

\*\*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

# [11n(HT20)] W56 / Channel Middle **ABOVE 1GHz**

TUV SUD Zacta	Ltd.	< <data< th=""><th>Sheet No.34&gt;&gt;</th><th></th><th>17 May,2017 11:41</th></data<>	Sheet No.34>>		17 May,2017 11:41
Company name EUT Model No. Serial No. Test mode [dB(µ V/m)]	: KYOCERA Corporation : Mobile Phone : EA34 : N/A : 5GHz_W56_11n(HT20)_		Standard Operator Temp,Hum,Atm Note1 Note2	: FCC Part.15 subpart E : T.Watanabe : 23.2[°C] 29.4[%] : ch:116_5580MHz :	
120 110 90 90 80 70 60 50 40 30 20 10 0				1.0.000000	GHz(Peak_Only) 3m> Limit(PK) Tx,W56_11n(HT20)_Mid Peak level(H,PK) Peak level(V,PK) Emission level(V,PK) 妨害レベル(V,CAV)

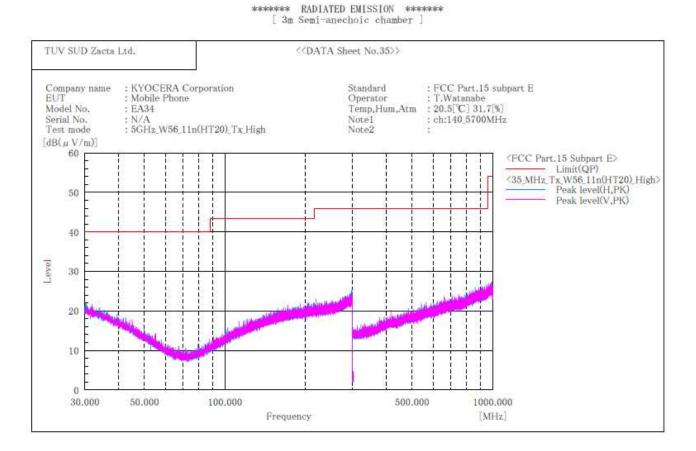
### Final Result

No.	Frequency	(P)	Reading PK	Reading CAV	c.f	Result PK	Result CAV	Limit	Margin PK	Margin CAV	Height	Angle	Remark
1	[MHz] 11160.000	v				[dB(µV/m)] 59.2			[dB] 14.8	[dB] 6.5	[em] 107.0	["] 74.0	

### Note:



## [11n(HT20)] W56 / Channel High BELOW 1GHz



### Final Result

No.	Frequency	(P)	c.f	Height	Angle	Remark
	[MHz]		[dB(1/m)]	[cm]	[°]	

Note:

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



# [11n(HT20)] W56 / Channel High **ABOVE 1GHz**

	a Ltd.	«DATA :	Sheet No.36>>		17 May,2017 13:21
Company name EUT Model No. Serial No. Test mode dB(u V/m)]	: KYOCERA Corporation : Mobile Phone : EA34 : N/A : 5GHz_W56_11n(HT20)_T	x_High	Operator Temp,Hum,Atm	: FCC Part.15 subpart E : T.Watanabe : 23.2[°C] 29.4[%] : ch:140_5700MHz :	
80 70 60 50 40 30					GHz(Peak_Only).3m> Limit(PK) Tx_W56_11n(HT20).High Peak level(H,PK) Peak level(V,PK) Emission level(V,PK) 妨害レベル(V,CAV)

# \*\*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

Final Result

No.	Frequency	$(\mathbf{P})$	Reading PK	Reading CAV	c. f	Result PK	Result CAV	Limit PK	Margin PK	Margin CAV	Height	Angle	Remark
1	[MHz] 11400.000	v	[dB(µV)] 47.2		[dB(1/m)] 11.6	[dB(µV/m)] 58.8	[dB(µV/m)] 47.5	[dB(µV/m)] 74.0	[dB] 15.2	[dB] 6.5	[cm] 132.0	[* ] 69.0	

Note:



# [11n(HT40)] W52 / Channel Low **BELOW 1GHz**

TUV SUD Zacta	Ltd.		CATA Sheet No.	.37>>		10 May,2017 01:29
Company name EUT Model No. Serial No. Test mode [dB(µ V/m)]	: KYOCERA Co : Mobile Phone : EA34 : N/A : 5GHz_W52_11n		Standa Opera Temp, Note1 Note2	tor : Hum,Atm :	FCC Part.15 st T.Watanabe 24.1[°C] 27.1[% ch:38_5190MHz	
10 0 30 0 30 0 30 0 30 0 30 0 30 0 0 30 0 0 0 0 0 0 0 0 0 0 0 0 0	50,000	100.000		500.000	1000.0	

### \*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

Final Result

No,	Frequency	(P)	c.f	Height	Angle	Remark
	[MHz]		[dB(1/m)]	[cm]	[°]	

Note:



## [11n(HT40)] W52 / Channel Low ABOVE 1GHz

TUV SUD Zacta	Ltd.	< <th>A Sheet No.38&gt;&gt;</th> <th></th> <th>17 May,2017 15:11</th>	A Sheet No.38>>		17 May,2017 15:11
$dB(\mu V/m)$ ]	: KYOCERA Corporat : Mobile Phone : EA34 : N/A : 5GHz_W52_11n(HT4		Standard Operator Temp,Hum,Atm Note1 Note2	: FCC Part.15 subpart E : T.Watanabe : 23.2[°C] 29.4[%] : ch;38_5190MHz :	
80 70 60 50 40 30 20 10				1/24/24/10/10	GHz(Peak_Only)_3m> Limit(PK) Tx_W52_11n(HT40)_Low Peak level(H,PK) Peak level(V,PK) Emission level(V,PK)
0	2000.000	5000.00	0 10000.0	18000.000	

### \*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

## Final Result

No. Fre	quency (P)	Reading	c.f	Result		Margin	Height	Angle	Remark
	MHz] 80.000 V	$[dB(\mu V)]$	[dB(1/m)]	PK [dB(μV/m)] 57,5	PK [dB(μV/m)] 68,2	PK [dB] 10,7	[cm] 106.0	[°] 31.0	

Note:

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

2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



# [11n(HT40)] W52 / Channel High **BELOW 1GHz**

TUV SUD Zacta	Ltd.	( 1	《DATA Sheet	No.39>>		10 May,2017 01:29
Company name EUT Model No. Serial No. Test mode [dB(µ V/m)]	: KYOCERA Cor : Mobile Phone : EA34 : N/A : 5GHz_W52_11n	Distriction	Op		: T.Watanał	7.1[%]
60 50 40 30						<pre></pre>
20	50,000	100.000 Freque	ncy	500.0	00 1	000.000 [MHz]

# \*\*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

Final Result

No.	Frequency	(P)	c.f	Height	Angle	Remark
	[MHz]		[dB(1/m)]	[cm]	[°]	

Note:



# [11n(HT40)] W52 / Channel High **ABOVE 1GHz**

TUV SUD	Zacta L	td.		< <data< th=""><th>Sheet No.40&gt;&gt;</th><th></th><th></th><th>17 May,2017 17:00</th></data<>	Sheet No.40>>			17 May,2017 17:00
Company EUT Model No. Serial No. Test mode [dB(µV/n	• e	: KYOCERA Co : Mobile Phone : DA58 : N/A : 5GHz_W52_11	orporation n(HT40)_Tx_High		Standard Operstor Temp,Hum,A Note1 Note2	: T.Wa .tm : 23.2	Part.15 subpart E atanabe [°C] 29.4[%] 6_5230MH2	
80 70 60 50 30 20 10							<40_GF	E_GHz(Peak_Only)_3m> — Limit(PK) Iz_Tx_W52_11n(HT40)_High — Peak level(H,PK) — Peak level(V,PK) — Emission level(V,PK)
0 E 1000.	.000	2000.0		5000.000 equency	100	00.000	18000.000 [MHz]	

# \*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

Final Result

No.	Frequency	(P)	PK		Result PK	Limit PK	Margin PK	Height	Angle	Remark
1	[MHz] 10460.000	v	$\begin{bmatrix} dB(\mu V) \end{bmatrix} \\ 47.7 \end{bmatrix}$	[dB(1/m)] 10.5	[dB(µV/m)] 58.2	[dB(µV/m)] 68,2	[dB] 10.0	[cm] 113.0	[°] 238.0	

Note:



# [11n(HT40)] W53 / Channel Low **BELOW 1GHz**

Company name						
EUT Model No. Serial No.	: KYOCERA Coi : Mobile Phone : EA34 : N/A : 5GHz_W53_11n		1	Standard Operator Temp,Hum,Atm Note1 Note2	: FCC Part.15 : T.Watanabe : 24.1[°C] 27.1 : ch:54_5270MH :	[%]
	50.000	100.000		500,0		<pre><fcc e="" part.15="" subpart=""> Limit(QP) &lt;41_MHz_Tx_W53_11n(HT40)_Low Peak level(H,PK) Peak level(V,PK)</fcc></pre>

\*\*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

Final Result

No.	Frequency	(P)	c.f	Height	Angle	Remark
	[MHz]		[dB(1/m)]	[cm]	[°]	

Note:



\*\*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

# [11n(HT40)] W53 / Channel Low **ABOVE 1GHz**

I UV SUD Zacu	v Ltd.	<cdata no.42="" sheet="">&gt; 17 May,2017 17:13</cdata>
Company name EUT Model No. Serial No. Test mode dB(µ V/m)]	: KYOCERA Corporation : Mobile Phone : EA34 : N/A : 5GHz_W53_11n(HT40)_1	Standard: FCC Part.15 subpart EOperator: T.WatanabeTemp,Hum,Atm: 23.2[°C] 29.4[%]Note1: ch:54_5270MHzLowNote2
80 70 60 50 40 30 20 10		CCC E_GHz(Peak_Only)_3m> Limit(PK) Peak level(H,PK) Peak level(V,PK) Emission level(V,PK)

### Final Result

No.	Frequency	(P)	Reading	c.f	Result	Limit	Margin	Height	Angle	Remark
1	[MHz] 10540.000	v	$[dB(\mu V)]$		PK [dB(μV/m)] 57.7	$[dB(\mu V/m)]$	PK [dB] 10,5	[cm] 146.0	[°] 321.0	

Note:



# [11n(HT40)] W53 / Channel High **BELOW 1GHz**

TUV SUD Zacta	Ltd.	~~	DATA Sheet No.43>>		10 May,2017 02:26
Company name EUT Model No. Serial No. Test mode [dB(µV/m)]	: KYOCERA Co : Mobile Phone : EA34 : N/A : 5GHz_W53_11n		Standard Operator Temp,Hum,Atm Note1 Note2	: FCC Part.15 subpart E : T.Watanabe : 24.1[*C] 27.1[%] : ch:62_5310MHz :	
10					Part, 15 Subpart E> — Limit(QP) Iz_Tx_W53_11n(HT40).High — Peak level(H,PK) — Peak level(V,PK)
0 30.000	50.000	100.000 Frequenc	500.00	0 1000.000 [MHz]	

\*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

Final Result

No.	Frequency	(P)	c.f	Height	Angle	Remark
	[MHz]		[dB(1/m)]	[cm]	[°]	

Note:



# [11n(HT40)] W53 / Channel High **ABOVE 1GHz**

	i Ltd.	«DATA :	Sheet No.44>>		19 May,2017 11:52
Company name EUT Model No. Serial No. Test mode dB(µ V/m)]	: KYOCERA Corporation : Mobile Phone : EA34 : N/A : SGHz_W53_11n(HT40)_T.	x,High	Standard Operator Temp,Hum,Atm Note1 Note2	: FCC Part.15 subpa : T.Watanabe : 24.1[°C] 30.6[%] : ch:62_5310MHz :	rt E
80 70 60 50 40 30 20					CC E_GHz(Peak_Only)_3m> Limit(PK) 4_GHz_Tx_W53_11n(HT40)_High Peak level(V,PK) 来 Emission level(V,PK) 来 妨害レベル(V,CAV)

# \*\*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

### Final Result

No.	Frequency	(P)	Reading	Reading	c. f	Result	Result	Lîmit	Margin	Margin	Height	Angle	Remark
	14000104		PK	CAV		PK	CAV	PK	PK	CAV		A	
100	[MHz]	1						$[dB(\mu V/n)]$	[dB] 15, 8	[dB]	Cm	150 0	
	10620.000	- N	46, 9	36.6	11.3	58, 2	47.9	1 2 1	10.8	6, 1	124.0	158, 0	

### Note:



\*\*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

# [11n(HT40)] W56 / Channel Low **BELOW 1GHz**

TUV SUD Zacta	Ltd.		«DATA S	heet No.45>>		10 May,2017 02:56
Company name EUT Model No. Serial No. Test mode [dB(µ V/m)]	: KYOCERA Coi : Mobile Phone : EA34 : N/A : 5GHz_W56_11n	53 35 - 754		Standard Operator Temp,Hum,Atm Note1 Note2	: FCC Part.1 : T.Watanabe : 24.1[°C] 27. : ch:102_5510 :	1[%]
60 50 40 20 10 30.000	50.000	100.000		1001 diter 1000	00 10	(FCC Part.15 Subpart E) Limit(QP) (45_MHz_Tx_W56_11n(HT40)_Low Peak level(H,PK) Peak level(V,PK)

## Final Result

No.	Frequency	(P)	c.f	Height	Angle	Remark
	[MHz]		[dB(1/m)]	[cm]	[* ]	



# [11n(HT40)] W56 / Channel Low **ABOVE 1GHz**

EUT : Mobile Model No. : EA34 Serial No. : N/A Test mode : 5GHz_V dB(µ V/m)] 80 70 60	W56_11n(HT40)_Tx_Low	Standard Operator Temp,Hui Note1 Note2		5[%]
80 70 60			u Xunt In Astron	Limit(PK) (46_GHz_Tx_W56_11n(HT40) Low) Peak level(H,PK) Peak level(V,PK) Emission level(H,PK)

# \*\*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

#### Final Result

No.	Frequency	$(\mathbf{h})$	Reading PK	Reading CAV	c.f	Result PK	Result CAV	Limit PK	Margin PK	Margin CAV	Height	Angle	Remark
1	[MHz] 5468.000	Н	[dB(µV)] 50.6	[dB(µV)]	[dB(1/m)] 10.2	[dB(µV/m)] 60.8	$[\mathrm{dB}(\mu\mathrm{V/m})]$	[dB(µV/m)] 68.2	[dB] 7.4	[dB]	[cm] 144.0	[* ] 25.0	
2	5468, 100	¥	50.3		10.2	60.5		68.2	7.7		206.0	276.0	
3	11020.000	V	46.5	36.0	11.2	57.7	47.2	74.0	16.3	6.8	103.0	75.0	

#### Note:



## [11n(HT40)] W56 / Channel Middle **BELOW 1GHz**

TUV SUD Zacta	Ltd.		< <data shee<="" th=""><th>t No.47&gt;&gt;</th><th></th><th>10 May,2017 02:56</th></data>	t No.47>>		10 May,2017 02:56
Company name EUT Model No. Serial No. Test mode [dB(µV/m)]	: KYOCERA Cor : Mobile Phone : EA34 : N/A : SGHz_W56_11n	rporation (HT40)_Tx_Middle	O Te N	andard perator emp,Hum,Atm ote1 ote2	: T.Watanał	27.1[%]
60 50 40 20 10 30.000	50,000	100.000	Dency	500.00	00 1	<pre>(FCC Part.15 Subpart E) Limit(QP) (47_MHz_Tx_W56_11n(HT40)_Midd) Peak level(H,PK) Peak level(V,PK)</pre>

\*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

### Final Result

No.	Frequency	(P)	c.f	Height	Angle	Remark
	[MHz]		[dB(1/m)]	[cm]	[°]	

Note:



## [11n(HT40)] W56 / Channel Middle **ABOVE 1GHz**

TUV SU <mark>D Z</mark>	facta Ltd.	((DATA Sheet No.48))	19 May,2017 02:34
Company na EUT Model No. Serial No. Test mode [dB(µ V/m)]	: Mobile Phone : EA34 : N/A : 5GHz_W56_11n(HT	Temp,Hum,Atm : 2 Notel : c	CC Part.15 subpart E .Watanabe 4.1[°C] 30.6[%] h:110_5550MHz
80 70 60 50 40 30 10			(FCC E_GHz(Peak_Only)_3m> Limit(PK) (48_GHz_Tx_W56_11n(HT40)_Mid Peak level(H,PK) Peak level(V,PK) ————————————————————————————————————
0 1000.0	00 2000.000	5000.000 10000.000 Frequency	18000.000 [MHz]

#### \*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

Final Result

No.	Frequency		Reading PK		Result PK	Result CAV	Margin PK	Margin CAV		Angle	Remark
E	[MHz] 11100.000	¥ć.	[dB(µV)] 47.1	[dB(1/m)] 11.2		[dB(µV/m)] 48.1	[dB] 15.7	[dB] 5, 9	[cm] 100.0		

### Note:



# [11n(HT40)] W56 / Channel High **BELOW 1GHz**

	Ltd.		CATA Sheet No.	49>>	10 May,2017 03:56
Company name EUT Model No, Serial No, Test mode dB(µ V/m)]	: KYOCERA Co : Mobile Phone : EA34 : N/A : 5GHz_W56_11	n(HT40)_Tx_High	Standa Operat Temp,I Note1 Note2	or : T.Wa Hum,Atm : 24.1[	
60 50 40 20 20 10					t.15 Subpart E> Limit(QP) Tx_W56_11n(HT40)_Higt Peak level(H,PK) Peak level(V,PK)

## Final Result

No.	Frequency	(P)	c.f	Height	Angle	Remark
	[MHz]		[dB(1/m)]	[cm]	[°]	

Note:



## [11n(HT40)] W56 / Channel High ABOVE 1GHz

TUV SUD Zacta	Ltd.	((DATA Sheet No.50))	19 May,2017 15:42
Company name EUT Model No. Serial No. Test mode (dB(µ V/m)]	: KYOCERA Corporation : Mobile Phone : EA34 : N/A : SGHz_W56_11n(HT40)_1	Standard : FCC Part.15 subpa Operator : T.Watanabe Temp,Hum,Atm : 24.1[°C] 30.6[%] Note1 : ch:134_5670MHz Note2 :	rt E
80 70 60 50 40 30 20 10 0			CC E_GHz(Peak_Only)_3m> Limit(PK) 0_GHz_Tx_W56_11n(HT40).High Peak level(H,PK) Peak level(V,PK) Emission level(V,PK) が寄レベル(V,CAV)
1000.000	2000.000	5000.000 10000.000 18000.000 Frequency [MHz]	

### \*\*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

#### Final Result

No.	Frequency	(P)	Reading PK	Reading CAV	c.f	Result PK	Result CAV	Limit PK	Margin PK	Margin CAV	Height	Angle	Remark
1	[MHz] 11340.000	v	[dB(µV)] 47.2			[dB(µV/m)] 58,7		[dB(µV/m)] 74.0	[dB] 15.3	[dB] 6.3	[cm] 103.0	[" ] 0.0	

### Note:

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

2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



# [11n(HT80)] W52 **BELOW 1GHz**

TUV SUD Zacta	Ltd.		< <data she<="" th=""><th>et No.51&gt;&gt;</th><th></th><th>18 May,2017 09:1.</th></data>	et No.51>>		18 May,2017 09:1.
Company name EUT Model No. Serial No. Test mode (dB(µ V/m)]	: KYOCERA Co : Mobile Phone : EA34 : N/A : 5GHz_W52_11a			Standard Operator Femp,Hum,Atm Note1 Note2	: FCC Part. : T.Watanah : 23.7[°C] 3 : Ch:42_521 :	e 1.1[%]
60 50 40 20 10 30.000	50.000	100.000		500.00		<pre></pre>

# \*\*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

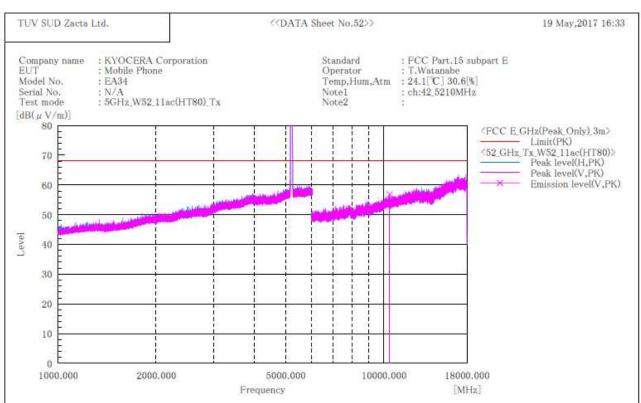
Final Result

No.	Frequency	(P)	c.f	Height	Angle	Remark
	[MHz]		[dB(1/m)]	[cm]	[°]	

Note:



## [11n(HT80)] W52 ABOVE 1GHz



### \*\*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

### Final Result

No.	Frequency	(P)	Reading PK	c.f	Result PK	Limit PK	Margin PK	Height	Angle	Remark
1	[MHz] 10420.000	V	[dB(µV)] 46.4	[dB(1/m)] 10.4	[dB(µV/m)] 56.8	[dB(µV/m)] 68,2	[dB] 11.4	[cm] 124.0	[°] 65.0	

Note:

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

2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



# [11n(HT80)] W53 **BELOW 1GHz**

TUV SUD Zacta	Ltd.		< <data sh<="" th=""><th>ieet No.53&gt;&gt;</th><th></th><th></th><th colspan="3">18 May,2017 10:</th></data>	ieet No.53>>			18 May,2017 10:		
Company name EUT Model No, Serial No, Test mode (dB(µ V/m))	: KYOCERA Co : Mobile Phone : EA34 : N/A : 5GHz_W53_11a			Standard Operator Temp,Hum,Atm Note1 Note2	: T.Watan	31.1[%]	τE		
60 50 40 20 10 30.000	50,000	100.000		500.00	00	1	CC Part.15 Subpart E> Limit(QP) MHz_Tx_W53_11ac(HT80)> Peak level(H,PK) Peak level(V,PK)		

\*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

### Final Result

No.	Frequency	(P)	c.f	Height	Angle	Remark
	[MHz]		[dB(1/m)]	[cm]	[°]	

Note:



# [11n(HT80)] W53 **ABOVE 1GHz**

TUS	: KYOCERA Corporation				
ierial No. Γest mode IB(μV/m)]	: Mobile Phone : EA34 : N/A : 5GHz_W53_11ac(HT80)_	Гх	Standard Operator Temp,Hum,Atm Note1 Note2	: FCC Part.15 subpart E : T,Watanabe : 22.9[°C] 44.2[%] : ch:58_5290MHz :	
80 70 60 50 40 30 20 10 0				54_G	E_GHz(Peak_Only)_3m> — Limit(PK) Iz_Tx_W53_11ac(HT80)> — Peak level(H,PK) — Peak level(V,PK) — Emission level(V,PK)

# \*\*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

### Final Result

No.	Frequency	(P)		c.f	Result PK	Limit	Margin	Height	Angle	Remark
1	[MHz] 10580,000	v	$\begin{bmatrix} dB(\mu V) \end{bmatrix} \\ 46.8 \end{bmatrix}$	[dB(1/m)]	$[dB(\mu V/m)] = 57.4$	$[dB(\mu V/m)] = 68.2$	[dB] 10, 8	[cm] 107.0		

Note:



# [11n(HT80)] W56 / Channel Low **BELOW 1GHz**

Company name EUT				
Model No. Serial No.	: KYOCERA Cor : Mobile Phone : EA34 : N/A : 5GHz_W56_11a	Standard Operator Temp,Hum,Atm Note1 Note2	: FCC Part.15 Subpart : T.Watanabe : 23.7[°C] 31.1[%] : Ch:106_5530MHz :	E
	50,000			Part.15 Subpart E> Limit(QP) Hz_Tx_W56_11ac(HT80)_Low Peak level(H,PK) Peak level(V,PK)

# \*\*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

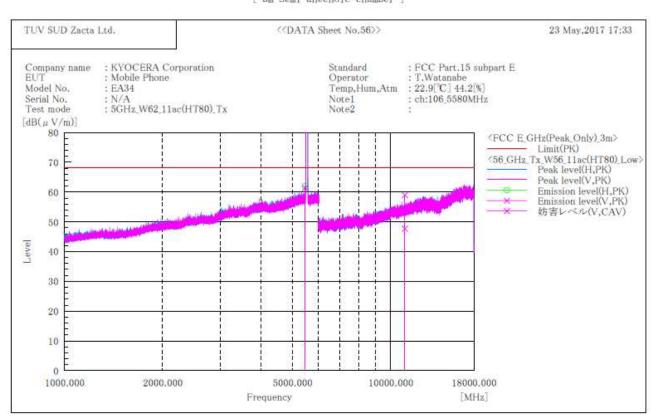
### Final Result

No.	Frequency	(P)	c.f	Height	Angle	Remark
	[MHz]		[dB(1/m)]	[cm]	[°]	

Note:



## [11n(HT80)] W56 / Channel Low ABOVE 1GHz



### \*\*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

Final Result

	Frequency		Reading PK	Reading CAV	c. f	Result PK	Result CAV	Limit PK	Margin PK	Margin CAV	Height	Angle	Remark
	[MHz]	10					$[dB(\mu V/m)]$		[dB]	[dB]		["]]	
1	5469.800	H	51.4		10,6	62.0		68.2	6.2		126.0	179.0	
2	5465,600	V	50.8		10.6	61.4		68.2	6,8		100.0	93.0	
3	11060.000	W.	47.8	36.5	11.2	59.0	47.7	74.0	15.0	6.3	117.0	311.0	

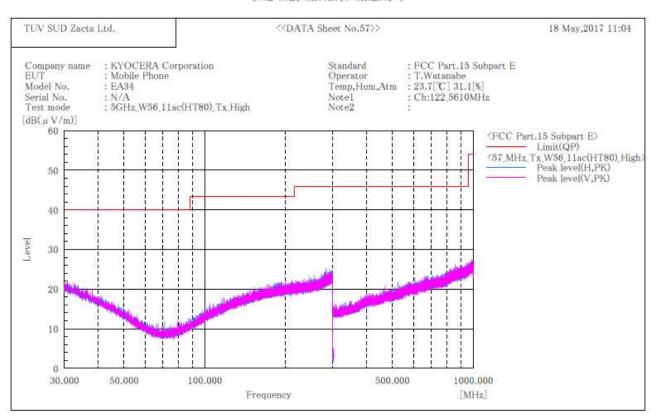
Note:

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

2. No emission were detected in frequency range 18GHz to 40GHz at the 3 meters distance.



### [11n(HT80)] W56 / Channel High BELOW 1GHz



#### \*\*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

Final Result

No.	Frequency	(P)	c.f	Height	Angle	Remark
	[MHz]		[dB(1/m)]	[cm]	[°]	

Note:

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



# [11n(HT80)] W56 / Channel High **ABOVE 1GHz**

TUV SUD Zacta	Ltđ.		<pre>&lt;<data pre="" shee<=""></data></pre>	et No.58>>		24 May,2017 10:00
Company name EUT Model No, Serial No, Test mode [dB(µ V/m)]	: KYOCERA Corpo : Mobile Phone : EA34 : N/A : 5GHz_W62_11ac0		O T N	tandard perator emp,Hum,Atm ote1 ote2	: FCC Part.15 s : T.Watanabe : 23.2[°C] 44.3[ : ch:122.5610M :	<b>%</b> ]
80 70 60 50 40 30 20 10					×	<fcc e_ghz(peak_only)_3m=""> Limit(PK) &lt;58_GHz_Tx_W56_11ac(HT80)_High Peak level(H,PK) Peak level(V,PK) ★ Emission level(V,PK) ★ 妨害レベル(V,CAV)</fcc>
0 1000.000	2000.000	<u> </u>	5000.000	10000.	.000 18000 [Mł	99000

# \*\*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

### Final Result

No.	Frequency	(P)	Reading PK	Reading CAV	c, f	Result PK	Result CAV	Līmīt PK	Margin PK	Margin CAV	Height	Angle	Remark
1	[MHz] 11220.000	v	[dB(µV)] 47.0				[dB(µV/m)] 48.0	[dB(µV/m)] 74,0	[dB] 15,6	[dB] 6.0	[cm] 107.0	[* ] 306.0	

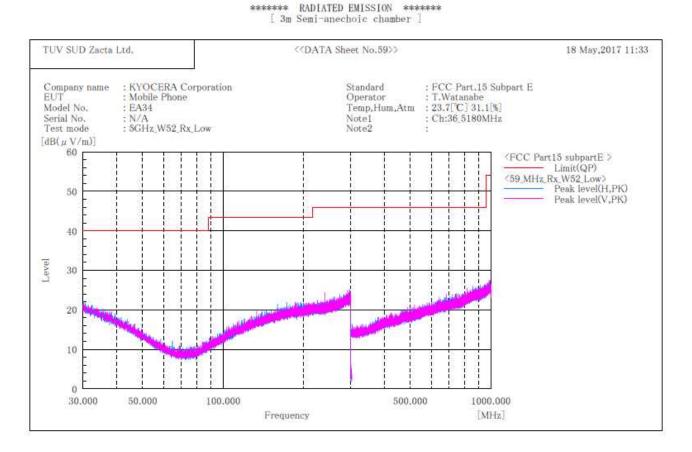
### Note:





## 7.4.4.2 Receive mode

## W52 / Channel Low BELOW 1GHz



### Final Result

No. Frequency (P) c.f Height Angle Remark
[MHz] [dB(1/m)] [cm] [°]

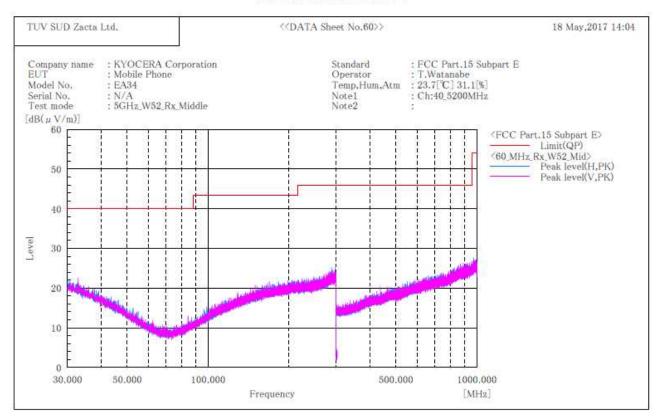
Note:

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





## W52 / Channel Middle BELOW 1GHz



#### \*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

Final Result

No.	Frequency	(P)	c.f	Height	Angle	Remark
	[MHz]		[dB(1/m)]	[cm]	[°]	

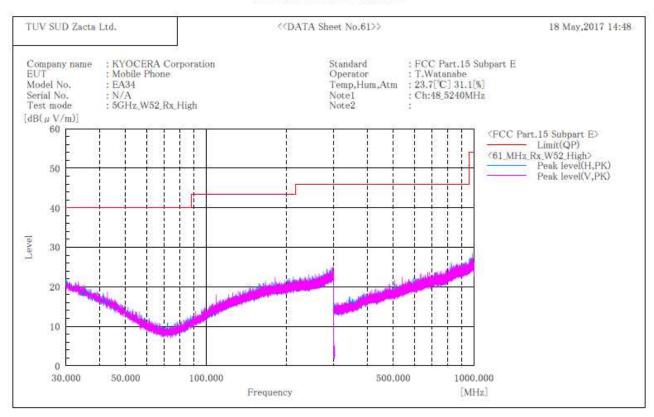
### Note:

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





### W52 / Channel High BELOW 1GHz



#### \*\*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

Final Result

No.	Frequency	(P)	c.f	Height	Angle	Remark
	[MHz]		[dB(1/m)]	[cm]	[°]	

Note:

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





## W53 / Channel Low **BELOW 1GHz**

FUV SUD Zacta	Ltd.	《DATA Sheet	No.62>>			23 May,2017 10:2	
Company name EUT Model No. Serial No. Test mode dB(µV/m)]	: KYOCERA C : Mobile Phone : EA34 : N/A : 5GHz_W53_R		Op Tei No	ndard erator mp,Hum,Atm te1 te2	: FCC Pa : T.Watar : 22.9['C] : Ch:52_5 :	abe [44.2[%]]	part E
50						1	FCC Part.15 Subpart E> Limit(QP) 62_MHz_Rx_W53_Low> Pesk level(H,PK) Pesk level(V,PK)
40 30							
20							
0 30.000	50.000	100.000		500.00	0	1000.000	)

#### \*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

Final Result

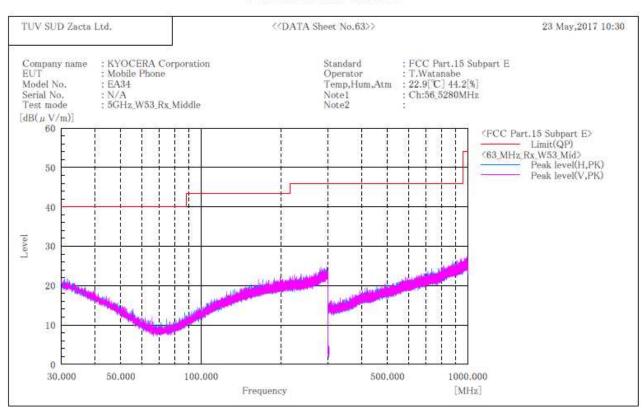
No.	Frequency	(P)	c.f	Height	Angle	Remark
	[MHz]		[dB(1/m)]	[cm]	[°]	

Note:





## W53 / Channel Middle **BELOW 1GHz**



#### \*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

Final Result

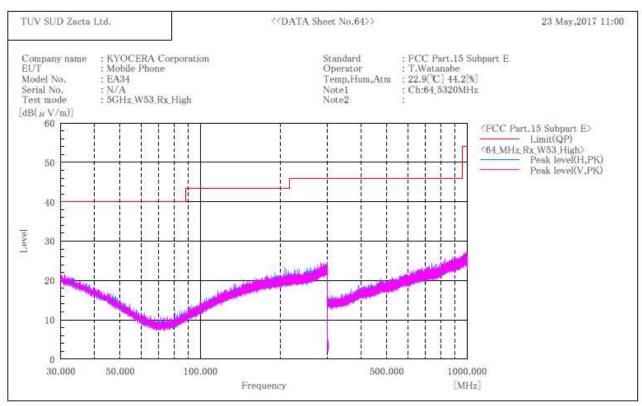
No.	Frequency	(P)	c.f	Height	Angle	Remark
	[MHz]		[dB(1/m)]	[cm]	[°]	

Note:





### W53 / Channel High BELOW 1GHz



## \*\*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\*

[ 3m Semi-anechoic chamber ]

### Final Result

No.	Frequency	(P)	c.f	Height	Angle	Remark
	[MHz]		[dB(1/m)]	[cm]	[°]	

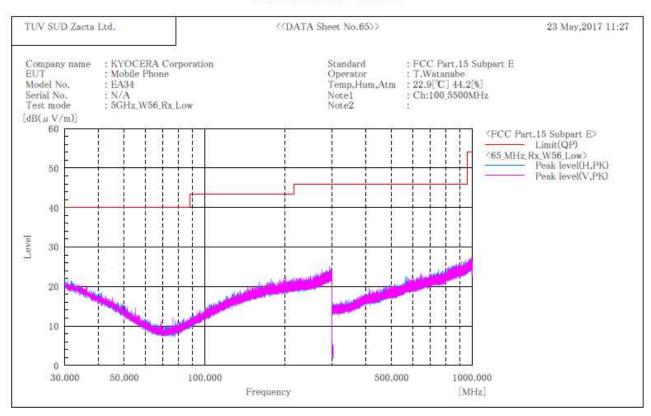
Note:

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





## W56 / Channel Low **BELOW 1GHz**



#### \*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

### Final Result

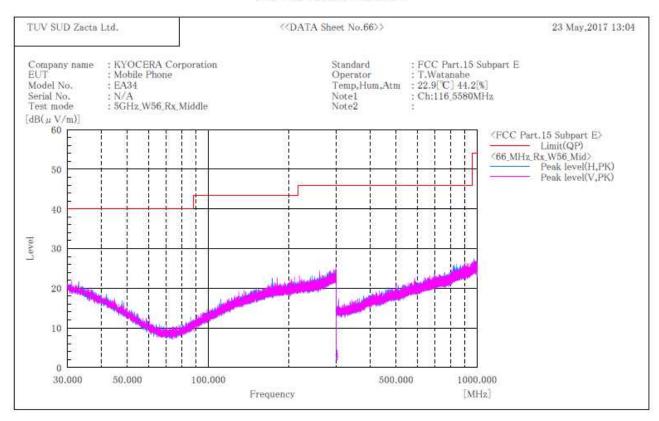
No.	Frequency	(P)	c.f	Height	Angle	Remark	
	[MHz]		[dB(1/m)]	[cm]	[°]		

### Note:





## W56 / Channel Middle BELOW 1GHz



#### \*\*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

### Final Result

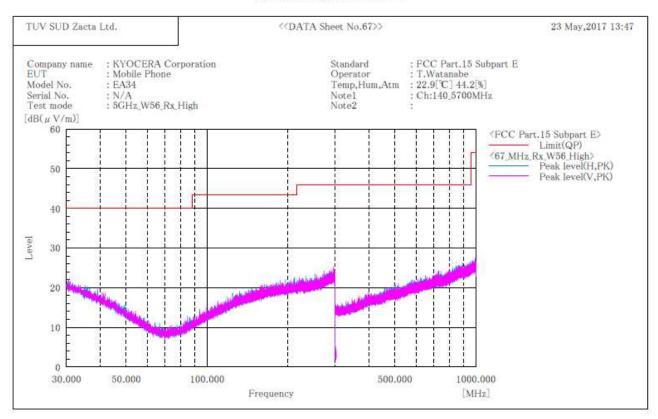
No.	Frequency	(P)	c.f	Height	Angle	Remark
	[MHz]		[dB( <mark>1/m</mark> )]	[cm]	[° ]	

### Note:

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



### W56 / Channel High BELOW 1GHz



#### \*\*\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*\*\* [ 3m Semi-anechoic chamber ]

### Final Result

No.	Frequency	(P)	c.f	Height	Angle	Remark
	[MHz]		[dB(1/m)]	[cm]	[° ]	

### Note:

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

## 8. Frequency Stability

## 8.1 Measurement procedure [FCC 15.407(g)]

The EUT was placed of an inside of an constant temperature chamber as the temperature in the chamber was varied between -30°C and +60°C. The temperature was incremented by 10°C intervals and the unit was allowed to stabilize at each measurement. The center frequency of the transmitting channel was evaluated at each temperature and the frequency deviation from the channels center frequency was recorded.

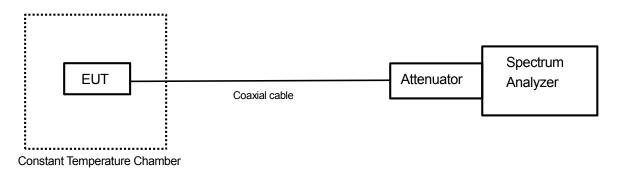
The EUT was set to operate with following conditions.

- 5.2GHz Band, 5.3GHz Band, 5.6GHz Band

The test mode of EUT is as follows.

- Tx mode

- Test configuration



## 8.2 Limit

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified.



Test engineer



## 8.3 Measurement result

Date	:	May 30, 2017
Temperature	:	23.6 [°C]
Humidity	:	49.0 [%]
Test place	:	Shielded room No.4

Chiaki Kanno

:

## [Channel: 36 (5180MHz)]

Power		Measurements	Frequency	Measurements	Frequency	Measurements	Frequency	Measurements	Frequency
	Temperature	Frequency	Tolerance	Frequency	Tolerance	Frequency	Tolerance	Frequency	Tolerance
Supply		(startup)	(startup)	(2mins)	(2mins)	(5mins)	(5mins)	(10mins)	(10mins)
[V]	[°C]	[Hz]	[ppm]	[Hz]	[ppm]	[Hz]	[ppm]	[Hz]	[ppm]
	25(Ref.)	5180013215	0.00000000	5180012392	-0.15887990	5180005702	-1.45038240	5180005837	-1.42432069
	60	5180024827	2.24169312	5180014601	0.26756688	5180014331	0.21544347	5180017072	0.74459270
	50	5180028581	2.96640170	5180032468	3.71678588	5180031117	3.45597574	5180020599	1.42547899
	40	5180012916	-0.05772186	5179995574	-3.40558977	5179998059	-2.92586126	5179993097	-3.88377388
	30	5180010232	-0.57586726	5180008673	-0.87683174	5180007152	-1.17046033	5180002960	-1.97972468
3.80	20	5180011082	-0.41177501	5180007432	-1.11640642	5180001764	-2.21061212	5180002319	-2.10346954
	10	5180038689	4.91774807	5180027446	2.74729029	5180021256	1.55231264	5180022860	1.86196436
	0	5180019321	1.17876147	5180032075	3.64091735	5180021591	1.61698429	5180016077	0.55250824
	-10	5180025993	2.46678907	5180021389	1.57798825	5180017623	0.85096308	5180018577	1.03513249
	-20	5180033286	3.87470054	5180013742	0.10173719	5180019063	1.12895465	5180022308	1.75540093
	-30	5180025678	2.40597842	5180004552	-1.67238956	5180006787	-1.24092348	5180012609	-0.11698812
3.42	25	5180031183	3.46871702	5180011746	-0.28359001	5180001847	-2.19458900	5180004787	-1.62702288
4.18	25	5180018648	1.04883902	5180020031	1.31582676	5180022075	1.71042035	5180016838	0.69941907

## [Channel: 64 (5320MHz)]

Power	Tomoratura	Measurements	Frequency	Measurements	Frequency	Measurements	Frequency	Measurements	Frequency
Supply	Temperature	Frequency (startup)	Tolerance (startup)	Frequency (2mins)	Tolerance (2mins)	Frequency (5mins)	Tolerance (5mins)	Frequency (10mins)	Tolerance (10mins)
[V]	[°C]	[Hz]	[ppm]	[Hz]	[ppm]	[Hz]	[ppm]	[Hz]	[ppm]
	25(Ref.)	5320019447	0.00000000	5320011422	-1.50845313	5320001122	-3.44453628	5319996324	-4.34641268
	60	5320019858	0.07725536	5320030388	2.05657143	5320023651	0.79022268	5320024791	1.00450761
	50	5320024937	1.03195111	5319994717	-4.64847925	5320019534	0.01635332	5320021337	0.35526186
	40	5319995683	-4.46690096	5320002297	-3.22367243	5320000140	-3.62912207	5320011858	-1.42649854
	30	5320039259	3.72404654	5320016165	-0.61691504	5320009572	-1.85619622	5320000915	-3.48344591
3.80	20	5320035404	2.99942513	5320012908	-1.22913085	5320014998	-0.83627514	5320005094	-2.69792247
	10	5320036987	3.29698043	5320020288	0.15808213	5320021333	0.35450998	5320018112	-0.25093893
	0	5320031287	2.22555577	5320011830	-1.43176168	5320021937	0.46804340	5320025886	1.21033392
	-10	5320036893	3.27931132	5320029870	1.95920336	5320010684	-1.64717443	5320017953	-0.28082604
	-20	5320027653	1.54247556	5320022205	0.51841916	5320023570	0.77499717	5320024738	0.99454524
	-30	5320011709	-1.45450596	5320019815	0.06917268	5320022675	0.60676470	5320016562	-0.54229125
3.42	25	5320003380	-3.02010174	5320010369	-1.70638474	5320007362	-2.27160824	5320012907	-1.22931881
4.18	25	5320018042	-0.26409678	5320004542	-2.80168149	5320004971	-2.72104268	5320004348	-2.83814752



# [Channel: 140 (5700MHz)]

Power		Measurements	Frequency	Measurements	Frequency	Measurements	Frequency	Measurements	Frequency
Supply	Temperature	Frequency	Tolerance	Frequency	Tolerance	Frequency	Tolerance	Frequency	Tolerance
		(startup)	(startup)	(2mins)	(2mins)	(5mins)	(5mins)	(10mins)	(10mins)
[V]	[°C]	[Hz]	[ppm]	[Hz]	[ppm]	[Hz]	[ppm]	[Hz]	[ppm]
	25(Ref.)	5700012195	0.00000000	5700012506	0.05456129	5700016267	0.71438444	5700009142	-0.53561289
	60	5700016309	0.72175284	5700040322	4.93455085	5700037792	4.49069215	5700036289	4.22700850
	50	5700016601	0.77298080	5700034705	3.94911436	5700028544	2.86823948	5700025241	2.28876703
	40	5700016945	0.83333155	5700012173	-0.00385964	5699998652	-2.37595983	5700013337	0.20035045
	30	5700020464	1.45069865	5700021113	1.56455806	5700022105	1.73859277	5700023188	1.92859237
3.80	20	5700030381	3.19051949	5700027357	2.65999431	5700021235	1.58596152	5700021645	1.65789119
	10	5700031258	3.34437881	5700022309	1.77438217	5700028516	2.86332721	5700027980	2.76929232
	0	5700032399	3.54455382	5700025331	2.30455647	5700022638	1.83210134	5700025211	2.28350389
	-10	5700037864	4.50332370	5700042137	5.25297122	5700039306	4.75630561	5700037207	4.38806079
	-20	5700049621	6.56595086	5700032054	3.48402763	5700037906	4.51069210	5700039641	4.81507742
	-30	5700020599	1.47438281	5700018582	1.12052392	5700004659	-1.32210243	5700008661	-0.61999867
3.42	25	5700026822	2.56613486	5700017914	1.00333119	5700019519	1.28490953	5700018084	1.03315568
4.18	25	5700017618	0.95140147	5700009352	-0.49877086	5699996262	-2.79525718	5700006244	-1.04403285



# 9. AC Power Line Conducted Emissions

#### 9.1 Measurement procedure [FCC 15.207]

Test was applied by following conditions.

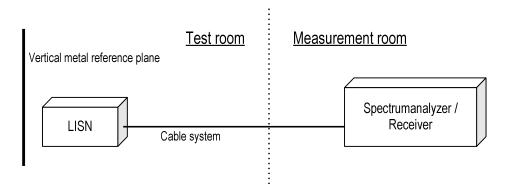
Test method Frequency range Test place EUT was placed on Vertical Metal Reference Plane Test receiver setting	:	ANSI C63.10 0.15MHz to 30MHz 3m Semi-anechoic chamber FRP table / (W)2.0m × (D)1.0m × (H)0.8m (W)2.0m × (H)2.0m 0.4m away from EUT
- Detector - Bandwidth	:	Quasi-peak, Average 9kHz

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  $50\Omega$ .

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



## 9.2 Calculation method

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

## 9.3 Limit

Frequency	Limit					
[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.

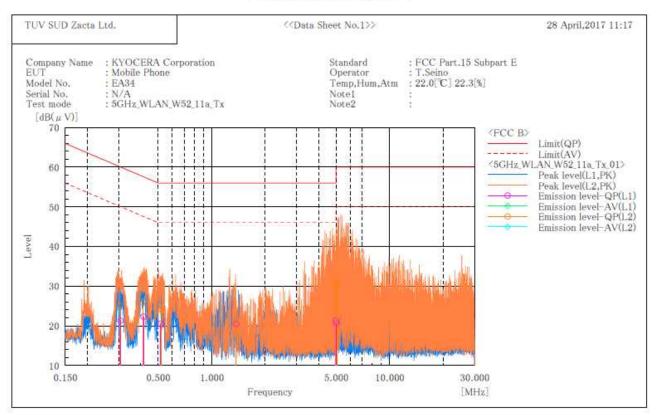
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Date	: April 28, 2017			
Temperature	: 22.0 [°C]			
Humidity	: 22.3 [%]	Test engineer	:	
Test place	: 3m Semi-anechoic chamber			Tadahiro Seino

# 9.4 Test data

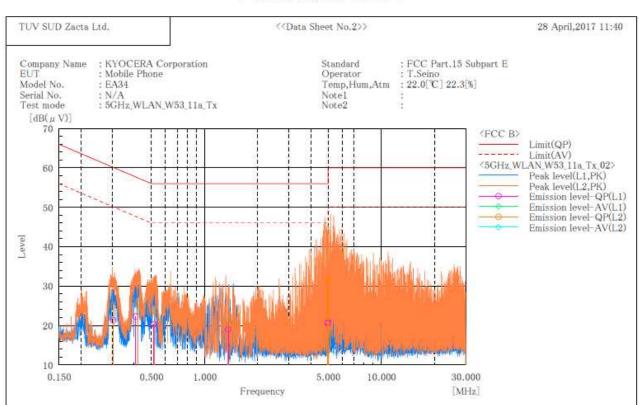
\*\*\*\*\* CONDUCTED EMISSION at MAINS PORT \*\*\*\*\* [ 3m Semi-anechoic chamber ]



#### Final Result

	L1 Phase	-								
No.	Frequency	Reading QP	Reading AV	c.f	Result QP	Result AV	Limit QP	Limit AV	Margin QP	Margin AV
	[MHz]		[dB(µV)]	[dB]				$[dB(\mu V)]$	[dB]	[dB]
1	0.307	10.9	-2.9	10.4	21.3	7.5	60.1	50.1	38.8	42.6
2	0.414	11.9	-3.0	10.4	22.3	7.4	57.6	47.6	35.3	40.2
3	0.516	10, 1	-3.4	10.4	20.5	7.0	56.0	46.0	35.5	39.0
4	1.373	10.1	-3.8	10.4	20.5	6.6	56.0	46.0	35.5	39.4
1 2 3 4 5 6	4.985	10.6	-4.2	10.7	21.3	6.5	56.0	46.0	34.7	39.5
6	5.032	9.9	-4.4	10.7	20.6	6.3	60.0	50.0	39.4	43.7
	L2 Phase	-								
No.	Frequency	Reading QP	Reading AV	c.f	Result QP	Result AV	Limit QP	Limit AV	Margin QP	Margin AV
	[MHz]		[dB(µV)]	[dB]			$[dB(\mu V)]$		[dB]	[dB]
1	0.305	14.7	-2.2	10.4	25.1	8.2	60, 1	50, 1	35.0	41.9
2	0.409	15.7	-2.2	10.4	26.1		57.7	47.7	31.6	39.5
3	0.521	13.7	-2.7	10.4	24.1	7.7	56.0	46.0	31.9	38.3
4	1.363	10.8	-3.5	10.4	21.2	6.9	56.0	46.0	34.8	39.1
1 2 3 4 5 6	4.981	20.2	-2.0	10.7	30.9	8.7	56.0	46.0	25.1	37.3
6	5.080	20.2	-2.2	10.7	30.9	8.5	60.0	50.0	29.1	41.5





#### \*\*\*\*\* CONDUCTED EMISSION at MAINS PORT \*\*\*\*\* [ 3m Semi-anechoic chamber ]

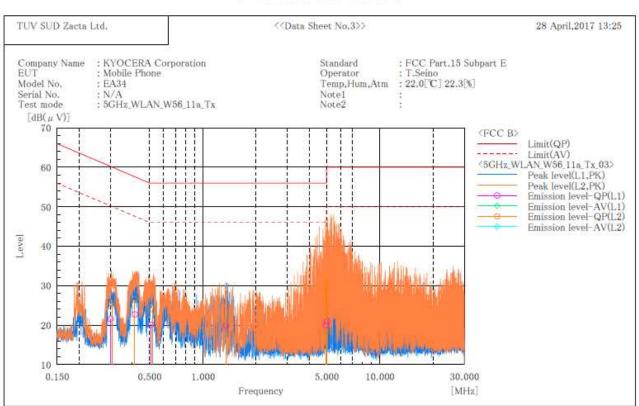
#### Final Result

No.	Frequency	Reading QP	Reading AV	c.f	Result QP	Result AV	Limit QP	Limit AV	Margin QP	Margin AV
	[MHz]		$[dB(\mu V)]$	[dB]	$[dB(\mu V)]$		$[dB(\mu V)]$	$[dB(\mu V)]$	[dB]	[dB]
1	0.304	10.9	-2.9	10.4	21.3	7.5	60.1	50.1	38.8	42.6
$     \begin{array}{c}       1 \\       2 \\       3 \\       4 \\       5 \\       6     \end{array} $	0.407	11.9	-2.9	10.4	22.3	7.5	57.7	47.7	35.4	40.2
3	0.515	9.9	-3.3	10.4	20.3	7.1	56.0	46.0	35.7	38.9
4	1.361	8.6	-3.8	10.4	19.0	6.6	56.0	46.0	37.0	39.4
5	4.972	9.9	-4.1	10.7	20.6	6.6	56.0	46.0	35.4	39.4
6	4.992	10.1	-4.2	10.7	20.8	6.5	56.0	46.0	35.2	39, 5
	L2 Phase	-								
No.	Frequency	Reading QP	Reading AV	c.f	Result QP	Result AV	Limit QP	Limit AV	Margin QP	Margin AV
	[MHz]	$[dB(\mu V)]$	$[dB(\mu V)]$	[dB]	$[dB(\mu V)]$	$[dB(\mu V)]$	$[dB(\mu V)]$	$[dB(\mu V)]$	[dB]	[dB]
1	0.303	14.7	-2.2	10.4	25.1	8.2	60.2	50.2	35.1	42.0
	0.421	15.4	-2.2	10.4	25.8	8.2	57.4	47.4	31.6	39.2
2		13.4	-2.8	10.4	23.8	7.6	56.0	46.0	32.2	38.4
2 3	0.518	1.0+ 1						and the second second		N TANKS IN STREET
2 3 4	0,518 1,356	10. 7	-3.6	10.4	21.1	6.8	56.0	46.0	34.9	39.2
1 2 3 4 5 6	0, 518 1, 356 4, 975			$   \begin{array}{c}     10.4 \\     10.7   \end{array} $	21. 1 31. 6	6.8 8.5	56.0 56.0	46.0 46.0	34.9 24.4	39.2 37.5



SUL

Zacta



#### \*\*\*\*\* CONDUCTED EMISSION at MAINS PORT \*\*\*\*\* [ 3m Semi-anechoic chamber ]

#### Final Result

No.	Frequency	Reading QP	Reading AV	c.f	Result QP	Result AV	QP Limit	Limit AV	Margin QP	Margin AV
	[MHz]		$[dB(\mu V)]$	[dB]	$[dB(\mu V)]$				[dB]	[dB]
1	0.302	11.2	-2.6	10.4	21.6	7.8	60.2	50.2	38.6	42.4
2	0.413	12.3	-2.5	10.4	22.7	7.9	57.6	47.6	34.9	39.7
3	0,510	9.7	-3.3	10.4	20.1	7.1	56.0	46.0	35.9	38.9
4	1.350	9.5	-3.7	10.4	19.9	6.7	56.0	46.0	36.1	39.3
2 3 4 5 6	4.970	9.2	-4.2	10.7	19.9	6.5	56.0	46.0	36.1	39.5
6	5.032	10.2	-4.2	10.7	20.9	6, 5	60.0	50.0	39.1	43.5
	L2 Phase									
No.	Frequency	Reading QP	Reading AV	c.f	Result QP	Result AV	Limit QP	Limit AV	Margin QP	Margin AV
	[MHz]	$[dB(\mu V)]$	$[dB(\mu V)]$	[dB]	$[dB(\mu V)]$	$[dB(\mu V)]$	$[dB(\mu V)]$	$[dB(\mu V)]$	[dB]	[dB]
1	0.306	15.0	-1.8	10.4	25.4	8.6	60.1	50.1	34.7	41.5
2	0.412	16.1	-1.7	10.4	26.5	8.7	57.6	47.6	31.1	38.9
3	0.523	13.6	-2.6	10.4	24.0	7.8	56.0	46.0	32.0	38.2
4	1.348	10.7	-3.5	10.4	21.1	6.9	56.0	46.0	34.9	39.1
1 2 3 4 5 6	4.974	20, 5	-2.2	10.7	31.2	8, 5	56.0	46.0	24.8	37.5
	5,015	18.8	-2.3	10.7	29.5	8.4	60.0	50.0	30.5	41.6

# 10. Duty Cycle



#### 10.1 Measurement procedure [KDB 789033 D02, Section B, Zero-Span Spectrum Analyzer Method]

The duty cycle 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;

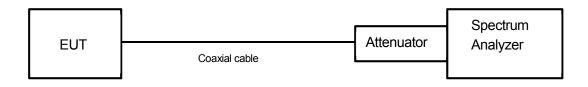
- RBW=8MHz, VBW=8MHz, Span=0Hz, Sweep=Auto, Detector=Peak, Trace mode=Single The EUT was set to operate with following conditions.

- 5.2GHz Band, 5.3GHz Band, 5.6GHz Band

The test mode of EUT is as follows.

- Tx mode

- Test configuration



## 10.2 Limit

None

### **10.3 Measurement result**

Date	:	May 27, 2017			
Temperature	:	24.6 [°C]			
Humidity	:	49.8 [%]	Test engineer	:	
Test place	:	Shielded room No.4			Chiaki Kanno



		_		Duty Cycle			DCF	DCF
Mode	Channel	Frequency (MHz)	On Time(ms)	On+Off Time(ms)	х	1/T	(dB) 10log(1/x)	(dB) 20log(1/x)
	36	5180						
	40	5200	1.362	1.372	0.993	734.2	0.032	0.064
	58	5240						
	52	5260		1.372	0.994	733.1	0.025	0.051
802.11a	56	5280	1.364					
	64	5320						
	100	5500						
_	116	5580	1.364	1.372	0.994	733.1	0.025	0.051
	140	5700						

Note: X = On time / (On + Off time)

		<b>F</b>		Duty Cycle		-	DCF	DCF	
Mode	Channel	Frequency (MHz)	On Time(ms)	On+Off Time(ms)	х	1/T	(dB) 10log(1/x)	(dB) 20log(1/x)	
	36	5180							
	40	5200	1.276	1.284	0.994	783.7	0.027	0.054	
	58	5240							
802.11n	52	5260		1.284	0.994	783.7	0.027	0.054	
(20MHz)	56	5280	1.276						
	64	5320							
	100	5500							
	116	5580	1.276	1.284	0.994	783.7	0.027	0.054	
	140	5700							

Note: X = On time / (On + Off time)



		Frequency (MHz)		Duty Cycle		DCF	DCF	
Mode	Channel		On Time(ms)	On+Off Time(ms)	x	1/T	(dB) 10log(1/x)	(dB) 20log(1/x)
	38	5190	0.636	0.646	0.985	1572.3	0.068	0.136
	46	5230	0.030	0.040	0.965	1572.5	0.000	0.150
802.11n	54	5270	0.635	0.645	0.984	1574.8	0.068	0.136
(40MHz)	62	5310	0.000	0.043	0.904	1574.0	0.000	0.150
(40101112)	102	5510						
	110	5550	0.636	0.646	0.985	1572.3	0.068	0.136
	134	5670						

Note: X = On time / (On + Off time)

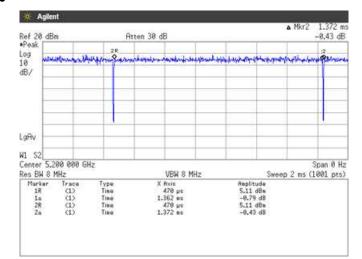
Mode	Channel	Frequency (MHz)		Duty Cycle	DCF	DCF		
			On	On+Off		( 1/Т	(dB)	(dB)
			Time(ms)	Time(ms)	X		10log(1/x)	20log(1/x)
	42	5210	0.248	0.258	0.960	4040.4	0.179	0.358
802.11ac	58	5290	0.248	0.258	0.960	4040.4	0.179	0.358
(80MHz)	106	5530	0.248	0.258	0.960	4040.4	0.179	0.358
	122	5610	0.248	0.257	0.962	4040.4	0.170	0.341

Note: X = On time / (On + Off time)

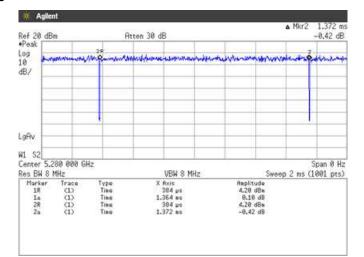


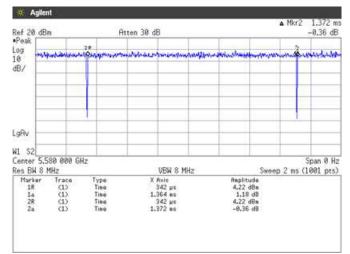
## 10.4 Trace data [IEEE802.11a]

### Channel: 40



#### Channel: 56

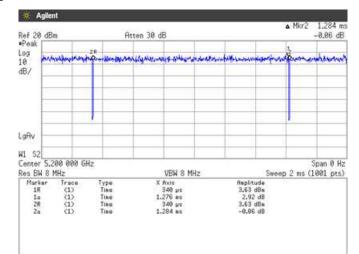




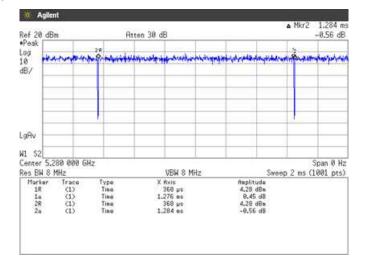


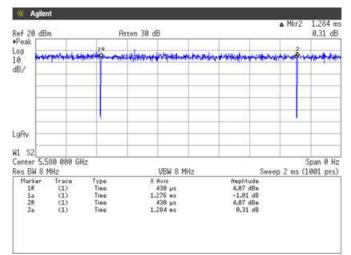
## [IEEE802.11n (HT20)]

### Channel: 40



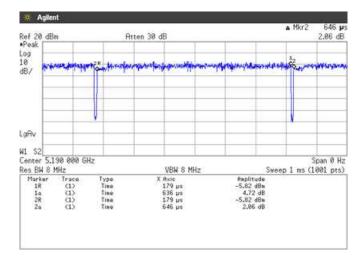
#### Channel: 56



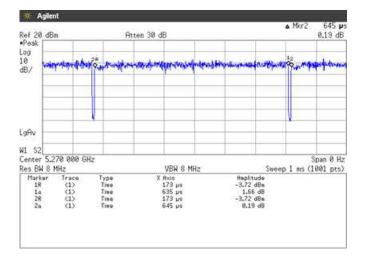


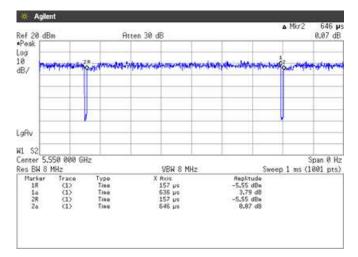
### [IEEE802.11n (HT40)]

## Channel: 38



#### Channel: 54

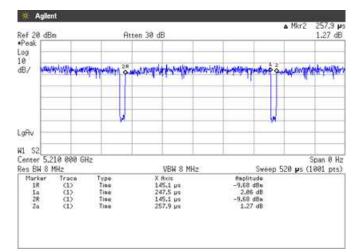


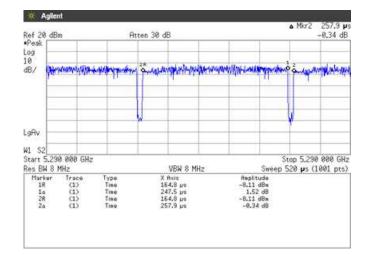




### [IEEE802.11ac (HT80)]

# Channel: 42

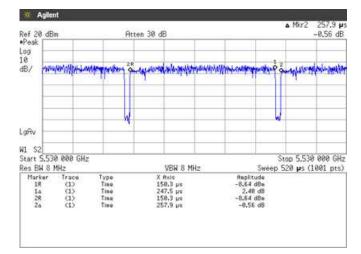


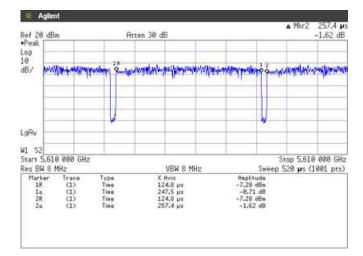




## [IEEE802.11ac (HT80)]

## Channel: 106







# 11. 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.



# 12. Uncertainty of measurement

Expanded uncertainties stated are calculated with a coverage Factor k=2.

Please note that these results are not taken into account when determining compliance or non-compliance with test result.

Test item	Measurement uncertainty
Conducted emission at mains port	±3.0dB
Radiated emission (9kHz – 30MHz)	±4.4dB
Radiated emission (30MHz – 1000MHz)	±4.5dB
Radiated emission (1000MHz – 26GHz)	±3.9dB



# 13. Laboratory Information

1. Location

Name: Yonezawa Testing Center Address: 5-4149-7, Hachimanpara, Yonezawa-shi, Yamagata, 992-1128 Japan Phone: +81-238-28-2881 Fax: +81-238-28-2888

- 2. Accreditation and Registration
  - 1) NVLAP LAB CODE: 200306-0
  - 2) VLAC Accreditation No.: VLAC-013
  - 3) BSMI Laboratory Code: SL2-IN-E-6018, SL2-A1-E-6018

# 4) Industry Canada

Site number	Facility	Expiration date
4224A-4	3m Semi-anechoic chamber	2017-12-03
4224A-5	10m Semi-anechoic chamber No.1	2017-12-03
4224A-6	10m Semi-anechoic chamber No.2	2019-12-14

## 5) VCCI Council

Registration number	Expiration date			
A-0166	2017-07-03			



# Appendix A. Test equipment

#### Antenna port conducted test

Equipment	Company	Model No.	Serial No.	Cal. Due	Cal. Date
Spectrum analyzer	Agilent Technologies	E4440A	US40420937	Jul. 31, 2017	Jul. 15, 2016
Microwave cable	RS	YH-13S5	N/A(S403)	May 31, 2017	May 24, 2016
Attenuator	Weinschel	56-10	J4993	Nov. 30, 2017	Nov. 1, 2016
Temperature and humidity chamber	ESPEC	PL1KP	14007261	Jan. 31, 2018	Jan. 20, 2017

## **Radiated emission**

Equipment	Company	Model No.	Serial No.	Cal. Due	Cal. Date
EMI Receiver	ROHDE&SCHWARZ	ESCI	100764	Aug. 31, 2017	Aug. 19, 2016
Spectrum analyzer	Agilent Technologies	E4440A	US40420937	Jul. 31, 2017	Jul. 15, 2016
Preamplifier	ANRITSU	MH648A	M96057	Feb. 28, 2018	Feb. 1, 2017
Loop antenna	ROHDE&SCHWARZ	HFH2-Z2	892246/010	Feb. 28, 2018	Feb. 17, 2017
Attenuator	TDC	TAT-43B-06	N/A(S209)	May 31, 2017	May 10, 2016
Biconical antenna	Schwarzbeck	VHA9103/BBA9106	2155	Jun. 30, 2017	Jun. 2, 2016
Log periodic antenna	Schwarzbeck	UHALP9108A	0560	Jun. 30, 2017	Jun. 2, 2016
Attenuator	TME	CFA-01NPJ-6	N/A(S275)	Feb. 28, 2018	Feb. 3, 2017
Attenuator	TME	CFA-01NPJ-3	N/A(S272)	Feb. 28, 2018	Feb. 2, 2017
Preamplifier	TSJ	MLA-100M18-B02-40	1929118	Feb. 28, 2018	Feb. 3, 2017
Attenuator	AEROFLEX	26A-10	081217-08	May 31, 2017	May 24, 2016
Double ridged guide antenna	EMCO	3115	5205	Mar. 31, 2018	Mar. 15, 2017
Double ridged guide antenna	ETS LINDGREN	3117	00052315	Feb. 28, 2018	Feb. 23, 2017
Attenuator	Agilent Technologies	8491B	MY39268633	Feb. 28, 2018	Feb. 2, 2017
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	BBHA9170189	Jun. 30, 2017	Jun. 16, 2016
Preamplifier	TSJ	MLA-1840-B03-35	1240332	Jun. 30, 2017	Jun. 16, 2016
Notch filter	Micro-Tronics	BRM50716	006	Jul. 31, 2017	Jul. 20, 2016
	SUHNER	SUCOFLEX104/9m	MY30037/4	Feb. 28, 2018	Feb. 3, 2017
		SUCOFLEX104/1m	my24610/4	Feb. 28, 2018	Feb. 3, 2017
Microwave cable		SUCOFLEX104/8m	SN MY30031/4	Feb. 28, 2018	Feb. 2, 2017
	JUNIER	SUCOFLEX104/1.5m	322086/4	May 31, 2017	May 10, 2016
		SUCOFLEX104/1.5m	317226/4	May 31, 2017	May 10, 2016
		SUCOFLEX104/7m	41625/6	Feb. 28, 2018	Feb. 3, 2017
PC	DELL	DIMENSION E521	75465BX	N/A	N/A
Software	TOYO Corporation	EP5/RE-AJ	0611193/V5.6.0	N/A	N/A
Absorber	RIKEN	PFP30	N/A	N/A	N/A
3m Semi an-echoic Chamber	TOKIN	N/A	N/A(9002-NSA)	May 31, 2017	May 11, 2016
3m Semi an-echoic Chamber	TOKIN	N/A	N/A(9002-SVSWR)	May 31, 2017	May 12, 2016

## Conducted emission at mains port

Equipment	Company	Model No.	Serial No.	Cal. Due	Cal. Date
EMI Receiver	ROHDE&SCHWARZ	ESCI	100764	Aug. 31, 2017	Aug. 19, 2016
Attenuator	HUBER+SUHNER	6810.01.A	N/A (S411)	Feb. 28, 2018	Feb. 2, 2017
Line impedance stabilization network for EUT	Kyoritsu Electrical Works, Ltd.	KNW-407F	8-2003-1	Mar. 31, 2018	Mar. 13, 2017
Coaxial cable	FUJIKURA	5D-2W/4m	N/A (S350)	Feb. 28, 2018	Feb. 2, 2017
Coaxial cable	FUJIKURA	5D-2W/1m	N/A (S193)	Feb. 28, 2018	Feb. 3, 2017
Coaxial cable	SUHNER	RG214/U/10m	N/A (S194)	Feb. 28, 2018	Feb. 3, 2017
PC	DELL	DIMENSION	75465BX	N/A	N/A
Software	TOYO Corporation	EP5/CE-AJ	0611193/V5.4.11	N/A	N/A

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