

FCC & IC RF TEST REPORT for GE Lighting

C Sleep A19 Model No.: CLEDA199S2@

FCC ID: PUU-A19-TW-III IC: 10798A-TWA19III

Prepared for Address	:	GE Lighting 1975 Noble Road, Cleveland, OH 44112, United States Of America
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Report No.	:	ATE20190581
Date of Test	:	April 22-April 30, 2019
Date of Report	:	April 30, 2019



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Test Report Certification

Applicant	:	GE Lighting
Address	:	1975 Noble Road, Cleveland, OH 44112, United States Of America
Product Name	:	C Sleep A19
Model Number	:	CLEDA199S2@

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C Section 15.247 ANSI C63.10: 2013 RSS-247 Issue 2 February 2017 RSS-Gen Issue 5 April 2018

The EUT was tested according to DTS test procedure of August 24, 2018 KDB558074 D01 DTS Meas Guidance v05 for compliance to FCC 47CFR 15.247 requirements

The device described above is tested by Shenzhen Accurate Technology Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C Section 15.247 and IC limits. The measurement results are contained in this test report and Shenzhen Accurate Technology Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC and IC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Shenzhen Accurate Technology Co., Ltd.

Date of Test :	April 22-April 30, 2019
Date of Report :	April 30, 2019
Prepared by :	(Star Yang Free Inder)
Approved & Authorized Signer :	
	(Sean Liu, Manager)



1. GENERAL INFORMATION

1.1.Description of Device (EUT)

EUT	:	C Sleep A19
Model Number	:	CLEDA199S2@ (Note: @ - Can be followed by additional letters/numbers which indicate packaging)
Bluetooth Version	:	BT 4.0 LE
Frequency Range	:	2402-2480MHz
Modulation Type	:	GFSK
Number of Channels	:	40 channels
Channel Spacing	:	2MHz
Antenna Gain	:	-1.26dBi
Antenna Type	:	Integral Antenna
HVIN	:	TWA19III
Power Supply	:	AC 120V/60Hz
Trade Mark	:	N/A

1.2.Carrier Frequency of Channels

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channe 1	Frequency (MHz)
0	2402	10	2422	20	2442	30	2462
1	2404	11	2424	21	2444	31	2464
2	2406	12	2426	22	2446	32	2466
3	2408	13	2428	23	2448	33	2468
4	2410	14	2430	24	2450	34	2470
5	2412	15	2432	25	2452	35	2472
6	2414	16	2434	26	2454	36	2474
7	2416	17	2436	27	2456	37	2476
8	2418	18	2438	28	2458	38	2478
9	2420	19	2440	29	2460	39	2480



1.3. Special Accessory and Auxiliary Equipment

N/A

1.4.Description of Test Facility

EMC Lab	:	Recognition of accreditation by Federal Communications Commission (FCC) The Designation Number is CN1189 The Registration Number is 708358
		Listed by Innovation, Science and Economic Development Canada (ISEDC)
		The Registration Number is 5077A-2
		Accredited by China National Accreditation Service for Conformity Assessment (CNAS)
		The Registration Number is CNAS L3193
		Accredited by American Association for Laboratory Accreditation (A2LA)
		The Certificate Number is 4297.01
Name of Firm	:	Shenzhen Accurate Technology Co., Ltd.
Site Location	:	1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China

1.5.Measurement Uncertainty

Conducted Emission Expanded Uncertainty	=	2.23dB, k=2
Radiated emission expanded uncertainty (9kHz-30MHz)	=	3.08dB, k=2
Radiated emission expanded uncertainty (30MHz-1000MHz)	=	4.42dB, k=2
Radiated emission expanded uncertainty (Above 1GHz)	=	4.06dB, k=2



2. MEASURING DEVICE AND TEST EQUIPMENT

Kind of equipment	Manufacturer	Туре	S/N	Calibrated dates	Cal. Interval	
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan. 05, 2019	One Year	
EMI Test Receiver	Rohde&Schwarz	ESR	101817	Jan. 05, 2019	One Year	
Spectrum Analyzer	Rohde&Schwarz	FSV-40	101495	Jan. 05, 2019	One Year	
Pre-Amplifier	Agilent	8447D	294A10619	Jan. 05, 2019	One Year	
Pre-Amplifier	Compliance Direction	RSU-M2	38322	Jan. 05, 2019	One Year	
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan. 05, 2019	One Year	
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 05, 2019	One Year	
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan. 05, 2019	One Year	
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	Jan. 05, 2019	One Year	
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 05, 2019	One Year	
Highpass Filter	Wainwright Instruments	WHKX3.6/18G-10S S	N/A	Jan. 05, 2019	One Year	
Band Reject Filter	Wainwright Instruments	WRCG2400/2485-23 75/2510-60/11SS	N/A	Jan. 05, 2019	One Year	
Conducted Emission Measurement Software: ES-K1 V1.71						
Radiated Emission Measurement Software: EZ_EMC V1.1.4.2						

Table 1: List of Test and Measurement Equipment

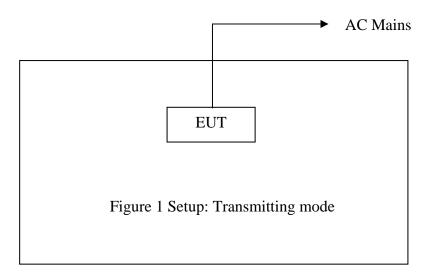


3. OPERATION OF EUT DURING TESTING

3.1.Operating Mode

The mode is used: **Transmitting mode** Low Channel: 2402MHz Middle Channel: 2440MHz High Channel: 2480MHz

3.2. Configuration and peripherals





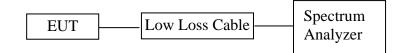
4. TEST PROCEDURES AND RESULTS

FCC & IC Rules	Description of Test	Result
FCC Section 15.247(a)(2) RSS-247 Section 5.2(a)	6dB Bandwidth Test	Compliant
RSS-Gen Section 6.7	99% Occupied Bandwidth Test	Compliant
FCC Section 15.247(b)(3) RSS-247 Section 5.4(d)	Maximum Peak Output Power Test	Compliant
FCC Section 15.247(e) RSS-247 Section 5.2(b)	Power Spectral Density Test	Compliant
FCC Section 15.247(d) RSS-247 Section 5.5 RSS-Gen Section 8.10	Band Edge Compliance Test	Compliant
FCC Section 15.247(d) FCC Section 15.209 RSS-247 Section 5.5 RSS-Gen Section 6.13 RSS-Gen Section 8.9	Radiated Spurious Emission Test	Compliant
FCC Section 15.207 RSS-Gen Section 8.8	AC Power Line Conducted Emission Test	Compliant
FCC Section 15.203 RSS-Gen Section 6.8	Antenna Requirement	Compliant



5. 6DB BANDWIDTH TEST

5.1.Block Diagram of Test Setup



5.2. The Requirement For Section 15.247(a)(2)

Section 15.247(a)(2): Systems using digital modulation techniques may operate in the 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

5.3. The Requirement For RSS-247 Section 5.2(a)

The minimum 6 dB bandwidth shall be 500 kHz.

5.4.EUT Configuration on Measurement

The equipment is installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

5.5.Operating Condition of EUT

- 5.5.1.Setup the EUT and simulator as shown as Section 5.1.
- 5.5.2.Turn on the power of all equipment.
- 5.5.3.Let the EUT work in TX modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2440MHz, and 2480MHz TX frequency to transmit.

5.6.Test Procedure

- 5.6.1.The transmitter output was connected to the spectrum analyzer through a low loss cable.
- 5.6.2.Set RBW of spectrum analyzer to 100 kHz and VBW to 300 kHz.
- 5.6.3.The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.



5.7.Test Result

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit(MHz)	Result
0	2402	0.686	0.5	Pass
19	2440	0.695	0.5	Pass
39	2480	0.695	0.5	Pass

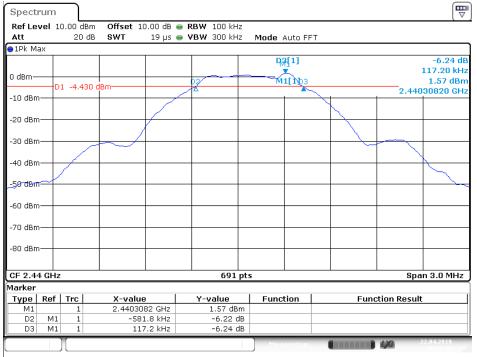
The spectrum analyzer plots are attached as below.

				Chann	el 0		
Spectr	um						
Ref Lev	vel 1	0.00 dB	m Offset 10.00 dB	🖷 RBW 100 kHz			
Att		20 c	iB SWT 19 μs	🔵 VBW 300 kHz	Mode Auto FFT		
⊖1Pk Ma	эх						
					D3[1]		-6.13 dB
0 dBm—							99.90 kHz
	D	1 -4.11	0 dBm	2	MILIAS		1.89 dBm 2.40231690 GHz
-10 dBm							2.10201050 GHz
-20 dBm							
00 Jp							
-30 dBm		~	\sim				
-40 dBm							
io abiii							
-50 dBm	-4						
-60 dBm							
-70 dBm							
-80 dBm							
-80 UBIII							
CF 2.40	12 GH	z		691 pt	5		Span 3.0 MHz
Marker	D -6	.		1	1		
Type M1	Ref	Trc 1	2.4023169 GHz	Y-value 1.89 dBm	Function	Funct	ion Result
D2	M1	1	-586.1 kHz	-6.17 dB			
D3	M1	1	99.9 kHz	-6.13 dB			
					Measuring		22.04.2019
							18:37:58

Date: 22.APR.2019 18:37:58

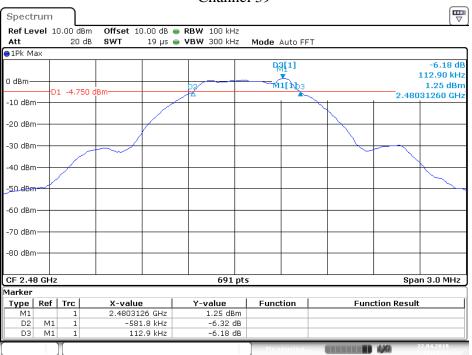


Channel 19



Date: 22.APR.2019 18:35:47

Channel 39



Date: 22.APR.2019 18:34:08



6. 99% OCCUPIED BANDWIDTH TEST

6.1.Block Diagram of Test Setup



6.2. The Requirement for RSS-Gen Clause 6.7

The occupied bandwidth or the "99% emission bandwidth" is defined as the frequency range between two points, one above and the other below the carrier frequency, within which 99% of the total transmitted power of the fundamental transmitted emission is contained. The occupied bandwidth shall be reported for all equipment in addition to the specified bandwidth required in the applicable RSSs.

In some cases, the "x dB bandwidth" is required, which is defined as the frequency range between two points, one at the lowest frequency below and one at the highest frequency above the carrier frequency, at which the maximum power level of the transmitted emission is attenuated x dB below the maximum in-band power level of the modulated signal, where the two points are on the outskirts of the in-band emission.

6.3.EUT Configuration on Measurement

The equipment is installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

6.4. Operating Condition of EUT

6.4.1.Setup the EUT and simulator as shown as Section 6.1.

- 6.4.2.Turn on the power of all equipment.
- 6.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2440MHz, and 2480MHz TX frequency to transmit.



6.5.Test Procedure

- 6.5.1.The transmitter shall be operated at its maximum carrier power measured under normal test conditions. The transmitter output was connected to the spectrum analyzer through a low loss cable.
- 6.5.2. The span of the spectrum analyzer shall be set large enough to capture all products of the modulation process, including the emission skirts, around the carrier frequency, but small enough to avoid having other emissions (e.g. on adjacent channels) within the span.
- 6.5.3.The detector of the spectrum analyzer shall be set to "Sample". However, a peak, or peak hold, may be used in place of the sampling detector since this usually produces a wider bandwidth than the actual bandwidth (worst-case measurement). Use of a peak hold (or "Max Hold") may be necessary to determine the occupied / x dB bandwidth if the device is not transmitting continuously.
- 6.5.4. The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the actual occupied / x dB bandwidth and the video bandwidth (VBW) shall not be smaller than three times the RBW value. Video averaging is not permitted.

Channel	Frequency (MHz)	99% Bandwidth (MHz)	Result
0	2402	1.025	Pass
19	2440	1.033	Pass
39	2480	1.025	Pass

6.6.Test Result

The spectrum analyzer plots are attached as below.



Channel 0



Date: 22.APR.2019 18:39:39

Channel 19



Date: 22.APR.2019 18:40:21



Channel 39



Date: 22.APR.2019 18:41:12



7. MAXIMUM PEAK OUTPUT POWER TEST

7.1.Block Diagram of Test Setup



7.2. The Requirement For Section 15.247(b)(3)

Section 15.247(b)(3): For systems using digital modulation in the 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz bands: 1 Watt.

7.3. The Requirement For RSS-247 Section 5.4(d)

For DTSs employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e).

7.4.EUT Configuration on Measurement

The equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

7.5. Operating Condition of EUT

- 7.5.1.Setup the EUT and simulator as shown as Section 7.1.
- 7.5.2.Turn on the power of all equipment.
- 7.5.3.Let the EUT work in TX modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2440MHz, and 2480MHz TX frequency to transmit.

7.6.Test Procedure

- 7.6.1.The transmitter output was connected to the spectrum analyzer through a low loss cable.
- 7.6.2.Set RBW of spectrum analyzer to 3MHz and VBW to 10MHz.
- 7.6.3.Measurement the maximum peak output power.



7.7.Test Result

Channel	Frequency (MHz)	Peak Power Output (dBm)	E.I.R.P (dBm)	Peak Power Limit (dBm)	Result
0	2402	4.77	3.51	30	Pass
19	2440	4.50	3.24	30	Pass
39	2480	4.13	2.87	30	Pass

The spectrum analyzer plots are attached as below.

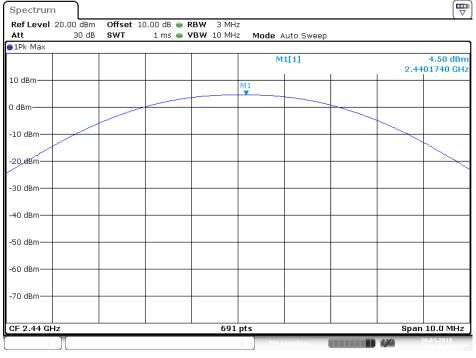
		Channe		
Spectrum				
Ref Level 20.00 dBm	Offset 1	10.00 dB 曼 RBW 3 MHz		
Att 30 dB	SWT	1 ms 👄 VBW 10 MHz	Mode Auto Sweep	
∋1Pk Max				
			M1[1]	4.77 dBm 2.4018840 GHz
10 dBm		M1		
0 dBm				
-10 dBm				
-20.dBm				
-30 dBm				
-40 dBm				
-50 dBm				
-60 dBm				
-70 dBm				
CF 2.402 GHz	1	691 p	ts	Span 10.0 MHz
Ĭ				 30.04.2019

Channel 0

Date: 30.APR.2019 09:46:51

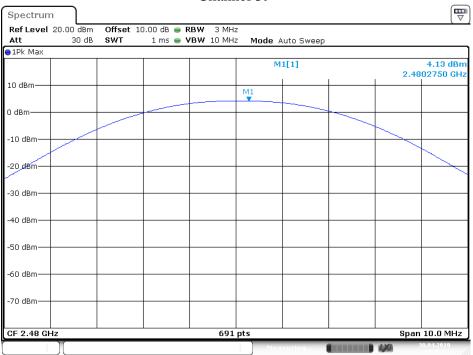


Channel 19



Date: 30.APR.2019 09:46:08

Channel 39



Date: 30.APR.2019 09:45:21



8. POWER SPECTRAL DENSITY TEST

8.1.Block Diagram of Test Setup



8.2. The Requirement For Section 15.247(e)

Section 15.247(e): For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

8.3. The Requirement For RSS-247 Section 5.2(b)

The transmitter power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of section 5.4(d),(i.e. the power spectral density shall be determined using the same method as is used to determine the conducted output power).

8.4.EUT Configuration on Measurement

The equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

8.5. Operating Condition of EUT

- 8.5.1.Setup the EUT and simulator as shown as Section 8.1.
- 8.5.2.Turn on the power of all equipment.
- 8.5.3.Let the EUT work in TX modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2440MHz, and 2480MHz TX frequency to transmit.



8.6.Test Procedure

- 8.6.1.The transmitter output was connected to the spectrum analyzer through a low loss cable.
- 8.6.2. Measurement Procedure PKPSD:
- 8.6.3. This procedure must be used if maximum peak conducted output power was used to demonstrate compliance to the fundamental output power limit, and is optional if the maximum (average) conducted output power was used to demonstrate compliance.
 - 1. Set analyzer center frequency to DTS Channel center frequency.
 - 2. Set the span to 1.5 times the DTS Channel bandwidth.
 - 3. Set the RBW to: 3 kHz \leq RBW \leq 100 kHz.
 - 4. Set the VBW \geq 3 x RBW.
 - 5. Detector = peak.
 - 6. Sweep time = auto couple.
 - 7. Trace mode = max hold.
 - 8. Allow trace to fully stabilize.
 - 9. Use the peak marker function to determine the maximum amplitude level.
 - 10. If measured value exceeds limit, reduce RBW (no less than 3kHz) and repeat.

8.6.4. Measurement the maximum power spectral density.

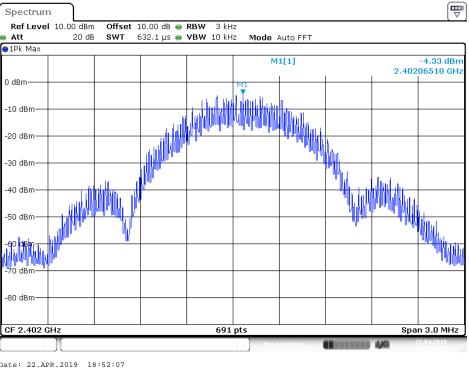
8.7.Test Result

Channel	Frequency (MHz)	PSD (dBm/3KHz)	Limit (dBm/3KHz)	Result
0	2402	-4.33	8	Pass
19	2440	-5.04	8	Pass
39	2480	-5.19	8	Pass

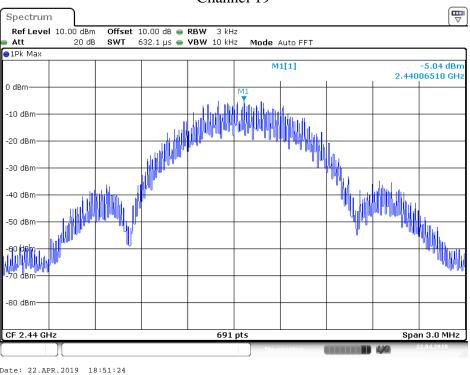
The spectrum analyzer plots are attached as below.





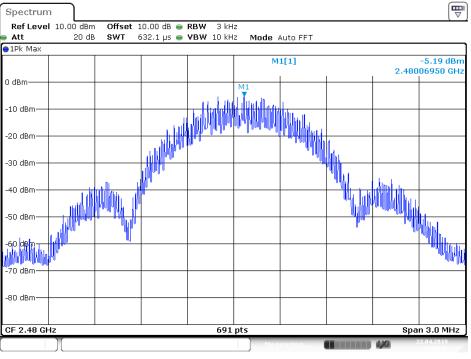


Channel 19









Date: 22.APR.2019 18:50:48



9. BAND EDGE COMPLIANCE TEST

9.1.Block Diagram of Test Setup



9.2. The Requirement For Section 15.247(d)

Section 15.247(d): 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 Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

9.3. The Requirement For RSS-247 Section 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced 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 that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

9.4.EUT Configuration on Measurement

The equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.



9.5. Operating Condition of EUT

- 9.5.1.Setup the EUT and simulator as shown as Section 9.1.
- 9.5.2.Turn on the power of all equipment.
- 9.5.3.Let the EUT work in TX modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2480MHz TX frequency to transmit.

9.6.Test Procedure

Conducted Band Edge:

- 9.6.1.The transmitter output was connected to the spectrum analyzer via a low loss cable.
- 9.6.2.Set RBW of spectrum analyzer to 100 kHz and VBW to 300 kHz.

Radiate Band Edge:

- 9.6.3.The EUT is placed on a turntable, which is 1.5m above the ground plane and worked at highest radiated power.
- 9.6.4.The turntable was rotated for 360 degrees to determine the position of maximum emission level.
- 9.6.5.EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
- 9.6.6.Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:

9.6.7.RBW=1MHz, VBW=1MHz

9.6.8. The band edges was measured and recorded.

9.7.Test Result

Pass.

Note: The power level setting of software is 7 and the tested power is identical with normal used.

Conducted Band Edge Result

Channel	Frequency	Delta peak to band emission	Limit(dBc)
0	2402MHz	53.39	>20
39	2480MHz	57.71	>20

The spectrum analyzer plots are attached as below.

 \frown



Channel 0

Spectrum									
Ref Level Att		IBm Offset dB SWT	10.00 dB e		100 kHz 300 kHz	Mode	Auto	Swoon	`
● 1Pk Max	20	GD 3441	1 III3 🧧	1011	300 KH2	moue	Auto	oweeh	
						M	4[1]		-52.73 dBm
0 dBm				_		<u> </u>			2.330200 GM
						IVI.	1[1]		1.71 dBm 2.402300 GHz
-10 dBm									2.102000 012
-20 dBm									
-20 ubiii									
-30 dBm									<u>}</u>
-40 dBm									
-50 dBm		M4			M3				Ma
manno	munu	Munin	mon	ul n	mh	undender	y-where	monorman	low mond
-60 dBm									
-70 dBm									
-/0 dbiii									
-80 dBm									
Start 2.31 G	Hz		1		691 pt	s		5	stop 2.404 GHz
Marker									
Type Ref		X-valu			alue	Func	tion	Function R	esult
M1	1		023 GHz		1.71 dBm				
M2	1		2.4 GHz		3.25 dBm				
M3	1		128 GHz		1.68 dBm				
M4	1	2.33	302 GHz	-52	2.73 dBm				
)[Mela	suring	4/4	22.04.2019 18:41:13

Date: 22.APR.2019 18:44:13

Channel 39

				Cinaii								
Spectrum												
Ref Level	10.00 dB	m Offset 1	LO.OO dB	RBW 100	kHz							
Att	20 0	IB SWT	56.9 µs	🕳 VBW 300 l	kHz	Mode	Auto F	FT				
⊖1Pk Max												
MI						M	4[1]				-59	9.86 dBm
0 dBm	-											0510 GHz
						M:	1[1]					1.11 dBm
-10 dBm	\				-						2.480	3080 GHz
	1											
-20 dBm												
	1											
-30 dBm-+	h											
-40 dBm												
-40 00111												
-50/dBm	\rightarrow	Ma								_		
1	L.	M2 M3			1	1 4						
-60 dBm	· · · ·	man have	m m	mound	how	two	, .	w	\sim	www.	menter	man
			· ·					· .				
-70 dBm										_		
-80 dBm												
-00 ubiii												
Start 2.478	GHz			691	l pts						Stop	2.5 GHz
Marker												
Type Ref		X-value		Y-value	0	Funct	tion		Fu	nction	Result	
M1 M2	1	2,4803	U8 GHZ	1.11 d -59.23 d								
M3	1	2.4840		-59.23 u -56.60 d								
M4	1	2.4900		-59.86 d								
	1		1			Marr			11111	B 43/2	22.	04.2019
	Л									1 1 A 1		

Date: 22.APR.2019 18:42:35

	TC			Dadiata	d Band Eo		anlt			Page 27 of 7
	R	AC	CURA.							Site: 2# Chamber
A	TC	F1	Bldg,A,Cl	hangyuan N dustry Park,I	ew Material	Port Ke	yuan Rd			:+86-0755-26503290 ::+86-0755-26503396
Job No	.: LGW2019	#1256				F	Polarizati	on: I	Horizont	al
Standa	ard: FCC (Bar	nd Edge)				F	Power Sc	ource:	AC 120)V/60Hz
est ite	em: Radiatio	n Test				0	Date: 19/	04/23/		
emp.	(C)/Hum.(%) 23 C/4	8 %			Т	Time:			
UT:	C Sleep A1	19				E	Engineer	Signat	ure: W	VADE
Node:	TX 2402M	IHz				C	Distance:	3m		
Model:	CLEDA19	9S2@								
/anufa	acturer: GE Li	ighting								
90.0	0 dBuV/m									
50.0									limit1:	-
									limit2	
80								********	*********	****
80	******			************					*******	
80 70					********					
70							********			
70										
70 60 50										
70 60										
70 60 50		eeker,	Party Years, due to be			aby a contraction	age deres and		alwar the bearing of	
70 60 50 40	N		Party Served and Article				ange allowed and the		din of the start	
70 60 50 40		eq44/4	Per-Hitsen, at 100 Aug	**************************************						
70 60 50 40 30 20	· · · · · · · · · · · · · · · · · · ·				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				alan alan an	
70 60 50 40 30		eq44,	Peretet Prese, at a period of the	******						
70 60 50 40 30 20 10					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				alan - Al	
70 60 50 40 30 20 10	2310.000	*****		**h		20042-1007-004-				2390.0 MHz
70 60 50 40 30 20 10 0.0 2	2310.000 Freq.	Reading	Factor	Result	Limit	Margin		Height	Degree	2390.0 MHz
70 60 50 40 30 20 10	2310.000	Reading (dBuV/m) 40.78	Factor (dB) 0.79				Detector	Height (cm)	Degree (deg.)	



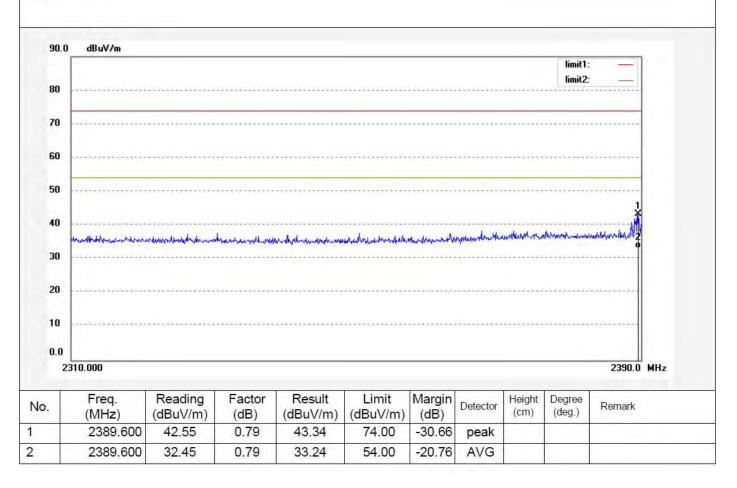
Report No.: ATE20190581 Page 28 of 74

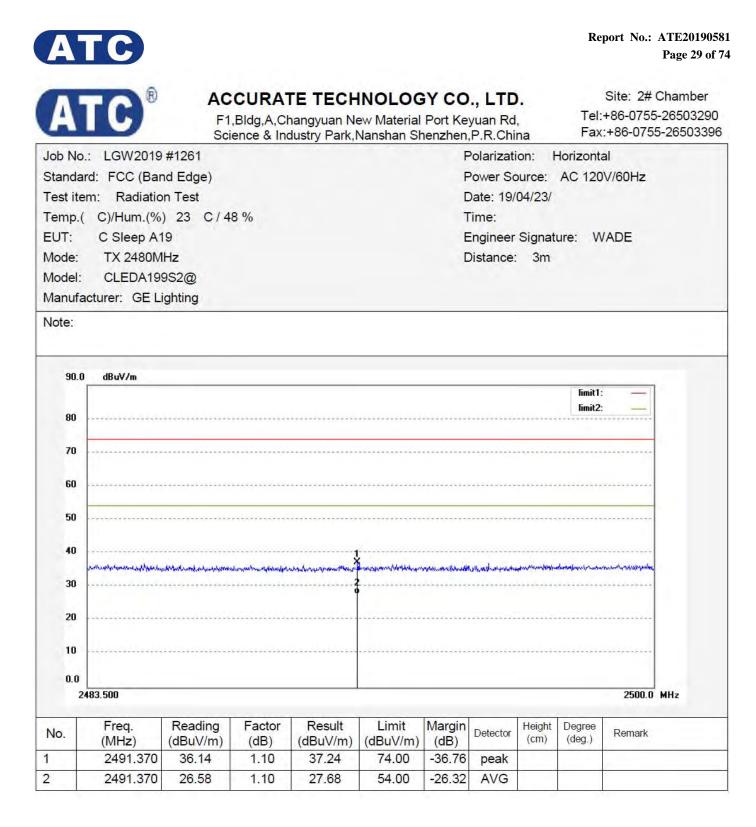
ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 2# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: LGW2019 #1255	Polarization: Vertical
Standard: FCC (Band Edge)	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 19/04/23/
Temp.(C)/Hum.(%) 23 C / 48 %	Time:
EUT: C Sleep A19	Engineer Signature: WADE
Mode: TX 2402MHz	Distance: 3m
Model: CLEDA199S2@	
Manufacturer: GE Lighting	

Note:





A'	IC [®]	F1.	,Bldg,A,C	TE TECH hangyuan Ne dustry Park,I	ew Material	Port Key	uan Rd	,	Tel:	Site: 2# Ch +86-0755-2 :+86-0755-2	6503290
Job No.	.: LGW2019	#1262				P	olarizati	on: \	/ertical		
Standa	rd: FCC (Bar	nd Edge)				P	ower Sc	ource:	AC 120	V/60Hz	
est ite	m: Radiatio	n Test				C	ate: 19/	04/23/			
emp.(C)/Hum.(%) 23 C/4	8 %			Т	ïme:				
UT:	C Sleep A1	19				E	ngineer	Signat	ure: W	ADE	
/lode:	TX 2480M	Hz				D	istance:	3m			
Model:	CLEDA19	952@									
Manufa	cturer: GE Li	ighting									
90.0	dBu¥/m								limit1:		
80									limit1: limit2:		
	-										
70		*******			***********				*********	*****	
60	101010101010101000										
60 50											
50	receilaristration of My-de	monumbertoheaven	morthysternessed	asenilluknovsenskapli z	n Minderkönden hjöre	muun	Nerrantes	horman	bienden verbrachten,	winthermore	
50 40	yereed have been all when	-oraș ninder de bud nich	millipheringithe	Asanih, krovbalkovy Z	www.aheedbaytheedbaytheed	Muruh	Nerrowska	hormon	hinnatha	Mathema	
50 40 30	ranashirida santa dikada		majitat, ten anatola	awitubarta da A	or Van der Alfreder Alfred	Muruh	Nerrowska	June	havenstradra,	withunation	
50 40 30 20 10	ranal Annia Annia Annia Annia	-oraș nu de la bran	najbljeburðarstela	Assart, brook de offe	n Marshed Kangdon Johne	Muruhu	Networks	hum	han watan ka	No the had not	
50 40 30 20 10	1483.500		mithicherineithe	awihi kwali da ma	n Munden hönden hönd	n Musturke	Nerrens	hum	hindenstradius	2500.0 MI	łz
50 40 30 20 10 0.0 2	483.500 Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Auu/u.buv/u.bu/ 2 Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	2500.0 MI	łz
50 40 30 20 10	Freq.			Result	Limit	Margin					łz

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.

2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

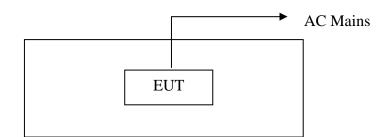
Result = Reading + Corrected Factor



10.RADIATED SPURIOUS EMISSION TEST

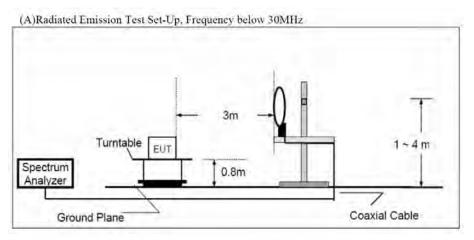
10.1.Block Diagram of Test Setup

10.1.1.Block diagram of connection between the EUT and peripherals

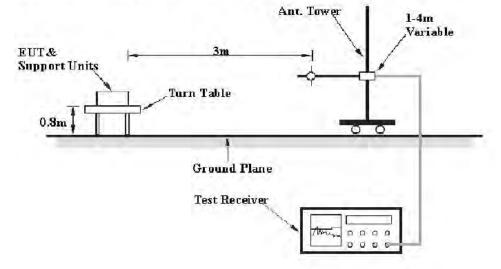


Setup: Transmitting mode

10.1.2.Semi-Anechoic Chamber Test Setup Diagram

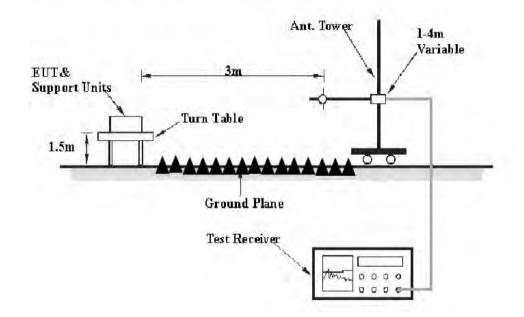


(B)Radiated Emission Test Set-Up, Frequency 30MHz-1GHz





(C) Radiated Emission Test Set-Up. Frequency above 1GHz



10.2.The Limit For Section 15.247(d)

Section 15.247(d): 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 Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

10.3. The Limit For RSS-247 Section 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced 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 that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.



10.4. Transmitter Emission Limit

Radiated emissions shall comply with the field strength limits shown in table 5 and table 6. Additionally, the level of any transmitter unwanted emission shall not exceed the level of the transmitter's fundamental emission.

Frequency (MHz)	Field strength (μV/m at 3 m)
30 - 88	100
88 - 216	150
216 - 960	200
Above 960	500

Table 5 - General field strength limits at frequencies above 30 MHz

Table 6 – General	field strength	limits at free	uencies below	v 30 MHz

Frequency	Magnetic field strength (H- Field) (µA/m)	Measurement distance (m)
9 - 490 kHz ¹	6.37/F (F in kHz)	300
490 - 1705 kHz	63.7/F (F in kHz)	30
1.705 - 30 MHz	0.08	30

Note 1: The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.



10.5.Restricted bands of operation

10.5.1.FCC Part 15.205 Restricted bands of operation

(a) Except as shown in paragraph (d) of this section, Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	$(^{2})$
13.36-13.41			

¹Until February 1, 1999, this restricted band shall be 0.490-0.510 ²Above 38.6

(b) Except as provided in paragraphs (d) and (e), the field strength of emission appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000MHz, Compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000MHz, compliance with the emission limits in Section15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.



10.5.2.RSS-Gen 8.10 Restricted bands of operation

Restricted frequency bands, identified in table 7, are designated primarily for safety-of-life services (distress calling and certain aeronautical activities), certain satellite downlinks, radio astronomy and some government uses. Except where otherwise indicated, the following conditions related to the restricted frequency bands apply:

(a)The transmit frequency, including fundamental components of modulation, of licence-exempt radio apparatus shall not fall within the restricted frequency bands listed in table 7 except for apparatus compliant with RSS-287, *Emergency Position* Indicating Radio Beacons (EPIRB), Emergency Locator Transmitters (ELT), Personal Locator Beacons (PLB), and Maritime Survivor Locator Devices (MSLD).

(b) Unwanted emissions that fall into restricted frequency bands listed in table 7 shall comply with the limits specified in table 5 and table 6.

(c) Unwanted emissions that fall into restricted frequency bands listed in table 7 shall comply with the limits specified in table 5 and table 6.

MHz	MHz
0.090 - 0.110	149.9 - 150.05
0.495 - 0.505	156.52475 - 156.52525
2.1735 - 2.1905	156.7 - 156.9
3.020 - 3.026	162.0125 - 167.17
4.125 - 4.128	167.72 - 173.2
4.17725 - 4.17775	240 - 285
4.20725 - 4.20775	322 - 335.4
5.677 - 5.683	399.9 - 410
6.215 - 6.218	608 - 614
6.26775 - 6.26825	960 - 1427
6.31175 - 6.31225	1435 - 1626.5
8.291 - 8.294	1645.5 - 1646.5
8.362 - 8.366	1660 - 1710
8.37625 - 8.38675	1718.8 - 1722.2
8.41425 - 8.41475	2200 - 2300
12.29 - 12.293	2310 - 2390
12.51975 - 12.52025	2483.5 - 2500
12.57675 - 12.57725	2655 - 2900
13.36 - 13.41	3260 - 3267
16.42 - 16.423	3332 - 3339
16.69475 - 16.69525	3345.8 - 3358
16.80425 - 16.80475	3500 - 4400
25.5 - 25.67	4500 - 5150
37.5 - 38.25	5350 - 5460
73 - 74.6	7250 - 7750
74.8 - 75.2	8025 - 8500
108 - 138	

Table 7 - Restricted frequency bands*

GHz	
9.0 - 9.2	
9.3 - 9.5	
10.6 - 12.7	
13.25 - 13.4	
14.47 - 14.5	
15.35 - 16.2	
17.7 - 21.4	1
22.01 - 23.12	
23.6 - 24.0	
31.2 - 31.8	
36.43 - 36.5	
Above 38.6	

* Certain frequency bands listed in table 7 and in bands above 38.6 GHz are designated for licenceexempt applications. These frequency bands and the requirements that apply to related devices are set out in the 200 and 300 series of RSSs.



10.6.Operating Condition of EUT

10.6.1.Setup the EUT and simulator as shown as Section 10.1.

- 10.6.2. Turn on the power of all equipment.
- 10.6.3.Let the EUT work in TX modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2440MHz, and 2480MHz TX frequency to transmit.

10.7.Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground(Below 1GHz). The EUT and its simulators are placed on a turntable, which is 1.5 meter high above ground(Above 1GHz). The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bi-log antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the EUT location must be manipulated according to ANSI C63.10:2013 on radiated emission measurement. This EUT was tested in 3 orthogonal positions and the worst case position data was reported.

The bandwidth of test receiver is set at 9 kHz in below 30MHz. and set at 120 kHz in 30-1000MHz, and 1MHz in above 1000MHz.

The final measurement in band 9-90 kHz, 110-490 kHz and above 1000MHz is performed with Average detector. Except those frequency bands mention above, the final measurement for frequencies below 1000MHz is performed with Quasi Peak detector. The field strength is calculated by adding the antenna factor, and cable loss, and subtracting the amplifier gain from the measured reading.



10.8.Data Sample

Frequency	Reading	Factor	Result	Limit	Margin	Remark
(MHz)	(dBµv)	(dB/m)	(dBµv/m)	(dBµv/m)	(dB)	
X.XX	43.85	-22.22	21.63	43.5	-21.87	QP

$$\label{eq:requency} \begin{split} & Frequency(MHz) = Emission frequency in MHz \\ & Reading(dB\mu\nu) = Uncorrected Analyzer/Receiver reading \\ & Factor (dB/m) = Antenna factor + Cable Loss - Amplifier gain \\ & Result(dB\mu\nu/m) = Reading(dB\mu\nu) + Factor(dB/m) \\ & Limit (dB\mu\nu/m) = Limit stated in standard \\ & Margin (dB) = Result(dB\mu\nu/m) - Limit (dB\mu\nu/m) \\ & QP = Quasi-peak Reading \end{split}$$

Calculation Formula: Margin(dB) = Result ($dB\mu V/m$)–Limit($dB\mu V/m$) Result($dB\mu V/m$)= Reading($dB\mu V$)+ Factor(dB/m)

The "Margin" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7dB means the emission is 7dB below the limit.

10.9.Test Result

Pass.

The frequency range from 9kHz to 26.5GHz is checked.

Emissions attenuated more than 20 dB below the permissible value are not reported.

The spectrum analyzer plots are attached as below.



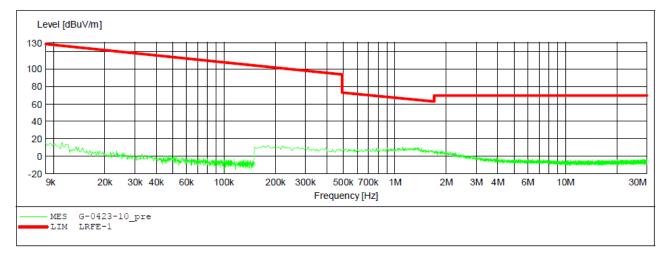
9kHz-30MHz test data

ACCURATE TECHNOLOGY CO., LTD

FCC Part 15C 3M Radiated

EUT:	C Sleep A19 M/N:CLEDA199S20			
Manufacturer:	GE Lighting			
Operating Condition:	TX 2402MHz			
Test Site:	2# Chamber			
Operator:	wade			
Test Specification:	AC 120V/60Hz			
Comment:	Х			
Start of Test:	2019-4-23 /			

Short Desc			JB STD VTER			
Start	Stop	Step –	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width		Time	Bandw.	
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M

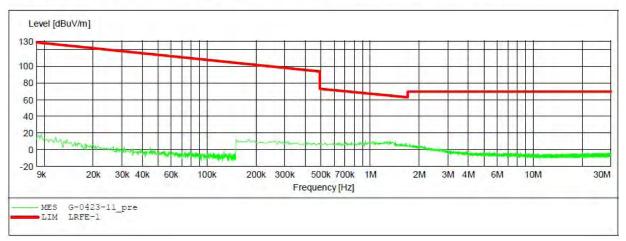




FCC Part 15C 3M Radiated

EUT:	C Sleep A19 M/N:CLEDA199S20
Manufacturer:	GE Lighting
Operating Condition:	TX 2402MHz
Test Site:	2# Chamber
Operator:	wade
Test Specification:	AC 120V/60Hz
Comment:	Y
Start of Test:	2019-4-23 /

Short Desc	ription:		SUB STD VTE	RM2 1.70		
Start	Stop	Step -	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width		Time	Bandw.	
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
	30.0 MHz					1516M

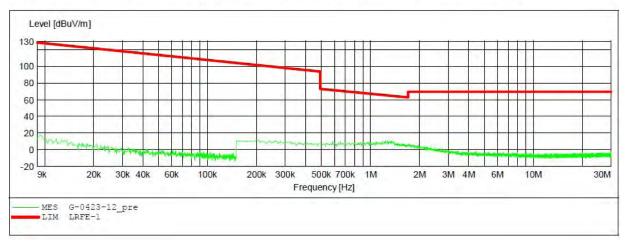




FCC Part 15C 3M Radiated

EUT:	C Sleep A19 M/N:CLEDA199S2@
Manufacturer:	GE Lighting
Operating Condition:	TX 2402MHz
Test Site:	2# Chamber
Operator:	wade
Test Specification:	AC 120V/60Hz
Comment:	Z
Start of Test:	2019-4-23 /

Short Desc	cription:		SUB STD VTE			
Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width		Time	Bandw.	
	150.0 kHz		QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M

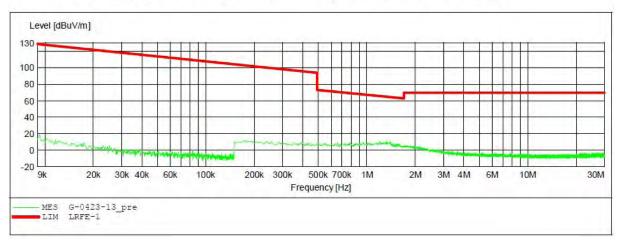




FCC Part 15C 3M Radiated

EUT:	C Sleep A19 M/N:CLEDA199S2@
Manufacturer:	GE Lighting
Operating Condition:	TX 2440MHz
Test Site:	2# Chamber
Operator:	wade
Test Specification:	AC 120V/60Hz
Comment:	X
Start of Test:	2019-4-23 /

-	Short Desc	ription:		SUB STD VTE	RM2 1.70		
	Start	Stop	Step -	Detector	Meas.	IF	Transducer
	Frequency	Frequency	Width		Time	Bandw.	
	9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
	150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M

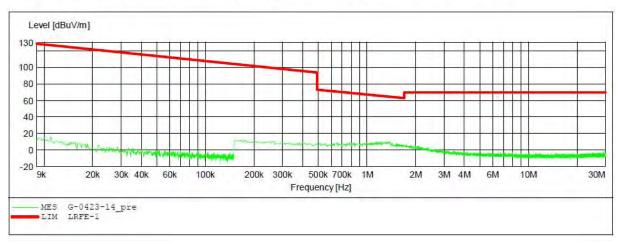




FCC Part 15C 3M Radiated

EUT:	C Sleep A19 M/N:CLEDA199S20
Manufacturer:	GE Lighting
Operating Condition:	TX 2440MHz
Test Site:	2# Chamber
Operator:	wade
Test Specification:	AC 120V/60Hz
Comment:	Y
Start of Test:	2019-4-23 /
Start of rest:	2019-4-23 /

-	Short Desc	ription:		SUB STD VTE	RM2 1.70		
	Start	Stop	Step -	Detector	Meas.	IF	Transducer
	Frequency	Frequency	Width		Time	Bandw.	
	9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
	150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M

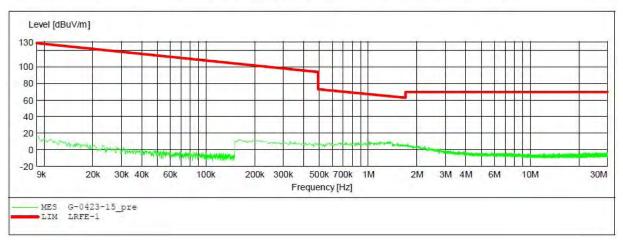




FCC Part 15C 3M Radiated

EUT:	C Sleep A19 M/N:CLEDA199S20
Manufacturer:	GE Lighting
Operating Condition:	TX 2440MHz
Test Site:	2# Chamber
Operator:	wade
Test Specification:	AC 120V/60Hz
Comment:	Z
Start of Test:	2019-4-23 /

Short	Description:		SUB STD VTE	RM2 1.70			
	: Stop	Step -	Detector	Meas.	IF	Transducer	
Frequ	iency Frequenc	y Width		Time	Bandw.		
9.0 k	Hz 150.0 kH	z 100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M	
150.0	kHz 30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M	

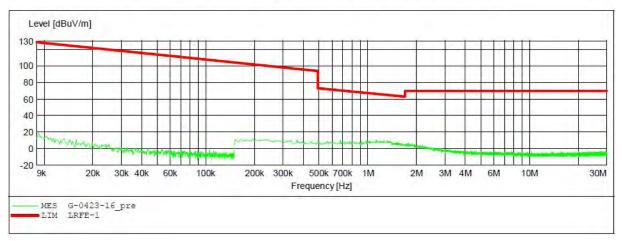




FCC Part 15C 3M Radiated

EUT:	C Sleep A19 M/N:CLEDA199S20
Manufacturer:	GE Lighting
Operating Condition:	TX 2480MHz
Test Site:	2# Chamber
Operator:	wade
Test Specification:	AC 120V/60Hz
Comment:	X
Start of Test:	2019-4-23 /

Short Desc	ription:		SUB STD VTE			
Start	Stop	Step -	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width		Time	Bandw.	
	150.0 kHz		QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M

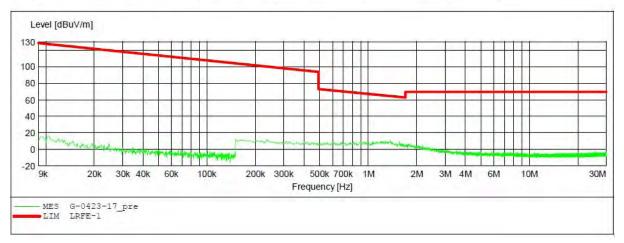




FCC Part 15C 3M Radiated

EUT:	C Sleep A19 M/N:CLEDA199S2@
Manufacturer:	GE Lighting
Operating Condition:	TX 2480MHz
Test Site:	2# Chamber
Operator:	wade
Test Specification:	AC 120V/60Hz
Comment:	Y
Start of Test:	2019-4-23 /

Short Desc			SUB STD VTER	RM2 1.70		
Start	Stop	Step -	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width		Time	Bandw.	
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M

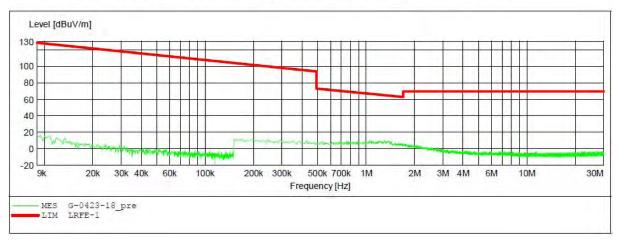




FCC Part 15C 3M Radiated

EUT:	C Sleep A19 M/N:CLEDA199S20
Manufacturer:	GE Lighting
Operating Condition:	TX 2480MHz
Test Site:	2# Chamber
Operator:	wade
Test Specification:	AC 120V/60Hz
Comment:	Z
Start of Test:	2019-4-23 /

Description:		SUB STD VTE	RM2 1.70		
Stop	Step -	Detector	Meas.	IF	Transducer
ency Frequency	Width		Time	Bandw.	
Iz 150.0 kHz	2 100.0 Hz	QuasiPeak	1.0 s	200 Hz	1516M
kHz 30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	1516M
	Description: Stop ency Frequency Iz 150.0 kHz	Stop Step ency Frequency Width Iz 150.0 kHz 100.0 Hz	Description:SUB_STD_VTEN Stop Step Detector ency Frequency Width Iz 150.0 kHz 100.0 Hz QuasiPeak	Description:SUB_STD_VTERM2 1.70 Stop Step Detector Meas. ency Frequency Width Time Iz 150.0 kHz 100.0 Hz QuasiPeak 1.0 s	Description:SUB_STD_VTERM2 1.70 Stop Step Detector Meas. IF ency Frequency Width Time Bandw.



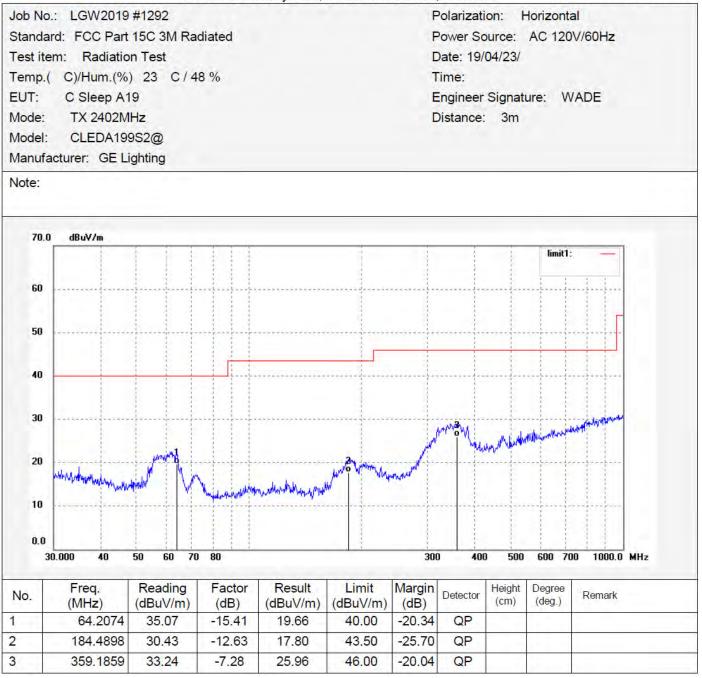


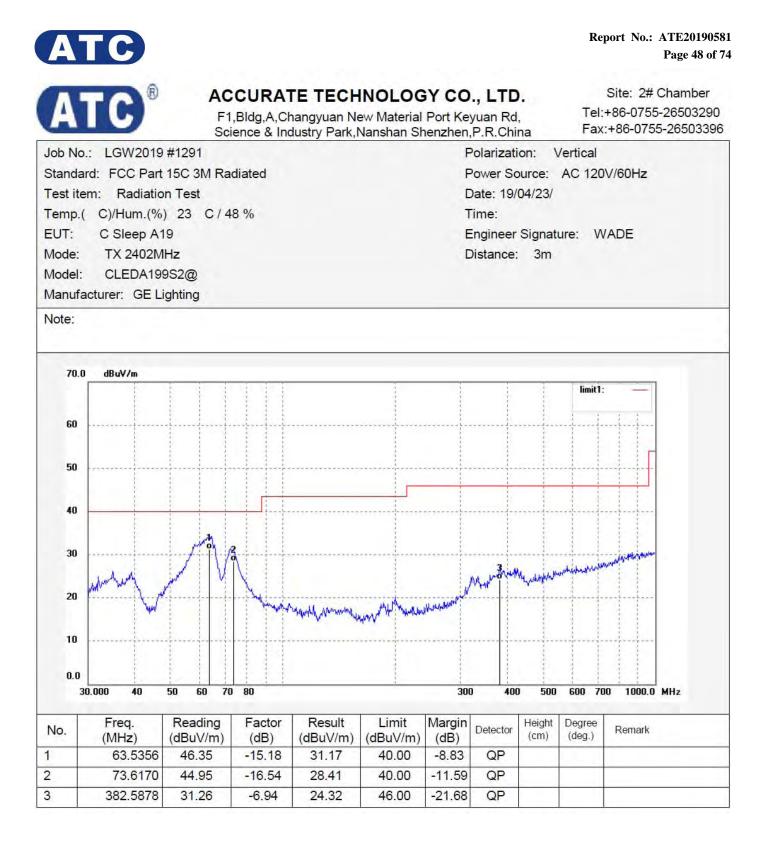
R

30MHz-1000MHz test data

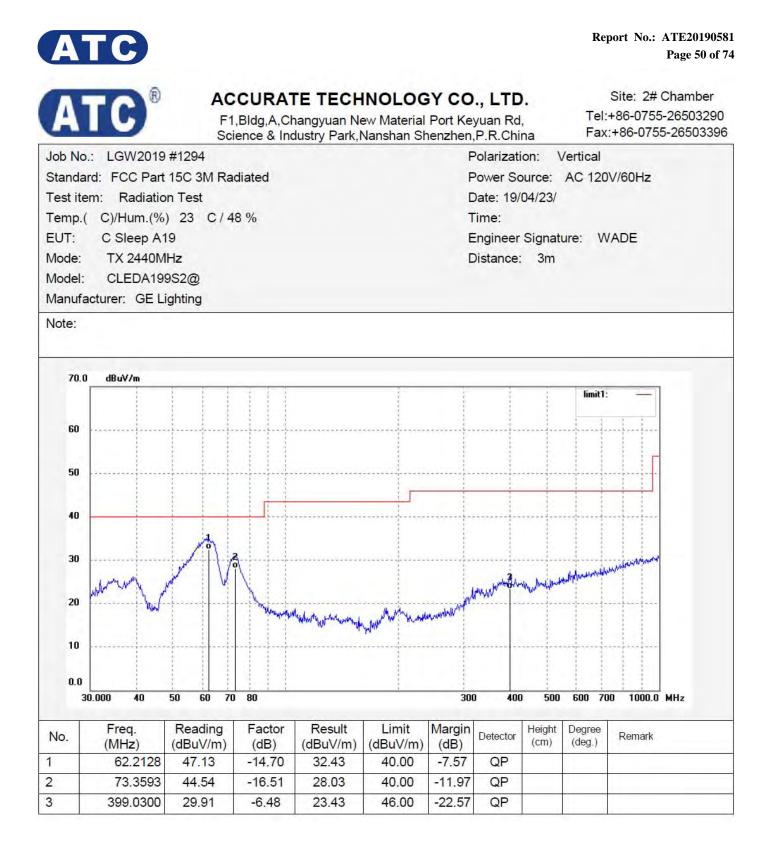
ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 2# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

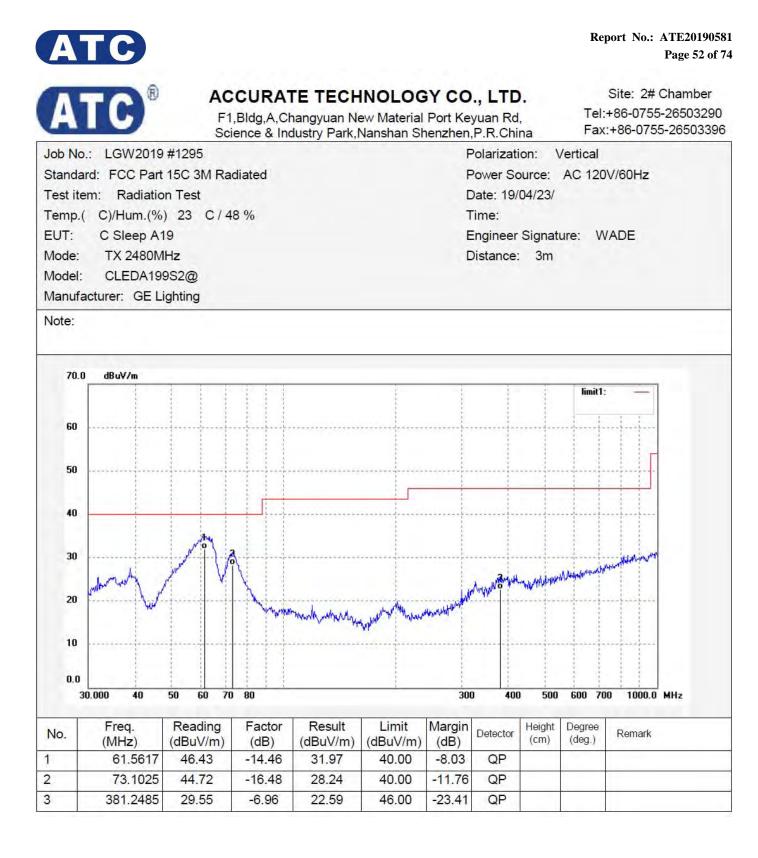














ATC

E

1GHz-18GHz test data

ACCURATE TECHNOLOGY CO., LTD.

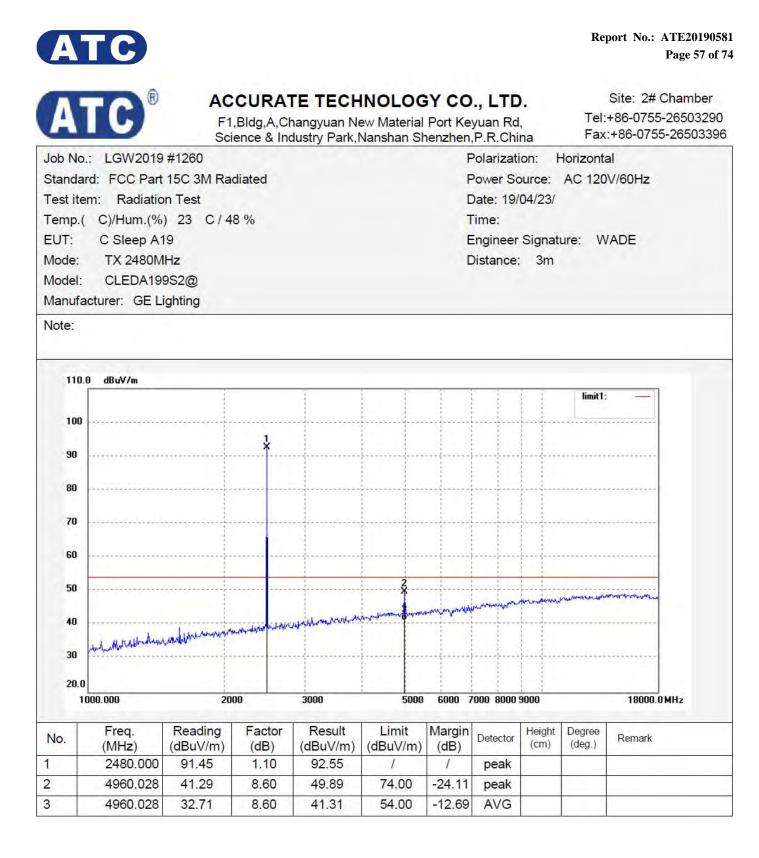
F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 2# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Standa Test ite Temp.(EUT: Mode:	at: LGW2019 rd: FCC Part em: Radiatio C)/Hum.(% C Sleep A1 TX 2402M	15C 3M Ra on Test) 23 C / 4 19 IHz	F C T E	Polarization: Horizontal Power Source: AC 120V/60Hz Date: 19/04/23/ Time: Engineer Signature: WADE Distance: 3m						
Model: Manufa	CLEDA19 acturer: GE L									
Note:										
110.	0 dBu¥/m	1			1				limit1:	
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1	000.000	20	00	3000	5000	6000 7	000 8000	9000		18000.0 MHz
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2402.000	91.47	0.89	92.36	1	1	peak	1131		
2	4804.026	41.67	7.40	49.07	74.00	-24.93	peak	11211		
3	4804.026	33.81	7.40	41.21	54.00	-12.79	AVG			

A	TC								Re	port No.: ATE20190581 Page 54 of 74
A	TC [®]	F1	,Bldg,A,C	TE TECH hangyuan N dustry Park,	ew Material	Port Ke	yuan Rd	l,		Site: 2# Chamber +86-0755-26503290 :+86-0755-26503396
Job No.	.: LGW2019						Polarizat	-	/ertical	
2 (CV) - 1 - 1 - 1	rd: FCC Part	and the second second	diated				Power So		AC 120	V/60Hz
	m: Radiatio		0.04				Date: 19/	04/23/		
EUT:	C)/Hum.(% C Sleep A		8 %				Fime: Engineer	Signat	uro: \/	
Mode:	TX 2402M						Distance		ure. w	ADE
Model:	CLEDA19									
Manufa	cturer: GE L									
Note:										
110.	0 dBuV/m									
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	000.000	20	00	3000	5000	6000 7	7000 8000	9000		18000.0 MHz
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2402.000	90.89	0.89	91.78	1	1	peak			
2	4804.025	42.27	7.40	49.67	74.00	-24.33	peak			
3	4804.025	33.95	7.40	41.35	54.00	-12.65	AVG			

A	ГС								Re	port No.:	ATE201905 Page 55 of
A'	TC [®]	F1	,Bldg,A,Cl	TE TECH hangyuan Ne dustry Park,I	ew Material	Port Ke	yuan Rd	,		+86-0755	Chamber 5-26503290 5-26503396
Job No.	.: LGW2019	#1257				F	Polarizati	ion: H	Horizonta	al	
Standa	rd: FCC Part	15C 3M Ra	diated			F	Power So	ource:	AC 120	V/60Hz	
lest ite	m: Radiatio	n Test				C	Date: 19/	04/23/			
Temp.(C)/Hum.(%) 23 C/4	8 %			1	Time:				
EUT:	C Sleep A1	9				E	Engineer	Signat	ure: W	ADE	
Mode:	TX 2440M					[Distance:	3m			
Model:	CLEDA19	200 C 70									
Note:											
110.	0 dBuV/m			-				r ar	limit1:		
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	000.000	20	DO	3000	: : 5000	6000	7000 8000	9000		18000.	DMHz
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark	
	2440.000	90.95	1.04	91.99	1	1	peak				
	2110.000										
2	4880.028	41.13	8.10	49.23	74.00	-24.77	peak		· · · · · · · · ·		

A	IC								Re	port No.:	ATE2019058 Page 56 of 7
A	TC [®]	F1	Bldg,A,Cl	TE TECH hangyuan Ne dustry Park,I	ew Material	Port Ke	yuan Rd	,		+86-075	Chamber 5-26503290 5-26503396
Job No.	: LGW2019						Polarizati		/ertical		
Standa	rd: FCC Part	15C 3M Ra	diated			F	ower Sc	ource:	AC 120	V/60Hz	
Test ite	m: Radiatio	n Test				0)ate: 19/	04/23/			
Temp.(C)/Hum.(%)) 23 C/4	8 %			1	ime:				
EUT:	C Sleep A1	9				E	Ingineer	Signat	ure: M	/ADE	
Mode:	TX 2440M	Hz				C	Distance:	3m			
Model:	CLEDA199	952@									
√lanufa	cturer: GE Li	ghting									
Note:											
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110.	0 dBuV/m										
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40 30 20.0 11	000.000 Freq.	200 Reading	Factor	3000 Result	5000	6000 7		9000 Height	Degree		OMHz
40 30 20.0 11 No.	000.000 Freq. (MHz)	200 Reading (dBuV/m)	Factor (dB)	3000 Result (dBuV/m)	5000 Limit (dBuV/m)	6000 7	7000 8000 9 Detector	9000		18000.	OMHz
40 30 20.0	000.000 Freq.	200 Reading	Factor	3000 Result	5000	6000 7	7000 8000 9	9000 Height	Degree	18000.	OMHz



A	ГС								Re	port No.: ATE20190 Page 58 of
A	IC [®]	F1.	Bldg,A,C	TE TECH hangyuan Ne dustry Park,I	ew Material	Port Ke	yuan Rd	ļ,	Tel:	Site: 2# Chamber +86-0755-2650329 :+86-0755-2650339
Job No.:	LGW2019						olarizati		/ertical	
Standard	d: FCC Part	15C 3M Rad	diated			F	ower So	ource:	AC 120	V/60Hz
est iter	n: Radiatio	n Test				C	Date: 19/	04/23/		
emp.(C)/Hum.(%)) 23 C/4	8 %			1	lime:			
EUT:	C Sleep A1	9				E	Engineer	Signat	ure: W	ADE
	TX 2480M CLEDA199 sturer: GE Li	952@				C	Distance:	3m		
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110.0	dBuV/m									
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20.0 10	00.000	20	00	3000	5000	6000 7	7000 8000	9000	_	18000.0 MHz
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
×	2480.000	90.48	1.10	91.58	1	1	peak			
2	4960.029	40.84	8.60	49.44	74.00	-24.56	peak			



ATC

18GHz-26.5GHz test data

ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 2# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No	.: LGW2019	#1264				F	Polarizati	ion: H	orizonta	al
Standa	rd: FCC Part	15C 3M Ra	diated			F	ower So	ource:	AC 120	V/60Hz
Test ite	em: Radiatio	on Test				C	Date: 19/	04/23/		
Temp.(C)/Hum.(%) 23 C/4	8 %			Т	Time:			
EUT:	C Sleep A	19) E	Ingineer	Signat	ure: W	ADE
Mode:	TX 2402M	IHz				C	Distance	3m		
Model:	CLEDA19	9S2@								
Manufa	acturer: GE L	ighting								
Note:										
90.0	dBuV/m									
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1	8000.000		20000							26500.0 MHz
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	20537.682	18.77	31.30	50.07	74.00	-23.93	peak	14.221	11.20.00	

20537.682

9.05

31.30

40.35

54.00

-13.65

AVG

2

A	TC								Re	port No.: ATE20190581 Page 60 of 74
A	TC®	F1	,Bldg,A,Cl	TE TECH hangyuan Ne dustry Park,I	ew Material	Port Ke	yuan Rd	,		Site: 2# Chamber +86-0755-26503290 :+86-0755-26503396
Job No	.: LGW2019						Polarizat		Vertical	
Standa	ard: FCC Part	15C 3M Ra	diated			F	Power So	ource:	AC 120	V/60Hz
Test ite	em: Radiatio	on Test				[Date: 19/	04/23/		
	(C)/Hum.(%		8 %			1	Time:			
EUT:	C Sleep A	19				E	Engineer	Signat	ure: W	/ADE
Mode:	TX 2402M					[Distance	: 3m		
Model:										
Manufa	acturer: GE L	ighting								
Note:										
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90.0) dBuV/m									
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No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	21730.791	17.92	32.07	49.99	74.00	-24.01	peak			
2	21730.791	7.38	32.07	39.45	54.00	-14.55	AVG			

A	TC								Re	port No.: ATE2019058 Page 61 of 74
A	TC®	F1	,Bldg,A,Cl	TE TECH nangyuan Ne dustry Park,I	ew Material	Port Ke	yuan Rd	,		Site: 2# Chamber +86-0755-26503290 :+86-0755-26503396
Job No	b.: LGW2019	#1265				F	Polarizati	on: H	Horizonta	al
Standa	ard: FCC Part	15C 3M Ra	diated			F	Power Sc	ource:	AC 120	V/60Hz
Test it	em: Radiatio	on Test				0	Date: 19/	04/23/		
Temp.	(C)/Hum.(%) 23 C/4	8 %			1	lime:			
EUT:	C Sleep A	19				E	Engineer	Signat	ure: W	ADE
Mode:	TX 2440M	IHz				0	Distance:	3m		
Model	CLEDA19	9S2@								
Manuf	acturer: GE L	ighting								
Note:										
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	18000.000		20000							26500.0 MHz
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	21422.025	19.03	31.38	50.41	74.00	-23.59	peak			
2	21422.025	8.89	31.38	40.27	54.00	-13.73	AVG			

A	ГС								Re	port No.: ATE2019058 Page 62 of 7
A'	TC [®]	F1	,Bldg,A,C	TE TECH hangyuan N dustry Park,	ew Material	Port Ke	yuan Rd			Site: 2# Chamber +86-0755-26503290 :+86-0755-26503396
Job No.	.: LGW2019						Polarizati		/ertical	
Standa	rd: FCC Part	15C 3M Ra	diated			F	Power Sc	ource:	AC 120	V/60Hz
Test ite	m: Radiatio	on Test				C	Date: 19/	04/23/		
Temp.(C)/Hum.(%) 23 C/4	8 %			1	Time:			
EUT:	C Sleep A1	19				E	Engineer	Signat	ure: W	/ADE
Mode:	TX 2440M	IHz				0	Distance:	3m		
Model:	CLEDA19	9S2@								
Manufa	cturer: GE L	ighting								
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No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	21521.681	18.21	32.13	50.34	74.00	-23.66	peak			
2	21521.681	8.42	32.13	40.55	54.00	-13.45	AVG		1	

AT	C								Re	port No.: ATE201905 Page 63 of
AT	C®	F1	Bldg,A,Cl	TE TECH hangyuan No dustry Park,l	ew Material	Port Ke	yuan Rd	,		Site: 2# Chamber +86-0755-26503290 :+86-0755-26503396
Job No.:	LGW2019	#1268				F	Polarizati	on: H	Iorizonta	al
Standard	FCC Part	15C 3M Rad	diated			F	Power Sc	ource:	AC 120	V/60Hz
lest item	Radiatio	n Test				E	Date: 19/	04/23/		
Temp.(C)/Hum.(%)) 23 C/4	8 %			1	Time:			
EUT:	C Sleep A1	9				E	Engineer	Signat	ure: W	/ADE
Node:	TX 2480M	Hz				C	Distance:	3m		
Model:	CLEDA19	982@								
Manufact	urer: GE Li	ghting								
90.0	dBu¥/m								limit1:	
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1800	0.000		20000							26500.0 MHz
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
	21848.779	17.90	31.94	49.84	74.00	-24.16	nook			
	21040.113	17.90	51.54	49.04	74.00	-24.10	peak			



Report No.: ATE20190581 Page 64 of 74

ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.Chin Site: 2# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

		Sci	ence & In	dustry Park,	Nanshan Sh	nenzhen	P.R.Chi	na	Fax	:+86-0755-26503396
Job No	o.: LGW2019	#1267				F	Polarizati	on: \	/ertical	
Standa	ard: FCC Part	15C 3M Ra	diated) F	Power So	ource:	AC 120	V/60Hz
Test it	em: Radiatio	on Test				C	Date: 19/	04/23/		
Temp.	.(C)/Hum.(%) 23 C/4	8 %			Ţ	ime:			
EUT:	C Sleep A	19				E	Ingineer	Signat	ure: W	ADE
Mode:	TX 2480M	lHz				C	Distance	3m		
Model	: CLEDA19	9S2@								
Manuf	acturer: GE L	ighting								
Note:										
90.	0 dBuV/m		- i						limit1:	
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No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	22103.770	18.01	32.01	50.02	74.00	-23.98	peak			

22103.770

8.56

32.01

40.57

54.00

-13.43

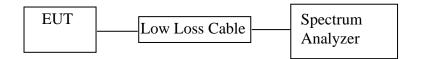
AVG

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11.CONDUCTED SPURIOUS EMISSION COMPLIANCE TEST

11.1.Block Diagram of Test Setup



11.2. The Requirement For Section 15.247(d)

Section 15.247(d): 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 Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

11.3.The Requirement For RSS-247 Section 5.5

Section 5.5: In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the100 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 that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

11.4.EUT Configuration on Measurement

The equipment is installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.



- 11.5.Operating Condition of EUT
 - 11.5.1.Setup the EUT and simulator as shown as Section 11.1.
 - 11.5.2.Turn on the power of all equipment.
 - 11.5.3.Let the EUT work in TX modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2440MHz, and 2480MHz TX frequency to transmit.

11.6.Test Procedure

- 11.6.1.The transmitter output was connected to the spectrum analyzer via a low loss cable.
- 11.6.2.Set RBW of spectrum analyzer to 100kHz and VBW to 300kHz
- 11.6.3. The Conducted Spurious Emission was measured and recorded.

11.7.Test Result

Pass.

The spectrum analyzer plots are attached as below.



Channel 0

Spectrum										₩
Ref Level				👄 RBW 100 kH						(
Att	20 d	B SWT	265 ms	😑 VBW 300 kH	z Mode	e Auto S	Gweep			
∋1Pk Max										
M1					N	14[1]				-50.62 dBm
0 dBm										16.7130 GHz
o ubiii					N	11[1]				0.50 dBm
-10 dBm		_								2.3860 GHz
-20 dBm										
-30 dBm						1				
-40 dBm			M3	3						
-50 dBm		M2	Ţ			M4				
	فهالاستسليلم	Junear		horan marine	wyww	ww	www.	when	~ Muhulon	mannon
260 dBm										
-70 dBm		_				-				
-80 dBm										
Start 30.0 M	Hz		1	691 p	ts	1	I		Sto	p 26.5 GHz
Marker				•						•
Type Ref	Trc	X-valu	e	Y-value	Fun	ction		Fund	tion Resu	lt
M1	1		86 GHz	0.50 dBn						
M2	1		44 GHz	-51.57 dBn						
M3	1		26 GHz	-47.58 dBn						
M4	1	16.7	'13 GHz	-50.62 dBn	ו					
					Mo				10.000	22.04.2019

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Channel 19

				Chun		17					
Spectrum											
Ref Level	10.00 0	dBm Offset :	10.00 dB	● RBW 100	kHz						· · · ·
Att 🛛	20	db SWT	265 ms	👄 VBW 300	kHz	Mode	Auto S	Sweep			
●1Pk Max											
					Т	M4	H[1]				-49.16 dBm
0 dBm											16.0610 GHz
U UBIII						MI	[1]				0.42 dBm
-10 dBm										1	2.4240 GHz
10 0.0.00											
-20 dBm											
-30 dBm					+						
-40 dBm			M	3	1	N	14				
-50 dBm		M2									
	mou	munderly	M. Jahan Marken	un de monte	my	non	who	word	hattenen	month	whenwellthe
-60 dBm-+	<u>.</u>	-	· · ·								
-70 dBm											
-80 dBm											-
Start 30.0 M	/IHz			69	1 pts					Ste	op 26.5 GHz
Marker											
	Trc	X-value		Y-value		Funct	ion		Fund	tion Resu	ılt
M1	1		24 GHz	0.42 d							
M2	1		44 GHz	-51.27 d							
M3 M4	1		79 GHz 61 GHz	-44.89 d -49.16 d							
1VI4		10.0	or GHZ	-49.10 U	oni		_				
	Л					Meas				LXI	22.04.2019

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Channel 39

											(
Ref Level Att	10.00 dBr 20 d			 RBW 100 k VBW 300 k 		Auto C					
1Pk Max	20 u	5 3 WI	205 1115	- YDW 300 K	HZ MODE	Auto S	sweep				
JIFK Man					м	4[1]				-4	19.74 dBr
M1						11.11					.1300 GH
) dBm 🕂					M	1[1]					-0.49 dBr
-10 dBm										2	.4620 GH
10 0.0											
-20 dBm 🕂									_		
30 dBm											
-40 dBm											
10 abiii											
		M2	M	13			M4				
-50 dBm		M2	M	▼		Mrs Char	-	, in white			alore de la card
Mille	when		M	13 Innerenander	www.www	mm	-	www	nadrik	mur	مهلمانور والمعالية
Mille	Likolan		M	▼	www.www	mm	-	www.	white	mar	_م ەربەر بەربەر بەربەر بەربەر بەربەر بەربەر بەربەر بەربەر بەر
60 dBm	L. Marthan		Mulan	▼	www.www	ma	-	www.	white	mar	_م ەربەر بىلىرىيىلىرىيەن
60 dBm	hat the state of t		M	▼	www.www	m.m.	-	www.	white	www	, Maraka Andarh
	had the state of the		M	V	weinner	mm	-	www.	un numum	Whenty	, Maria and an
	had a start of the		M	V	www.www	M. M.	-	www		mar	,,*UNJ&JAWA
-50 dBm -50 dBm -70 dBm -80 dBm -80 dBm			M	V		m.m.	-	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			., ოსიანი, არი 26.5 GHz
			M			4. Au-	-	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			
	1Hz	X-valu	16	691 Y-value	pts		-		nction F	Stop	
	1Hz	X-valı 2.	IE 462 GHz	691 Y-value -0.49 dB	pts m		-			Stop	
-70 dBm -70 dBm -80 dBm -80 dBm 	1Hz Trc 1 1	X-valu 2. 6.	IE 462 GHz 523 GHz	691 	pts Func m m		-			Stop	
	1Hz	X-valu 2. 6. 9.	IE 462 GHz	691 Y-value -0.49 dB	pts Func m m m		-			Stop	

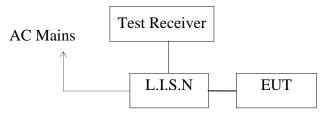
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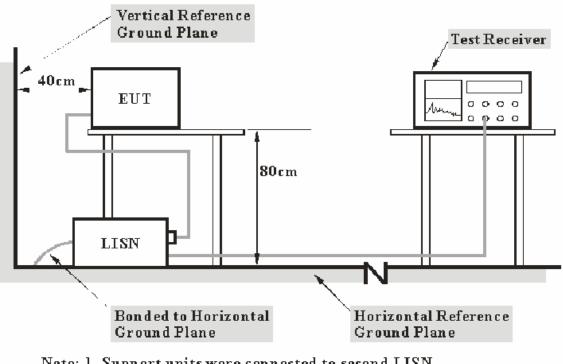


12.AC POWER LINE CONDUCTED EMISSION TEST

12.1.Block Diagram of Test Setup



12.2.Test System Setup



- Note: 1. Support units were connected to second LISN.
 - 2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.



12.3.Test Limits

Frequency	Limit d	B(µV)					
(MHz)	Quasi-peak Level	Average Level					
0.15 - 0.50	66.0 - 56.0 *	56.0 - 46.0 *					
0.50 - 5.00	56.0	46.0					
5.00 - 30.00	60.0	50.0					
NOTE1: The lower limit shall	l apply at the transition freque	ncies.					
NOTE2: The limit decreases linearly with the logarithm of the frequency in the range							
0.15MHz to 0.50M	Hz.						

12.4.Configuration of EUT on Measurement

The equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner, which tends to maximize its emission characteristics in a normal application.

12.5.Operating Condition of EUT

12.5.1.Setup the EUT and simulator as shown as Section 12.1.

- 12.5.2.Turn on the power of all equipment.
- 12.5.3.Let the EUT work in test mode and measure it.

12.6.Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10: 2013 on Conducted Emission Measurement. The bandwidth of test receiver (R & S ESCS30) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.



ĺ	Frequency	Transducer	QuasiPeak	Average	QuasiPeak	Average	QuasiPeak	Average	Remark
	(MHz)	value	Level	Level	Limit	Limit	Margin	Margin	(Pass/Fail)
		(dB)	(dBµV)	(dBµV)	(dBµV)	(dBµV)	(dB)	(dB)	
	X.XX	10.5	51.1	34.2	56.0	46.0	4.9	11.8	Pass

12.7.Data Sample

Frequency(MHz) = Emission frequency in MHz

 $\begin{array}{l} Transducer\ value(dB) = Insertion\ loss\ of\ LISN + Cable\ Loss\\ Level(dB\mu V) = Quasi-peak\ Reading/Average\ Reading + Transducer\ value\ Limit\ (dB\mu V) = Limit\ stated\ in\ standard \end{array}$

Calculation Formula: Margin = Limit ($dB\mu V$) - Level ($dB\mu V$)

12.8.Test Result

Pass.

The frequency range from 150kHz to 30MHz is checked.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

Emissions attenuated more than 20 dB below the permissible value are not reported.

All data was recorded in the Quasi-peak and average detection mode.

The spectral diagrams are attached as below.

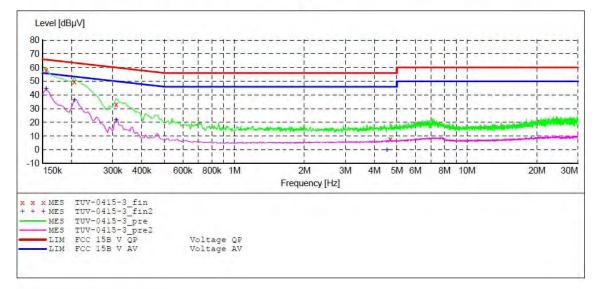


CONDUCTED EMISSION STANDARD FCC PART 15 C

EUT:C Sleep A19 M/N:CLEDA199S2@Manufacturer:GE LightingOperating Condition:BT CommunicationTest Site:1#Shielding RoomOperator:WADETest Specification:L 120V/60HzComment:Mains portStart of Test:4/15/2019 /

SCAN TABLE: "V 9K-30MHz fin"

Short Desc.	ription:	S	UB STD VTER	RM2 1.70			
	Stop Frequency		Detector	Meas. Time	IF Bandw.	Transducer	
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak Average	1.0 s	200 Hz	NSLK8126 2008	
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak Average	1.0 s	9 kHz	NSLK8126 2008	



MEASUREMENT RESULT: "TUV-0415-3 fin"

4/15/2019

- /	Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
	0.155000	57.90	10.5	66	7.8	OP	1.1	GND
	0.205000	49.80	10.5	63	13.6	Q P	L1	GND
	0.310000 4.680000	33.00 7.70	10.6	60 56	27.0	QP OP	L1 L1	GND GND
						~		

MEASUREMENT RESULT: "TUV-0415-3 fin2"

4/15/2019 Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.155000	44.40	10.5	56	11.3	AV	L1	GND
0.205000	36.30	10.5	53	17.1	AV	L1	GND
0.310000	21.50	10.6	50	28.5	AV	L1	GND
4.530000	-0.30	11.1	46	46.3	AV	L1	GND

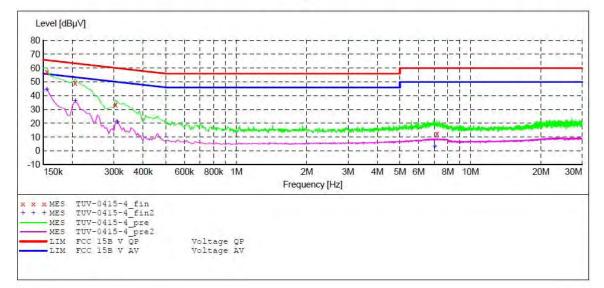


CONDUCTED EMISSION STANDARD FCC PART 15 C

EUT:	C Sleep A19 M/N:CLEDA199S2@
Manufacturer:	GE Lighting
Operating Condition:	BT Communication
Test Site:	1#Shielding Room
Operator:	WADE
Test Specification:	N 120V/60Hz
Comment:	Mains port
Start of Test:	4/15/2019 /

SCAN TABLE: "V 9K-30MHz fin"

~	Short Desc.		S	UB STD VTE				
	Start	Stop	Step	Detector	Meas.	IF	Transducer	
	Frequency	Frequency	Width		Time	Bandw.		
	9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak Average	1.0 s	200 Hz	NSLK8126 2008	
	150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak Average	1.0 s	9 kHz	NSLK8126 2008	



MEASUREMENT RESULT: "TUV-0415-4_fin"

4/15/2019

57	10/2010								
	Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE	
	0.155000	57.40	10.5	66	8.3	QP	N	GND	
	0.205000	49.20	10.5	63	14.2	QP	N	GND	
	0.305000	33.60	10.6	60	26.5	QP	N	GND	
	7.200000	12.40	11.2	60	47.6	QP	N	GND	

MEASUREMENT RESULT: "TUV-0415-4_fin2"

4/15/2019 Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.155000	44.40	10.5	56	11.3	AV	N	GND
0.205000	36.10	10.5	53	17.3	AV	N	GND
0.310000	20.70	10.6	50	29.3	AV	N	GND
7.040000	3.10	11.2	50	46.9	AV	N	GND



13.ANTENNA REQUIREMENT

13.1.The Requirement

According to FCC Section 15.203 and RSS-Gen Section 6.8, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

13.2.Antenna Construction

Device is equipped with permanent attached antenna, which isn't displaced by other antenna. The Antenna gain of EUT is -1.26dBi. Therefore, the equipment complies with the antenna requirement of FCC Section 15.203 and RSS-Gen Section 6.8.

***** End of Test Report *****