



6.10.2 Radiated Emission Method

6.10.2 Radiated	d Emission Method								
Test Requirement:	FCC Part15 C Se	ection 15.209							
Test Method:	ANSI C63.4: 2003	3							
Test Frequency Range:	9 kHz to 25 GHz								
Test site:	Measurement Dis	stance: 3m							
Receiver setup:	Frequency	Detector	RBW	VBW	Remark				
	30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak Value				
	Above 1CHz	Above 1GHz Peak 1MHz 3MHz							
	Above IGHZ	Peak	1MHz	10Hz	Average Value				
Limit:	Freque	ency	Limit (dBuV/	/m @3m)	Remark				
	30MHz-8	30MHz-88MHz 40.0 Quasi-peak Value							
	88MHz-2	88MHz-216MHz 43.5 Quasi-peak Value							
	216MHz-9	216MHz-960MHz 46.0 Quasi-peak Value							
	960MHz-	960MHz-1GHz 54.0 Quasi-peak Value							
	Ahove 1	Above 1GHz 54.0 Average Value							
	7,5040 1	74.0 Peak Value							
	Tum Table Ground Plane Above 1GHz	3m 4m 1m 4m		Antenna Sear Anten RF Test Receiver Antenna Tower Horn Antenna Spectrum Analyzer					



Test Procedure:	The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.
	2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
	3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
	4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.
	The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
	6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
Test Instruments:	Refer to section 5.7 for details
Test mode:	Non-hopping mode
Test results:	Pass

Remark:

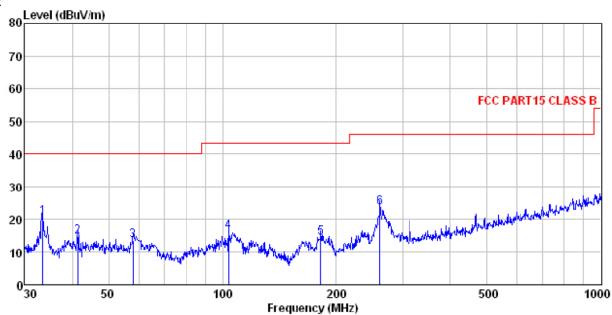
- 1. During the test, pre-scan the GFSK, $\pi/4$ -DQPSK, 8DPSK modulation, and found the GFSK modulation is the worst case.
- 2. Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis is the worst case.
- 3. 9 kHz to 30 MHz is noise floor, so only shows the data of above 30MHz in this report.

Measurement data:



Below 1GHz

Vertical:



Site

: 3m chamber : FCC PART15 CLASS B 3m VULB9163(30M1G) VERTICAL Condition

EUT : Smart watch Phone

Model : Burg 14
Test mode : BT MODE
Power Rating : AC120V/60Hz

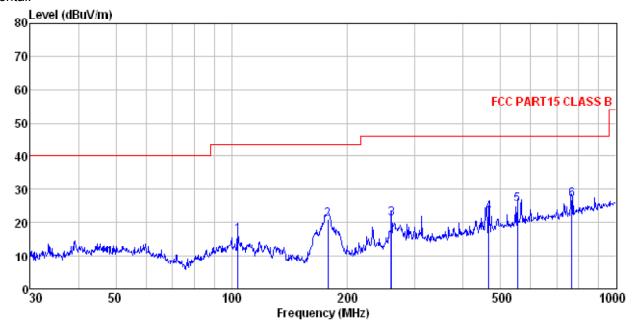
Environment : Temp: 25.5°C Huni: 55%

Test Engineer: Garen REMARK :

	Freq		Antenna Factor						
-	MHz	dBu∀	<u>dB</u> /m	<u>dB</u>	<u>d</u> B	$\overline{dBuV/m}$	dBuV/m	<u>d</u> B	
1 2 3 4 5	33.445 41.422 57.999 103.806 181.920	30.59 29.91 31.82 32.15	13.57 12.83 12.78 9.84	0.53 0.67 0.99 1.36	29.89 29.78 29.50 28.96	14.80 13.63 16.09 14.39	40.00 40.00 43.50 43.50	-25.20 -26.37 -27.41 -29.11	QP QP QP QP
6	260.144	38.36	12.09	1.65	28.52	23.58	46.00	-22.42	QP



Horizontal:



Site

: 3m chamber : FCC PART15 CLASS B 3m VULB9163(30M1G) HORIZONTAL Condition

EUT : Smart watch Phone

Model : Burg 14
Test mode : BT MODE
Power Rating : AC120V/60Hz
Environment : Temp:25.5C

Huni:55%

Test Engineer: Garen REMARK :

	Freq		Intenna Factor						Remark
	MHz	dBu∜	dB/m		dB	$\overline{dBuV/m}$	dBuV/m	dB	
3 4 5	104.170 178.133 260.144 465.599 552.883	39.05 36.18 33.99	12.09 15.71	1.36 1.65 2.30	28.99 28.52 28.90	20.97 21.40 23.10	43.50 46.00 46.00	-22.53 -24.60 -22.90	QP QP QP
6	766.057	32.43	19.63	3.08	28.39	26.75	46.00	-19.25	QP

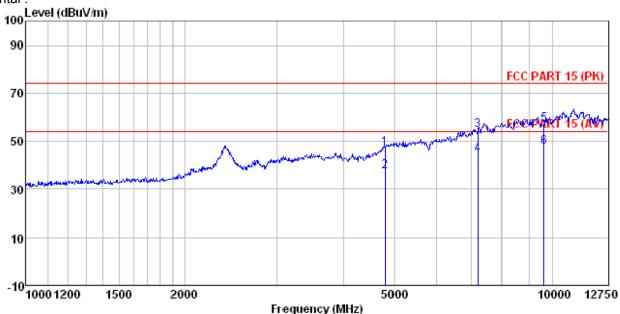


Above 1GHz:

GFSK mode

Test channel: Lowest

Horizontal:



Site : 3m chamber

: FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL Condition

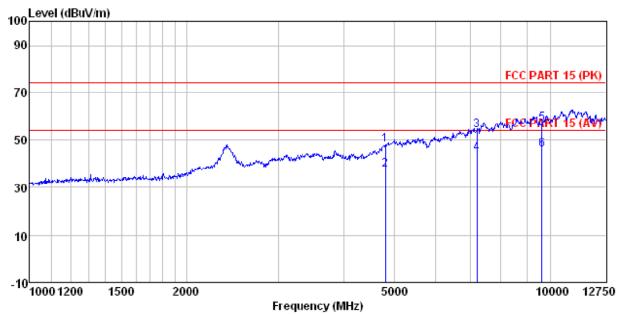
: Smart watch Phone EUT

: Burg 14 : BT DH1-L MODE Model Test mode Power Rating: AC120V/60Hz Environment: Temp:25.5°C Huni:55% Test Engineer: Garen REMARK:

anunai	_		ntenna Factor				Limit Line	Over Limit	Remark
-	MHz	dBu∀	dB/m	₫B		$\overline{dBuV/m}$	dBuV/m	<u>ab</u>	
_	4809.499	47.23	31.54			47.43			
2	4809.499	37.36	31.54	8.90	40.24	37.56	54.00	-16.44	Average
3	7209.015	48.70	36.47	10.59	41.24	54.52	74.00	-19.48	Peak
4	7209.015	38.69	36.47	10.59	41.24	44.51	54.00	-9.49	Average
5	9611.663	47.27	38.10	13.18	41.43	57.12	74.00	-16.88	Peak
6	9611.663	37.88	38.10	13.18	41.43	47.73	54.00	-6.27	Average



Vertical:



Site Condition : 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL

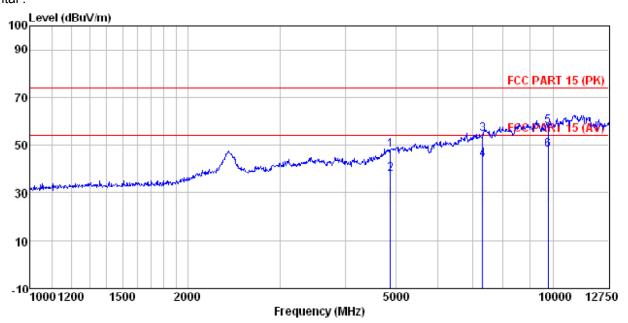
EUT : Smart watch Phone

Model : Burg 14 Test mode : BT DH1-L MODE Power Rating: AC120V/60Hz
Environment: Temp:25.5°C Huni:55%
Test Engineer: Garen
REMARK:

	Freq	ReadA Level	ntenna Factor		-				Remark
-	MHz	dBu∜	<u>dB</u> /π	<u>d</u> B	<u>ab</u>	$\overline{dBuV/m}$	$\overline{dBuV/m}$		
2 3 4 5	4809.499 4809.499 7209.015 7209.015 9611.663	37.46 48.32 38.46 46.94	38.10	8.90 10.59 10.59 13.18	40.24 41.24 41.24 41.43	54.14 44.28 56.79	54.00 74.00 54.00 74.00	-16.34 -19.86 -9.72 -17.21	Average Peak Average Peak
6	9611.663	36.26	38.10	13.18	41.43	46.11	54.00	-7.89	Average



Test channel:Middle Horizontal:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL Condition

EUT

Model

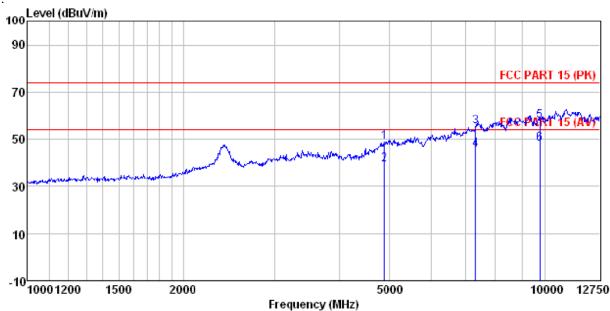
: Smart watch Phone : Burg 14 : BT DH1-M MODE Test mode Power Rating : AC120V/60Hz Environment : Temp:25.5°C Huni:55%

Test Engineer: Garen

CHIMINI	. :								
		Read	Antenna	Cable	Preamp		Limit	Over	
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
_	MHz	dBu∀	dB/π	B	dB	dBuV/m	dBuV/m	₫B	
						•			
1	4883.519	47.81	31.58	8.98	40.15	48.22	74.00	-25.78	Peak
2	4883.519	37.54	31.58	8.98	40.15	37.95	54.00	-16.05	Average
3	7319.964	48.51	36.48	10.69	41.15	54.53	74.00	-19.47	Peak
4	7319.964	38.07	36.48	10.69	41.15	44.09	54.00	-9.91	Average
5	9759.591	47.63	38.45	13.35	41.68	57.75	74.00	-16.25	Peak -
6	9759.591	37.90	38.45	13.35	41.68	48.02	54.00	-5.98	Average



Vertical:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL Condition

EUT : Smart watch Phone

: Burg 14 Model

Test mode : BT DH1-M MODE
Power Rating : AC120V/60Hz
Environment : Temp:25.5°C Huni:55%

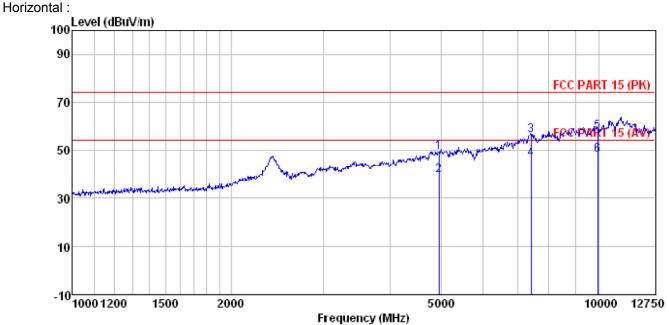
Test Engineer: Garen

REMARK

MHz dBuV dB/m dB dB dBuV/m dBuV/m dB dBuV/m dB dBuV/m dBuV/m dBuV/m dB dBuV/m dBuV/m dB dBuV/m dBuV/m dBuV/m dB dBuV/m dBuV/m dBuV/m dBuV/m dBuV/m dBuV/m dB dBuV/m dBuV/m dBuV/m dB dBuV/m		Freq		intenna Factor					Over Limit	Remark
2 4883.519 38.96 31.58 8.98 40.15 39.37 54.00 -14.63 Average 3 7319.964 49.34 36.48 10.69 41.15 55.36 74.00 -18.64 Peak 4 7319.964 39.75 36.48 10.69 41.15 45.77 54.00 -8.23 Average 5 9759.591 47.59 38.45 13.35 41.68 57.71 74.00 -16.29 Peak	-	MHz	dBu⊽	dB/m		B	$\overline{dBuV/m}$	dBuV/m	B	
.6 9759.591 37.90 38.45 13.35 41.68 48.02 54.00 -5.98 Average	2 3 4 5	4883.519 7319.964 7319.964 9759.591	38.96 49.34 39.75 47.59	31.58 36.48 36.48 38.45	8.98 10.69 10.69 13.35	40.15 41.15 41.15 41.68	39.37 55.36 45.77 57.71	54.00 74.00 54.00 74.00	-14.63 -18.64 -8.23 -16.29	Average Peak Average Peak



Test channel:Highest



: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL Condition

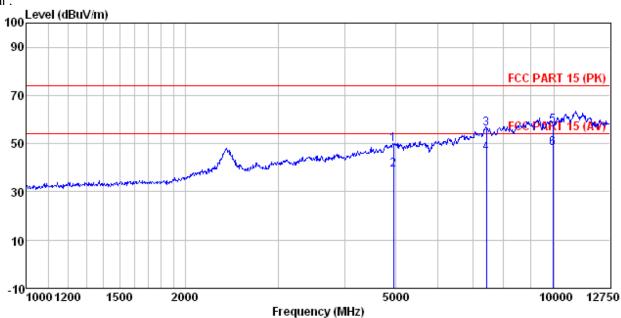
: Smart watch Phone

Model : Burg 14
Test mode : BT DHI-H MODE
Power Rating : AC120V/60Hz
Environment : Temp:25.5°C Huni:55%
Test Engineer: Garen
REMARK :

			ntenna Factor				Limit Line	Over Limit	Remark
_	MHz	dBu∜	dB/m	B	B	dBuV/m	dBuV/m		
2 3 4 5	7432.622 7432.622 9935.053	48.39 38.77 49.70 39.99 47.69		10.78 10.78 13.57	41.07 41.07 42.02	39.51 56.01 46.30 57.88	54.00 74.00 54.00 74.00	-17.99 -7.70 -16.12	Average Peak Average Peak
6	9935.053	37.83	38.64	13.57	42.02	48.02	54.00	-5.98	Average



Vertical:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL Condition

EUT : Smart watch Phone

Model : Burg 14

Test mode : BT DH1-H MODE

Power Rating : AC120V/60Hz

Environment : Temp:25.5°C Huni:55%

Test Engineer: Caren

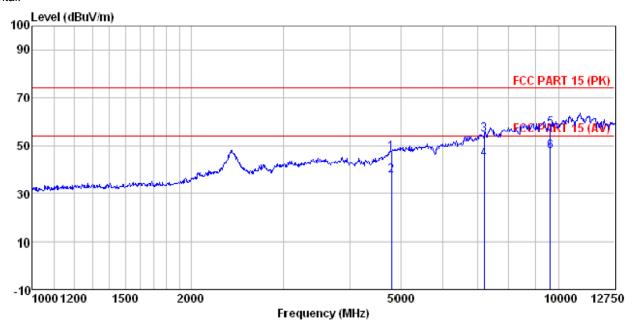
Test Engineer: Garen REMARK :

CE MARKE			Ant enna					Over	
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
-	MHz	dBu∜	dB/m		<u>ab</u>	dBuV/m	dBuV/m	<u>ab</u>	
1		48.82	31.69				74.00		
	4958.678								
3	7432.622	49.86	36.60		41.07				
4	7432.622	39.73	36.60	10.78	41.07	46.04	54.00	-7.96	Average
5	9935.053	47.29	38.64						
6	9935.053	37.71	38.64	13.57	42.02	47.90	54.00	-6.10	Average



π/4-DQPSK mode Test channel: Lowest

Horizontal:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL Condition

EUT : Smart watch Phone Model : Burg 14
Test mode : BT 2DH1-L MODE
Power Rating : AC120V/60Hz
Environment : Test Francisco

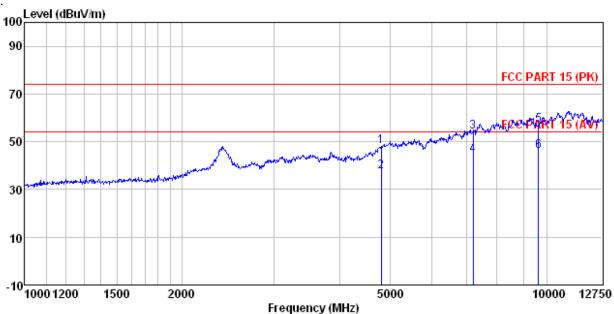
Test Engineer: Garen

REMARK

	Freq		ntenna Factor			Level	Limit Line	Over Limit	Remark
	MHz	dBu∜	dB/m	₫B	dB	dBuV/m	dBuV/m	dB	
1 2 3 4 5 6	7209.015	48.70 38.69 47.27		10.59 10.59 13.18	40.24 41.24 41.24 41.43	54.52 44.51 57.12	54.00 74.00 54.00 74.00	-19.48 -9.49 -16.88	Average Peak Average



Vertical:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL : Smart watch Phone Condition

: Smart watch Phone

Model : Burg 14

Test mode : BT 2DH1-L MODE

Power Rating : AC120V/60Hz

Environment : Temp:25.5°C Huni:55%

Test Engineer: Garen

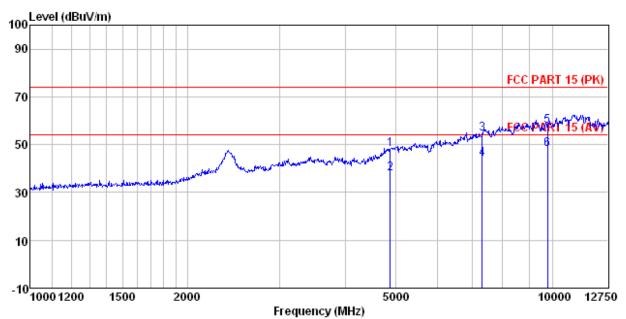
REMARK :

Elitary	n :	D 1	A 4	C-1-1-	D		T	^	
	Freq		Antenna Factor					Over Limit	Remark
	MHz	dBu∇	<u>dB</u> /m		<u>ab</u>	$\overline{dB} \overline{uV}/\overline{m}$	$\overline{dB} \overline{uV}/\overline{m}$		
1 2 3 4 5	4809.499 4809.499 7209.015 7209.015 9611.663 9611.663	38.46 46.94	36.47 38.10	10.59 10.59 13.18	41.24 41.24 41.43	37.66 54.14 44.28 56.79	74.00 54.00 74.00	-16.34 -19.86 -9.72 -17.21	Average Peak Average



Test channel: Middlet

Horizontal:



: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL Condition

: Smart watch Phone EUT

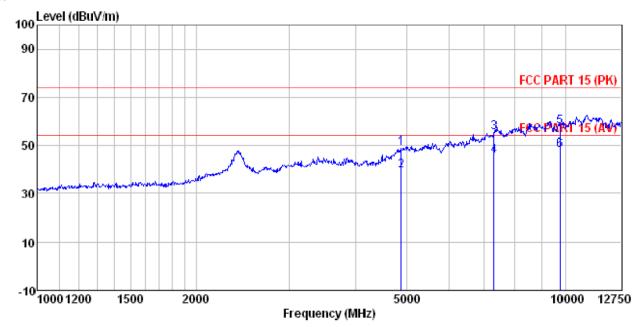
Model : Burg 14
Test mode : BT 2DH1-M MODE
Power Rating : AC120V/60Hz
Environment : Temp:25.5°C Huni:55%
Test Engineer: Garen

REMARK

	Freq				Preamp Factor			Over Limit	Remark
-	MHz	dBu∀	dB/m	dB	dB	$\overline{dBuV/m}$	dBuV/m	<u>dB</u>	
2 3 4 5	4883.519 4883.519 7319.964 7319.964 9759.591	37.54 48.51 38.07	36.48 36.48	8.98 10.69 10.69	41.15 41.15	37.95 54.53 44.09	54.00 74.00 54.00	-16.05 -19.47 -9.91	Average Peak Average
6	9759.591	37.90	38.45	13, 35	41.68	48.02	54.00	-5.98	Average



Vertical:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL Condition

: Smart watch Phone EUT

Model : Burg 14
Test mode : BT 2DH1-M MODE
Power Rating : AC120V/60Hz
Environment : Temp:25.5°C Hu

Huni:55%

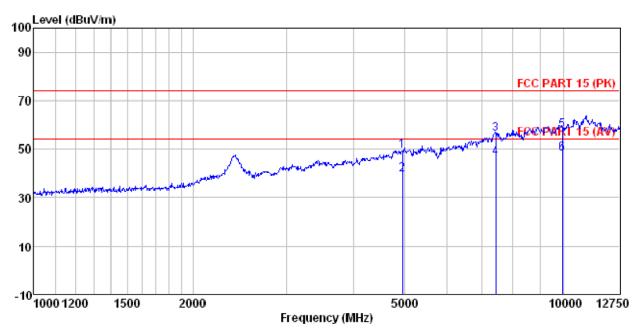
Test Engineer: Garen REMARK

MAKI	K :	Read	Antenna	Cable	Presmo		Limit	Over		
	Freq		Factor		-				Remark	
-	MHz	dBu∜	dB/m	₫B	B	dBuV/m	dBuV/m	B		
1 2 3 4 5	4883.519 4883.519 7319.964 7319.964 9759.591	39.75	36.48 36.48	8.98 10.69 10.69	41.15 41.15	39.37 55.36 45.77	54.00 74.00 54.00	-18.64 -8.23	Average Peak Average	
υ 6	9759.591								reak Average	



Test channel: Highest

Horizontal:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL Condition

EUT : Smart watch Phone

Model : Burg 14
Test mode : BT 2DH1-H MODE
Power Rating : AC120V/60Hz
Environment : Temp:25.5°C H

Huni:55%

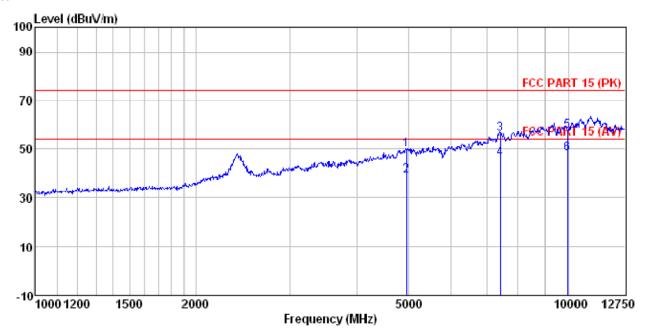
Test Engineer: Garen

REMARK

EJIGH (I			intenna Factor					Over Limit	Remark
-	MHz	dBu₹	dB/m	dB	<u>ab</u>	$\overline{dBuV/m}$	dBuV/m	dB	
2 3 4 5	4958.678 4958.678 7432.622 7432.622 9935.053 9935.053	38.77 49.70 39.99 47.69	36.60 36.60 38.64	13.57	41.07 41.07 42.02	39.51 56.01 46.30 57.88	74.00 54.00 74.00	-14.49 -17.99 -7.70 -16.12	Average Peak Average



Vertical:



Site : 3m chamber

: FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL

: FCC PART 15 (PK) 3m B
EUT : Smart watch Phone
Model : Burg 14
Test mode : BT 2DH1-H MODE
Power Rating : AC120V/60Hz
Environment : Temp:25.5°C Huni:55%
Test Engineer: Garen
REMARK :

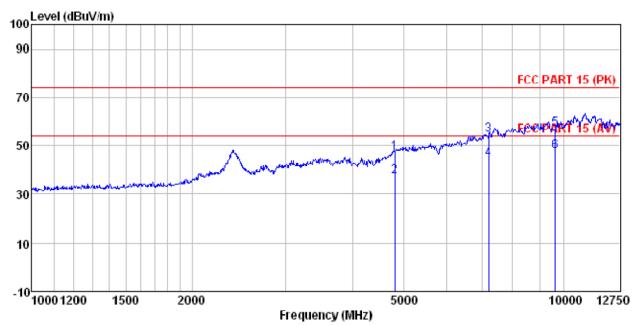
r)IICTA									
	Freq		Antenna Factor				Limit Line	Over Limit	Remark
-	MHz	—dBu∜	<u>dB</u> /m		<u>d</u> B	dBuV/m	dBuV/m	<u>d</u> B	
1	4958.678	48.82	31.69	9.08	40.03	49.56	74.00	-24.44	Peak
2	4958.678	38.54	31.69	9.08	40.03	39.28	54.00	-14.72	Average
3	7432.622	49.86	36.60	10.78	41.07	56.17	74.00	-17.83	Peak
4	7432.622	39.73	36.60	10.78	41.07	46.04	54.00	-7.96	Average
5	9935.053	47.29	38.64	13.57	42.02	57.48	74.00	-16.52	Peak
6	9935.053	37.71	38.64	13.57	42.02	47.90	54.00	-6.10	Average



8DPSK mode

Test channel: Lowest

Horizontal:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL Condition

EUT : Smart watch Phone

Model : Burg 14
Test mode : BT 3DH1-L MODE
Power Rating : AC120V/60Hz
Environment : Temp. 25.5°C Huni: 55%

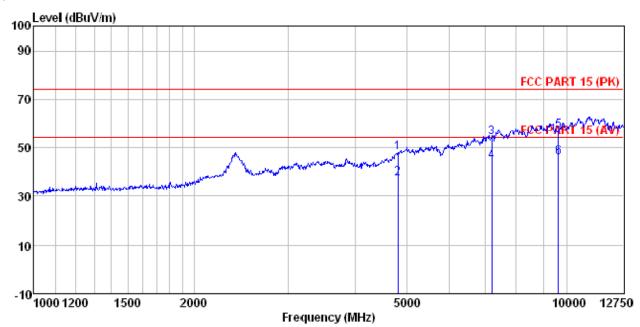
Test Engineer: Garen REMARK :

123456

N.K.K	:				_					
	F		int enna				Limit	Over	B1-	
	rreq	rever	Factor	LOSS	ractor	гедет	Line	Limit	Kemark	
	MHz	dBu₹	dB/m	₫B	<u>ab</u>	$\overline{dBuV/m}$	$\overline{dBuV/m}$	₫B		
480	9.499	47.23	31.54	8.90	40.24	47.43	74.00	-26.57	Peak	
480	9.499	37.36	31.54	8.90	40.24	37.56	54.00	-16.44	Average	
720	9.015	48.70	36.47	10.59	41.24	54.52	74.00	-19.48	Peak	
720	9.015	38.69	36.47	10.59	41.24	44.51	54.00	-9.49	Average	
961	1.663	47.27	38.10	13.18	41.43	57.12	74.00	-16.88	Peak	
961	1.663	37.88	38.10	13.18	41.43	47.73	54.00	-6.27	Average	



Vertical:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL Condition

EUT

Model

: Smart watch Phone : Burg 14 : BT 3DH1-L MODE Test mode Power Rating : AC120V/60Hz Environment : Temp:25.5°C

Huni:55%

Test Engineer: Garen

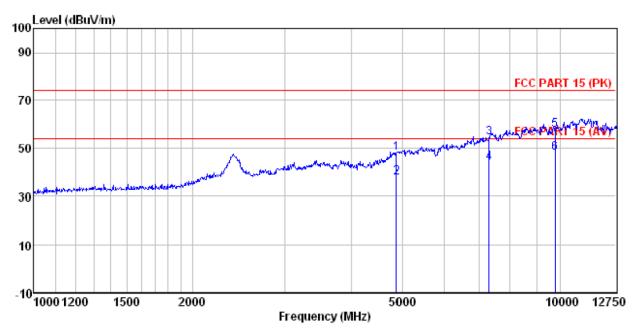
REMARK

						Level		Over Limit	Remark
•	MHz	dBu∀	dB/m	₫B	dВ	dBuV/m	dBuV/m	ав	
1 2 3 4 5 6	4809.499 4809.499 7209.015 7209.015 9611.663 9611.663	37.46 48.32 38.46 46.94	31.54 36.47 36.47 38.10	10.59 10.59 13.18	40.24 41.24 41.24 41.43	54.14 44.28 56.79	54.00 74.00 54.00 74.00	-16.34 -19.86 -9.72 -17.21	Average Peak Average Peak



Test channel: Middle

Horizontal:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL Condition

EUT : Smart watch Phone

: Burg 14 Model

: BT 3DH1-M MODE Test mode

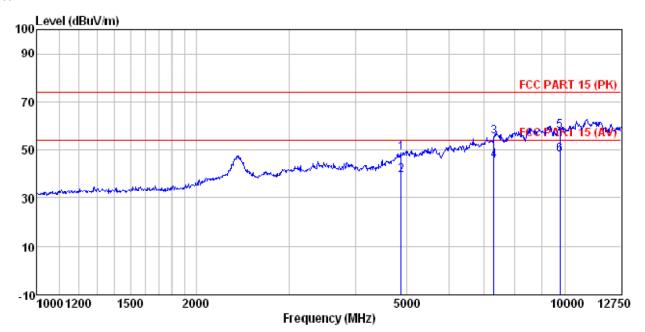
Power Rating : AC120V/60Hz Environment : Temp:25.5°C Huni:55%

Test Engineer: Garen REMARK

TWW.	r :								
		ReadA	Intenna	Cable	Preamp		Limit	Over	
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
	-								
	MHz	dBu∀	dB/m	₫B	₫B	dBuV/m	dBuV/m	₫B	
1	4883.519	47.81	31.58	8.98	40.15	48.22	74.00	-25.78	Peak
2	4883.519	37.54	31.58	8.98	40.15	37.95	54.00	-16.05	Average
3	7319.964	48.51	36.48	10.69				-19.47	
4	7319.964	38.07	36.48	10.69	41.15	44.09			Average
5	9759.591	47.63	38.45	13.35	41.68	57.75	74.00	-16.25	Peak
6	9759.591	37.90	38.45	13.35	41.68	48.02	54.00	-5.98	Average



Vertical:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL Condition

EUT

Model

: Smart watch Phone : Burg 14 : BT 3DH1-M MODE Test mode Power Rating : AC120V/60Hz Environment : Temp:25.5°C

Huni:55%

Test Engineer: Garen

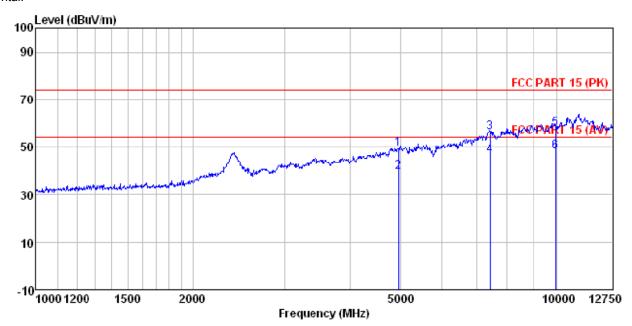
REMARK

	Freq					Level		Over Limit	Remark
-	MHz	dBu∜	dB/m	dB	B	$\overline{dBuV/m}$	dBuV/m	dB	
4 5	4883.519 4883.519 7319.964 7319.964 9759.591	38.96 49.34 39.75 47.59	36.48 36.48 38.45	8.98 10.69 10.69 13.35	40.15 41.15 41.15 41.68	55.36 45.77 57.71	54.00 74.00 54.00 74.00	-14.63 -18.64 -8.23 -16.29	Average Peak Average Peak
6	9759.591	37.90	38.45	13.35	41.68	48.02	54.00	-5.98	Average



Test channel: Highest

Horizontal:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL Condition

EUT : Smart watch Phone Model : Burg 14
Test mode : BT 3DH1-H MODE
Power Rating : AC120V/60Hz
Environment : Temp:25.5°C Huni:55%

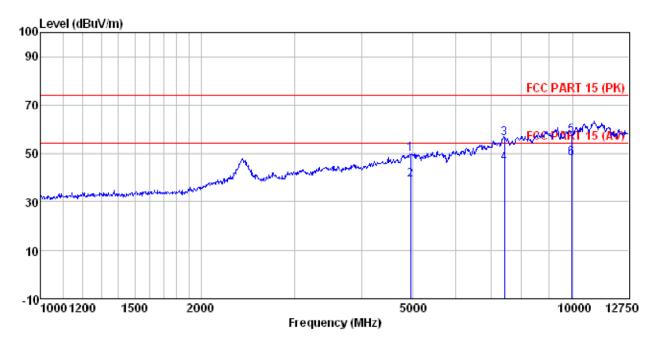
Test Engineer: Garen

REMARK

	Freq		intenna Factor		_			Over Limit	Remark
-	MHz	dBu₹	dB/m	dB	<u>ab</u>	$\overline{dB}\overline{uV/m}$	dBuV/m	<u>ab</u>	
2 3 4 5	4958.678 4958.678 7432.622 7432.622 9935.053	38.77 49.70 39.99 47.69	36.60 36.60 38.64	10.78 10.78 13.57	40.03 41.07 41.07 42.02	56.01 46.30 57.88	54.00 74.00 54.00 74.00	-14.49 -17.99 -7.70 -16.12	Average Peak Average Peak
6	9935.053	J1.83	JO.04	13.00	42.02	40.02	04.00	-0.98	Average



Vertical:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL Condition

EUT : Smart watch Phone

Model : Burg 14
Test mode : BT 3DH1-H MODE
Power Rating : AC120V/60Hz
Environment : Temp: 25.5°C H

Huni:55%

Test Engineer: Garen REMARK :

	Freq				Preamp Factor			Over Limit	Remark
	MHz	dBu∇	<u>dB</u> /m	dB	dB	$\overline{dBuV/m}$	dBuV/m	dB	
1 2	4958.678 4958.678	48.82 38.54			40.03			-24.44 -14.72	
3	7432.622	49.86	36.60	10.78	41.07	56.17	74.00	-17.83	
5 6	9935.053 9935.053	47.29	38.64	13.57	42.02	57.48	74.00	-16.52	Peak



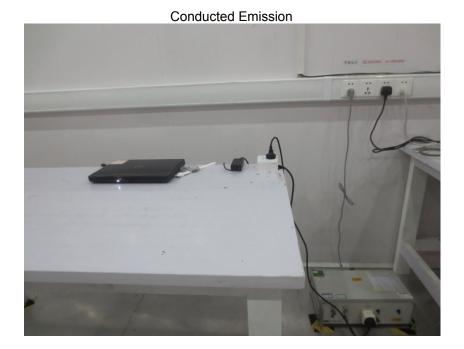
7 Test Setup Photo











8 EUT Constructional Details

Reference to the test report No. CCIS14030017801

-----End of report-----