity test chamber	Safety test	AG80L	171200018	2021.03.04	2022.03.03
Programmable power supply	Agilent	E3642A	MY40002025	2020.10.12	2021.10.11
Temperature & Humidity	SW-108	SuWei	N/A	2021.03.04	2022.03.03
Temperature & Humidity	HH660	Mieo	N/A	2019.10.17	2020.10.16
Test SW	FARAD	LZ-RF /LzRf-3A3			

2.1.11 MEASUREMENT RESULTS EXPLANATION EXAMPLE

For all conducted test items:
The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factorbetween EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.
The spectrum analyzer offset is derived from RF cable loss and attenuator factor.
Offset = RF Cable Loss + Attenuator Factor.

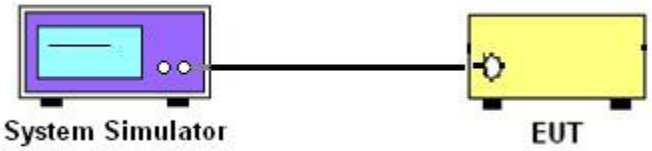
3. CONDUCTED OUTPUT POWER

3.1 DESCRIPTION OF THE CONDUCTED OUTPUT POWER MEASUREMENT

3.1.1 MEASUREMENT METHOD

A system simulator was used to establish communication with the eut. Its parameters were set to force the eut transmitting at maximum output power. The measured power in the radio frequency on the transmitter output terminals shall be reported.
Configuration follows KDB 971168 D01 v03r01.

3.1.2 TEST SETUP



3.1.3 TEST PROCEDURES

1. The transmitter output port was connected to system simulator.

2. Set EUT at maximum power through the system simulator.

3. Select lowest/middle/highest channels for each band and different modulation.

4. Measure and record the power level from the system simulator.

3.1.4 TEST RESULTS

CAT-M Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.18	22.39	22.14
1.4	6	0		21.88	22.13	21.85
1.4	1	0	16-QAM	21.96	22.14	21.88
1.4	5	0		21.66	21.86	21.62
3	1	0	QPSK	22.15	22.44	22.07
3	6	0		21.92	22.18	21.79
3	1	0	16-QAM	21.91	22.24	21.85
3	5	0		21.70	21.95	21.56
5	1	0	QPSK	22.43	22.51	22.11
5	6	0		22.15	22.28	21.87
5	1	0	16-QAM	22.16	22.22	21.83
5	5	0		21.95	21.92	21.61
10	1	0	QPSK	22.19	22.30	22.09
10	6	0		21.89	22.07	21.88
10	1	0	16-QAM	21.94	22.03	21.88
10	5	0		21.65	21.79	21.61
15	1	0	QPSK	22.50	22.17	22.63
15	6	0		22.23	21.89	22.40
15	1	0	16-QAM	22.21	21.89	22.38
15	5	0		21.97	21.68	22.09
20	1	0	QPSK	22.58	22.82	22.67
20	6	0		22.19	22.60	21.97
20	1	0	16-QAM	22.22	22.53	21.89
20	5	0		21.93	22.25	21.65

CAT-M Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.23	22.18	22.31
1.4	6	0		21.95	21.91	22.10
1.4	1	0	16-QAM	22.00	21.92	22.11
1.4	5	0		21.76	21.71	21.90
3	1	0	QPSK	22.01	22.28	22.17
3	6	0		21.79	22.07	21.97
3	1	0	16-QAM	21.72	22.02	21.94
3	5	0		21.49	21.73	21.70
5	1	0	QPSK	22.24	22.27	22.18
5	6	0		21.98	21.99	21.95
5	1	0	16-QAM	22.02	22.00	21.89
5	5	0		21.73	21.72	21.62
10	1	0	QPSK	22.35	22.19	22.40
10	6	0		22.13	21.97	22.11
10	1	0	16-QAM	22.11	21.90	22.13
10	5	0		21.81	21.68	21.86
15	1	0	QPSK	22.41	22.34	22.19
15	6	0		22.20	22.11	21.97
15	1	0	16-QAM	22.20	22.06	21.92
15	5	0		21.98	21.78	21.62
20	1	0	QPSK	22.42	22.61	22.57
20	6	0		22.14	22.35	22.35
20	1	0	16-QAM	22.05	22.36	22.28
20	5	0		21.82	22.12	22.04

CAT-M Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.69	22.97	22.83
1.4	6	0		22.42	22.76	22.57
1.4	1	0	16-QAM	22.45	22.68	22.55
1.4	5	0		22.24	22.39	22.32
3	1	0	QPSK	22.79	22.86	22.97
3	6	0		22.52	22.64	22.75
3	1	0	16-QAM	22.55	22.61	22.71
3	5	0		22.34	22.33	22.51
5	1	0	QPSK	22.89	22.69	22.74
5	6	0		22.60	22.48	22.44
5	1	0	16-QAM	22.66	22.42	22.48
5	5	0		22.44	22.21	22.22
10	1	0	QPSK	23.27	23.36	23.24
10	6	0		23.03	23.11	23.01
10	1	0	16-QAM	23.02	23.11	23.03
10	5	0		22.75	22.88	22.83
CAT-M Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.88	22.91	22.86
1.4	6	0		22.63	22.65	22.63
1.4	1	0	16-QAM	22.62	22.70	22.65
1.4	5	0		22.36	22.42	22.40
3	1	0	QPSK	22.97	23.05	23.11
3	6	0		22.75	22.80	22.88
3	1	0	16-QAM	22.73	22.80	22.87
3	5	0		22.50	22.56	22.63
5	1	0	QPSK	23.07	23.11	23.05
5	6	0		22.82	22.83	22.78
5	1	0	16-QAM	22.79	22.91	22.77
5	5	0		22.58	22.65	22.55
10	1	0	QPSK	23.29	23.49	23.34
10	6	0		23.07	23.19	23.11
10	1	0	16-QAM	23.03	23.23	23.09
10	5	0		22.81	22.96	22.79

CAT-M Band 13 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.18	23.09	23.17
5	6	0		22.97	22.82	22.91
5	1	0	16-QAM	22.90	22.86	22.93
5	5	0		22.60	22.63	22.65
10	1	0	QPSK	N/A	23.51	N/A
10	6	0		N/A	23.24	N/A
10	1	0	16-QAM	N/A	23.27	N/A
10	5	0		N/A	22.98	N/A
CAT-M Band 26(Part 22) Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.18	23.26	23.33
1.4	6	0		22.93	23.00	23.12
1.4	1	0	16-QAM	22.98	23.03	23.09
1.4	5	0		22.74	22.75	22.88
3	1	0	QPSK	23.44	23.51	23.08
3	6	0		23.24	23.29	22.82
3	1	0	16-QAM	23.19	23.22	22.78
3	5	0		22.98	22.95	22.49
5	1	0	QPSK	23.14	23.25	23.40
5	6	0		22.86	22.97	23.17
5	1	0	16-QAM	22.85	23.00	23.16
5	5	0		22.62	22.80	22.90
10	1	0	QPSK	23.37	23.51	23.40
10	6	0		23.18	23.26	23.24
10	1	0	16-QAM	23.20	23.28	23.24
10	5	0		22.98	23.02	23.00
15	1	0	QPSK	23.47	23.85	23.48
15	6	0		23.26	23.55	22.92
15	1	0	16-QAM	23.18	23.56	22.93
15	5	0		22.92	23.33	22.68
CAT-M Band 26(Part 90) Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.25	23.31	23.27
1.4	6	0		22.96	23.07	22.99
1.4	1	0	16-QAM	22.96	23.09	23.00
1.4	5	0		22.66	22.82	22.73
3	1	0	QPSK	23.30	23.27	23.16
3	6	0		23.07	23.02	22.89
3	1	0	16-QAM	23.07	22.99	22.91
3	5	0		22.85	22.76	22.61
5	1	0	QPSK	23.57	23.47	23.28
5	6	0		23.29	23.26	23.02
5	1	0	16-QAM	23.34	23.20	23.02
5	5	0		23.11	22.95	22.82
10	1	0	QPSK	N/A	23.80	N/A
10	6	0		N/A	23.56	N/A
10	1	0	16-QAM	N/A	23.54	N/A
10	5	0		N/A	23.24	N/A

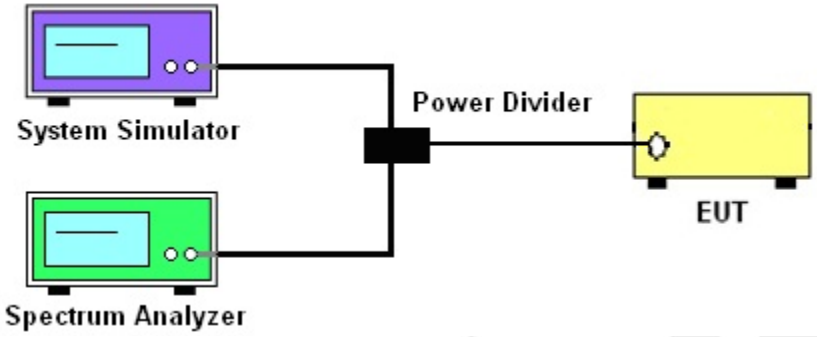
4. PEAK-TO-AVERAGE RATIO

4.1 DESCRIPTION OF THE CONDUCTED OUTPUT POWER MEASUREMENT

4.1.1 MEASUREMENT METHOD

Use one of the procedures presented in 4.1.3 to measure the total peak power and record as PPk. Use one of the applicable procedures presented 4.1.3 to measure the total average power and record as PAvg. Both the peak and average power levels must be expressed in the same logarithmic units (e.g., dBm). Determine the PAPR from:
PAPR (dB) = PPk (dBm) - PAvg (dBm).

4.1.2 TEST SETUP



4.1.3 TEST PROCEDURES

1. The testing follows FCC KDB 971168 D01 v03r01 Section 5.7 and ANSI C63.26 2015 Section 5.2.6.
2. The EUT was connected to spectrum and system simulator via a power divider
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Set the test probe and measure the peak and average power of the spectrum analyzer
5. Record the deviation as Peak to Average Ratio.

	CAT-M					
CAT-M BW	1.4M	3M	5M	10M	15M	20M
Span	3MHz	6MHz	10MHz	20MHz	30MHz	40MHz
RBW	30kHz	30kHz	100kHz	100kHz	300kHz	300kHz
VBW	100kHz	100kHz	300kHz	300kHz	1000kHz	1000kHz
Detector	PK/AVG	PK/AVG	PK/AVG	PK/AVG	PK/AVG	PK/AVG
Trace	Max	Max	Max	Max	Max	Max
Sweep Count	Auto	Auto	Auto	Auto	Auto	Auto

4.1.4 TEST RESULTS

CAT-M Band 2 PAR [dBm]					
BW [MHz]	RB Size	Modulation	Lowest	Middle	Highest
			P-A	P-A	P-A
20	1	QPSK	3.87	3.85	3.62
20	6		4.17	4.18	4.17
20	1	16-QAM	4.16	4.17	4.03
20	5		4.43	4.36	4.17
Limit			≤13dB		

CAT-M Band 4 PAR [dBm]					
BW [MHz]	RB Size	Modulation	Lowest	Middle	Highest
			P-A	P-A	P-A
20	1	QPSK	3.34	3.23	3.39
20	6		3.61	3.69	3.65
20	1	16-QAM	3.86	3.36	3.89
20	5		3.83	3.77	3.86
Limit			≤13dB		

CAT-M Band 5 PAR [dBm]					
BW [MHz]	RB Size	Modulation	Lowest	Middle	Highest
			P-A	P-A	P-A
10	1	QPSK	3.96	3.82	3.68
10	6		4.68	4.65	4.56
10	1	16-QAM	4.45	4.33	3.99
10	5		4.51	4.54	4.25
Limit			≤13dB		

CAT-M Band 12 PAR [dBm]					
BW [MHz]	RB Size	Modulation	Lowest	Middle	Highest
			P-A	P-A	P-A
10	1	QPSK	4.11	4.06	3.96
10	6		4.77	4.73	4.7
10	1	16-QAM	4.68	4.58	4.38
10	5		4.87	4.85	4.5
Limit			≤13dB		

CAT-M Band 13 PAR [dBm]			
BW [MHz]	RB Size	Modulation	N/A
			P-A
10	1	QPSK	3.81
10	6		4.65
10	1	16-QAM	4.21
10	5		4.31
Limit			≤13dB

CAT-M Band 26 PAR [dBm]					
BW [MHz]	RB Size	Modulation	Lowest	Middle	Highest
			P-A	P-A	P-A
15	1	QPSK	3.87	3.73	3.74
15	6		4.23	4.22	4.06
15	1	16-QAM	4.28	4.16	4.08
15	5		4.49	4.37	4.41
Limit			≤13dB		

Note: Test chart See Appendix D

5. RADIATED POWER AND EFFECTIVE ISOTROPIC RADIATED POWER

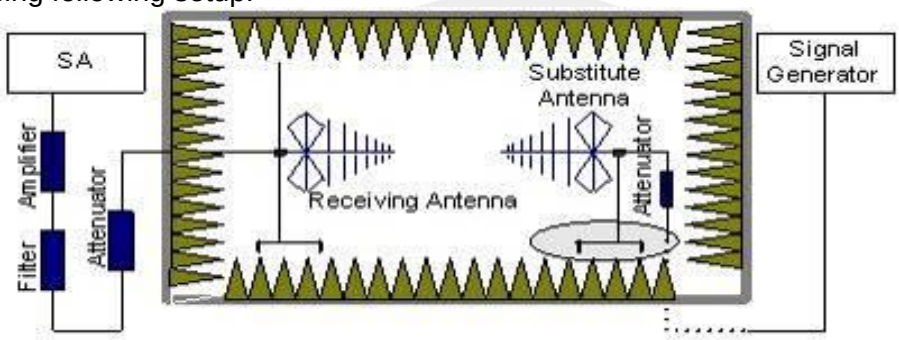
5.1 DESCRIPTION OF THE ERP/EIRP MEASUREMENT

5.1.1 MEASUREMENT METHOD

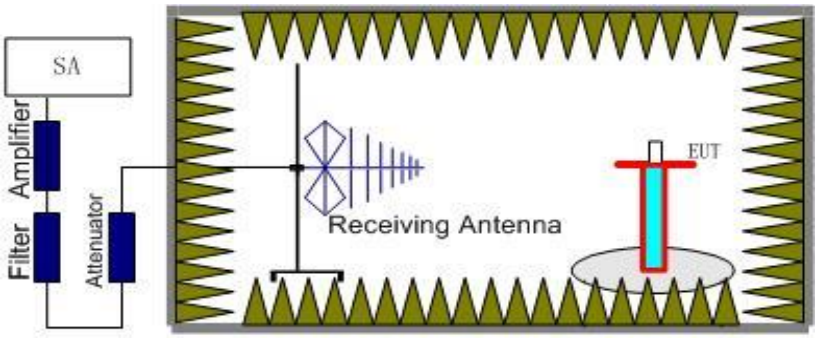
Effective radiated power output measurements by substitution method according to ANSI C63.26 2015, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas.
License Digital Systems. Mobile and portable (hand-held) stations operating are limited to average ERP, Equivalent isotropic radiated power output measurements by substitution method according to ANSI C63.26 2015, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas, Mobile and portable (hand-held) stations operating are limited to average EIRP.

5.1.2 TEST SETUP

The procedure of radiated spurious emissions is as follows:
a) Pre-calibration With pre-calibration method, the Radiated Spurious Emissions(RSE) is calculated as, RSE=Rx (dBuV) +CL (dB) +SA (dB) +Gain (dBi) -107 (dBuV to dBm) The SA is calibrated using following setup.



b) EUT was placed on a 1.5m non-conductive stand at a 3 m test distance from the receive antenna. A receiving antenna was placed on the antenna mast 3 m from the test item for emission measurements. The height of receiving antenna is 0.8m. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the test item and adjusting the receiving antenna polarization. The radiated emission measurements of all non-harmonic and harmonics of the transmit frequency through the 10th harmonic measured with peak detector and 1MHz bandwidth.



Radiated emissions measurements were made only at the upper, middle, and lower carrier frequencies It was decided that measurements at these three carrier frequencies would be sufficient to demonstrate compliance with emissions limits because it was seen that all the significant spurs occur well outside the band and no radiation was seen from a carrier in one block of any band into any of the other blocks.
The substitution method is used. Substitution values at each frequency are measured before and saved to the test software. A "reference path loss" is established and the ARpl is the attenuation of “reference path loss”, and including the gain of receive antenna, the gain of the preamplifier, the cable loss and the air loss. The measurement results are obtained as described below:
Power=PMea+ARpl

5.1.3 TEST PROCEDURES

1. The testing follows FCC KDB 971168 D01v03r01 Section 5.6 and ANSI C63.26 2015 Section 5.2.

2. The EUT was placed on a non-conductive rotating platform 1.5 meters high in a semi-anechoic chamber. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and a spectrum analyzer with Peak detector.

3. During the measurement, the system simulator parameters were set to force the EUTtransmitting at maximum output power. The maximum emission was recorded from analyzer power level (LVL) from the 360 degrees rotation of the turntable and the test antenna raised and lowered over a range from 1 to 4 m in both horizontally and vertically polarized orientations.

4. Effective Isotropic Radiated Power (EIRP) was measured by substitution method according to ANSI C63.26 2015. The EUT was replaced by dipole antenna (substitution antenna) at same location and then a known power from S.G. was applied into the dipole antenna through a Tx cable, and then recorded the maximum Analyzer reading through raised and lowered the test antenna. EIRP=S.G Level+ Gain-Cable loss; ERP=S.G Level+ Gain-Cable loss-2.15.

5. RB Set greater than bandwidth, VB Set spectrum analyzer Maximum support.

5.1.4 TEST RESULTS

Note: Test is divided into three directions, X/Y/Z. X pattern for the worst.

Radiated Power (EIRP) for CAT-M Band 2 / 1.4M									
Modulation	RB		Channel	Result					Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	PMeas E.I.R.P(dBm)	Polarization Of Max. EIRP	
QPSK	1	0	Lowest	10.29	2.37	10.40	18.32	Horizontal	Pass
	1	0	Middle	11.66	2.39	10.42	19.69	Horizontal	Pass
	1	0	Highest	10.9	2.40	10.44	18.94	Horizontal	Pass
	1	0	Lowest	13.76	2.37	10.40	21.79	Vertical	Pass
	1	0	Middle	13.65	2.39	10.42	21.68	Vertical	Pass
	1	0	Highest	12.87	2.40	10.44	20.91	Vertical	Pass
16QAM	1	0	Lowest	10.34	2.37	10.40	18.37	Horizontal	Pass
	1	0	Middle	11.29	2.39	10.42	19.32	Horizontal	Pass
	1	0	Highest	9.69	2.40	10.44	17.73	Horizontal	Pass
	1	0	Lowest	13.18	2.37	10.40	21.21	Vertical	Pass
	1	0	Middle	13.9	2.39	10.42	21.93	Vertical	Pass
	1	0	Highest	12.54	2.40	10.44	20.58	Vertical	Pass
Limit	EIRP<2W=33dBm								

Radiated Power (EIRP) for CAT-M Band 2 / 3M									
Modulation	RB		Channel	Result					Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	PMeas E.I.R.P(dBm)	Polarization Of Max. EIRP	
QPSK	1	0	Lowest	11.44	2.37	10.40	19.47	Horizontal	Pass
	1	0	Middle	10.43	2.39	10.42	18.46	Horizontal	Pass
	1	0	Highest	10.38	2.40	10.44	18.42	Horizontal	Pass
	1	0	Lowest	13.52	2.37	10.40	21.55	Vertical	Pass
	1	0	Middle	13.68	2.39	10.42	21.71	Vertical	Pass
	1	0	Highest	13.3	2.40	10.44	21.34	Vertical	Pass
16QAM	1	0	Lowest	10.4	2.37	10.40	18.43	Horizontal	Pass
	1	0	Middle	10.54	2.39	10.42	18.57	Horizontal	Pass
	1	0	Highest	9.76	2.40	10.44	17.80	Horizontal	Pass
	1	0	Lowest	13.22	2.37	10.40	21.25	Vertical	Pass
	1	0	Middle	13.16	2.39	10.42	21.19	Vertical	Pass
	1	0	Highest	12.87	2.40	10.44	20.91	Vertical	Pass
Limit	EIRP<2W=33dBm								

Radiated Power (EIRP) for CAT-M Band 2 / 5M									
Modulation	RB		Channel	Result					Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	PMeas E.I.R.P(dBm)	Polarization Of Max. EIRP	
QPSK	1	0	Lowest	11.01	2.37	10.40	19.04	Horizontal	Pass
	1	0	Middle	10.56	2.39	10.42	18.59	Horizontal	Pass
	1	0	Highest	10.95	2.40	10.44	18.99	Horizontal	Pass
	1	0	Lowest	13.81	2.37	10.40	21.84	Vertical	Pass
	1	0	Middle	13.85	2.39	10.42	21.88	Vertical	Pass
	1	0	Highest	13.44	2.40	10.44	21.48	Vertical	Pass
16QAM	1	0	Lowest	10.75	2.37	10.40	18.78	Horizontal	Pass
	1	0	Middle	10.75	2.39	10.42	18.78	Horizontal	Pass
	1	0	Highest	10.28	2.40	10.44	18.32	Horizontal	Pass
	1	0	Lowest	13.16	2.37	10.40	21.19	Vertical	Pass
	1	0	Middle	13.18	2.39	10.42	21.21	Vertical	Pass
	1	0	Highest	12.26	2.40	10.44	20.30	Vertical	Pass
Limit	EIRP<2W=33dBm								

Radiated Power (EIRP) for CAT-M Band 2 / 10M									
Modulation	RB		Channel	Result					Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	PMeas E.I.R.P(dBm)	Polarization Of Max. EIRP	
QPSK	1	0	Lowest	10.55	2.37	10.40	18.58	Horizontal	Pass
	1	0	Middle	10.26	2.39	10.42	18.29	Horizontal	Pass
	1	0	Highest	10.57	2.40	10.44	18.61	Horizontal	Pass
	1	0	Lowest	13.68	2.37	10.40	21.71	Vertical	Pass
	1	0	Middle	13.79	2.39	10.42	21.82	Vertical	Pass
	1	0	Highest	12.58	2.40	10.44	20.62	Vertical	Pass
16QAM	1	0	Lowest	11.16	2.37	10.40	19.19	Horizontal	Pass
	1	0	Middle	11.17	2.39	10.42	19.20	Horizontal	Pass
	1	0	Highest	10.98	2.40	10.44	19.02	Horizontal	Pass
	1	0	Lowest	12.71	2.37	10.40	20.74	Vertical	Pass
	1	0	Middle	13.9	2.39	10.42	21.93	Vertical	Pass
	1	0	Highest	12.53	2.40	10.44	20.57	Vertical	Pass
Limit	EIRP<2W=33dBm								

Radiated Power (EIRP) for CAT-M Band 2 / 15M									
Modulation	RB		Channel	Result					Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	PMeas E.I.R.P(dBm)	Polarization Of Max. EIRP	
QPSK	1	0	Lowest	11.73	2.37	10.40	19.76	Horizontal	Pass
	1	0	Middle	10.05	2.39	10.42	18.08	Horizontal	Pass
	1	0	Highest	11	2.40	10.44	19.04	Horizontal	Pass
	1	0	Lowest	13.83	2.37	10.40	21.86	Vertical	Pass
	1	0	Middle	13.1	2.39	10.42	21.13	Vertical	Pass
	1	0	Highest	13.38	2.40	10.44	21.42	Vertical	Pass
16QAM	1	0	Lowest	10.8	2.37	10.40	18.83	Horizontal	Pass
	1	0	Middle	11.42	2.39	10.42	19.45	Horizontal	Pass
	1	0	Highest	10.94	2.40	10.44	18.98	Horizontal	Pass
	1	0	Lowest	13.36	2.37	10.40	21.39	Vertical	Pass
	1	0	Middle	13.16	2.39	10.42	21.19	Vertical	Pass
	1	0	Highest	13.24	2.40	10.44	21.28	Vertical	Pass
Limit	EIRP<2W=33dBm								

Radiated Power (EIRP) for CAT-M Band 2 / 20M									
Modulation	RB		Channel	Result					Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	PMeas E.I.R.P(dBm)	Polarization Of Max. EIRP	
QPSK	1	0	Lowest	11.43	2.37	10.40	19.46	Horizontal	Pass
	1	0	Middle	12.1	2.39	10.42	20.13	Horizontal	Pass
	1	0	Highest	10.35	2.40	10.44	18.39	Horizontal	Pass
	1	0	Lowest	13.48	2.37	10.40	21.51	Vertical	Pass
	1	0	Middle	14	2.39	10.42	22.03	Vertical	Pass
	1	0	Highest	13.36	2.40	10.44	21.40	Vertical	Pass
16QAM	1	0	Lowest	10.59	2.37	10.40	18.62	Horizontal	Pass
	1	0	Middle	11.08	2.39	10.42	19.11	Horizontal	Pass
	1	0	Highest	11.15	2.40	10.44	19.19	Horizontal	Pass
	1	0	Lowest	13	2.37	10.40	21.03	Vertical	Pass
	1	0	Middle	13.98	2.39	10.42	22.01	Vertical	Pass
	1	0	Highest	12.83	2.40	10.44	20.87	Vertical	Pass
Limit	EIRP<2W=33dBm								

Radiated Power (EIRP) for CAT-M Band 4 / 1.4M									
Modulation	RB		Channel	Result					Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	PMeas E.I.R.P(dBm)	Polarization Of Max. EIRP	
QPSK	1	0	Lowest	11.32	2.35	10.13	19.10	Horizontal	Pass
	1	0	Middle	9.97	2.36	10.16	17.77	Horizontal	Pass
	1	0	Highest	10.42	2.37	10.22	18.27	Horizontal	Pass
	1	0	Lowest	13.63	2.35	10.13	21.41	Vertical	Pass
	1	0	Middle	13.09	2.36	10.16	20.89	Vertical	Pass
	1	0	Highest	13.38	2.37	10.22	21.23	Vertical	Pass
16QAM	1	0	Lowest	10.3	2.35	10.13	18.08	Horizontal	Pass
	1	0	Middle	10.53	2.36	10.16	18.33	Horizontal	Pass
	1	0	Highest	10.57	2.37	10.22	18.42	Horizontal	Pass
	1	0	Lowest	12.68	2.35	10.13	20.46	Vertical	Pass
	1	0	Middle	13.01	2.36	10.16	20.81	Vertical	Pass
	1	0	Highest	13.21	2.37	10.22	21.06	Vertical	Pass
Limit	EIRP<1W=30dBm								

Radiated Power (EIRP) for CAT-M Band 4 / 3M									
Modulation	RB		Channel	Result					Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	PMeas E.I.R.P(dBm)	Polarization Of Max. EIRP	
QPSK	1	0	Lowest	10.48	2.35	10.13	18.26	Horizontal	Pass
	1	0	Middle	11	2.36	10.16	18.80	Horizontal	Pass
	1	0	Highest	10.81	2.37	10.22	18.66	Horizontal	Pass
	1	0	Lowest	12.66	2.35	10.13	20.44	Vertical	Pass
	1	0	Middle	13.5	2.36	10.16	21.30	Vertical	Pass
	1	0	Highest	13.42	2.37	10.22	21.27	Vertical	Pass
16QAM	1	0	Lowest	10.83	2.35	10.13	18.61	Horizontal	Pass
	1	0	Middle	10.38	2.36	10.16	18.18	Horizontal	Pass
	1	0	Highest	10.76	2.37	10.22	18.61	Horizontal	Pass
	1	0	Lowest	12.9	2.35	10.13	20.68	Vertical	Pass
	1	0	Middle	13.3	2.36	10.16	21.10	Vertical	Pass
	1	0	Highest	12.69	2.37	10.22	20.54	Vertical	Pass
Limit	EIRP<1W=30dBm								

Radiated Power (EIRP) for CAT-M Band 4 / 5M									
Modulation	RB		Channel	Result					Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	PMeas E.I.R.P(dBm)	Polarization Of Max. EIRP	
QPSK	1	0	Lowest	11.06	2.35	10.13	18.84	Horizontal	Pass
	1	0	Middle	10.69	2.36	10.16	18.49	Horizontal	Pass
	1	0	Highest	10.63	2.37	10.22	18.48	Horizontal	Pass
	1	0	Lowest	13.04	2.35	10.13	20.82	Vertical	Pass
	1	0	Middle	13.32	2.36	10.16	21.12	Vertical	Pass
	1	0	Highest	13.09	2.37	10.22	20.94	Vertical	Pass
16QAM	1	0	Lowest	10.46	2.35	10.13	18.24	Horizontal	Pass
	1	0	Middle	10.84	2.36	10.16	18.64	Horizontal	Pass
	1	0	Highest	10.98	2.37	10.22	18.83	Horizontal	Pass
	1	0	Lowest	13.15	2.35	10.13	20.93	Vertical	Pass
	1	0	Middle	13.34	2.36	10.16	21.14	Vertical	Pass
	1	0	Highest	13.04	2.37	10.22	20.89	Vertical	Pass
Limit	EIRP<1W=30dBm								

Radiated Power (EIRP) for CAT-M Band 4 / 10M									
Modulation	RB		Channel	Result					Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	PMeas E.I.R.P(dBm)	Polarization Of Max. EIRP	
QPSK	1	0	Lowest	11.11	2.35	10.13	18.89	Horizontal	Pass
	1	0	Middle	10.32	2.36	10.16	18.12	Horizontal	Pass
	1	0	Highest	10.5	2.37	10.22	18.35	Horizontal	Pass
	1	0	Lowest	13.67	2.35	10.13	21.45	Vertical	Pass
	1	0	Middle	13.15	2.36	10.16	20.95	Vertical	Pass
	1	0	Highest	13.14	2.37	10.22	20.99	Vertical	Pass
16QAM	1	0	Lowest	10.46	2.35	10.13	18.24	Horizontal	Pass
	1	0	Middle	10.26	2.36	10.16	18.06	Horizontal	Pass
	1	0	Highest	10.88	2.37	10.22	18.73	Horizontal	Pass
	1	0	Lowest	13.27	2.35	10.13	21.05	Vertical	Pass
	1	0	Middle	12.94	2.36	10.16	20.74	Vertical	Pass
	1	0	Highest	13.33	2.37	10.22	21.18	Vertical	Pass
Limit	EIRP<1W=30dBm								

Radiated Power (EIRP) for CAT-M Band 4 / 15M									
Modulation	RB		Channel	Result					Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	PMeas E.I.R.P(dBm)	Polarization Of Max. EIRP	
QPSK	1	0	Lowest	10.92	2.35	10.13	18.70	Horizontal	Pass
	1	0	Middle	11.02	2.36	10.16	18.82	Horizontal	Pass
	1	0	Highest	10.44	2.37	10.22	18.29	Horizontal	Pass
	1	0	Lowest	13.52	2.35	10.13	21.30	Vertical	Pass
	1	0	Middle	13.25	2.36	10.16	21.05	Vertical	Pass
	1	0	Highest	13.16	2.37	10.22	21.01	Vertical	Pass
16QAM	1	0	Lowest	10.42	2.35	10.13	18.20	Horizontal	Pass
	1	0	Middle	9.99	2.36	10.16	17.79	Horizontal	Pass
	1	0	Highest	10.23	2.37	10.22	18.08	Horizontal	Pass
	1	0	Lowest	12.9	2.35	10.13	20.68	Vertical	Pass
	1	0	Middle	12.77	2.36	10.16	20.57	Vertical	Pass
	1	0	Highest	12.95	2.37	10.22	20.80	Vertical	Pass
Limit	EIRP<1W=30dBm								

Radiated Power (EIRP) for CAT-M Band 4 / 20M									
Modulation	RB		Channel	Result					Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	PMeas E.I.R.P(dBm)	Polarization Of Max. EIRP	
QPSK	1	0	Lowest	10.5	2.35	10.13	18.28	Horizontal	Pass
	1	0	Middle	11.08	2.36	10.16	18.88	Horizontal	Pass
	1	0	Highest	10.66	2.37	10.22	18.51	Horizontal	Pass
	1	0	Lowest	13.14	2.35	10.13	20.92	Vertical	Pass
	1	0	Middle	13.81	2.36	10.16	21.61	Vertical	Pass
	1	0	Highest	13.54	2.37	10.22	21.39	Vertical	Pass
16QAM	1	0	Lowest	10.59	2.35	10.13	18.37	Horizontal	Pass
	1	0	Middle	11.16	2.36	10.16	18.96	Horizontal	Pass
	1	0	Highest	11.13	2.37	10.22	18.98	Horizontal	Pass
	1	0	Lowest	12.94	2.35	10.13	20.72	Vertical	Pass
	1	0	Middle	13.34	2.36	10.16	21.14	Vertical	Pass
	1	0	Highest	13.1	2.37	10.22	20.95	Vertical	Pass
Limit	EIRP<1W=30dBm								

Radiated Power (ERP) for CAT-M Band 5 / 1.4M											
Modulation	RB		Channel	Result						Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	correction factor(dB)	PMeas E.R.P(dBm)	Polarization Of Max. ERP	
QPSK	1	0	Lowest	16.16	1.27	6.70	2.15	19.44	Horizontal	Pass
	1	0	Middle	16.66	1.28	6.70	2.15	19.93	Horizontal	Pass
	1	0	Highest	16.06	1.29	6.70	2.15	19.32	Horizontal	Pass
	1	0	Lowest	18.54	1.27	6.70	2.15	21.82	Vertical	Pass
	1	0	Middle	19.07	1.28	6.70	2.15	22.34	Vertical	Pass
	1	0	Highest	19.04	1.29	6.70	2.15	22.30	Vertical	Pass
16QAM	1	0	Lowest	16.1	1.27	6.70	2.15	19.38	Horizontal	Pass
	1	0	Middle	15.78	1.28	6.70	2.15	19.05	Horizontal	Pass
	1	0	Highest	15.32	1.29	6.70	2.15	18.58	Horizontal	Pass
	1	0	Lowest	18.36	1.27	6.70	2.15	21.64	Vertical	Pass
	1	0	Middle	18.47	1.28	6.70	2.15	21.74	Vertical	Pass
	1	0	Highest	18.26	1.29	6.70	2.15	21.52	Vertical	Pass
Limit	ERP<7W=38.45dBm									

Radiated Power (ERP) for CAT-M Band 5 / 3M											
Modulation	RB		Channel	Result						Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	correction factor(dB)	PMeas E.R.P(dBm)	Polarization Of Max. ERP	
QPSK	1	0	Lowest	15.58	1.27	6.70	2.15	18.86	Horizontal	Pass
	1	0	Middle	16.63	1.28	6.70	2.15	19.90	Horizontal	Pass
	1	0	Highest	16.29	1.29	6.70	2.15	19.55	Horizontal	Pass
	1	0	Lowest	18.38	1.27	6.70	2.15	21.66	Vertical	Pass
	1	0	Middle	19.13	1.28	6.70	2.15	22.40	Vertical	Pass
	1	0	Highest	18.81	1.29	6.70	2.15	22.07	Vertical	Pass
16QAM	1	0	Lowest	16.5	1.27	6.70	2.15	19.78	Horizontal	Pass
	1	0	Middle	16.06	1.28	6.70	2.15	19.33	Horizontal	Pass
	1	0	Highest	16.08	1.29	6.70	2.15	19.34	Horizontal	Pass
	1	0	Lowest	18.37	1.27	6.70	2.15	21.65	Vertical	Pass
	1	0	Middle	18.49	1.28	6.70	2.15	21.76	Vertical	Pass
	1	0	Highest	18.42	1.29	6.70	2.15	21.68	Vertical	Pass
Limit	ERP<7W=38.45dBm									

Radiated Power (ERP) for CAT-M Band 5 / 5M											
Modulation	RB		Channel	Result						Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	correction factor(dB)	PMeas E.R.P(dBm)	Polarization Of Max. ERP	
QPSK	1	0	Lowest	16.12	1.27	6.70	2.15	19.40	Horizontal	Pass
	1	0	Middle	15.55	1.28	6.70	2.15	18.82	Horizontal	Pass
	1	0	Highest	16.46	1.29	6.70	2.15	19.72	Horizontal	Pass
	1	0	Lowest	18.58	1.27	6.70	2.15	21.86	Vertical	Pass
	1	0	Middle	18.8	1.28	6.70	2.15	22.07	Vertical	Pass
	1	0	Highest	18.41	1.29	6.70	2.15	21.67	Vertical	Pass
16QAM	1	0	Lowest	15.55	1.27	6.70	2.15	18.83	Horizontal	Pass
	1	0	Middle	15.38	1.28	6.70	2.15	18.65	Horizontal	Pass
	1	0	Highest	16.55	1.29	6.70	2.15	19.81	Horizontal	Pass
	1	0	Lowest	18.04	1.27	6.70	2.15	21.32	Vertical	Pass
	1	0	Middle	18.16	1.28	6.70	2.15	21.43	Vertical	Pass
	1	0	Highest	18.43	1.29	6.70	2.15	21.69	Vertical	Pass
Limit	ERP<7W=38.45dBm									

Radiated Power (ERP) for CAT-M Band 5 / 10M											
Modulation	RB		Channel	Result						Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	correction factor(dB)	PMeas E.R.P(dBm)	Polarization Of Max. ERP	
QPSK	1	0	Lowest	16.62	1.27	6.70	2.15	19.90	Horizontal	Pass
	1	0	Middle	16.18	1.28	6.70	2.15	19.45	Horizontal	Pass
	1	0	Highest	16.73	1.29	6.70	2.15	19.99	Horizontal	Pass
	1	0	Lowest	19.29	1.27	6.70	2.15	22.57	Vertical	Pass
	1	0	Middle	19.42	1.28	6.70	2.15	22.69	Vertical	Pass
	1	0	Highest	19.09	1.29	6.70	2.15	22.35	Vertical	Pass
16QAM	1	0	Lowest	16.61	1.27	6.70	2.15	19.89	Horizontal	Pass
	1	0	Middle	16.08	1.28	6.70	2.15	19.35	Horizontal	Pass
	1	0	Highest	15.92	1.29	6.70	2.15	19.18	Horizontal	Pass
	1	0	Lowest	18.74	1.27	6.70	2.15	22.02	Vertical	Pass
	1	0	Middle	18.88	1.28	6.70	2.15	22.15	Vertical	Pass
	1	0	Highest	18.6	1.29	6.70	2.15	21.86	Vertical	Pass
Limit	ERP<7W=38.45dBm									

Radiated Power (ERP) for CAT-M Band 12 / 1.4M											
Modulation	RB		Channel	Result							Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	correction factor(dB)	PMeas E.R.P(dBm)	Polarization	Of Max. ERP	
QPSK	1	0	Lowest	16.09	1.21	6.40	2.15	19.13	Horizontal		Pass
	1	0	Middle	16.2	1.22	6.40	2.15	19.23	Horizontal		Pass
	1	0	Highest	16.41	1.23	6.40	2.15	19.43	Horizontal		Pass
	1	0	Lowest	18.1	1.21	6.40	2.15	21.14	Vertical		Pass
	1	0	Middle	18.45	1.22	6.40	2.15	21.48	Vertical		Pass
	1	0	Highest	18.62	1.23	6.40	2.15	21.64	Vertical		Pass
16QAM	1	0	Lowest	16.33	1.21	6.40	2.15	19.37	Horizontal		Pass
	1	0	Middle	16.4	1.22	6.40	2.15	19.43	Horizontal		Pass
	1	0	Highest	15.8	1.23	6.40	2.15	18.82	Horizontal		Pass
	1	0	Lowest	18.29	1.21	6.40	2.15	21.33	Vertical		Pass
	1	0	Middle	18.3	1.22	6.40	2.15	21.33	Vertical		Pass
	1	0	Highest	18.87	1.23	6.40	2.15	21.89	Vertical		Pass
Limit	ERP<3W=34.77dBm										

Radiated Power (ERP) for CAT-M Band 12 / 3M											
Modulation	RB		Channel	Result							Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	correction factor(dB)	PMeas E.R.P(dBm)	Polarization	Of Max. ERP	
QPSK	1	0	Lowest	15.61	1.21	6.40	2.15	18.65	Horizontal		Pass
	1	0	Middle	16.42	1.22	6.40	2.15	19.45	Horizontal		Pass
	1	0	Highest	16.33	1.23	6.40	2.15	19.35	Horizontal		Pass
	1	0	Lowest	18.18	1.21	6.40	2.15	21.22	Vertical		Pass
	1	0	Middle	18.62	1.22	6.40	2.15	21.65	Vertical		Pass
	1	0	Highest	18.7	1.23	6.40	2.15	21.72	Vertical		Pass
16QAM	1	0	Lowest	16.05	1.21	6.40	2.15	19.09	Horizontal		Pass
	1	0	Middle	16.99	1.22	6.40	2.15	20.02	Horizontal		Pass
	1	0	Highest	16.46	1.23	6.40	2.15	19.48	Horizontal		Pass
	1	0	Lowest	18.61	1.21	6.40	2.15	21.65	Vertical		Pass
	1	0	Middle	18.61	1.22	6.40	2.15	21.64	Vertical		Pass
	1	0	Highest	18.74	1.23	6.40	2.15	21.76	Vertical		Pass
Limit	ERP<3W=34.77dBm										

Radiated Power (ERP) for CAT-M Band 12 / 5M											
Modulation	RB		Channel	Result							Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	correction factor(dB)	PMeas E.R.P(dBm)	Polarization	Of Max. ERP	
QPSK	1	0	Lowest	17.32	1.21	6.40	2.15	20.36	Horizontal		Pass
	1	0	Middle	16.22	1.22	6.40	2.15	19.25	Horizontal		Pass
	1	0	Highest	16.38	1.23	6.40	2.15	19.40	Horizontal		Pass
	1	0	Lowest	19.08	1.21	6.40	2.15	22.12	Vertical		Pass
	1	0	Middle	18.55	1.22	6.40	2.15	21.58	Vertical		Pass
	1	0	Highest	18.92	1.23	6.40	2.15	21.94	Vertical		Pass
16QAM	1	0	Lowest	15.69	1.21	6.40	2.15	18.73	Horizontal		Pass
	1	0	Middle	16.74	1.22	6.40	2.15	19.77	Horizontal		Pass
	1	0	Highest	15.79	1.23	6.40	2.15	18.81	Horizontal		Pass
	1	0	Lowest	18.21	1.21	6.40	2.15	21.25	Vertical		Pass
	1	0	Middle	19.22	1.22	6.40	2.15	22.25	Vertical		Pass
	1	0	Highest	19.1	1.23	6.40	2.15	22.12	Vertical		Pass
Limit	ERP<3W=34.77dBm										

Radiated Power (ERP) for CAT-M Band 12 / 10M											
Modulation	RB		Channel	Result							Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	correction factor(dB)	PMeas E.R.P(dBm)	Polarization	Of Max. ERP	
QPSK	1	0	Lowest	15.95	1.21	6.40	2.15	18.99	Horizontal		Pass
	1	0	Middle	16.27	1.22	6.40	2.15	19.30	Horizontal		Pass
	1	0	Highest	16.83	1.23	6.40	2.15	19.85	Horizontal		Pass
	1	0	Lowest	19.1	1.21	6.40	2.15	22.14	Vertical		Pass
	1	0	Middle	19.46	1.22	6.40	2.15	22.49	Vertical		Pass
	1	0	Highest	19.12	1.23	6.40	2.15	22.14	Vertical		Pass
16QAM	1	0	Lowest	15.65	1.21	6.40	2.15	18.69	Horizontal		Pass
	1	0	Middle	17.01	1.22	6.40	2.15	20.04	Horizontal		Pass
	1	0	Highest	17	1.23	6.40	2.15	20.02	Horizontal		Pass
	1	0	Lowest	18.77	1.21	6.40	2.15	21.81	Vertical		Pass
	1	0	Middle	18.63	1.22	6.40	2.15	21.66	Vertical		Pass
	1	0	Highest	18.86	1.23	6.40	2.15	21.88	Vertical		Pass
Limit	ERP<3W=34.77dBm										

Radiated Power (ERP) for CAT-M Band 13 / 5M											
Modulation	RB		Channel	Result						Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	correction factor(dB)	PMeas E.R.P(dBm)	Polarization Of Max. ERP	
QPSK	1	0	Lowest	16.81	1.21	6.40	2.15	19.85	Horizontal	Pass
	1	0	Middle	16.53	1.22	6.40	2.15	19.56	Horizontal	Pass
	1	0	Highest	16.31	1.23	6.40	2.15	19.33	Horizontal	Pass
	1	0	Lowest	18.98	1.21	6.40	2.15	22.02	Vertical	Pass
	1	0	Middle	19.31	1.22	6.40	2.15	22.34	Vertical	Pass
	1	0	Highest	19.02	1.23	6.40	2.15	22.04	Vertical	Pass
16QAM	1	0	Lowest	16.33	1.21	6.40	2.15	19.37	Horizontal	Pass
	1	0	Middle	16.64	1.22	6.40	2.15	19.67	Horizontal	Pass
	1	0	Highest	16.58	1.23	6.40	2.15	19.60	Horizontal	Pass
	1	0	Lowest	18.27	1.21	6.40	2.15	21.31	Vertical	Pass
	1	0	Middle	19.07	1.22	6.40	2.15	22.10	Vertical	Pass
	1	0	Highest	19.47	1.23	6.40	2.15	22.49	Vertical	Pass
Limit	ERP<3W=34.77dBm									

Radiated Power (ERP) for CAT-M Band 13 / 10M											
Modulation	RB		Channel	Result						Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	correction factor(dB)	PMeas E.R.P(dBm)	Polarization Of Max. ERP	
QPSK	1	0	Middle	17.11	1.22	6.40	2.15	20.14	Horizontal	Pass
	1	0	Middle	19.72	1.22	6.40	2.15	22.75	Vertical	Pass
16QAM	1	0	Middle	16.92	1.22	6.40	2.15	19.95	Horizontal	Pass
	1	0	Middle	19.11	1.22	6.40	2.15	22.14	Vertical	Pass
Limit	ERP<3W=34.77dBm									

Radiated Power (ERP) for CAT-M Band 26(Part 22) / 1.4M											
Modulation	RB		Channel	Result							Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	correction factor(dB)	PMeas E.R.P(dBm)	Polarization	Of Max. ERP	
QPSK	1	0	Lowest	17.09	1.27	6.70	2.15	20.37	Horizontal		Pass
	1	0	Middle	16.92	1.28	6.70	2.15	20.19	Horizontal		Pass
	1	0	Highest	16.37	1.29	6.70	2.15	19.63	Horizontal		Pass
	1	0	Lowest	18.74	1.27	6.70	2.15	22.02	Vertical		Pass
	1	0	Middle	19.03	1.28	6.70	2.15	22.30	Vertical		Pass
	1	0	Highest	19.06	1.29	6.70	2.15	22.32	Vertical		Pass
16QAM	1	0	Lowest	16.18	1.27	6.70	2.15	19.46	Horizontal		Pass
	1	0	Middle	16.18	1.28	6.70	2.15	19.45	Horizontal		Pass
	1	0	Highest	16.12	1.29	6.70	2.15	19.38	Horizontal		Pass
	1	0	Lowest	18.59	1.27	6.70	2.15	21.87	Vertical		Pass
	1	0	Middle	19.08	1.28	6.70	2.15	22.35	Vertical		Pass
	1	0	Highest	18.9	1.29	6.70	2.15	22.16	Vertical		Pass
Limit	ERP<7W=38.45dBm										

Radiated Power (ERP) for CAT-M Band 26(Part 22) / 3M											
Modulation	RB		Channel	Result							Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	correction factor(dB)	PMeas E.R.P(dBm)	Polarization	Of Max. ERP	
QPSK	1	0	Lowest	16.52	1.27	6.70	2.15	19.80	Horizontal		Pass
	1	0	Middle	16.58	1.28	6.70	2.15	19.85	Horizontal		Pass
	1	0	Highest	16.71	1.29	6.70	2.15	19.97	Horizontal		Pass
	1	0	Lowest	18.5	1.27	6.70	2.15	21.78	Vertical		Pass
	1	0	Middle	18.82	1.28	6.70	2.15	22.09	Vertical		Pass
	1	0	Highest	19.19	1.29	6.70	2.15	22.45	Vertical		Pass
16QAM	1	0	Lowest	16.98	1.27	6.70	2.15	20.26	Horizontal		Pass
	1	0	Middle	16.05	1.28	6.70	2.15	19.32	Horizontal		Pass
	1	0	Highest	15.83	1.29	6.70	2.15	19.09	Horizontal		Pass
	1	0	Lowest	18.93	1.27	6.70	2.15	22.21	Vertical		Pass
	1	0	Middle	18.32	1.28	6.70	2.15	21.59	Vertical		Pass
	1	0	Highest	18.99	1.29	6.70	2.15	22.25	Vertical		Pass
Limit	ERP<7W=38.45dBm										

Radiated Power (ERP) for CAT-M Band 26(Part 22) / 5M											
Modulation	RB		Channel	Result						Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	correction factor(dB)	PMeas E.R.P(dBm)	Polarization Of Max. ERP	
QPSK	1	0	Lowest	17.16	1.27	6.70	2.15	20.44	Horizontal	Pass
	1	0	Middle	15.87	1.28	6.70	2.15	19.14	Horizontal	Pass
	1	0	Highest	17.11	1.29	6.70	2.15	20.37	Horizontal	Pass
	1	0	Lowest	19.04	1.27	6.70	2.15	22.32	Vertical	Pass
	1	0	Middle	19.09	1.28	6.70	2.15	22.36	Vertical	Pass
	1	0	Highest	18.71	1.29	6.70	2.15	21.97	Vertical	Pass
16QAM	1	0	Lowest	16.38	1.27	6.70	2.15	19.66	Horizontal	Pass
	1	0	Middle	16.66	1.28	6.70	2.15	19.93	Horizontal	Pass
	1	0	Highest	17.22	1.29	6.70	2.15	20.48	Horizontal	Pass
	1	0	Lowest	18.23	1.27	6.70	2.15	21.51	Vertical	Pass
	1	0	Middle	18.59	1.28	6.70	2.15	21.86	Vertical	Pass
	1	0	Highest	19.21	1.29	6.70	2.15	22.47	Vertical	Pass
Limit	ERP<7W=38.45dBm									

Radiated Power (ERP) for CAT-M Band 26(Part 22) / 10M											
Modulation	RB		Channel	Result						Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	correction factor(dB)	PMeas E.R.P(dBm)	Polarization Of Max. ERP	
QPSK	1	0	Lowest	16.36	1.27	6.70	2.15	19.64	Horizontal	Pass
	1	0	Middle	16.34	1.28	6.70	2.15	19.61	Horizontal	Pass
	1	0	Highest	16.03	1.29	6.70	2.15	19.29	Horizontal	Pass
	1	0	Lowest	19.25	1.27	6.70	2.15	22.53	Vertical	Pass
	1	0	Middle	19.63	1.28	6.70	2.15	22.90	Vertical	Pass
	1	0	Highest	19.38	1.29	6.70	2.15	22.64	Vertical	Pass
16QAM	1	0	Lowest	16.48	1.27	6.70	2.15	19.76	Horizontal	Pass
	1	0	Middle	16.99	1.28	6.70	2.15	20.26	Horizontal	Pass
	1	0	Highest	16.02	1.29	6.70	2.15	19.28	Horizontal	Pass
	1	0	Lowest	19.49	1.27	6.70	2.15	22.77	Vertical	Pass
	1	0	Middle	19.38	1.28	6.70	2.15	22.65	Vertical	Pass
	1	0	Highest	19.3	1.29	6.70	2.15	22.56	Vertical	Pass
Limit	ERP<7W=38.45dBm									

Radiated Power (ERP) for CAT-M Band 26(Part 22) / 15M											
Modulation	RB		Channel	Result						Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	correction factor(dB)	PMeas E.R.P(dBm)	Polarization Of Max. ERP	
QPSK	1	0	Lowest	17.08	1.27	6.70	2.15	20.36	Horizontal	Pass
	1	0	Middle	16.87	1.28	6.70	2.15	20.14	Horizontal	Pass
	1	0	Highest	17.17	1.29	6.70	2.15	20.43	Horizontal	Pass
	1	0	Lowest	19.37	1.27	6.70	2.15	22.65	Vertical	Pass
	1	0	Middle	18.89	1.28	6.70	2.15	22.16	Vertical	Pass
	1	0	Highest	19	1.29	6.70	2.15	22.26	Vertical	Pass
16QAM	1	0	Lowest	16.91	1.27	6.70	2.15	20.19	Horizontal	Pass
	1	0	Middle	16.59	1.28	6.70	2.15	19.86	Horizontal	Pass
	1	0	Highest	16.59	1.29	6.70	2.15	19.85	Horizontal	Pass
	1	0	Lowest	18.8	1.27	6.70	2.15	22.08	Vertical	Pass
	1	0	Middle	19.4	1.28	6.70	2.15	22.67	Vertical	Pass
	1	0	Highest	18.21	1.29	6.70	2.15	21.47	Vertical	Pass
Limit	ERP<7W=38.45dBm									

Radiated Power (ERP) for CAT-M Band 26(Part 90) / 1.4M											
Modulation	RB		Channel	Result							Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	correction factor(dB)	PMeas E.R.P(dBm)	Polarization	Of Max. ERP	
QPSK	1	0	Lowest	17.2	1.27	6.70	2.15	20.48	Horizontal		Pass
	1	0	Middle	17.09	1.27	6.70	2.15	20.37	Horizontal		Pass
	1	0	Highest	17.29	1.27	6.70	2.15	20.57	Horizontal		Pass
	1	0	Lowest	18.66	1.27	6.70	2.15	21.94	Vertical		Pass
	1	0	Middle	18.22	1.27	6.70	2.15	21.50	Vertical		Pass
	1	0	Highest	18.21	1.27	6.70	2.15	21.49	Vertical		Pass
16QAM	1	0	Lowest	16.89	1.27	6.70	2.15	20.17	Horizontal		Pass
	1	0	Middle	17	1.27	6.70	2.15	20.28	Horizontal		Pass
	1	0	Highest	16.44	1.27	6.70	2.15	19.72	Horizontal		Pass
	1	0	Lowest	18.21	1.27	6.70	2.15	21.49	Vertical		Pass
	1	0	Middle	17.88	1.27	6.70	2.15	21.16	Vertical		Pass
	1	0	Highest	18.23	1.27	6.70	2.15	21.51	Vertical		Pass
Limit	ERP<100W=50dBm										

Radiated Power (ERP) for CAT-M Band 26(Part 90) / 3M											
Modulation	RB		Channel	Result							Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	correction factor(dB)	PMeas E.R.P(dBm)	Polarization	Of Max. ERP	
QPSK	1	0	Lowest	17.23	1.27	6.70	2.15	20.51	Horizontal		Pass
	1	0	Middle	16.58	1.27	6.70	2.15	19.86	Horizontal		Pass
	1	0	Highest	17	1.27	6.70	2.15	20.28	Horizontal		Pass
	1	0	Lowest	18.81	1.27	6.70	2.15	22.09	Vertical		Pass
	1	0	Middle	18.39	1.27	6.70	2.15	21.67	Vertical		Pass
	1	0	Highest	18	1.27	6.70	2.15	21.28	Vertical		Pass
16QAM	1	0	Lowest	17.05	1.27	6.70	2.15	20.33	Horizontal		Pass
	1	0	Middle	16.99	1.27	6.70	2.15	20.27	Horizontal		Pass
	1	0	Highest	16.47	1.27	6.70	2.15	19.75	Horizontal		Pass
	1	0	Lowest	18.1	1.27	6.70	2.15	21.38	Vertical		Pass
	1	0	Middle	18.24	1.27	6.70	2.15	21.52	Vertical		Pass
	1	0	Highest	17.95	1.27	6.70	2.15	21.23	Vertical		Pass
Limit	ERP<100W=50dBm										

Radiated Power (ERP) for CAT-M Band 26(Part 90) / 5M											
Modulation	RB		Channel	Result						Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	correction factor(dB)	PMeas E.R.P(dBm)	Polarization Of Max. ERP	
QPSK	1	0	Lowest	17.59	1.27	6.70	2.15	20.87	Horizontal	Pass
	1	0	Middle	16.87	1.27	6.70	2.15	20.15	Horizontal	Pass
	1	0	Highest	17.15	1.27	6.70	2.15	20.43	Horizontal	Pass
	1	0	Lowest	18.88	1.27	6.70	2.15	22.16	Vertical	Pass
	1	0	Middle	18.46	1.27	6.70	2.15	21.74	Vertical	Pass
	1	0	Highest	18.4	1.27	6.70	2.15	21.68	Vertical	Pass
16QAM	1	0	Lowest	17.15	1.27	6.70	2.15	20.43	Horizontal	Pass
	1	0	Middle	16.93	1.27	6.70	2.15	20.21	Horizontal	Pass
	1	0	Highest	16.73	1.27	6.70	2.15	20.01	Horizontal	Pass
	1	0	Lowest	18.26	1.27	6.70	2.15	21.54	Vertical	Pass
	1	0	Middle	18.17	1.27	6.70	2.15	21.45	Vertical	Pass
	1	0	Highest	18.44	1.27	6.70	2.15	21.72	Vertical	Pass
Limit	ERP<100W=50dBm									

Radiated Power (ERP) for CAT-M Band 26(Part 90) / 10M											
Modulation	RB		Channel	Result						Conclusion
	Size	Offset		S G.Level (dBm)	Cable loss	Gain (dBi)	correction factor(dB)	PMeas E.R.P(dBm)	Polarization Of Max. ERP	
	1	0	Middle	17.2	1.27	6.70	2.15	20.48	Horizontal	Pass
	1	0	Middle	18.86	1.27	6.70	2.15	22.14	Vertical	Pass
	1	0	Middle	17.67	1.27	6.70	2.15	20.95	Horizontal	Pass
	1	0	Middle	18.29	1.27	6.70	2.15	21.57	Vertical	Pass
Limit	ERP<100W=50dBm									

6. OCCUPIED BANDWIDTH

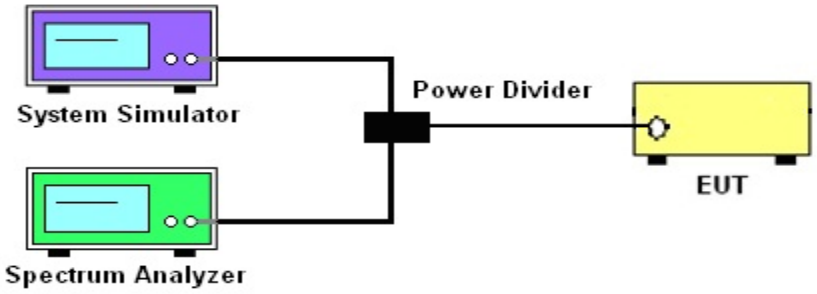
6.1 DESCRIPTION OF OCCUPIED BANDWIDTH MEASUREMENT

6.1.1 MEASUREMENT METHOD

1.The occupied bandwidth is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean transmitted power.

2.The 26 db emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 db below the maximum in-band spectral density of the modulated signal. spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

6.1.2 TEST SETUP



6.1.3 TEST PROCEDURES

1. The testing follows FCC KDB 971168 D01 v03r01 Section 4.2 and 4.3.

2. The EUT was connected to spectrum and system simulator via a power divider.

3. Select lowest, middle, and highest channels for each band and different modulation.

4. Set the test probe and measure the Occupied Bandwidth of the spectrum analyzer.

5. Measure and record the Occupied Bandwidth from the Spectrum Analyzer.

	CAT-M					
CAT-M BW	1.4M	3M	5M	10M	15M	20M
Span	3MHz	6MHz	10MHz	20MHz	30MHz	40MHz
RBW	30kHz	30kHz	100kHz	100kHz	300kHz	300kHz
VBW	100kHz	100kHz	300kHz	300kHz	1000kHz	1000kHz
Detector	PK	PK	PK	PK	PK	PK
Trace	Max	Max	Max	Max	Max	Max
Sweep Count	Auto	Auto	Auto	Auto	Auto	Auto

6.1.4 MEASUREMENT RESULT

CAT-M Band 2 Bandwidth [MHz]								
BW [MHz]	Mod	RB	Lowest		Middle		Highest	
			99% BW	26dB BW	99% BW	26dB BW	99% BW	26dB BW
1.4	QPSK	6#0	1.094	1.267	1.0923	1.268	1.094	1.268
1.4	16-QAM	5#0	0.92879	1.119	0.93	1.134	0.925	1.109
3	QPSK	6#0	1.092	1.266	1.096	1.27	1.091	1.26
3	16-QAM	5#0	0.93	1.125	0.93062	1.123	0.933	1.224
5	QPSK	6#0	1.102	1.325	1.104	1.284	1.104	1.278
5	16-QAM	5#0	0.924	1.142	0.929	1.153	0.93084	1.161
10	QPSK	6#0	1.095	1.267	1.0986	1.263	1.1027	1.262
10	16-QAM	5#0	0.936	1.165	0.941	1.165	0.926	1.151
15	QPSK	6#0	1.104	1.268	1.112	1.288	1.1	1.27
15	16-QAM	5#0	0.94	1.175	0.935	1.193	0.943	1.164
20	QPSK	6#0	1.1046	1.283	1.112	1.282	1.101	1.31
20	16-QAM	5#0	0.942	1.179	0.929	1.12	0.939	1.11
CAT-M Band 4 Bandwidth [MHz]								
BW [MHz]	Mod	RB	Lowest		Middle		Highest	
			99% BW	26dB BW	99% BW	26dB BW	99% BW	26dB BW
1.4	QPSK	6#0	1.093	1.272	1.0925	1.265	1.092	1.277
1.4	16-QAM	5#0	0.928	1.126	0.928	1.13	0.933	1.23
3	QPSK	6#0	1.0966	1.266	1.0946	1.26	1.094	1.274
3	16-QAM	5#0	0.92701	1.133	0.929	1.137	0.926	1.106
5	QPSK	6#0	1.1031	1.294	1.102	1.297	1.1026	1.292
5	16-QAM	5#0	0.932	1.143	0.934	1.161	0.931	1.184
10	QPSK	6#0	1.1	1.286	1.1	1.274	1.103	1.3
10	16-QAM	5#0	0.948	1.222	0.945	1.227	0.93084	1.206
15	QPSK	6#0	1.1126	1.34	1.114	1.307	1.1069	1.29
15	16-QAM	5#0	0.941	1.188	0.932	1.226	0.944	1.167
20	QPSK	6#0	1.108	1.328	1.106	1.293	1.108	1.279
20	16-QAM	5#0	0.949	1.147	0.94	1.152	0.948	1.323
CAT-M Band 5 Bandwidth [MHz]								
BW [MHz]	Mod	RB	Lowest		Middle		Highest	
			99% BW	26dB BW	99% BW	26dB BW	99% BW	26dB BW
1.4	QPSK	6#0	1.0929	1.277	1.092	1.276	1.093	1.272
1.4	16-QAM	5#0	0.927	1.122	0.929	1.119	0.93589	1.25
3	QPSK	6#0	1.0906	1.27	1.093	1.27	1.1	1.317
3	16-QAM	5#0	0.919	1.097	0.926	1.14	0.925	1.113
5	QPSK	6#0	1.0891	1.286	1.098	1.274	1.0905	1.257
5	16-QAM	5#0	0.92	1.126	0.9365	1.203	0.946	1.301
10	QPSK	6#0	1.097	1.253	1.099	1.282	1.096	1.312
10	16-QAM	5#0	0.933	1.155	0.94	1.144	0.929	1.341

CAT-M Band 12 Bandwidth [MHz]								
BW [MHz]	Mod	RB	Lowest		Middle		Highest	
			99% BW	26dB BW	99% BW	26dB BW	99% BW	26dB BW
1.4	QPSK	6#0	1.0988	1.299	1.099	1.293	1.093	1.275
1.4	16-QAM	5#0	0.92745	1.244	0.92657	1.127	0.922	1.131
3	QPSK	6#0	1.095	1.276	1.094	1.268	1.092	1.266
3	16-QAM	5#0	0.925	1.11	0.919	1.102	0.924	1.107
5	QPSK	6#0	1.104	1.302	1.103	1.281	1.09	1.271
5	16-QAM	5#0	0.922	1.107	0.93628	1.134	0.944	1.274
10	QPSK	6#0	1.106	1.292	1.0952	1.257	1.1007	1.278
10	16-QAM	5#0	0.926	1.177	0.941	1.201	0.928	1.316

CAT-M Band 13 Bandwidth [MHz]								
BW [MHz]	Mod	RB	Lowest		Middle		Highest	
			99% BW	26dB BW	99% BW	26dB BW	99% BW	26dB BW
5	QPSK	6#0	1.0968	1.309	1.098	1.279	1.0946	1.284
5	16-QAM	5#0	0.927	1.151	0.9264	1.122	0.92	1.114
10	QPSK	6#0	-	-	1.096	1.289	-	-
10	16-QAM	5#0	-	-	0.941	1.163	-	-

CAT-M Band 26(Part 22) Bandwidth [MHz]								
BW [MHz]	Mod	RB	Lowest		Middle		Highest	
			99% BW	26dB BW	99% BW	26dB BW	99% BW	26dB BW
1.4	QPSK	6#0	1.0988	1.294	1.1	1.294	1.092	1.283
1.4	16-QAM	5#0	0.926	1.243	0.926	1.123	0.924	1.134
3	QPSK	6#0	1.095	1.277	1.094	1.271	1.092	1.274
3	16-QAM	5#0	0.92	1.097	0.925	1.13	0.92662	1.109
5	QPSK	6#0	1.09	1.279	1.105	1.29	1.089	1.27
5	16-QAM	5#0	0.92296	1.124	0.937	1.194	0.94399	1.29
10	QPSK	6#0	1.101	1.297	1.097	1.296	1.1008	1.311
10	16-QAM	5#0	0.93167	1.155	0.937	1.206	0.936	1.31
15	QPSK	6#0	1.096	1.282	1.108	1.306	1.102	1.288
15	16-QAM	5#0	0.92	1.158	0.941	1.209	0.93567	1.309

CAT-M Band 26(Part 90) Bandwidth [MHz]								
BW [MHz]	Mode	RB	Lowest		Middle		Highest	
			99% BW	26dB BW	99% BW	26dB BW	99% BW	26dB BW
1.4	QPSK	6#0	1.0989	1.292	1.1012	1.294	1.093	1.272
1.4	16-QAM	5#0	0.92401	1.231	0.925	1.109	0.923	1.14
3	QPSK	6#0	1.0944	1.272	1.094	1.28	1.0986	1.285
3	16-QAM	5#0	0.92	1.088	0.926	1.124	0.925	1.104
5	QPSK	6#0	1.104	1.292	1.088	1.261	1.0966	1.316
5	16-QAM	5#0	0.93	1.133	0.94	1.271	0.93	1.153
10	QPSK	6#0	N/A	N/A	1.098	1.27	N/A	N/A
10	16-QAM	5#0	N/A	N/A	0.945	1.168	N/A	N/A

Note: Test chart See Appendix A

7. CONDUCTED BAND EDGE

7.1 DESCRIPTION OF CONDUCTED BAND EDGE MEASUREMENT

7.1.1 MEASUREMENT METHOD

1. §22.917(a)
For operations in the 824 – 849 MHz band, the FCC limit is 43 + 10log10(P[Watts]) dB below the transmitter power P(Watts) in a 100kHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

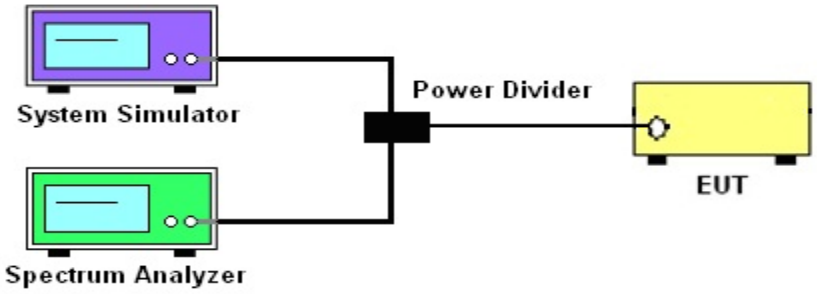
2. §24.238 (a)
For operations in the 1850-1910 and 1930-1990 MHz band, the FCC limit is 43 + 10log10(P[Watts]) dB below the transmitter power P(Watts) in a 1MHz bandwidth. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed

3. §27.53 (h)
For operations in the 1710 – 1755 MHz band, the FCC limit is 43 + 10log10(P[Watts]) dB below the transmitter power P(Watts) in a 1 MHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

4. §27.53(m)(4)
For operations in the 2500 MHz ~ 2570 MHz band this section, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHzand 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licenseesoperating on frequencies below 2495 MHz may also submit a documented interference complaintagainst BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

5. §27.53 (g)
For operations in the 698 -746 MHz band, the FCC limit is 43 + 10log10(P[Watts]) dB below the transmitter power P(Watts) in a 100 kHz bandwidth. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

7.1.2 TEST SETUP



7.1.3 TEST PROCEDURES

1. The testing FCC KDB 971168 D01 v03r01 Section 6.0 and ANSI C63.26 2015 Section 5.7.

2. The EUT was connected to spectrum analyzer and system simulator via a power divider.

3. The band edges of low and high channels for the highest RF powers were measured. Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.

4. Set spectrum analyzer with RMS/AVG detector.

5. The RF fundamental frequency should be excluded against the limit line in the operating frquency band.

6.The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
= P(W)- [43 + 10log(P)] (dB)
= [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
= -13dBm.

Band 7:
= P(W)- [55 + 10log(P)] (dB)
= [30 + 10log(P)] (dBm) - [55 + 10log(P)] (dB)
= -25dBm.

	CAT-M					
CAT-M BW	1.4M	3M	5M	10M	15M	20M
Span	12MHz	13MHz	15MHz	20MHz	25MHz	30MHz
RBW	30kHz	30kHz	100kHz	100kHz	300kHz	300kHz
VBW	100kHz	100kHz	300kHz	300kHz	1000kHz	1000kHz
Detector	RMS	RMS	RMS	RMS	RMS	RMS
Trace	Max	Max	Max	Max	Max	Max
Sweep Count	Auto	Auto	Auto	Auto	Auto	Auto

7.1.4 MEASUREMENT RESULT
Note: Test chart See Appendix B

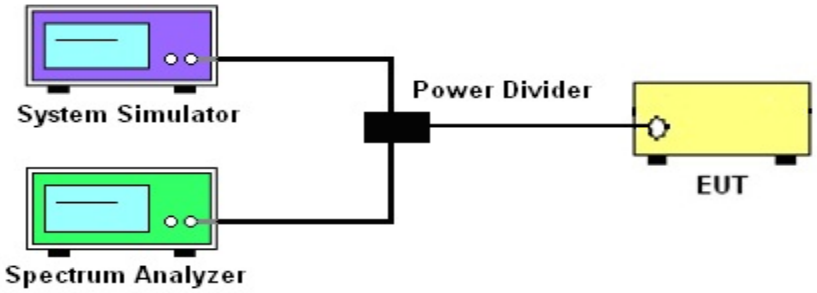
8. CONDUCTED SPURIOUS EMISSION

8.1 DESCRIPTION OF CONDUCTED SPURIOUS EMISSION MEASUREMENT

8.1.1 MEASUREMENT METHOD

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.
For Band 7:
The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 55 + 10 log (P) dB.
It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10th harmonic.

8.1.2 TEST SETUP



8.1.3 TEST PROCEDURES

1. The testing FCC KDB 971168 D01 v03r01 Section 6.0 and ANSI C63.26 2015 Section 5.7.

2. The EUT was connected to spectrum analyzer and system simulator via a power divider.

3. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.
The path loss was compensated to the results for each measurement
4. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
5. The RF fundamental frequency should be excluded against the limit line in the operating frquency band.
6.The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
= P(W)- [43 + 10log(P)] (dB) = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
= -13dBm.
For Band 7: P(W)- [43 + 10log(P)] (dB) =-25dBm

	CAT-M					
CAT-M BW	1.4M	3M	5M	10M	15M	20M
Span	Auto	Auto	Auto	Auto	Auto	Auto
RBW	1000kHz	1000kHz	1000kHz	1000kHz	1000kHz	1000kHz
VBW	3000kHz	3000kHz	3000kHz	3000kHz	3000kHz	3000kHz
Detector	PK	PK	PK	PK	PK	PK
Trace	Max	Max	Max	Max	Max	Max

8.1.4 TEST RESULTS

Note: Test chart See Appendix C

9. RADIATED SPURIOUS EMISSION

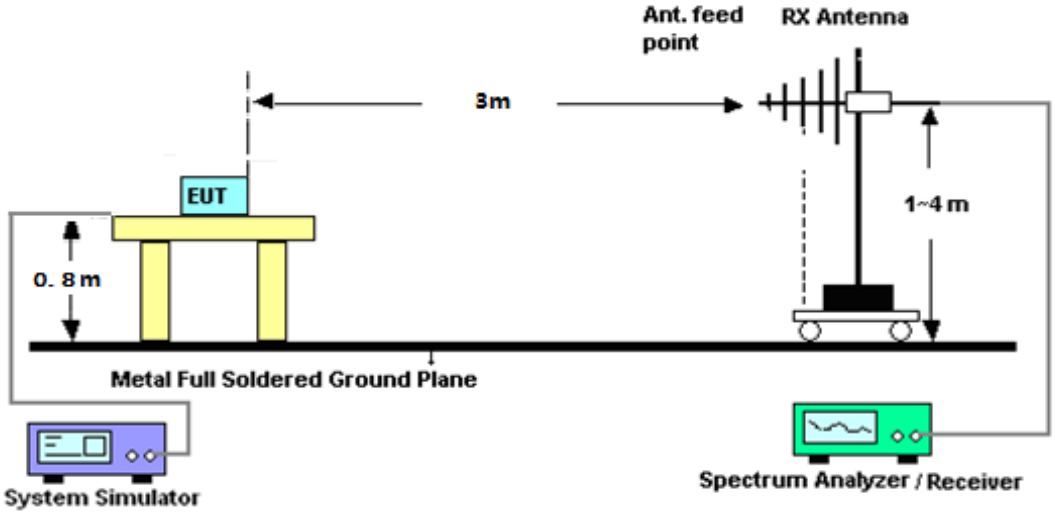
9.1 DESCRIPTION OF RADIATED SPURIOUS EMISSION

9.1.1 MEASUREMENT METHOD

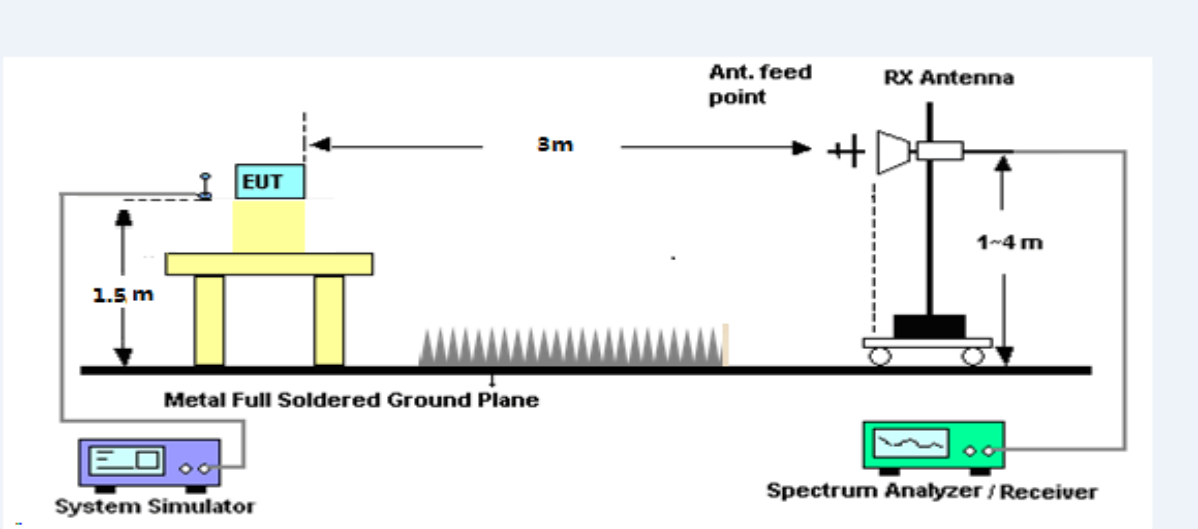
The radiated spurious emission was measured by substitution method according to ANSI C63.26 2015. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.
For Band 7 The power of any emission outside of the authorized operating frequency ranges must attenuated below the transmitter power (P) by a factor of at least 55 + 10 log (P) dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

9.1.2 TEST SETUP

The procedure of radiated spurious emissions is as follows:
a) Pre-calibration With pre-calibration method, the Radiated Spurious Emissions(RSE) is calculated as, RSE=Rx (dBuV) +CL (dB) +SA (dB) +Gain (dBi) -107 (dBuV to dBm) The SA is calibrated using following setup.
b) EUT was placed on 1.5 m non-conductive stand at a 3 m test distance from the receive antenna. A receiving antenna was placed on the antenna mast 3 m from the test item for emission measurements. The height of receiving antenna is 0.8m. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the test item and adjusting the receiving antenna polarization. The radiated emission measurements of all non-harmonic and harmonics of the transmit frequency through the 10th harmonic measured with peak detector and 1MHz bandwidth.
Radiated emissions measurements were made only at the upper, middle, and lower carrier frequencies It was decided that measurements at these three carrier frequencies would be sufficient to demonstrate compliance with emissions limits because it was seen that all the significant spurs occur well outside the band and no radiation was seen from a carrier in one block of any band into any of the other blocks.
The substitution method is used. Substitution values at each frequency are measured before and saved to the test software. A "reference path loss" is established and the ARpl is the attenuation of “reference path loss”, and including the gain of receive antenna, the gain of the preamplifier, the cable loss and the air loss. The measurement results are obtained as described below:
Power=PMea+ARpl
For radiated test from 30MHz to 1GHz



For radiated test from above 1GHz



9.1.3 TEST PROCEDURES

1. The testing FCC KDB 971168 D01 Section 7 and ANSI C63.26 2015 Section 5.5.

2. The EUT was placed on a rotatable wooden table with 1.5 meter above ground.

3. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.

4. The table was rotated 360 degrees to determine the position of the highest spurious emission.

5. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations

6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.

7. A horn antenna was substituted in place of the EUT and was driven by a signal generator.

8. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.

9. Taking the record of output power at antenna port.

10. Repeat step 7 to step 8 for another polarization.

11. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
= P(W)- [43 + 10log(P)] (dB)
= [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
= -13dBm
.
For Band 7:
The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)
= [30 + 10log(P)] (dBm) - [55 + 10log(P)] (dB)
= -25dBm
PMea=S.G Level+ Ant-Cable loss; Margin=PMea-Limit.

9.1.4 TEST RESULTS

CAT-M Band 2 / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3701.07	-33.83	12.60	12.93	-34.16	-13.00	-21.16	H
5551.95	-34.14	13.10	17.11	-38.15	-13.00	-25.15	H
7402.61	-32.19	11.50	22.20	-42.89	-13.00	-29.89	H
3701.07	-35.45	12.60	12.93	-35.78	-13.00	-22.78	V
5551.95	-34.42	13.10	17.11	-38.43	-13.00	-25.43	V
7402.61	-32.73	11.50	22.20	-43.43	-13.00	-30.43	V
CAT-M Band 2 / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3760.09	-33.92	12.60	12.93	-34.25	-13.00	-21.25	H
5640.12	-34.94	13.10	17.11	-38.95	-13.00	-25.95	H
7519.85	-33.43	11.50	22.20	-44.13	-13.00	-31.13	H
3760.09	-35.36	12.60	12.93	-35.69	-13.00	-22.69	V
5640.12	-34.98	13.10	17.11	-38.99	-13.00	-25.99	V
7519.85	-33.01	11.50	22.20	-43.71	-13.00	-30.71	V
CAT-M Band 2 / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3818.21	-34.12	12.60	12.93	-34.45	-13.00	-21.45	H
5727.84	-34.56	13.10	17.11	-38.57	-13.00	-25.57	H
7637.11	-32.81	11.50	22.20	-43.51	-13.00	-30.51	H
3818.21	-35.11	12.60	12.93	-35.44	-13.00	-22.44	V
5727.84	-34.10	13.10	17.11	-38.11	-13.00	-25.11	V
7637.11	-32.38	11.50	22.20	-43.08	-13.00	-30.08	V

CAT-M Band 2 / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3703.20	-34.89	12.60	12.93	-35.22	-13.00	-22.22	H
5554.57	-34.79	13.10	17.11	-38.80	-13.00	-25.80	H
7406.51	-32.67	11.50	22.20	-43.37	-13.00	-30.37	H
3703.20	-35.38	12.60	12.93	-35.71	-13.00	-22.71	V
5554.57	-34.91	13.10	17.11	-38.92	-13.00	-25.92	V
7406.51	-32.89	11.50	22.20	-43.59	-13.00	-30.59	V
CAT-M Band 2 / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3760.24	-33.67	12.60	12.93	-34.00	-13.00	-21.00	H
5639.90	-35.43	13.10	17.11	-39.44	-13.00	-26.44	H
7519.94	-32.54	11.50	22.20	-43.24	-13.00	-30.24	H
3760.24	-35.42	12.60	12.93	-35.75	-13.00	-22.75	V
5639.90	-34.90	13.10	17.11	-38.91	-13.00	-25.91	V
7519.94	-32.18	11.50	22.20	-42.88	-13.00	-29.88	V
CAT-M Band 2 / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3816.34	-34.69	12.60	12.93	-35.02	-13.00	-22.02	H
5724.96	-34.45	13.10	17.11	-38.46	-13.00	-25.46	H
7633.35	-32.44	11.50	22.20	-43.14	-13.00	-30.14	H
3816.34	-35.60	12.60	12.93	-35.93	-13.00	-22.93	V
5724.96	-33.85	13.10	17.11	-37.86	-13.00	-24.86	V
7633.35	-32.29	11.50	22.20	-42.99	-13.00	-29.99	V

CAT-M Band 2 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3705.31	-33.64	12.60	12.93	-33.97	-13.00	-20.97	H
5558.09	-34.26	13.10	17.11	-38.27	-13.00	-25.27	H
7410.65	-32.51	11.50	22.20	-43.21	-13.00	-30.21	H
3705.31	-35.62	12.60	12.93	-35.95	-13.00	-22.95	V
5558.09	-34.56	13.10	17.11	-38.57	-13.00	-25.57	V
7410.65	-32.87	11.50	22.20	-43.57	-13.00	-30.57	V
CAT-M Band 2 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3759.84	-33.81	12.60	12.93	-34.14	-13.00	-21.14	H
5640.11	-35.03	13.10	17.11	-39.04	-13.00	-26.04	H
7520.26	-33.36	11.50	22.20	-44.06	-13.00	-31.06	H
3759.84	-35.71	12.60	12.93	-36.04	-13.00	-23.04	V
5640.11	-33.99	13.10	17.11	-38.00	-13.00	-25.00	V
7520.26	-32.52	11.50	22.20	-43.22	-13.00	-30.22	V
CAT-M Band 2 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3814.32	-34.85	12.60	12.93	-35.18	-13.00	-22.18	H
5721.39	-34.58	13.10	17.11	-38.59	-13.00	-25.59	H
7628.49	-32.42	11.50	22.20	-43.12	-13.00	-30.12	H
3814.32	-34.69	12.60	12.93	-35.02	-13.00	-22.02	V
5721.39	-33.87	13.10	17.11	-37.88	-13.00	-24.88	V
7628.49	-32.44	11.50	22.20	-43.14	-13.00	-30.14	V

CAT-M Band 2 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3710.49	-33.97	12.60	12.93	-34.30	-13.00	-21.30	H
5565.56	-34.34	13.10	17.11	-38.35	-13.00	-25.35	H
7420.80	-33.29	11.50	22.20	-43.99	-13.00	-30.99	H
3710.49	-35.45	12.60	12.93	-35.78	-13.00	-22.78	V
5565.56	-34.51	13.10	17.11	-38.52	-13.00	-25.52	V
7420.80	-32.37	11.50	22.20	-43.07	-13.00	-30.07	V
CAT-M Band 2 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3760.04	-33.92	12.60	12.93	-34.25	-13.00	-21.25	H
5640.11	-34.36	13.10	17.11	-38.37	-13.00	-25.37	H
7520.25	-33.18	11.50	22.20	-43.88	-13.00	-30.88	H
3760.04	-35.24	12.60	12.93	-35.57	-13.00	-22.57	V
5640.11	-34.04	13.10	17.11	-38.05	-13.00	-25.05	V
7520.25	-32.19	11.50	22.20	-42.89	-13.00	-29.89	V
CAT-M Band 2 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3809.41	-34.19	12.60	12.93	-34.52	-13.00	-21.52	H
5714.01	-35.18	13.10	17.11	-39.19	-13.00	-26.19	H
7618.09	-32.21	11.50	22.20	-42.91	-13.00	-29.91	H
3809.41	-35.72	12.60	12.93	-36.05	-13.00	-23.05	V
5714.01	-34.05	13.10	17.11	-38.06	-13.00	-25.06	V
7618.09	-31.91	11.50	22.20	-42.61	-13.00	-29.61	V

CAT-M Band 2 / 15MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3715.96	-33.68	12.60	12.93	-34.01	-13.00	-21.01	H
5574.30	-35.06	13.10	17.11	-39.07	-13.00	-26.07	H
7618.75	-33.26	11.50	22.20	-43.96	-13.00	-30.96	H
3715.96	-34.95	12.60	12.93	-35.28	-13.00	-22.28	V
5574.30	-34.37	13.10	17.11	-38.38	-13.00	-25.38	V
7618.75	-33.21	11.50	22.20	-43.91	-13.00	-30.91	V
CAT-M Band 2 / 15MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3759.91	-33.95	12.60	12.93	-34.28	-13.00	-21.28	H
5639.87	-34.64	13.10	17.11	-38.65	-13.00	-25.65	H
7519.89	-32.73	11.50	22.20	-43.43	-13.00	-30.43	H
3759.91	-35.18	12.60	12.93	-35.51	-13.00	-22.51	V
5639.87	-34.04	13.10	17.11	-38.05	-13.00	-25.05	V
7519.89	-32.30	11.50	22.20	-43.00	-13.00	-30.00	V
CAT-M Band 2 / 15MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3803.82	-34.65	12.60	12.93	-34.98	-13.00	-21.98	H
5705.31	-35.09	13.10	17.11	-39.10	-13.00	-26.10	H
7607.29	-32.23	11.50	22.20	-42.93	-13.00	-29.93	H
3803.82	-34.64	12.60	12.93	-34.97	-13.00	-21.97	V
5705.31	-34.96	13.10	17.11	-38.97	-13.00	-25.97	V
7607.29	-33.02	11.50	22.20	-43.72	-13.00	-30.72	V

CAT-M Band 2 / 20MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3721.29	-34.09	12.60	12.93	-34.42	-13.00	-21.42	H
5581.43	-35.45	13.10	17.11	-39.46	-13.00	-26.46	H
7441.73	-32.33	11.50	22.20	-43.03	-13.00	-30.03	H
3721.29	-35.26	12.60	12.93	-35.59	-13.00	-22.59	V
5581.43	-34.19	13.10	17.11	-38.20	-13.00	-25.20	V
7441.73	-33.03	11.50	22.20	-43.73	-13.00	-30.73	V
CAT-M Band 2 / 20MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3760.10	-34.77	12.60	12.93	-35.10	-13.00	-22.10	H
5640.24	-34.75	13.10	17.11	-38.76	-13.00	-25.76	H
7519.97	-32.66	11.50	22.20	-43.36	-13.00	-30.36	H
3760.10	-35.68	12.60	12.93	-36.01	-13.00	-23.01	V
5640.24	-33.78	13.10	17.11	-37.79	-13.00	-24.79	V
7519.97	-31.86	11.50	22.20	-42.56	-13.00	-29.56	V
CAT-M Band 2 / 20MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3798.15	-34.59	12.60	12.93	-34.92	-13.00	-21.92	H
5697.16	-35.32	13.10	17.11	-39.33	-13.00	-26.33	H
7597.18	-33.18	11.50	22.20	-43.88	-13.00	-30.88	H
3798.15	-35.50	12.60	12.93	-35.83	-13.00	-22.83	V
5697.16	-34.85	13.10	17.11	-38.86	-13.00	-25.86	V
7597.18	-32.14	11.50	22.20	-42.84	-13.00	-29.84	V

CAT-M Band 4 / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3421.22	-33.70	12.90	12.56	-33.36	-13.00	-20.36	H
5131.75	-34.34	13.10	16.32	-37.56	-13.00	-24.56	H
6842.62	-32.21	12.33	21.13	-41.01	-13.00	-28.01	H
3421.22	-34.90	12.90	12.56	-34.56	-13.00	-21.56	V
5131.75	-34.80	13.10	16.32	-38.02	-13.00	-25.02	V
6842.62	-33.20	12.33	21.13	-42.00	-13.00	-29.00	V
CAT-M Band 4 / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3465.18	-34.05	12.90	12.56	-33.71	-13.00	-20.71	H
5196.90	-34.17	13.10	16.32	-37.39	-13.00	-24.39	H
6930.06	-33.03	12.33	21.13	-41.83	-13.00	-28.83	H
3465.18	-35.91	12.90	12.56	-35.57	-13.00	-22.57	V
5196.90	-34.22	13.10	16.32	-37.44	-13.00	-24.44	V
6930.06	-33.08	12.33	21.13	-41.88	-13.00	-28.88	V
CAT-M Band 4 / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3508.42	-34.83	12.90	12.56	-34.49	-13.00	-21.49	H
5262.72	-34.98	13.10	16.32	-38.20	-13.00	-25.20	H
7016.02	-32.58	12.33	21.13	-41.38	-13.00	-28.38	H
3508.42	-35.44	12.90	12.56	-35.10	-13.00	-22.10	V
5262.72	-34.41	13.10	16.32	-37.63	-13.00	-24.63	V
7016.02	-32.05	12.33	21.13	-40.85	-13.00	-27.85	V

CAT-M Band 4 / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3424.48	-34.72	12.90	12.56	-34.38	-13.00	-21.38	H
5136.56	-34.34	13.10	16.32	-37.56	-13.00	-24.56	H
6848.80	-33.08	12.33	21.13	-41.88	-13.00	-28.88	H
3424.48	-35.38	12.90	12.56	-35.04	-13.00	-22.04	V
5136.56	-34.76	13.10	16.32	-37.98	-13.00	-24.98	V
6848.80	-33.18	12.33	21.13	-41.98	-13.00	-28.98	V
CAT-M Band 4 / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3465.00	-33.96	12.90	12.56	-33.62	-13.00	-20.62	H
5196.96	-34.12	13.10	16.32	-37.34	-13.00	-24.34	H
6930.22	-32.85	12.33	21.13	-41.65	-13.00	-28.65	H
3465.00	-35.66	12.90	12.56	-35.32	-13.00	-22.32	V
5196.96	-35.07	13.10	16.32	-38.29	-13.00	-25.29	V
6930.22	-32.24	12.33	21.13	-41.04	-13.00	-28.04	V
CAT-M Band 4 / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3506.66	-34.68	12.90	12.56	-34.34	-13.00	-21.34	H
5262.21	-35.34	13.10	16.32	-38.56	-13.00	-25.56	H
7013.04	-32.90	12.33	21.13	-41.70	-13.00	-28.70	H
3506.66	-34.88	12.90	12.56	-34.54	-13.00	-21.54	V
5262.21	-33.97	13.10	16.32	-37.19	-13.00	-24.19	V
7013.04	-32.21	12.33	21.13	-41.01	-13.00	-28.01	V

CAT-M Band 4 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3425.34	-34.94	12.90	12.56	-34.60	-13.00	-21.60	H
5137.50	-34.33	13.10	16.32	-37.55	-13.00	-24.55	H
6850.31	-33.32	12.33	21.13	-42.12	-13.00	-29.12	H
3425.34	-35.24	12.90	12.56	-34.90	-13.00	-21.90	V
5137.50	-34.62	13.10	16.32	-37.84	-13.00	-24.84	V
6850.31	-33.04	12.33	21.13	-41.84	-13.00	-28.84	V
CAT-M Band 4 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3465.23	-34.84	12.90	12.56	-34.50	-13.00	-21.50	H
5197.27	-35.33	13.10	16.32	-38.55	-13.00	-25.55	H
6929.99	-32.16	12.33	21.13	-40.96	-13.00	-27.96	H
3465.23	-35.21	12.90	12.56	-34.87	-13.00	-21.87	V
5197.27	-33.75	13.10	16.32	-36.97	-13.00	-23.97	V
6929.99	-32.48	12.33	21.13	-41.28	-13.00	-28.28	V
CAT-M Band 4 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3505.80	-34.36	12.90	12.56	-34.02	-13.00	-21.02	H
5257.46	-34.47	13.10	16.32	-37.69	-13.00	-24.69	H
7010.13	-32.69	12.33	21.13	-41.49	-13.00	-28.49	H
3505.80	-35.17	12.90	12.56	-34.83	-13.00	-21.83	V
5257.46	-34.90	13.10	16.32	-38.12	-13.00	-25.12	V
7010.13	-32.56	12.33	21.13	-41.36	-13.00	-28.36	V

CAT-M Band 4 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3430.44	-33.77	12.90	12.56	-33.43	-13.00	-20.43	H
5145.19	-34.48	13.10	16.32	-37.70	-13.00	-24.70	H
6860.71	-33.57	12.33	21.13	-42.37	-13.00	-29.37	H
3430.44	-35.68	12.90	12.56	-35.34	-13.00	-22.34	V
5145.19	-34.40	13.10	16.32	-37.62	-13.00	-24.62	V
6860.71	-32.71	12.33	21.13	-41.51	-13.00	-28.51	V
CAT-M Band 4 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3464.85	-33.49	12.90	12.56	-33.15	-13.00	-20.15	H
5197.19	-35.27	13.10	16.32	-38.49	-13.00	-25.49	H
6929.90	-33.05	12.33	21.13	-41.85	-13.00	-28.85	H
3464.85	-35.87	12.90	12.56	-35.53	-13.00	-22.53	V
5197.19	-35.08	13.10	16.32	-38.30	-13.00	-25.30	V
6929.90	-31.97	12.33	21.13	-40.77	-13.00	-27.77	V
CAT-M Band 4 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3500.50	-34.69	12.90	12.56	-34.35	-13.00	-21.35	H
5250.40	-34.31	13.10	16.32	-37.53	-13.00	-24.53	H
7000.02	-32.80	12.33	21.13	-41.60	-13.00	-28.60	H
3500.50	-35.29	12.90	12.56	-34.95	-13.00	-21.95	V
5250.40	-34.50	13.10	16.32	-37.72	-13.00	-24.72	V
7000.02	-31.82	12.33	21.13	-40.62	-13.00	-27.62	V

CAT-M Band 4 / 15MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3435.34	-34.52	12.90	12.56	-34.18	-13.00	-21.18	H
5152.65	-35.14	13.10	16.32	-38.36	-13.00	-25.36	H
6870.48	-32.80	12.33	21.13	-41.60	-13.00	-28.60	H
3435.34	-35.27	12.90	12.56	-34.93	-13.00	-21.93	V
5152.65	-34.15	13.10	16.32	-37.37	-13.00	-24.37	V
6870.48	-33.21	12.33	21.13	-42.01	-13.00	-29.01	V
CAT-M Band 4 / 15MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3465.24	-34.25	12.90	12.56	-33.91	-13.00	-20.91	H
5197.22	-35.20	13.10	16.32	-38.42	-13.00	-25.42	H
6930.20	-32.72	12.33	21.13	-41.52	-13.00	-28.52	H
3465.24	-34.85	12.90	12.56	-34.51	-13.00	-21.51	V
5197.22	-33.88	13.10	16.32	-37.10	-13.00	-24.10	V
6930.20	-31.91	12.33	21.13	-40.71	-13.00	-27.71	V
CAT-M Band 4 / 15MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3495.70	-34.75	12.90	12.56	-34.41	-13.00	-21.41	H
5242.40	-34.37	13.10	16.32	-37.59	-13.00	-24.59	H
6990.38	-32.90	12.33	21.13	-41.70	-13.00	-28.70	H
3495.70	-34.78	12.90	12.56	-34.44	-13.00	-21.44	V
5242.40	-34.98	13.10	16.32	-38.20	-13.00	-25.20	V
6990.38	-32.40	12.33	21.13	-41.20	-13.00	-28.20	V

CAT-M Band 4 / 20MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3440.30	-34.12	12.90	12.56	-33.78	-13.00	-20.78	H
5160.21	-34.57	13.10	16.32	-37.79	-13.00	-24.79	H
6880.59	-32.25	12.33	21.13	-41.05	-13.00	-28.05	H
3440.30	-35.07	12.90	12.56	-34.73	-13.00	-21.73	V
5160.21	-34.82	13.10	16.32	-38.04	-13.00	-25.04	V
6880.59	-32.40	12.33	21.13	-41.20	-13.00	-28.20	V
CAT-M Band 4 / 20MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3464.80	-34.39	12.90	12.56	-34.05	-13.00	-21.05	H
5197.11	-34.72	13.10	16.32	-37.94	-13.00	-24.94	H
6930.03	-33.51	12.33	21.13	-42.31	-13.00	-29.31	H
3464.80	-34.68	12.90	12.56	-34.34	-13.00	-21.34	V
5197.11	-33.88	13.10	16.32	-37.10	-13.00	-24.10	V
6930.03	-32.50	12.33	21.13	-41.30	-13.00	-28.30	V
CAT-M Band 4 / 20MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3490.82	-34.64	12.90	12.56	-34.30	-13.00	-21.30	H
5235.06	-34.37	13.10	16.32	-37.59	-13.00	-24.59	H
6980.32	-33.39	12.33	21.13	-42.19	-13.00	-29.19	H
3490.82	-35.47	12.90	12.56	-35.13	-13.00	-22.13	V
5235.06	-34.07	13.10	16.32	-37.29	-13.00	-24.29	V
6980.32	-32.50	12.33	21.13	-41.30	-13.00	-28.30	V

CAT-M Band 5 / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1648.96	-33.91	9.56	9.72	-34.07	-13.00	-21.07	H
2473.71	-34.57	10.50	10.86	-34.93	-13.00	-21.93	H
3298.48	-32.66	12.78	11.57	-31.45	-13.00	-18.45	H
1648.96	-35.60	9.56	9.72	-35.76	-13.00	-22.76	V
2473.71	-35.12	10.50	10.86	-35.48	-13.00	-22.48	V
3298.48	-32.38	12.78	11.57	-31.17	-13.00	-18.17	V
CAT-M Band 5 / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1672.85	-34.18	9.56	9.72	-34.34	-13.00	-21.34	H
2509.29	-34.35	10.50	10.86	-34.71	-13.00	-21.71	H
3345.52	-32.56	12.78	11.57	-31.35	-13.00	-18.35	H
1672.85	-34.95	9.56	9.72	-35.11	-13.00	-22.11	V
2509.29	-34.09	10.50	10.86	-34.45	-13.00	-21.45	V
3345.52	-32.11	12.78	11.57	-30.90	-13.00	-17.90	V
CAT-M Band 5 / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1696.52	-33.73	9.56	9.72	-33.89	-13.00	-20.89	H
2544.68	-35.45	10.50	10.86	-35.81	-13.00	-22.81	H
3393.10	-32.35	12.78	11.57	-31.14	-13.00	-18.14	H
1696.52	-35.26	9.56	9.72	-35.42	-13.00	-22.42	V
2544.68	-34.36	10.50	10.86	-34.72	-13.00	-21.72	V
3393.10	-31.87	12.78	11.57	-30.66	-13.00	-17.66	V

CAT-M Band 5 / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1650.67	-34.39	9.56	9.72	-34.55	-13.00	-21.55	H
2476.31	-35.35	10.50	10.86	-35.71	-13.00	-22.71	H
3301.81	-33.64	12.78	11.57	-32.43	-13.00	-19.43	H
1650.67	-35.96	9.56	9.72	-36.12	-13.00	-23.12	V
2476.31	-33.79	10.50	10.86	-34.15	-13.00	-21.15	V
3301.81	-31.86	12.78	11.57	-30.65	-13.00	-17.65	V
CAT-M Band 5 / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1672.55	-33.56	9.56	9.72	-33.72	-13.00	-20.72	H
2509.39	-34.89	10.50	10.86	-35.25	-13.00	-22.25	H
3345.90	-32.98	12.78	11.57	-31.77	-13.00	-18.77	H
1672.55	-35.94	9.56	9.72	-36.10	-13.00	-23.10	V
2509.39	-35.14	10.50	10.86	-35.50	-13.00	-22.50	V
3345.90	-32.71	12.78	11.57	-31.50	-13.00	-18.50	V
CAT-M Band 5 / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1694.64	-33.78	9.56	9.72	-33.94	-13.00	-20.94	H
2542.07	-35.29	10.50	10.86	-35.65	-13.00	-22.65	H
3389.57	-33.28	12.78	11.57	-32.07	-13.00	-19.07	H
1694.64	-35.68	9.56	9.72	-35.84	-13.00	-22.84	V
2542.07	-34.38	10.50	10.86	-34.74	-13.00	-21.74	V
3389.57	-32.07	12.78	11.57	-30.86	-13.00	-17.86	V

CAT-M Band 5 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1652.67	-33.68	9.56	9.72	-33.84	-13.00	-20.84	H
2479.44	-34.54	10.50	10.86	-34.90	-13.00	-21.90	H
3305.71	-33.13	12.78	11.57	-31.92	-13.00	-18.92	H
1652.67	-35.98	9.56	9.72	-36.14	-13.00	-23.14	V
2479.44	-35.02	10.50	10.86	-35.38	-13.00	-22.38	V
3305.71	-32.02	12.78	11.57	-30.81	-13.00	-17.81	V
CAT-M Band 5 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1672.69	-33.77	9.56	9.72	-33.93	-13.00	-20.93	H
2509.07	-34.35	10.50	10.86	-34.71	-13.00	-21.71	H
3345.56	-33.45	12.78	11.57	-32.24	-13.00	-19.24	H
1672.69	-35.09	9.56	9.72	-35.25	-13.00	-22.25	V
2509.07	-34.61	10.50	10.86	-34.97	-13.00	-21.97	V
3345.56	-33.01	12.78	11.57	-31.80	-13.00	-18.80	V
CAT-M Band 5 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1692.82	-33.56	9.56	9.72	-33.72	-13.00	-20.72	H
2539.06	-34.24	10.50	10.86	-34.60	-13.00	-21.60	H
3385.69	-32.90	12.78	11.57	-31.69	-13.00	-18.69	H
1692.82	-35.65	9.56	9.72	-35.81	-13.00	-22.81	V
2539.06	-34.59	10.50	10.86	-34.95	-13.00	-21.95	V
3385.69	-31.97	12.78	11.57	-30.76	-13.00	-17.76	V

CAT-M Band 5 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1657.69	-33.53	9.56	9.72	-33.69	-13.00	-20.69	H
2486.87	-34.62	10.50	10.86	-34.98	-13.00	-21.98	H
3315.91	-32.17	12.78	11.57	-30.96	-13.00	-17.96	H
1657.69	-35.35	9.56	9.72	-35.51	-13.00	-22.51	V
2486.87	-33.94	10.50	10.86	-34.30	-13.00	-21.30	V
3315.91	-32.87	12.78	11.57	-31.66	-13.00	-18.66	V
CAT-M Band 5 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1672.52	-34.72	9.56	9.72	-34.88	-13.00	-21.88	H
2509.31	-34.64	10.50	10.86	-35.00	-13.00	-22.00	H
3345.52	-32.66	12.78	11.57	-31.45	-13.00	-18.45	H
1672.52	-35.36	9.56	9.72	-35.52	-13.00	-22.52	V
2509.31	-34.82	10.50	10.86	-35.18	-13.00	-22.18	V
3345.52	-33.13	12.78	11.57	-31.92	-13.00	-18.92	V
CAT-M Band 5 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1687.96	-33.65	9.56	9.72	-33.81	-13.00	-20.81	H
2531.69	-34.40	10.50	10.86	-34.76	-13.00	-21.76	H
3375.88	-32.35	12.78	11.57	-31.14	-13.00	-18.14	H
1687.96	-35.56	9.56	9.72	-35.72	-13.00	-22.72	V
2531.69	-34.33	10.50	10.86	-34.69	-13.00	-21.69	V
3375.88	-32.23	12.78	11.57	-31.02	-13.00	-18.02	V

CAT-M Band 12 / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1399.36	-33.70	8.17	9.34	-34.87	-13.00	-21.87	H
2098.64	-34.22	9.53	10.42	-35.11	-13.00	-22.11	H
2798.69	-32.87	11.27	11.12	-32.72	-13.00	-19.72	H
1399.36	-35.12	8.17	9.34	-36.29	-13.00	-23.29	V
2098.64	-33.83	9.53	10.42	-34.72	-13.00	-21.72	V
2798.69	-32.93	11.27	11.12	-32.78	-13.00	-19.78	V
CAT-M Band 12 / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1414.66	-34.74	8.17	9.34	-35.91	-13.00	-22.91	H
2122.05	-35.14	9.53	10.42	-36.03	-13.00	-23.03	H
2829.96	-32.39	11.27	11.12	-32.24	-13.00	-19.24	H
1414.66	-35.88	8.17	9.34	-37.05	-13.00	-24.05	V
2122.05	-34.86	9.53	10.42	-35.75	-13.00	-22.75	V
2829.96	-32.20	11.27	11.12	-32.05	-13.00	-19.05	V
CAT-M Band 12 / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1430.37	-33.62	8.17	9.34	-34.79	-13.00	-21.79	H
2145.52	-35.30	9.53	10.42	-36.19	-13.00	-23.19	H
2861.15	-32.87	11.27	11.12	-32.72	-13.00	-19.72	H
1430.37	-34.66	8.17	9.34	-35.83	-13.00	-22.83	V
2145.52	-33.88	9.53	10.42	-34.77	-13.00	-21.77	V
2861.15	-32.96	11.27	11.12	-32.81	-13.00	-19.81	V

CAT-M Band 12 / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1401.00	-33.90	8.17	9.34	-35.07	-13.00	-22.07	H
2101.47	-34.16	9.53	10.42	-35.05	-13.00	-22.05	H
2801.92	-33.47	11.27	11.12	-33.32	-13.00	-20.32	H
1401.00	-35.49	8.17	9.34	-36.66	-13.00	-23.66	V
2101.47	-34.08	9.53	10.42	-34.97	-13.00	-21.97	V
2801.92	-32.91	11.27	11.12	-32.76	-13.00	-19.76	V
CAT-M Band 12 / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1414.81	-34.73	8.17	9.34	-35.90	-13.00	-22.90	H
2122.18	-35.45	9.53	10.42	-36.34	-13.00	-23.34	H
2829.99	-32.57	11.27	11.12	-32.42	-13.00	-19.42	H
1414.81	-35.46	8.17	9.34	-36.63	-13.00	-23.63	V
2122.18	-33.77	9.53	10.42	-34.66	-13.00	-21.66	V
2829.99	-32.52	11.27	11.12	-32.37	-13.00	-19.37	V
CAT-M Band 12 / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1428.69	-33.68	8.17	9.34	-34.85	-13.00	-21.85	H
2143.11	-35.41	9.53	10.42	-36.30	-13.00	-23.30	H
2857.58	-32.51	11.27	11.12	-32.36	-13.00	-19.36	H
1428.69	-35.42	8.17	9.34	-36.59	-13.00	-23.59	V
2143.11	-34.44	9.53	10.42	-35.33	-13.00	-22.33	V
2857.58	-32.48	11.27	11.12	-32.33	-13.00	-19.33	V

CAT-M Band 12 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1402.56	-33.74	8.17	9.34	-34.91	-13.00	-21.91	H
2104.02	-34.49	9.53	10.42	-35.38	-13.00	-22.38	H
2805.54	-32.72	11.27	11.12	-32.57	-13.00	-19.57	H
1402.56	-35.73	8.17	9.34	-36.90	-13.00	-23.90	V
2104.02	-34.01	9.53	10.42	-34.90	-13.00	-21.90	V
2805.54	-32.01	11.27	11.12	-31.86	-13.00	-18.86	V
CAT-M Band 12 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1414.92	-34.57	8.17	9.34	-35.74	-13.00	-22.74	H
2122.42	-34.70	9.53	10.42	-35.59	-13.00	-22.59	H
2829.82	-32.97	11.27	11.12	-32.82	-13.00	-19.82	H
1414.92	-34.60	8.17	9.34	-35.77	-13.00	-22.77	V
2122.42	-34.63	9.53	10.42	-35.52	-13.00	-22.52	V
2829.82	-32.63	11.27	11.12	-32.48	-13.00	-19.48	V
CAT-M Band 12 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1426.79	-33.53	8.17	9.34	-34.70	-13.00	-21.70	H
2140.08	-34.26	9.53	10.42	-35.15	-13.00	-22.15	H
2853.96	-32.37	11.27	11.12	-32.22	-13.00	-19.22	H
1426.79	-34.81	8.17	9.34	-35.98	-13.00	-22.98	V
2140.08	-34.04	9.53	10.42	-34.93	-13.00	-21.93	V
2853.96	-32.22	11.27	11.12	-32.07	-13.00	-19.07	V

CAT-M Band 12 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1407.86	-33.76	8.17	9.34	-34.93	-13.00	-21.93	H
2111.71	-35.16	9.53	10.42	-36.05	-13.00	-23.05	H
2815.89	-32.27	11.27	11.12	-32.12	-13.00	-19.12	H
1407.86	-35.19	8.17	9.34	-36.36	-13.00	-23.36	V
2111.71	-33.83	9.53	10.42	-34.72	-13.00	-21.72	V
2815.89	-32.40	11.27	11.12	-32.25	-13.00	-19.25	V
CAT-M Band 12 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1414.92	-33.61	8.17	9.34	-34.78	-13.00	-21.78	H
2122.36	-34.78	9.53	10.42	-35.67	-13.00	-22.67	H
2829.84	-32.19	11.27	11.12	-32.04	-13.00	-19.04	H
1414.92	-35.91	8.17	9.34	-37.08	-13.00	-24.08	V
2122.36	-34.10	9.53	10.42	-34.99	-13.00	-21.99	V
2829.84	-32.29	11.27	11.12	-32.14	-13.00	-19.14	V
CAT-M Band 12 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1421.61	-34.48	8.17	9.34	-35.65	-13.00	-22.65	H
2132.80	-34.58	9.53	10.42	-35.47	-13.00	-22.47	H
2843.52	-32.28	11.27	11.12	-32.13	-13.00	-19.13	H
1421.61	-34.81	8.17	9.34	-35.98	-13.00	-22.98	V
2132.80	-34.23	9.53	10.42	-35.12	-13.00	-22.12	V
2843.52	-33.12	11.27	11.12	-32.97	-13.00	-19.97	V

CAT-M Band 13 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1559.17	-47.75	8.17	9.34	-48.92	-40.00	-8.92	H
2338.03	-47.31	9.53	10.42	-48.20	-13.00	-35.20	H
3117.97	-45.91	11.27	11.12	-45.76	-13.00	-32.76	H
1559.17	-48.00	8.17	9.34	-49.17	-40.00	-9.17	V
2338.03	-46.38	9.53	10.42	-47.27	-13.00	-34.27	V
3117.97	-45.68	11.27	11.12	-45.53	-13.00	-32.53	V
CAT-M Band 13 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1564.33	-47.55	8.17	9.34	-48.72	-40.00	-8.72	H
2345.85	-47.01	9.53	10.42	-47.90	-13.00	-34.90	H
3127.95	-46.27	11.27	11.12	-46.12	-13.00	-33.12	H
1564.33	-48.78	8.17	9.34	-49.95	-40.00	-9.95	V
2345.85	-47.04	9.53	10.42	-47.93	-13.00	-34.93	V
3127.95	-46.03	11.27	11.12	-45.88	-13.00	-32.88	V
CAT-M Band 13 / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1568.64	-48.63	8.17	9.34	-49.80	-40.00	-9.80	H
2353.41	-46.33	9.53	10.42	-47.22	-13.00	-34.22	H
3138.11	-45.38	11.27	11.12	-45.23	-13.00	-32.23	H
1568.64	-48.15	8.17	9.34	-49.32	-40.00	-9.32	V
2353.41	-47.44	9.53	10.42	-48.33	-13.00	-35.33	V
3138.11	-45.94	11.27	11.12	-45.79	-13.00	-32.79	V

CAT-M Band 13 / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1563.92	-48.29	8.17	9.34	-49.46	-40.00	-9.46	H
2345.92	-46.19	9.53	10.42	-47.08	-13.00	-34.08	H
3127.75	-46.61	11.27	11.12	-46.46	-13.00	-33.46	H
1563.92	-47.94	8.17	9.34	-49.11	-40.00	-9.11	V
2345.92	-46.15	9.53	10.42	-47.04	-13.00	-34.04	V
3127.75	-45.88	11.27	11.12	-45.73	-13.00	-32.73	V

CAT-M Band 26(Part22) / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1649.31	-33.54	9.56	9.72	-33.70	-13.00	-20.70	H
2473.61	-34.11	10.50	10.86	-34.47	-13.00	-21.47	H
3298.74	-33.06	12.78	11.57	-31.85	-13.00	-18.85	H
1649.31	-35.63	9.56	9.72	-35.79	-13.00	-22.79	V
2473.61	-34.59	10.50	10.86	-34.95	-13.00	-21.95	V
3298.74	-33.16	12.78	11.57	-31.95	-13.00	-18.95	V
CAT-M Band 26(Part22) / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1672.85	-33.90	9.56	9.72	-34.06	-13.00	-21.06	H
2508.85	-34.33	10.50	10.86	-34.69	-13.00	-21.69	H
3346.09	-32.54	12.78	11.57	-31.33	-13.00	-18.33	H
1672.85	-35.24	9.56	9.72	-35.40	-13.00	-22.40	V
2508.85	-33.93	10.50	10.86	-34.29	-13.00	-21.29	V
3346.09	-32.57	12.78	11.57	-31.36	-13.00	-18.36	V
CAT-M Band 26(Part22) / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1696.33	-34.33	9.56	9.72	-34.49	-13.00	-21.49	H
2544.70	-35.07	10.50	10.86	-35.43	-13.00	-22.43	H
3393.12	-32.64	12.78	11.57	-31.43	-13.00	-18.43	H
1696.33	-35.93	9.56	9.72	-36.09	-13.00	-23.09	V
2544.70	-34.16	10.50	10.86	-34.52	-13.00	-21.52	V
3393.12	-32.80	12.78	11.57	-31.59	-13.00	-18.59	V

CAT-M Band 26(Part22) / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1651.11	-34.54	9.56	9.72	-34.70	-13.00	-21.70	H
2476.61	-34.28	10.50	10.86	-34.64	-13.00	-21.64	H
3301.92	-33.07	12.78	11.57	-31.86	-13.00	-18.86	H
1651.11	-34.90	9.56	9.72	-35.06	-13.00	-22.06	V
2476.61	-33.85	10.50	10.86	-34.21	-13.00	-21.21	V
3301.92	-31.79	12.78	11.57	-30.58	-13.00	-17.58	V
CAT-M Band 26(Part22) / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1673.26	-34.91	9.56	9.72	-35.07	-13.00	-22.07	H
2509.07	-34.38	10.50	10.86	-34.74	-13.00	-21.74	H
3346.07	-32.74	12.78	11.57	-31.53	-13.00	-18.53	H
1673.26	-35.29	9.56	9.72	-35.45	-13.00	-22.45	V
2509.07	-33.90	10.50	10.86	-34.26	-13.00	-21.26	V
3346.07	-32.10	12.78	11.57	-30.89	-13.00	-17.89	V
CAT-M Band 26(Part22) / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1695.38	-34.27	9.56	9.72	-34.43	-13.00	-21.43	H
2542.44	-34.63	10.50	10.86	-34.99	-13.00	-21.99	H
3390.04	-33.25	12.78	11.57	-32.04	-13.00	-19.04	H
1695.38	-35.80	9.56	9.72	-35.96	-13.00	-22.96	V
2542.44	-34.84	10.50	10.86	-35.20	-13.00	-22.20	V
3390.04	-31.71	12.78	11.57	-30.50	-13.00	-17.50	V

CAT-M Band 26(Part22) / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1652.86	-34.20	9.56	9.72	-34.36	-13.00	-21.36	H
2479.24	-34.92	10.50	10.86	-35.28	-13.00	-22.28	H
3306.70	-33.15	12.78	11.57	-31.94	-13.00	-18.94	H
1652.86	-35.35	9.56	9.72	-35.51	-13.00	-22.51	V
2479.24	-34.85	10.50	10.86	-35.21	-13.00	-22.21	V
3306.70	-32.93	12.78	11.57	-31.72	-13.00	-18.72	V
CAT-M Band 26(Part22) / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1672.88	-34.80	9.56	9.72	-34.96	-13.00	-21.96	H
2508.81	-34.58	10.50	10.86	-34.94	-13.00	-21.94	H
3345.85	-33.23	12.78	11.57	-32.02	-13.00	-19.02	H
1672.88	-35.56	9.56	9.72	-35.72	-13.00	-22.72	V
2508.81	-35.20	10.50	10.86	-35.56	-13.00	-22.56	V
3345.85	-32.27	12.78	11.57	-31.06	-13.00	-18.06	V
CAT-M Band 26(Part22) / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1693.40	-34.37	9.56	9.72	-34.53	-13.00	-21.53	H
2539.16	-35.36	10.50	10.86	-35.72	-13.00	-22.72	H
3386.09	-32.91	12.78	11.57	-31.70	-13.00	-18.70	H
1693.40	-35.11	9.56	9.72	-35.27	-13.00	-22.27	V
2539.16	-34.07	10.50	10.86	-34.43	-13.00	-21.43	V
3386.09	-32.27	12.78	11.57	-31.06	-13.00	-18.06	V

CAT-M Band 26(Part22) / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1657.96	-34.20	9.56	9.72	-34.36	-13.00	-21.36	H
2486.64	-34.03	10.50	10.86	-34.39	-13.00	-21.39	H
3315.94	-33.04	12.78	11.57	-31.83	-13.00	-18.83	H
1657.96	-35.42	9.56	9.72	-35.58	-13.00	-22.58	V
2486.64	-34.08	10.50	10.86	-34.44	-13.00	-21.44	V
3315.94	-32.34	12.78	11.57	-31.13	-13.00	-18.13	V
CAT-M Band 26(Part22) / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1673.01	-34.88	9.56	9.72	-35.04	-13.00	-22.04	H
2508.81	-35.49	10.50	10.86	-35.85	-13.00	-22.85	H
3345.87	-32.25	12.78	11.57	-31.04	-13.00	-18.04	H
1673.01	-34.84	9.56	9.72	-35.00	-13.00	-22.00	V
2508.81	-35.21	10.50	10.86	-35.57	-13.00	-22.57	V
3345.87	-32.21	12.78	11.57	-31.00	-13.00	-18.00	V
CAT-M Band 26(Part22) / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1688.65	-34.77	9.56	9.72	-34.93	-13.00	-21.93	H
2532.23	-34.17	10.50	10.86	-34.53	-13.00	-21.53	H
3376.18	-33.49	12.78	11.57	-32.28	-13.00	-19.28	H
1688.65	-34.66	9.56	9.72	-34.82	-13.00	-21.82	V
2532.23	-35.07	10.50	10.86	-35.43	-13.00	-22.43	V
3376.18	-32.27	12.78	11.57	-31.06	-13.00	-18.06	V

CAT-M Band 26(Part22) / 15MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1663.13	-33.55	9.56	9.72	-33.71	-13.00	-20.71	H
2494.62	-34.33	10.50	10.86	-34.69	-13.00	-21.69	H
3325.47	-33.54	12.78	11.57	-32.33	-13.00	-19.33	H
1663.13	-35.29	9.56	9.72	-35.45	-13.00	-22.45	V
2494.62	-34.76	10.50	10.86	-35.12	-13.00	-22.12	V
3325.47	-32.33	12.78	11.57	-31.12	-13.00	-18.12	V
CAT-M Band 26(Part22) / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1673.11	-33.70	9.56	9.72	-33.86	-13.00	-20.86	H
2508.94	-34.70	10.50	10.86	-35.06	-13.00	-22.06	H
3346.20	-32.49	12.78	11.57	-31.28	-13.00	-18.28	H
1673.11	-35.92	9.56	9.72	-36.08	-13.00	-23.08	V
2508.94	-34.92	10.50	10.86	-35.28	-13.00	-22.28	V
3346.20	-33.14	12.78	11.57	-31.93	-13.00	-18.93	V
CAT-M Band 26(Part22) / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1683.80	-34.24	9.56	9.72	-34.40	-13.00	-21.40	H
2524.16	-34.22	10.50	10.86	-34.58	-13.00	-21.58	H
3366.40	-32.93	12.78	11.57	-31.72	-13.00	-18.72	H
1683.80	-35.40	9.56	9.72	-35.56	-13.00	-22.56	V
2524.16	-34.40	10.50	10.86	-34.76	-13.00	-21.76	V
3366.40	-32.87	12.78	11.57	-31.66	-13.00	-18.66	V

CAT-M Band 26(Part90) / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1629.07	-34.76	9.56	9.72	-34.92	-13.00	-21.92	H
2443.81	-35.25	10.50	10.86	-35.61	-13.00	-22.61	H
3258.92	-33.31	12.78	11.57	-32.10	-13.00	-19.10	H
1629.07	-35.32	9.56	9.72	-35.48	-13.00	-22.48	V
2443.81	-35.00	10.50	10.86	-35.36	-13.00	-22.36	V
3258.92	-32.15	12.78	11.57	-30.94	-13.00	-17.94	V
CAT-M Band 26(Part90) / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1638.11	-34.52	9.56	9.72	-34.68	-13.00	-21.68	H
2456.87	-34.16	10.50	10.86	-34.52	-13.00	-21.52	H
3276.05	-33.09	12.78	11.57	-31.88	-13.00	-18.88	H
1638.11	-35.29	9.56	9.72	-35.45	-13.00	-22.45	V
2456.87	-33.98	10.50	10.86	-34.34	-13.00	-21.34	V
3276.05	-32.87	12.78	11.57	-31.66	-13.00	-18.66	V
CAT-M Band 26(Part90) / 1.4MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1646.66	-34.33	9.56	9.72	-34.49	-13.00	-21.49	H
2456.77	-34.20	10.50	10.86	-34.56	-13.00	-21.56	H
3257.82	-33.09	12.78	11.57	-31.88	-13.00	-18.88	H
1646.66	-35.82	9.56	9.72	-35.98	-13.00	-22.98	V
2456.77	-34.18	10.50	10.86	-34.54	-13.00	-21.54	V
3257.82	-32.75	12.78	11.57	-31.54	-13.00	-18.54	V

CAT-M Band 26(Part90) / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1631.38	-34.43	9.56	9.72	-34.59	-13.00	-21.59	H
2446.18	-35.18	10.50	10.86	-35.54	-13.00	-22.54	H
3261.65	-32.20	12.78	11.57	-30.99	-13.00	-17.99	H
1631.38	-34.85	9.56	9.72	-35.01	-13.00	-22.01	V
2446.18	-34.74	10.50	10.86	-35.10	-13.00	-22.10	V
3261.65	-31.86	12.78	11.57	-30.65	-13.00	-17.65	V
CAT-M Band 26(Part90) / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1638.12	-34.50	9.56	9.72	-34.66	-13.00	-21.66	H
2456.84	-34.51	10.50	10.86	-34.87	-13.00	-21.87	H
3275.98	-32.64	12.78	11.57	-31.43	-13.00	-18.43	H
1638.12	-35.40	9.56	9.72	-35.56	-13.00	-22.56	V
2456.84	-34.80	10.50	10.86	-35.16	-13.00	-22.16	V
3275.98	-32.70	12.78	11.57	-31.49	-13.00	-18.49	V
CAT-M Band 26(Part90) / 3MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1644.99	-33.55	9.56	9.72	-33.71	-13.00	-20.71	H
2467.21	-34.85	10.50	10.86	-35.21	-13.00	-22.21	H
3275.83	-32.81	12.78	11.57	-31.60	-13.00	-18.60	H
1644.99	-35.14	9.56	9.72	-35.30	-13.00	-22.30	V
2467.21	-35.04	10.50	10.86	-35.40	-13.00	-22.40	V
3275.83	-32.24	12.78	11.57	-31.03	-13.00	-18.03	V

CAT-M Band 26(Part90) / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Lowest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1632.65	-34.63	9.56	9.72	-34.79	-13.00	-21.79	H
2449.63	-34.14	10.50	10.86	-34.50	-13.00	-21.50	H
3266.88	-33.29	12.78	11.57	-32.08	-13.00	-19.08	H
1632.65	-34.64	9.56	9.72	-34.80	-13.00	-21.80	V
2449.63	-34.81	10.50	10.86	-35.17	-13.00	-22.17	V
3266.88	-33.19	12.78	11.57	-31.98	-13.00	-18.98	V
CAT-M Band 26(Part90) / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1638.11	-33.67	9.56	9.72	-33.83	-13.00	-20.83	H
2457.01	-34.01	10.50	10.86	-34.37	-13.00	-21.37	H
3275.96	-33.56	12.78	11.57	-32.35	-13.00	-19.35	H
1638.11	-35.17	9.56	9.72	-35.33	-13.00	-22.33	V
2457.01	-34.57	10.50	10.86	-34.93	-13.00	-21.93	V
3275.96	-32.37	12.78	11.57	-31.16	-13.00	-18.16	V
CAT-M Band 26(Part90) / 5MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Highest							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1643.00	-34.16	9.56	9.72	-34.32	-13.00	-21.32	H
2464.06	-34.67	10.50	10.86	-35.03	-13.00	-22.03	H
3286.13	-32.37	12.78	11.57	-31.16	-13.00	-18.16	H
1643.00	-35.88	9.56	9.72	-36.04	-13.00	-23.04	V
2464.06	-34.66	10.50	10.86	-35.02	-13.00	-22.02	V
3286.13	-32.58	12.78	11.57	-31.37	-13.00	-18.37	V

CAT-M Band 26(Part90) / 10MHz / QPSK / RB Size 1 Offset 0/ The Worst Test Results for Middle							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1637.91	-34.71	9.56	9.72	-34.87	-13.00	-21.87	H
2457.28	-34.39	10.50	10.86	-34.75	-13.00	-21.75	H
3276.27	-33.22	12.78	11.57	-32.01	-13.00	-19.01	H
1637.91	-35.09	9.56	9.72	-35.25	-13.00	-22.25	V
2457.28	-33.78	10.50	10.86	-34.14	-13.00	-21.14	V
3276.27	-32.49	12.78	11.57	-31.28	-13.00	-18.28	V

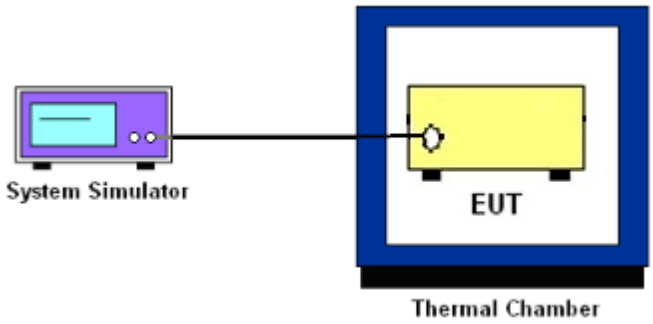
10. FREQUENCY STABILITY

10.1 DESCRIPTION OF FREQUENCY STABILITY MEASUREMENT

10.1.1 MEASUREMENT METHOD

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5ppm) of the center frequency.

10.1.2 TEST SETUP



10.1.3 TEST PROCEDURES FOR TEMPERATURE VARIATION

1. The EUT was set up in the thermal chamber and connected with the system simulator.

2. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
3. With power OFF, the temperature was raised in 10°C step up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

10.1.4 TEST PROCEDURES FOR VOLTAGE VARIATION

1. The testing follows FCC KDB 971168 D01v01r03 Section 9.

2. The EUT was placed in a temperature chamber at 25±5° C and connected with the system simlator.

3. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.

4. The variation in frequency was measured for the worst case.

10.1.5 TEST RESULTS

CAT-M Band 2 (QPSK) / 1880MHz / BW10M					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	33.24	0.018	2.5ppm	PASS
40		17.24	0.009		
30		14.09	0.007		
20		12.31	0.007		
10		32.49	0.017		
0		19.92	0.011		
-10		23.02	0.012		
-20		28.79	0.015		
-30		13.48	0.007		
20	Maximum Voltage	26.86	0.014		
20	BEP	12.50	0.007		

CAT-M Band 2 (QPSK) / 1880MHz / BW20M					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	22.27	0.012	2.5ppm	PASS
40		25.77	0.014		
30		34.11	0.018		
20		22.62	0.012		
10		20.87	0.011		
0		33.61	0.018		
-10		33.79	0.018		
-20		22.84	0.012		
-30		24.02	0.013		
20	Maximum Voltage	21.55	0.011		
20	BEP	12.05	0.006		

CAT-M Band 4 (QPSK) / 1733MHz / BW10M					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	27.71	0.016	2.5ppm	PASS
40		23.45	0.014		
30		18.47	0.011		
20		26.10	0.015		
10		16.03	0.009		
0		19.39	0.011		
-10		27.47	0.016		
-20		30.28	0.017		
-30		24.29	0.014		
20	Maximum Voltage	28.53	0.016		
20	BEP	17.04	0.010		

CAT-M Band 4 (QPSK) / 1733MHz / BW20M					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	16.84	0.010	2.5ppm	PASS
40		33.39	0.019		
30		20.53	0.012		
20		23.96	0.014		
10		21.53	0.012		
0		22.78	0.013		
-10		18.12	0.010		
-20		32.94	0.019		
-30		16.10	0.009		
20	Maximum Voltage	31.68	0.018		
20	BEP	28.56	0.016		

CAT-M Band 5 (QPSK) / 836.5MHz / BW5M					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	14.16	0.020	2.5ppm	PASS
40		30.16	0.042		
30		17.55	0.025		
20		23.58	0.033		
10		11.64	0.016		
0		33.41	0.047		
-10		27.68	0.004		
-20		32.93	0.046		
-30		29.49	0.042		
20	Maximum Voltage	35.77	0.050		
20	BEP	13.34	0.019		

CAT-M Band 5 (QPSK) / 836.5MHz / BW10M					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	16.82	0.024	2.5ppm	PASS
40		31.21	0.044		
30		18.35	0.026		
20		17.36	0.024		
10		35.87	0.051		
0		34.04	0.048		
-10		26.41	0.004		
-20		33.75	0.048		
-30		33.31	0.047		
20	Maximum Voltage	30.98	0.044		
20	BEP	15.86	0.022		

CAT-M Band 12 (QPSK) / 707.5MHz / BW5M					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	15.34	0.022	2.5ppm	PASS
40		27.51	0.039		
30		24.23	0.034		
20		19.45	0.027		
10		35.53	0.050		
0		21.79	0.031		
-10		34.83	0.005		
-20		25.80	0.036		
-30		27.95	0.039		
20	Maximum Voltage	18.60	0.026		
20	BEP	12.36	0.017		

CAT-M Band 12 (QPSK) / 707.5MHz / BW10M					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	25.12	0.035	2.5ppm	PASS
40		17.30	0.024		
30		12.31	0.017		
20		22.65	0.032		
10		32.12	0.045		
0		29.25	0.041		
-10		20.09	0.003		
-20		24.11	0.034		
-30		20.31	0.029		
20	Maximum Voltage	21.47	0.030		
20	BEP	26.57	0.037		

CAT-M Band 13 (QPSK) / 782MHz / BW5M					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	30.66	0.043	2.5ppm	PASS
40		27.57	0.039		
30		23.42	0.033		
20		31.39	0.044		
10		29.54	0.042		
0		11.61	0.016		
-10		33.02	0.005		
-20		25.32	0.036		
-30		16.85	0.024		
20	Maximum Voltage	31.87	0.045		
20	BEP	13.27	0.019		

CAT-M Band 13 (QPSK) / 782MHz / BW10M					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	14.70	0.021	2.5ppm	PASS
40		23.71	0.033		
30		21.52	0.030		
20		29.07	0.041		
10		16.51	0.023		
0		36.17	0.051		
-10		29.73	0.004		
-20		19.61	0.028		
-30		24.27	0.034		
20	Maximum Voltage	25.42	0.036		
20	BEP	21.15	0.030		

CAT-M Band 26(Part 22) (QPSK) / 1733MHz / BW10M					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	34.35	0.020	2.5ppm	PASS
40		14.88	0.009		
30		23.88	0.014		
20		28.60	0.017		
10		25.18	0.015		
0		25.86	0.015		
-10		32.68	0.019		
-20		23.81	0.014		
-30		13.15	0.008		
20	Maximum Voltage	13.53	0.008		
20	BEP	29.65	0.017		

CAT-M Band 26(Part 22) (QPSK) / 1733MHz / BW20M					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	22.14	0.013	2.5ppm	PASS
40		25.02	0.014		
30		18.84	0.011		
20		31.30	0.018		
10		26.66	0.015		
0		25.38	0.015		
-10		36.37	0.021		
-20		17.32	0.010		
-30		30.53	0.018		
20	Maximum Voltage	20.00	0.012		
20	BEP	12.58	0.007		

CAT-M Band 26(Part 90) (QPSK) / 819MHz / BW5M					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	12.35	0.007	2.5ppm	PASS
40		31.20	0.018		
30		32.55	0.019		
20		25.24	0.015		
10		12.89	0.007		
0		22.60	0.013		
-10		24.59	0.014		
-20		33.04	0.019		
-30		21.31	0.012		
20	Maximum Voltage	17.67	0.010		
20	BEP	31.31	0.018		

CAT-M Band 26(Part 90) (QPSK) / 819MHz / BW10M					
Temperature (°C)	Voltage	Freq. Dev.	Freq. Dev.	Limit	Result
	(Volt)	(Hz)	(ppm)		
50	Normal Voltage	15.67	0.009	2.5ppm	PASS
40		23.96	0.014		
30		11.77	0.007		
20		19.67	0.011		
10		18.69	0.011		
0		12.33	0.007		
-10		12.32	0.007		
-20		12.75	0.007		
-30		14.96	0.009		
20	Maximum Voltage	29.84	0.017		
20	BEP	30.84	0.018		

APPENDIX-PHOTOS OF TEST SETUP

Note: See test photos in setup photo document for the actual connections between Product and support equipment.

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