

Report No: CCISE190909601V01

FCC REPORT

Applicant:	Dragino Technology Co., Limited.				
Address of Applicant:	Room 202, Block B, BCT Incubation Bases (BaoChengTai), No.8 Cai Yun Road Long Cheng Street, Long Gang District; Shenzhen 518116, China				
Equipment Under Test (EL	JT)				
Product Name:	Temperature & Humidity Sensor				
Model No.:	LHT65				
Trade mark:	DRAGINO				
FCC ID:	ZHZLHT65				
Applicable standards:	FCC CFR Title 47 Part 15 Subpart C Section 15.249				
Date of sample receipt:	24 Sep., 2019				
Date of Test:	25 Sep., to 23 Oct., 2019				
Date of report issued:	23 Oct., 2019				
Test Result:	PASS*				

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Bruce Zhang Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the CCIS product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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2 Version

Version No.	Date	Description		
00	00 08 Oct., 2019 Original			
01	23 Oct., 2019	Update page 6, 8, 9 and band edge test.		

Prepared By:

Date:

08 Oct., 2019

08 Oct., 2019

Check By:

(aver Chen Project Engineer Winner Mang Date:

Reviewer



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4 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	Pass
Conducted Emission	15.207	N/A
Field strength of the fundamental signal	15.249 (a)(e)	Pass
Spurious emissions	15.249 (d)/15.209	Pass
20dB Occupy Bandwidth	15.215	Pass

Pass: The EUT comply with the essential requirements in the standard.



5 General Information

5.1 Client Information

Applicant:	Dragino Technology Co., Limited.				
Address:	Room 202, Block B, BCT Incubation Bases (BaoChengTai), No.8 CaiYunRoad Long Cheng Street, LongGang District; Shenzhen 518116, China				
Manufacturer/Factory:	Dragino Technology Co., Limited.				
Address:	Room 202, Block B, BCT Incubation Bases (BaoChengTai), No.8 CaiYunRoad Long Cheng Street, LongGang District; Shenzhen 518116, China				

5.2 General Description of E.U.T.

Product Name:	Temperature & Humidity Sensor
Model No.:	LHT65
Operation Frequency:	902.3MHz~927.8MHz
Modulation type:	LoRa
Antenna Type:	Internal Antenna
Antenna gain:	0 dBi
Power supply:	Rechargeable Lithium Battery DC3.0V/1500mAh
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

Operatio	Operation Frequency each of channel									
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency	
0	902.3MHz	26	907.5MHz	52	912.7MHz	78	918.0MHz	104	923.2MHz	
1	902.5MHz	27	907.7MHz	53	912.9MHz	79	918.2MHz	105	923.4MHz	
2	902.7MHz	28	907.9MHz	54	913.1MHz	80	918.4MHz	106	923.6MHz	
3	902.9MHz	29	908.1MHz	55	913.3MHz	81	918.6MHz	107	923.8MHz	
4	903.1MHz	30	908.3MHz	56	913.5MHz	82	918.8MHz	108	924.0MHz	
5	903.3MHz	31	908.5MHz	57	913.7MHz	83	919.0MHz	109	924.2MHz	
6	903.5MHz	32	908.7MHz	58	913.9MHz	84	919.2MHz	110	924.4MHz	
7	903.7MHz	33	908.9MHz	59	914.1MHz	85	919.4MHz	111	924.6MHz	
8	903.9MHz	34	909.1MHz	60	914.3MHz	86	919.6MHz	112	924.8MHz	
9	904.1MHz	35	909.3MHz	61	914.5MHz	87	919.8MHz	113	925.0MHz	
10	904.3MHz	36	909.5MHz	62	914.7MHz	88	920.0MHz	114	925.2MHz	
11	904.5MHz	37	909.7MHz	63	914.9MHz	89	920.2MHz	115	925.4MHz	
12	904.7MHz	38	909.9MHz	64	915.2MHz	90	920.4MHz	116	925.6MHz	
13	904.9MHz	39	910.1MHz	65	915.4MHz	91	920.6MHz	117	925.8MHz	
14	905.1MHz	40	910.3MHz	66	915.6MHz	92	920.8MHz	118	926.0MHz	
15	905.3MHz	41	910.5MHz	67	915.8MHz	93	921.0MHz	119	926.2MHz	
16	905.5MHz	42	910.7MHz	68	916.0MHz	94	921.2MHz	120	926.4MHz	
17	905.7MHz	43	910.9MHz	69	916.2MHz	95	921.4MHz	121	926.6MHz	
18	905.9MHz	44	911.1MHz	70	916.4MHz	96	921.6MHz	122	926.8MHz	
19	906.1MHz	45	911.3MHz	71	916.6MHz	97	921.8MHz	123	927.0MHz	
20	906.3MHz	46	911.5MHz	72	916.8MHz	98	922.0MHz	124	927.2MHz	
21	906.5MHz	47	911.7MHz	73	917.0MHz	99	922.2MHz	125	927.4MHz	
22	906.7MHz	48	911.9MHz	74	917.2MHz	100	922.4MHz	126	927.6MHz	
23	906.9MHz	49	912.1MHz	75	917.4MHz	101	922.6MHz	127	927.8MHz	

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<u> </u>						100	000 000
24	907.1MHz	50	912.3MHz	76	917.6MHz	102	922.8MHz
25	907.3MHz	51	912.5MHz	77	917.8MHz	103	923.0MHz

Note:

In section 15.31(*m*), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test. Channel No. 0, 64 & 127 were selected as Lowest, Middle and Highest channel.

5.3 Test mode

Transmitting mode:	ransmitting mode: Keep the EUT in transmitting mode with modulation.							
Pre-Test Mode: (highest chann	Pre-Test Mode: (highest channel=2407MHz)							
CCIS has verified the construction and function in typical operation, The EUT was placed on three different polar directions; i.e. X axis, Y axis, Z axis. which was shown in this test report and defined as follows:								
Axis	Х	Y	Z					
Field Strength(dBuV/m)	Field Strength(dBuV/m) 96.35 93.54 92.35							
Final Test Mode:								
According to ANSI C63.4 standards, the test results are both the "worst case" and "worst setup":								

X axis (see the test setup photo)

5.4 Description of Support Units

N/A

5.5 Laboritory Facility

The test facility is recognized, certified, or accredited by the following organizations:

FCC - Registration No.: 727551

Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been accredited as a testing laboratory by FCC (Federal Communications Commission). The Registration No. is 727551.

• IC - Registration No.: 10106A-1

The 3m Semi-anechoic chamber of Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

• CNAS - Registration No.: CNAS L6048

Shenzhen Zhongjian Nanfang Testing Co., Ltd. is accredited to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L6048.

• A2LA - Registration No.: 4346.01

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: <u>https://portal.a2la.org/scopepdf/4346-01.pdf</u>

5.6 Laboritory Location

Shenzhen Zhongjian Nanfang Testing Co., Ltd. Address: No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road, Bao'an District, Shenzhen, Guangdong, China Tel: +86-755-23118282, Fax: +86-755-23116366 Email: info@ccis-cb.com, Website: http://www.ccis-cb.com



5.7 Test Instruments list

Radiated Emission:							
Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)		
3m SAC	SAEMC	9m*6m*6m	966	07-22-2017	07-21-2020		
BiConiLog Antenna	SCHWARZBECK	VULB9163	497	03-18-2019	03-17-2020		
Horn Antenna	SCHWARZBECK	BBHA9120D	916	03-18-2019	03-17-2020		
Horn Antenna	SCHWARZBECK	BBHA9120D	1805	06-22-2017	06-21-2020		
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170582	11-21-2018	11-20-2019		
Loop Antenna	SCHWARZBECK	FMZB 1519 B	00044	03-18-2019	03-17-2020		
EMI Test Software	AUDIX	E3	V	ersion: 6.110919	b		
Pre-amplifier	HP	8447D	2944A09358	03-18-2019	03-17-2020		
Pre-amplifier	CD	PAP-1G18	11804	03-18-2019	03-17-2020		
Spectrum analyzer	Rohde & Schwarz	FSP30	101454	03-18-2019	03-17-2020		
Spectrum analyzer	Rohde & Schwarz	FSP40	100363	11-21-2018	11-20-2019		
EMI Test Receiver	Rohde & Schwarz	ESRP7	101070	03-18-2019	03-17-2020		
Simulated Station	Anritsu	MT8820C	6201026545	03-18-2019	03-17-2020		
Cable	ZDECL	Z108-NJ-NJ-81	1608458	03-18-2019	03-17-2020		
Cable	MICRO-COAX	MFR64639	K10742-5	03-18-2019	03-17-2020		
Cable	SUHNER	SUCOFLEX100	58193/4PE	03-18-2019	03-17-2020		



6 Test results and Measurement Data

6.1 Antenna requirement:

Standard requirement:	FCC Part15 C Section 15.203						
responsible party shall be us antenna that uses a unique of	be designed to ensure that no antenna other than that furnished by the sed with the device. The use of a permanently attached antenna or of an coupling to the intentional radiator, the manufacturer may design the unit n be replaced by the user, but the use of a standard antenna jack or bited.						
E.U.T Antenna:							
The antenna is Internal Antenna which cannot detachable . The best case gain of the antenna is 0 dBi.							



6.2 Conducted Emission

Test Requirement:	FCC Part 15 B Section 15.20)7			
Test Method:	ANSI C63.10:2013				
Test Frequency Range:	150kHz to 30MHz				
Class / Severity:	Class B				
Receiver setup:	RBW=9kHz, VBW=30kHz				
Limit:		Limit	(dBµV)		
Linnt.	Frequency range (MHz)	Quasi-peak	Average		
	0.15-0.5	66 to 56*	56 to 46*		
	0.5-5	56	46		
	0.5-30	60	50		
	* Decreases with the logarith	m of the frequency.			
Test setup:	Reference Plar	ne			
	AUX Filter AC power Function E.U.T EMI Test table/Insulation plane EMI Remarkc E.U.T. Equipment Under Test LISN Line Impedence Stabilization Network Test table height=0.8m				
Test procedure	 The E.U.T and simulators are connected to the main power through a line impedance stabilization network(L.I.S.N.). The provide a 50ohm/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs). Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2013 on conducted measurement. 				
Test Instruments:	Refer to section 5.9 for details				
Test mode:	Refer to section 5.3 for details				
Test results:	The power supply of the EUT	Γ is by the Battery, so i	not need to be tested.		





6.3 Radiated Emission

Test Requirement:	FCC Part15 C	Section 15	.249 and 15.2)9		
Test Method:	ANSI C63.10:	2013				
Test Frequency Range:	9KHz to 1000	OMHz				
Test site:	Measurement	Distance: 3	m			
Receiver setup:	Frequency	Detector	RBW	VBV	V	Remark
	30MHz-1GHz Quasi-peak 100kHz 300kH				Hz	Quasi-peak Value
	Above 1CHz Peak 1MHz 3MHz Pea				Peak Value	
	Above 1GHz RMS 1MHz 3MHz Average Value					
Limit:	Frequer	псу	Limit (dBuV/r	n @3m)		Remark
(Field strength of the	902.928N	лн ,	94.00			Average Value
fundamental signal)	302.3200	/11 12	114.00)		Peak Value
Limit:	Frequen	су	Limit (dBuV/n	n @3m)		Remark
(Spurious Emissions)	30MHz-88	MHz	40.00			Quasi-peak Value
	88MHz-216	6MHz	43.50			Quasi-peak Value
	216MHz-96	0MHz	46.00			Quasi-peak Value
	960MHz-1	GHz	54.00			Quasi-peak Value
	Above 10	H7	54.00			Average Value
			74.00			Peak Value bands, except for
frequency band) Test Procedure:	 whichever is the second seco	ne lesser att was placed 5m (above 1 was rotated adiation. was set 3 n which was n na height is d to determ zontal and v measurem suspected of then the an of find the m receiver sys Bandwidth ssion level of pecified, the T would be B margin we	tenuation. I on the top of GHz) above th d 360 degrees neters away fr mounted on th s varied from of ine the maxim vertical polariz- ent. emission, the intenna was tur able table was naximum readi tem was set to with Maximum of the EUT in p en testing cou reported. Othe	a rotating be ground to detern om the int e top of a one meter um value ations of t EUT was ed to heig turned fro ng. D Peak De beak mod d be stop erwise the ed one by	table table at a nine t terfere varia to fo of the he ar arran ghts f ode. e was ped a e emis y one	3 meter camber. the position of the ence-receiving able-height antenna our meters above e field strength. Intenna are set to reged to its worst from 1 meter to 4 degrees to 360 Function and s 10dB lower than and the peak values ssions that did not using peak, quasi-

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Test setup:	Below 1GHz
	EUT Tum Table Ground Plane
	Above 1GHz
	AE EUT Harr Antenna Tower Harr Antenna Tower Ground Reference Plane Test Receiver
Test Instruments:	Refer to section 5.7
Test mode:	Refer to section 5.3
Test results:	Passed
Remark:	 Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the X-axis is the worst case. 9 kHz to 30MHz is too low, so only shows the data of above 30MHz in this report.



	<u> </u>		Peak v				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
002.2	63.42	22.50	3.73	89.65	114.00	-24.35	Vertical
902.3	70.12	22.50	3.73	96.35	114.00	-17.65	Horizontoal
015.0	61.42	22.56	3.86	87.84	114.00	-26.16	Vertical
915.2	67.59	22.56	3.86	94.01	114.00	-19.99	Horizontoal
007.0	60.36	22.62	3.99	86.97	114.00	-27.03	Vertical
927.8	66.25	22.62	3.99	92.86	114.00	-21.14	Horizontoal
			Average	value			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
902.3	54.25	22.50	3.73	80.48	94.00	-13.52	Vertical
902.5	60.37	22.50	3.73	86.60	94.00	-7.40	Horizontoal
015.0	52.56	22.56	3.86	78.98	94.00	-15.02	Vertical
915.2	57.86	22.56	3.86	84.28	94.00	-9.72	Horizontoal
927.8	51.12	22.62	3.99	77.73	94.00	-16.27	Vertical
927.0	56.25	22.62	3.99	82.86	94.00	-11.14	Horizontoal

6.3.1 Field Strength Of The Fundamental Signal

NOTE: Field strength of the fundamental signal test, RBW >20dB BW, VBW>=3XRBW.



6.3.2 Spurious Emissions

Measurement Data (worst case):

Below 1GHz:

Product Nar	me:	Temperatu	ure & Humi	dity Senso	r Pr	oduct Mo	del:	LHT65		
est By:		Carey			Те	est mode:		2.4G Tx	mode	
est Freque	ency:	30 MHz ~	1 GHz		Po	olarization	:	Vertical		
est Voltage	e:	DC 3V			E	nvironmen	t:	Temp: 24°C Huni: 57		luni: 57%
1355					•					
120 Leve	el (dBuV/m)	_						_		
110										
90								Fundame	ntal signal	
30										1
70		_								
10								1000		
								FCC PAP	RT15 CLAS	SB
50						r			4 5 6	
							a brance	adamanat	fampland	
	1 0		2			A DECISION OF THE OWNER OWNER OF THE OWNER OWNE	and a second			
30	- infrancia	surproduced	and a start of the	entrymouth	mondoenpents	montration	very distants			
vulandra'	materia	sur manager	3	entrophysical		Warnenskielen	and a second second			
10	- A Denne	and and and	3	entroplementer	han mil an	warman diadan	very distants			
10	50	and and and a	100	entroperations	200	warmen a kulan		500		1000
w.herdreit	50	guel and and		entropic states	200 Juency (MH		and a second sec	500		1000
10			100 Ant enna	Free	uency (MH Preamp	z)	Limit	Over		
10	50 Freq		100	Free	juency (MH	z)	Limit Line	Over	Remark	
10			100 Antenna Factor	Free	uency (MH Preamp Factor	z)	Line	Over Limit		
10 030	Freq MHz	Level dBuV	100 Antenna Factor dB/m	Free Cable Loss dB	uency (MH Preamp Factor dB	z) Level dBuV/m	Line dBuV/m	Over Limit dB	Remark	
10 030	Freq MHz 40.276 50.409	Level dBuV 15.36 15.01	100 Antenna Factor dB/m 12.40 12.05	Free Cable Loss dB 1.22 1.25	Preamp Factor dB 0.00 0.00	z) Level dBuV/m 28.98 28.31	Line <u>dBuV/m</u> 40.00 40.00	Over Limit dB -11.02 -11.69	QP QP	
10 0 30	Freq MHz 40.276 50.409 104.903	Level dBuV 15.36 15.01 15.00	100 Antenna Factor dB/m 12.40 12.05 12.09	Free Cable Loss dB 1.22 1.25 2.00	Uuency (MH Preamp Factor dB 0.00 0.00 0.00 0.00	z) Level dBuV/m 28.98 28.31 29.09	Line dBuV/m 40.00 40.00 43.50	Over Limit 	QP QP QP QP	
10 0 30	Freq MHz 40.276 50.409 104.903 622.890	Level dBuV 15.36 15.01 15.00 15.74	100 Antenna Factor dB/m 12.40 12.05 12.09 19.59	Free Cable Loss dB 1.22 1.25 2.00 3.90	Unency (MH Preamp Factor dB 0.00 0.00 0.00 0.00 0.00	z) Level dBuV/m 28.98 28.31 29.09 39.23	Line dBuV/m 40.00 40.00 43.50 46.00	Over Limit -11.02 -11.69 -14.41 -6.77	Remark QP QP QP QP	
10	Freq MHz 40.276 50.409 104.903	Level dBuV 15.36 15.01 15.00	100 Antenna Factor dB/m 12.40 12.05 12.09	Free Cable Loss dB 1.22 1.25 2.00	Uuency (MH Preamp Factor dB 0.00 0.00 0.00 0.00	z) Level dBuV/m 28.98 28.31 29.09 39.23	Line dBuV/m 40.00 40.00 43.50 46.00	Over Limit -11.02 -11.69 -14.41 -6.77 -4.53	Remark QP QP QP QP QP QP	



roduct Name:		Temperate	ure & Humio	dity Senso	r Pi	roduct Mo	del:	LHT65		
est By:		Carey			Те	est mode:		2.4G Tx	mode	
est Frequency	:	30 MHz ~	1 GHz		P	olarization	:	Horizon	tal	
est Voltage:		DC 3V			E	nvironmer	nt:	Temp: 2	.4℃ F	luni: 57%
-										
120 Level (d	BuV/m)									
110									-	
90								Fundam	nental signa	
70										
50								FCC P	ART15 CLA	SSB
50									56	
30	1			2	3		munin	manane	whender	
the second states	**************	warded warmen	have been and the second	- to Manual and	al agention with	-				
10				-				_		
030	50		100	<u> </u>	200	0		500		1000
				Fre	quency (M					
	Freq		Antenna Factor		Preamp Factor	Level	Limit Line	Over Limit	Remark	
			dB/m			dBuV/m				
	MHz	dBu∛	dD/m	æ	æ	abuv/m	dbuv/m	dB		
	0.232	13.55	12.08	1.25	0.00	26.88			QP	
3 20	19.029 13.523	13.48 13.23	11.75 10.76	2.04	0.00	27.27 26.86		-16.23		
4 46	2.346	15.28	16.91	3.30	0.00	35.49	46.00	-10.51	QP	
5 77	1.449	15.17 14.87	20.99 21.97	4.36	0.00	40.52	46.00			
		1 1 . 0 .	C 1	3.20	0.00	11.12	10.00	4.00	A1	



Above 1GHz

Above 1GHz			Test cl	hannel: Low	est channel			
				tector: Peak				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
1804.60	63.25	25.61	4.12	41.21	51.77	74.00	-22.23	Vertical
1804.60	63.01	25.61	4.12	41.21	51.53	74.00	-22.47	Horizontal
				ector: Avera	ge Value		-	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
1804.60	48.25	25.61	4.12	41.21	36.77	54.00	-17.23	Vertical
1804.60	48.82	25.61	4.12	41.21	37.34	54.00	-16.66	Horizontal
				nannel: Mido tector: Peak				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
1830.40	61.48	25.63	4.15	41.27	49.99	74.00	-24.01	Vertical
1830.40	59.89	25.63	4.15	41.27	48.40	74.00	-25.60	Horizontal
		Г Т		ector: Avera	ge Value			I
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
1830.40	48.49	25.63	4.15	41.27	37.00	54.00	-17.00	Vertical
1830.40	48.19	25.63	4.15	41.27	36.70	54.00	-17.30	Horizontal
				annel: High				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
1855.60	59.44	25.66	4.18	41.34	47.94	74.00	-26.06	Vertical
1855.60	57.98	25.66	4.18	41.34	46.48	74.00	-27.52	Horizontal
		· · · · ·		ector: Avera	ge Value			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
1855.60	48.70	25.66	4.18	41.34	37.20	54.00	-16.80	Vertical
1855.60	48.35	25.66	4.18	41.34	36.85	54.00	-17.15	Horizontal
		r Read level + f other freque				nplifier Factor. not show in test	t report.	



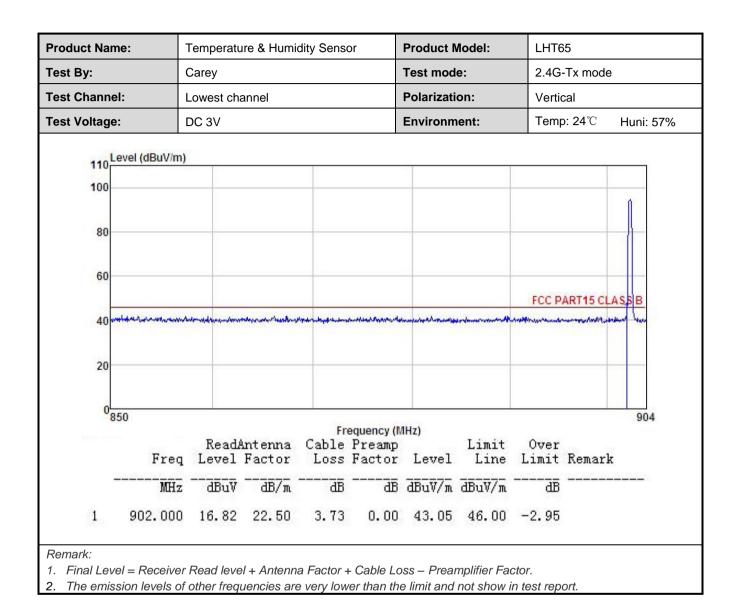
6.3.3 Band Edge

Radiated Emission Method

Test Requirement:	FCC Part 15 C	Section 15.2	209				
Test Method:	ANSI C63.10:	2013					
Test Frequency Range:	850MHz to 10	00MHz					
Test Distance:	3m						
Receiver setup:	Frequency	Detector	RBW	VB	3W	Remark	
	30MHz-1GHz Quasi-peak 100kHz 300kHz Quasi-pe						
Limit:	Frequency Limit (dBuV/m @3m) Remark						
	30MHz-88		40.00			asi-peak Value	
	88MHz-216		43.50			asi-peak Value	
	216MHz-96 960MHz-1		46.00			asi-peak Value asi-peak Value	
Test Procedure:	 the groun to determ 8. The EUT antenna, tower. 9. The anter the groun Both hori: make the 10. For each case and meters ar to find the 11. The test-r Specified 12. If the emi the limit s of the EU have 10 c 	d at a 3 mete ine the position was set 3 mete which was me and height is a d to determin zontal and ve measuremen suspected en then the ante a maximum re receiver syste Bandwidth w ssion level of pecified, then T would be re B margin wo	varied from one r e the maximum v tical polarization t. hission, the EUT nna was tuned to ble was turned fro ading. m was set to Pea ading. m was set to Pea th Maximum Ho the EUT in peak testing could be ported. Otherwis	ble was radiatio he inter o of a va meter to value of us of the was arr o height om 0 de ak Dete ld Mode stoppe se the e one by 0	s rotate on. Iferenc ariable o four r f the file e anten rangeo ts from egrees ect Fun e. was 10 ed and emissio one us	ed 360 degrees e-receiving -height antenna meters above eld strength. ana are set to d to its worst a 1 meter to 4 to 360 degrees action and 0 dB lower than the peak values ons that did not sing peak, quasi-	
Test setup:	EUT Turn Table Ground Plar					wer	
Test Instruments:	Refer to section	on 5.7 for deta	ils				
Test mode:	Refer to section	on 5.3 for deta	ils				
Test results:	Passed						

Project No.: CCISE1909096







	Temperat	ure & Humid	ity Senso	r Pr	oduct Mo	del:	LHT65		
est By:	Carey			Те	st mode:		2.4G-Tx r	node	
est Channel:	Lowest ch	annel		Po	larization	:	Horizontal		
est Voltage:	DC 3V			En	vironmen	it:	Temp: 24	°C	Huni: 57%
1									
110 Level (dBu)	//m)								
100									
80									
60							-		
							FCC P	ART15 C	LASSB
							FCC PART15 CLASE B		
40 minuter Marine	water and a second	marghaman	winner	www.www.www.			-termination	-	menter
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	water and a second	www.aflasser.com	windowange	nan an	ada ⁶ 764794777777787787887	+y175+00,4+14+72-44	alter an around		ment ber
40 mil. Ale and a		nnodhryon,and	w	nine-Mannania	-http:////	ay at a second	al la manager and	~~ <u>}</u>	meet be
20		noned have none		-11 11⁹2-1 1-11-11-11-1		+,,1 ³ 797,479,479,444	elterningenetter	****	nut ha
	1	anasoffason ann an a				+utter, er er te de	an farmer and a second		904
20			Fr	equency (M	1Hz)		Over	****************	904
20 0 850	Rea	dAntenna 1 Factor	Fr Cable	equency (N Preamp	IHz)	Limit Line	Over Limit	Remar	
20 0.850 F	Rea	dAntenna 1 Factor	Fr Cable	equency (N Preamp Factor	IHz)	Limit Line	Limit	Remar	
20 0.850 F	Rea req Leve MHz dBu	dAntenna 1 Factor V	Fr Cable Loss	equency (N Preamp Factor dB	IHz) Level	Limit Line dBuV/m	Limit dB	Remar	
20 0 850 Fi	Rea req Leve MHz dBu	dAntenna 1 Factor V	Fr Cable Loss dB	equency (N Preamp Factor dB	1Hz) Level dBuV/m	Limit Line dBuV/m	Limit dB	Remar	



oduct Name:	Temperat	Temperature & Humidity Sensor			Product Model:		LHT65			
st By:	Carey				Test mod	le:	2.4G	-Tx mode		
st Channel:	Highest cl	t channel Polarization: Vertical		cal						
st Voltage:	DC 3V	DC 3V Environment: Temp: 24°C Hu				DC 3V			Huni: 57	
an and a second second			NGASI SI NI U	00005-010000	1 COLUMN STOR					
100 Level (dBu	V/m)									
90										
80										
70										
								DTAL CLAR		
60							FCC PART15 CLASS B		SS R	
60 50							FCC PA	RT15 CLAS	SS B	
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50	rfilturing fright and films fright	no antipatra antipatra	zisyn eis d aennei	- Afrikandersen Sener	lann-lunadand	wurdessentigenetigen				
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50 40 m binnen 30 20		950	Fr	equency (M	IHz)		ftydgernyrdwraing			
50 40 30 20 10 926	Read		Fr Cable		IHZ)	Limit	Over		6-4-5-61%s	
50 40 30 20 10 926 F	Read	950 Antenna Factor	Fr Cable	equency (M Preamp Factor	IHZ)	Limit Line	Over	adaratarkarkar	6-4-5-61%s	
50 40 30 20 10 926 F	Read req Level MHz dBuV	950 Antenna Factor dB/m	Fr Cable Loss	equency (M Preamp Factor dB	Hz) Level dBuV/m	Limit Line	Over Limit dB	adaratarkarkar	6-4-5-61%s	



duct Nam	e: Te	Temperature & Humidity Sensor				Product Model:		LHT65		
st By:	Ca	arey			Те	st mode:	2	2.4G-Tx m	ode	
st Channel	: Hi	ghest cha	est channel		Ро	Polarization: Ho		Horizontal		
st Voltage:	D					Environment:		Temp: 24°C Huni: 5		
	Strends of Castle all									
100 Le	vel (dBuV/m)									
90										
80										
70										
60										
								FCC PA	RT15 CLAS	SB
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40 30 20 10			950 Intenna	Fre Cable	equency (M Preamp	Hz)	Limit	Over		mod
40 30 20 10		Read!	950 Intenna Factor	Fre Cable	equency (M Preamp Factor	Hz) Level	Limit Line	Over Limit		mod
40 30 20 10	Freq	Read/	950 Intenna	Fre Cable Loss	equency (M Preamp Factor dB	Hz)	Limit Line dBuV/m	Over Limit 		mod



6.4 20dB Occupy Bandwidth

Test Requirement:	FCC Part 15 C Section 15.215
Test Method:	ANSI C63.10:2013
Receiver setup:	RBW=30 kHz, VBW=100 kHz, detector=Peak
Limit:	N/A
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane
Test Instruments:	Refer to section 5.7 for details
Test mode:	Transmitting mode
Test results:	Pass

Measurement Data:

20dB Occupy Bandwidth (MHz)							
Lowest channel	Middle channel	Highest Highest					
0.14	0.139	0.139					



Report No: CCISE190909601V01

Test plot as follows:

