Report on the RF Testing of:

KYOCERA Corporation Mobile Phone, Model: EB1155 FCC ID: JOYEB1155

In accordance with FCC Part15 Subpart C

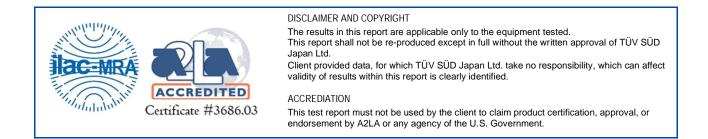
Prepared for: KYOCERA Corporation Yokohama Office 2-1-1 Kagahara, Tsuzuki-ku Yokohama-shi, Kanagawa, Japan Phone: +81-45-943-6253 Fax: +81-45-943-6314

COMMERCIAL-IN-CONFIDENCE

Document Number: JPD-TR-22220-1

SIGNATURE			
	diroch Sigur	ey.	
NAME	JOB TITLE	RESPONSIBLE FOR	ISSUE DATE
Hiroaki Suzuki	Deputy Manager of RF Group	Approved Signatory	2023.01.06

EXECUTIVE SUMMARY – Result: Complied A sample of this product was tested and the result above was confirmed in accordance with FCC Part15 Subpart C.



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1 Summary of Test

1.1 Modification history of the test report

Document Number	Modification History Issue Date	
JPD-TR-22220-0	First Issue	20-December-2022
JPD-TR-22220-1	Conducted test results for EB1146 added.	Refer to the cover page

1.2 Standards

CFR47 FCC Part 15 Subpart C

1.3 Test methods

ANSI C63.10-2013 KDB 558074 D01 15.247 Meas Guidance v05r02

1.4 Deviation from standards

None

1.5 List of applied test(s) of the EUT

Test item section	Test item	Condition	Result	Remark
15.247(a)(2)	DTS Bandwidth / Occupied Bandwidth (99%)	Conducted	PASS	*1
15.247(b)(3)	Maximum conducted (average) output power	Conducted	PASS	*1
15.247(d)	Band Edge Compliance of RF Conducted Emissions	Conducted	PASS	*1
15.247(d)		Conducted	PASS	*1
15.205 15.209	Spurious Emissions	Radiated	PASS	-
15.247(d) 15.205 15.209	Restricted Bands of Operation	Radiated	PASS	-
15.247(e)	Transmitter Power Spectral Density	Conducted	PASS	*1
15.207	AC Power Line Conducted Emissions	Conducted	PASS	-

*1 Since there is no change in Module from FCC ID: JOYEB1146, only the Radiated test items were performed. Conduction test results are listed as "JPD-TR-22192-0" of "FCC ID: JOYEB1146".

1.6 Test information

None

1.7 Test set up

Table-top



1.8 Test period

27-October-2022 - 9-December-2022



2 Equipment Under Test

All information in this chapter was provided by the applicant.

2.1 EUT information

Applicant	KYOCERA Corporation
	Yokohama Office 2-1-1 Kagahara, Tsuzuki-ku Yokohama-shi, Kanagawa, Japan
	Phone: +81-45-943-6253 Fax: +81-45-943-6314
Equipment Under Test (EUT)	Mobile Phone
Model number	EB1155
Serial number	352034010006537, 352034010006552
Trade name	Kyocera
Number of sample(s)	2
EUT condition	Pre-Production
Power rating	Battery: DC 3.87 V
Size	(W) 72 mm × (D) 156 mm × (H) 8.9 mm
Environment	Indoor and Outdoor use
Terminal limitation	-20 °C to 60 °C
Hardware Version	DMT
Software Version	0.100ML.9013.a
Firmware Version	Not applicable
RF Specification	
Protocol	IEEE802.11b, IEEE802.11g, IEEE802.11n (HT20),
Frequency range	IEEE802.11b /11g /11n (HT20): 2412 MHz-2462 MHz
Number of RF Channels	11 Channels
Modulation type	IEEE802.11b: DSSS (DBPSK, DQPSK, CCK) IEEE802.11g / 11n (HT20): OFDM (BPSK, QPSK, 16QAM, 64QAM)
Data rate	IEEE802.11b: 1, 2, 5.5, 11Mbps IEEE802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps IEEE802.11n (HT20 LGI): 6.5, 13, 19.5, 26, 39, 52, 58.5, 65Mbps IEEE802.11n (HT20 SGI): 7.2, 14.4, 21.7, 28.9, 43.3, 57.8, 65, 72.2Mbps
Channel separation	5 MHz
Conducted power	54.576 mW (IEEE802.11b) 214.289 mW (IEEE802.11g) 245.471 mW (IEEE802.11n: HT20)
Antenna type	Internal antenna
Antenna gain	-0.5 dBi



2.2 Modification to the EUT

The table below details modifications made to the EUT during the test project.

Modification State Description of Modification		Modification fitted by	Date of Modification
Model: EB1155, Serial Number: 352034010006537, 352034010006552			
0 As supplied by the applicant		Not Applicable	Not Applicable

2.3 Variation of family model(s)

2.3.1 List of family model(s)

Not applicable

2.3.2 Reason for selection of EUT

Not applicable

2.4 Operating channels and frequencies

Channel	Frequency [MHz]
1	2412
2	2417
3	2422
4	2427
5	2432
6	2437
7	2442
8	2447
9	2452
10	2457
11	2462



2.5 Description of test mode

The EUT had been tested under operating condition. There are three channels have been tested as following:

Tested Channel [11b, 11g, 11n(HT20)]	Frequency [MHz]
Low	2412
Middle	2437
High	2462

The pre-test has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates.

Tested Channel	Modulation Type	Data Rate
Low, Middle, High	IEEE802.11b: DSSS	1Mbps
Low, Middle, High	IEEE802.11g: OFDM	6Mbps
Low, Middle, High	IEEE802.11n (HT20 LGI): OFDM	MCS0 (6.5Mbps)

The field strength of spurious emissions was measured at each position of all three axis X, Y and Z to compare the level, and the maximum noise.

The worst emission was found in X-axis and the worst case recorded.

Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports.

2.6 Operating flow

- Tx mode

- i) Test program setup to the Software
- ii) Select a Test mode

[IEEE802.11b, IEEE802.11g, IEEE802.11n (HT20)] Operating frequency: Channel Low: 2412MHz, Channel Middle: 2437MHz, Channel High: 2462MHz

iii) Start test mode

- Rx mode

- i) Test program setup to the Software
- Select a Test mode [IEEE802.11b, IEEE802.11g, IEEE802.11n (HT20)]
 Operating frequency: Channel Low: 2412MHz, Channel Middle: 2437MHz, Channel High: 2462MHz
- iii) Start test mode



3 Configuration of Equipment

Numbers assigned to equipment on the diagram in "3.3 System configuration" correspond to the list in "3.1 Equipment used" and "3.2 Cable(s) used".

This test configuration is based on the manufacture's instruction.

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

3.1 Equipment used

No.	Equipment	Company	Model No.	Serial No.	FCC ID/DoC	Comment
1	Mobile Phone	KYOCERA	EB1155	352034010006537 352034010006552	JOYEB1155	EUT
2	AC Adapter	KDDI	0602PQA	N/A	N/A	*

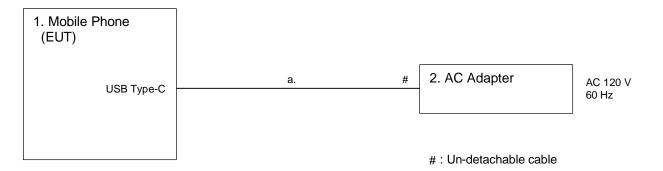
*:AC power line Conducted Emission Test.

3.2 Cable(s) used

No.	Equipment	Length[m]	Shield	Connector	Comment
а	USB cable (for AC Adapter)	1.5	No	Plastic	*
* A O we show the A O we down to d E wise size a Tarat					

*: AC power line Conducted Emission Test.

3.3 System configuration





4 Test Result

4.1 DTS Bandwidth / Occupied Bandwidth (99%)

4.1.1 Measurement procedure

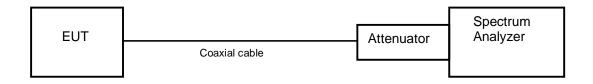
[FCC 15.247(a)(2), KDB 558074 D01 v05r02, Section 8.2]

The bandwidth at 6dB down from the highest inband spectral density is measured with a spectrum analyzer connected to the antenna terminal, while EUT is operating in transmission mode at the appropriate center frequency.

The spectrum analyzer is set to;

- a) RBW = 100kHz.
- b) VBW \geq 3 x RBW.
- c) Sweep time = auto-couple.
- d) Detector = peak.
- e) Trace mode = max hold.

- Test configuration



4.1.2 Limit

The minimum permissible 6 dB bandwidth is 500 kHz.



4.1.3 Measurement result

Date	:	19-October-2022
Temperature	:	19.9 [°C]
Humidity	:	38.1 [%]
Test place	:	Shielded room No.4

Test engineer

:

Kazunori Saito

Ohannal		DTS Bandwidth [MHz]	
Channel	IEEE802.11b	IEEE802.11g	IEEE802.11n (HT20)
Low	8.092	15.495	15.359
Middle	8.570	15.354	15.159
High	8.085	11.348	15.148

*: Tested by EB1146

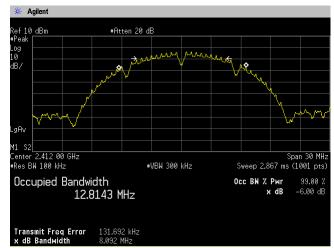
Channel		Occupied Bandwidth (99%) [MHz]								
Channel IEEE80	IEEE802.11b	IEEE802.11g	IEEE802.11n (HT20)							
Low	12.814	16.357	17.544							
Middle	12.856	16.363	17.554							
High	12.495	16.120	17.502							

*: Tested by EB1146

4.1.4 Trace data

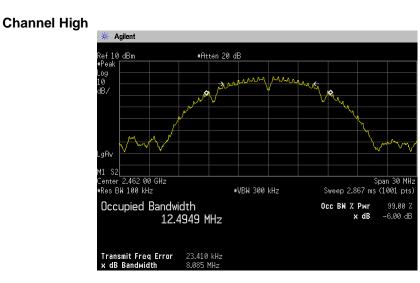
[IEEE802.11b]

Channel Low



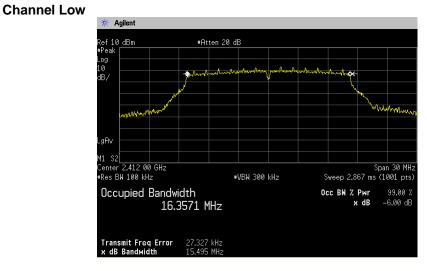
Channel Middle



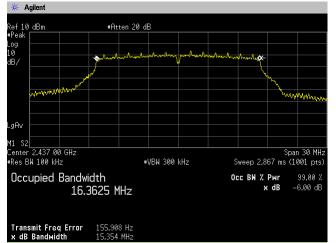


Japan

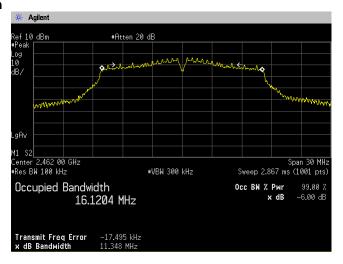
[IEEE802.11g]



Channel Middle

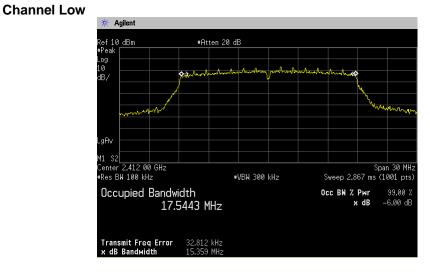


Channel High





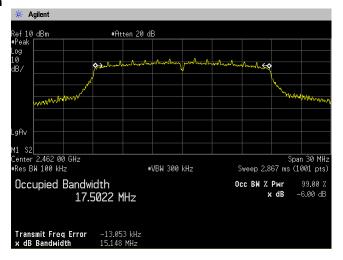
[IEEE802.11n (HT20)]



Channel Middle

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enter 2.437 00 GHz				^ ^^ 7	Span 30 MH
Res BW 100 kHz		VBW 300 kHz	5	weep 2.867	ms (1001 pts
Occupied Bandwi	dth		00		ir 99.00 %
17.5	5542 MHz			×d	B −6.00 dB
Transmit Freq Error x dB Bandwidth	4.479 kHz 15.159 MHz				

Channel High







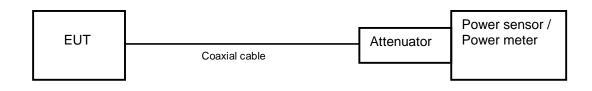
4.2 Maximum Conducted Output Power

4.2.1 Measurement procedure

[FCC 15.247(b)(3), KDB 558074 D01 v05r02, Section 8.3.1.3]

The peak power is measured with a power sensor connected to the antenna terminal, while EUT is operating in transmission mode at the appropriate center frequency.

- Test configuration



4.2.2 Limit

1 W (1000 mW) or less



4.2.3 Measurement result

Date	:	14-October-2022			
Temperature	:	24.8 [°C]			
Humidity	:	48.3 [%]	Test engineer	:	
Test place	:	Shielded room No.4			Taiki Watanabe

[IEEE802.11b]

Battery	Full

Channel	Center Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Peak Output Power (mW)	Limit (mW)	Result
Low	2412	6.43	10.52	16.95	49.545	≦1000	PASS
Middle	2437	6.85	10.52	17.37	54.576	≦1000	PASS
High	2462	6.56	10.52	17.08	51.050	≦1000	PASS

*: Tested by EB1146

[IEEE802.11g] Battery Full

Channel	Center Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Peak Output Power (mW)	Limit (mW)	Result
Low	2412	12.79	10.52	23.31	214.289	≦1000	PASS
Middle	2437	12.31	10.52	22.83	191.867	≦1000	PASS
High	2462	11.42	10.52	21.94	156.315	≦1000	PASS

*: Tested by EB1146

[IEEE802.11n (HT20)] Battery Full

Channel	Center Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Peak Output Power (mW)	Limit (mW)	Result
Low	2412	13.38	10.52	23.90	245.471	≦1000	PASS
Middle	2437	13.33	10.52	23.85	242.661	≦1000	PASS
High	2462	12.57	10.52	23.09	203.704	≦1000	PASS

*: Tested by EB1146

Calculation;

Reading (dBm) + Factor (dB) = Level (dBm) $10\log P = Level (dBm)$ $P = 10^{(Maximum Peak Output Power / 10)} (mW)$



4.3 Band Edge Compliance of RF Conducted Emissions

4.3.1 Measurement procedure

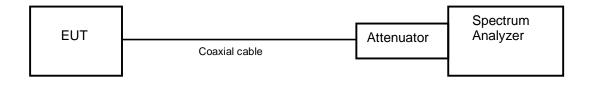
[FCC 15.247(d), KDB 558074 D01 v05r02, Section 8.5]

The Band Edge is measured with a spectrum analyzer connected to the antenna terminal, while EUT is operating in transmission mode at the appropriate center frequency.

The spectrum analyzer is set to;

- a) Span = Arbitrary setting. (Setting suitable for measurement.)
- b) RBW = 100kHz.
- c) VBW \ge 3 x RBW
- d) Sweep time = auto-couple.
- e) Detector = peak.
- f) Trace mode = max hold.

- Test configuration



4.3.2 Limit

In any 100 kHz bandwidth outside the frequency band the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.



4.3.3 Measurement result

Date	:	7-October-2022
Temperature	:	23.2 [°C]
Humidity	:	39.3 [%]
Test place	:	Shielded room No.4

Test engineer :

Taiki Watanabe

[IEEE802.11b]

Channel	Frequency (MHz)	RF Power Level (dBm)	Band-edge Frequency (MHz)	Band- edge Level (dBm)	Difference Level (dBm)	Limit (dBm)	Result
Low	2412	-4.33	2399.52	-56.32	51.99	At least 20dB below from peak of RF	PASS
High	2462	-3.99	2487.98	-65.30	61.31	At least 20dB below from peak of RF	PASS

*: Tested by EB1146

[IEEE802.11g]

Channel	Frequency (MHz)	RF Power Level (dBm)	Band-edge Frequency (MHz)	Band- edge Level (dBm)	Difference Level (dBm)	Limit (dBm)	Result
Low	2412	-7.28	2399.84	-45.43	38.15	At least 20dB below from peak of RF	PASS
High	2462	-7.25	2483.58	-54.06	46.81	At least 20dB below from peak of RF	PASS

*: Tested by EB1146

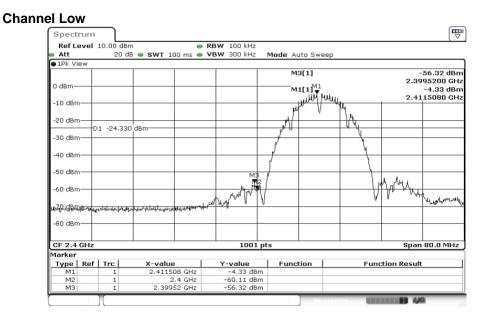
[IEEE802.11n (HT20)]

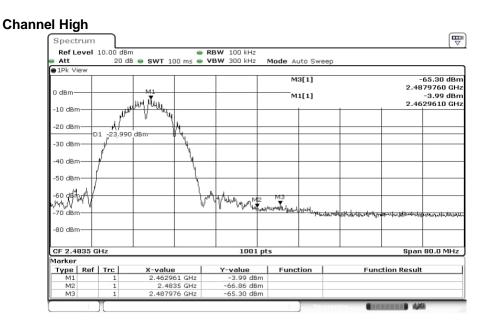
Channel	Frequency (MHz)	RF Power Level (dBm)	Band-edge Frequency (MHz)	Band- edge Level (dBm)	Difference Level (dBm)	Limit (dBm)	Result
Low	2412	-7.30	2399.44	-44.50	37.20	At least 20dB below from peak of RF	PASS
High	2462	-7.74	2484.46	-52.18	44.44	At least 20dB below from peak of RF	PASS

*: Tested by EB1146

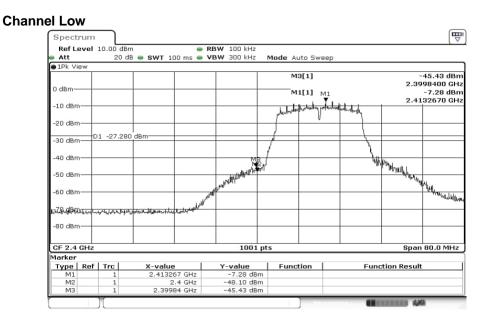
4.3.4 Trace data

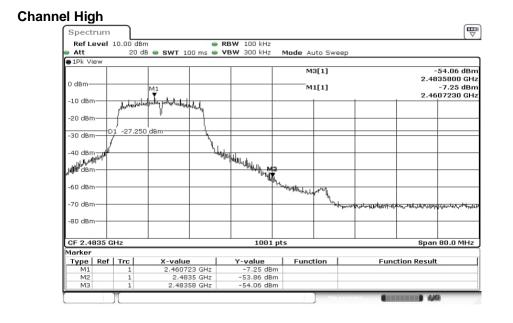
[IEEE802.11b]





[IEEE802.11g]

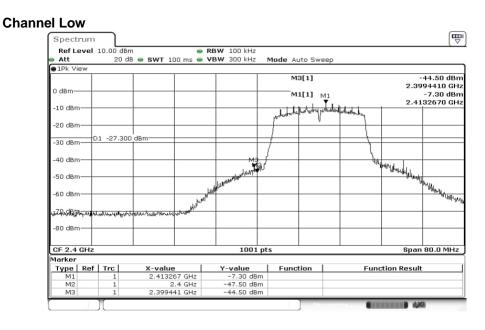


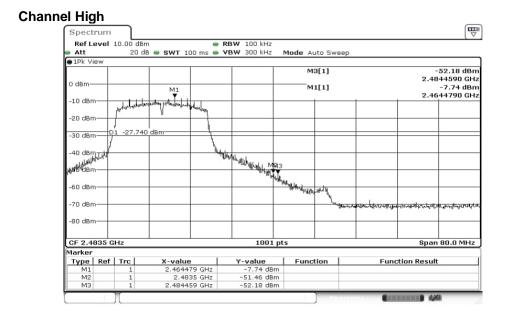






[IEEE802.11n (HT20)]







4.4 Spurious emissions - Conducted -

4.4.1 Measurement procedure

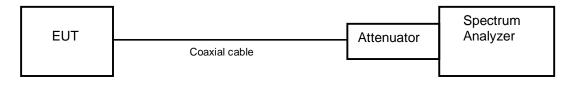
[FCC 15.247(d), KDB 558074 D01 v05r02, Section 8.5]

The spurious emissions (Conducted) are measured with a spectrum analyzer connected to the antenna terminal, while EUT is operating in transmission mode at the appropriate center frequency.

The spectrum analyzer is set to;

- a) Span = wide enough to fully capture the emission being measured.
- b) RBW = 100 kHz.
- c)́ VBW ≥ RBW.
- d) Sweep time = auto-couple.
- e) Detector = peak.
- f) Trace mode = max hold.

- Test configuration



4.4.2 Limit

In any 100 kHz bandwidth outside the frequency band the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.



4.4.3 Measurement result

Date	: 6-October-2022			
Temperature	: 22.4 [°C]			
Humidity	: 45.4 [%]	Test engineer	:	
Test place	: Shielded room No.4	-		Taiki Watanabe

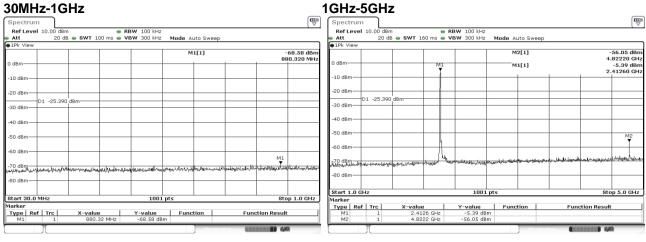
[IEEE802.11b、IEEE802.11g、IEEE802.11n (HT20)]

Channel	Frequency [MHz]	Limit [dB]	Results Chart	Result
Low	2412	At least 20dB below from peak of RF	See the trace Data	PASS
Middle	2437	At least 20dB below from peak of RF	See the trace Data	PASS
High	2462	At least 20dB below from peak of RF	See the trace Data	PASS
*. Tested by				

*: Tested by EB1146



[IEEE802.11b] Channel Low 30MHz-1GHz



5GHz-10GHz

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-20 dBm				_							
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-40 dBrr											
-50 dBm	-										
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10GHz-15GHz

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Type M1	Ref	1	X-valu	533 GHz		Y-value -64.26 dBm	Func	tion	Fun	ction Result	

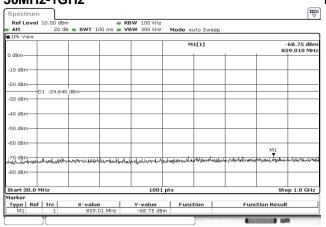
15GHz-20GHz

20GHz-25GHz

Spectrum										Spectrun	¹								
Ref Level Att				3W 100 kHz 3W 300 kHz		uto Sweep				Att	10.00 dBm 20 dB	SWT 10		3W 100 kHz 3W 300 kHz		uto Sweep			
●1Pk View										●1Pk View									
					м	1[1]			61.09 dBm 28820 GHz	0 dBm					м	1[1]			-61.89 dBm .32220 GHz
0 dBm-										U dBm									
-10 dBm										-10 dBm									
-20 dBm										-20 dBm							<u> </u>	Ļ	
-30 dBm	1 -25.390	dBm								-30 dBm	D1 -25.390	dBm					<u> </u>	<u> </u>	
-40 dBm										-40 dBm									
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-70 dBm										-70 dBm									
-80 dBm										-80 dBm							+	<u> </u>	
Start 15.0 G	Hz	L		1001	pts			Stop	20.0 GHz	Start 20.0	GHz		1	1001	pts			Sto	p 25.0 GHz
Marker Type Ref M1	Trc 1	X-valu 19.28	e B82 GHz	Y-value -61.09 dB	Func	tion	Fund	tion Result		Marker Type Re M1	f Trc	X-value 20.321	22 GHz	Y-value -61.89 dB	Func	tion	Fun	ction Result	t
)(]		00000	a][) Meaning			GA



Channel Middle 30MHz-1GHz



1GHz-5GHz Spectrum Ref Level 10.00 dB Att 20 c Mode Auto Sweep • 1Pk Vi M2[1] -58.76 dBm 4.87410 GHz -4.64 dBm 2.43660 GHz dB M1[1] -10 dBn -20 dBm D1 -24.640 -30 dBm-40 dBn 50 dBn 60 dBm -70 dBmhan lut -80 dBn Stop 5.0 GHz Star 1ark 100 Marker Type Ref Trc M1 1 M2 1 Y-value Function -4.64 dBm -58.76 dBm X-value 2.4366 GHz 4.8741 GHz Function Result

5GHz-10GHz

Spectrum			Spectrum				
	W 100 kHz W 300 kHz Mode Auto Sweep		Ref Level 10.00 dB	m 👄 RE IB 👄 SWT 100 ms 👄 VI	3W 100 kHz 3W 300 kHz Mode Au	ito Sweep	
● 1Pk View			1Pk View				
0 dBm-	M1[1]	-64.01 dBm 6.79070 GHz	0 dBm		L MI	1[1]	-63.88 dBm 13.82870 GHz
-10 dBm			-10 dBm				
-20 dBm-01 -24.640 dBm-			-20 dBm	0 dBm			
-30 dBm			-30 dBm				
-40 dBm			-40 dBm				
			-50 dBm			-M1	
-60 dBm	nallitumenter reperture and the second second	ace about the life of the property of the prop	Manufallant antilade and the second	where the set of the second	hallestanders allessates and a second and	denteroused the survey of the description	where and the second
-80 dBm			-80 dBm				
Start 5.0 GHz	1001 pts	Stop 10.0 GHz	Start 10.0 GHz		1001 pts		Stop 15.0 GHz
	Y-value Function -64.01 dBm	Function Result	Marker Type Ref Trc M1 1	X-value 13.8287 GHz	Y-value Funct	ion Function	Result
	H- assistant	C				Measuring Constants	B 449

15GHz-20GHz

20GHz-25GHz

Att 1Pk View	20 UD 1	0111 10	u iii 🖉 🖣	BW 300 kHz	moue A	uto Sweep				Att 1Pk View	
DIPK VIEW									0.91 dBm	Thk Alem	
					M	1[1]			4330 GHz		
0 dBm						1 1		15.2	1000 0112	0 dBm	
						1 1					
10 dBm						<u> </u>				-10 dBm	
						1 1					
20 dBm						<u>├</u>				-20 dBm	
D1	-24.640 dt	3m-									D1 -2
30 dBm										-30 dBm	
						1 1					
40 dBm										-40 dBm	
<i></i>						1 1					
50 dBm										-50 dBm	
						1 1		M1		MI	
60 dBm					102	1		up of robby	the share of the second	-60 dB	
ou dem	enter of the property of the	With an an a showing the	elister Naedale	whether and	(net they be a bille	Man Husbarran and	white and and	man-	-and introduct	which a graph of the	hur
70 dBm										-70 dBm-	
						1 1					
80 dBm										-80 dBm	
						1 1					
tart 15.0 GHz	2			1001	pts			Stop 2	0.0 GHz	Start 20.0	GHz
arker										Marker	
Type Ref 1	term 1	X-value	1	Y-value	Eunc	tion	Eunct	ion Result	1	Type Re	f Te

Spectrum	1								
Ref Level	10.00 dBm			BW 100 kHz BW 300 kHz	Mode A	uto Sweep			
1Pk View					Mode A	no oweep			
0 dBm					м	1[1]			61.79 dBn 31220 GH
J dBm-									
-10 dBm								<u> </u>	
-20 dBm									
-30 dBm	D1 -24.640	dBm-							
-40 dBm					-				
-50 dBm									
-60 dBm			27.12		-				
-70 dBm	haddenerijke	enfinitudinal	Marallinan	Lalann-Januar Paula	unique and and all	Windowski	howenes the horror	h-authoretra	e Levred High determine
-80 dBm									
Start 20.0	GHz			1001	pts			Stop	25.0 GHz
Marker									
Type Ret M1	f Trc 1	X-value 20.31	22 GHz	-61.79 dB	m Funct	tion	Fund	ction Result	
	1								1

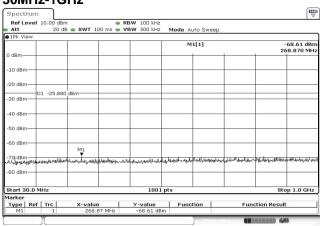
10GHz-15GHz



M2

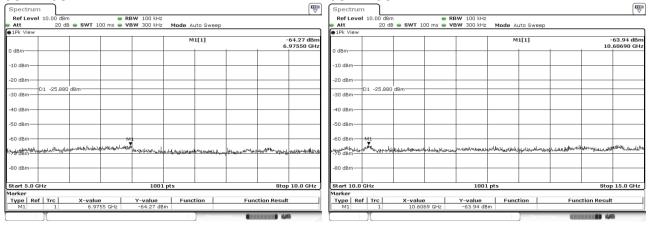
Exception 44

Channel High 30MHz-1GHz



1GHz-5GHz Spectrum Ref Level 10.00 dE Att 20 O dBm ● RBW 100 kHz 20 dB ● SWT 100 ms ● VBW 300 kHz Mode Auto Sweep • 1Pk Vi M2[1] -58.15 dBm 4.92210 GHz -5.88 dBm 2.46050 GHz M1[1] -10 dBn -20 dBm D1 -25.880 -30 dBm 40 dBn 50 dBr M2 60 dBn -70 dBm-والبيتغمر العفريكو -80 dBn Star 5.0 GHz Marker Type Ref Trc M1 1 M2 1 Y-value Function -5.88 dBm -58.15 dBm X-value 2.4605 GHz 4.9221 GHz Function Result 446

5GHz-10GHz



15GHz-20GHz

20GHz-25GHz

10GHz-15GHz

RefLevel 10.00 dB Att 20 c	B 🕳 SWT 100 ms	 RBW 100 kHz VBW 300 kHz 	Mode Auto Sweep		Ref Level 10.00 Att 21
●1Pk View					1Pk View
0 dBm			M1[1]	-61.06 dBm 19.41310 GHz	
-10 dBm					-10 dBm
-20 dBm					-20 dBm
-30 dBm	J dBm				-30 dBm
-40 dBm					-40 dBm
-50 dBm				M1	-50 dBm
-60 dBm Myshundhurminh -70 dBm	ernesistastradination gazzilitetete	Hankingan and a spin and and a spin and a spi	handfalachenglandunnega	youndbulder Algerster And and a strangen	-60 dBm -60 dBm -70 dBm
-80 dBm					-80 dBm
Start 15.0 GHz		1001 pt	ts	Stop 20.0 GHz	Start 20.0 GHz
Marker Type Ref Trc M1 1	X-value 19.4131 GHz	Y-value -61.06 dBm	Function	Function Result	Marker Type Ref Trc M1 1

Ref Level	10.00 dBm	1	👄 RE	W 100 kHz					
Att	20 dB	- SWT 100	ms 👄 VE	300 kHz	Mode A	to Sweep			
●1Pk View									
					м	1[1]			61.86 dB
0 dBm								20.	35710 GI
-10 dBm									
-20 dBm									
-30 dBm	D1 -25.880	dBm							
-40 dBm									
-50 dBm									
-60 dBn			~~						
10 dBm	التغليب والمحاف المعالم	development	un and a har and	in interaction of the second	hand the work	rohimbought	والمرومة الحواج الموارسة بالموارية	www.uenananana	rylythelaste
-80 dBm									
Start 20.0	GHz			1001	pts			Stop	25.0 GH
Marker									
Type Ref M1	Trc	X-value 20.3571	CHIR	-61.86 dB	Func	tion	Fund	tion Result	

Japan

[IEEE802.11g] Channel Low 30MHz-1GHz

Ref Leve	10.00 dB	m		RBW 100 kHz					
Att	20 d	IB 👄 SWT 10	00 ms 👄	VBW 300 kHz	Mode Au	to Sweep			
1Pk View									
					M1	[1]			69.35 dBn
) dBm				_			1	94	+7.190 MH:
10 dBm-									
20 dBm-									
30 dBm—	D1 -30.33	0 dBm							
40 dBm—									
50 dBm—									
60 dBm—				_					
									M1
70 dBm-	and the second started	للمتحديث والمتعالية والمعرية	a shall an all the	and and a start of the start of	interneting	and when the man	Antherapping	alporth work with	And the party
80 dBm—				_					
start 30.0	MHz			1001	ots			Sto	pp 1.0 GHz
larker	1 - 1				1				
Type Re	ef Trc	X-value	L9 MHz	-69.35 dBm	Funct	ion	Fun	ction Result	t

1GHz-5GHz

Ref Le	evel 1	0.00 dBr	n		RB	W 100 kHz					
Att .		20 di	B 👄 SWT	100 ms 🖷	VB	W 300 kHz	Mode A	uto Swee	эp		
●1Pk Vie	9W										
							M	2[1]			-65.45 dB
0 dBm—											4.93010 G
o ubiii							M	1[1]			-10.33 dE
-10 dBm				M1) – I				1		2.40860 G
-10 0011				1							
-20 dBm											
-20 0511											
30 dBm		-30.330	dBoo								
-50 0bm	-101	-30,330	l abm								
-40 dBm	_										
TO GDIN											
-50 dBm				1							
00 000				1 1/							
-60 dBm	_										+ ,
				1 11	M						
-70 dBm	_		monunera		1	dama and the	Alter Mark	a law you	New Martine	a manadaa haa	and an articles
"laky water	Creating on	-mat - white	an manute of	appendice of	-			2.5	S		
-80 dBm	\rightarrow			_	_						
Start 1	0.04					1001 p	t.c.				top 5.0 GH
Marker	.0 GH2				_	1001	LS				top 3.0 GH
	Ref	Teo I	X-val		-	Y-value	Func	tion		unction Resu	.1+
M1	Kei	1		1086 GHz		-10.33 dBm	Func	cion		unction Kesu	iii.
M2	-	1		9301 GHz	-	-65.45 dBm	-				

5GHz-10GHz

Att 20	dB 👄 SWT 100 ms 👄	RBW 100 kHz VBW 300 kHz	Mode Auto Sweep		
1Pk View				-	
			M1[1]		-63.53 dBn 6.99550 GHa
0 dBm					
-10 dBm					
-20 dBm					
-30 dBm D1 -30.33	30 dBm	_			
-40 dBm					
-50 dBm					
-60 dBm		MI			
Hold Barris and which the set	warden with white	And all and an and a set and a set and	hadiasimentilisaup	لدائلهما والمعالم والمروج ومعاد والمعاد والمعادية	Martin phant spithing
-80 dBm					
Start 5.0 GHz		1001 pt	s		Stop 10.0 GHz
1arker	Marchael I				
Type Ref Trc M1 1	X-value 6.9955 GHz	-63.53 dBm	Function	Function R	esuit

Spectrum Ref Level 10.0 RBW 100 kHz SWT 100 ms VBW 300 kHz Mode Auto Sweep M1[1] -63.48 dBm 14.64790 GHz dBr 10 dBm -20 dBm-30 dB 1 -30.33 40 dBm -50 dBm -60 dBr Hurr -70 dBm -80 dBm Start 10.0 GHz 1001 pt Stop 15.0 GHz Marker Type Ref Trc M1 1 Y-value Function -63.48 dBm Function Result X-value 14.6479 GH COLUMN 14

15GHz-20GHz ~ Ref Level 10.00 RBW 100 kHz SWT 100 ms VBW 300 kHz Att 20 dB Mode Auto Sweep M1[1] -60.73 dBm 19.22830 GHz dB -10 dBn -20 dBm 30 dB 1 -30.33 -40 dBr -50 dBn M1 -60 di marker -70 dBm-Madellergenen wheth الوارا والاروان المحاوراتي May Junt where where NUMAN -80 dB Start 15.0 GHz 1001 pt Stop 20.0 GHz Type Ref Trc M1 1 X-value Y-value Function 19.2283 GHz -60.73 dBm Function Result

-

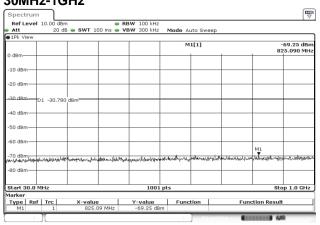
20GHz-25GHz

10GHz-15GHz

●1Pk Vi	3W									
						м	1[1]			62.38 dBr 36210 GH
0 dBm—	+							1	20.	36210 GH
-10 dBm	+									
-20 dBm	+									
-30 dBm	-01	-30.330	dBm							
-40 dBm	+									
-50 dBm	+									
-60 dBh hinh wash -70 dBm	lines	ananger	nonodichilypot	in in allowing	manantriu	ungellysky conservations	hanlander/Hattan	-unaliter maderies	have an and the	nsalminahitut
-80 dBm	+									
Start 2	0.0 Gł	łz			1001	pts			Stop	25.0 GH
larker	Ref	Tec	X-value		Y-value	Fund	tion	Eupr	tion Result	



Channel Middle 30MHz-1GHz



1GHz-5GHz

Ref Level	10.00 40		-	RBW 100 kHz				
Att				VBW 300 kHz	Mode Auto S	waan		
1Pk View	201	10 • 3 ₩1	100 115 🖷	4BW 300 KH2	MOUE AULO S	меер		
THE VIEW			-	_	M2[1]			-66.13
					mali			4.08290
0 dBm			-	-	M1[1]			-10.78
			M1					2.44060
-10 dBm		+	Ť					
			1					
20 dBm		+	+ +					
30 dBm	1 -30.78	0 dBm	+ +					
-		1	1 1					
40 dBm		+	+ #					
			1 11					
-50 dBm			+ h	-				
-60 dBm		+	+ 11				M2	
			1 / 4					
79 dBm	والاستحداد	11 Inconstant	Winder !!	and the open strates and the second	the hard a fait of the second	avere have a series of the ser	والديعة والطعيب	الموطنة والمستلومته والمراجويف
out the second								
-80 dBm		+						
Start 1.0 GH	Iz			1001 p	ts			Stop 5.0 0
larker								
Type Ref	Trc	X-valu	ie	Y-value	Function	1	Func	tion Result
M1	1	2.4	406 GHz	-10.78 dBm				
M2	1	4.0	829 GHz	-66.13 dBm				

5GHz-10GHz

Spectrur	n								\
	10.00 dBr			RBW 100 kHz					
Att 1Pk View	20 d	B 🖷 SWT	100 ms 🖷	VBW 300 kHz	Mode Auto	sweep			
The Alem					M1[1]			64.10 dBn 78070 GHa
0 dBm								0.	0070 011
-10 dBm									
-20 dBm									
-30 dBm	D1 -30.780	dBm====							
-40 dBm									
-50 dBm-									
-60 dBm			M1						
-76 Habilton	- Helidy Barlange	permission	here were lothyout	ungermeteristerieteru	heidensigterstelle	ward where	a her many at hand been	an which all first	manh provide
-80 dBm									
Start 5.0 (Hz			1001 p	ts			Stop	10.0 GHz
Marker									
Type Re M1	f Trc	X-valu 6.7	10 807 GHz	-64.10 dBm	Functio	in	Fund	tion Result	
M1	1	6.7	807 GHz	-64.10 dBm		Missing			2

10GHz-15GHz

Ref Le	vel 10.0	0 dBm			RBW	100 kHz					
Att		20 dB	SWT :	100 ms 👄	VBW	/ 300 kHz	Mode Au	uto Sweep			
1Pk Vie	W										
							м	1[1]			63.31 dBr 59290 GH
0 dBm—					-						
-10 dBm	_				+						
-20 dBm	_				_						
-30. dBm	D1 -3	30.780	dBm		_						
-40 dBm	_				_						
-50 dBm	_										
-60 dBm	_				_						M1
1900 dBm	ar. Palantelling	polestand	enderlythrough	urlahotan delan	24/4-10	transleting leader	rsnie finnen	and a shake with the	الغلير الملطل مهين الما	or and the second second	Anterson and
-80 dBm	_				_						
Start 10	0.0 GHz					1001 p	ts			Stop	15.0 GHz
larker											
Type M1	Ref Tr	c	X-valu 14.5	929 GHz		-calue -63.31 dBm	Func	tion	Func	tion Result	

15GHz-20GHz

Ref Level 10.00 d	Bm	RBW 100 kHz			
	dB . SWT 100 ms	VBW 300 kHz	Mode Auto Sweep		
1Pk View					-
			M1[1]		-61.39 dBr
0 dBm					19.22330 GH
U dBm					
-10 dBm					
-10 dBm					
-20 dBm					
-20 UBIII					
-30 dBm - 01 20 7					
-30.dBm D1 -30.7	80 dBm				
-40 dBm					
io dom					
-50 dBm					
-60 dBm				MI	
the shape we got a compation	Mar Marked Barlanger South Hada	and the stand and a stand and a stand	والمعالية المعالية والمعالية معيد المعالية المعط	an and an and a second and a second and the second	Mr. Hall Barry Barry Starter
-70 dBm	-			1	
-80 dBm		_			
Start 15.0 GHz		1001 p	ts		Stop 20.0 GHz
Marker					
Type Ref Trc M1 1	X-value 19.2233 GHz	-61.39 dBm	Function	Function R	esult

20GHz-25GHz

Spectrum						[
Ref Level 10.00	dBm		RBW 100 kHz			
Att 20	dB 👄 SWT	100 ms 👄	VBW 300 kHz	Mode Auto Sw	еер	
1Pk View						
				M1[1]		-62.44 dE
0 dBm						20.07240 G
-10 dBm						
00.40-						
-20 dBm						
30.dBm D1 -30.	780 dBm	-				
40 dBm	_	_				
50 dBm	_	_				
do dBm						
provincen wind	history of the state		and an and the second states of the second states o	mailum march	hunshampar	er anne tille som angeneration
-70 dBm	41.0			nee and - a diside	4.00 million and the	n and contraction
-80 dBm	_					
Start 20.0 GHz			1001 p	ts		Stop 25.0 GF
1arker						
Type Ref Trc	X-val		Y-value	Function	Fur	nction Result
M1 1	20.0	3724 GHz	-62.44 dBm			



Channel High

Ref Level 10.00 dB					
	m dB = SWT 100 ms =	10011 200 1012			
1Pk View	18 🖷 SWI 100 ms 🖷	VBW 300 KH2	Mode Auto Sweep		
			M1[1]		-68.73 dBn 824.120 MH
dBm-					
10 dBm					
20 dBm					
0 dBm D1 -31.03	0 dBm				
40 dBm					
50 dBm					
50 dBm				M1	
70 dBm الماط الحديث المريط الموج المحالية الم	الفظي بالاراك والي ومدينة الرابط والمحاود وومر	the here pielder of the	-helpelanesenedimenterlangure	-	Antonia antonia antonia
30 dBm					
tart 30.0 MHz		1001 p	ts		Stop 1.0 GHz
arker			Function	Function F	

1GHz-5GHz

Ref Level 10.00 dBm -66.30 dBm 4.71430 GHz -11.03 dBm 2.46050 GHz M2[1] dBm M1[1] M1 -10 dBm -20 dBm-30.dBm D1 -31.030 40 dBm -50 dBm -60 dBm M2 -70 dBm-مطهمه يوادعانا -80 dBm Start 1.0 GH Marker Type Ref Trc M1 1 M2 1 X-value Y-value Function 2.4605 GHz -11.03 dBm 4.7143 GHz -66.30 dBm Function Result

10GHz-15GHz

Spectrum									
Ref Level 10. Att				W 100 kHz					
1Pk View	20 dB 🖷	SWI 100	ms 🖶 VB	W 3UU KHZ	Mode A	uto Sweep			
					м	1[1]			63.81 dBn 96050 GH
0 dBm									
-10 dBm									
-20 dBm									
-30 dBmD1 .	31.030 dB	m							
-40 dBm									
-50 dBm									
-60 dBm			MI						
ada jala dalla d	a hadred and	United and a stand of the	bellylasseriesethethe	n-derminent sundaryout	HANNING	موارفع المراجع المالية الم	uhiken florend	al a survive of the late	and manufactured
-80 dBm									
Start 5.0 GHz				1001	ots			Stop	0 10.0 GHz
/larker Type Ref T		X-value	1	Y-value	Func	Nam 1	F	tion Result	
Type Ref T M1	1	6.9605	GHz	-63.81 dBm		tion	Fund	alon Result	<u> </u>

Spectrum				L L
	RBW 100 kHz			
Att 20 dB 🖷 SWT 100 ms 🖷	VBW 300 kHz	lode Auto Sweep)	
1Pk View				
		M1[1]		-63.72 dB 10.60190 GH
dBm	_		1 1	10.80190 GF
10 dBm				
20 dBm				
30 dBm D1 -31.030 dBm				
40 dBm				
50 dBm				
So dom				
60 dBm M1				
700 dBm		é un la ma	and the same time to be	ALL INTERNES
70 dBm	The properties of the Melvar	wall and a comparison	WWWWWWWWWWWWWWWW	dirbitation - and David
B0 dBm				
tart 10.0 GHz	1001 pt	5		Stop 15.0 GHz
arker				
Type Ref Trc X-value	Y-value	Function	Functio	n Result
M1 1 10.6019 GHz	-63.72 dBm			

15GHz-20GHz

5GHz-10GHz

Ref Level 10.00 dBm		RBW 100 kHz			
Att 20 dB - St	WT 100 ms 👄	VBW 300 kHz M	Iode Auto Sweep	i	
1Pk View			M1[1]		-59.58 dBn
				1	9.27320 GH
0 dBm					
-10 dBm					
-20 dBm					_
-30 dBm D1 -31.030 dBm					_
-40 dBm					_
-50 dBm					_
				M1	
-60 dBm	And marken	معدل فالتلفظ والمدر معاتك	المالملين ومعالمه المعامل	قاد الترابي المتعلية ومعتر معدام ما	Holderaberel
-70 dBm		a second -	and them a	out o status	
-80 dBm					_
Start 15.0 GHz		1001 pt:		St	op 20.0 GHz
Marker					
Type Ref Trc X-	value 19.2732 GHz	-59.58 dBm	Function	Function Res	ult

20GHz-25GHz

Spectrum					
Ref Level 10.00 de		RBW 100 kHz			
	dB 👄 SWT 100 ms 👄	VBW 300 kHz	Mode Auto Swee	ер	
1Pk View					
			M1[1]		-61.22 dBn
0 dBm					20.28220 GH
-10 dBm					
10 0000					
-20 dBm					
Loubin					
-30 dBm D1 -31.03					
01 -31.03	30 dBm				
-40 dBm					
-+0 0011					
-50 dBm					
-50 05/11					
-60 dam					
	with the state of	and the second		ا دهد اس	A LE DESARD
-70 dBm	Marker Markey Shirts and a second	an another an inderes	reason and a state	what the and the second	strante allowing and the state of the state
, o abiii					
-80 dBm					
00 0011					
Start 20.0 GHz		1001 pt	s		Stop 25.0 GHz
Marker				_	
Type Ref Trc M1 1	20.2822 GHz	-61.22 dBm	Function	Func	tion Result
m1 1	20.2822 GHZ	-01.22 dBm			
- II -			2014		A44

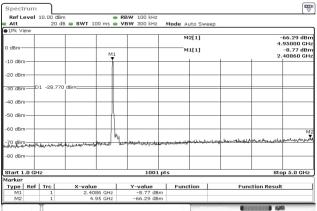




[IEEE802.11n (HT20)] Channel Low 30MHz-1GHz

Spect	rum									(₩)	Spectru	im	
	evel	10.00 dB			RBW 100 kHz							el 10.00 (
Att		20 d	B 🖶 SWT 1	.00 ms 👄	VBW 300 kHz	Mode Auto Sv	/eep				Att		0 dB
●1Pk Vi	ew.										 1Pk View 	·	
					1 1	M1[1]			-68.98				
0 dBm-									690.39	0 MHz	0 dBm-	_	_
-10 dBn					++						-10 dBm—		-
											-20 dBm-		
-20 dBn											-20 UBIII-		
-30 dBn	D	1 -28.77	dBm-								-30 dBm-	D1 -28.	770 de
-30 dBn	1-10	2 20177											
-40 dBn	_										-40 dBm-	_	-
-10 001	·												
-50 dBn											-50 dBm-		_
											-60 dBm-		
-60 dBn	<u>ו</u>										-00 0811		
							M1				-70 dBm		14.4.1
-70 dBn	Juddada		all Marster and Land	L Mushralles	والمراجع المودية والجارية والمار	AMELIAN HIGH MARKER	trapped and	adust the state of the	hruns/munthra	المروا الواجل	marine -	mil Microso	march
											-80 dBm-	-	-
-80 dBn	-												
											Start 1.0	GHz	
Start 3	0.0 M	Hz			1001	pts			Stop 1.0	GHz	Marker		
Marker												ef Trc	
Type M1	Ref	Trc	X-valu	e 39 MHz	-68,98 dBn	Function		Functior	n Result		M1 M2	1	
IMIT		1	690.	as miliz	-09.98 UBN				100 AMA		Miz	1	

1GHz-5GHz



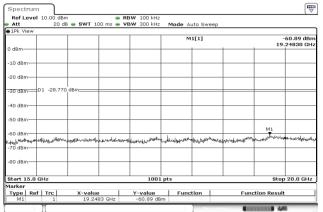
5GHz-10GHz

Att				RBW 100 kHz VBW 300 kHz	Mode Auto	Sweep			
1Pk Vie	w				M1[:	1]			-64.18 dBm .55590 GHz
0 dBm—	_								1
-10 dBm									
-20 dBm-		_							
-30 dBm-	D1 -28.7	70 dBm							
-40 dBm-									
-50 dBm-									
-60 dBm-			M1						
炒甜加	Hutperestinance	anna an ann an ann ann ann ann ann ann	helpen stranktion	white a particular and the second sec	interster Salara	- Alemandar	degenerative and	unterner	Hall hay an Port
-80 dBm-									
Start 5.	D GHz			1001 p	ts			Stop	0 10.0 GHz
Marker Type	Ref Trc	X-valu		Y-value	Functio	n	Euno	tion Result	- 1
M1	1		559 GHz	-64.18 dBm	. anctio		Func	cion resul	

10GHz-15GHz

Ref Le Att	evel 1	0.00 dBm		100 ms -	RBW 100						
1Pk Vi	914/	20 de	s 🖷 swi	100 ms 🖷	ABM 300	JKHZ N	10de AL	uto Sweep			
							M	1[1]			64.61 dBr 86860 GH
0 dBm—				-							
-10 dBm					_						
-20 dBm					_						
-30 dBm	D1	-28.770	dBm====		-	_					
-40 dBm	_				_						
-50 dBm	_				_						
-60 dBm	_				_				M1		
70 dBm	مريدية (1,14 مريد	Approxisted	landsmann	hereitette contrage	here with inselie	ullilizeers	rii, delarda	Llatte-alltanddd	alwayer starter	enterneturerteledet	enterta when when
-80 dBm					-						
Start 1	0.0 GH	łz				1001 pts	5			Stop	15.0 GHz
larker Type	Ref	Teo I	X-val		Y-va	1	Fund	tion 1	Eune	tion Result	
M1	Ref	1		1686 GHz		61 dBm	Func	cion	Fund	.con Result	

15GHz-20GHz

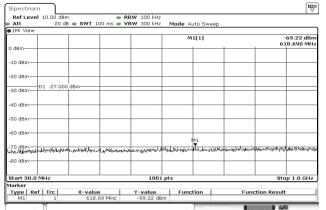


20GHz-25GHz

Ref Leve	10.00 dBr	ກ 😁	RBW 100 kHz			
Att	20 d	B 🖷 SWT 100 ms 🖷	VBW 300 kHz	Mode Auto Swee	p	
1Pk View						
				M1[1]		-62.19 dB
0 dBm						20.32220 GH
-10 dBm						
20 000						
-20 dBm						
-30 dBm	D1 -28.770) dBm				
40 dBm-						
1000						
-50 dBm						
-60 dBm					-	
setterestantial	and selected silves	at white a stand of the stand o	and all and a superior and	HALL LANGERMONTH	Read Bullinger mould be	- Auto talla in a state of a
-70 dBm	an other days			a think a	a class succession	ast autority to 04
-80 dBm						
Start 20.0	GHz		1001 pt	· s		Stop 25.0 GH
larker			1001 p			0.0p 2010 dri
	f Trc	X-value	Y-value	Function	Function	Result
M1	1	20.3222 GHz	-62.19 dBm			







Spect	rum									("
	evel	10.00 dB			RBW 100 kH	z				
Att		20 0	ib 🖷 SWT 1	00 ms 🖷	VBW 300 kH	z Mode	Auto Swee	ер		
∎1Pk Vi	ew									
							M2[1]			6.02 dBi
0 dBm-										37410 GH
				M1			M1[1]			-7.00 dBi
-10 dBn							_		2.4	14000 GH
000	·			1 1						
-20 dBn	-									
20 000	·		1							
30 dBn	D	1 -27.00	0 dBm			-				
30 081										
40 dBn										
-10 001				1 (1						
-50 dBn				1						
50 abii	·			1 11						
-60 dBn				1 11						
-00 UBI	-									M2
70 d9n				1.1	1		ALABA MALABA	we have been all the second	and the second second	manuth
help bert	identified	Achalopeuth	and a start and a start	MIN-109	and a character	Contraction of the other	0.0.0			
-80 dBn										
-80 dBh										
Start 1	.0 GH	z			100	01 pts			Stop	5.0 GHz
1arker										
Type	Ref		X-valu		Y-value		nction	Fun	ction Result	
M1		1	2.44	06 GHz	-7.00 0	/Bm				
M2		1		41 GHz	-66.02 0					

5GHz-10GHz

	evel	10.00 dBn			RBW 100 kH:					
Att		20 di	B 👄 SWT	100 ms 👄	VBW 300 kH;	Mode A	uto Sweep			
●1Pk Vi	ew									
						м	1[1]			64.03 dBr 93060 GH
0 dBm-	_			+	+					93000 GH
-10 dBn	-									
-20 dBn	-			-						
-30 dBn	-	1 -27.000	dBm							
-40 dBn										
-50 dBn	-									
-60 dBn					1					
外的	rowing	and a started	Hereithan	whenever	and with the second second	andiatatelle	malliphane	lited Mapphoneter	mallebarka	s illy kinden and the
-80 dBn										
Start 5	.0 GH	Iz			100	1 pts			Stop	10.0 GHz
Marker										
Type M1	Ref	1 Trc	X-valu	306 GHz	Y-value -64.03 d	Func	tion	Fund	tion Result	

10GHz-15GHz

Att 1Pk View		8 🖷 SWT 100 ms	• VBW 300 kHz	Mode Auto Swe	ep	
PIPK VIEV	~			M1[1]		-64.23 dBr 13.84370 GH
0 dBm-	-					
-10 dBm-						
-20 dBm-						
-30 dBm-	D1 -27.000	dBm				
-40 dBm-						
-50 dBm-						
-60 dBm-	77				M1	
-70 dBm-	heimine and shipsing with	anter apricipation of same with	www.holestan.outo	warmen when the within the	ngeterh. Heinigendigen die zeite terste Bereit zur	erecologianterial potentianet a post
-80 dBm-						
Start 10	.0 GHz		1001	pts		Stop 15.0 GHz
Marker Type F	Ref Trc	X-value	Y-value	Function	Functi	on Result

15GHz-20GHz

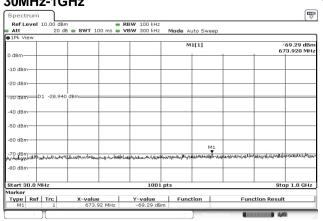
Spectrum Ref Level 10.00 d Att 1Pk Viev Mode Auto Sweep M1[1] -61.02 dBn 19.37310 GH dBn -10 dBm--20 dBm-D1 -27.00 -30 dBm--40 dBm -50 dBm-M1 -60 dBm we when so nilwaluthing -70 dBm white -80 dBm· Start 15.0 GHz Marker Type Ref Trc M1 1 Stop 20.0 GHz 1001 pts Y-value Function X-value 19.3731 Function Result -

20GHz-25GHz

	10.00 dBm			W 100 kHz					
Att 🗧	20 dB	- SWT 10	10 ms 🖷 VB	W 300 kHz	Mode A	uto Sweep			
1Pk View									
					N	11[1]			61.83 dB 29720 GF
0 dBm						1		20.	29720 GF
-10 dBm									
-20 dBm									
-30 dBm	D1 -27.000	dBm							
-40 dBm									
-50 dBm									
-60 dBm									
-70 dBm	hould have been been been been been been been be	an-hillesign-horarts	unorthe the plants	Hengetherbeite	Histoherun	ultimetersection	ever have been the	-myselline-her	-instally breeker
-80 dBm									
Start 20.0	GHz			1001	pts			Stop	25.0 GH
Marker	1 1								
Type Ref M1	1 Trc	X-value 20.297		-61.83 dB	Fund m	tion	Fund	tion Result	

TÜV SUD Japan

Channel High 30MHz-1GHz



1GHz-5GHz

Spectrum				_						Ę.
Ref Level					W 100 kHz					
Att	20 d	B 👄 SWT 10)0 ms 🖷	VB	W 300 kHz	Mode A	uto Swee	ep .		
1Pk View										
						M	2[1]		-66	.02 dB
S									4.91	810 GI
dBm-				-		M	1[1]		-8	.94 dB
			M	1					2.45	650 G
10 dBm-				-			-		+ +	
									1 1	
20 dBm								_		
JU dam	D1 -28.940) dBm						_		
a dom				1 1					1 1	
0 dBm									1 1	
iu asm										
									1 1	
50 dBm										
			1	1					1 1	
50 dBm				1				-		M
			s d						1	
20 dam	and the second second	where the agentice	NUM	TAL	and march the star	t-tertheticert	الماحلي الدالم	un u	and a second day of the second	Quality
wavawa.htter	difference of the	Arob - Orberter						~~~		
30 dBm										
									1 1	
tart 1.0 G	Hz				1001 p	ts			Stop	5.0 GH
arker										
Type Ref	Trc	X-value			Y-value	Func	tion	Fui	nction Result	
M1	1		55 GHz		-8.94 dBm					
M2	1	4.91	31 GHz		-66.02 dBm					

5GHz-10GHz

Spectrum Ref Level 1				BW 100 kHz					("
Att				BW 300 kHz	Mode A	uto Sweep			
1Pk View						ite enterp			
					м	1[1]			64.56 dBr
0 dBm									
-10 dBm									
-20 dBm									
-30 dBm D1	-28.940	dBm=							
-40 dBm									
-50 dBm									
-60 dBm			M1						
Hond Brit - Mar - Mi	performentation	والمقاول المرجع فللقالعانهي	unhister abiet-	in house during the	and we do the	over the literate and	and particular and a second	a withink light	.l.numperte
-80 dBm									
Start 5.0 GHz				1001	pts			Stop	10.0 GHz
Marker Type Ref	True	X-valu	- 1	Y-value	Func	Nan I	F	tion Result	
Type Ref M1	1		e 257 GHz	-64.56 dBn		tion	Fund	tion Result	

10GHz-15GHz

1Pk View	v								
					м	1[1]			63.79 dBn
0 dBm								10.	26220 GH
-10 dBm-									
-20 dBm—									
30 dBm-	D1 -28.940	dBm=							
-40 dBm-									
-50 dBm-									
60 04Bm —									
70 dBm	pull-st-lewaysyngrows	والالم المراهية والمراجع	wompensation	a file the new law	N-hollenorly-hold	apabhabarh.nalur	المرادية والمرادية المرادية	on how we have the	الالالالالدوومالالمرو
-80 dBm—									
Start 10.	0 GHz			1001	ots			Stop	15.0 GHz
larker Type F	lef Trc	X-valu		Y-value	Fund		-	tion Result	

15GHz-20GHz

Ref Level 10.00 d Mode Auto Sweep Att 1Pk View M1[1] -61.38 dBr 19.22830 GH dBn -10 dBm--20 dBm-01 -28.94 -30 dBm--40 dBm -50 dBm--60 dBm դու թահետե -70 dBm MI antidus 1000 Land 1000 ed alast -80 dBm-Start 15.0 GHz Marker Type Ref Trc M1 1 1001 pts Stop 20.0 GHz X-value 19.2283 Y-value Function Function Result -

20GHz-25GHz

	10.00 dBm		• RBW 100 kHz			
Att	20 dB	. SWT 100 ms .	BW 300 kHz	Mode Auto Swee	р	
1Pk View						
				M1[1]		-61.37 dB 20.31220 GF
0 dBm						20.01220 0
-10 dBm					_	
-20 dBm					_	
-30 dBm	D1 -28.940	dBm			_	
-40 dBm					_	
-50 dBm					_	
-60 dBm					_	
-70 dBm	فأيعو والمحرك والمعادية	casherallon lagored a market	wenterdare.trajeji.condetela	Revelation of the state of the	-due tother were	when kalikan and market
-80 dBm					_	
Start 20.0	GHz		1001	pts		Stop 25.0 GH
Marker	1-1			1 1		
Type Ret M1	Trc	20.3122 GHz	-61.37 dB	Function	Func	tion Result





4.5 Spurious Emissions - Radiated -

4.5.1 Measurement procedure

[FCC 15.247(d), 15.205, 15.209, KDB 558074 D01 v05r02, Section 8.6]

Test was applied by following conditions.

Test method Frequency range Test place EUT was placed on	:	ANSI C63.10 9 kHz to 25 GHz 3m Semi-anechoic chamber Styrofoam table / (W) $1.0 \times (D) 0.8 \times (H) 0.8$ m (below 1 GHz) Styrofoam table / (W) $0.6 \times (D) 0.6 \times (H)1.5$ m (above 1 GHz)
Antenna distance	:	3 m
Test receiver setting - Detector - Bandwidth Spectrum analyzer setting - Peak - Average		Below 1 GHz Average (9 kHz-90 kHz, 110 kHz-490 kHz), Quasi-peak 200 Hz, 120 kHz Above 1 GHz RBW=1 MHz, VBW=3 MHz, Span=0 Hz, Sweep=auto 11b: RBW=1 MHz, VBW=3 kHz, Span=0 Hz, Sweep=auto 11g, 11n: RBW=1 MHz, VBW=1 kHz, Span=0 Hz, Sweep=auto Display mode=Linear

Average Measurement Setting [VBW]

mode	Duty Cycle (%)	Ton [µs]	Toff [µs]	1/Ton (kHz)	Determined VBW Setting
11b	97.07	993.25	30	1.007	3kHz
11g	95.49	1375	65	0.727	1kHz
11n(HT20)	95.86	1275	55	0.784	1kHz

Although these tests were performed other than open area test site, adequate comparison measurements

were confirmed against 30 m open are test site.

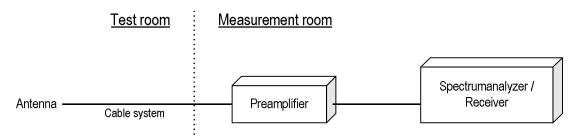
Therefore, sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 937606.

Radiated emission measurements are performed at 3m distance with the broadband antenna (Loop antenna, Biconical antenna, Log periodic antenna and Double ridged guide antenna). The antenna is positioned both the horizontal and vertical planes of polarization and height is varied 1m to 4m and stopped at height producing the maximum emission. As for the Loop antenna, it is positioned with its plane vertical, and the center of the Loop antenna is 1m above the ground plane.

The EUT is Placed on a turntable, which is 0.8m/1.5m above ground plane. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level. The test results represent the worst cases emission for each emission with manipulating the EUT, support equipment, interconnecting cables and varying the mode of operation. Sufficient time for the EUT, support equipment, and test equipment are allowed in order for them to warm up to their normal operating condition.



- Test configuration



4.5.2 Calculation method

[9 kHz to 150 kHz] Emission level = Reading + (Ant factor + Cable system loss) Margin = Limit – Emission level

[150 kHz to 25 GHz] Emission level = Reading + (Ant factor + Cable system loss - Amp. Gain) Margin = Limit – Emission level

Example:

Limit @ 4824.0 MHz: 74.0 dBuV/m (Peak Limit) S.A Reading = 49.5 dBuV Cable system loss = 8.4 dB Result = 49.5 + 8.4 = 45.1 dBuV/m Margin = 74.0 - 45.1 = 16.1 dB

4.5.3 Limit

Frequency	Field s	Distance		
[MHz]	[uV/m]	[dBuV/m]	[m]	
0.009-0.490	2400 / F [kHz]	20logE [uV/m]	300	
0.490-1.705	24000 / F [kHz]	20logE [uV/m]	30	
1.705-30	30	29.5	30	
30-88	100	40.0	3	
88-216	150	43.5	3	
216-960	200	46.0	3	
Above 960	500	54.0	3	

Note:

1. The lower limit shall apply at the transition frequencies.

2. Emission level [dBuV/m] = 20log Emission [uV/m]

3. As shown in 15.35(b), for frequencies above 1000 MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20 dB under any condition modulation.



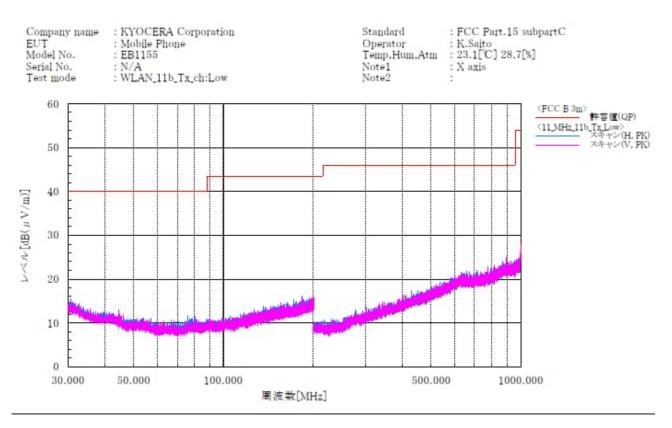
4.5.4 Test data

Date Temperature Humidity Test place	 27~28-October-2022 23.9 [°C] 25.3 [%] 3m Semi-anechoic chamber 	Test engineer :	Tadahiro Seino
Date Temperature Humidity Test place	: 25-November-2022 : 23.1 [°C] : 28.7 [%] : 3m Semi-anechoic chamber	Test engineer :	Kazunori Saito
Date Temperature Humidity Test place	 28-November-2022 22.6 [°C] 22.5 [%] 3m Semi-anechoic chamber 	Test engineer :	Kazunori Saito



4.5.4.1 Transmission mode

[11b] Channel Low BELOW 1GHz



Final Result

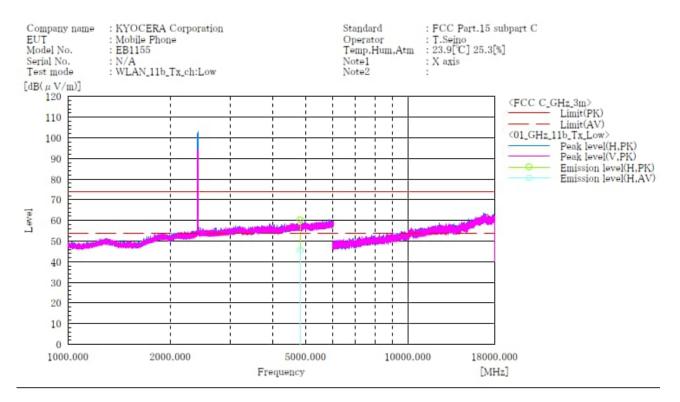
Note:

1. Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable - Amp)]

2. No emission were detected in frequency range 9kHz to 1000MHz at the 3 meters distance.



[11b] Channel Low ABOVE 1GHz



Final Result

No.	Frequency	(P)	Reading	Reading	c. f	Result	Result	Limit PK	Limit	Mergin	Margin	Height	Angle Re	emark
1	[MHz] 4824.000	H	[dB(µV)] 50,2	[dB(µV)] 35,6	[dB(1/m)] 10.2	[dB(µV/m)] 60.4	[dB(µV/m)] 45.8	[dB(µV/n)] 74.0	AV [dB(µV/m)] 54.0	[dB] 13.6	[dB] 8.2	[cm] 221.0	262, 0	

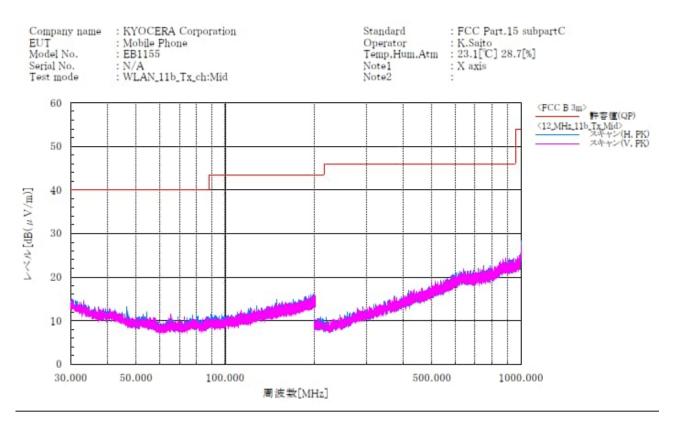
Note:

1. Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable - Amp)]

2. No emission were detected in frequency range 18GHz to 25GHz at the 3 meters distance.



[11b] Channel Middle BELOW 1GHz

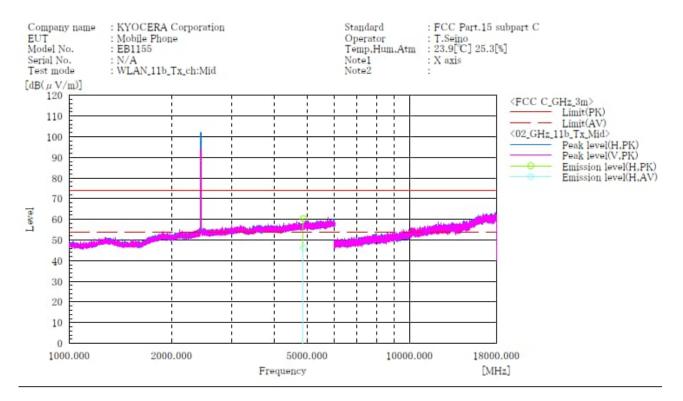


Final Result

- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 9kHz to 1000MHz at the 3 meters distance.



[11b] Channel Middle ABOVE 1GHz



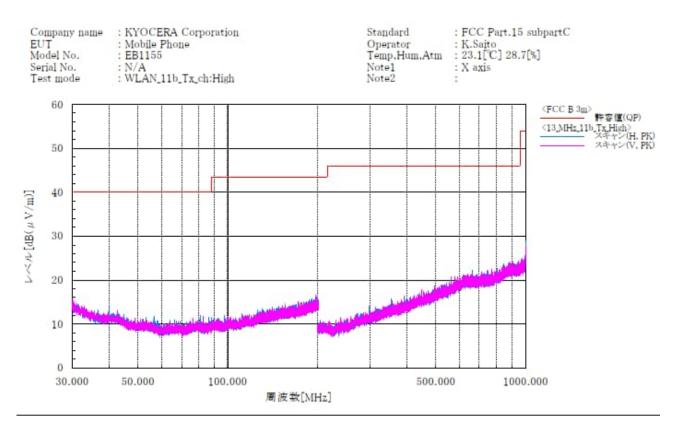
Final Result

No.	Frequency	(P)	Reading	Reading	c.f	Result	Result	Limit	Linit	Margin	Margin	Height	Angle	Remark
1	[MH:] 4874.000	Н	PK [dB(µV)] 50,0	AV [dB(µV)] 35,8	[dB(1/m)] 10.4	[dB(µV/m)] 60.4	AV [dB(µV/m)] 46,2	[dB(µV/n)] 74.0	AV [dB(µV/m)] 54.0	PK [dB] [3.6	AV [dB] 7.8	[cm] 100.0	254.0	

- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 18GHz to 25GHz at the 3 meters distance.



[11b] Channel High BELOW 1GHz

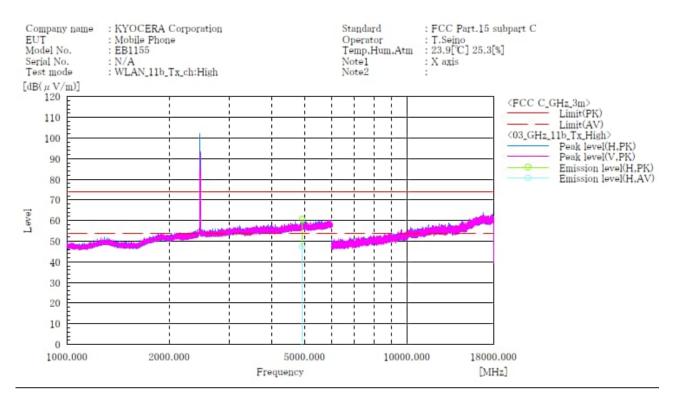


Final Result

- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 9kHz to 1000MHz at the 3 meters distance.



[11b] Channel High ABOVE 1GHz



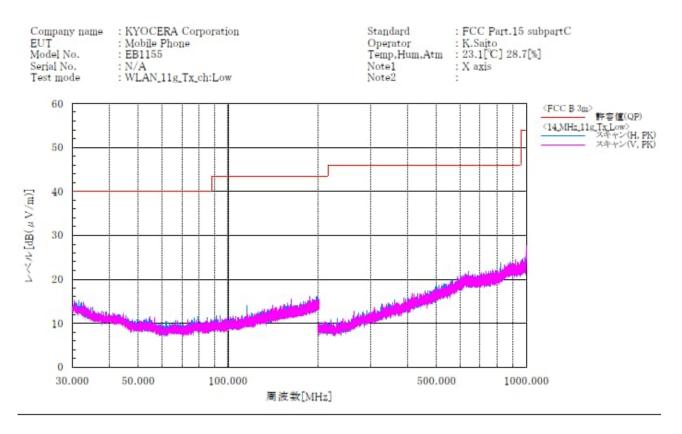
Final Result

No.	Frequency	(P)	Reading	Reading	c. f	Result	Result	Limi* PK	Limit	Margin	Margin	Height	Angl#	Remark
1	[MHz] 4924.000	Н	[dB(µV)] 50,2	[dB(µV)] 36.8	[dB(1/m)] 10.7	[dB(µV/m)] 60.9	[dB(µV/m)] 47.5	[dB(µV/n)] 74.0	AV [dB(µV/m)] 54.0	[dB] 13.1	[dB] 6.5	[cm] 100, 0	266, 0	

- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 18GHz to 25GHz at the 3 meters distance.



[11g] Channel Low BELOW 1GHz

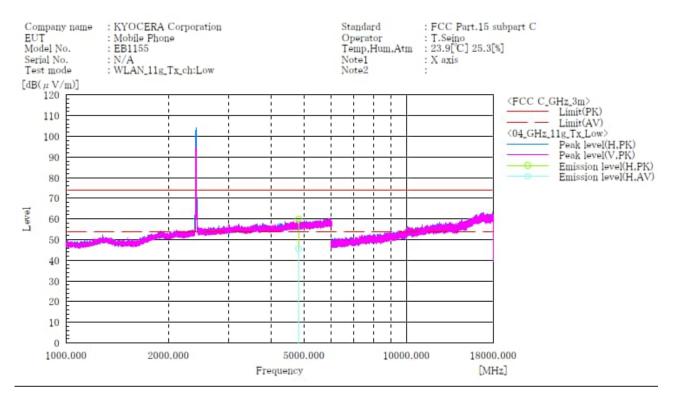


Final Result

- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 9kHz to 1000MHz at the 3 meters distance.



[11g] Channel Low ABOVE 1GHz



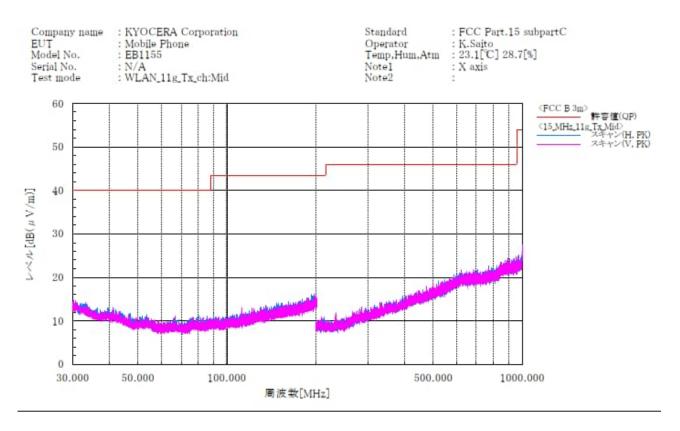
Final Result

No.	Frequency	(P)	Reading	Reading	c. f	Result	Result	Limit	Linit	Margin	Margin	Height	Angle	Remark
1	[MH:] 4824.000	Н	PK [dB(μV)] 49.7	AV [dB(µV)] 35,3	[dB(1/m)] 10.2	$\begin{bmatrix} dB(\mu V/m) \\ 59, 9 \end{bmatrix}$	AV [dB(μV/m)] 45,5	PK [dB(μV/m)] 74.0	$\begin{bmatrix} AV \\ [dB(\mu V/m)] \\ 54.0 \end{bmatrix}$	PK [dB] 14.1	AV [dB] 8.5	[cm] [93, 0	277.0	

- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 18GHz to 25GHz at the 3 meters distance.



[11g] Channel Middle BELOW 1GHz

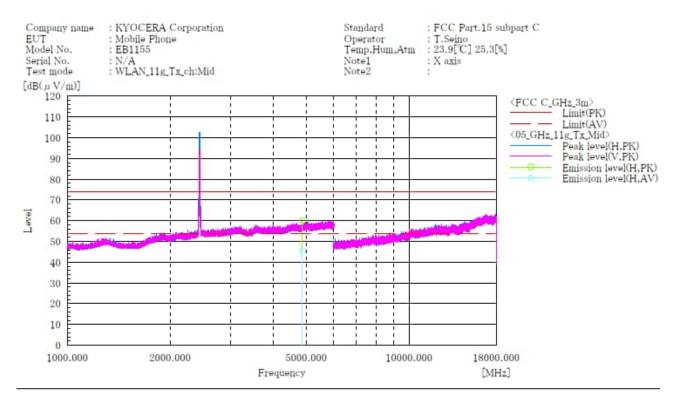


Final Result

- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 9kHz to 1000MHz at the 3 meters distance.



[11g] Channel Middle ABOVE 1GHz



Final Result

No.	Frequency	(P)	Reading	Reading	c.f	Result	Result	Limit	Linit	Margin	Mersin	Height	Angle	Remark
1	[MH:] 4874.000	Н	PK [dB(µV)] 49.7	AV [dB(μV)] 35,1	[dB(1/m)] 10.4	[dB(µV/m)] 60.1	AV [dB(µV/m)] 45,5	[dB(µV/n)] 74.0	Limit AV [dB(µV/m)] 54.0	PK [dB] 13.9	AV [4B] 8,5	[cm] 242_0	245. 0	

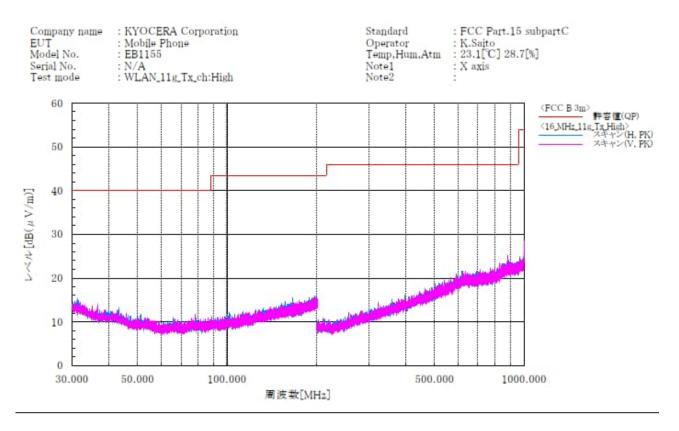
Note:

1. Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable - Amp)]

2. No emission were detected in frequency range 18GHz to 25GHz at the 3 meters distance.



[11g] Channel High BELOW 1GHz

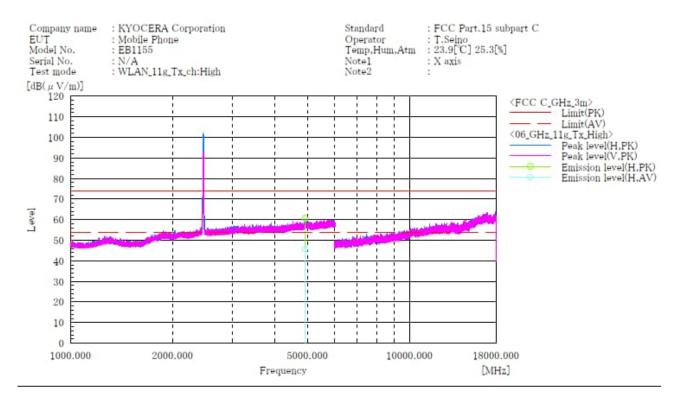


Final Result

- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 9kHz to 1000MHz at the 3 meters distance.



[11g] Channel High ABOVE 1GHz



Final Result

No.	Frequency	(P)	Reading	Reading	c. f	Result	Result	Limit	Limit	Margin	Mergin	Height	Angle	Remark
1	[MHz] 4924.000	H	PK [dB(µV)] 49.9	AV [dB(µV)] 35,2	[dB(1/m)] 10.7	$\begin{bmatrix} dB(\mu V/m) \\ 60, 6 \end{bmatrix}$	[dB(μV/m)] 45.9	PK [dB(µV/n)] 74.0	Linit AV [dB(µV/m)] 54.0	PK [dB] 13.4	[dB] 8.1	[cm] 300.0	[*] 255. 0	

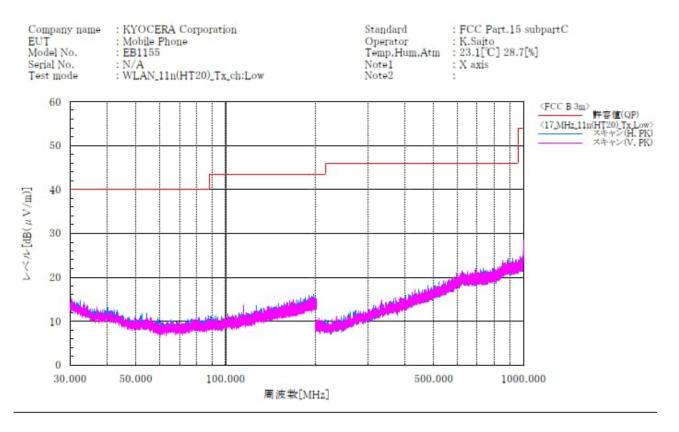
Note:

1. Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable - Amp)]

2. No emission were detected in frequency range 18GHz to 25GHz at the 3 meters distance.



[11n(HT20)] Channel Low BELOW 1GHz

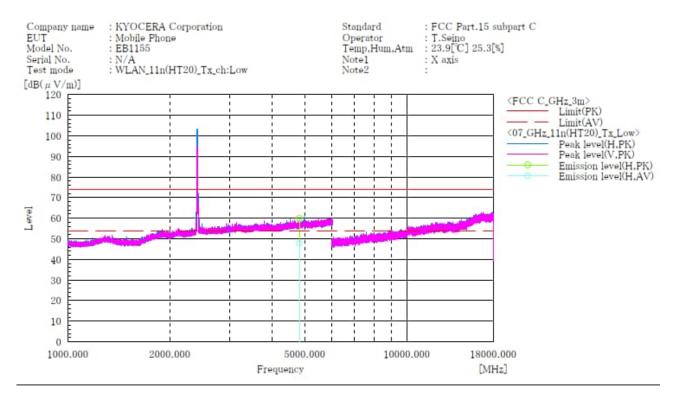


Final Result

- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 9kHz to 1000MHz at the 3 meters distance.



[11n(HT20)] Channel Low ABOVE 1GHz



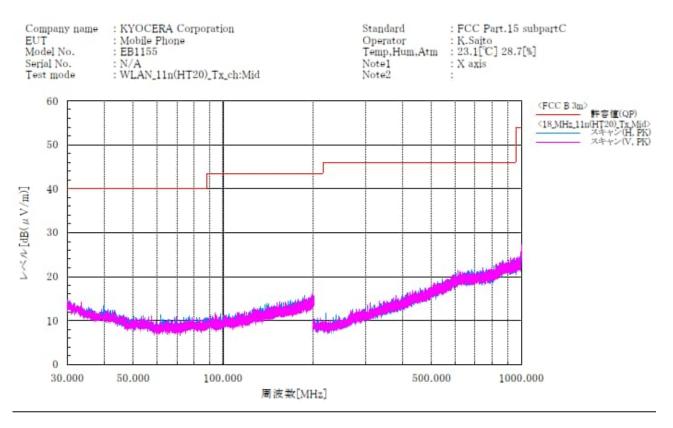
Final Result

No.	Frequency	(P)	Reading	Reading	c.f	Result	Result	Limit	Linit	Margin	Margin	Height	Angl+	Remark
			PK	AV		PK	AV	PK	AV	PK	AV			
	[MH:] 4824.000		$[dB(\mu V)]$	$[dB(\mu V)]$	[dB(1/m)]	$[dB(\mu V/m)]$	$[dB(\mu V/m)]$	$[dB(\mu V/n)]$	AV [dB(μV/m)] 54.0	[dB]	[dB]	[cm]	[1]	
1	4824.000	H	49.7	37.8	10.2	59.9	48,0	74.0	54.0	14.1	6,0	100.0	273.0	

- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 18GHz to 25GHz at the 3 meters distance.



[11n(HT20)] Channel Middle BELOW 1GHz

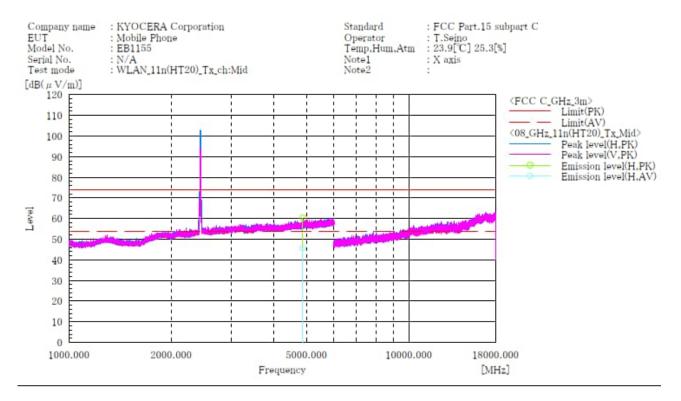


Final Result

- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 9kHz to 1000MHz at the 3 meters distance.



[11n(HT20)] Channel Middle ABOVE 1GHz



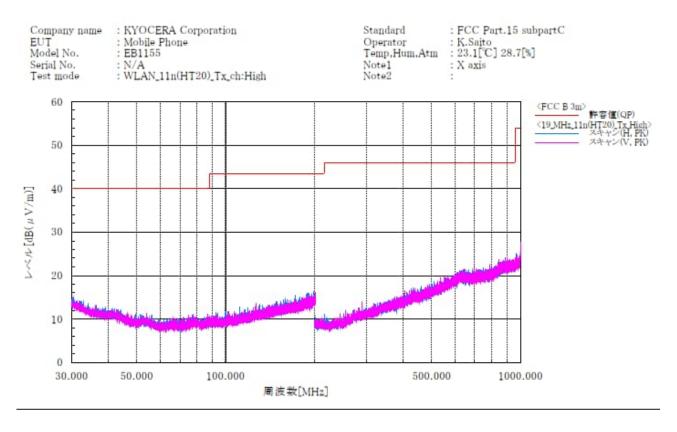
Final Result

No.	Frequency	(P)	Reading	Reading	c. f	Result	Result	Limit. PK	Limit	Margin	Margin	Height	Angl#	Remark
1	[MH:] 4874.000	Н	[dB(µV)] 49.8	[dB(µV)] 35.4	[dB(1/n)] 10.4	[dB(µV/m)] 60.2	[dB(µV/m)] 45.8	[dB(µV/n)] 74.0	$\begin{bmatrix} AV \\ [dB(\mu V/m)] \\ 54.0 \end{bmatrix}$	[4B] 13.8	[dB] 8.2	[cm] 100, 0	263.0	

- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 18GHz to 25GHz at the 3 meters distance.



[11n(HT20)] Channel High BELOW 1GHz

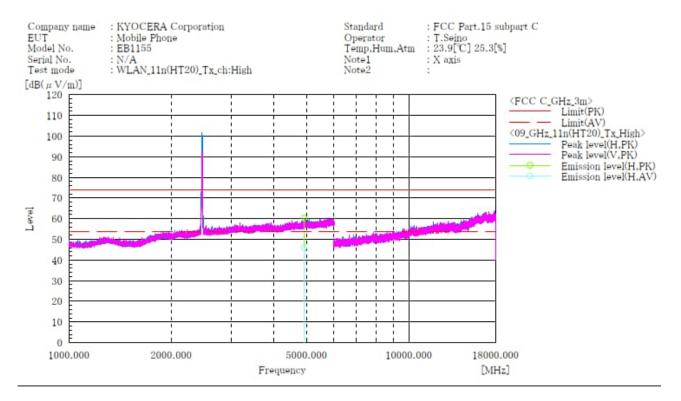


Final Result

- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 9kHz to 1000MHz at the 3 meters distance.



[11n(HT20)] Channel High ABOVE 1GHz



Final Result

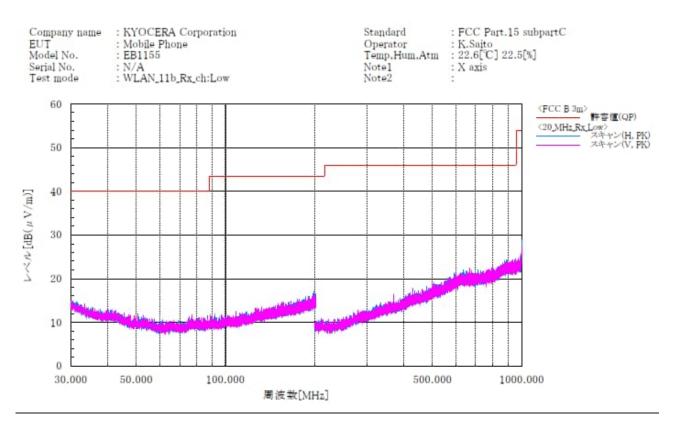
No.	Frequency	(P)	Reading	Reading	c. f	Result	Result	Limit PK	Limit	Margin	Margin	Height	Angl#	Remark
1	[MH:] 4924.000	Н	[dB(µV)] 49.8	[dB(µV)] 35.4	[dB(1/m)] 10.7	[dB(µV/m)] 60.5	[dB(µV/m)] 46.1	[dB(µV/n)] 74.0	AV [dB(µV/m)] 54.0	[dB] 13, 5	[dB] 7.9	[cm] 100.0	259.0	

- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 18GHz to 25GHz at the 3 meters distance.



4.5.4.2 Receive mode

Channel Low BELOW 1GHz



Final Result

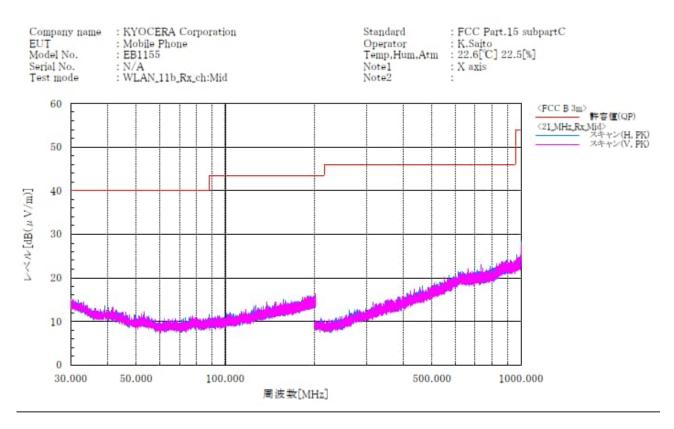
Note:

1. Emission Level (Margin) = Limit - [Reading + Factor (Antenna + Cable - Amp)]

2. No emission were detected in frequency range 9kHz to 1000MHz and 1GHz to 25GHz at the 3 meters distance.



Channel Middle BELOW 1GHz

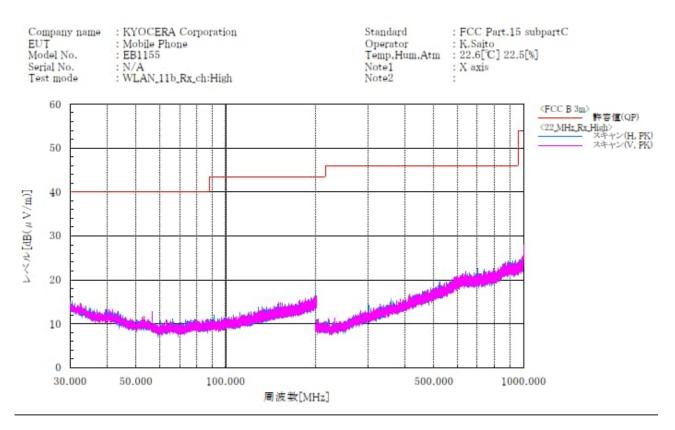


Final Result

- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 9kHz to 1000MHz and 1GHz to 25GHz at the 3 meters distance.



Channel High BELOW 1GHz



Final Result

- 1. Emission Level (Margin) = Limit [Reading + Factor (Antenna + Cable Amp)]
- 2. No emission were detected in frequency range 9kHz to 1000MHz and 1GHz to 25GHz at the 3 meters distance.



4.6 Restricted Band of Operation

4.6.1 Measurement procedure

[FCC 15.247(d), 15.205, 15.209, KDB 558074 D01 v05r02, Section 8.6]

Test was applied by following conditions.

Test method Test place EUT was placed on Antenna distance	: :	ANSI C63.10 3m Semi-anechoic chamber Styrofoam table / (W) $1.0 \times (D) 0.8 \times (H) 0.8 \text{ m}$ (below 1 GHz) Styrofoam table / (W) $0.6 \times (D) 0.6 \times (H) 1.5 \text{ m}$ (above 1 GHz) 3m
Spectrum analyzer setting - Peak - Average	: .	RBW=1 MHz, VBW=3 MHz, Span=Arbitrary setting, Sweep=auto 11b: RBW=1 MHz, VBW=3 kHz, Span= Arbitrary setting, Sweep=auto 11g, 11n : RBW=1 MHz, VBW=1 kHz, Span= Arbitrary setting, Sweep=auto Display mode=Linear

Average Measurement Setting [VBW]

Mode	Duty Cycle (%)	Ton [µs]	Toff [μs]	1/Ton (kHz)	Determined VBW Setting
11b	97.07	993.25	30	1.007	3kHz
11g	95.49	1375	65	0.727	1kHz
11n(HT20)	11n(HT20) 95.86		55	0.784	1kHz

Although these tests were performed other than open area test site, adequate comparison measurements

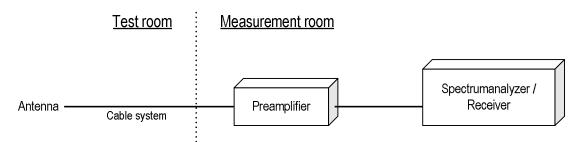
were confirmed against 30 m open are test site.

Therefore, sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 937606.

Radiated emission measurements are performed at 3m distance with the broadband antenna (Double ridged guide antenna). The antenna is positioned both the horizontal and vertical planes of polarization and height is varied 1m to 4m and stopped at height producing the maximum emission.

The EUT is Placed on a turntable, which is 0.8m/1.5m above ground plane. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level. The test results represent the worst case emission for each emission with manipulating the EUT, support equipment, interconnecting cables and varying the mode of operation. Sufficient time for the EUT, support equipment, and test equipment are allowed in order for them to warm up to their normal operating condition.

- Test configuration





4.6.2 Limit

Emission at the boundary of the restricted band provided by 15.205 shall be lower than 15.209 limit.

4.6.3 Measurement Result

[IEEE802.11b、IEEE802.11g、IEEE802.11n (HT20)]

Channel	Frequency [MHz]	Results Chart	Result
Low	2412	See the Trace Data	Pass
High	2462	See the Trace Data	Pass

4.6.4 Test data

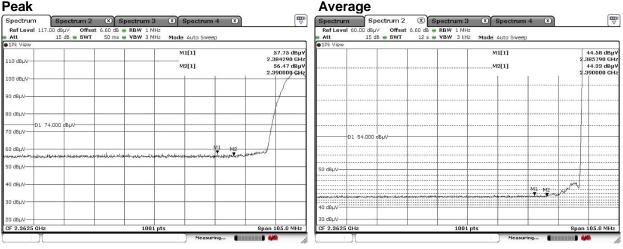
Date	:	6-December-2022			
Temperature	:	22.6 [°C]			
Humidity	:	30.5 [%]	Test engineer	:	
Test place	:	3m Semi-anechoic chamber	-		Tadahiro Seino



44.62 dBμV 2.386310 GHz 44.08 dBμV 2.390000 GHz

[IEEE802.11b]

Channel Low Horizontal Peak



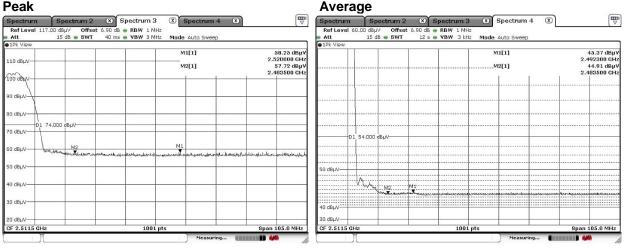
Vertical

Peak Average Spectrum Spectrum 2 Spectrum 3 Spectrum 4 Spectrum4 M1[1] 57.76 dBµV 2.387750 GHz 55.78 dBµV 2.390000 GHz M1[1] 110 dBµV M2[1] M2[1] 100 dBµV 90 dBuV 80 dBuV D1 74.000 dBµV 70 dBµV D1 54.000 But 60 dBµV M1 M2 with U 50 dBµV-0 dBµV 40 dBµ\ M1 M2 30 dBµV O dBµV-20 dBuV 30 dBuV CF 2.3625 GHz 1001 pts Span 105.0 MHz F 2.3625 GH 1001 pt: 8pan 105.0 MHz



[IEEE802.11b]

Channel High Horizontal Peak



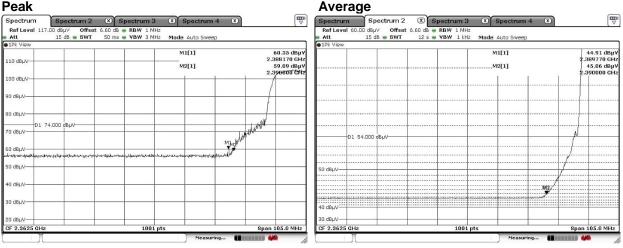
Vertical Book

Peak Average Spectrum Spectrum 3 Ref Level 117.00 d8µ/ Offset 6.90 d8 RBW 1 MHz Att 15 dB SWT 40 ms VBW 3 MHz •1Pk View 40 ms VBW 3 MHz Spectrum Spectrum 3 Spectrum 4 Spectrum 4 Ref Level 60.00 dBµV Offset 6.00 dB = RBW 1 NHz Att 15 dB = 8WT 12 s = VBW 3 hHz Mode Auto Sweep DEV View DEV View 12 s = VBW 3 hHz Mode Auto Sweep Spectrum 4 🛛 Mode Auto St 44.77 dBμV 2.489680 GHz 44.26 dBμV 2.483500 GHz M1[1] 57.99 dBμV 2.528490 GHz 56.81 dBμV 2.493500 GHz M1[1] 110 dBµV M2[1] M2[1] 100 dBµ\ สชาชิติม 80 dBuV 1 74.000 dBµV 70 dBµV 54.000 lBµ∖ 60 dBµV-MI M2 Whento ah. refet o 50 dBµ\ 0 dBµV 40 dBµ\ M) M2 M2 30 dBµV HO dBµV-20 dBuV 30 dBuV 8pan 105.0 MHz CF 2.5115 GHz 1001 pts Span 105.0 MHz F 2.5115 GHz 1001 pt: 110



[IEEE802.11g]

Channel Low Horizontal Peak



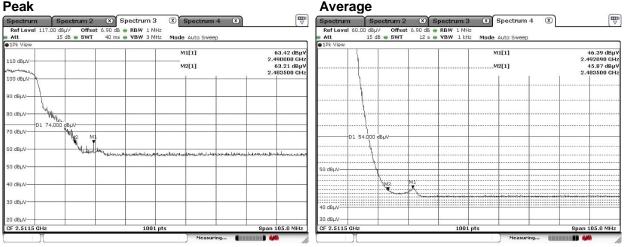
Vertical

Peak Average Spectrum Spectrum 2 Spectrum 3 Spectrum 4 Spectrum 4 Ref Level 117.00 dBµV Offset 6.60 dB RBW 1 NHz Mode Auto Sweep Att 15 dB SWT 50 ms YBW 3 NHz Mode Auto Sweep 57.71 dBµV 2.386070 GHz 56.26 dBµV 2.390000 GHz 43.98 dBµV 2.384950 GHz 43.76 dBµV 2.390000 GHz M1[1] M1[1] 110 dBµV M2[1] M2[1] 100 dBµV . Ma 90 dBuV 80 dBuV D1 74.000 dBµV 70 dBµV D1 54.000 But 60 dBµV M1 M2 Inches 50 dBµV 0 dBµV 40 dBµ\ 30 dBµV 40 dBµV 20 dBuV 30 dBuV CF 2.3625 GHz 1001 pts Span 105.0 MHz F 2.3625 GH 1001 pt: Span 105.0 MHz



[IEEE802.11g]

Channel High Horizontal Peak



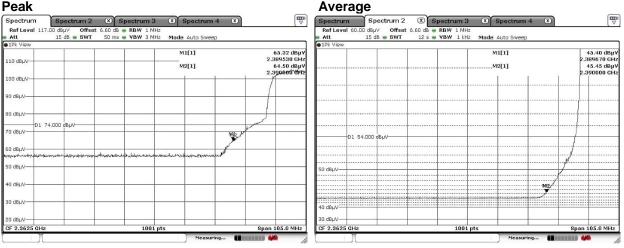
Vertical Book

Peak Average Spectrum Spectrum 2 Spectrum 3 Spectrum 4 C Ref Level 60.00 dBµV Offset 6.90 dB = RBW 1 NHz Att 15 dB = 8WT 12 s = VBW 1 kHz Mode Auto Sweep DEV View DEV View 12 s = VBW 1 kHz Mode Auto Sweep Spectrum 4 (X) Mode Auto St 44.33 dBμV 2.498910 GHz 44.14 dBμV 2.493500 GHz M1[1] 58.13 dBµV 2.505100 GHz 56.58 dBµV 2.493500 GHz M1[1] 110 dBµV M2[1] M2[1] 100 dBµV 90 dBµV-80 dBu 74.000 dBµV 70 dBµV 54.000 60 dBµV M1 50 dBµV 0 dBµV 40 dBµ\ M1 M2 30 dBµV HO dBµV-20 dBuV 30 dBuV Span 105.0 MHz CF 2.5115 GHz 1001 pts Span 105.0 MHz F 2.5115 GHz 1001 pt:



[IEEE802.11n (HT20)]

Channel Low Horizontal Peak



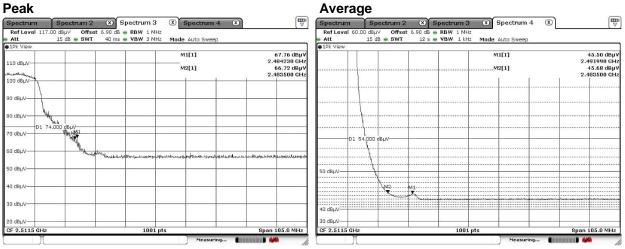
Vertical

Peak Average Spectrum Spectrum 2 Spectrum 3 Spectrum 4 Spectrum 4 Ref Level 117.00 dBµV Offset 6.60 dB RBW 1 NHz Mode Auto Sweep Att 15 dB SWT 50 ms YBW 3 NHz Mode Auto Sweep 43.54 dBμV .388720 GHz 43.33 dBμV .390000 GHz M1[1] 57.63 dBµV 2.373480 GHz 56.66 dBµV 2.390000 GHz M1[1] 110 dBµV M2[1] M2[1] 100 dBµV 90 dBuV 80 dBuV D1 74.000 dBµV 70 dBµV D1 54.000 But 60 dBµV-ندوميلىغ. 50 dBµV 0 dBµV 40 dBµ\ 30 dBµV 40 dBµV 20 dBµV 30 dBuV CF 2.3625 GHz 1001 pts Span 105.0 MHz F 2.3625 GH 1001 pt: 8pan 105.0 MHz



[IEEE802.11n (HT20)]

Channel High Horizontal Peak



Vertical Book

Peak			Average			
Spectrum 2	Spectrum 3 Spectrum 4	x x	Spectrum Sp	ectrum 2 🙁 Spectrum 3	🗴 Spectrum 4 🛞	Ē
Ref Level 117.00 dBµV Offset			Ref Level 60.00 dBµ			
Att 15 dB - SWT	40 ms - VBW 3 MHz Mode Auto Sweep	1	Att 15 d 15 d 15 d	B 🖶 SWT 12 S 👼 VBW 1 kHz	Mode Auto Sweep	-
110 dBµV	M1[1] M2[1]	59.17 dBμV 2.485170 GHz 57.29 dBμV			M1[1] M2[1]	44.31 dBµ 2.484230 GF 43.99 dBµ
100 dBµV	[2.483500 GHz			Î Î Î	2.483500 GH
90 dBµV						
Э0 d8µV						
70 dBµV			D1 54.000 c	звµv		
50 dBUV Ville March 100 miles		والمعارفة والمقالية والمراحد والمراحية والمقاطر والمقاطرة ومعارفهم				
50 dBµV			50 dBµV-			
0 dBµV						
30 dBµV			40 dBuV			
20 dBµV			30 dBµV			
CF 2.5115 GHz	1001 pts	Span 105.0 MHz	CF 2.5115 GHz	1001 p	ts	Span 105.0 MHz



4.7 Transmitter Power Spectral Density

4.7.1 Measurement procedure

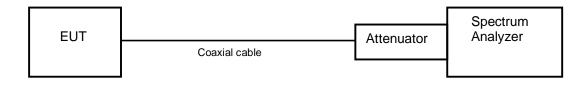
[FCC 15.247(e), KDB 558074 D01 v05r02, Section 8.4]

The peak power is measured with a spectrum analyzer connected to the antenna terminal, while EUT is operating in transmission mode at the appropriate center frequency.

The spectrum analyzer is set to;

- a) Span = 1.5 times the 6 dB bandwidth.
- b) RBW = 3kHz 100kHz.
- c) VBW \geq 3 x RBW.
- d) Sweep time = auto-couple.
- e) Detector = peak.
- f) Trace mode = max hold.

- Test configuration



4.7.2 Limit

The peak power spectral density shall not be greater than 8 dBm in any 3 kHz band.

4.7.3 Measurement result

Date	:	11-October-2022				
Temperature	:	22.5 [°C]				
Humidity	:	46.1 [%]	Test engineer	:		
Test place	:	Shielded room No.4			Taiki Watanabe	

[IEEE802.11b]

Channel	Center Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dBm)	Result
Low	2412	-16.21	10.52	-5.69	8.00	13.69	PASS
Middle	2437	-17.38	10.52	-6.86	8.00	14.86	PASS
High	2462	-17.63	10.52	-7.11	8.00	15.11	PASS

*: Tested by EB1146

Calculation;

Transmitter Power Spectral Density Level (Margin) = Limit – (Reading + Factor)

[IEEE802.11g]

Channel	Center Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dBm)	Result
Low	2412	-19.87	10.52	-9.35	8.00	17.35	PASS
Middle	2437	-19.99	10.52	-9.47	8.00	17.47	PASS
High	2462	-19.91	10.52	-9.39	8.00	17.39	PASS

*: Tested by EB1146

Calculation;

Transmitter Power Spectral Density Level (Margin) = Limit – (Reading + Factor)

[IEEE802.11n (HT20)]

Channel	Center Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dBm)	Result
Low	2412	-20.68	10.52	-10.16	8.00	18.16	PASS
Middle	2437	-20.92	10.52	-10.40	8.00	18.40	PASS
High	2462	-22.65	10.52	-12.13	8.00	20.13	PASS

*: Tested by EB1146

Calculation;

Transmitter Power Spectral Density Level (Margin) = Limit – (Reading + Factor)



4.7.4 Trace data

[IEEE802.11b]

Channel Low

z Mode Auto FFT	
M1[1]	-16.21 dBr
	2.4113560 GH
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M/	Veryanting
	- M Holder
	Verturned
	Ŷ
	Span 15.0 MHz
	M1[1]

Channel Middle

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0 dBm									
-10 dBm				M1					
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-50 dBm									
-60 dBm									
-70 dBm									

Channel High

					M	1[1]			17.63 dBr 09960 GH
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0 dBm									
-10 dBm									
-20 dBm	reisele	Norteshart March	Herrich and the state of the st	M1	June Lune	highestopilation	Alexader Neutre	aut_i	
-30 dBm	V				/			V	artanian we have
-50 dBm									
-60 dBm									
-70 dBm									

Japan

[IEEE802.11g]

nannel Low	Spectrum				
	Ref Level 20.00 dBr	m 🖷 Ri	3W 3 kHz		(v
		IB . SWT 10 ms . VI		Auto FFT	
	1Pk View				
				M1[1]	-19.87 dBm 2.4136230 GHz
	10 dBm				2.4136230 GHz
	0 dBm				
	-10 dBm				
	-20 dBm	Li internetionth	WAA BANAN	Twwwwwwww	Rhad .
	-30 dBm	MWW MARINAAAAA	WITT	· M - a M I C D D A A D A	1211111
	-40 dBm				Murry
	-50 dBm				··/~
	VERPEN				Www
	-70 dBm				
	CF 2.412 GHz		1001 pts		Span 25.0 MHz
	Y			No. of Contractions	farming 449

Channel Middle

Spectrum Ref Level	20.00 dBr	2	e RB	W 3 kHz					("
Att			10 ms . VB		Mode Auto	FFT			
1Pk View									
					M	1[1]			19.99 dB
0 dBm-						-		2.44	07460 GF
dBm									
0 dBm									<u> </u>
						M1			
0 dBm		1	WWWW	ANAAAA	MrAAA.	ABADAA AN	then in		
0 dBm	MA.	MWW	MANDARAN	WWW	D. ADDAM	LANNAGA	INNOVAN	M	
u asm					7				
0 dBm	N							N.	
	John Color							MAN	
0 dBm	f.							<u></u>	
andth									1
d dBm									- MM
0 dBm-									
F 2.437 G	Hz			1003	l pts			Span	25.0 MHz

Channel High

Ref Level	20.00 dBr	n	· RB	N 3 kHz					
Att	30 d	B 👄 SWT 1	0 ms 🖷 VB	₩ 10 kHz	Mode Auto	FFT			
1Pk View									
					м	1[1]			19.91 dBr 13760 GH
10 dBm-								2.40	13700 GH
10 0011									
0 dBm									
0 ubiii									
10 10-									
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-50 dBm	M							~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	4
MANN									Mraan
an a									
-70 dBm									
CF 2.462 G	Hz			1001	nts			Snan	25.0 MHz

Japan

[IEEE802.11n (HT20)]

Channel Low

Ref Level Att		S SWT 10	o ms 🖷 VBV	V 10 kHz	Mode Auto	FFT			
1Pk View					м	1[1]			20.68 dBr 01270 GH
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0 dBm									
-10 dBm									
-20 dBm	. 11	yuwww	AAAAAAAA	M1 ANANAA	ለአባላለል	MAAAAAA	Ulaha, shi	ر. ما بنا	
-30 dBm	pun	ANNAAA	A B A D D A A A	40	1.0100	144000444	10000000	ww	
-40 dBm					ų			h	
-50 dBm —	r ^N							The second	
Anabraph									"Hurry
110-00									- î
-70 dBm									
CF 2.412 G	47			1001	nts			Snan	25.0 MHz

Channel Middle

Spectrum Ref Level 2	20.00 dBn	n	= RB	W 3 kHz					[₩ V
Att		B 🖷 SWT		W 10 kHz	Mode Auto	FFT			
1Pk View			1						00 00 Jp.
					M	1[1]			20.92 dBn 54270 GH
LO dBm									
) dBm									
ubiii									
10 dBm									
				M1					
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00 µ0 50 dBm									may
70 dBm									
CF 2.437 GH	z			1001	pts		600		25.0 MHz

Channel High

30 de	8 🖷 SWT 1	0 ms 🖷 VBN	₩ 10 kHz	Mode Auto	D FF T			
				м	1[1]			22.65 dBr 07510 GH
							2.10	
			M1					
Labou	AMA AMA	MANAN	minin	MMW	MANNAN	MARA MA	dia	
10000			1	ł			AAAA	
N							h	
p ^r							. M	
								4
								Why
	1							
					M	M1[1]	M1(1)	M1[1] 2.46

Japan



4.8 AC Power Line Conducted Emissions

4.8.1 Measurement procedure

[FCC 15.207]

Test was applied by following conditions.

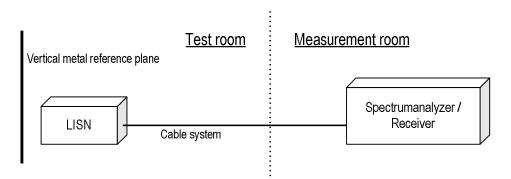
Test method Frequency range Test place EUT was placed on Vertical Metal Reference Plane Test receiver setting	: : :	ANSI C63.10 0.15 MHz to 30 MHz 3m Semi-anechoic chamber Styrofoam table / (W)1.0m \times (D)0.8m \times (H)0.8m (W) 2.0 \times (H) 2.0 m, 0.4 m away from EUT
- Detector - Bandwidth		Quasi-peak, Average 9 kHz

EUT and peripherals are connected to $50\Omega/50 \mu$ H Line Impedance Stabilization Network (LISN) which are connected to reference ground plane, and are placed 80cm away from EUT. Excess of AC power cable is bundled in center.

LISN for peripheral is terminated in 50Ω .

EUT operating mode is selected to emit the maximum noise. Overall frequency range is investigated with spectrum analyzer using peak detector. Maximum emission configuration is determined by manipulating the EUT, peripherals, interconnecting cables. Then, emission measurements are performed with test receiver in above setting to each current-carrying conductor of the mains port. Sufficient time for EUT, peripherals and test equipment is provided in order for them to warm up to their normal operating condition. If the average limit is met when using a quasi-peak detector receiver, the EUT shall be deemed to meet both limits.

- Test configuration



4.8.2 Calculation method

Emission level = Reading + (LISN. Factor + Cable system loss) Margin = Limit – Emission level

Example: Limit @ 0.403 MHz: 57.8 dB μ V(Quasi-peak) : 47.8 dB μ V(Average) (Quasi peak)Reading = 22.7 dB μ V c.f. = 10.4 dB Emission level = 22.7 + 10.4 = 33.1 dB μ V Margin = 57.8 - 33.1 = 24.7 dB (Average) Reading = 6.5 dB μ V c.f. = 10.4 dB Emission level = 6.5 + 10.4 = 16.9 dB μ V Margin = 47.8 - 16.9 = 30.9 dB



4.8.3 Limit

Frequency	Li	nit
[MHz]	QP [dBuV]	AV [dBuV]
0.15-0.5	66-56*	56-46*
0.5-5	56	46
5-30	60	50

*: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.



4.8.4 Test data

Hum	peratur	re : :	9-December-2022 20.4 [°C] 24.6 [%] 3m Semi-anechoic	Te	st engineer	: _Tadahir	o Seino
EU Mo Ser	mpany na T del No. jal No. st mode	: M EI	YOCERA Corporation obile Phone 81155 /A LAN_11b_Tx		Standard Operator Temp,Hum,Atm Note1 Note2	: FCC Part 15 (: T.Seino : 20.4 [° C], 24 :	Class C 4.6 [%]
	80						<fcc c=""> 許容値(QP) 時容値(AV)</fcc>
	70						(01_WLAN2.4GHz_11b Tx) スキャン(L1. PK) スキャン(L2. PK)
	60						
[5	50						
√≪ル[dB(µV)]	40			9 L		and the second	
Z K	30					Auto anti-	
	20						
	10						
	0.15		0.50 1.00	周波数[MHz]	5.00 10.00	30.0	00

Final Result

	L1 Frequency		Rending AV [dB(µV)]	c.f	Result QP [dB(µV)]		QP [dB(μV)]	Limi*	Margin QP	AV	Remark
	[MH=]	$[dB(\mu V)]$	[dB(µV)]	[dB]	$[dB(\mu V)]$	[dB(µV)]	$[dB(\mu V)]$	$[dB(\mu V)]$	QP [dB]	[dB]	
1	0.150	46.1	19.3	10.6	56.7	29, 9	66. 0	56.0	9.3	26.1	
2	0.572	27.0	17.3	10.4	37. 4			46.0	18.6	18.3	
3	0.718	27.4	18.0	10.4	37.8	28.4	56.0	46.0	18.2	17.6	
45	1.481		17.7	10.5	36, 5	28, 2	56.0	46.0		17.8	
	4.621	17.4	5.8	10.7			56.0		27.9	29.5	
6	6.650	25.2	11.2	10.9	36.1	22.1	60.0	50.0	23.9	27.9	
	L2										
No.	Frequency	Reading	Rwading AV	c.f	Result QP	Result AV	QP	Limit AV	Margin QP	Mergin	Renark
	[MHz]	$[dB(\mu V)]$	[dB(µV)]	[dB]	$[dB(\mu V)]$	$[dB(\mu V)]$	[dB(µV)] 66.0	$[dB(\mu V)]$	[dB] 7.6	[dB]	
1	0.150	47.8	20.5	10.6	58.4	31.1	66.0	56.0	7.6	24.9	
2	0.571	26.4	16.3	10.4	36, 8	26.7	56, 0	46.0	19.2	19.3	
3	0.711	26.1	16.1	10.4	36, 5	26, 5	56, 0	46.0	19.5	19.5	
4	1.481	26.5	21.0	10.5	37.0	31.5	56.0	46.0	19.0	14.5	
5	4.704	19.3	6.6	10.7		17.3	56.0	46.0	26.0	28.7	
6	6.743	24.6	11.8	10.9	35, 5	22.7	60.0	50.0	24.5	27.3	



5 Antenna requirement

According to FCC section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The antenna is a special antenna mounted inside of the EUT. Therefore, the EUT complies with the antenna requirement of FCC section 15.203.



6 Measurement Uncertainty

Expanded uncertainties stated are calculated with a coverage Factor k=2. Please note that these results are not taken into account when measurement uncertainty considerations contained in ETSI TR 100 028 Parts 1 and 2 determining compliance or non-compliance with test result.

Test item	Measurement uncertainty
Conducted emission, AMN (9 kHz – 150 kHz)	±3.7 dB
Conducted emission, AMN (150 kHz – 30 MHz)	±3.3 dB
Radiated emission (9kHz – 30 MHz)	±3.2 dB
Radiated emission (30 MHz – 1000 MHz)	±5.5 dB
Radiated emission (1 GHz – 6 GHz)	±5.0 dB
Radiated emission (6 GHz – 18 GHz)	±4.6 dB
Radiated emission (18 GHz – 40 GHz)	±6.4 dB
Radio Frequency	±1.3 * 10 ⁻⁸
RF power, conducted	±0.7 dB
Adjacent channel power	±1.5 dB
Temperature	±0.6 °C
Humidity	±1.2 %
Voltage (DC)	±0.4 %
Voltage (AC, <10kHz)	±0.2 %

Standard limit value	9
+Unce <u>rta</u>	-
Case3	Although measured value exceeds a standard limit value, a limit value will be fulfilled if uncertainty is taken into consideration. Even if it takes uncertainty into consideration,
Ca	



7 Laboratory Information

Testing was performed and the report was issued at:

TÜV SÜD Japan Ltd. Yonezawa Testing Center

Address:5-4149-7 Hachimanpara, Yonezawa-shi, Yamagata, 992-1128 JapanPhone:+81-238-28-2881

Accreditation and Registration A2LA

Certificate #3686.03

VLAC Accreditation No.: VLAC-013

BSMI Laboratory Code: SL2-IN-E-6018, SL2-A1-E-6018

Innovation, Science and Economic Development Canada ISED#: 4224A

VCCI Council Registration number: A-0166



Appendix A. Test Equipment

Radiated emission

Company	Model No	Serial No.	Cal Due	Cal. Date
			•	14-Sep-2022
				20-Sep-2022
5 5				05-Sep-2022
				19-Jul-2022
				28-Sep-2022
				18-Apr-2022
TOYO Connector	NA-PJ-6	N/A(S507)		03-Feb-2022
Schwarzbeck	VHBB9124/BBA9106	1145	30-Jun-2023	28-Jun-2022
Schwarzback	VUSI D0111R	345	30-Nov-2022	08-Nov-2021
JUIWAIZDECK	VOJEL FITTD	346	30-Nov-2023	16-Nov-2022
TOYO Connector	NA-PJ-6/6dB	N/A(S541)	30-Sep-2023	28-Sep-2022
TAMAGAWA.ELEC	CFA-10/3dB	N/A(S503)	31-Jul-2023	14-Jul-2022
TSJ	MLA-100M18-B02-40	1929118	31-Dec-2022	22-Dec-2021
AEROFLEX	26A-10	081217-08	31-Dec-2022	22-Dec-2021
ETS LINDGREN	3117	00052315	30-Jun-2023	22-Jun-2022
HUBER+SUHNER	6803.17.B	N/A(2340)	31-Dec-2022	23-Dec-2021
A.H.Systems Inc.	SAS-574	469	31-Aug-2023	19-Aug-2022
TSJ	MLA-1840-B03-35	1240332	31-Aug-2023	19-Aug-2022
Micro-Tronics	BRM50702	G433	30-Sep-2023	28-Sep-2022
	SUCOFLEX104/9m	MY30037/4	31-Dec-2022	22-Dec-2021
	SUCOFLEX104/1m	my24610/4	31-Dec-2022	22-Dec-2021
	SUCOFLEX104/8m	SN MY30033/4	31-Dec-2022	22-Dec-2021
HUBER+SUHNER	SUCOFLEX104/1m	MY32976/4	31-Dec-2022	22-Dec-2021
	SUCOFLEX104/2m	SN MY28404/4	31-Dec-2022	22-Dec-2021
	SUCOFLEX104/7m	41625/6	31-Dec-2022	22-Dec-2021
DELL	DIMENSION E521	75465BX	N/A	N/A
TOYO Corporation	EP5/RE-AJ	0611193/V6.0.140	N/A	N/A
DELL	OPTIPLEX9010	00186-228-073-851	N/A	N/A
TOYO Technica				N/A
	PFP30	N/A		N/A
				28-May-2022
				28-May-2022
	Schwarzbeck TOYO Connector TAMAGAWA.ELEC TSJ AEROFLEX ETS LINDGREN HUBER+SUHNER A.H.Systems Inc. TSJ Micro-Tronics HUBER+SUHNER DELL TOYO Corporation	ROHDE&SCHWARZESCIROHDE&SCHWARZESW44Agilent TechnologiesE4440AROHDE&SCHWARZFSV40SONOMA310ROHDE&SCHWARZHFH2-Z2TOYO ConnectorNA-PJ-6SchwarzbeckVHBB9124/BBA9106SchwarzbeckVUSLP9111BTOYO ConnectorNA-PJ-6/6dBTAMAGAWA.ELECCFA-10/3dBTSJMLA-100M18-B02-40AEROFLEX26A-10ETS LINDGREN3117HUBER+SUHNER6803.17.BA.H.Systems Inc.SAS-574TSJMLA-1840-B03-35Micro-TronicsBRM50702SUCOFLEX104/9mSUCOFLEX104/1mSUCOFLEX104/1mSUCOFLEX104/1mSUCOFLEX104/1mSUCOFLEX104/1mSUCOFLEX104/1mSUCOFLEX104/1mDELLDIMENSION E521TOYO CorporationEP5/RE-AJDELLOPTIPLEX9010TOYO TechnicaES10/RE-AJRIKENPFP30TOKINN/A	ROHDE&SCHWARZ ESCI 100765 ROHDE&SCHWARZ ESW44 103171 Agilent Technologies E4440A US44302655 ROHDE&SCHWARZ FSV40 101731 SONOMA 310 372170 ROHDE&SCHWARZ HFH2-Z2 100515 TOYO Connector NA-PJ-6 N/A(S507) Schwarzbeck VHBB9124/BBA9106 1145 Schwarzbeck VUSLP9111B 345 Schwarzbeck VUSLP9111B 346 TOYO Connector NA-PJ-6/6dB N/A(S503) TSJ MLA-100M18-B02-40 1929118 AEROFLEX 26A-10 081217-08 ETS LINDGREN 3117 00052315 HUBER+SUHNER 6803.17.B N/A(2340) A.H.Systems Inc. SAS-574 469 TSJ MLA-1840-B03-35 1240332 Micro-Tronics BRM50702 G433 SUCOFLEX104/9m MY30037/4 SUCOFLEX104/2m SUCOFLEX104/2m SN MY30033/4 SUCOFLEX104/2m SUCOFLEX104/7m<	ROHDE&SCHWARZ ESCI 100765 30-Sep-2023 ROHDE&SCHWARZ ESW44 103171 30-Sep-2023 Agilent Technologies E4440A US44302655 30-Sep-2023 ROHDE&SCHWARZ FSV40 101731 31-Jul-2023 SONOMA 310 372170 30-Sep-2023 ROHDE&SCHWARZ HFH2-Z2 100515 30-Apr-2023 TOYO Connector NA-PJ-6 N/A(S507) 28-Feb-2023 Schwarzbeck VHBB9124//BBA9106 1145 30-Jun-2023 Schwarzbeck VUSLP9111B 345 30-Nov-2022 Schwarzbeck VUSLP9111B 346 30-Nov-2023 TOYO Connector NA-PJ-6/6dB N/A(S503) 31-Jul-2023 TSJ MLA-100M18-B02-40 1929118 31-Dec-2022 AEROFLEX 26A-10 081217-08 31-Dec-2022 ETS LINDGREN 3117 00052315 30-Jun-2023 HUBER+SUHNER 6803.17.B N/A(2340) 31-Dec-2022 A.H.Systems Inc. SAS-574 469 31-Aug-2023

Conducted emission at mains port

Equipment	Company	Model No.	Serial No.	Cal. Due	Cal. Date
EMI receiver	ROHDE&SCHWARZ	ESW44	103171	30-Sep-2023	20-Sep-2022
Attenuator	HUBER+SUHNER	6810.01.A	N/A (S411)	31-Dec-2022	22-Dec-2021
Line impedance stabilization network	Kyoritsu Electrical Works, Ltd.	TNW-407F2	12-17-110-2	30-Jun-2023	15-Jun-2022
Microwave cable	HUBER+SUHNER	SUCOFLEX104/5m	MY33601/4	31-Oct-2023	27-Oct-2022
Microwave cable	HUBER+SUHNER	SUCOFLEX104/2m	MY37268/4	31-Oct-2023	27-Oct-2022
Coaxial cable	HUBER+SUHNER	RG214/U/10m	N/A (S194)	31-Dec-2022	22-Dec-2021
PC	DELL	OPTIPLEX9010	00186-228-073-851	N/A	N/A
Software	TOYO Technica	ES10/RE-AJ	Ver.2021.10.001	N/A	N/A

*: The calibrations of the above equipment are traceable to NIST or equivalent standards of the reference organizations.