



RADIO TEST REPORT

Test Report No. : 13489136H-C

Applicant : PANASONIC CORPORATION OF NORTH AMERICA

Type of EUT : Radio Module
(Tested inside of Panasonic Tablet PC FZ-G2)

Model Number of EUT : WW18A

FCC ID : ACJ9TGWW18C

FCC Classification : Citizens Band End User Devices (CBE)

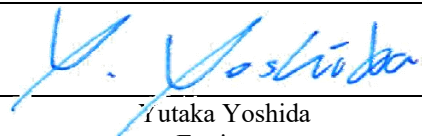
Test regulation : FCC Part 96: 2018
(Except for FCC Part 96.47 test)

Test Result : Complied (Refer to SECTION 3)

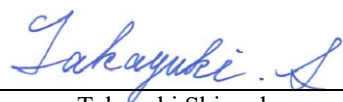
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8. The opinions and the interpretations to the result of the description in this report are outside scopes where UL Japan has been accredited.
9. The information provided from the customer for this report is identified in Section 1.

Date of test: November 16, 2020 to March 22, 2021

Representative test engineer:


Yutaka Yoshida
Engineer
Consumer Technology Division

Approved by:


Takayuki Shimada
Leader
Consumer Technology Division



CERTIFICATE 5107.02

- The testing in which "Non-accreditation" is displayed is outside the accreditation scopes in UL Japan.
- There is no testing item of "Non-accreditation".

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Ise EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

REVISION HISTORY

Original Test Report No.: 13489136H-C

Revision	Test report No.	Date	Page revised	Contents
- (Original)	13489136H-C	April 14, 2021	-	-

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Reference: Abbreviations (Including words undescribed in this report)

A2LA	The American Association for Laboratory Accreditation	Mod	Modulation
AC	Alternating Current	MCS	Modulation and Coding Scheme
AFH	Adaptive Frequency Hopping	MRA	Mutual Recognition Arrangement
AM	Amplitude Modulation	N/A	Not Applicable
Amp, AMP	Amplifier	NIST	National Institute of Standards and Technology
ANSI	American National Standards Institute	NS	No signal detect.
Ant, ANT	Antenna	NSA	Normalized Site Attenuation
AP	Access Point	NVLAP	National Voluntary Laboratory Accreditation Program
ASK	Amplitude Shift Keying	OBW	Occupied Band Width
Atten., ATT	Attenuator	OFDM	Orthogonal Frequency Division Multiplexing
AV	Average	P/M	Power meter
BPSK	Binary Phase-Shift Keying	PCB	Printed Circuit Board
BR	Bluetooth Basic Rate	PER	Packet Error Rate
BT	Bluetooth	PHY	Physical Layer
BT LE	Bluetooth Low Energy	PK	Peak
BW	BandWidth	PN	Pseudo random Noise
Cal Int	Calibration Interval	PRBS	Pseudo-Random Bit Sequence
CCK	Complementary Code Keying	PSD	Power Spectral Density
Ch., CH	Channel	QAM	Quadrature Amplitude Modulation
CISPR	Comite International Special des Perturbations Radioelectriques	QP	Quasi-Peak
CW	Continuous Wave	QPSK	Quadri-Phase Shift Keying
DBPSK	Differential BPSK	RBW	Resolution Band Width
DC	Direct Current	RDS	Radio Data System
D-factor	Distance factor	RE	Radio Equipment
DFS	Dynamic Frequency Selection	RF	Radio Frequency
DQPSK	Differential QPSK	RMS	Root Mean Square
DSSS	Direct Sequence Spread Spectrum	RSS	Radio Standards Specifications
EDR	Enhanced Data Rate	Rx	Receiving
EIRP, e.i.r.p.	Equivalent Isotropically Radiated Power	SA, S/A	Spectrum Analyzer
EMC	ElectroMagnetic Compatibility	SG	Signal Generator
EMI	ElectroMagnetic Interference	SVSWR	Site-Voltage Standing Wave Ratio
EN	European Norm	TR	Test Receiver
ERP, e.r.p.	Effective Radiated Power	Tx	Transmitting
EU	European Union	VBW	Video BandWidth
EUT	Equipment Under Test	Vert.	Vertical
Fac.	Factor	WLAN	Wireless LAN
FCC	Federal Communications Commission		
FHSS	Frequency Hopping Spread Spectrum		
FM	Frequency Modulation		
Freq.	Frequency		
FSK	Frequency Shift Keying		
GFSK	Gaussian Frequency-Shift Keying		
GNSS	Global Navigation Satellite System		
GPS	Global Positioning System		
Hori.	Horizontal		
ICES	Interference-Causing Equipment Standard		
IEC	International Electrotechnical Commission		
IEEE	Institute of Electrical and Electronics Engineers		
IF	Intermediate Frequency		
ILAC	International Laboratory Accreditation Conference		
ISED	Innovation, Science and Economic Development Canada		
ISO	International Organization for Standardization		
JAB	Japan Accreditation Board		
LAN	Local Area Network		
LIMS	Laboratory Information Management System		

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Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

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SECTION 1 : Customer information

Company Name : PANASONIC CORPORATION OF NORTH AMERICA
Address : Two Riverfront Plaza, 9th Floor Newark, NEW JERSEY, 07102-5940, USA
Telephone Number : +1-201-348-7760
Facsimile Number : +1-201-348-7760
Contact Person : Ben Botros

The information provided from the customer is as follows;

- Applicant, Type of Equipment, Model No., FCC ID on the cover and other relevant pages
- Operating/Test Mode(s) (Mode(s)) on all the relevant pages
- SECTION 1: Customer information
- SECTION 2: Equipment under test (EUT) other than the Receipt Date
- SECTION 4: Operation of EUT during testing

* The laboratory is exempted from liability of any test results affected from the above information in SECTION 2 and 4.

SECTION 2 : Equipment under test (EUT)

2.1 : Identification of EUT

Type of Equipment : Radio Module
Model No. : WW18A
Serial No. : Refer to SECTION 4.1
Rating : DC 3.3 V
Receipt Date of Sample : October 27, 2020
Country of Mass-production : Vietnam
Condition of EUT : Production model
Modification of EUT : No Modification by the test lab.

2.2 : Product Description

Model: WW18A (referred to as the EUT in this report) is a Radio Module.

General Specification

Operating Temperature : -10 deg. C to +50 deg. C

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Radio Specification

<WWAN specification>

WCDMA

Equipment Type	Transceiver	
Frequency of Operation	[Up Link] Band 2: 1850 MHz to 1910 MHz Band 4: 1710 MHz to 1755 MHz Band 5: 824 MHz to 849 MHz	[Down Link] Band 2: 1930 MHz to 1990 MHz Band 4: 2110 MHz to 2155 MHz Band 5: 869 MHz to 894 MHz
Type of Modulation	Downlink: QPSK, 16QAM Uplink: QPSK	
Access Stratum	HSPA+, DC-HSDPA	
Voice & Data communication	Data only	
Antenna Type	Planar Inverted-F Antenna	
Antenna Gain	Band 2: 2.75 dBi Band 4: 2.30 dBi Band 5: 0.00 dBi	

LTE

Equipment Type	Transceiver	
Frequency of Operation	[Up Link] Band 2: 1850 MHz to 1910 MHz Band 4: 1710 MHz to 1755 MHz Band 5: 824 MHz to 849 MHz Band 7: 2500 MHz to 2570 MHz Band 12: 699 MHz to 716 MHz Band 13: 777 MHz to 787 MHz Band 14: 788 MHz to 798 MHz Band 26: 814 MHz to 849 MHz Band 41: 2496 MHz to 2690 MHz Band 48: 3550 MHz to 3700 MHz Band 66: 1710 MHz to 1780 MHz	[Down Link] Band 2: 1930 MHz to 1990 MHz Band 4: 2110 MHz to 2155 MHz Band 5: 869 MHz to 894 MHz Band 7: 2620 MHz to 2690 MHz Band 12: 729 MHz to 746 MHz Band 13: 746 MHz to 756 MHz Band 14: 758 MHz to 768 MHz Band 26: 859 MHz to 894 MHz Band 41: 2496 MHz to 2690 MHz Band 48: 3550 MHz to 3700 MHz Band 66: 2110 MHz to 2200 MHz
Type of Modulation	Downlink: QPSK, 16QAM, 64QAM, 256QAM Uplink: QPSK, 16QAM, 64QAM	
Access Stratum Release	11	
DL Category	11	
UL Category	5	
Voice & Data communication	Data only	
Antenna Type	Planar Inverted-F Antenna	
Antenna Gain	Band2: 2.75 dBi Band4: 2.30 dBi Band5: 0.00 dBi Band7: 0.96 dBi Band12: -1.23 dBi Band13: -0.68 dBi Band14: -0.68 dBi Band26: 0.00 dBi Band41: 1.55 dBi Band48: 2.38 dBi Band66: 2.30 dBi	

*This test report applies to LTE Band 48 part only.

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SECTION 3 : Test specification, procedures & results

3.1 : Test Specification

Test Specification : FCC Part 96 final revised on December 7, 2018
Title : FCC 47CFR PART 96 CITIZENS BROADBAND RADIO SERVICE

3.2 : Procedures and results

Part 96

Item	Test Specification & Procedure	Remarks	Deviation	Worst margin	Results
RF Output Power (Conducted Output Power / Equivalent Isotropic Radiated Power(EIRP))	FCC 2.1046 FCC 96.41(b)	Conducted	N/A	-	Complied
Emission Bandwidth 99% Occupied Bandwidth	FCC 2.1049	Conducted	N/A	-	Complied
Out of Band Emissions	FCC 2.1051 FCC 96.41(e)(ii)	Conducted	N/A	-	Complied
Spurious Emission(Conducted)	FCC 2.1053 FCC 96.41(e)	Conducted	N/A	-	Complied
Spurious Emission(Radiated)	FCC 2.1053 FCC 96.41(e)	Radiated	N/A	28.7 dB, 219.826 MHz, Vertical, PK	Complied
Frequency Stability (Temperature Variation)	FCC 2.1055(a)(1)(b)	Conducted	N/A	-	Complied
Frequency Stability (Voltage Variation)	FCC 2.1055(d)(1)(2) FCC 22.355	Conducted	N/A	-	Complied
Note: UL Japan's EMI Work Procedures No. 13-EM-W0420					
*These tests were also referred to : ANSI/C63.26:2015, ANSI/TIA-603-E-2016., KDB 971168 D01, KDB 971168 D02 and KDB 940660 D01					
*These tests were performed without any deviations from test procedure except for additions or exclusions.					

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3.3 : Uncertainty

There is no applicable rule of uncertainty in this applied standard. Therefore, the results are derived depending on whether or not laboratory uncertainty is applied.

The following uncertainties have been calculated to provide a confidence level of 95 % using a coverage factor k=2.

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Antenna Terminal test

Test Item	Uncertainty (+/-)
20 dB Bandwidth / 99 % Occupied Bandwidth	0.96 %
Maximum Peak Output Power / Average Output Power	1.4 dB
Carrier Frequency Separation	0.42 %
Dwell time / Burst rate	0.10 %
Conducted Spurious Emission	2.6 dB

Radiated emission

Measurement distance	Frequency range	Uncertainty (+/-)
3 m	9 kHz to 30 MHz	3.3 dB
10 m		3.2 dB
3 m	30 MHz to 200 MHz (Horizontal) (Vertical)	4.8 dB
		5.0 dB
	200 MHz to 1000 MHz (Horizontal) (Vertical)	5.2 dB
		6.3 dB
10 m	30 MHz to 200 MHz (Horizontal) (Vertical)	4.8 dB
		4.8 dB
	200 MHz to 1000 MHz (Horizontal) (Vertical)	5.0 dB
		5.0 dB
3 m	1 GHz to 6 GHz	4.9 dB
	6 GHz to 18 GHz	5.2 dB
1 m	10 GHz to 26.5 GHz	5.5 dB
	26.5 GHz to 40 GHz	5.5 dB
10 m	1 GHz to 18 GHz	5.2 dB

3.4 : Test Location

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*NVLAP Lab. code: 200572-0 / FCC Test Firm Registration Number: 199967 / ISED Lab Company Number: 2973C

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Telephone: +81 596 24 8999, Facsimile: +81 596 24 8124

Test site	Width x Depth x Height (m)	Size of reference ground plane (m) / horizontal conducting plane	Other rooms	Maximum measurement distance
No.1 semi-anechoic chamber	19.2 x 11.2 x 7.7	7.0 x 6.0	No.1 Power source room	10 m
No.2 semi-anechoic chamber	7.5 x 5.8 x 5.2	4.0 x 4.0	-	3 m
No.3 semi-anechoic chamber	12.0 x 8.5 x 5.9	6.8 x 5.75	No.3 Preparation room	3 m
No.3 shielded room	4.0 x 6.0 x 2.7	N/A	-	-
No.4 semi-anechoic chamber	12.0 x 8.5 x 5.9	6.8 x 5.75	No.4 Preparation room	3 m
No.4 shielded room	4.0 x 6.0 x 2.7	N/A	-	-
No.5 semi-anechoic chamber	6.0 x 6.0 x 3.9	6.0 x 6.0	-	-
No.5 measurement room	6.4 x 6.4 x 3.0	6.4 x 6.4	-	-
No.6 shielded room	4.0 x 4.5 x 2.7	4.0 x 4.5	-	-
No.6 measurement room	4.75 x 5.4 x 3.0	4.75 x 4.15	-	-
No.7 shielded room	4.7 x 7.5 x 2.7	4.7 x 7.5	-	-
No.8 measurement room	3.1 x 5.0 x 2.7	3.1 x 5.0	-	-
No.9 measurement room	8.8 x 4.6 x 2.8	2.4 x 2.4	-	-
No.11 measurement room	6.2 x 4.7 x 3.0	4.8 x 4.6	-	-

* Size of vertical conducting plane (for Conducted Emission test) : 2.0 x 2.0 m for No.1, No.2, No.3, and No.4 semi-anechoic chambers and No.3 and No.4 shielded rooms.

3.5 : Test data, Test instruments, and Test set up

Refer to APPENDIX.

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SECTION 4 : Operation of EUT during testing

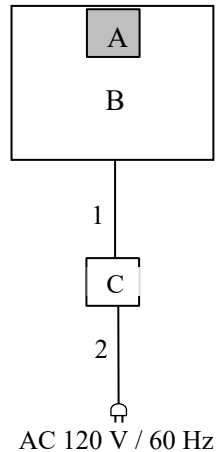
<LTE Band 48>

Test Item	Operating mode	Power Control	Bandwidth	Tested frequency	RB Config.	Modulation
RF output Power (Conducted) *1)	Transmitting	MAX	20 MHz	3560 MHz 3625 MHz 3690 MHz	1RB	QPSK 16QAM 64QAM
			15 MHz	3557.5 MHz 3625 MHz 3692.5 MHz		
			10 MHz	3555 MHz 3625 MHz 3695 MHz		
			5 MHz	3552.5 MHz 3625 MHz 3697.5 MHz		
99% Occupied bandwidth, 26dB Emission Bandwidth (Conducted)	Transmitting	MAX	20 MHz	3625 MHz	Full RB	QPSK 16QAM 64QAM
Out of Band Emissions (Conducted) Spurious Emission (Conducted) *1)	Transmitting	MAX	20 MHz	3560 MHz 3625 MHz 3690 MHz	Full RB 1RB	QPSK
			15 MHz	3557.5 MHz 3625 MHz 3692.5 MHz		
			10 MHz	3555 MHz 3625 MHz 3695 MHz		
			5 MHz	3552.5 MHz 3625 MHz 3697.5 MHz		
Spurious Emission (Radiated) *2)	Transmitting	MAX	20 MHz	3560 MHz 3625 MHz 3690 MHz	1RB	QPSK
			15 MHz	3557.5 MHz 3625 MHz 3692.5 MHz		
			10 MHz	3555 MHz 3625 MHz 3695 MHz		
			5 MHz	3552.5 MHz 3625 MHz 3697.5 MHz		
Frequency Stability (Temperature/Voltage Variation) (Conducted)	Transmitting	MAX	20 MHz	3625 MHz	Full RB	QPSK

*1) It was tested in two modes: maximum output power and maximum bandwidth modes.

*2) The maximum output power mode and maximum bandwidth mode were confirmed and the result of the maximum output power mode was reported. (There was no significant difference in spurious levels in both modes)

4.1 : Configuration and peripherals



* Cabling and setup(s) were taken into consideration and test data was taken under worse case conditions.

Description of EUT and Support equipment

No.	Item	Model number	Serial number	Manufacturer	Remarks
A	Radio Module	WW18A	990008270354132 For RE* ----- 990008270630960 For AT*	PANASONIC CORPORATION OF NORTH AMERICA	EUT
B	Tablet PC	FZ-G2	OLTSA00369 For RE* ----- OLTSA00380 For AT*	PANASONIC CORPORATION OF NORTH AMERICA	-
C	AC Adaptor	CF-AA5713A	5713AM7207019092WB	PANASONIC CORPORATION OF NORTH AMERICA	-

List of cables used

No.	Name	Length (m)	Shield		Remarks
			Cable	Connector	
1	DC Cable	1.4	Shielded	Shielded	-
2	AC Cable	2.0	Unshielded	Unshielded	-

*AT: Antenna Terminal Conducted Tests(including Frequency Stability test), RE: Radiated Spurious Emission test

Conducted Output Power and Spurious Emission (Conducted)

Test Procedure

All measurements are performed as RMS average measurements while the EUT is operating at maximum duty cycle, at maximum power, and at the appropriate frequencies.

[Conducted: Conducted Output Power]

The RF output power (conducted) was measured with a Wireless Communication Test Set and an attenuator at the antenna port. All modes of operation(modulation and data rate) were investigated and the worst case powers/emissions are reported with the modulation, RB sizes and offsets, and channel bandwidth configurations.

§ 96.41(b) Power limits.

The maximum effective isotropic radiated power (EIRP) of any End User Device must comply with the limits shown in the table below:

Device	Maximum EIRP (dBm/10 megahertz)	Maximum PSD (dBm/MHz)
End User Device	23	n/a

Sample calculations

Below 1GHz : $\text{dBm[erp]} = \text{Reading[dBm]} + \text{Ant gain[dBd]}$

Above 1GHz : $\text{dBm[eirp]} = \text{Reading[dBm]} + \text{Ant gain[dBi]}$

(reading includes the losses such as cable or attenuator or combiners etc.)

[Spurious Emission(Conducted)]

The spectrum analyzer was configured to acquire data only over durations when the EUT is actively transmitting at full power. (i.e., gate triggered such that the analyzer only sweeps when the device is transmitting at full power)

Emission and interference limits

Confirm that the device satisfies the emission limits specified in Section 96.41(e) for all declared channel sizes, at the lowest and highest edges of the band, and in the middle of the band.

All modes of operation(modulation and data rate) were investigated and the worst case powers/emissions are reported with the modulation, RB sizes and offsets, and channel bandwidth configurations.

§ 96.41(e)(2)

The conducted power of emissions below 3530 MHz or above 3720 MHz shall not exceed -40dBm/MHz .

Setting of the display limit : -40 dBm (for Spurious Emission(Conducted))

Setting of the spectrum analyzer : below 1 GHz RBW 100 kHz VBW 300 kHz above 1 GHz RBW 1 MHz VBW 3 MHz, in this test report, the stricter 1 GHz and above settings are used across the entire frequency range.

Sample calculations : $\text{dBm} = \text{Reading[dBm]}$

(reading includes the losses such as cable or attenuator or combiners etc.)

Test data : **APPENDIX**

Test result : **Pass**

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Ise EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

SECTION 6 : Occupied Bandwidth and 26dB Emission Bandwidth

Function of 99% Occupied Bandwidth(OBW) of the spectrum analyzer is used.

Setting of the spectrum analyzer : RBW at least one percent of the span, VBW $\geq 3 * RBW$

Limit : not specified

Result : 99% and -26dB bandwidth value.

Test data : **APPENDIX**
Test result : **Only reported**

SECTION 7 : Out of Band Emission (Conducted)

[Out of Band Emissions]

All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of EUT while the EUT is operation at its maximum duty cycle, maximum power, and at the appropriate frequencies.

All modes of operation(modulation and data rate) were investigated and the worst case emissions are reported with the modulation, RB sizes and offsets, and channel bandwidth configurations.

The spectrum analyzer was configured to acquire data only over durations when the EUT is actively transmitting at full power. (i.e., gate triggered such that the analyzer only sweeps when the device is transmitting at full power)

§ 96.41(e) 3.5 GHz Emissions and Interference Limits—(1) General protection levels.

Emissions outside the fundamental—The limits for emission outside the fundamental are as follows.

- within 0 MHz to 10 MHz above and below the assigned channel ≤ -13 dBm/MHz
- greater than 10 MHz above and below the assigned channel ≤ -25 dBm/MHz

Compliance with emission limits were demonstrated using average (RMS)-detected power measurement techniques.

Measurements were performed for low, mid, and high channels and the following settings were used.

(Reference procedure: Section 5.7 of ANSI C63.26- 2015)

Resolution bandwidth: 1% of fundamental for measurements within 1 MHz immediately outside the authorized channel; and 1 MHz for beyond 1 MHz outside the authorized channel.

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4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

SECTION 8 : Spurious Emission (Radiated)

[Radiated : Spurious Emission]

[For below 1 GHz]

EUT was placed on a urethane platform of nominal size, 0.5 m by 1.0 m, raised 0.8 m above the conducting ground plane. The Radiated Electric Field Strength has been measured in a Semi Anechoic Chamber with a ground plane.

[For above 1 GHz]

EUT was placed on a urethane platform of nominal size, 0.5 m by 0.5 m, raised 1.5 m above the conducting ground plane. The Radiated Electric Field Strength has been measured in a Semi Anechoic Chamber with absorbent materials lined on a ground plane.

The height of the measuring antenna varied between 1 m and 4 m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field strength.

Test antenna was aimed at the EUT for receiving the maximum signal and always kept within the illumination area of the 3 dB beam width of the antenna.

The measurements were performed for both vertical and horizontal antenna polarization with the Test Receiver, or the Spectrum Analyzer.

Test Antennas are used as below;

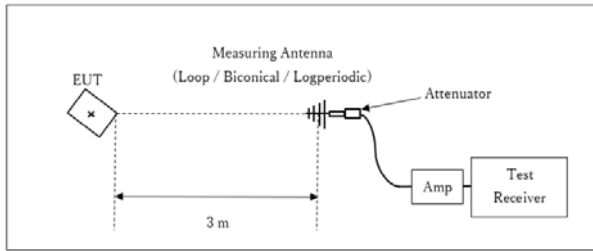
Frequency	Below 30 MHz	30 MHz to 200 MHz	200 MHz to 1 GHz	Above 1 GHz
Antenna Type	Loop	Biconical	Logperiodic	Horn

- The carrier level and noise levels were confirmed at each position of X, Y and Z axes of EUT to see the position of maximum noise, and the test was made at the position that has the maximum noise.

Setting of the spectrum analyzer : below 1 GHz RBW 100 kHz VBW 300 kHz above 1 GHz RBW 1 MHz VBW 3 MHz

Figure 2: Test Setup

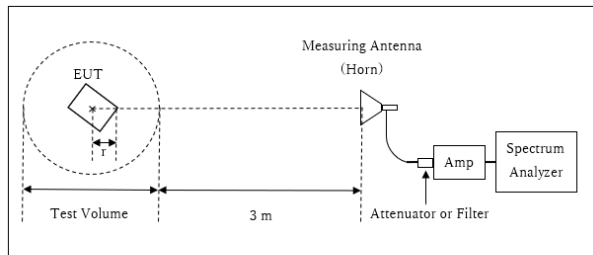
Below 1 GHz



× : Center of turn table

Test Distance: 3 m

1 GHz - 10 GHz



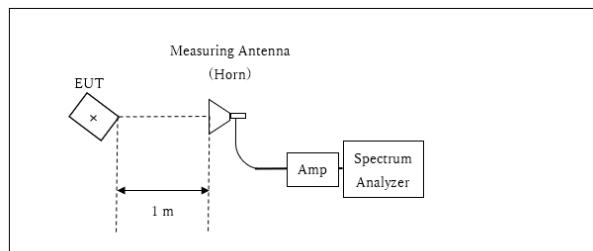
r : Radius of an outer periphery of EUT
 × : Center of turn table

Distance Factor: $20 \times \log(3.75 \text{ m} / 3.0 \text{ m}) = 1.94 \text{ dB}$
 * Test Distance: $(3 + \text{Test Volume} / 2) - r = 3.75 \text{ m}$

Test Volume : 1.5 m
 (Test Volume has been calibrated based on CISPR 16-1-4.)
 r = 0.0 m

* The test was performed with r = 0.0 m since EUT is small and it was the rather conservative condition.

10 GHz – 26.5 GHz



× : Center of turn table

Distance Factor: $20 \times \log(1.0 \text{ m} / 3.0 \text{ m}) = -9.5 \text{ dB}$
 *Test Distance: 1 m

The test results and limit are rounded off to one decimal place, so some differences might be observed.

Measurement range : 30 MHz - 26.5 GHz
Test data : APPENDIX
Test result : Pass

SECTION 9 : Frequency Stability(Temperature/Voltage Variation)

Test Procedure

The Frequency Stability was measured with a Wireless Communication Test Set and attenuator connected to the antenna port. The Frequency Drift was measured with the 10 deg. C. steps from -30 deg. C. to 50 deg. C., and it is presented as the ppm unit. The Frequency Drift was measured with the normal temperature (20 deg. C.) and Voltage tolerance, and it is presented as the ppm unit.

Temperature : -20deg.C to +50deg.C (10 deg. C. step)
(EUT doesn't work at -30deg.C)
Voltage : For other than hand carried battery equipment
Primary supply voltage from 85 to 115% of the nominal voltage.
Vnom:AC120V, Vmin:AC102V, Vmax:AC138V
For hand carried battery powered equipment
Battery operating end point

Frequency Stability test was performed under the above condition.

Limit

§ 2.1055 Frequency stability

Fundamental emission stay within authorized frequency block.

Test data : **APPENDIX**
Test result : **Pass**

APPENDIX 1: Test data

RF Output Power

Report No. 13489136H
Test place Ise EMC Lab.
Shielded Room No.6
Date November 18, 2020
Temperature / Humidity 24 deg. C / 51 % RH
Engineer Yutaka Yoshida
Mode LTE Band 48 20 MHz

BW (MHz)	UL Ch #	Freq. (MHz)	Modulation	UL RB Allocation	UL RB Start	Conducted Pwr Avg (dBm)	Ant. Gain (dBi)	EIRP (dBm/10MHz)	EIRP Limit (dBm/10MHz)	Margin (dB)
20	55340 Low	3560	QPSK	1	0	18.84	2.38	21.22	23.00	1.78
				1	49	18.37	2.38	20.75	23.00	2.25
				1	99	18.43	2.38	20.81	23.00	2.19
			16QAM	1	0	15.77	2.38	18.15	23.00	4.85
				1	49	15.60	2.38	17.98	23.00	5.02
				1	99	15.49	2.38	17.87	23.00	5.13
			64QAM	1	0	14.84	2.38	17.22	23.00	5.78
				1	49	14.54	2.38	16.92	23.00	6.08
				1	99	14.53	2.38	16.91	23.00	6.09
	55990 Mid	3625	QPSK	1	0	18.55	2.38	20.93	23.00	2.07
				1	49	18.39	2.38	20.77	23.00	2.23
				1	99	18.37	2.38	20.75	23.00	2.25
			16QAM	1	0	15.63	2.38	18.01	23.00	4.99
				1	49	15.28	2.38	17.66	23.00	5.34
				1	99	15.37	2.38	17.75	23.00	5.25
			64QAM	1	0	14.97	2.38	17.35	23.00	5.65
				1	49	14.57	2.38	16.95	23.00	6.05
				1	99	14.68	2.38	17.06	23.00	5.94
	56640 High	3690	QPSK	1	0	18.65	2.38	21.03	23.00	1.97
				1	49	18.17	2.38	20.55	23.00	2.45
				1	99	18.38	2.38	20.76	23.00	2.24
			16QAM	1	0	15.62	2.38	18.00	23.00	5.00
				1	49	15.26	2.38	17.64	23.00	5.36
				1	99	15.43	2.38	17.81	23.00	5.19
64QAM			1	0	15.04	2.38	17.42	23.00	5.58	
			1	49	14.73	2.38	17.11	23.00	5.89	
			1	99	14.77	2.38	17.15	23.00	5.85	

The worst case powers are shown in the above table with the modulation, RB sizes and offsets, and channel bandwidth configuration.

RF Output Power

Report No. 13489136H
Test place Ise EMC Lab.
Shielded Room No.6
Date November 18, 2020
Temperature / Humidity 24 deg. C / 51 % RH
Engineer Yutaka Yoshida
Mode LTE Band 48 15 MHz

BW (MHz)	UL Ch #	Freq. (MHz)	Modulation	UL RB Allocation	UL RB Start	Conducted Pwr Avg (dBm)	Ant. Gain (dBi)	EIRP (dBm/10MHz)	EIRP Limit (dBm/10MHz)	Margin (dB)
15	55315 Low	3557.5	QPSK	1	0	18.75	2.38	21.13	23.00	1.87
				1	37	18.45	2.38	20.83	23.00	2.17
				1	74	18.48	2.38	20.86	23.00	2.14
			16QAM	1	0	15.63	2.38	18.01	23.00	4.99
				1	37	15.32	2.38	17.70	23.00	5.30
				1	74	15.29	2.38	17.67	23.00	5.33
			64QAM	1	0	14.40	2.38	16.78	23.00	6.22
				1	37	14.29	2.38	16.67	23.00	6.33
				1	74	14.31	2.38	16.69	23.00	6.31
	55990 Mid	3625	QPSK	1	0	18.55	2.38	20.93	23.00	2.07
				1	37	18.36	2.38	20.74	23.00	2.26
				1	74	18.49	2.38	20.87	23.00	2.13
			16QAM	1	0	15.41	2.38	17.79	23.00	5.21
				1	37	15.29	2.38	17.67	23.00	5.33
				1	74	15.30	2.38	17.68	23.00	5.32
			64QAM	1	0	14.17	2.38	16.55	23.00	6.45
				1	37	14.10	2.38	16.48	23.00	6.52
				1	74	14.11	2.38	16.49	23.00	6.51
56665 High	3692.5	QPSK	1	0	18.69	2.38	21.07	23.00	1.93	
			1	37	18.44	2.38	20.82	23.00	2.18	
			1	74	18.34	2.38	20.72	23.00	2.28	
		16QAM	1	0	15.37	2.38	17.75	23.00	5.25	
			1	37	15.30	2.38	17.68	23.00	5.32	
			1	74	15.29	2.38	17.67	23.00	5.33	
		64QAM	1	0	14.22	2.38	16.60	23.00	6.40	
			1	37	14.20	2.38	16.58	23.00	6.42	
			1	74	14.25	2.38	16.63	23.00	6.37	

The worst case powers are shown in the above table with the modulation, RB sizes and offsets, and channel bandwidth configuration.

RF Output Power

Report No. 13489136H
Test place Ise EMC Lab.
Shielded Room No.6
Date November 18, 2020
Temperature / Humidity 24 deg. C / 51 % RH
Engineer Yutaka Yoshida
Mode LTE Band 48 10 MHz

BW (MHz)	UL Ch #	Freq. (MHz)	Modulation	UL RB Allocation	UL RB Start	Conducted Pwr Avg (dBm)	Ant. Gain (dBi)	EIRP (dBm/10MHz)	EIRP Limit (dBm/10MHz)	Margin (dB)
10	55290 Low	3555	QPSK	1	0	18.64	2.38	21.02	23.00	1.98
				1	24	18.48	2.38	20.86	23.00	2.14
				1	49	18.46	2.38	20.84	23.00	2.16
			16QAM	1	0	17.69	2.38	20.07	23.00	2.93
				1	24	17.55	2.38	19.93	23.00	3.07
				1	49	17.48	2.38	19.86	23.00	3.14
			64QAM	1	0	16.69	2.38	19.07	23.00	3.93
				1	24	16.51	2.38	18.89	23.00	4.11
				1	49	16.57	2.38	18.95	23.00	4.05
	55990 Mid	3625	QPSK	1	0	18.80	2.38	21.18	23.00	1.82
				1	24	18.62	2.38	21.00	23.00	2.00
				1	49	18.60	2.38	20.98	23.00	2.02
			16QAM	1	0	18.10	2.38	20.48	23.00	2.52
				1	24	17.92	2.38	20.30	23.00	2.70
				1	49	17.92	2.38	20.30	23.00	2.70
			64QAM	1	0	16.71	2.38	19.09	23.00	3.91
				1	24	16.51	2.38	18.89	23.00	4.11
				1	49	16.53	2.38	18.91	23.00	4.09
	56690 High	3695	QPSK	1	0	18.45	2.38	20.83	23.00	2.17
				1	24	18.29	2.38	20.67	23.00	2.33
				1	49	18.31	2.38	20.69	23.00	2.31
			16QAM	1	0	17.55	2.38	19.93	23.00	3.07
				1	24	17.39	2.38	19.77	23.00	3.23
				1	49	17.36	2.38	19.74	23.00	3.26
			64QAM	1	0	16.19	2.38	18.57	23.00	4.43
				1	24	16.05	2.38	18.43	23.00	4.57
				1	49	16.02	2.38	18.40	23.00	4.60

The worst case powers are shown in the above table with the modulation, RB sizes and offsets, and channel bandwidth configuration.

RF Output Power

Report No. 13489136H
Test place Ise EMC Lab.
Shielded Room No.6
Date November 18, 2020
Temperature / Humidity 24 deg. C / 51 % RH
Engineer Yutaka Yoshida
Mode LTE Band 48 5 MHz

BW (MHz)	UL Ch #	Freq. (MHz)	Modulation	UL RB Allocation	UL RB Start	Conducted Pwr Avg (dBm)	Ant. Gain (dBi)	EIRP (dBm/10MHz)	EIRP Limit (dBm/10MHz)	Margin (dB)
5	55265 Low	3552.5	QPSK	1	0	18.84	2.38	21.22	23.00	1.78
				1	12	18.78	2.38	21.16	23.00	1.84
				1	24	18.81	2.38	21.19	23.00	1.81
			16QAM	1	0	18.15	2.38	20.53	23.00	2.47
				1	12	18.05	2.38	20.43	23.00	2.57
				1	24	18.05	2.38	20.43	23.00	2.57
			64QAM	1	0	16.89	2.38	19.27	23.00	3.73
				1	12	16.82	2.38	19.20	23.00	3.80
				1	24	16.87	2.38	19.25	23.00	3.75
	55990 Mid	3625	QPSK	1	0	18.75	2.38	21.13	23.00	1.87
				1	12	18.61	2.38	20.99	23.00	2.01
				1	24	18.66	2.38	21.04	23.00	1.96
			16QAM	1	0	17.96	2.38	20.34	23.00	2.66
				1	12	17.88	2.38	20.26	23.00	2.74
				1	24	17.91	2.38	20.29	23.00	2.71
			64QAM	1	0	16.77	2.38	19.15	23.00	3.85
				1	12	16.68	2.38	19.06	23.00	3.94
				1	24	16.69	2.38	19.07	23.00	3.93
56715 High	3697.5	QPSK	1	0	18.73	2.38	21.11	23.00	1.89	
			1	12	18.58	2.38	20.96	23.00	2.04	
			1	24	18.64	2.38	21.02	23.00	1.98	
		16QAM	1	0	17.97	2.38	20.35	23.00	2.65	
			1	12	17.86	2.38	20.24	23.00	2.76	
			1	24	17.85	2.38	20.23	23.00	2.77	
		64QAM	1	0	16.76	2.38	19.14	23.00	3.86	
			1	12	16.70	2.38	19.08	23.00	3.92	
			1	24	16.69	2.38	19.07	23.00	3.93	

The worst case powers are shown in the above table with the modulation, RB sizes and offsets, and channel bandwidth configuration.

99% and 26dB Occupied Bandwidth

Report No. 13489136H
Test place Ise EMC Lab.
Shielded Room No.6
Date November 16, 2020
Temperature / Humidity 22 deg. C / 45 % RH
Engineer Yutaka Yoshida

Mode LTE Band 48

No limitation

Band / BW / Mode / Ch / RB num-allocation	99% BW[MHz]	26dBBW[MHz]	Emission Designator
LTE Band 48 5MHz QPSK Middle Channel RB25-0	4.5396	5.103	4M53G7D
LTE Band 48 5MHz 16QAM Middle Channel RB25-0	4.5249	5.381	4M52W7D
LTE Band 48 5MHz 64QAM Middle Channel RB25-0	4.5258	5.141	4M52W7D
LTE Band 48 10MHz QPSK Middle Channel RB50-0	9.0043	9.752	9M00G7D
LTE Band 48 10MHz 16QAM Middle Channel RB50-0	8.9996	9.799	8M99W7D
LTE Band 48 10MHz 64QAM Middle Channel RB50-0	8.9742	9.859	8M97W7D
LTE Band 48 15MHz QPSK Middle Channel RB75-0	13.486	14.71	13M4G7D
LTE Band 48 15MHz 16QAM Middle Channel RB75-0	13.511	14.65	13M5W7D
LTE Band 48 15MHz 64QAM Middle Channel RB75-0	13.459	14.54	13M4W7D
LTE Band 48 20MHz QPSK Middle Channel RB100-0	17.913	19.19	17M9G7D
LTE Band 48 20MHz 16QAM Middle Channel RB100-0	17.876	19.47	17M8W7D
LTE Band 48 20MHz 64QAM Middle Channel RB100-0	17.982	19.66	17M9W7D

UL Japan, Inc.

Ise EMC Lab.

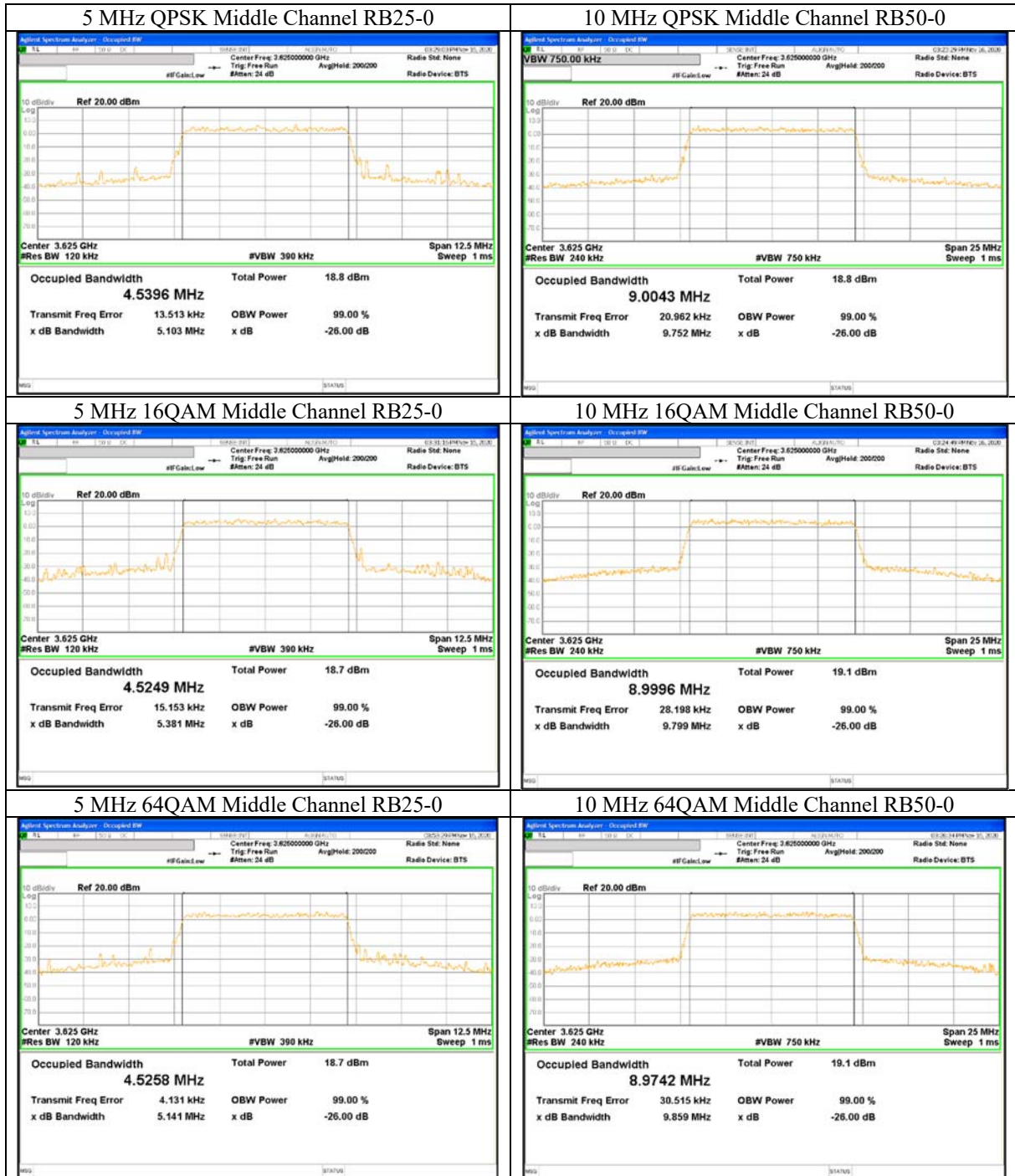
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

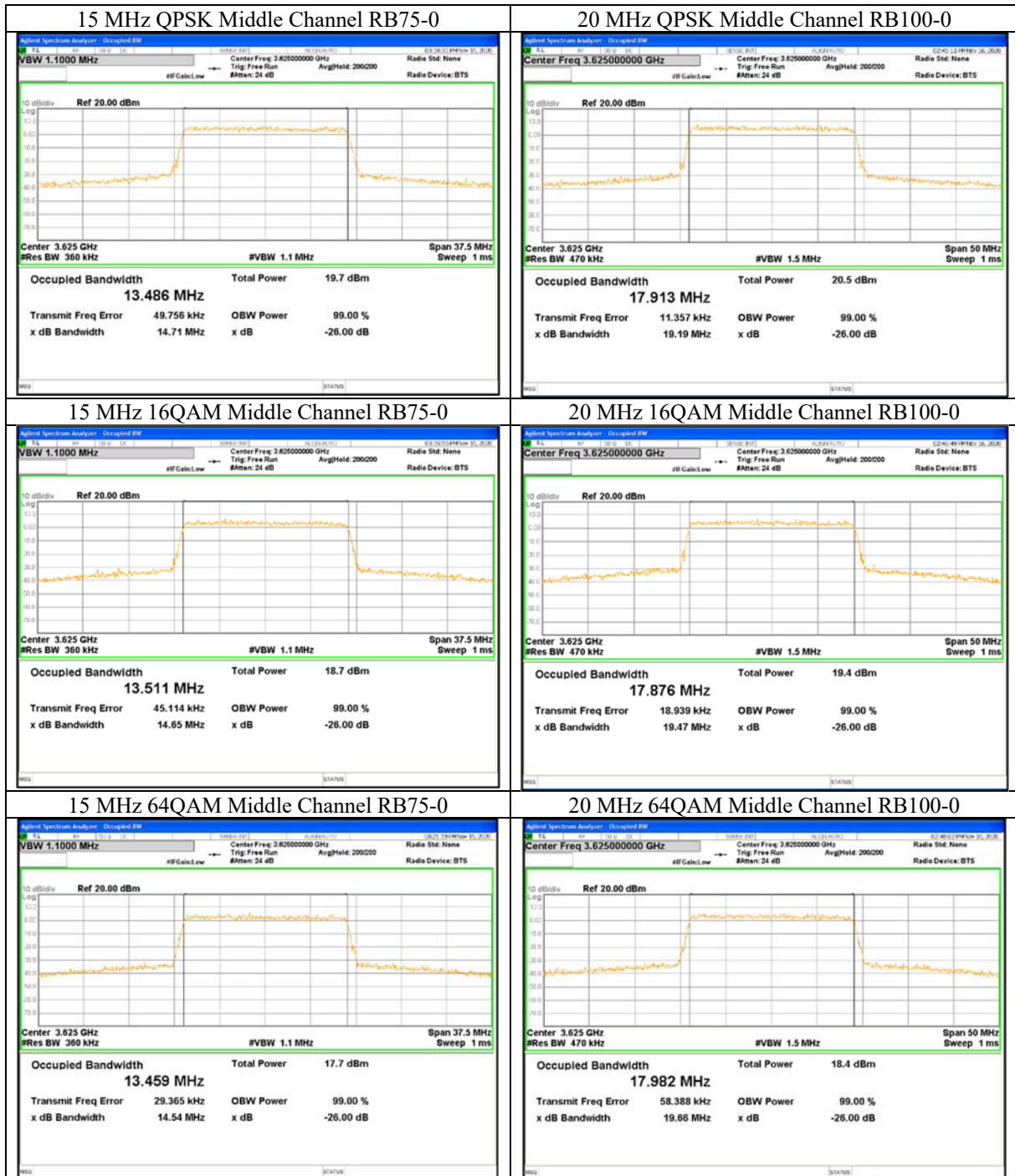
99% and 26dB Occupied Bandwidth

Report No. 13489136H
 Test place Ise EMC Lab.
 Shielded Room No.6
 Date November 16, 2020
 Temperature / Humidity 24 deg. C / 52 % RH
 Engineer Yutaka Yoshida
 Mode LTE Band 48



99% and 26dB Occupied Bandwidth

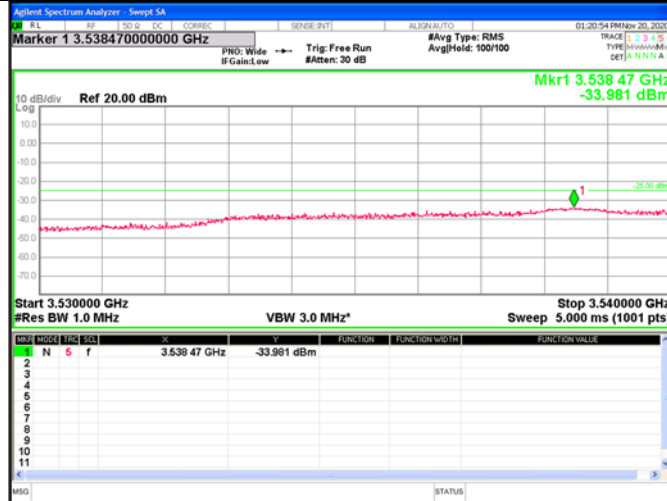
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 Shielded Room No.6
 Date November 16, 2020
 Temperature / Humidity 24 deg. C / 52 % RH
 Engineer Yutaka Yoshida
 Mode LTE Band 48



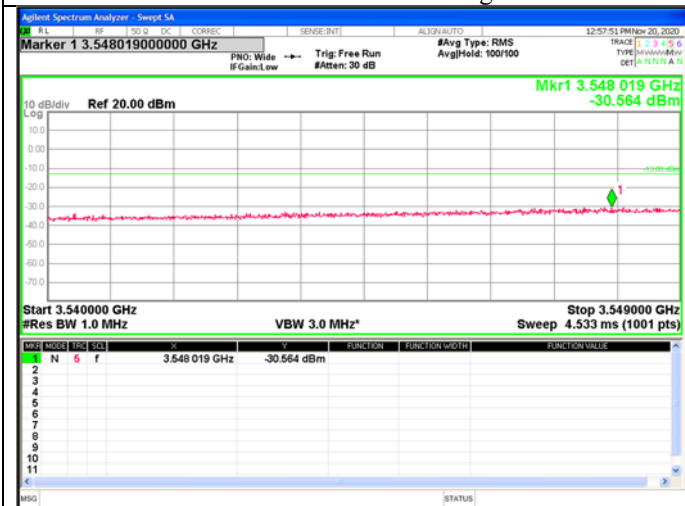
Out of Band Emission (Conducted)

Report No. 13489136H
 Test place Ise EMC Lab.
 Shielded Room No.6
 Date November 20, 2020
 Temperature / Humidity 22 deg. C / 56 % RH
 Engineer Yutaka Yoshida
 Mode LTE Band48 20 MHz QPSK Low Channel RB100-0

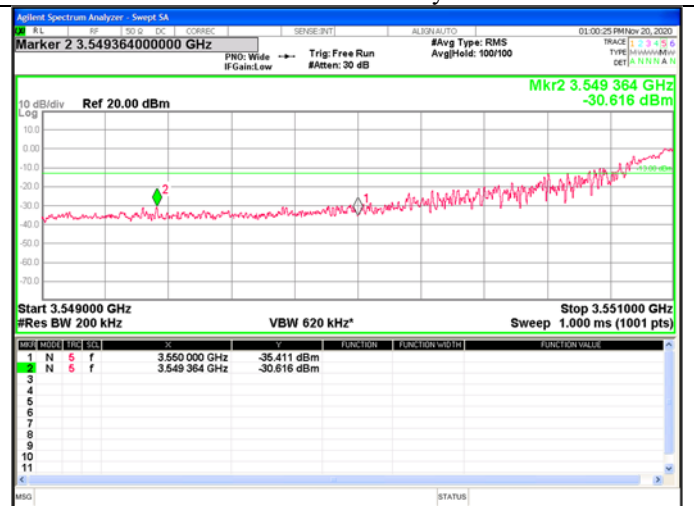
Greater than 10 MHz below Assigned Channel



Within 0 MHz to 10 MHz below Assigned Channel



within 1 MHz immediately out side



Out of Band Emission (Conducted)

Report No. 13489136H
Test place Ise EMC Lab.
Shielded Room No.6
Date November 20, 2020
Temperature / Humidity 22 deg. C / 56 % RH
Engineer Yutaka Yoshida

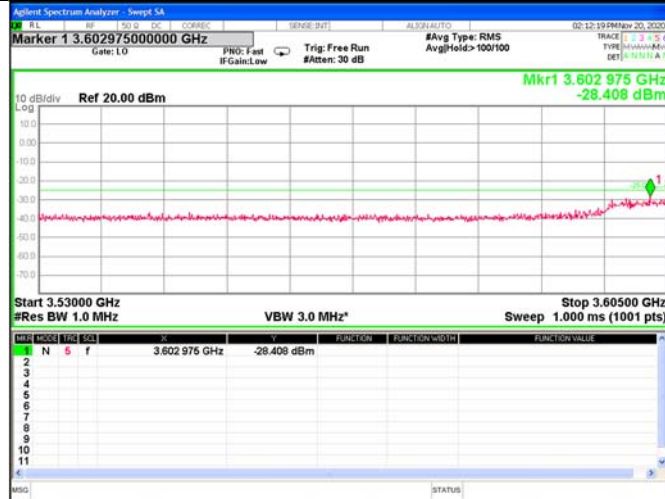
Mode LTE Band48 20 MHz QPSK Low Channel RB100-0



Out of Band Emission (Conducted)

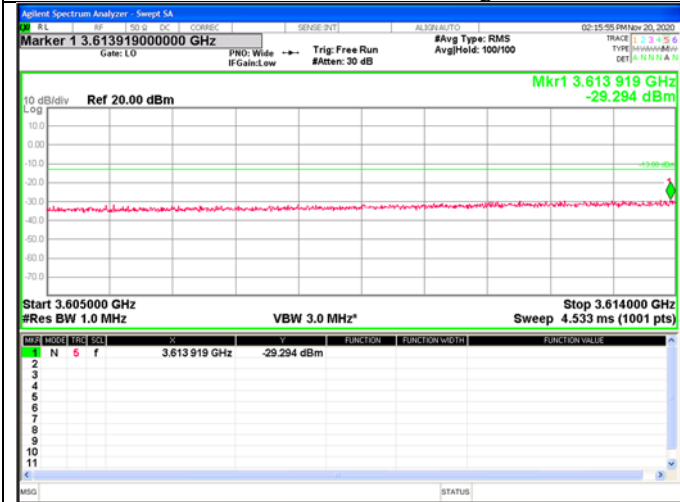
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 Test place Ise EMC Lab.
 Shielded Room No.6
 Date November 20, 2020
 Temperature / Humidity 22 deg. C / 56 % RH
 Engineer Yutaka Yoshida
 Mode LTE Band48 20 MHz QPSK Mid Channel RB100-0

Greater than 10 MHz below Assigned Channel

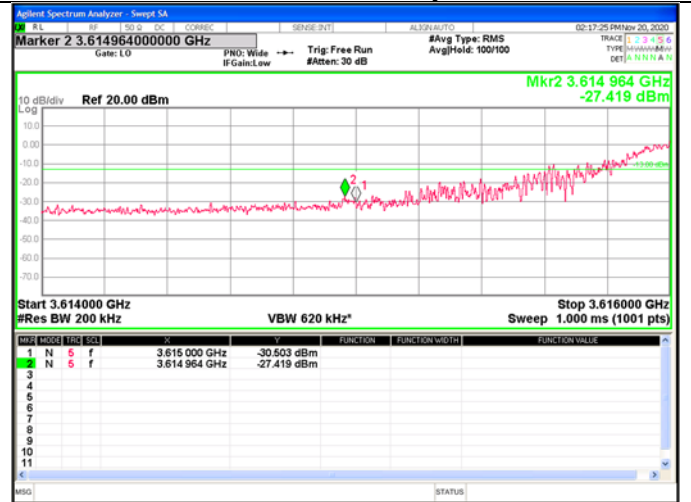


Within 0 MHz to 10 MHz below Assigned Channel

Within 1 MHz to 10 MHz below Assigned Channel

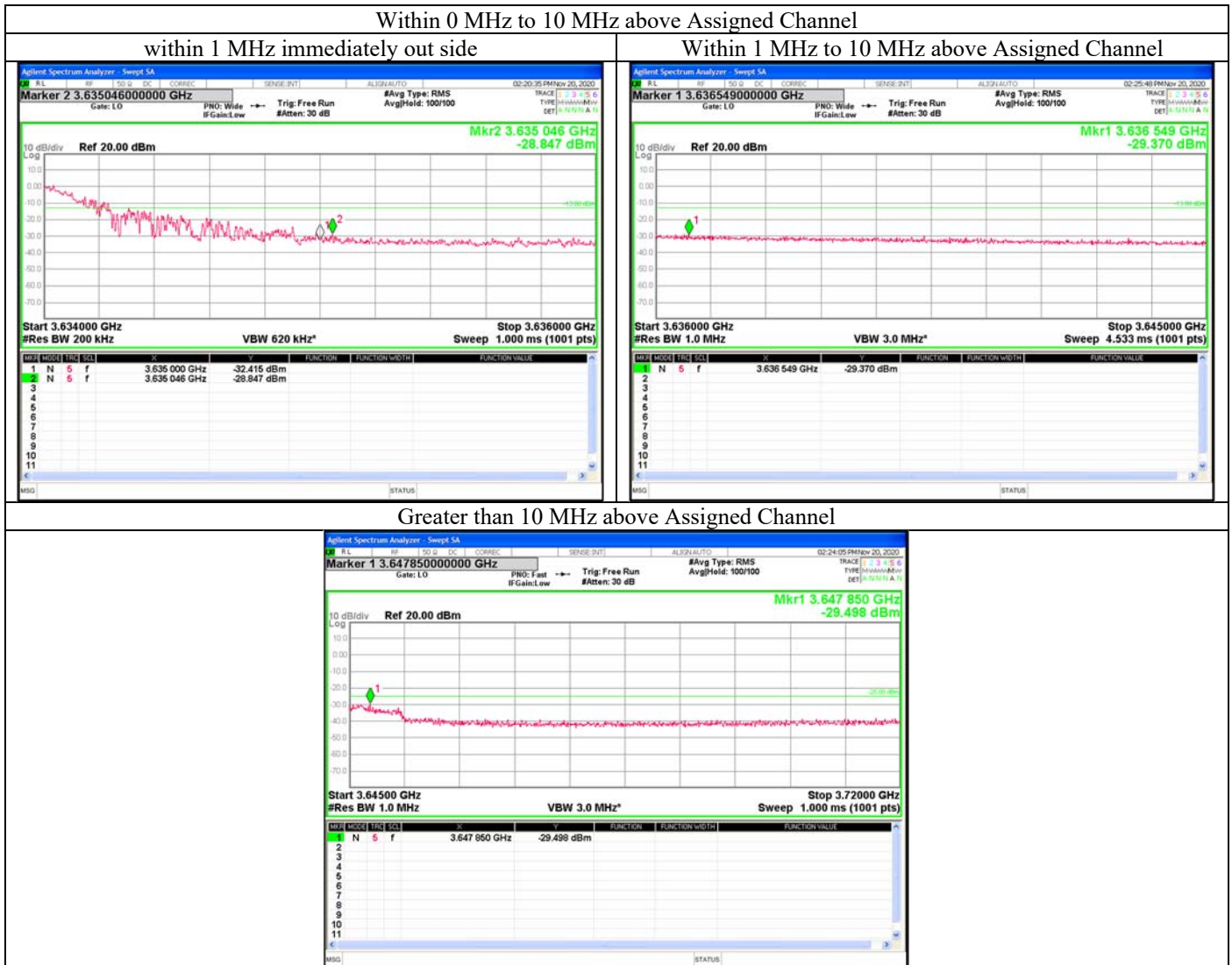


within 1 MHz immediately out side



Out of Band Emission (Conducted)

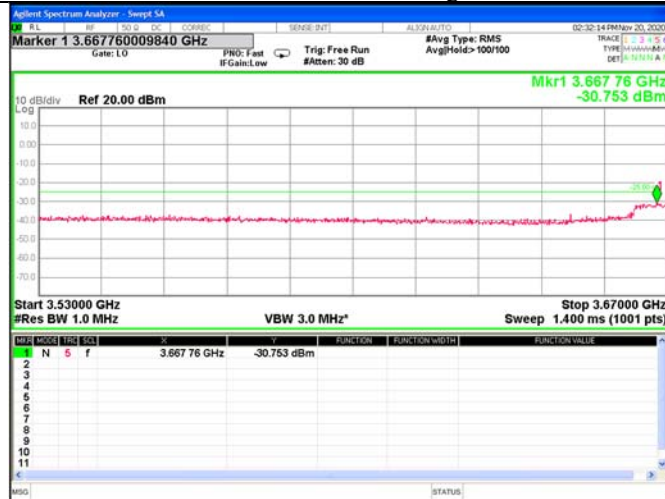
Report No.	13489136H
Test place	Ise EMC Lab.
Shielded Room	No.6
Date	November 20, 2020
Temperature / Humidity	22 deg. C / 56 % RH
Engineer	Yutaka Yoshida
Mode	LTE Band48 20 MHz QPSK Mid Channel RB100-0



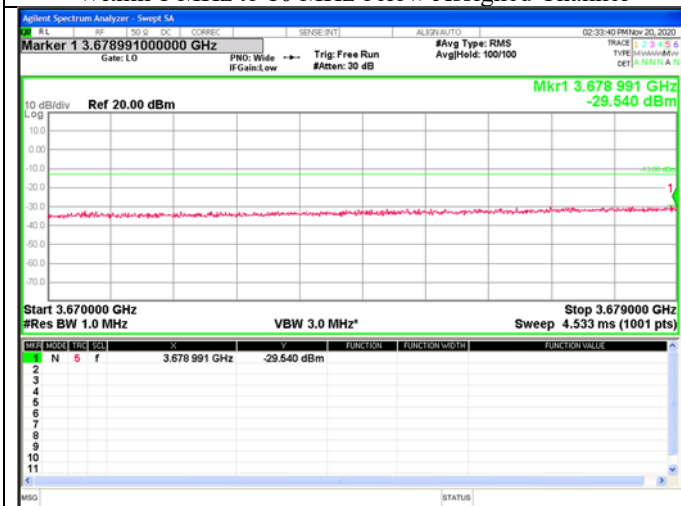
Out of Band Emission (Conducted)

Report No. 13489136H
 Test place Ise EMC Lab.
 Shielded Room No.6
 Date November 20, 2020
 Temperature / Humidity 22 deg. C / 56 % RH
 Engineer Yutaka Yoshida
 Mode LTE Band48 20 MHz QPSK High Channel RB100-0

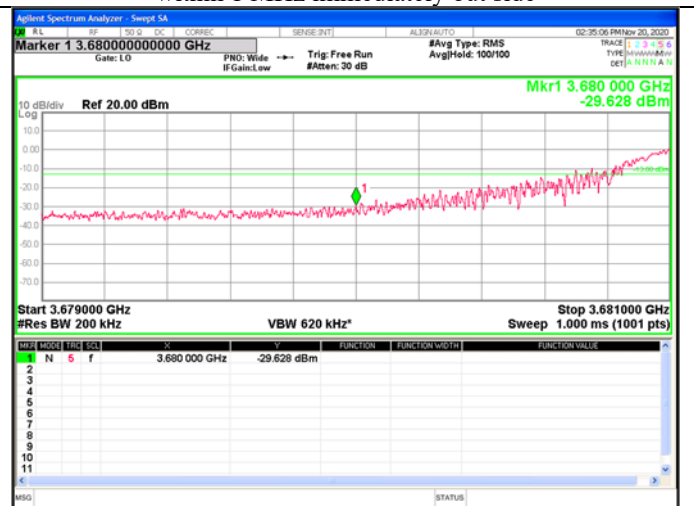
Greater than 10 MHz below Assigned Channel



Within 0 MHz to 10 MHz below Assigned Channel



within 1 MHz immediately out side



Out of Band Emission (Conducted)

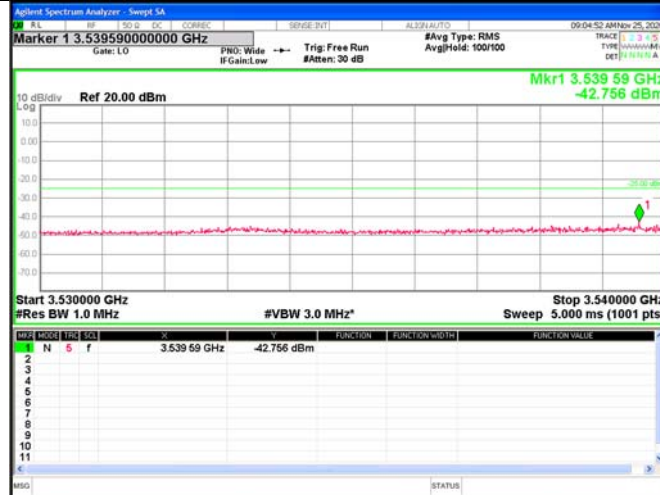
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Shielded Room No.6
Date November 20, 2020
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Engineer Yutaka Yoshida
Mode LTE Band48 20 MHz QPSK High Channel RB100-0



Out of Band Emission (Conducted)

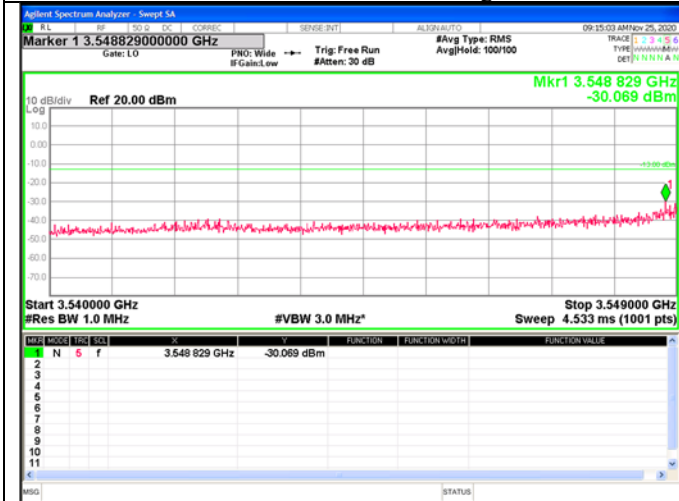
Report No. 13489136H
Test place Ise EMC Lab.
Shielded Room No.6
Date November 25, 2020
Temperature / Humidity 20 deg. C / 50 % RH
Engineer Yutaka Yoshida
Mode LTE Band48 20 MHz QPSK Low Channel RB1-0

Greater than 10 MHz below Assigned Channel

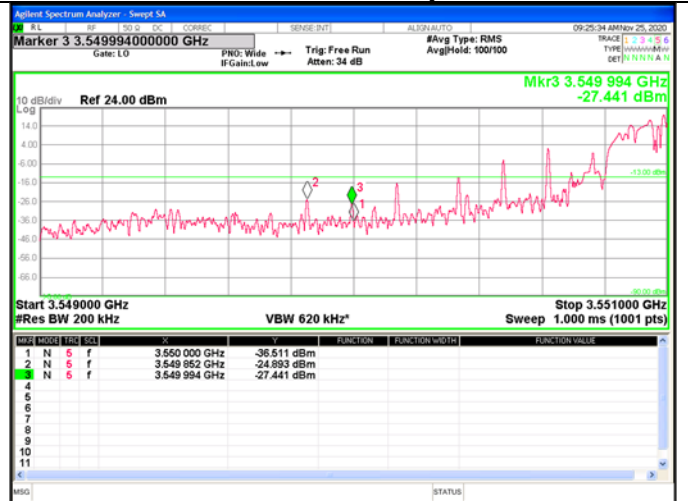


Within 0 MHz to 10 MHz below Assigned Channel

Within 1 MHz to 10 MHz below Assigned Channel



within 1 MHz immediately outside



Out of Band Emission (Conducted)

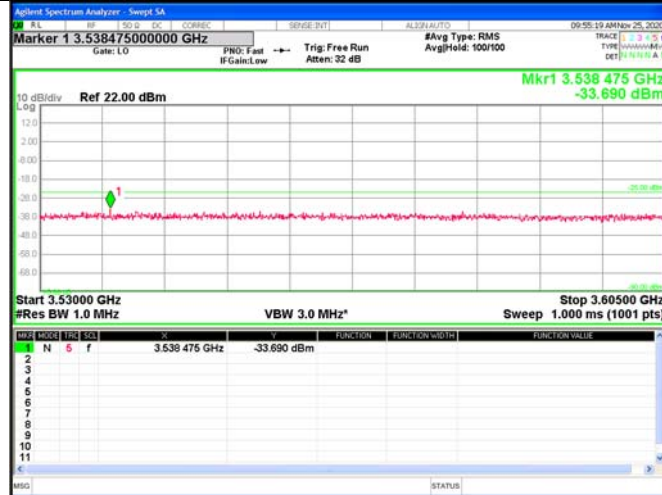
Report No. 13489136H
 Test place Ise EMC Lab.
 Shielded Room No.6
 Date November 25, 2020
 Temperature / Humidity 20 deg. C / 50 % RH
 Engineer Yutaka Yoshida
 Mode LTE Band48 20 MHz QPSK Low Channel RB1-0



Out of Band Emission (Conducted)

Report No. 13489136H
 Test place Ise EMC Lab.
 Shielded Room No.6
 Date November 25, 2020
 Temperature / Humidity 20 deg. C / 50 % RH
 Engineer Yutaka Yoshida
 Mode LTE Band48 20 MHz QPSK Md Channel RB1-0

Greater than 10 MHz below Assigned Channel

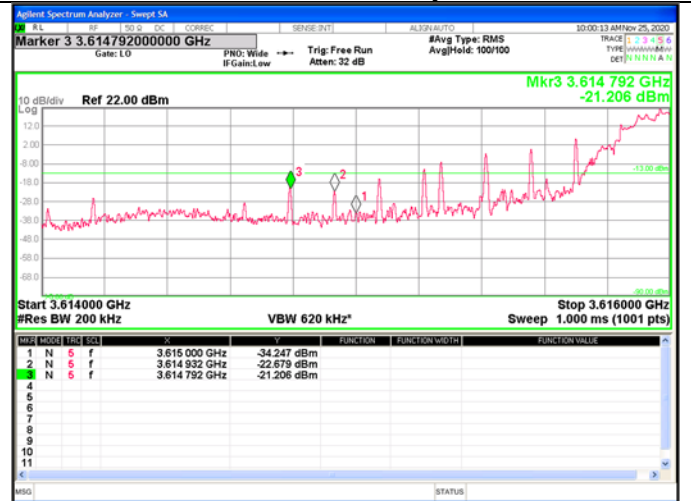


Within 0 MHz to 10 MHz below Assigned Channel

Within 1 MHz to 10 MHz below Assigned Channel

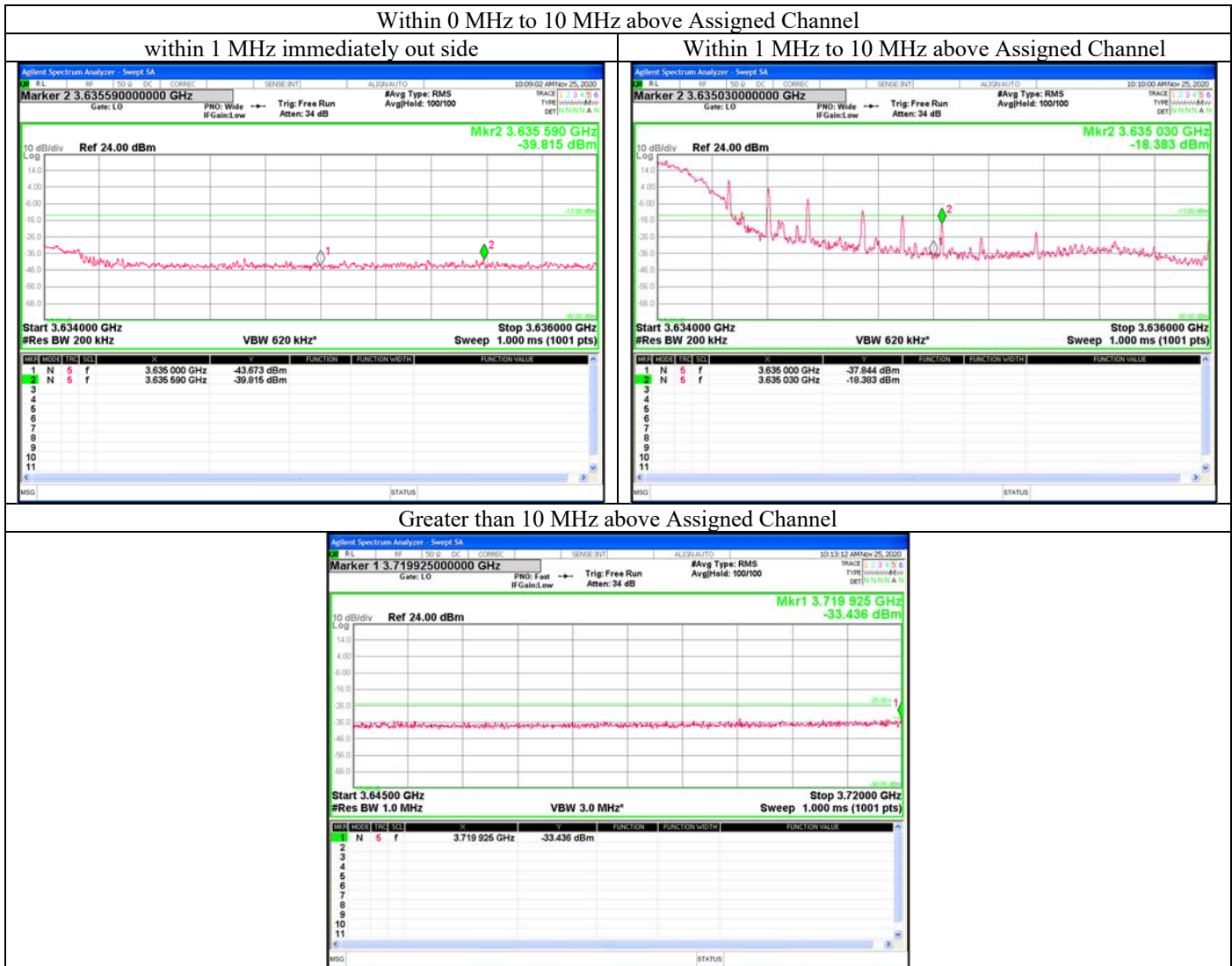


within 1 MHz immediately outside



Out of Band Emission (Conducted)

Report No. 13489136H
 Test place Ise EMC Lab.
 Shielded Room No.6
 Date November 25, 2020
 Temperature / Humidity 20 deg. C / 50 % RH
 Engineer Yutaka Yoshida
 Mode LTE Band48 20 MHz QPSK Mid Channel RB1-0



Out of Band Emission (Conducted)

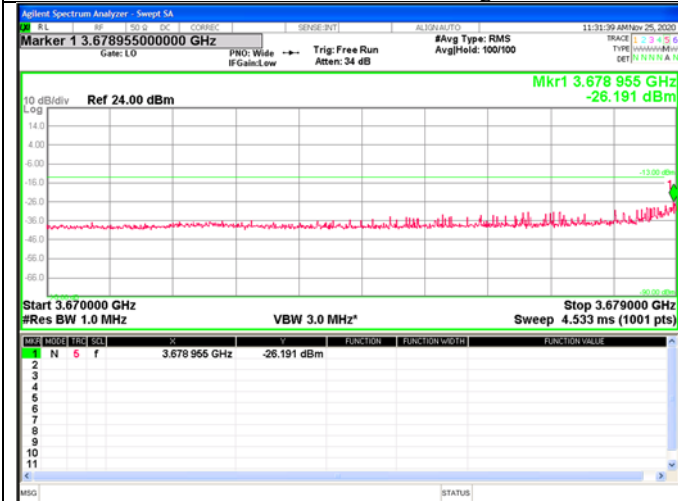
Report No. 13489136H
 Test place Ise EMC Lab.
 Shielded Room No.6
 Date November 25, 2020
 Temperature / Humidity 20 deg. C / 50 % RH
 Engineer Yutaka Yoshida
 Mode LTE Band48 20 MHz QPSK High Channel RB1-0

Greater than 10 MHz below Assigned Channel

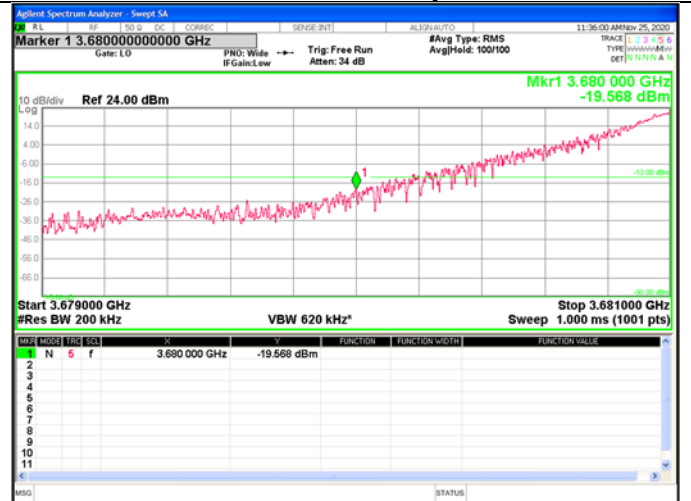


Within 0 MHz to 10 MHz below Assigned Channel

Within 1 MHz to 10 MHz below Assigned Channel



within 1 MHz immediately outside



Out of Band Emission (Conducted)

Report No.	13489136H
Test place	Ise EMC Lab.
Shielded Room	No.6
Date	November 25, 2020
Temperature / Humidity	20 deg. C / 50 % RH
Engineer	Yutaka Yoshida
Mode	LTE Band48 20 MHz QPSK High Channel RB1-0



Out of Band Emission (Conducted)

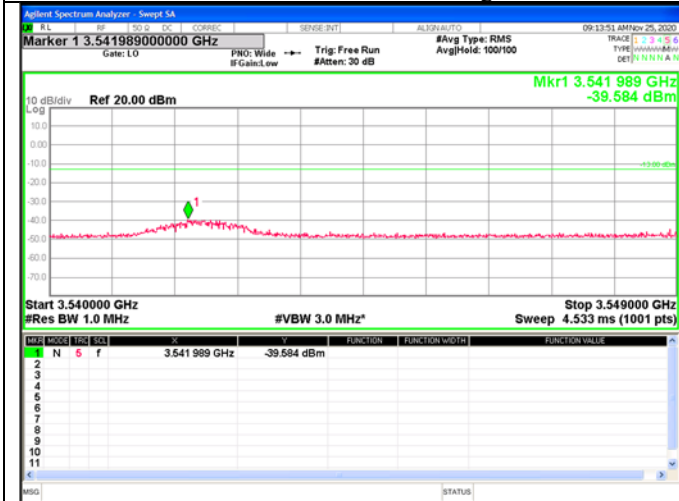
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 Test place Ise EMC Lab.
 Shielded Room No.6
 Date November 25, 2020
 Temperature / Humidity 20 deg. C / 50 % RH
 Engineer Yutaka Yoshida
 Mode LTE Band48 20 MHz QPSK Low Channel RB1-99

Greater than 10 MHz below Assigned Channel

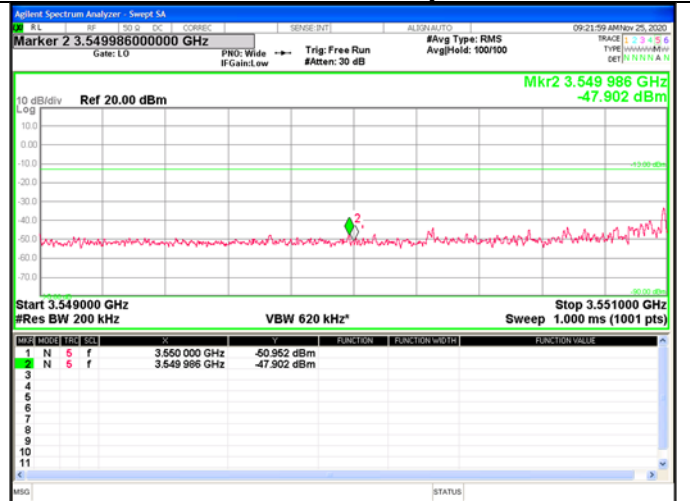


Within 0 MHz to 10 MHz below Assigned Channel

Within 1 MHz to 10 MHz below Assigned Channel

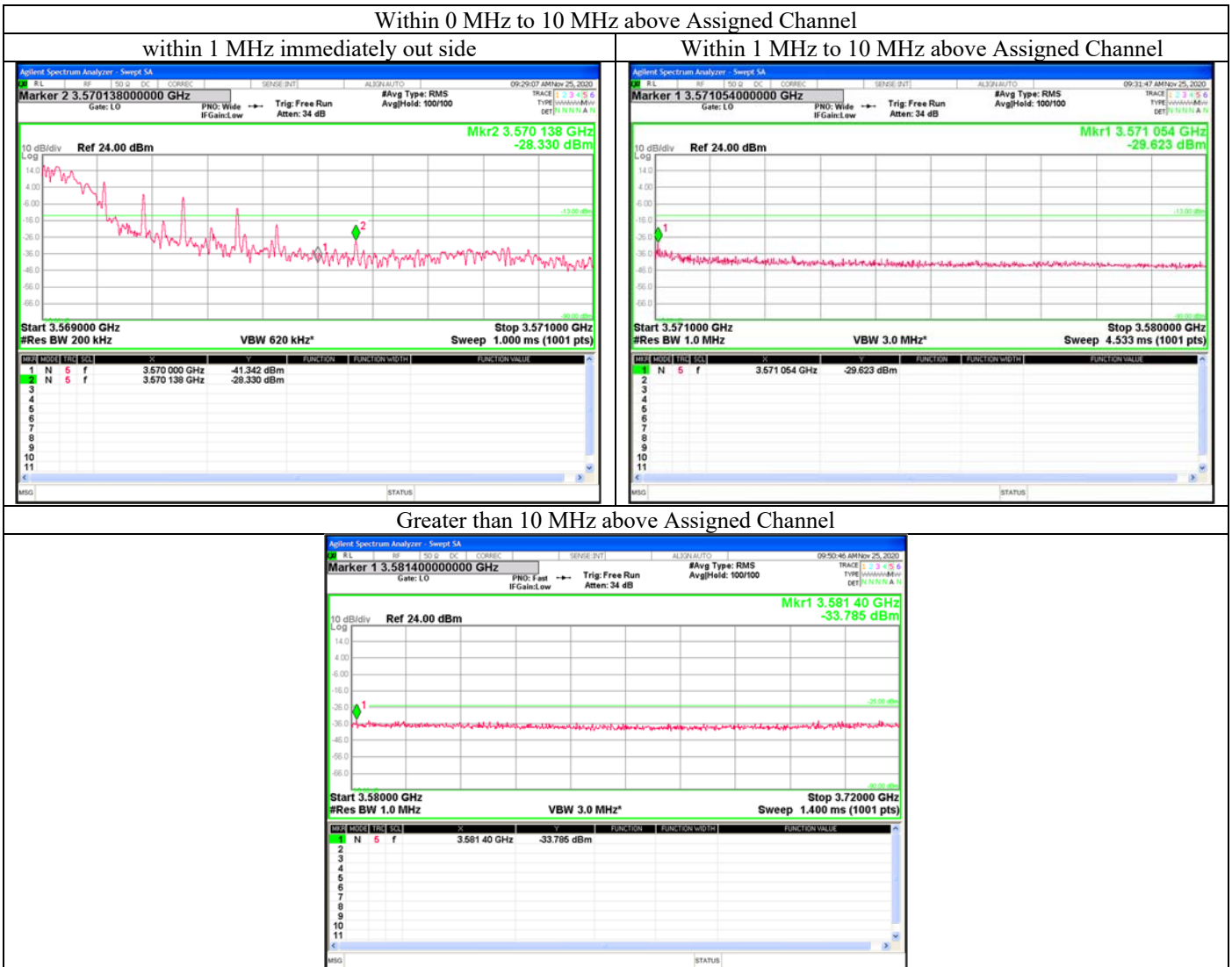


within 1 MHz immediately outside



Out of Band Emission (Conducted)

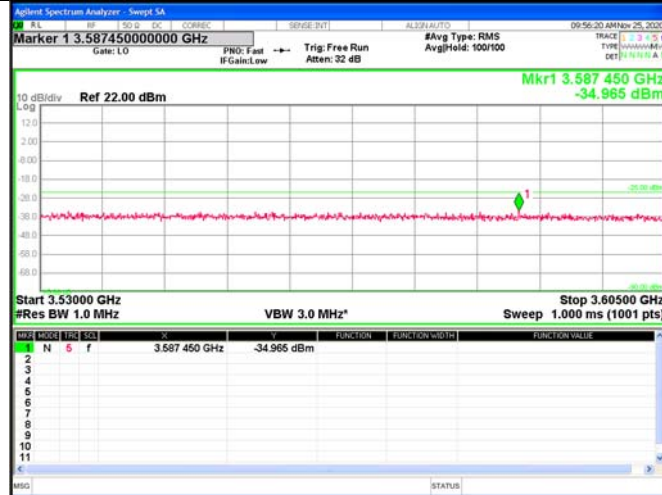
Report No. 13489136H
Test place Ise EMC Lab.
Shielded Room No.6
Date November 25, 2020
Temperature / Humidity 20 deg. C / 50 % RH
Engineer Yutaka Yoshida
Mode LTE Band48 20 MHz QPSK Low Channel RB1-99



Out of Band Emission (Conducted)

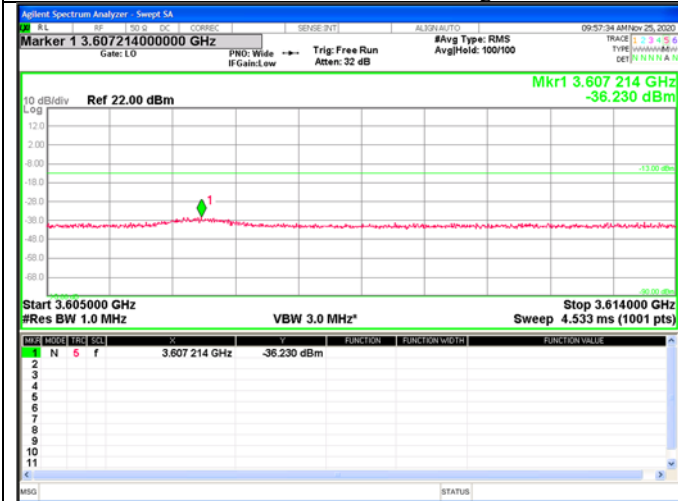
Report No. 13489136H
Test place Ise EMC Lab.
Shielded Room No.6
Date November 25, 2020
Temperature / Humidity 20 deg. C / 50 % RH
Engineer Yutaka Yoshida
Mode LTE Band48 20 MHz QPSK Md Channel RB1-99

Greater than 10 MHz below Assigned Channel

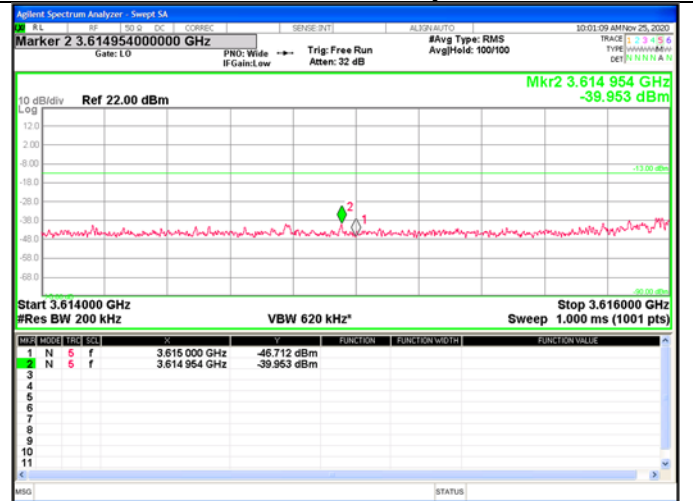


Within 0 MHz to 10 MHz below Assigned Channel

Within 1 MHz to 10 MHz below Assigned Channel

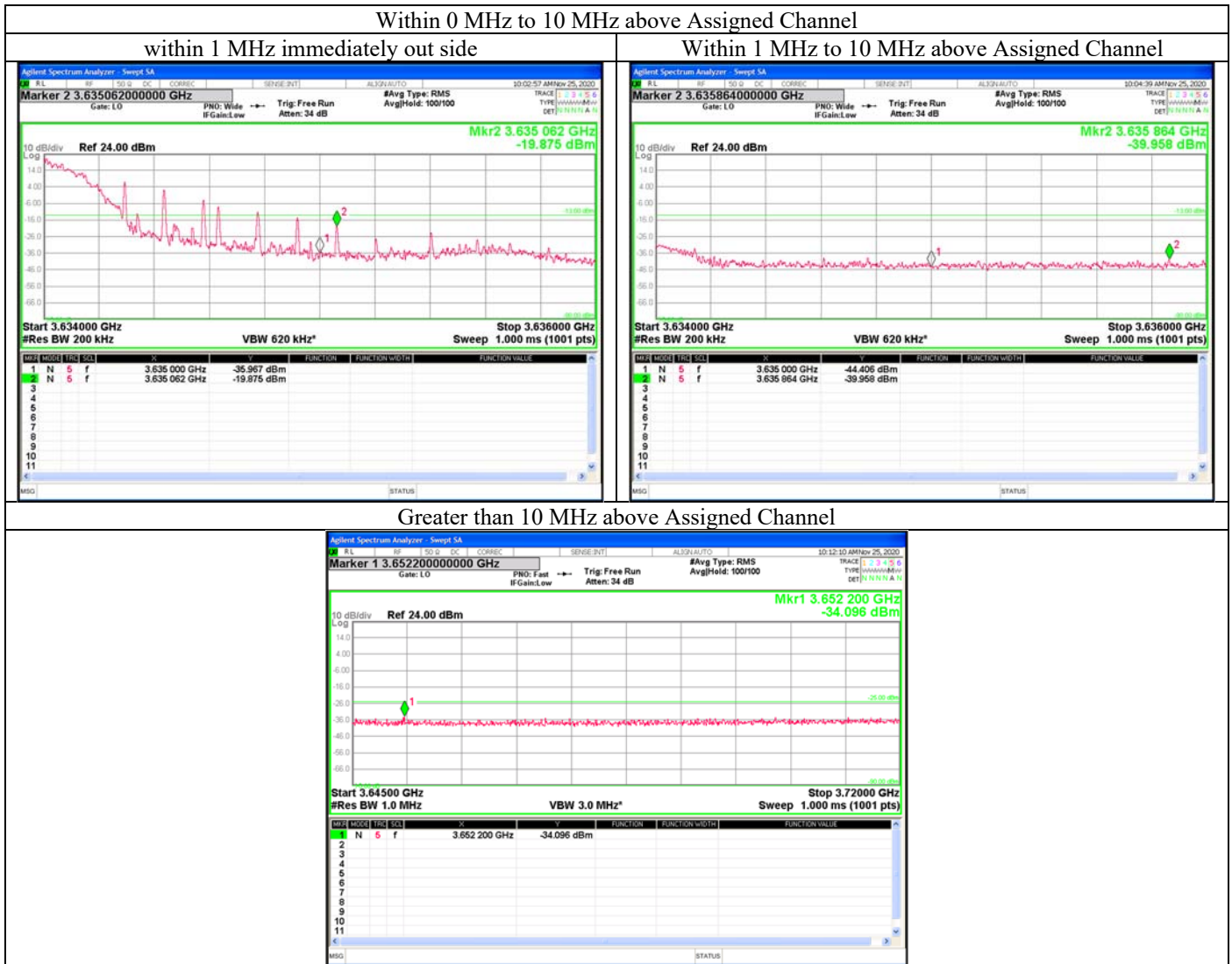


within 1 MHz immediately out side



Out of Band Emission (Conducted)

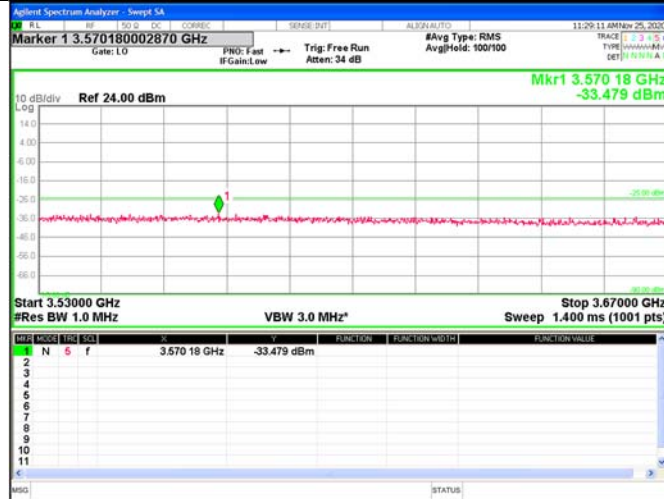
Report No. 13489136H
 Test place Ise EMC Lab.
 Shielded Room No.6
 Date November 25, 2020
 Temperature / Humidity 20 deg. C / 50 % RH
 Engineer Yutaka Yoshida
 Mode LTE Band48 20 MHz QPSK Mid Channel RB1-99



Out of Band Emission (Conducted)

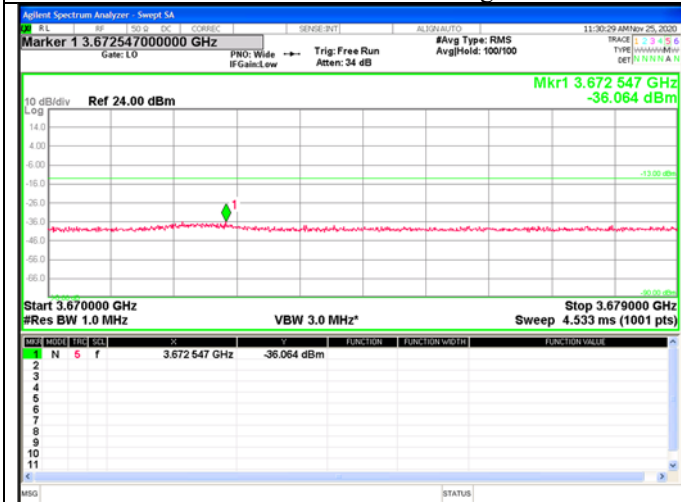
Report No. 13489136H
 Test place Ise EMC Lab.
 Shielded Room No.6
 Date November 25, 2020
 Temperature / Humidity 20 deg. C / 50 % RH
 Engineer Yutaka Yoshida
 Mode LTE Band48 20 MHz QPSK High Channel RB1-99

Greater than 10 MHz below Assigned Channel

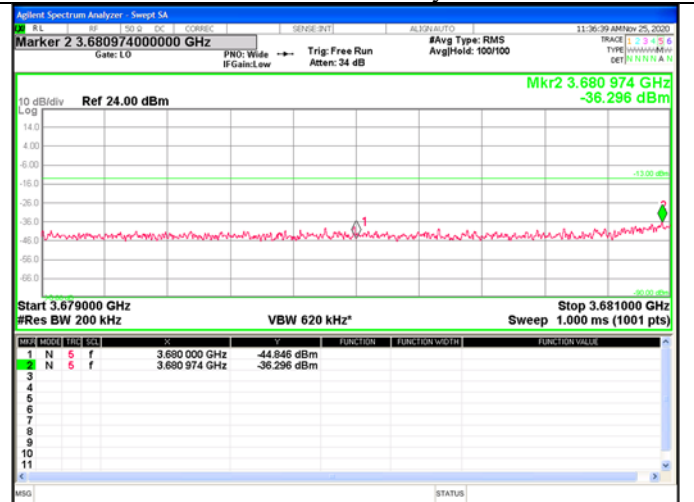


Within 0 MHz to 10 MHz below Assigned Channel

Within 1 MHz to 10 MHz below Assigned Channel

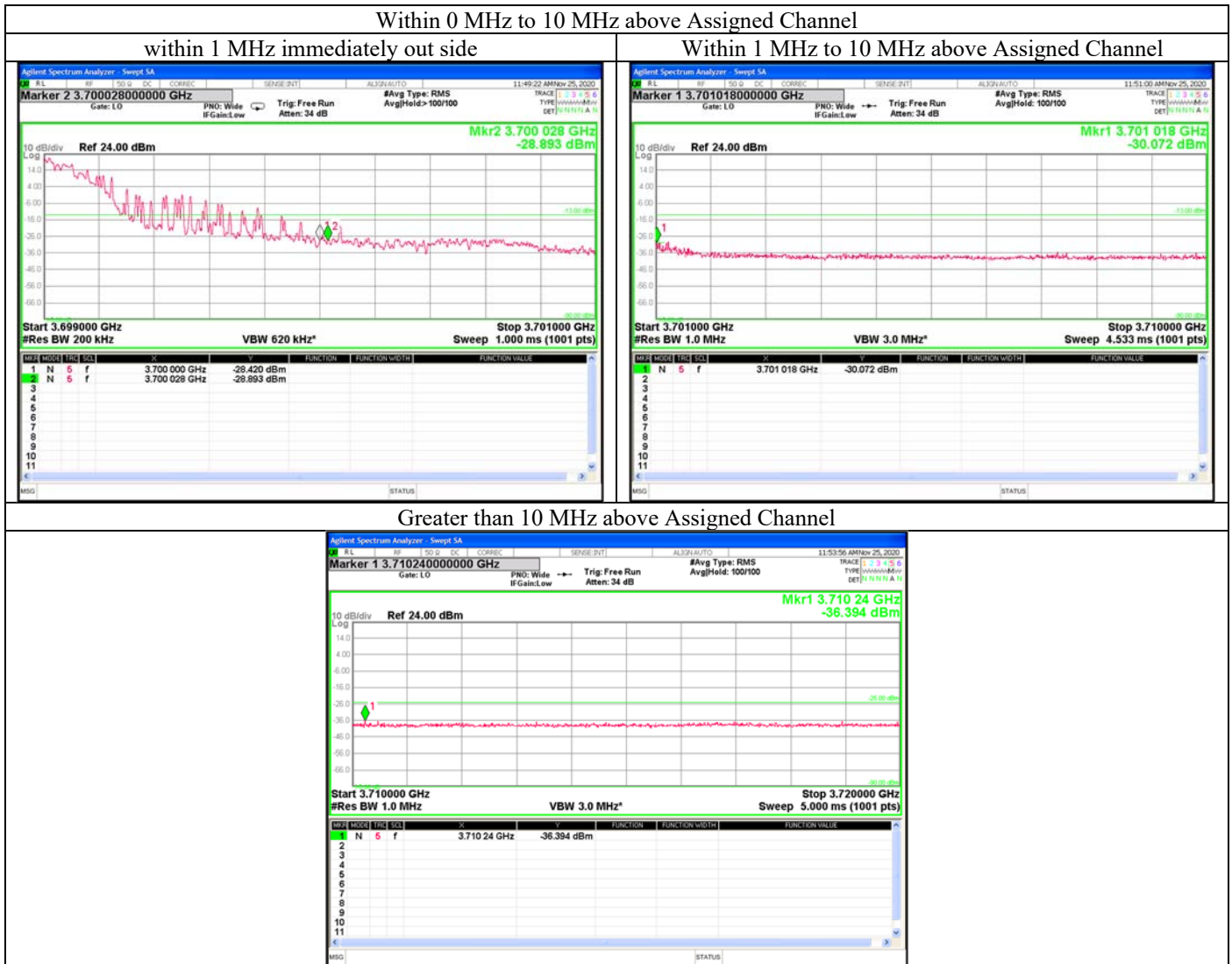


within 1 MHz immediately out side



Out of Band Emission (Conducted)

Report No. 13489136H
 Test place Ise EMC Lab.
 Shielded Room No.6
 Date November 25, 2020
 Temperature / Humidity 20 deg. C / 50 % RH
 Engineer Yutaka Yoshida
 Mode LTE Band48 20 MHz QPSK High Channel RB1-99



Out of Band Emission (Conducted)

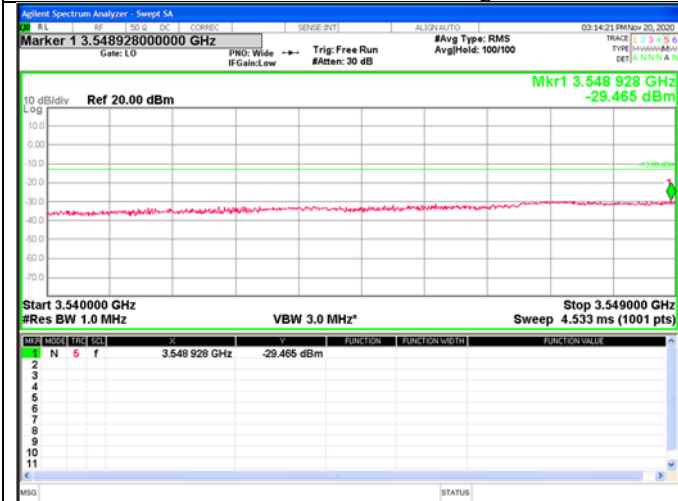
Report No. 13489136H
 Test place Ise EMC Lab.
 Shielded Room No.6
 Date November 20, 2020
 Temperature / Humidity 22 deg. C / 56 % RH
 Engineer Yutaka Yoshida
 Mode LTE Band48 15 MHz QPSK Low Channel RB75-0

Greater than 10 MHz below Assigned Channel

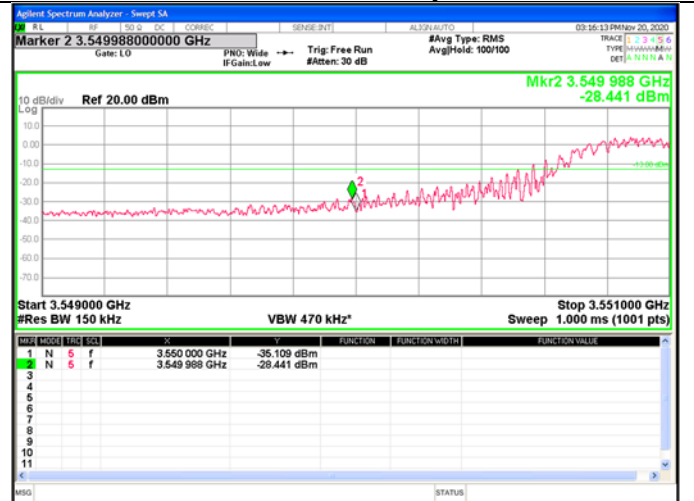


Within 0 MHz to 10 MHz below Assigned Channel

Within 1 MHz to 10 MHz below Assigned Channel



within 1 MHz immediately out side



Out of Band Emission (Conducted)

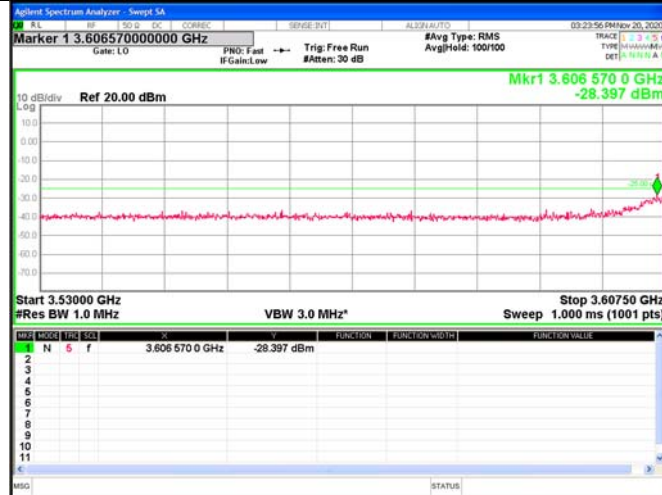
Report No. 13489136H
 Test place Ise EMC Lab.
 Shielded Room No.6
 Date November 20, 2020
 Temperature / Humidity 22 deg. C / 56 % RH
 Engineer Yutaka Yoshida
 Mode LTE Band48 15 MHz QPSK Low Channel RB75-0



Out of Band Emission (Conducted)

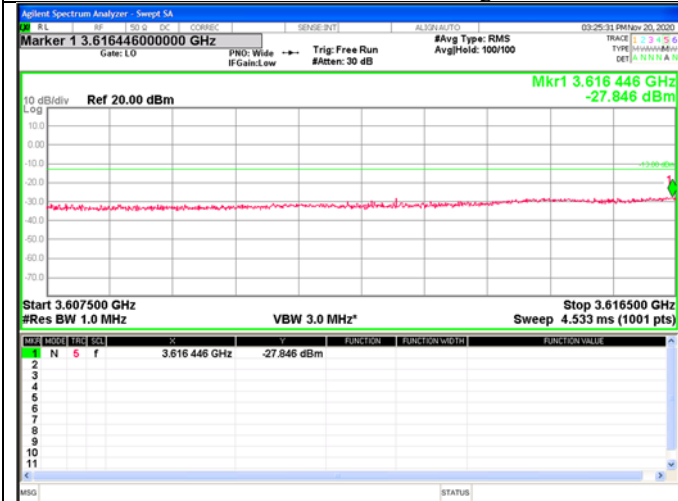
Report No. 13489136H
 Test place Ise EMC Lab.
 Shielded Room No.6
 Date November 20, 2020
 Temperature / Humidity 22 deg. C / 56 % RH
 Engineer Yutaka Yoshida
 Mode LTE Band48 15 MHz QPSK Mid Channel RB75-0

Greater than 10 MHz below Assigned Channel



Within 0 MHz to 10 MHz below Assigned Channel

Within 1 MHz to 10 MHz below Assigned Channel



within 1 MHz immediately outside



Out of Band Emission (Conducted)

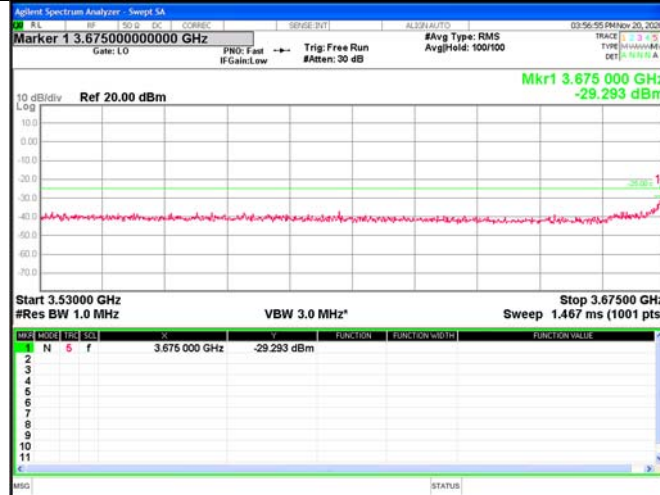
Report No. 13489136H
 Test place Ise EMC Lab.
 Shielded Room No.6
 Date November 20, 2020
 Temperature / Humidity 22 deg. C / 56 % RH
 Engineer Yutaka Yoshida
 Mode LTE Band48 15 MHz QPSK Mid Channel RB75-0



Out of Band Emission (Conducted)

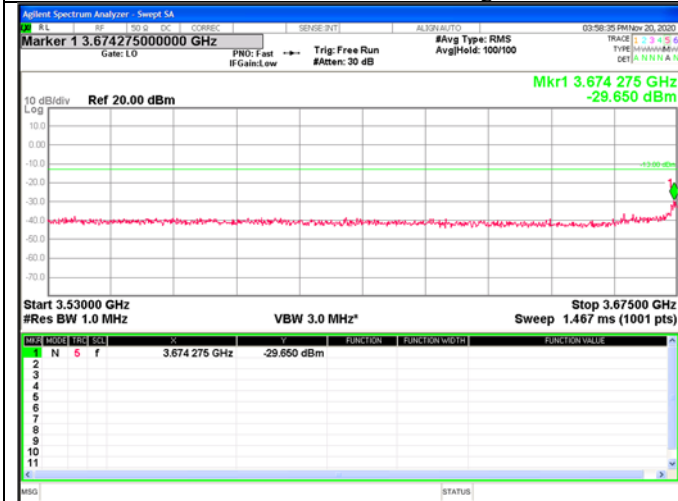
Report No. 13489136H
 Test place Ise EMC Lab.
 Shielded Room No.6
 Date November 20, 2020
 Temperature / Humidity 22 deg. C / 56 % RH
 Engineer Yutaka Yoshida
 Mode LTE Band48 15 MHz QPSK High Channel RB75-0

Greater than 10 MHz below Assigned Channel



Within 0 MHz to 10 MHz below Assigned Channel

Within 1 MHz to 10 MHz below Assigned Channel

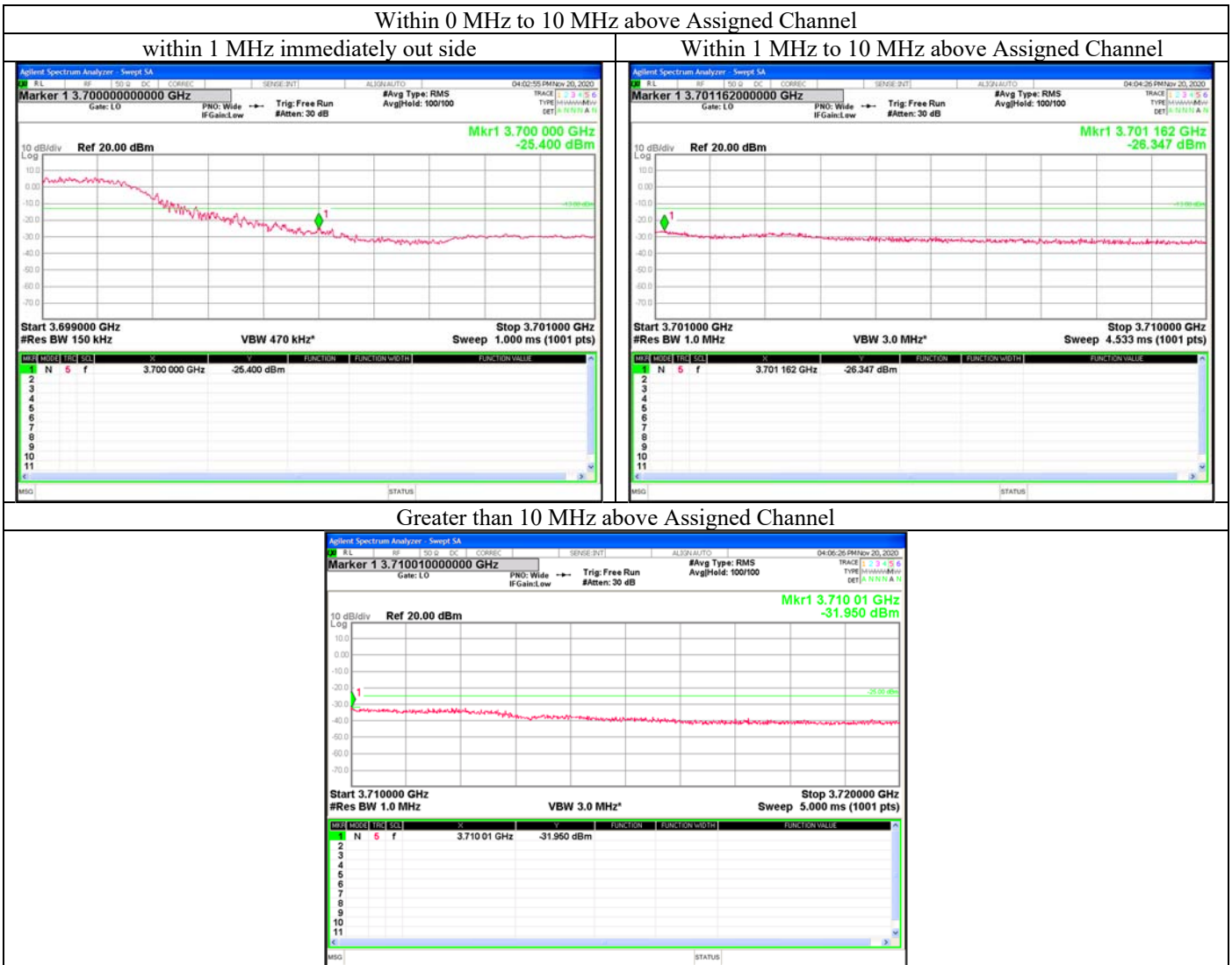


within 1 MHz immediately outside



Out of Band Emission (Conducted)

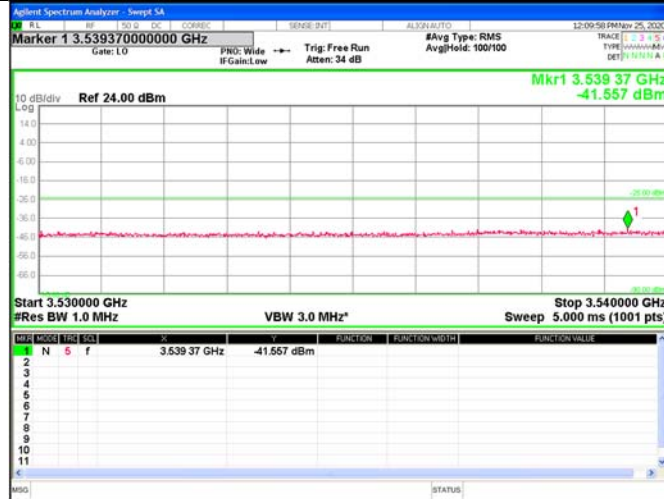
Report No.	13489136H
Test place	Ise EMC Lab.
Shielded Room	No.6
Date	November 20, 2020
Temperature / Humidity	22 deg. C / 56 % RH
Engineer	Yutaka Yoshida
Mode	LTE Band48 15 MHz QPSK High Channel RB75-0



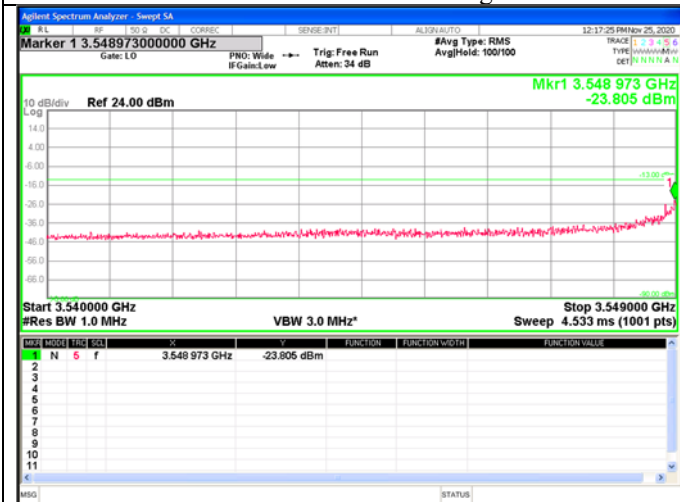
Out of Band Emission (Conducted)

Report No. 13489136H
 Test place Ise EMC Lab.
 Shielded Room No.6
 Date November 25, 2020
 Temperature / Humidity 20 deg. C / 50 % RH
 Engineer Yutaka Yoshida
 Mode LTE Band48 15 MHz QPSK Low Channel RB1-0

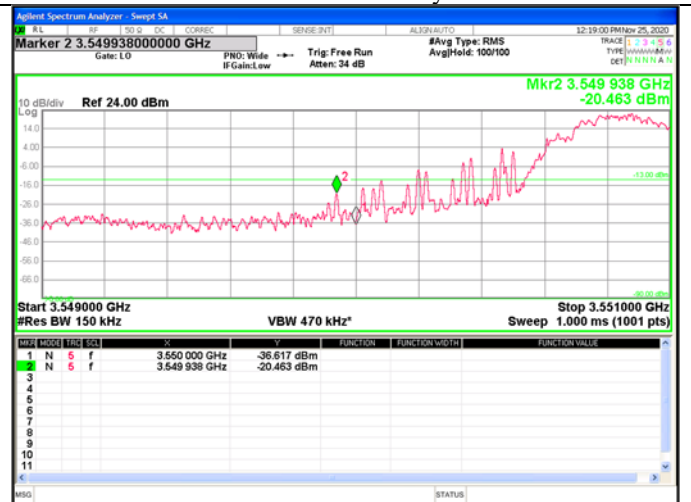
Within 0 MHz to 10 MHz below Assigned Channel



Within 1 MHz to 10 MHz below Assigned Channel



within 1 MHz immediately out side



Out of Band Emission (Conducted)

Report No. 13489136H
 Test place Ise EMC Lab.
 Shielded Room No.6
 Date November 25, 2020
 Temperature / Humidity 20 deg. C / 50 % RH
 Engineer Yutaka Yoshida
 Mode LTE Band48 15 MHz QPSK Low Channel RB1-0



Out of Band Emission (Conducted)

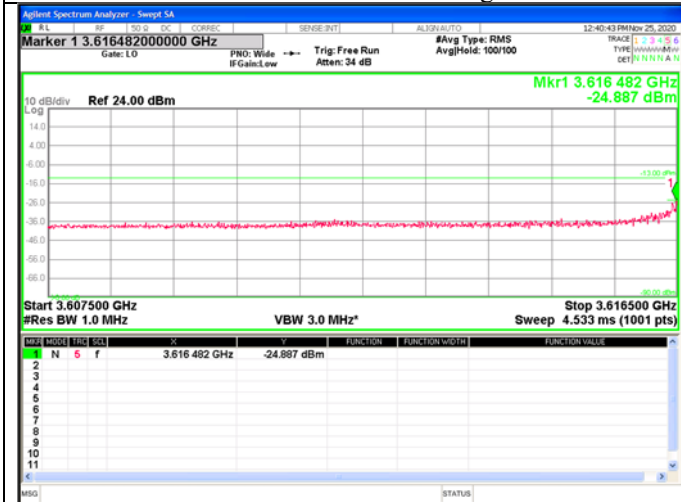
Report No. 13489136H
 Test place Ise EMC Lab.
 Shielded Room No.6
 Date November 25, 2020
 Temperature / Humidity 20 deg. C / 50 % RH
 Engineer Yutaka Yoshida
 Mode LTE Band48 15 MHz QPSK Md Channel RB1-0

Greater than 10 MHz below Assigned Channel

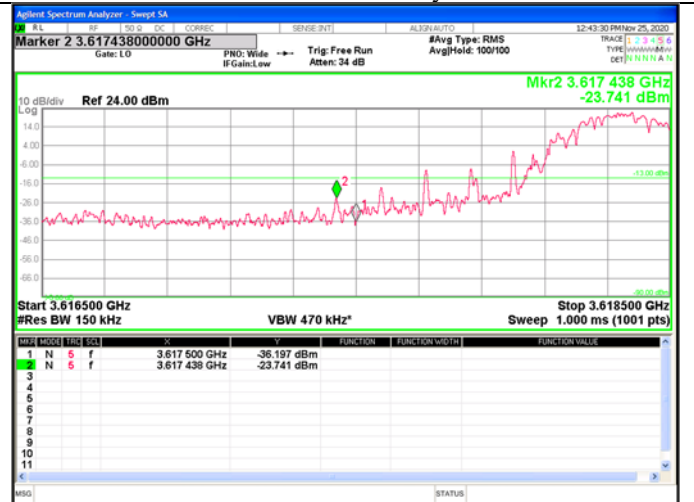


Within 0 MHz to 10 MHz below Assigned Channel

Within 1 MHz to 10 MHz below Assigned Channel



within 1 MHz immediately out side



Out of Band Emission (Conducted)

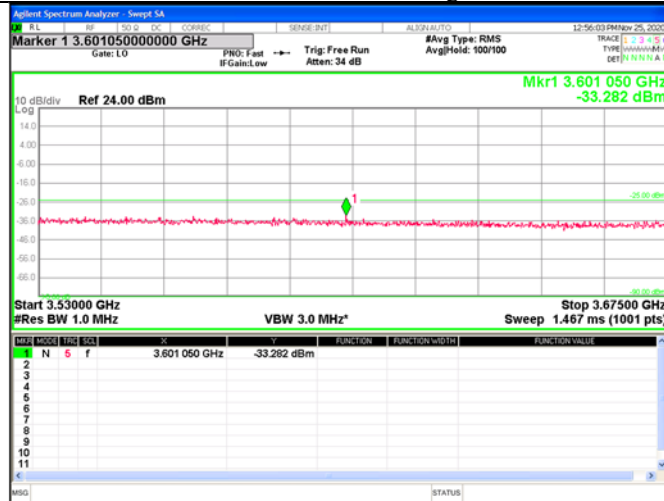
Report No. 13489136H
 Test place Ise EMC Lab.
 Shielded Room No.6
 Date November 25, 2020
 Temperature / Humidity 20 deg. C / 50 % RH
 Engineer Yutaka Yoshida
 Mode LTE Band48 15 MHz QPSK Mid Channel RB1-0



Out of Band Emission (Conducted)

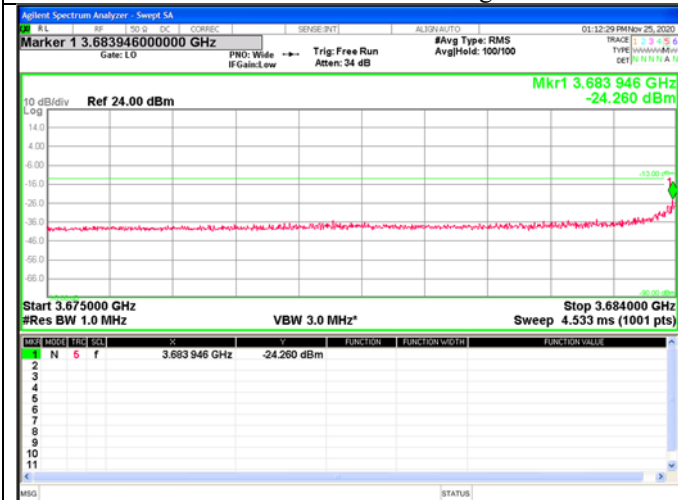
Report No. 13489136H
 Test place Ise EMC Lab.
 Shielded Room No.6
 Date November 25, 2020
 Temperature / Humidity 20 deg. C / 50 % RH
 Engineer Yutaka Yoshida
 Mode LTE Band48 15 MHz QPSK High Channel RB1-0

Greater than 10 MHz below Assigned Channel

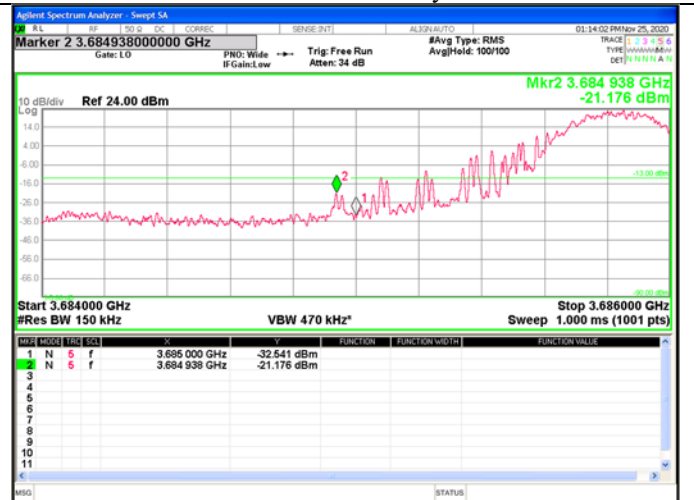


Within 0 MHz to 10 MHz below Assigned Channel

Within 1 MHz to 10 MHz below Assigned Channel



within 1 MHz immediately outside



Out of Band Emission (Conducted)

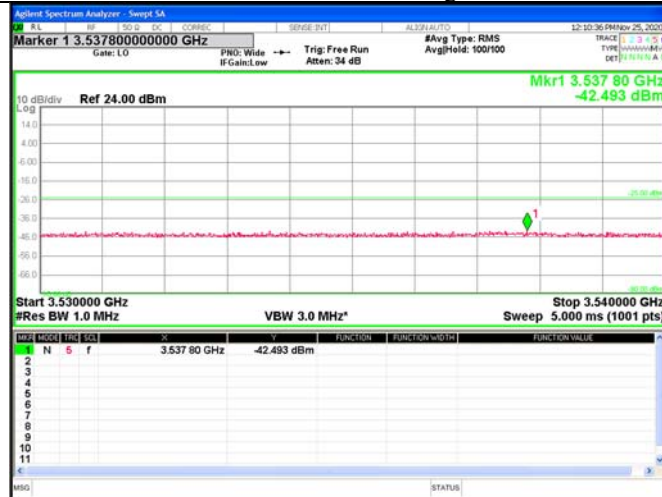
Report No. 13489136H
 Test place Ise EMC Lab.
 Shielded Room No.6
 Date November 25, 2020
 Temperature / Humidity 20 deg. C / 50 % RH
 Engineer Yutaka Yoshida
 Mode LTE Band48 15 MHz QPSK High Channel RB1-0



Out of Band Emission (Conducted)

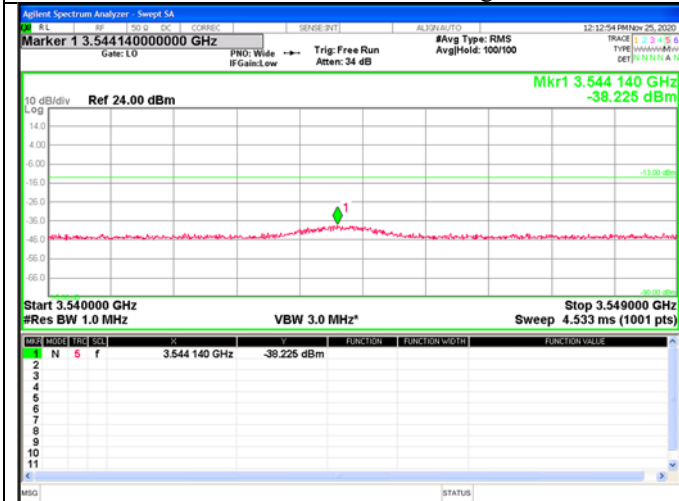
Report No. 13489136H
Test place Ise EMC Lab.
Shielded Room No.6
Date November 25, 2020
Temperature / Humidity 20 deg. C / 50 % RH
Engineer Yutaka Yoshida
Mode LTE Band48 15 MHz QPSK Low Channel RB1-74

Greater than 10 MHz below Assigned Channel

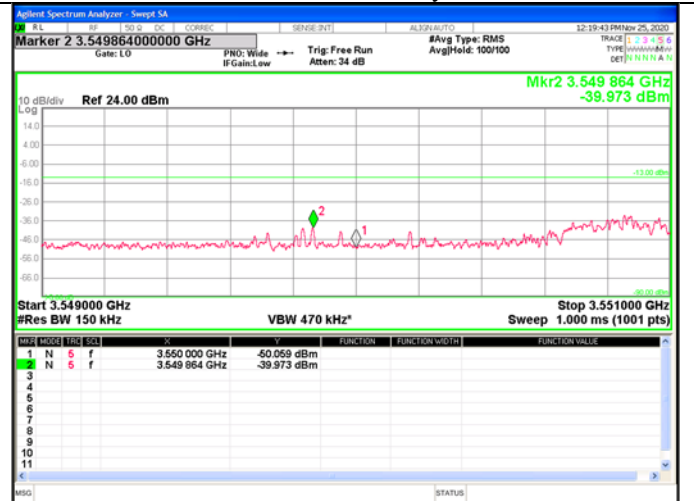


Within 0 MHz to 10 MHz below Assigned Channel

Within 1 MHz to 10 MHz below Assigned Channel



within 1 MHz immediately outside



Out of Band Emission (Conducted)

Report No. 13489136H
Test place Ise EMC Lab.
Shielded Room No.6
Date November 25, 2020
Temperature / Humidity 20 deg. C / 50 % RH
Engineer Yutaka Yoshida
Mode LTE Band48 15 MHz QPSK Low Channel RB1-74

