Agilent Spectrum Analyzer - Swept SA				- 22 - 12	
L RF 50Ω AC		SENSE:INT	ALIGNAUTO	01:36:01 AM Oct 24, 2014	Frequency
Center Freq 5.5000000	IFGain:Low	Trig: Free Run #Atten: 30 dB	Avg Type: Pwr(RMS) Avg Hold:>100/100	TYPE A WWWWW DET A N N N N N	
10 dB/div Ref 20.00 dBm			Mkr1	5.492 425 GHz -2.274 dBm	Auto Tune
10.0					Center Freq 5.500000000 GHz
-10.0	*******		an a		Start Freq 5.487500000 GHz
-20.0				hnur de la contractione	Stop Freq 5.512500000 GHz
-40.0 -50.0					CF Step 2.500000 MHz <u>Auto</u> Man
-60.0					Freq Offset 0 Hz
Center 5.50000 GHz #Res BW 1.0 MHz	#VBW	3.0 MHz*	Sweep	Span 25.00 MHz 1.00 ms (1001 pts)	
MSG					

#### Channel 100:

Channel 116:



-			0	• •				
Agilent Spect	trum Analyzer - Swej	pt SA						
LXI L	RF 50 Ω	AC	SENS	E:INT	ALIGN AUTO	01:37:26 A	MOct 24, 2014	-
Center F	req 5.70000	00000 GHz	Trig: Free F	Avg Run Avg H	Type: Pwr(RMS) Hold:>100/100	TRAC TYP DE	E 1 2 3 4 5 6 E A WWWWW T A N N N N N	Frequency
		Foam.Low	in accur of a		Mkr1	5.707 7	25 GHz	Auto Tune
10 dB/div	Ref 20.00 d	Bm	<i>0</i>			-2.1	25 aBm	
								Center Fred
10.0								Genterrieg
10.0								5.700000000 GHz
2-2-E						<b>≗1</b>		
0.00								
			a second and a second sec	,		- may		Start Freq
-10.0								5.687500000 GHz
	1					\ \		
20.0	1					}		
-20.0	5						N.	Stop Freq
	and the second sec						Mer.	5 712500000 GHz
-30.0	tu						- 71. WAA	0.1 12000000 0112
r"							<b>~</b> ~	
-40.0								CF Step
								2.500000 MHz
								<u>Auto</u> Man
-50.0								
-60.0		~						Freq Offset
								0 Hz
70.0								
-70.0								
Center 5	70000 GHz		II	1		Snan 2	5 00 MHz	
#Res BW	1.0 MHz	#VBW	3.0 MHz*		Sweep	1.00 ms (	1001 pts)	
MSG								I

#### Channel 140:

Channel 149



					Una	mici 1					
Agilent	Spectrum An	alyzer - Swo	ept SA			115					
Cent	er Freq	50 Ω 5.78500	AC   10000 GH	lz	SEN	ISE:INT	Avg Type	ALIGN AUTO <b>: Log-Pwr</b>	04:13:41F TRAC	M Oct 22, 2014	Frequency
(A. 15)			PI IFC	NO: Fast 🕞 Gain:Low	#Atten: 30	dB		Mkr1	5.792 5	40 GHz	Auto Tune
10.0B		20.00 (							1		Center Freq 5.785000000 GHz
0.00 - -10.0 -		pre	Munha	Manha	Assalvay	mahand	mahrind	windowed	unty		<b>Start Freq</b> 5.771725000 GHz
-20.0 -	- and the star	NV							honge	W.	<b>Stop Freq</b> 5.798275000 GHz
-40.0 -	መም ት									المرامية	CF Step 2.655000 MHz <u>Auto</u> Man
-50.0 -											Freq Offset
-70.0 -											0 Hz
Cente #Res	er 5.7850 BW 100	0 GHz kHz		#VBW	300 kHz			Sweep	Span 2 2.60 ms (	6.55 MHz 1001 pts)	
MSG								STATU	s		

Channel 157

Channel 165



Product	:	VOIP Phone
Test Item	:	Peak Power Spectral Density
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps)

Channel Number	Frequency (MHz)	Data Rata (Mbps)	Measurement Level (dBm)	Required Limit (dBm)	Result
38	5190	6	-6.718	17	Pass
46	5230	6	-6.824	17	Pass
54	5270	6	-6.975	17	Pass
62	5310	6	-6.037	11	Pass
102	5510	6	-5.993	11	Pass
110	5550	6	-5.767	11	Pass
134	5670	6	-5.850	11	Pass

Channel Number	Frequency (MHz)	Data Rata (Mbps)	PPSD (dBm)	BWCF (dB)	Total PPSD (dBm)	Required Limit (dBm)	Result
151	5755	6	-4.080	6.980	2.900	<30	Pass
159	5795	6	-3.830	6.980	3.150	<30	Pass

Note: Total PPSD Value = PPSD value + BWCF

Agilent Spectrum Analyzer - Swept SA   Org RF 50 Q AC SENSE:INT ALIGNAUTO 01:38:13AMOCt 24, 2014 Frequent   Center Freq 5.190000000 GHz Trig: Free Run Avg Type: Pwrt(RMS) TRACE [1:2:3:45:6 Frequent   IFGain:Low #Atten: 30 dB Mkr1 5.206 85 GHz Autor   10 dB/div Ref 20.00 dBm -6.718 dBm -6.718 dBm	псу
Org RF 50 Q AC SENSE:INT ALIGNAUTO 01:38:13 AMORT24, 2014 Freque   Center Freq 5.190000000 GHz Trig: Free Run Avg Type: Pwr(RMS) ITRACE [1:2:3:4:5:6] Freque   IFGain:Low #Atten: 30 dB Mkr1 5.206 85 GHz -6.718 dBm Autor	тсу
Indextor Indextor Indextor Avg[Hoid:>100/100 Indextor Indextor Avg[Hoid:>100/100 Indextor Indextor In	
10 dB/div Ref 20.00 dBm -6.718 dBm	<b>Tune</b>
Cento	er Frea
10.0 5.1900000	00 GHz
	rt Frea
-10.0 5.1650000	00 GHz
-20.0	n Erea
	00 GHz
-400 mm <sup>mm</sup> C	F Step
5.0000	00 MHz
-50.0	Man
Eron	Offeet
-60.0	0 Hz
-70.0	
Center 5 19000 GHz Spap 50 00 MHz	
#Res BW 1.0 MHz #VBW 3.0 MHz* Sweep 1.00 ms (1001 pts)	
MSG To STATUS	

Channel 38



					Chann	ei 54					
Agilen	t Spectrum /	Analyzer - Swe	ept SA								
LXI I	L I	RF 50 Ω	AC		SEI	VSE:INT		ALIGN AUTO	01:39:20 A	MOct 24, 2014	Frequency
Cen	ter Freq	5.2700	00000 GI	Hz	Tria: Free	Run	Avg Tyj AvalHol	oe: Pwr(RMS) d:>100/100	TRAC	E 1 2 3 4 5 6 E A WWWWW	requeriey
			IFG	ain:Low	#Atten: 30	dB	5.		DE	ANNNNN	
								Mkr1	5.253	05 GHz	Auto Tune
10 dE	B/div R	ef 20.00 c	lBm						-6.9	75 dBm	
Log					(						
40.0											Center Freq
10.0											5.270000000 GHz
0.00											
0.00		<b>▲</b> 1									Start Fred
40.0		-			pro-classication and	man			many		5 24500000 GHz
-10.0					7				1		0.24000000 0112
		}							}		
-20.0									1		Stop Freq
		J.							h	λ.	5.295000000 GHz
-30.0	. Wert of the									MANNA .	
40.0	UN MUNICIPALITY									· Mathing	CE Sten
-40.0				2							5.000000 MHz
50.0					0						<u>Auto</u> Man
-50.0											
60.0											Freg Offset
-00.0											0 Hz
70.0											
-70.0											
Cent	ter 5.270	00 GHz							Span 5	0.00 MHz	
#Re	s BW 1.0	WHZ		#VBW	3.0 MHZ	5		Sweep 1	.00 ms (	1001 pts)	
MSG											

#### Channel 54





				Ullan	IICI 102	-				
Agilent	Spectrum An	alyzer - Swept S	A							
LXI L	RF	50 Ω AC		SEI	SE:INT		ALIGN AUTO	01:40:26 Al	4 Oct 24, 2014	-
Cent	ter Freq	5.5100000	100 GHz IFGain:Lo	Trig: Free w #Atten: 30	Run dB	Avg Type: Avg Hold>	Pwr(RMS) 100/100	TRACI TYP DE	123456 A WWWWW A NNNNN	Frequency
10 dB	i/div Ref	f 20.00 dBn	1				Mkr1	5.526 -5.99	60 GHz 93 dBm	Auto Tune
										Center Fred
10.0										5 FADDODODO GU
10.0										5.510000000 GHz
0.00								<b>A</b> 1		Otort From
						-		many		StartFreq
-10.0		- f	and the second second second second	1	F					5.485000000 GHz
								l		
-20.0		1								Stop Fred
-30.0	, with	٢						Y	4.	5.535000000 GHz
00.0	when								number	
-40.0	2017								104	CF Step
										5.000000 MHz
-50.0										<u>Auto</u> Man
00.0										
.60.0										Freg Offset
-00.0										0 Hz
70.0										
40.0										
		0. OUI-						0		
#Res	BW 1.0 F	v Gn2 ViHz	#\	/BW 3.0 MHz*	,		Sweep 1	span or 00 ms (*	1001 pts)	
MSG	2012/01/2012 17:00/2012	2009-001 (C)								

Channel 102



					_nan	ner 13	ŧ				
Agilen	t Spectrum Ana	alyzer - Swept	SA								
LXI I	RF	50 Ω .	AC		SEN	ISE:INT	A T	ALIGN AUTO	01:41:11 A	MOct 24, 2014	Frequency
Cen	ter Freq	5.550000	0000 GHz		rig: Free	Run	Avg iyp Avg Hold	e: Pwr(RMS) I>100/100	TYP	E A WWWWW	,
			IFGain	Low 🔭 🕯	Atten: 30	dB			DE	TANNNNN	
								Mkr1	5.566	60 GHz	Auto Tune
10 dE	3/div <b>Ref</b>	20.00 dB	m						-5.70	67 dBm	
LOG											0
10.0											Center Freq
10.0											5.550000000 GHz
0.00											
0.00									<b>♦</b> '		Start Freq
-10.0				*****	- marine	1 montherest	*****	and the second second second	www.		5.525000000 GHz
		1			ീ	/			Ì		
-20.0									\		
	1	1							1		Stop Freq
-30.0	A.								<u>`</u>	N <sub>4</sub>	5.575000000 GHz
	and many mail									WWW VILL	
-40.0										W.	CF Step
											5.000000 MHz
-50.0		4									<u>Auto</u> Man
-60.0							-				Freq Offset
											0 Hz
-70.0						-					
Con	tor 5 5500								Snan fi	0.00 MH-	
#Res	s BW 1.0 N	/IHz		#VBW 3.	0 MHz*			Sweep 1	.00 ms (	1001 pts)	
MSG		(812) A (19)						STATUS			I
								· · · ·			

Channel 151





				U	nanne	1157				
Agilent Spectrum	Analyzer - Sw	ept SA								
x R∟ Center Free	RF 50Ω	AC	z	SEN	NSE:INT	Avg Type	ALIGNAUTO <b>: Log-Pwr</b>	05:22:22 P TRAC	M Oct 22, 2014 E 1 2 3 4 5 6	Frequency
10 dB/div R	Ref 20.00 d	Pr IFC d <b>B</b> m	IO: Fast 😱 iain:Low	d Trig: Free #Atten: 30	eRun )dB		Mk	r1 5.778 -3.1	79 GHz 83 dBm	Auto Tune
10.0										Center Fred 5.795000000 GH:
0.00	puls	- Indryhydrolad	woodhala	alululun	mahalad	her has been point	Landudo	-lunles		Start Free 5.767625000 GH;
20.0	MayMan			4					n	Stop Free 5.822375000 GH
40.0 10 10 10 10 10 10 10 10 10 10 10 10 10									"In ville lange	CF Step 5.475000 MH <u>Auto</u> Mar
50.0										Freq Offse
enter 5.795 Res BW 10	500 GHz 10 kHz		#VBW	300 kHz			Sweep	Span 5 5.27 ms (	4.75 MHz 1001 pts)	
SG							STATU	S		

Channel 159

#### 5. Radiated Emission

#### 5.1. Test Equipment

The following test equipments are used during the radiated emission test:

Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Site # 3	Х	Loop Antenna	Teseq	HLA6121 / 37133	Sep., 2014
	Х	Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2014
	Х	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2014
	Х	Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2014
	Х	Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2014
	Х	Pre-Amplifier	QTK	AP-180C / CHM_0906076	Sep., 2014
	Х	Pre-Amplifier	MITEQ	AMF-4D-180400-45-6P/ 925975	Mar., 2014
	Х	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2014
	Х	Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2014
	Х	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2014
	Х	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	Х	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

2. The test instruments marked with "X" are used to measure the final test results.

#### 5.2. Test Setup

Radiated Emission Below 1GHz



#### Radiated Emission Above 1GHz



#### 5.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209(a) Limits				
Frequency MHz	Field strength	Measurement distance		
	(microvolts/meter)	(meter)		
0.009-0.490	2400/F(kHz)	300		
0.490-1.705	24000/F(kHz)	30		
1.705-30	30	30		
30-88	100	3		
88-216	150	3		
216-960	200	3		
Above 960	500	3		

Remarks: E field strength  $(dB\mu V/m) = 20 \log E$  field strength (uV/m)

#### 5.4. Test Procedure

The EUT was setup according to ANSI C63.10, 2009 and tested according to FCC KDB-789033 test procedure for compliance to FCC 47CFR 15. 407 requirements.

The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10, 2009 on radiated measurement.

The resolution bandwidth below 30MHz setting on the field strength meter is 9kHz and 30MHz~1GHz is 120kHz and above 1GHz is 1MHz.

Radiated emission measurements below 30MHz are made using Loop Antenna and 30MHz~1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas. The measurement is divided into the Preliminary Measurement and the Final Measurement. The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna. The worst radiated emission is measured in the Open Area Test Site on the Final Measurement.

#### 5.5. Uncertainty

- ± 3.8 dB below 1GHz
- ± 3.9 dB above 1GHz

#### 5.6. Test Result of Radiated Emission

Product	:	VOIP Phone
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) (5180MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
10360.000	12.930	36.260	49.190	-24.810	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10360.000	13.724	36.590	50.314	-23.686	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	VOIP Phone
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) (5220MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
10440.000	12.959	36.190	49.149	-24.851	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10440.000	13.877	38.160	52.037	-21.963	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	VOIP Phone
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) (5240MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
10480.000	13.693	36.160	49.854	-24.146	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*
Vortical					
vertical Deals Detectory					
Peak Detector:					
10480.000	14.620	36.560	51.181	-22.819	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	VOIP Phone
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) (5260MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
10520.000	14.015	36.260	50.275	-23.725	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10520.000	14.818	36.650	51.468	-22.532	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	VOIP Phone
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) (5300MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
10600.000	14.550	35.590	50.139	-23.861	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10600.000	14.881	36.230	51.111	-22.889	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*

Note:

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	VOIP Phone
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) (5320MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
10640.000	14.690	35.290	49.980	-24.020	74.000
15960.000	*	*	*	*	74.000
21280.000	*	*	*	*	74.000
26600.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10640.000	15.083	36.260	51.343	-22.657	74.000
15960.000	*	*	*	*	74.000
21280.000	*	*	*	*	74.000
26600.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*

Note:

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	VOIP Phone
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) (5500MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
11000.000	16.399	36.260	52.659	-21.341	74.000
16500.000	*	*	*	*	74.000
22000.000	*	*	*	*	74.000
27500.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11000.000	17.132	36.230	53.362	-20.638	74.000
16500.000	*	*	*	*	74.000
22000.000	*	*	*	*	74.000
27500.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*

Note:

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	VOIP Phone
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) (5580MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
11160.000	16.656	35.590	52.246	-21.754	74.000
16800.000	*	*	*	*	74.000
22400.000	*	*	*	*	74.000
28000.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11160.000	17.726	35.590	53.316	-20.684	74.000
16800.000	*	*	*	*	74.000
22400.000	*	*	*	*	74.000
28000.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	VOIP Phone
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) (5700MHz)

Frequency	Correct	Correct Reading Measurement Margin		Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
11400.000	16.530	35.590	52.121	-21.879	74.000
17100.000	*	*	*	*	74.000
22800.000	*	*	*	*	74.000
28500.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11400.000	17.138	36.260	53.398	-20.602	74.000
17100.000	*	*	*	*	74.000
22800.000	*	*	*	*	74.000
28500.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*

Note:

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	: VOIP Phone						
Test Item	: Harmonic Radiated Emission Data						
Test Site	: No.3 OATS						
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5745MHz)							
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
<b>Peak Detector:</b>							
11490.000	17.106	35.490	52.597	-21.403	74.000		
17235.000	*	*	*	*	74.000		
20720.000	*	*	*	*	74.000		
25900.000	*	*	*	*	74.000		
31080.000	*	*	*	*	74.000		
36260.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							
*	*	*	*	*	*		
Vertical							
Peak Detector:							
11490.000	18.034	35.560	53.595	-20.405	74.000		
17235.000	*	*	*	*	74.000		
20720.000	*	*	*	*	74.000		
25900.000	*	*	*	*	74.000		
31080.000	*	*	*	*	74.000		
36260.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							
*	*	*	*	*	*		

Note:

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	: VOIP Phone						
Test Item	: Harmonic Radiated Emission Data						
Test Site	: No.3 OATS						
Test Mode	Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5785MHz)						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
11570.000	16.809	35.870	52.679	-21.321	74.000		
17355.000	*	*	*	*	74.000		
20800.000	*	*	*	*	74.000		
26000.000	*	*	*	*	74.000		
31200.000	*	*	*	*	74.000		
36400.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							
*	*	*	*	*	*		
Vertical							
Peak Detector:							
11570.000	17.698	35.570	53.268	-20.732	74.000		
17355.000	*	*	*	*	74.000		
20800.000	*	*	*	*	74.000		
26000.000	*	*	*	*	74.000		
31200.000	*	*	*	*	74.000		
36400.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							
*	*	*	*	*	*		

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	: VOIP Phone						
Test Item	: Harmonic Radiated Emission Data						
Test Site	: No.3 OATS						
Test Mode	: Mode 1:	Transmit (802.11	a-6Mbps) (5825MHz	z)			
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
<b>Peak Detector:</b>							
11650.000	16.158	34.080	50.238	-23.762	74.000		
17475.000	*	*	*	*	74.000		
20960.000	*	*	*	*	74.000		
26200.000	*	*	*	*	74.000		
31440000	*	*	*	*	74.000		
36680.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							
*	*	*	*	*	*		
Vertical							
<b>Peak Detector:</b>							
11650.000	17.274	34.280	51.555	-22.445	74.000		
17475.000	*	*	*	*	74.000		
20960.000	*	*	*	*	74.000		
26200.000	*	*	*	*	74.000		
31440000	*	*	*	*	74.000		
36680.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							
*	*	*	*	*	*		

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.

3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.

4. Measurement Level = Reading Level + Correct Factor.

5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.

6. The average measurement was not performed when the peak measured data under the limit of average detection.

7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	VOIP Phone
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5180MHz)

Frequency	Correct	Reading	Measurement Margin		Limit
	Factor	Level	Level		
MHz	dB	dBµV	dBµV/m	dB	dBµV/m
Horizontal					
Peak Detector:					
10360.000	12.930	36.230	49.160	-24.840	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*
Vertical					
<b>Peak Detector:</b>					

10360.000	13.724	35.230	48.954	-25.046	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	VOIP Phone
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5220MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
10440.000	13.322	36.590	49.912	-24.088	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*

#### Vertical

#### **Peak Detector:**

10440.000	14.245	36.550	50.795	-23.205	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*

Note:

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	VOIP Phone
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5240MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
10480.000	13.693	36.260	49.954	-24.046	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10,400,000	11.000	26.540			= 1 000

10480.000	14.620	36.540	51.161	-22.839	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.

3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.

4. Measurement Level = Reading Level + Correct Factor.

5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.

6. The average measurement was not performed when the peak measured data under the limit of average detection.

7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	VOIP Phone
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5260MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	dBµV/m	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
10520.000	14.015	36.230	50.245	-23.755	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10520.000	14.818	36.510	51.328	-22.672	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*

Note:

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	VOIP Phone
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5300MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
10600.000	14.550	36.530	51.079	-22.921	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*

#### Vertical

#### **Peak Detector:**

10600.000	14.881	36.230	51.111	-22.889	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	VOIP Phone
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5320MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
10640.000	14.690	36.230	50.920	-23.080	74.000
15960.000	*	*	*	*	74.000
21280.000	*	*	*	*	74.000
26600.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10640.000	15.083	36.230	51.313	-22.687	74.000
15960.000	*	*	*	*	74.000
21280.000	*	*	*	*	74.000
26600.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					

Note:

\*

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

\*

\*

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.

\*

4. Measurement Level = Reading Level + Correct Factor.

\*

- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	VOIP Phone
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5500MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
11000.000	16.399	36.230	52.629	-21.371	74.000
16500.000	*	*	*	*	74.000
22000.000	*	*	*	*	74.000
27500.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*
Vertical					
<b>Peak Detector:</b>					
11000.000	17.132	36.210	53.342	-20.658	74.000
16500.000	*	*	*	*	74.000
22000.000	*	*	*	*	74.000
27500.000	*	*	*	*	74.000

\* Note:

Average Detector:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.

\*

- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	VOIP Phone
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5580MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
11160.000	16.664	36.230	52.895	-21.105	74.000
16800.000	*	*	*	*	74.000
22400.000	*	*	*	*	74.000
28000.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11160.000	17.643	35.230	52.873	-21.127	74.000
16800.000	*	*	*	*	74.000
22400.000	*	*	*	*	74.000
28000.000	*	*	*	*	74.000
Average					

Note:

Detector:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

\*

\*

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.

\*

4. Measurement Level = Reading Level + Correct Factor.

\*

- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	VOIP Phone
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5700MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
11400.000	16.530	35.260	51.791	-22.209	74.000
17100.000	*	*	*	*	74.000
22800.000	*	*	*	*	74.000
28500.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11400.000	17.138	36.250	53.388	-20.612	74.000
17100.000	*	*	*	*	74.000
22800.000	*	*	*	*	74.000
28500.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	: VOIP Phone							
Test Item	: Harmonic Radiated Emission Data							
Test Site	: No.3 OATS							
Test Mode	: Mode 2	Transmit (802.11	n-20BW 7.2Mbps) (3	5745MHz)				
Frequency	Correct	Reading	Measurement	Margin	Limit			
	Factor	Level	Level					
MHz	dB	dBuV	dBuV/m	dB	dBuV/m			
Horizontal								
<b>Peak Detector:</b>								
11490.000	17.106	35.540	52.647	-21.353	74.000			
17235.000	*	*	*	*	74.000			
20720.000	*	*	*	*	74.000			
25900.000	*	*	*	*	74.000			
31080.000	*	*	*	*	74.000			
36260.000	*	*	*	*	74.000			
Average								
<b>Detector:</b>								
*	*	*	*	*	*			
Vertical								
Peak Detector:								
11490.000	18.034	35.700	53.735	-20.265	74.000			
17235.000	*	*	*	*	74.000			
20720.000	*	*	*	*	74.000			
25900.000	*	*	*	*	74.000			
31080.000	*	*	*	*	74.000			
36260.000	*	*	*	*	74.000			
Average								
<b>Detector:</b>								
*	*	*	*	*	*			

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	: VOIP Phone							
Test Item	: Harmonic Radiated Emission Data							
Test Site	: No.3 OATS							
Test Mode	Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5785MHz)							
Frequency	Correct	Reading	Measurement	Margin	Limit			
	Factor	Level	Level					
MHz	dB	dBuV	dBuV/m	dB	dBuV/m			
Horizontal								
Peak Detector:								
11570.000	16.809	35.090	51.899	-22.101	74.000			
17355.000	*	*	*	*	74.000			
20880.000	*	*	*	*	74.000			
26100.000	*	*	*	*	74.000			
31320.000	*	*	*	*	74.000			
36540.000	*	*	*	*	74.000			
Average								
<b>Detector:</b>								
*	*	*	*	*	*			
Vertical								
Peak Detector:								
11570.000	17.698	35.480	53.178	-20.822	74.000			
17355.000	*	*	*	*	74.000			
20880.000	*	*	*	*	74.000			
26100.000	*	*	*	*	74.000			
31320.000	*	*	*	*	74.000			
36540.000	*	*	*	*	74.000			
Average								
<b>Detector:</b>								
*	*	*	*	*	*			

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	: VOIP Phone							
Test Item	: Harmonic Radiated Emission Data							
Test Site	: No.3 OATS							
Test Mode	: Mode 2:	Transmit (802.11	n-20BW 7.2Mbps) (	5825MHz)				
Frequency	Correct	Reading	Measurement	Margin	Limit			
	Factor	Level	Level					
MHz	dB	dBuV	dBuV/m	dB	dBuV/m			
Horizontal								
<b>Peak Detector:</b>								
11650.000	16.158	34.640	50.798	-23.202	74.000			
17475.000	*	*	*	*	74.000			
20960.000	*	*	*	*	74.000			
26200.000	*	*	*	*	74.000			
31440.000	*	*	*	*	74.000			
36680.000	*	*	*	*	74.000			
Average								
<b>Detector:</b>								
*	*	*	*	*	*			
Vertical								
Peak Detector:								
11650.000	17.274	34.310	51.585	-22.415	74.000			
17475.000	*	*	*	*	74.000			
20960.000	*	*	*	*	74.000			
26200.000	*	*	*	*	74.000			
31440.000	*	*	*	*	74.000			
36680.000	*	*	*	*	74.000			
Average								
<b>Detector:</b>								
*	*	*	*	*	*			

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.

3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.

4. Measurement Level = Reading Level + Correct Factor.

5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.

6. The average measurement was not performed when the peak measured data under the limit of average detection.

7. The emission levels of other frequencies are very lower than the limit and not show in test report.
| Product   | : | VOIP Phone                                       |
|-----------|---|--|
| Test Item | : | Harmonic Radiated Emission Data                  |
| Test Site | : | No.3 OATS  |
| Test Mode | : | Mode 3: Transmit (802.11n-40BW 15Mbps) (5190MHz) |

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
10380.000	12.939	36.290	49.229	-24.771	74.000
15570.000	*	*	*	*	74.000
20760.000	*	*	*	*	74.000
25950.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*

## Vertical

## **Peak Detector:**

10380.000	13.796	36.220	50.016	-23.984	74.000
15570.000	*	*	*	*	74.000
20760.000	*	*	*	*	74.000
25950.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*

Note:

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	VOIP Phone
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) (5230MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
10460.000	13.508	36.230	49.738	-24.262	74.000
15690.000	*	*	*	*	74.000
20920.000	*	*	*	*	74.000
26150.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10460.000	14.433	35.290	49.723	-24.277	74.000
15690.000	*	*	*	*	74.000

20920.000 \* \* \* \* 74.000 26150.000 \* \* \* \* \* 74.000 Average Detector: \* \* \* \* \* \* \*

Note:

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	VOIP Phone
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) (5270MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
10540.000	14.151	36.230	50.380	-23.620	74.000
15810.000	*	*	*	*	74.000
21080.000	*	*	*	*	74.000
26350.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*
Vertical					

### **Peak Detector:**

10540.000	14.829	35.690	50.518	-23.482	74.000
15810.000	*	*	*	*	74.000
21080.000	*	*	*	*	74.000
26350.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	VOIP Phone
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) (5310MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
10620.000	14.623	36.560	51.183	-22.817	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*
Vertical					

#### **Peak Detector:**

10620.000	14.970	36.560	51.530	-22.470	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	VOIP Phone
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) (5510MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	dBµV/m	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
11020.000	16.474	36.560	53.033	-20.967	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11020.000	17.224	35.590	52.814	-21.186	74.000
15930 000	*	*	*	*	74.000

*	*	*	*	*	*
<b>Detector:</b>					
Average					
26550.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
15930.000	*	*	*	*	74.000

Note:

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	VOIP Phone
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) (5550MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
11100.000	16.657	35.590	52.246	-21.754	74.000
16770.000	*	*	*	*	74.000
22360.000	*	*	*	*	74.000
27950.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*
Vertical					
Peak Detector:					

11100.000	17.681	36.030	53.710	-20.290	74.000
16770.000	*	*	*	*	74.000
22360.000	*	*	*	*	74.000
27950.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*

Note:

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	VOIP Phone
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) (5670MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
10340.000	12.920	35.230	48.150	-25.850	74.000
17010.000	*	*	*	*	74.000
22680.000	*	*	*	*	74.000
28350.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11340.000	17.167	35.560	52.727	-21.273	74.000
17010.000	*	*	*	*	74.000
22680.000	*	*	*	*	74.000
28350 000	*	*	*	*	74.000

\* \* \* \* \*

Note:

28350.000

Average **Detector:** 

> 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.

- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	: VOIP Phone					
Test Item	: Harmonic Radiated Emission Data					
Test Site	: No.3 OA	ATS				
Test Mode	: Mode 3:	Transmit (802.11	n-40BW 15Mbps) (5	755MHz)		
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m	
Horizontal						
<b>Peak Detector:</b>						
11510.000	17.124	35.620	52.744	-21.256	74.000	
17265.000	*	*	*	*	74.000	
20760.000	*	*	*	*	74.000	
25950.000	*	*	*	*	74.000	
31140.000	*	*	*	*	74.000	
36330.000	*	*	*	*	74.000	
Average						
<b>Detector:</b>						
*	*	*	*	*	*	
Vertical						
<b>Peak Detector:</b>						
11510.000	18.081	35.000	53.081	-20.919	74.000	
17265.000	*	*	*	*	74.000	
20760.000	*	*	*	*	74.000	
25950.000	*	*	*	*	74.000	
31140.000	*	*	*	*	74.000	
36330.000	*	*	*	*	74.000	
Average						
<b>Detector:</b>						
*	*	*	*	*	*	

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.

3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.

4. Measurement Level = Reading Level + Correct Factor.

5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.

6. The average measurement was not performed when the peak measured data under the limit of average detection.

7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	: VOIP Phone				
Test Item	: Harmon	ic Radiated Emis	sion Data		
Test Site	: No.3 O	ATS			
Test Mode	: Mode 3	: Transmit (802.11	1n-40BW 15Mbps) (5	795MHz)	
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11590.000	16.701	34.860	51.560	-22.440	74.000
17385.000	*	*	*	*	74.000
20920.000	*	*	*	*	74.000
26150.000	*	*	*	*	74.000
31380.000	*	*	*	*	74.000
36610.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11590.000	17.567	34.370	51.936	-22.064	74.000
17385.000	*	*	*	*	74.000
20920.000	*	*	*	*	74.000
26150.000	*	*	*	*	74.000
31380.000	*	*	*	*	74.000
36610.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
*	*	*	*	*	*

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.

3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.

4. Measurement Level = Reading Level + Correct Factor.

5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.

6. The average measurement was not performed when the peak measured data under the limit of average detection.

7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	: VOIP Phone					
Test Item	: General Radiated Emission					
Test Site	: No.3 OA	TS				
Test Mode	: Mode 1:	Transmit (802.11	a-6Mbps) (5220MHz	)		
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBµV	$dB\mu V/m$	dB	$dB\mu V/m$	
Horizontal						
<b>Peak Detector</b>						
111.480	-7.489	38.479	30.991	-12.509	43.500	
225.940	-9.647	41.838	32.191	-13.809	46.000	
365.620	0.382	34.910	35.292	-10.708	46.000	
577.080	3.221	26.373	29.594	-16.406	46.000	
800.180	6.417	24.352	30.769	-15.231	46.000	
932.100	7.270	23.566	30.836	-15.164	46.000	
Vertical						
Peak Detector						
111.480	-3.439	36.529	33.091	-10.409	43.500	
225.940	-6.267	30.340	24.073	-21.927	46.000	
365.620	0.282	26.684	26.966	-19.034	46.000	
538.280	1.996	24.274	26.270	-19.730	46.000	
689.600	2.302	23.109	25.411	-20.589	46.000	
842.860	2.378	23.165	25.543	-20.457	46.000	

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.

Product	: VOIP Phone					
Test Item	: General	Radiated Emissio	on			
Test Site	: No.3 OA	TS				
Test Mode	: Mode 1:	Transmit (802.11	a-6Mbps) (5300MHz	2)		
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m	
Horizontal						
<b>Peak Detector</b>						
103.720	-8.230	39.354	31.123	-12.377	43.500	
225.940	-9.647	40.542	30.895	-15.105	46.000	
365.620	0.382	35.933	36.315	-9.685	46.000	
633.340	1.530	28.524	30.054	-15.946	46.000	
767.200	5.099	25.170	30.270	-15.730	46.000	
932.100	7.270	23.581	30.851	-15.149	46.000	
Vertical						
<b>Peak Detector</b>						
107.600	-4.027	39.753	35.726	-7.774	43.500	
260.860	-4.870	29.444	24.574	-21.426	46.000	
460.680	-1.930	23.479	21.549	-24.451	46.000	
674.080	0.003	23.737	23.740	-22.260	46.000	
838.980	1.961	23.554	25.515	-20.485	46.000	
947.620	3.231	23.136	26.367	-19.633	46.000	

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.

Product	: VOIP Phone					
Test Item	: General	Radiated Emissio	n			
Test Site	: No.3 OA	TS				
Test Mode	: Mode 1:	Transmit (802.11	a-6Mbps) (5580MHz	z)		
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m	
Horizontal						
<b>Peak Detector</b>						
128.940	-7.390	35.248	27.858	-15.642	43.500	
266.680	-5.510	35.396	29.886	-16.114	46.000	
365.620	0.382	35.317	35.699	-10.301	46.000	
577.080	3.221	25.751	28.972	-17.028	46.000	
767.200	5.099	24.822	29.922	-16.078	46.000	
901.060	5.878	23.852	29.730	-16.270	46.000	
Vertical						
<b>Peak Detector</b>						
107.600	-4.027	37.659	33.632	-9.868	43.500	
229.820	-6.141	31.313	25.172	-20.828	46.000	
390.840	-0.768	25.402	24.634	-21.366	46.000	
606.180	2.246	22.612	24.858	-21.142	46.000	
782.720	2.757	24.759	27.516	-18.484	46.000	
920.460	3.272	22.667	25.939	-20.061	46.000	

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.

Product	: VOIP Phone						
Test Item	: General Radiated Emission						
Test Site	: No.3 OAT	: No.3 OATS					
Test Mode	: Mode 2: 7	Fransmit (802.11	n-20BW 7.2Mbps) (5	5785MHz)			
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBµV	$dB\mu V/m$	dB	$dB\mu V/m$		
Horizontal							
Peak Detector							
119.240	-9.621	48.599	38.978	-4.522	43.500		
276.380	-5.783	44.539	38.756	-7.244	46.000		
443.220	-2.738	41.504	38.766	-7.234	46.000		
608.120	4.384	36.487	40.871	-5.129	46.000		
749.740	3.320	32.074	35.394	-10.606	46.000		
899.120	5.433	33.360	38.793	-7.207	46.000		
Vertical							
<b>Peak Detector</b>							
66.860	-6.015	41.495	35.480	-4.520	40.000		
156.100	-6.201	43.947	37.745	-5.755	43.500		
371.440	-2.737	40.398	37.661	-8.339	46.000		
608.120	-1.576	36.487	34.911	-11.089	46.000		
792.420	2.889	35.707	38.596	-7.404	46.000		
945.680	6.594	30.951	37.545	-8.455	46.000		

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.

Product	: VOIP P	hone			
Test Item	: General	Radiated Emissio	n		
Test Site	: No.3 O	ATS			
Test Mode	: Mode 2	: Transmit (802.11	n-20BW 7.2Mbps) (5	5220MHz)	
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector					
103.720	-8.230	38.413	30.182	-13.318	43.500
262.800	-5.484	36.472	30.988	-15.012	46.000
365.620	0.382	35.060	35.442	-10.558	46.000
546.040	4.386	23.852	28.238	-17.762	46.000
701.240	2.759	26.176	28.935	-17.065	46.000
862.260	6.327	24.488	30.815	-15.185	46.000
Vertical					
Peak Detector					
107.600	-4.027	37.668	33.641	-9.859	43.500
225.940	-6.267	29.959	23.692	-22.308	46.000
388.900	-0.726	24.730	24.004	-21.996	46.000
612.000	1.943	24.032	25.974	-20.026	46.000
786.600	2.724	24.166	26.891	-19.109	46.000
928.220	3.640	23.392	27.032	-18.968	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.

Product	: VOIP P	hone			
Test Item	: General	Radiated Emissio	n		
Test Site	: No.3 OA	ATS			
Test Mode	: Mode 2	: Transmit (802.11	n-20BW 7.2Mbps) (5	5300MHz)	
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector					
107.600	-7.597	38.653	31.056	-12.444	43.500
258.920	-5.440	34.701	29.261	-16.739	46.000
365.620	0.382	35.092	35.474	-10.526	46.000
547.980	4.028	24.491	28.519	-17.481	46.000
701.240	2.759	26.994	29.753	-16.247	46.000
903.000	5.938	23.853	29.791	-16.209	46.000
Vertical					
Peak Detector					
107.600	-4.027	38.446	34.419	-9.081	43.500
253.100	-5.039	26.538	21.499	-24.501	46.000
472.320	-3.508	24.800	21.292	-24.708	46.000
687.660	2.292	23.148	25.440	-20.560	46.000
817.640	2.966	23.413	26.379	-19.621	46.000
889.420	1.224	23.232	24.456	-21.544	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.

Product	: VOIP Phone						
Test Item	: General Radiated Emission						
Test Site	: No.3 OA	: No.3 OATS					
Test Mode	: Mode 2	Transmit (802.11	n-20BW 7.2Mbps) (5	5580MHz)			
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m		
Horizontal							
<b>Peak Detector</b>							
117.300	-7.350	33.898	26.548	-16.952	43.500		
225.940	-9.647	39.718	30.071	-15.929	46.000		
365.620	0.382	35.835	36.217	-9.783	46.000		
577.080	3.221	27.521	30.742	-15.258	46.000		
800.180	6.417	25.174	31.591	-14.409	46.000		
930.160	7.530	22.574	30.104	-15.896	46.000		
Vertical							
<b>Peak Detector</b>							
43.580	-10.919	43.395	32.476	-7.524	40.000		
192.960	-5.655	33.477	27.822	-15.678	43.500		
379.200	0.881	23.710	24.591	-21.409	46.000		
598.420	1.114	23.324	24.438	-21.562	46.000		
784.660	2.736	24.840	27.576	-18.424	46.000		
930.160	3.830	23.126	26.956	-19.044	46.000		

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.

Product	: VOIP P	hone				
Test Item	: General Radiated Emission					
Test Site	: No.3 O	ATS				
Test Mode	: Mode 2	: Transmit (802.11	n-20BW 7.2Mbps) (5	5785MHz)		
Frequency	Correct	Reading	Measurement	Margin	Limit	
Trequency		I I	T	Margin	Linit	
	Factor	Level	Level			
MHz	dB	dBµV	dBµV/m	dB	dBµV/m	
Horizontal						
<b>Peak Detector</b>						
156.100	-10.461	43.947	33.485	-10.015	43.500	
332.640	-4.184	39.561	35.377	-10.623	46.000	
419.940	-3.234	40.374	37.140	-8.860	46.000	
515.000	1.610	35.089	36.699	-9.301	46.000	
701.240	2.668	33.264	35.932	-10.068	46.000	
899.120	5.433	33.360	38.793	-7.207	46.000	
Vertical						
<b>Peak Detector</b>						
142.520	-6.267	44.714	38.447	-5.053	43.500	
241.460	-8.461	45.820	37.359	-8.641	46.000	
371.440	-2.737	40.398	37.661	-8.339	46.000	
600.360	-2.833	36.079	33.246	-12.754	46.000	
780.780	3.060	33.644	36.704	-9.296	46.000	
945.680	6.594	30.951	37.545	-8.455	46.000	

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.

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Product	: VOIP Pł	none				
Test Item	: General Radiated Emission					
Test Site	: No.3 OA	ATS				
Test Mode	: Mode 3:	Transmit (802.11	n-40BW 15Mbps) (5	190MHz)		
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBµV	$dB\mu V/m$	dB	$dB\mu V/m$	
Horizontal						
<b>Peak Detector</b>						
107.600	-7.597	35.415	27.818	-15.682	43.500	
264.740	-5.501	36.047	30.547	-15.453	46.000	
365.620	0.382	35.055	35.437	-10.563	46.000	
522.760	3.176	26.050	29.226	-16.774	46.000	
701.240	2.759	27.265	30.024	-15.976	46.000	
862.260	6.327	24.986	31.313	-14.687	46.000	
Vertical						
<b>Peak Detector</b>						
43.580	-10.919	43.530	32.611	-7.389	40.000	
192.960	-5.655	33.185	27.530	-15.970	43.500	
379.200	0.881	23.269	24.150	-21.850	46.000	
604.240	2.199	22.259	24.459	-21.541	46.000	
784.660	2.736	25.001	27.737	-18.263	46.000	
908.820	0.730	24.298	25.028	-20.972	46.000	

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.

Product	: VOIP Phone					
Test Item	: General Radiated Emission					
Test Site	: No.3 OA	ГS				
Test Mode	: Mode 3: "	Transmit (802.11	n-40BW 15Mbps) (5	270MHz)		
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m	
Horizontal						
Peak Detector						
119.240	-7.291	34.251	26.961	-16.539	43.500	
262.800	-5.484	39.106	33.622	-12.378	46.000	
365.620	0.382	35.473	35.855	-10.145	46.000	
524.700	3.140	27.622	30.762	-15.238	46.000	
701.240	2.759	27.311	30.070	-15.930	46.000	
901.060	5.878	24.745	30.623	-15.377	46.000	
Vertical						
<b>Peak Detector</b>						
43.580	-10.919	44.206	33.287	-6.713	40.000	
192.960	-5.655	35.191	29.536	-13.964	43.500	
373.380	0.043	24.393	24.436	-21.564	46.000	
608.120	2.175	22.966	25.141	-20.859	46.000	
784.660	2.736	25.284	28.020	-17.980	46.000	
920.460	3.272	23.260	26.532	-19.468	46.000	

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.

Product	: VOIP Phone					
Test Item	: General Radiated Emission					
Test Site	: No.3 OA	TS				
Test Mode	: Mode 3:	Transmit (802.11	n-40BW 15Mbps) (5	550MHz)		
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m	
Horizontal						
<b>Peak Detector</b>						
105.660	-7.676	34.361	26.684	-16.816	43.500	
262.800	-5.484	37.441	31.957	-14.043	46.000	
365.620	0.382	35.859	36.241	-9.759	46.000	
577.080	3.221	26.463	29.684	-16.316	46.000	
800.180	6.417	24.622	31.039	-14.961	46.000	
914.640	6.410	23.365	29.775	-16.225	46.000	
Vertical						
Peak Detector						
43.580	-10.919	41.572	30.653	-9.347	40.000	
171.620	-3.691	32.703	29.012	-14.488	43.500	
365.620	0.282	24.105	24.387	-21.613	46.000	
542.160	1.855	23.205	25.060	-20.940	46.000	
689.600	2.302	22.806	25.108	-20.892	46.000	
817.640	2.966	22.840	25.806	-20.194	46.000	

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.

Product	: VOIP Phone					
Test Item	: General Radiated Emission					
Test Site	: No.3 OA	ATS				
Test Mode	: Mode 3:	Transmit (802.11	n-40BW 15Mbps) (5	755MHz)		
		× ×		,		
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m	
Horizontal						
<b>Peak Detector</b>						
142.520	-10.427	44.714	34.287	-9.213	43.500	
322.940	-4.442	43.002	38.560	-7.440	46.000	
443.220	-2.738	41.504	38.766	-7.234	46.000	
586.780	3.436	36.596	40.032	-5.968	46.000	
780.780	4.230	33.644	37.874	-8.126	46.000	
945.680	6.554	30.951	37.505	-8.495	46.000	
Vertical						
<b>Peak Detector</b>						
142.520	-6.267	44.714	38.447	-5.053	43.500	
291.900	-8.004	48.571	40.566	-5.434	46.000	
468.440	-4.725	40.974	36.249	-9.751	46.000	
608.120	-1.576	36.487	34.911	-11.089	46.000	
749.740	2.510	32.074	34.584	-11.416	46.000	
899.120	3.063	33.360	36.423	-9.577	46.000	

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.

## 6. Band Edge

### 6.1. Test Equipment

### **RF** Conducted Measurement

The following test equipments are used during the band edge tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2014
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2014
Х	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2014

Note:

- 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
- 2. The test instruments marked with "X" are used to measure the final test results.

### **RF Radiated Measurement:**

The following test equipments are used during the band edge tests:

Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Site # 3		Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2014
	Х	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2014
		Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2014
		Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2014
	Х	Pre-Amplifier	QTK	AP-180C / CHM_0906076	Sep., 2014
		Pre-Amplifier	MITEQ	AMF-4D-180400-45-6P/ 925975	Mar., 2014
	Х	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2014
		Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2014
	Х	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2014
	Х	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

Note: 1. All instruments are calibrated every one year.

2. The test instruments marked by "X" are used to measure the final test results.

## 6.2. Test Setup

### **RF** Conducted Measurement:





## 6.3. Limits

#### Inside of the restricted band:

The provisions of Section 15.205 of this part apply to intentional radiators operating under this section.

Radiated emissions which fall in the restricted bands, as defined in Section 15.205, must also comply with the radiated emission limits specified in Section 15.209:

FCC Part 15 Subpart C Paragraph 15.209 Limits							
Frequency MHz	uV/m @3m	dBµV/m@3m					
30-88	100	40					
88-216	150	43.5					
216-960	200	46					
Above 960	500	54					

Remarks : 1. RF Voltage  $(dB\mu V) = 20 \log RF$  Voltage (uV)

2. In the Above Table, the tighter limit applies at the band edges.

3. Distance refers to the distance in meters between the measuring instrument

antenna and the closed point of any part of the device or system.

### Outside of the restricted band:

5 .15GHz - 5.35 GHz	< -27 dBm/MHz EIRP,
5.47GHz - 5.725 GHz	< -27 dBm/MHz EIRP,
5.725GHz - 5.825 GHz	< -27 dBm/MHz EIRP,

<-17 dBm/MHz EIRP (All emission within the frequency range from the band edge to 10 MHz above or below the band edge.)

## 6.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10:2009 on radiated measurement.

The bandwidth below 1GHz setting on the field strength meter is 120 kHz, above 1GHz are 1 MHz. The EUT was setup to ANSI C63.10, 2009; tested to DTS test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

Band edge measurement, when testing restrictions band, using the limit value 74/54 dBuV, if testing non-restrictions band, using the limit value -27dBm, "dBm" obtained as follows: In emission tests the measurement antenna is used to detect the field from the UUT in one stage of the measurement and from the substitution antenna in the other stage, the substitution antenna shall be used to replace the equipment under test in substitution measurements, using the above method to obtain the EIRP.

## 6.5. Uncertainty

- ± 3.8 dB below 1GHz
- ± 3.9 dB above 1GHz

## 6.6. Test Result of Band Edge

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps)-Channel 36

#### **RF Radiated Measurement (Horizontal):**

Channel No	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Chamber 1 (0)	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	(dBµV/m)	11050110
36 (Peak)	5149.000	3.344	58.713	62.057	74.00	54.00	Pass
36 (Peak)	5150.000	3.340	55.608	58.948	74.00	54.00	Pass
36 (Peak)	5179.800	3.234	104.248	107.483			
36 (Average)	5150.000	3.340	43.867	47.207	74.00	54.00	Pass
36 (Average)	5187.000	3.209	90.860	94.070			



#### Horizontal (Peak)



#### Figure Channel 36:

Horizontal (Average)



Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.

- 2. Peak measurements: RBW = 1MHz, VBW = 3MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps)-Channel 36

### **RF Radiated Measurement (Vertical):**

Channal Na	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Dogult
Channel No.	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	Result
36 (Peak)	5150.000	5.260	50.972	56.232	74.00	54.00	Pass
36 (Peak)	5177.800	5.335	98.439	103.775			
36 (Average)	5150.000	5.260	41.589	46.849	74.00	54.00	Pass
36 (Average)	5187.200	5.361	85.719	91.081			

#### Figure Channel 36:

#### Vertical (Peak)





### Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

5400.000

# QuieTek

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) -Channel 64

## **RF Radiated Measurement (Horizontal):**

Channel Ma	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Degult
Channel No.	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	Result
64 (Peak)	5326.800	3.791	101.638	105.429			
64 (Peak)	5350.000	3.716	52.715	56.432	74.00	54.00	Pass
64 (Peak)	5352.400	3.709	54.083	57.792	74.00	54.00	Pass
64 (Average)	5327.000	3.790	90.071	93.861			
64 (Average)	5350.000	3.716	42.121	45.838	74.00	54.00	Pass



#### **Figure Channel 64:**

Horizontal (Average)



- All readings above 1GHz are performed with peak and/or average measurements as necessary. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto. "\*", means this data is the worst emission level 1.
- 2. 3. 4.
- , means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- The average measurement was not performed when the peak measured data under the limit of average 6. detection.

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) -Channel 64

### **RF Radiated Measurement (Vertical):**

Channal Ma	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Docult
Channel No.	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	Result
64 (Peak)	5325.600	5.722	95.995	101.717			
64 (Peak)	5350.000	5.691	49.271	54.963	74.00	54.00	Pass
64 (Peak)	5359.000	5.679	51.859	57.538	74.00	54.00	Pass
64 (Average)	5327.200	5.720	84.800	90.520			
64 (Average)	5350.000	5.691	40.107	45.799	74.00	54.00	Pass

#### Figure Channel 64:

Vertical (Peak)





#### Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) -Channel 100

## **RF Radiated Measurement (Horizontal):**

Channel No	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Channel NO.	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	Result
100 (Peak)	5459.400	4.347	54.163	58.509	74.00	54.00	Pass
100 (Peak)	5460.000	4.354	52.082	56.436	74.00	54.00	Pass
100 (Peak)	5506.800	4.835	103.631	108.466			
100 (Average)	5460.000	4.354	43.493	47.847	74.00	54.00	Pass
100 (Average)	5493.000	4.766	91.865	96.631			

**Figure Channel 100:** 

Horizontal (Peak)





Horizontal (Average)



- All readings above 1GHz are performed with peak and/or average measurements as necessary. 1.
- 2. Peak measurements:  $RBW = \hat{1}MHz$ ,  $VBW = \hat{3}MHz$ , Sweep: Auto.
- Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto. "\*", means this data is the worst emission level. 3.
- 4.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) -Channel 100

### **RF Radiated Measurement (Vertical):**

Channel Ma	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Dogult
Channel No.	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	(dBµV/m)	Result
100 (Peak)	5452.200	5.986	52.780	58.766	74.00	54.00	Pass
100 (Peak)	5460.000	6.041	50.243	56.284	74.00	54.00	Pass
100 (Peak)	5494.400	6.258	96.863	103.121			
100 (Average)	5460.000	6.041	40.972	47.013	74.00	54.00	Pass
100 (Average)	5493.000	6.253	85.856	92.110			

### **Figure Channel 100:**

Vertical (Peak)



#### **Figure Channel 100:**

Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) -Channel 100

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5470.000	13.958	-61.860	-47.902	-20.902	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5470.000	14.324	-68.330	-54.006	-27.006	-27.000	Pass

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) -Channel 140
Test Site Test Mode	: :	No.3 OATS Mode 1: Transmit (802.11a-6Mbps) -Channel 140

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5725.000	12.135	-58.540	-46.405	-19.405	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5725.000	12.243	-63.260	-51.017	-24.017	-27.000	Pass

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps)-Channel 149

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5715.000	18.644	-75.260	-56.616	-29.616	-27.000	Pass
Horizontal	5725.000	18.649	-68.020	-49.371	-32.371	-17.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5715.000	19.296	-75.490	-56.194	-29.194	-27.000	Pass
Vertical	5725.000	19.372	-68.020	-48.648	-31.648	-17.000	Pass

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps)-Channel 165

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5850.000	19.292	-73.790	-54.498	-37.498	-17.000	Pass
Horizontal	5860.000	19.415	-75.330	-55.915	-28.915	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5850.000	20.512	-72.870	-52.358	-35.358	-17.000	Pass
Vertical	5860.000	20.635	-75.980	-55.345	-28.345	-27.000	Pass

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) -Channel 36

## **RF Radiated Measurement (Horizontal):**

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	
36 (Peak)	5146.800	3.351	55.349	58.701	74.00	54.00	Pass
36 (Peak)	5150.000	3.340	55.197	58.537	74.00	54.00	Pass
36 (Peak)	5186.400	3.211	100.542	103.754			
36 (Average)	5150.000	3.340	43.004	46.344	74.00	54.00	Pass
36 (Average)	5187.600	3.207	89.155	92.362			

### Figure Channel 36:

## Horizontal (Peak)





### Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
| Product   | : | VOIP Phone  |
|-----------|---|---|
| Test Item | : | Band Edge Data                                      |
| Test Site | : | No.3 OATS   |
| Test Mode | : | Mode 2: Transmit (802.11n-20BW 7.2Mbps) -Channel 36 |

#### **RF Radiated Measurement (Vertical):**

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Dogult
	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	Kesult
36 (Peak)	5150.000	5.260	52.376	57.636	74.00	54.00	Pass
36 (Peak)	5174.000	5.326	95.628	100.954			
36 (Average)	5150.000	5.260	41.106	46.366	74.00	54.00	Pass
36 (Average)	5187.600	5.362	84.379	89.742			

#### Figure Channel 36:

#### Vertical (Peak)



#### Figure Channel 36:

#### Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) -Channel 64

#### **RF Radiated Measurement (Horizontal):**

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Dogult
	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	Result
64 (Peak)	5323.600	3.801	100.412	104.213			
64 (Peak)	5350.000	3.716	50.567	54.284	74.00	54.00	Pass
64 (Peak)	5351.800	3.710	52.778	56.489	74.00	54.00	Pass
64 (Average)	5327.400	3.789	88.430	92.219			
64 (Average)	5350.000	3.716	41.505	45.222	74.00	54.00	Pass

#### Figure Channel 64:

#### Horizontal (Peak)





#### Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) -Channel 64

#### **RF Radiated Measurement (Vertical):**

Channel No.	Frequency (MHz)	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
	(WIIIZ)	(uD)	(uDµv)	(ασμν/m)	(uDµ v/m)	(uDµ v/m)	
64 (Peak)	5327.200	5.720	95.677	101.397			
64 (Peak)	5350.000	5.691	51.518	57.210	74.00	54.00	Pass
64 (Peak)	5357.400	5.681	52.656	58.337	74.00	54.00	Pass
64 (Average)	5327.600	5.720	82.965	88.685			
64 (Average)	5350.000	5.691	39.914	45.606	74.00	54.00	Pass





- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) -Channel 100

#### **RF Radiated Measurement (Horizontal):**

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	Result
100 (Peak)	5456.600	4.309	54.789	59.097	74.00	54.00	Pass
100 (Peak)	5460.000	4.354	53.940	58.294	74.00	54.00	Pass
100 (Peak)	5506.800	4.835	103.548	108.383			
100 (Average)	5460.000	4.354	42.783	47.137	74.00	54.00	Pass
100 (Average)	5507.600	4.828	90.707	95.535			

**Figure Channel 100:** 

Horizontal (Peak)





Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) -Channel 100

#### **RF Radiated Measurement (Vertical):**

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Dogult
	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	Result
100 (Peak)	5453.600	5.996	53.622	59.618	74.00	54.00	Pass
100 (Peak)	5460.000	6.041	52.176	58.217	74.00	54.00	Pass
100 (Peak)	5493.800	6.256	97.305	103.561			
100 (Average)	5460.000	5460.000	6.041	40.494	74.00	54.00	Pass
100 (Average)	5495.600	5492.400	6.252	84.506			

#### Figure Channel 100:

#### Vertical (Peak)



#### Figure Channel 100:

Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) -Channel 100

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5470.000	13.958	-63.820	-49.862	-22.862	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5470.000	14.324	-69.430	-55.106	-28.106	-27.000	Pass

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) -Channel 140

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5725.000	12.135	-58.730	-46.595	-19.595	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5725.000	12.243	-64.440	-52.197	-25.197	-27.000	Pass

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) -Channel 149

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5715.000	18.644	-75.490	-56.846	-29.846	-27.000	Pass
Horizontal	5725.000	18.649	-71.430	-52.781	-35.781	-17.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5715.000	19.296	-75.810	-56.514	-29.514	-27.000	Pass
Vertical	5725.000	19.372	-71.430	-52.058	-35.058	-17.000	Pass

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) -Channel 165

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5850.000	19.292	-72.470	-53.178	-36.178	-17.000	Pass
Horizontal	5860.000	19.415	-75.200	-55.785	-28.785	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5850.000	20.512	-73.600	-53.088	-36.088	-17.000	Pass
Vertical	5860.000	20.635	-75.900	-55.265	-28.265	-27.000	Pass

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) -Channel 38

#### **RF Radiated Measurement (Horizontal):**

Channal Na	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Dogult
Channel No.	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	Result
38 (Peak)	5150.000	3.340	63.439	66.779	74.00	54.00	Pass
38 (Peak)	5186.600	3.211	98.017	101.228			
38 (Average)	5150.000	3.340	45.611	48.951	74.00	54.00	Pass
38 (Average)	5192.600	3.185	82.649	85.834			

#### Figure Channel 38:

#### Horizontal (Peak)





#### Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) -Channel 38

#### **RF Radiated Measurement (Vertical):**

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Degult
	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	Result
38 (Peak)	5149.600	5.259	58.606	63.865	74.00	54.00	Pass
38 (Peak)	5150.000	5.260	57.297	62.557	74.00	54.00	Pass
38 (Peak)	5186.800	5.360	93.072	98.433			
38 (Average)	5150.000	5.260	42.181	47.441	74.00	54.00	Pass
38 (Average)	5192.600	5.372	78.354	83.726			

#### Figure Channel 38:

#### Vertical (Peak)





#### Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) -Channel 62

#### **RF Radiated Measurement (Horizontal):**

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Dogult
	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	Result
62 (Peak)	5325.800	3.794	97.733	101.527			
62 (Peak)	5350.000	3.716	66.829	70.546	74.00	54.00	Pass
62 (Average)	5327.000	3.790	82.605	86.395			
62 (Average)	5350.000	3.716	45.254	48.971	74.00	54.00	Pass

#### Figure Channel 62:

#### Horizontal (Peak)





#### Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) -Channel 62

#### **RF Radiated Measurement (Vertical):**

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Docult
	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	Result
62 (Peak)	5304.000	5.749	92.554	98.304			
62 (Peak)	5350.000	5.691	57.547	63.239	74.00	54.00	Pass
62 (Peak)	5350.600	5.690	61.497	67.188	74.00	54.00	Pass
62 (Average)	5326.800	5.721	77.896	83.617			
62 (Average)	5350.000	5.691	41.470	47.162	74.00	54.00	Pass

#### Figure Channel 62:

#### Vertical (Peak)



#### Figure Channel 62:

#### Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) -Channel 102

#### **RF Radiated Measurement (Horizontal):**

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Docult
	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	Result
102 (Peak)	5460.000	4.354	60.439	64.793	74.00	54.00	Pass
102 (Peak)	5506.800	4.835	99.766	104.601			
102 (Average)	5460.000	4.354	43.195	47.549	74.00	54.00	Pass
102 (Average)	5493.600	4.770	84.918	89.688			

#### Figure Channel 102:

#### Horizontal (Peak)





#### Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) -Channel 102

#### **RF Radiated Measurement (Vertical):**

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Docult
	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	Kesult
102 (Peak)	5459.400	6.037	54.783	60.820	74.00	54.00	Pass
102 (Peak)	5460.000	6.041	53.266	59.307	74.00	54.00	Pass
102 (Peak)	5496.400	6.264	93.661	99.925			
102 (Average)	5460.000	6.041	40.736	46.777	74.00	54.00	Pass
102 (Average)	5493.400	6.255	79.355	85.610			

#### Figure Channel 102:

#### Vertical (Peak)



#### Figure Channel 102:

#### Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) -Channel 102

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5470.000	13.958	-58.040	-44.082	-17.082	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5470.000	14.324	-63.610	-49.286	-22.286	-27.000	Pass

Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) -Channel 134

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5725.000	12.135	-64.710	-52.575	-25.575	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5725.000	12.243	-69.350	-57.107	-30.107	-27.000	Pass



Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) -Channel 151

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5715.000	18.644	-72.700	-54.056	-27.056	-27.000	Pass
Horizontal	5725.000	18.649	-69.120	-50.471	-33.471	-17.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5715.000	19.296	-72.880	-53.584	-26.584	-27.000	Pass
Vertical	5725.000	19.372	-69.850	-50.478	-33.478	-17.000	Pass



Product	:	VOIP Phone
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) -Channel 159

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5850.000	19.292	-75.740	-56.448	-39.448	-17.000	Pass
Horizontal	5860.000	19.415	-77.960	-58.545	-31.545	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5850.000	20.512	-77.230	-56.718	-39.718	-17.000	Pass
Vertical	5860.000	20.635	-77.960	-57.325	-30.325	-27.000	Pass

### 7. Occupied Bandwidth

#### 7.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2014
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2014
Х	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2014

#### Note:

- 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
- 2. The test instruments marked with "X" are used to measure the final test results.

### 7.2. Test Setup



#### 7.3. Limits

For the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz

### 7.4. .Test Procedure

The EUT was setup to ANSI C63.10, 2009; tested to UNII test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

### 7.5. Uncertainty

 $\pm$  150Hz

### 7.6. Test Result of Occupied Bandwidth

Product	:	VOIP Phone
Test Item	:	Occupied Bandwidth Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) (5745MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	5745.00	16500	>500	Pass

### Figure Channel 149:

Agilent Spectru	m Analyzer - Swept	SA							
Center Fr	RF 50 Ω eq 5.745000	AC 000 GHz	SEN:	Bun	Avg Type	ALIGNAUTO : Log-Pwr	02:49:43F TRAC	M Oct 22, 2014	Frequency
10 dB/div	Ref 20.00 dB	PNU: Fast IFGain:Low	#Atten: 30	dB		Mkr	ں 2 5.736 -5.1	80 GHz 65 dBm	Auto Tune
10.0 0.00 -10.0		2 2 2 2 2 2	1 Manharturlantin	whenter	alamat 2			-5.53 dBm	Center Freq 5.745000000 GHz
-20.0 -30.0 -40.0	the special state of the special state of the special	When and and a start of the			he	when partifiered an	mparticular	Prep Brendliman	Start Freq 5.720000000 GHz
-50.0 -60.0 -70.0									<b>Stop Freq</b> 5.770000000 GHz
Center 5.7 #Res BW 1	4500 GHz 100 kHz	#V	BW 300 kHz	FUNCTION		Sweep	Span 5 4.80 ms (	0.00 MHz 1001 pts)	CF Step 5.000000 MHz Auto Man
1 N 1 2 N 1 3 N 1 4 5 6	f f f	5.740 05 GHz 5.736 80 GHz 5.753 30 GHz	0.47 dB -5.65 dB -5.94 dB	m m m					Freq Offset 0 Hz
7 8 9 10 11 12									
MSG						STATUS	5		II

:	VOIP Phone
:	Occupied Bandwidth Data
:	No.3 OATS
:	Mode 1: Transmit (802.11a-6Mbps) (5785MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
157	5785.00	16500	>500	Pass

#### Figure Channel 157:

Agilent Spect	rum Analyzer - S	wept SA						
Center F	RF 50	Ω AC 000000 GHz	SEN	ISE:INT AVG TY	ALIGNAUTO	03:09:42F	M Oct 22, 2014 E 1 2 3 4 5 6	Frequency
10 dB/div	Ref 20.00	PNO: F IFGain: dBm	ast (	dB	Mkı	2 5.776 -5.1	80 GHz 20 dBm	Auto Tune
Log 10.0 0.00			n1 2 Mindung Maduritor	potration of the second s	3		-4.71 dBm	Center Freq 5.785000000 GHz
-20.0 -30.0 -40.0	welnither	will will will be when a start			Ile and a strange of the second s	All Martin and the	ant age winner	Start Freq 5.760000000 GHz
-50.0 -60.0 -70.0								Stop Fred 5.810000000 GHz
Center 5. #Res BW	78500 GHz 100 kHz		#VBW 300 kHz	FUNCTION	Sweep	Span 5 4.80 ms (	0.00 MHz 1001 pts)	CF Step 5.000000 MHz Auto Mar
1 N 2 N 3 N 4 5 6	1 f 1 f 1 f	5.777 55 GH 5.776 80 GH 5.793 30 GH	lz 1.29 dE lz -5.20 dE lz -5.38 dE	3m 3m 3m 3m				Freq Offset 0 Hz
7 8 9 10 11 12								
MSG					STATU	s		

Product	:	VOIP Phone
Test Item	:	Occupied Bandwidth Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) (5825MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
165	5825.00	16450	>500	Pass

### Figure Channel 165:

Agilent Spectrur	n Analyzer - Swept S	A						
Center Fre	RF 50 Ω AC	00 GHz		Avg Type	ALIGNAUTO : Log-Pwr	03:29:56F TRAC	M Oct 22, 2014	Frequency
10 dB/div	Ref 20.00 dBn	PNO: Fast G	#Atten: 30 dB		Mkr	2 5.816 -5.:	80 GHz 35 dBm	Auto Tune
Log 10.0 0.00		2 NLwh,	anstadoren jurkour	Martunary 3			-4.52 dBm	Center Freq 5.825000000 GHz
-20.0 -30.0 -40.0	alamaranter	wall the way			way have allowed	and an	Munoutur	Start Freq 5.800000000 GHz
-50.0 -60.0 -70.0								Stop Fred 5.850000000 GHz
Center 5.82 #Res BW 1	2500 GHz 00 kHz	#VBV	V 300 kHz		Sweep	Span 5 4.80 ms (	0.00 MHz 1001 pts)	CF Step 5.000000 MHz Auto Mar
1 N 1 2 N 1 3 N 1 4 5 6 7	f	5.817 55 GHz 5.816 80 GHz 5.833 25 GHz	1.48 dBm -5.35 dBm -4.63 dBm			PORCHO		Freq Offset 0 Hz
8 9 10 11 12 MSG					STATUS			

Product	:	VOIP Phone
Test Item	:	Occupied Bandwidth Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5745MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	5745.00	17700	>500	Pass

### Figure Channel 149:

Agilent Spectru	ım Analyzer - Swept S	A				500		
Center Fr	RF 50 Ω AC eq 5.7450000	00 GHz	SENSE:II	Avg Type	ALIGNAUTO : Log-Pwr	03:51:03P TRAC	M Oct 22, 2014 E 1 2 3 4 5 6 E M MANANANAN	Frequency
10 dB/div	Ref 20.00 dBn	IFGain:Low	#Atten: 30 dB		Mkr	2 5.736 -7.0	20 GHz 07 dBm	Auto Tune
10.0 0.00 -10.0		221 22 4 milwoll	-lagharlan parla	ndrulasfurthink 3			-6.05 dBm	Center Freq 5.745000000 GHz
-20.0 -30.0 -40.0	mpromouth and a party	Indian and a second			Contractor and	Windowson	whether the states of	Start Freq 5.72000000 GHz
-50.0 -60.0 -70.0								<b>Stop Fred</b> 5.770000000 GHz
Center 5.7 #Res BW	4500 GHz 100 kHz	#VB\	N 300 kHz		Sweep	Span 5 4.80 ms (	0.00 MHz 1001 pts)	CF Step 5.000000 MHz Auto Man
1 N 1 2 N 1 3 N 1 4 5 6 7 7 8 9 9		5.737 55 GHz 5.736 20 GHz 5.753 90 GHz	-0.05 dBm -7.07 dBm -6.90 dBm					Freq Offset 0 Hz
11 12 MSG					STATUS			

Product	:	VOIP Phone
Test Item	:	Occupied Bandwidth Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5785MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
157	5785.00	17700	>500	Pass

### Figure Channel 157:

Agilent Spect	rum Analyzer - Swept S	SA						
Center F	RF 50 Ω A	.c		Avg Type	ALIGN AUTO : Log-Pwr	04:13:08F TRAC	M Oct 22, 2014	Frequency
10 dB/div	Ref 20.00 dBi	PNO: Fast ( IFGain:Low	#Atten: 30 dB		Mkr	2 5.776 -6.4	20 GHz 45 dBm	Auto Tune
Log 10.0 0.00 -10.0		2 Jundas	norther ben gurlins	bouland when 3			-5.76 dBm	Center Freq 5.785000000 GHz
-20.0 -30.0 -40.0	wanthe wanthe wat	Brown and and a start		\	Wheel and a second	Maryungad	192 gul Invitant	Start Freq 5.76000000 GHz
-50.0 -60.0 -70.0								<b>Stop Freq</b> 5.810000000 GHz
Center 5. #Res BW	78500 GHz 100 kHz RC SCL	#VBW	300 kHz	FUNCTION FUN	Sweep -	Span 5 4.80 ms (	0.00 MHz 1001 pts) N VALUE	CF Step 5.000000 MHz <u>Auto</u> Man
1 N 1 2 N 1 3 N 1 4 5 6 7 8 9 10 11 12		5.786 30 GHz 5.776 20 GHz 5.793 90 GHz	0.24 dBm -6.45 dBm -6.37 dBm					Freq Offset 0 Hz
MSG		30. 	and the second sec	1	STATUS			

Product	:	VOIP Phone
Test Item	:	Occupied Bandwidth Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5825MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
165	5825.00	17700	>500	Pass

### Figure Channel 165:

Agilent Spectre	um Analyzer - Swep	pt SA						
Center Fr	RF 50 Ω eq 5.82500	AC 0000 GHz	SENSE:	INT Avg Type	LIGNAUTO	04:37:32P TRAC	M Oct 22, 2014 E 1 2 3 4 5 6 E M M M M M	Frequency
10 dB/div	Ref 20.00 d	IFGain:Low	#Atten: 30 dl	8	Mkr	<sub>۵</sub> 2 5.816 -5.1	20 GHz 82 dBm	Auto Tune
10.0 0.00 -10.0		2 husho	The prove of the per	- 1 3			-5.50 dBm	Center Freq 5.825000000 GHz
-20.0 -30.0 -40.0	ATT TANK UN PUR PUR PUR	hole with the second			www.weburlleyburge	Www.hommen.	arostranter and the second	Start Freq 5.800000000 GHz
-50.0 -60.0 -70.0								Stop Freq 5.850000000 GHz
Center 5.8 #Res BW	2500 GHz 100 kHz	#VE	300 kHz		Sweep	Span 5 4.80 ms (	0.00 MHz 1001 pts)	CF Step 5.000000 MHz Auto Man
1 N 1 2 N 1 3 N 1 4 5 6 7 8 9 9 9		5.832 55 GHz 5.816 20 GHz 5.833 90 GHz	0.50 dBm -5.82 dBm -6.27 dBm			FUNCTIO		Freq Offset 0 Hz
11 12 MSG					STATUS	6		

Product	:	VOIP Phone
Test Item	:	Occupied Bandwidth Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) (5755MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
151	5755.00	36500	>500	Pass

### Figure Channel 151:

Agilent Spect	rum Analyzer - Swe	ept SA						
Center F	RF 50 Ω req 5.75500	AC 00000 GHz		Avg Typ	ALIGNAUTO e: Log-Pwr	04:58:44 PM TRACE TYPE	Oct 22, 2014	Frequency
10 dB/div	Ref 20.00 c	PNU: Fast IFGain:Low	#Atten: 30 dE	3	Mł	r2 5.736 10.80-	<sup>P NNNNN</sup> 8 GHz 6 dBm	Auto Tune
10.0 0.00 -10.0		2 <sup>2</sup>	Algelelol I day and	-	3		-9.91 dBm	Center Freq 5.755000000 GHz
-20.0 -30.0 -40.0		and all all and a start of the			Martin and all	ath Marshally .		Start Freq 5.70500000 GHz
-50.0						1.14786	uluniuniun)	<b>Stop Freq</b> 5.805000000 GHz
Center 5. #Res BW	75500 GHz 100 kHz	#VE	3W 300 kHz		Sweep	Span 10 9.60 ms (1	0.0 MHz 001 pts)	CF Step 10.000000 MHz Auto Man
Aixing Ability <th< td=""><td></td><td>5.738 8 GHz 5.736 8 GHz 5.773 3 GHz</td><td>-3.91 dBm -10.86 dBm -11.59 dBm</td><td></td><td></td><td>PUNCTUM</td><td>VALUE</td><td>Freq Offset 0 Hz</td></th<>		5.738 8 GHz 5.736 8 GHz 5.773 3 GHz	-3.91 dBm -10.86 dBm -11.59 dBm			PUNCTUM	VALUE	Freq Offset 0 Hz
MSG					STATUS	5		

Product	:	VOIP Phone
Test Item	:	Occupied Bandwidth Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) (5795MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
159	5795.00	36500	>500	Pass

### Figure Channel 159:

Agilent Spectrum Anal	yzer - Swept SA					
Center Freq 5.	50 Ω AC 795000000 GHz	SENSE:INT	ALIGN A Avg Type: Log-	AUTO 05:21:18Pf -Pwr TRACI TYP	1 2 3 4 5 6	Frequency
10 dB/div Ref	PNU: Fas IFGain:Lo 20.00 dBm	#Atten: 30 dB		™kr2 5.776 -11.0	8 GHz 6 dBm	Auto Tune
10.0 0.00 -10.0	2 •	And Adda Ada what	1 Lehendrichter 3		-10.22 dBm	Center Freq 5.795000000 GHz
-20.0 -30.0 -40.0	Win Win Belderstown	¥	PMM P	a want work with a		<b>Start Freq</b> 5.745000000 GHz
-60.0						<b>Stop Freq</b> 5.845000000 GHz
Center 5.79500 #Res BW 100 k	GHz Hz #\	/BW 300 kHz		Span 10 eep 9.60 ms (7	00.0 MHz 1001 pts)	CF Step 10.000000 MHz Auto Man
1 N 1 f   2 N 1 f   3 N 1 f   4 - - -   6 - - -   7 - - -   9 - - -   91 - - -   12 - - -	5.812 5 GHz 5.776 8 GHz 5.813 3 GHz	4.22 dBm -11.06 dBm -10.81 dBm				Freq Offset 0 Hz
MSG				STATUS		

### 8. Frequency Stability

#### 8.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun., 2014
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun., 2014
Х	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2014

Note:

- 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
- 2. The test instruments marked with "X" are used to measure the final test results.

### 8.2. Test Setup



#### 8.3. Limits

Manufactures 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

#### 8.4. Test Procedure

The EUT was setup to ANSI C63.10, 2009; tested to DTS test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

#### 8.5. Uncertainty

± 150 Hz

### 8.6. Test Result of Frequency Stability

Product	:	VOIP Phone
Test Item	:	Frequency Stability
Test Site	:	Temperature Chamber
Test Mode	:	Carrier Wave

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
		36	5180.0068	5179.9500	0.0500
		38	5190.0043	5189.9800	0.0200
		44	5220.0082	5219.9400	0.0600
		46	5230.0069	5229.9500	0.0500
		48	5240.0077	5239.9400	0.0600
		52	5260.0088	5259.9100	0.0900
		54	5270.0081	5269.9600	0.0400
		60	5300.0062	5299.9400	0.0600
		62	5310.0058	5309.9300	0.0700
		64	5320.0032	5319.9600	0.0400
$T_{nom}(20) \circ C$	$V_{nom}$ (120) $V$	100	5500.0093	5499.9300	0.0700
1  nom  (20)  oC	v nom (120) v	102	5510.0102	5509.9200	0.0800
		110	5550.0100	5549.9400	0.0600
		116	5580.0097	5579.9600	0.0400
		134	5670.0082	5669.9500	0.0500
		140	5700.0087	5699.9700	0.0300
		149	5745.0000	5744.9600	0.0400
		151	5755.0000	5754.9300	0.0700
		155	5775.0000	5784.9700	0.0300
		157	5785.0000	5794.9500	0.0500
		159	5795.0000	5824.9600	0.0400
		165	5825.0000	5179.9500	0.0500



Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
	36	5180.0068	5179.9600	0.0400	
		38	5190.0043	5189.9400	0.0600
		44	5220.0082	5219.9700	0.0300
		46	5230.0069	5229.9600	0.0400
		48	5240.0077	5239.9700	0.0300
		52	5260.0088	5259.9600	0.0400
		54	5270.0081	5269.9500	0.0500
		60	5300.0062	5299.9300	0.0700
		62	5310.0058	5309.9100	0.0900
Tures (50) - C   1		64	5320.0032	5319.9300	0.0700
	$V_{max}$ (129) $V$	100	5500.0093	5499.9200	0.0800
1 max (50) oc	v max (138) v	102	5510.0102	5509.9300	0.0700
		110	5550.0100	5549.9500	0.0500
		116	5580.0097	5579.9400	0.0600
		134	5670.0082	5669.9300	0.0400   0.0600   0.0300   0.0400   0.0300   0.0400   0.0300   0.0400   0.0300   0.0400   0.0300   0.0400   0.0500   0.0700   0.0700   0.0500   0.0700   0.0500   0.0700   0.0600   0.0700   0.0600   0.0700   0.0900   0.0400   0.0400   0.0400   0.0400
		140	5700.0087	5699.9400	0.0600
		149	5745.0000	5744.9200	0.0800
		151	5755.0000	5754.9300	0.0700
		155	5775.0000	5784.9100	0.0900
		157	5785.0000	5794.9600	0.0400
		159	5795.0000	5179.9600	0.0400
		165	5825.0000	5824.9400	0.0600



Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
		36	5180.0068	5179.9500	0.0500
		38	5190.0043	5189.9400	0.0600
		44	5220.0082	5219.9600	0.0400
		46	5230.0069	5229.9400	0.0600
		48	5240.0077	5239.9500	0.0500
		52	5260.0088	5259.9400	0.0600
		54	5270.0081	5269.9100	0.0900
		60	5300.0062	5299.9600	0.0400
Tmax (50) °C Vmin (102)V		62	5310.0058	5309.9500	0.0500
		64	5320.0032	5319.9400	0.0600
	$V_{min}$ (102) $V$	100	5500.0093	5499.9800	0.0200
	v IIIII (102) v	102	5510.0102	5509.9200	0.0800
		110	5550.0100	5549.9600	0.0400
		116	5580.0097	5579.9400	0.0600
		134	5670.0082	5669.9200	0.0800
		140	5700.0087	5699.9600	0.0400
		149	5745.0000	5744.9700	0.0300
		151	5755.0000	5754.9300	0.0700
		155	5775.0000	5784.9600	0.0400
		157	5785.0000	5794.9400	0.0600
		159	5795.0000	5824.9600	0.0400
		165	5825.0000	5179.9500	0.0500



Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
	36	5180.0068	5179.9500	0.0500	
		38	5190.0043	5189.9600	0.0400
		44	5220.0082	5219.9400	0.0600
		46	5230.0069	5229.9700	0.0300
		48	5240.0077	5239.9100	0.0900
		52	5260.0088	5259.9400	0.0600
		54	5270.0081	5269.9700	0.0300
		60	5300.0062	5299.9600	0.0400
		62	5310.0058	5309.9800	0.0200
Tnom (-10) oC Vn		64	5320.0032	5319.9200	0.0800
	$V_{nom}$ (129) $V$	100	5500.0093	5499.9500	0.0500
	v IIOIII (138) v	102	5510.0102	5509.9200	0.0800
		110	5550.0100	5549.9700	0.0300
		116	5580.0097	5579.9600	0.0400
		134	5670.0082	5669.9400	0.0600
		140	5700.0087	5699.9100	0.0900
		149	5745.0000	5744.9300	0.0700
		151	5755.0000	5754.9300	0.0700
		155	5775.0000	5784.9500	0.0500
		157	5785.0000	5794.9400	0.0600
		159	5795.0000	5824.9600	0.0400
		165	5825.0000	5179.9500	0.0500



Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
	36	5180.0068	5179.9500	0.0500	
		38	5190.0043	5189.9600	0.0400
		44	5220.0082	5219.9400	0.0600
		46	5230.0069	5229.9700	0.0300
		48	5240.0077	5239.9100	0.0900
		52	5260.0088	5259.9400	0.0600
		54	5270.0081	5269.9700	0.0300
		60	5300.0062	5299.9600	0.0400
		62	5310.0058	5309.9800	0.0200
		64	5320.0032	5319.9200	0.0800
T (10) C	$V_{max}$ (102) $V$	100	5500.0093	3 5499.9500 0	0.0500
1 max (-10) oc	$\mathbf{v}$ max (102) $\mathbf{v}$	102	5510.0102	5509.9200	0.0800
		110	5550.0100	5549.9700	0.0300
		116	5580.0097	5579.9600	0.0400
		134	5670.0082	5669.9400	0.0600
		140	5700.0087	5699.9100	0.0900
		149	5745.0000	5744.9300	0.0700
		151	5755.0000	5754.9300	0.0700
		155	5775.0000	5784.9500	0.0500
		157	5785.0000	5794.9400	0.0600
		159	5795.0000	5824.9600	0.0400
		165	5825.0000	5179.9500	0.0500

### 9. EMI Reduction Method During Compliance Testing

No modification was made during testing.