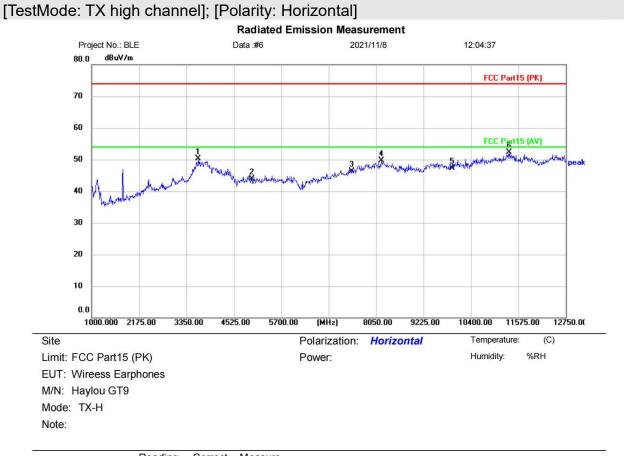


No. N	Лk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment	
1		3808.250	43.42	7.55	50.97	74.00	-23.03	peak		
2		4884.000	40.34	3.34	43.68	74.00	-30.32	peak		
3		7326.000	39.18	6.44	45.62	74.00	-28.38	peak		
4	į	8097.000	41.28	8.07	49.35	74.00	-24.65	peak		
5		9768.000	39.12	9.63	48.75	74.00	-25.25	peak		
6 *	' 1	1316.500	39.62	11.88	51.50	74.00	-22.50	peak		

Reference Only

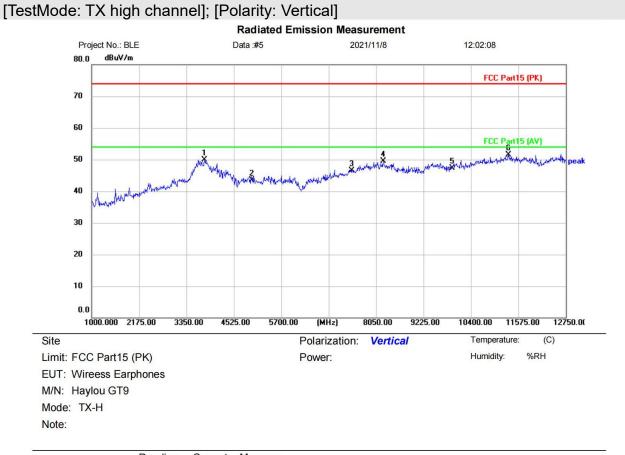




No. N	lk. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment	
1	3643.750	42.53	7.76	50.29	74.00	-23.71	peak		
2	4960.000	40.23	3.75	43.98	74.00	-30.02	peak		
3	7440.000	39.36	6.86	46.22	74.00	-27.78	peak		
4	8179.250	41.47	8.18	49.65	74.00	-24.35	peak		
5	9920.000	37.07	10.16	47.23	74.00	-26.77	peak		
6 *	11351.750	40.50	11.82	52.32	74.00	-21.68	peak		

Reference Only





No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment	
1		3796.500	42.20	7.65	49.85	74.00	-24.15	peak		
2		4960.000	39.66	3.75	43.41	74.00	-30.59	peak		
3		7440.000	39.61	6.86	46.47	74.00	-27.53	peak		
4		8226.250	41.19	8.22	49.41	74.00	-24.59	peak		
5		9920.000	37.18	10.16	47.34	74.00	-26.66	peak		
6	*	11328.250	39.74	11.86	51.60	74.00	-22.40	peak		

(Reference Only



17 RADIATED EMISSIONS WHICH FALL IN THE RESTRICTED BANDS

Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 6.10.5
Test Mode (Pre-Scan)	тх
Test Mode (Final Test)	ТХ
Tester	Sven
Temperature	25°C
Humidity	52%

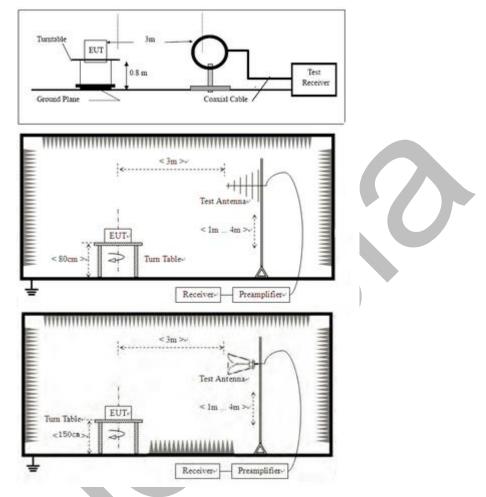
17.1 LIMITS

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.



17.2 BLOCK DIAGRAM OF TEST SETUP



17.3 PROCEDURE

a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

d. 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.

e. 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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

g. 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.



h. Test the EUT in the lowest channel, the middle channel, the Highest channel.

i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.

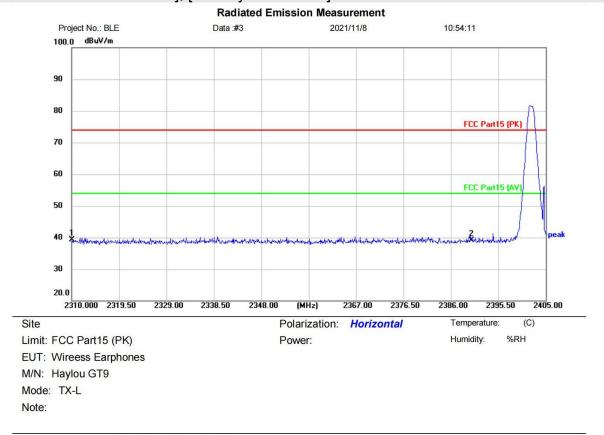
j. Repeat above procedures until all frequencies measured was complete.

Remark 1: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

Remark 2: For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.



17.4 TEST DATA



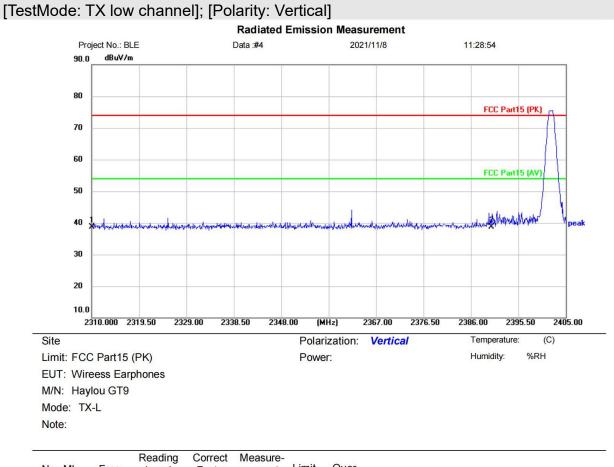
[TestMode: TX low channel]; [Polarity: Horizontal]

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment		Over			
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	2310.000	43.90	-4.61	39.29	74.00	-34.71	peak		
2		2390.000	43.43	-4.27	39.16	74.00	-34.84	peak		

*:Maximum data x:Over limit !:over margin

(Reference Only

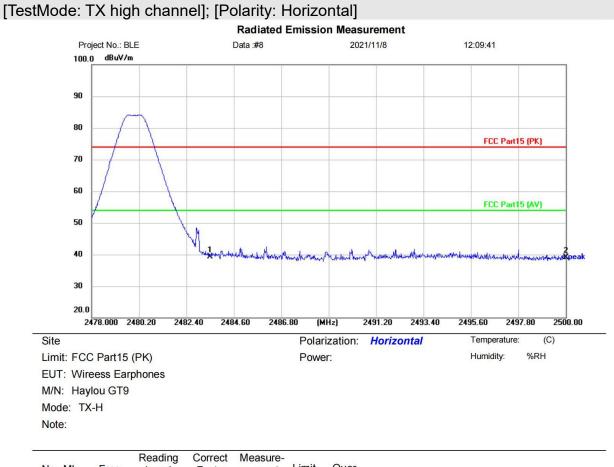




No. Mk.	Freq.	Level	Factor	ment	Limit	Over			
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment	
1	2310.000	43.28	-4.61	38.67	74.00	-35.33	peak		
2 *	2390.000	42.98	-4.27	38.71	74.00	-35.29	peak		

(Reference Only

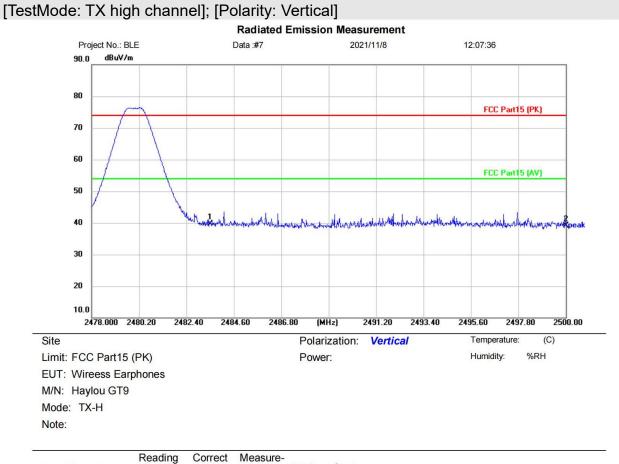




No.	Mk.	Freq.	Level	Factor	ment	Limit	Over			
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	2483.500	43.11	-3.84	39.27	74.00	-34.73	peak		
2		2500.000	42.87	-3.78	39.09	74.00	-34.91	peak		

(Reference Only





No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	2483.500	43.50	-3.84	39.66	74.00	-34.34	peak		
2		2500.000	42.96	-3.78	39.18	74.00	-34.82	peak		

(Reference Only



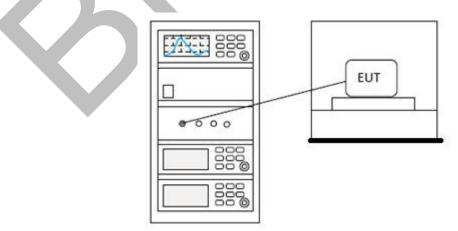
18 CONDUCTED SPURIOUS EMISSIONS

Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 7.8.6 & Section 11.11
Test Mode (Pre-Scan)	ТХ
Test Mode (Final Test)	ТХ
Tester	Sven
Temperature	25°C
Humidity	52%

18.1 LIMITS

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.209(a) (see §15.205(c)).

18.2 BLOCK DIAGRAM OF TEST SETUP





Report No.: BLA-EMC-202110-A6003 Page 42 of60

18.3 TEST DATA

Pass: Please Refer To Appendix: For Details



19 APPENDIX

Maximum Conducted Output Power

Condition	Mode	Frequency	Antenna	Conducted Power	Total Power	Limit	Verdict
		(MHz)		(dBm)	(dBm)	(dBm)	
NVNT	BLE	2402	Ant1	2.789	2.789	30	Pass
	1M						
NVNT	BLE	2442	Ant1	3.649	3.649	30	Pass
	1M						
NVNT	BLE	2480	Ant1	3.314	3.314	30	Pass
	1M						



Power NVNT BLE 1M 2402MHz Ant1





Power NVNT BLE 1M 2442MHz Ant1

Power NVNT BLE 1M 2480MHz Ant1





-6dB Bandwidth

Condition	Mode	Frequency	Antenna	-6 dB Bandwidth	Limit -6 dB Bandwidth	Verdict
		(MHz)		(MHz)	(MHz)	
NVNT	BLE	2402	Ant1	0.66	0.5	Pass
	1M					
NVNT	BLE	2442	Ant1	0.66	0.5	Pass
	1M					
NVNT	BLE	2480	Ant1	0.664	0.5	Pass
	1M					

-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1







-6dB Bandwidth NVNT BLE 1M 2442MHz Ant1

-6dB Bandwidth NVNT BLE 1M 2480MHz Ant1





Occupied Channel Bandwidth

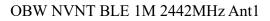
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE 1M	2402	Ant1	1.029310643
NVNT	BLE 1M	2442	Ant1	1.032259962
NVNT	BLE 1M	2480	Ant1	1.034602092

OBW NVNT BLE 1M 2402MHz Ant1











OBW NVNT BLE 1M 2480MHz Ant1



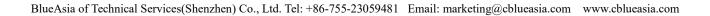


Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	-3.834	8	Pass
NVNT	BLE 1M	2442	Ant1	-3.167	8	Pass
NVNT	BLE 1M	2480	Ant1	-3.507	8	Pass

PSD NVNT BLE 1M 2402MHz Ant1









PSD NVNT BLE 1M 2442MHz Ant1

PSD NVNT BLE 1M 2480MHz Ant1





Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-58.6	-30	Pass
NVNT	BLE 1M	2480	Antl	-55.06	-30	Pass

Band Edge NVNT BLE 1M 2402MHz Ant1 Ref





01:33:34 PM Oct 29, 2021 TRACE 1 2 3 4 5 6 TYPE M WWWW DET P N N N N Center Freq 2.356000000 GHz Avg Type: Log-Pwr Avg|Hold: 100/100 Trig: Free Run #Atten: 30 dB PNO: Fast +++ IFGain:Low Mkr1 2.401 8 GHz 2.360 dBm Ref Offset 2.01 dB Ref 20.00 dBm 10 dB/div Log 10.0 10.0 30 40.0 \diamond $\sqrt{3}$ 50. Stop 2.40600 GHz Sweep 9.600 ms (1001 pts) Start 2.30600 GHz #Res BW 100 kHz #VBW 300 kHz MKR MODE TRC SCL FUNCTION VALUE FUNCTION FUNCTION WIDTH 2.401 8 GHz 2.400 0 GHz 2.390 0 GHz 2.357 3 GHz 2.360 dBm -51.574 dBm -57.984 dBm -56.191 dBm NNNN 1 2 3 4 5 6 7 8 9 10 f f f f STATUS ISC

Band Edge NVNT BLE 1M 2402MHz Ant1 Emission





Band Edge NVNT BLE 1M 2480MHz Ant1 Ref

Band Edge NVNT BLE 1M 2480MHz Ant1 Emission





Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-47.73	-30	Pass
NVNT	BLE 1M	2442	Ant1	-48.22	-30	Pass
NVNT	BLE 1M	2480	Ant1	-48.35	-30	Pass



Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref



	SENSE:INT	ALIGN AUTO	01:34:08 PM Oct 29, 2021
nter Freq 13.265000000 GHz	NO: Fast 🔸 Trig: Free Gain:Low #Atten: 30		TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N
Ref Offset 2.01 dB dB/div Ref 20.00 dBm			Mkr1 2.412 GHz 2.198 dBm
0			
0	<u> </u>		
0			-27.62 dBm
0			\ ²
	5	anther mention was a start of the second	- and the state of the streme the man
O prachaddhartabe which proved a provide a pro	Willy my des man hald a start of the start o		
0			9
art 30 MHz es BW 100 kHz	#VBW 300 kHz		Stop 26.50 GHz Sweep 2.530 s (1001 pts)
		CTION FUNCTION WIDTH	FUNCTION VALUE
MODE TRC SCL X			
N 1 f 2.412 GHz N 1 f 25.282 GHz	2.198 dBm -45.354 dBm		
N 1 f 2.412 GHz N 1 f 25.282 GHz N 1 f 4.795 GHz N 1 f 7.071 GHz	2.198 dBm -45.354 dBm -56.259 dBm -55.765 dBm		
N 1 f 2.412 GHz N 1 f 25.282 GHz N 1 f 4.795 GHz N 1 f 7.071 GHz	2.198 dBm -45.354 dBm -56.259 dBm		
N 1 f 2.412 GHz N 1 f 25.282 GHz N 1 f 4.795 GHz N 1 f 7.071 GHz	2.198 dBm -45.354 dBm -56.259 dBm -55.765 dBm		
N 1 f 2.412 GHz N 1 f 25.282 GHz N 1 f 4.795 GHz N 1 f 7.071 GHz	2.198 dBm -45.354 dBm -56.259 dBm -55.765 dBm		
N 1 f 2.412 GHz N 1 f 25.282 GHz N 1 f 4.795 GHz N 1 f 7.071 GHz	2.198 dBm -45.354 dBm -56.259 dBm -55.765 dBm		

Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission

Tx. Spurious NVNT BLE 1M 2442MHz Ant1 Ref





RΤ		RF	50 Ω A				SENSE:INT		AL	IGN AUTO		(PM Oct 29, 2021
nter	Fre	q 13.	265000	000 GHz	PNO: F IFGain:I] ast ⊶⊷ ⊥ow		ree Run :: 30 dB		Avg Type: Avg Hold:			т	ACE 1 2 3 4 5 6 YPE MWMMMM DET P N N N N 1
dB/div			set 2.03 d).00 dBr									Mk		439 GHz 461 dBm
		1										2		
00		_					-							
).0					_				-			~		
0.0				2					5			2		-26.80 dBm
0.0				19- 			-							<u>م2</u>
0.0			0	3	4	5_	6			10	1910000	00000	neren	- Anne
1.0	a leve	mentrel	mand	mina	mululyang	nation	menne	wellingtense	manter	martin and a start				
							5							
art 30) MF	Iz											Stop :	26.50 GHz
tes B	W 1	00 kH	z			#VB	W 300 I	٢Hz			Si			(1001 pts)
R MODE	TRC	SCL f		× 2.439 G		Y 2.461	dRm	FUNCTION	FUNCT	ION WIDTH		FUNCTION	VALUE	^
2 N 3 N		f		24.647 G 4.874 G	Hz	-45.022	dBm							
		f		7.177 G 9.771 G	Hz	-55.562 -56.018	dBm							
4 N		T		9.771 G	HZ	-56.018	авт							
4 N 5 N														
4 N 5 N 6 7 8														
5 N 5 7 3 9														
4 N 5 N 7 8 9 0														~

0

Tx. Spurious NVNT BLE 1M 2442MHz Ant1 Emission





Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref

Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Emission





APPENDIX A: PHOTOGRAPHS OF TEST SETUP









APPENDIX B: PHOTOGRAPHS OF EUT

(Reference to the test report No. BLA-EMC-202110-A6001)

----END OF REPORT----

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of BlueAsia, this report can't be reproduced except in full.