

# **TEST REPORT**

# For

# Dali Wireless (Canada) Inc.

8618 Commerce Ct. Burnaby, British Columbia V5A 4N6, Canada

April 09, 2015 Date:

Report No.: 12675-1E

Revision No.: 0

Project No.: 12675

Equipment: Radio Remote Model No.: t30-SNI-1NB

#### ONE STOP GLOBAL CERTIFICATION SOLUTIONS

















3133-20800 Westminster Hwy, Richmond, BC V6V 2W3, Canada Phone: 604-247-0444 Fax: 604-247-0442 www.labtestcert.com

Date Issued: April 09, 2015

Project No: 12675

Dali Wireless Inc. Client: Report No.: 12675-1E Revision No.:

0

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Prepared by: Date Issued: LabTest Certification Inc.

April 09, 2015

Project No: 12675

Client: Report No.: Revision No.:

Dali Wireless Inc. 12675-1E 0

TEST REPORT					
	FCC 90 and RSS-131				
Report reference No	12675-1E				
Report Revision History:	✓ Rev. 0: April 09, 2015				
Tested by (printed name and signature):	Jeremy Lee				
Approved by (printed name and signature):	Kavinder Dhillon, Eng.L aurola Shellon				
Date of issue:					
1.) Statement of Independence # 3014 (LabTest E	9, clause 11 (Engineering Service Subcontractors), or				
Testing Laboratory Name:	LabTest Certification Inc.				
Address:	3133 – 20800 Westminster Hwy, Richmond, B.C. V6V 2W3				
FCC Site Registration No	373387				
IC Site Registration No	5970A-2				
Test Location Name	LabTest Certification Inc.				
Address:	3133 – 20800 Westminster Hwy, Richmond, B.C. V6V 2W3				
Applicant's Name	Dali Wireless (Canada) Inc.				
Address	8618 Commerce Ct. , Burnaby, B.C., V5A 4N6 Canada				
Manufacturer's Name	Same as Applicant				
Address:	Same as Applicant				
Test specification Standards	✓ CFR 47 Part 90 ✓ RSS-131				
Testing					
Date of receipt of test item:	April 06, 2015				
Date(s) of performance of test:	April 06 to 08, 2015				
Test item description					
Trademark:	Dali				
	WIRELESS				

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 Model and/or type reference
 t30-SNI-1NB

 FCC & IC ID
 FCC ID: HCOT30SNI1A

 Serial numbers
 15327421E01B52002

 Electrical Rating(s)
 48VDC, 1.6A

Product descriptions	
Application for:	800MHz Public Safety Radio
Operating Frequency	851 to 862MHz
Equipment mobility:	No
Type of Modulation:	P25-C4PM, P25-HCPM, P25-HDQPSK, P25-CQPSK, FM
Maximum Output Power:	1 Watt( +30dBm)
Bandwidth:	- 25 kHz: FM - 12.5kHz: P25-C4PM, P25-HCPM, P25-HDQPSK - 6.25kHz: P25-CQPSK
Transmitted Channel:	Lowend, Middle and Highend - 25 kHz: 851.0125, 856.5, and 861.9875MHz -12.5kHz: 851.00625, 856.5, and 861.99375MHz - 6.25: 851.003125, 856.5, and 861.996875MHz
Nominal Voltages for:	_X_ stand-alone equipment combined (or host) equipment test jig
Supply Voltage:	ACAmpsHz 48VDC1.6Amps
If DC Power:	X External Power Supply Host system is supplied the DC power Battery
Size of equipment(Width X High X Depth):	12.9" X 18.9" X 4.6"
Mass of equipment (kg):	11
Operating Temperature Range:	0 to + 40 °C
Test case verdicts	
Test case does not apply to the test object:	N/A
Test item does meet the requirement:	Pass
Test item does not meet the requirement:	Fail

#### **General product information:**

The EUT, Dali's t30SNI1NB, (30 dBm, 1 W) is an all-digital, low power, single-band radio remote. It bidirectionally transfers 800 MHz public safety bands over a single optical fiber (SFP –Single Mode Fiber) to/from the tHost® at 6 Gb/s up to 40 km. It also accommodates 1Gb/s Ethernet backhaul as well. This smart radio remote enables multiple network topologies that cater to different deployments scenarios including star, chain, hybrid and loop topologies.

#### List of ancillary and/or support equipment provided by the applicant

Model No.	Description	Manufacturer	Approvals/Standards
tHOST-SN-SS2S	HOST	Dali	CE
N5182B	N5182B Digital Signal Generator Agilent		CE, FCC
DT150PW480C	AC to DC Power Adaptor	TDK-Lamda	CE, FCC
2808-CZU	Laptop	Lenovo	CE, FCC

## **Description of Interface Cables for Testing**

Description	Cable Type	Cable length	Ferrite
DC Input	Shielded, 1 wire Cable	1 meter	YES
RF In/out	Coaxial, Type N to Type N, 50 Ohm terminated with 40dB attenuator	1 meter	N/A
AUX	Ethernet cable, 5e UTP, terminated to ETN Port	2 meters	YES
01	Fiber Optic Cable	10 meters	N/A
Ground	1 wire ground cable, connected to Ground floor	2 meters	N/A

ARRANGEMENT OF INTERFACE CABLES: All interface cables were positioned for worst-case maximum emissions within the manner assumed to be a typical operation condition (please reference photographs).

#### **Software and Firmware**

Description	Version
NMS_monitoring for HOST and REMOTE	1.9.0RC10.9

#### Worst-case configuration and mode of operation during testing

The EUT was connected to HOST, t30 via Fiber Optic cable and kept sending out downlinked radio, 1W Max.

Date Issued: April 09, 2015

Report No.: 12675-1E Project No: 12675 Revision No.:

## **Modifications Required for Compliance**

To reduce the radiated emissions, some ferrites were installed AUX and DC In Cables as see below photos.





Client:

Dali Wireless Inc.

## **Test Equipment Verified for function**

Model #	Description	Checked Function	Results
E7405	Spectrum Analyzer	Frequency and Amplitude	Connected 50MHz and - 20dBm Cal_siganl and checked OK.
AT8447D	Pre-Amplifier, 30 to 1,000MHz	Gain at 30 and 1,000Mhz	Gains are normal.
8449B	Pre-Amplifier, 1 to 26.5GHz	Gain at 1 to 26.5GHz	Gains are normal.
JB1	Anatenna, 30 to 1000MHz	Checked structure	Normal – no damage.
SAS-571	Anatenna, 1 to 18GHz	Checked structure	Normal – no damage
5001i	AC Power Source	Measured the Output power, 120VAC, 60Hz	Working normally
Onset HOBO	Humidity/ Temperature Logger	Compared room Temp. and Hum. with another data logger	Working normally

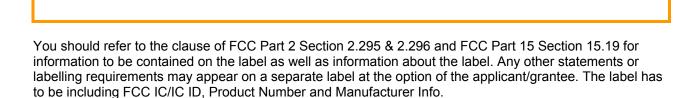
#### **Measurement Uncertainty**

Where relevant, the following measurement uncertainty levels have been estimated for tests:

Parameter	Uncertainty(dB)
Radiated Emission, 30 to 1,000MHz	4.67
Radiated Emission, 1 to 18GHz	4.65

Uncertainty figures are valid to a confidence level of 95%.

## Markings



According to FCC Section 2.925(a),

- (a) Each equipment covered in an application for equipment authorization shall bear a nameplate or label listing the following:
- (1) FCC Identifier consisting of the two elements in the exact order specified in §2.926. The FCC Identifier shall be preceded by the term *FCC ID* in capital letters on a single line, and shall be a type size large enough to be legible without the aid of magnification.

Example: FCC ID XXX123. XXX-Grantee Code 123-Equipment Product Code"

## **Test Summary**

When configured and operated as specified in this report, the product was found to comply with the requirements as indicated below.

Test Type	Regulation	Measurement Method	Result
Radiated Emissions-Intentional _Spurious	90.210 & 219	ANSI/TIA-603-C-2004	PASS

#### **Radiated Spurious Emissions**

Temperature	20.0 ℃
Relative Humidity	40.0 %
Barometric Pressure:	102.0 kPa
Test Date	April 07 to 08, 2015
Sample Number	3506
Calibrated Test Equipment (ID)	227-3, 266, 272, 273, 371, 516
Reference Equipment (ID) (Calibration not required)	374
Electrical Rating	Internal battery
Tested By	Jeremy LEE

Use the barometric pressure reported at: <a href="http://www.theweathernetwork.com/weather/cabc0248">http://www.theweathernetwork.com/weather/cabc0248</a>

#### **Test Limits**

#### FCC §2.1053 Measurements required: Field strength of spurious radiation.

(a) Measurements shall be made to detect spurious emissions that may be radiated directly from the cabinet, control circuits, power leads, or intermediate circuit elements under normal conditions of installation and operation. Curves or equivalent data shall be supplied showing the magnitude of each harmonic and other spurious emission. For this test, single sideband, independent sideband, and controlled carrier transmitters shall be modulated under the conditions specified in paragraph (c) of §2.1049, as appropriate.

#### FCC §90.210 Emission masks.

- (g) Emission Mask G. For transmitters that are not equipped with an audio low-pass filter, the power of any emission must be attenuated below the unmodulated carrier power (P) as follows:
  - (2) On any frequency removed from the center of the authorized bandwidth by more than 250 percent of the authorized bandwidth: At least 43 + 10 log (P) dB.

#### FCC §90.219 Use of signal boosters.

- (e) Device Specifications. In addition to the general rules for equipment certification in §90.203(a)(2) and part 2, subpart J of this chapter, a signal booster must also meet the rules in this paragraph.
  - (3) Spurious emissions from a signal booster must not exceed −13 dBm within any 100 kHz measurement bandwidth.

#### **Test Setup**

The test was performed in accordance with ANSI/TIA-603-C-2004.

The test setup for Field Strength of Spurious is shown in Figure - 1.

- a) The EUT was placed on a wooden Table and it was put on the turning ground plate in Chamber.
- b) The EUT was set up on 3 meters away from the EUT.
- c) The EUT was set continually on its Radio, 1W Max., which was downlinked from tHOST. And the output of RF was terminated via 40dB attenuator, for rejecting the high power of carrier.
- d) The lowest, middle and highest channels were used for measuring of all radiated spurious emisions .
- e) It was measured with a receiver spectrum analyzer, Antenna and pre-amplifier, was software controlled.

#### **Test Results:**

The output of EUT was set to 1 Watt(+30dBm), the PASS level of Spurious is:

$$43 + 10\log(P) = 43 + 10\log(1) = 43dB$$
 attenuation = -13dBm

Since of radiated measurement was performed at 3 meters, the limit line was converted to dBuV/m using the formulas ad outlined in KDB 971168:

-13 dBm ERP = 84.38 dBuV/m at 3 meters.

Spurious Emission level (dBuV/m) = Detected level (dBuV) + Path Loss(dB) + Antenna Factor (dB/m) - Preamplifier's Gain (dB)

X Pass Fail N/A

There was no radiated spurious emissions were detected between 9 kHz to 30MHz. And all Spurious Emissions from 30MHz to 10GHz were below the limit value, 84.38dBuV/m.

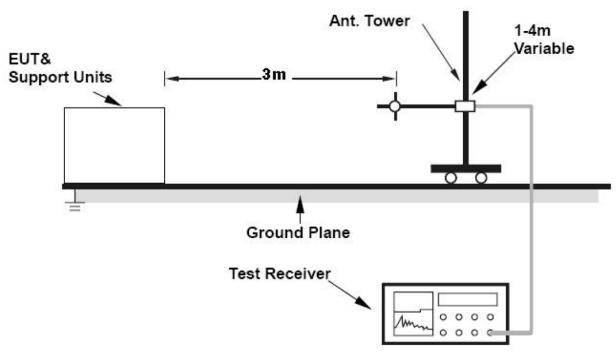
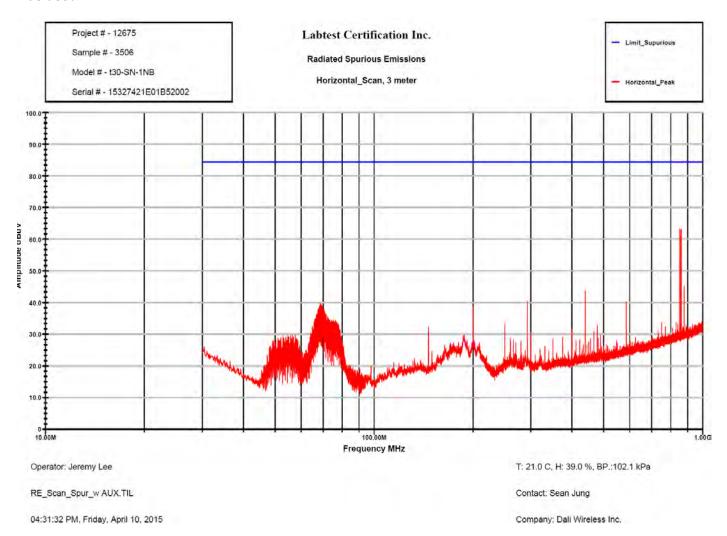
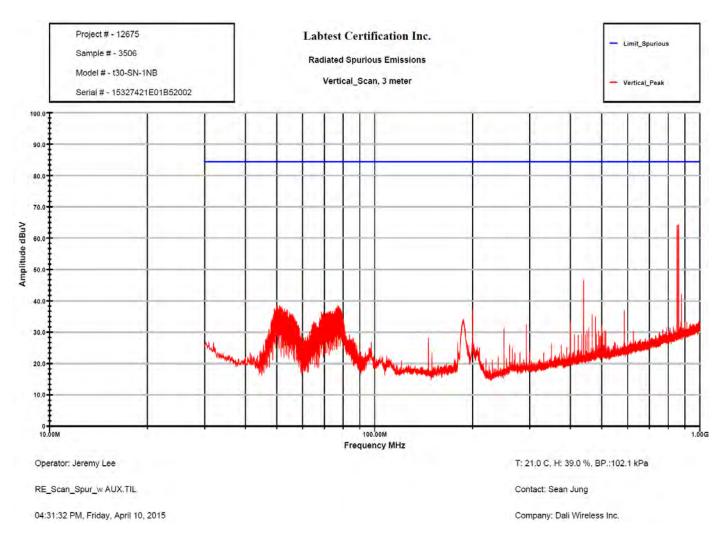


Figure - 1 Test setup for Radiated Spurious Emissions

# - The Graph of Radiated Spurious Emissions; P25-C4PM; Radio was swept, 30 to 1,000MHz, Horizontal, JB1 was used.



# - The Graph of Radiated Spurious Emissions; P25-C4PM; Radio was swept, 30 to 1,000MHz, Vertical, JB1 was used.



#### - The Table of Radiated Spurious Emissions, P25-C4PM, Lowend; 1 to 10GHz, SAS-571 was used.

LabTest Certification Inc. Radiated Spurious-Harmonics

FCC 90.210 & 219, 3 meters, Horizontal Operator: Jeremy Lee

04:38:39 PM, Friday, April 10, 2015

Model #: t30-SN-1NB Contact: Sean Jung Company: Dali Wireless Inc.

requency	Measured	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
1.70201250 GHz	48.88	26.14	-32.14	42.27	84.38	42.11	300.5	100.1	H
2.55301875 GHz	34.31	30.02	-31.97	31.93	84.38	52.45	145.5	192.3	Н
3.40402500 GHz	37.33	31.09	-31.65	36.42	84.38	47.96	267.0	100.3	H
4.25503125 GHz	34.55	32.30	-31.37	34.54	84.38	49.84	330.2	159.6	H
5.10603750 GHz	27.86	35.10	-30.95	30.87	84.38	53.51	300.3	100.1	H
5.95704375 GHz	26.29	36.01	-30.59	30.61	84.38	53.77	300.3	100.2	Н
6.80805000 GHz	26.82	37.43	-30.60	32.65	84.38	51.73	300.2	100.2	Н
7.65905625 GHz	27.83	37.57	-30.64	34.01	84.38	50.37	300.2	100.2	Н
8.51006250 GHz	26.76	38.09	-30.72	33.81	84.38	50.57	300.2	100.2	Н
Project # : 1267	5. Sample #:	3506							
Temp.: 20.1 C.	Hum.: 42.0 %			11					
Barometer Pres.:	101.8 kPa								

LabTest Certification Inc. Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Vertical

Operator: Jeremy Lee

04:38:39 PM, Friday, April 10, 2015

Model #: t30-SN-1NB Contact: Sean Jung Company: Dali Wireless Inc.

Frequency	Measured_PK	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
1.70201250 GHz	40.25	26.10	-32.14	33.64	84.38	50.74	150.1	201.0	V
2.55301875 GHz	34.64	30.02	-31.97	32.30	84.38	52.08	150.2	157.3	V
3.40402500 GHz	32.69	31.09	-31.65	31.82	84.38	52.56	15.1	216.8	V
4.25503125 GHz	35.40	32.31	-31.37	35.50	84.38	48.88	78.5	153.2	V
5.10603750 GHz	27.34	35.21	-30.95	30.36	84.38	54.02	81.6	150.1	V
5.95704375 GHz	26.51	35.76	-30.59	30.85	84.38	53.53	90.0	150.5	V
6.80805000 GHz	26.76	37.37	-30.60	32.70	84.38	51.68	90.0	150.5	V
7.65905625 GHz	26.87	37.65	-30.64	33.18	84.38	51.20	90.0	150.5	V
8.51006250 GHz	26.88	38.20	-30.72	33.91	84.38	50.47	90.0	150.5	V
Project # : 12675	, Sample #: 35	506							
Temp.: 20.1 C, H	um.: 42.0 %								
Barometer Pres.:1	01.8 kPa								

#### - The Table of Radiated Spurious Emissions; P25-C4PM, Middle; 1 to 10GHz, SAS-571 was used.

LabTest Certification Inc. Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Horizontal

Operator: Jeremy Lee

04:39:16 PM, Friday, April 10, 2015

requency	Measured	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
1.71300000 GHz	49.29	26.18	-32.13	42.74	84.38	41.64	95.3	100.2	H
2.56950000 GHz	39.18	30.01	-31.96	36.80	84.38	47.58	155.6	117.5	H
3.42600000 GHz	40.01	31.06	-31.64	38.95	84.38	45.43	170.8	100.1	H
4.28250000 GHz	34.84	32.29	-31.35	34.87	84.38	49.51	350.7	110.2	H
5.13900000 GHz	26.95	35.04	-30.94	30.05	84.38	54.33	83.5	100.1	H
5.99550000 GHz	26.22	36.15	-30.57	30.64	84.38	53.74	83.5	100.1	H
6.85200000 GHz	26.56	37.45	-30.60	32.45	84.38	51.93	83.5	100.1	Н
7.70850000 GHz	27.06	37.68	-30.63	33.36	84.38	51.02	83.5	100.1	H
8.56500000 GHz	27.14	38.01	-30.69	34.20	84.38	50.18	83.5	100.1	H
Project # : 1267	5. Sample #: :	3506							
Temp.: 20.1 C, H	lum.: 42.0 %								
Barometer Pres.:	101.8 kPa								

Date Issued: April 09, 2015 Project No: 12675

LabTest Certification Inc.

Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Vertical

Operator: Jeremy Lee

04:39:16 PM, Friday, April 10, 2015

Model #: t30-SN-1NB Contact: Sean Jung

Client:

Report No.:

Revision No.:

Company: Dali Wireless Inc.

Dali Wireless Inc.

12675-1E

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Frequency	Measured_PK	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
1.71300000 GHz	43.86	26.13	-32.13	37.32	84.38	47.06	60.5	150.3	V
2.56950000 GHz	36.73	30.03	-31.96	34.39	84.38	49.99	150.8	155.7	V
3.42600000 GHz	40.35	31.06	-31.64	39.38	84.38	45.00	288.4	123.5	V
4.28250000 GHz	34.65	32.30	-31.35	34.73	84.38	49.65	65.1	225.6	V
5.13900000 GHz	27.37	35.16	-30.94	30.46	84.38	53.92	295.3	117.9	V
5.99550000 GHz	26.72	35.90	-30.57	31.24	84.38	53.14	295.3	117.9	V
6.85200000 GHz	27.58	37.40	-30.60	33.58	84.38	50.80	295.3	117.9	V
7.70850000 GHz	27.08	37.77	-30.63	33.45	84.38	50.93	295.3	117.9	V
8.56500000 GHz	27.61	38.11	-30.69	34.65	84.38	49.73	295.3	117.9	V
Project # : 1267	5, Sample #: 35	506							
emp.: 20.1 C. H	Hum.: 42.0 %								
Barometer Pres.:	101.8 kPa								

#### - The Table of Radiated Spurious Emissions, P25-C4PM, Highend; 1 to 10GHz, SAS-571 was used.

LabTest Certification Inc. Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Horizontal

Operator: Jeremy Lee

04:37:42 PM, Friday, April 10, 2015

Model #: t30-SN-1NB Contact: Sean Jung Company: Dali Wireless Inc.

Frequency	Measured	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
1.72398750 GHz	50.53	26.22	-32.13	44.03	84.38	40.35	71.2	128.0	H
2.58598125 GHz	37.42	30.00	-31.96	35.03	84.38	49.35	330.1	100.3	H
3.44797500 GHz	40.33	31.03	-31.63	39.13	84.38	45.25	358.6	130.5	H
4.30996875 GHz	35.72	32.33	-31.33	35.80	84.38	48.58	12.5	145.7	H
5.17196250 GHz	25.25	34.97	-30.93	28.39	84.38	55.99	360.0	100.0	H
6.03395625 GHz	25.11	36.14	-30.57	29.58	84.38	54.80	360.0	100.0	Н
6.89595000 GHz	26.44	37.48	-30.59	32.40	84.38	51.98	360.0	100.0	H
7.75794375 GHz	26.14	37.80	-30.63	32.56	84.38	51.82	360.0	100.0	H
8.61993750 GHz	25.68	37.95	-30.66	32.74	84.38	51.64	360.0	100.0	Н
Project # : 12675	. Sample #: 3	506							
Temp.: 20.1 C, H	um.: 42.0 %								
Barometer Pres.:1	01.8 kPa								

LabTest Certification Inc. Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Vertical

Operator: Jeremy Lee

04:37:42 PM, Friday, April 10, 2015

Model #: t30-SN-1NB Contact: Sean Jung

Company: Dali Wireless Inc.

Frequency	Measured_PK	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
1.72398750 GHz	44.72	26.16	-32.13	38.26	84.38	46.12	61.4	200.9	V
2.58598125 GHz	34.66	30.03	-31.96	32.31	84.38	52.07	127.4	195.3	V
3.44797500 GHz	39.00	31.02	-31.63	37.92	84.38	46.46	330.2	175.2	V
4.30996875 GHz	34.32	32.34	-31.33	34.43	84.38	49.95	30.1	152.4	V
5.17196250 GHz	26.58	35.12	-30.93	29.73	84.38	54.65	300.1	150.4	V
6.03395625 GHz	26.43	35.90	-30.57	30.99	84.38	53.39	300.1	150.4	V
6.89595000 GHz	27.24	37.43	-30.59	33.31	84.38	51.07	300.1	150.4	V
7.75794375 GHz	27.45	37.88	-30.63	33.93	84.38	50.45	300.1	150.4	V
8.61993750 GHz	26.44	38.05	-30.66	33.51	84.38	50.87	300.1	150.4	V
Project # : 12675	, Sample #: 35	506							
Temp.: 20.1 C, Hu	um.: 42.0 %			11 11					
Barometer Pres.:10	01.8 kPa								

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Date Issued: April 09, 2015

Report No.: 12675-1E Project No: Revision No.: 12675

#### - The Table of Radiated Spurious Emissions, P25-HCPM, Lowend; 1 to 10GHz, SAS-571 was used.

LabTest Certification Inc. Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Horizontal

Operator: Jeremy Lee

04:42:59 PM, Friday, April 10, 2015

Model #: t30-SN-1NB Contact: Sean Jung Company: Dali Wireless Inc.

Dali Wireless Inc.

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Client:

Frequency	Measured	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL	
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm		
1.70201250 GHz	48.88	26.14	-32.14	42.27	84.38	42.11	300.8	100.2	Н	
2.55301875 GHz	34.31	30.02	-31.97	31.93	84.38	52.45	153.1	144.8	Н	
3.40402500 GHz	37.33	31.09	-31.65	36.42	84.38	47.96	265.3	100.5	Н	
4.25503125 GHz	34.55	32.30	-31.37	34.54	84.38	49.84	55.5	144.7	H	
5.10603750 GHz	27.86	35.10	-30.95	30.87	84.38	53.51	360.0	100.7	H	
5.95704375 GHz	26.29	36.01	-30.59	30.61	84.38	53.77	360.0	100.7	H	
6.80805000 GHz	26.82	37.43	-30.60	32.65	84.38	51.73	360.0	100.7	H	
7.65905625 GHz	27.83	37.57	-30.64	34.01	84.38	50.37	360.0	100.7	H	
8.51006250 GHz	26.76	38.09	-30.72	33.81	84.38	50.57	360.0	100.7	Н	
Project # : 12675	, Sample #: 0	3506								-
Temp.: 20.1 C, H	um.: 42.0 %			-1 10						
Barometer Pres.:1	01.8 kPa									

LabTest Certification Inc. Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Vertical

Operator: Jeremy Lee

04:42:59 PM, Friday, April 10, 2015

Model #: t30-SN-1NB Contact: Sean Jung Company: Dali Wireless Inc.

Frequency	Measured_PK	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
.70201250 GHz	40.25	26.10	-32.14	33.64	84.38	50.74	148.2	200.1	V
2.55301875 GHz	34.64	30.02	-31.97	32.30	84.38	52.08	142.3	174.8	V
3.40402500 GHz	32.69	31.09	-31.65	31.82	84.38	52.56	308.0	168.8	V
4.25503125 GHz	35.40	32.31	-31.37	35.50	84.38	48.88	62.5	167.2	V
5.10603750 GHz	27.34	35.21	-30.95	30.36	84.38	54.02	140.3	150.1	V
5.95704375 GHz	26.51	35.76	-30.59	30.85	84.38	53.53	140.3	150.1	V
6.80805000 GHz	26.76	37.37	-30.60	32.70	84.38	51.68	140.3	150.1	V
7.65905625 GHz	26.87	37.65	-30.64	33.18	84.38	51.20	140.3	150.1	V
8.51006250 GHz	26.88	38.20	-30.72	33.91	84.38	50.47	140.3	150.1	V
Project # : 1267	5. Sample #: 35	506				1-			
Temp.: 20.1 C.	Hum.: 42.0 %								
Barometer Pres.:	101.8 kPa								

#### - The Table of Radiated Spurious Emissions; P25-HCPM, Middle; 1 to 10GHz, SAS-571 was used.

LabTest Certification Inc. Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Horizontal

04:43:32 PM, Friday, April 10, 2015

Operator: Jeremy Lee

requency	Measured	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
1.71300000 GHz	50.33	26.18	-32.13	43.78	84.38	40.60	27.8	129.3	Н
2.56950000 GHz	37.27	30.01	-31.96	34.89	84.38	49.49	334.4	158.6	Н
3.42600000 GHz	36.60	31.06	-31.64	35.54	84.38	48.84	261.3	207.9	H
4.28250000 GHz	36.16	32.29	-31.35	36.19	84.38	48.19	354.8	100.7	Н
5.13900000 GHz	26.15	35.04	-30.94	29.25	84.38	55.13	30.0	100.0	H
5.99550000 GHz	26.59	36.15	-30.57	31.01	84.38	53.37	30.0	100.0	Н
6.85200000 GHz	26.77	37.45	-30.60	32.66	84.38	51.72	30.0	100.0	H
7.70850000 GHz	26.97	37.68	-30.63	33.27	84.38	51.11	30.0	100.0	Н
8.56500000 GHz	26.87	38.01	-30.69	33.93	84.38	50.45	30.0	100.0	Н
Project # : 1267	5, Sample #:	3506							
Temp.: 20.1 C,	Hum.: 42.0 %								
Barometer Pres.:	101.8 kPa								

Date Issued: April 09, 2015 Project No: 12675

LabTest Certification Inc.

LabTest Certification Inc. Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Vertical

04:43:32 PM, Friday, April 10, 2015

Operator: Jeremy Lee

Model #: t30-SN-1NB Contact: Sean Jung Company: Dali Wireless Inc.

Dali Wireless Inc.

12675-1E

0

Client:

Report No.:

Revision No.:

Frequency	Measured_PK	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
1.71300000 GHz	42.14	26.13	-32.13	35.60	84.38	48.78	39.8	229.9	V
.56950000 GHz	36.74	30.03	-31.96	34.40	84.38	49.98	123.6	215.4	V
3.42600000 GHz	28.88	31.06	-31.64	27.91	84.38	56.47	291.3	186.5	V
. 28250000 GHz	25.38	32.30	-31.35	25.46	84.38	58.92	64.5	226.3	V
. 13900000 GHz	26.65	35.16	-30.94	29.74	84.38	54.64	60.0	150.1	V
.99550000 GHz	26.25	35.90	-30.57	30.77	84.38	53.61	60.0	150.1	V
6.85200000 GHz	26.60	37.40	-30.60	32.60	84.38	51.78	60.0	150.1	V
7.70850000 GHz	27.03	37.77	-30.63	33.40	84.38	50.98	60.0	150.1	V
3.56500000 GHz	26.68	38.11	-30.69	33.72	84.38	50.66	60.0	150.1	V
roject # : 1267	5, Sample #: 35	506							
emp.: 20.1 C, I	Hum.: 42.0 %								
arometer Pres.:	101.8 kPa								

#### - The Table of Radiated Spurious Emissions, P25-HCPM, Highend; 1 to 10GHz, SAS-571 was used.

LabTest Certification Inc. Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Vertical

Operator: Jeremy Lee

04:42:19 PM, Friday, April 10, 2015

Model #: t30-SN-1NB Contact: Sean Jung Company: Dali Wireless Inc.

Frequency	Measured_PK	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
1.72398750 GHz	47.86	26.16	-32.13	41.40	84.38	42.98	58.8	148.6	V
2.58598125 GHz	33.70	30.03	-31.96	31.35	84.38	53.03	29.5	212.3	V
3.44797500 GHz	40.11	31.02	-31.63	39.03	84.38	45.35	24.6	104.2	V
4.30996875 GHz	34.87	32.34	-31.33	34.98	84.38	49.40	30.7	149.3	V
5.17196250 GHz	26.23	35.12	-30.93	29.38	84.38	55.00	30.1	150.2	V
6.03395625 GHz	26.18	35.90	-30.57	30.74	84.38	53.64	30.1	150.2	V
6.89595000 GHz	26.74	37.43	-30.59	32.81	84.38	51.57	30.1	150.2	V
7.75794375 GHz	27.06	37.88	-30.63	33.54	84.38	50.84	30.1	150.2	V
8.61993750 GHz	26.98	38.05	-30.66	34.05	84.38	50.33	30.1	150.2	V
Project # : 1267	5. Sample #: 3	506							
Temp.: 20.1 C,									
Barometer Pres.:	101.8 kPa								

LabTest Certification Inc. Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Horizontal

Operator: Jeremy Lee

04:42:19 PM, Friday, April 10, 2015

Frequency	Measured	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
1.72398750 GHz	51.73	26.22	-32.13	45.23	84.38	39.15	28.9	130.0	Н
2.58598125 GHz	37.92	30.00	-31.96	35.53	84.38	48.85	334.4	156.2	H
3.44797500 GHz	40.36	31.03	-31.63	39.16	84.38	45.22	360.0	129.3	Н
4.30996875 GHz	34.18	32.33	-31.33	34.26	84.38	50.12	185.7	100.7	H
5.17196250 GHz	26.20	34.97	-30.93	29.34	84.38	55.04	30.4	100.1	H
6.03395625 GHz	26.23	36.14	-30.57	30.70	84.38	53.68	30.4	100.1	H
6.89595000 GHz	27.20	37.48	-30.59	33.16	84.38	51.22	30.4	100.1	H
7.75794375 GHz	26.14	37.80	-30.63	32.56	84.38	51.82	30.4	100.1	H
8.61993750 GHz	25.92	37.95	-30.66	32.98	84.38	51.40	30.4	100.1	Н
Project # : 1267	5. Sample #: 3	3506							
Temp.: 20.1 C, I	Hum.: 42.0 %								
Barometer Pres.:	101.8 kPa								

Page 15 of 26

Prepared by: LabTest Certification Inc. Client: Dali Wireless Inc.

Date Issued: April 09, 2015 Report No.: 12675-1E

Project No: 12675 Revision No.: 0

#### - The Table of Radiated Spurious Emissions, P25- HDQPSK, Lowend; 1 to 10GHz, SAS-571 was used.

LabTest Certification Inc. Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Horizontal

Operator: Jeremy Lee Model #: t30-SN-1NB Contact: Sean Jung

Company: Dali Wireless Inc. 04:44:41 PM, Friday, April 10, 2015 Measured\_ERP AntFactor Limit\_ERP Margin\_ERP Measured PathLoss POI Frequency Tower dBuV/m Hz dBuV dB/m dB dBuV/m dB Degree 1.70201250 GHz -32.14 37.64 53.35 26.14 100.1 46.74 84.38 294.6 2.55301875 GHz 148.5 39.10 30.02 -31.9736.72 84 38 47.66 101.1 3.40402500 GHz 43.51 31.09 -31.65 42.60 84.38 41.78 142.6 121.3 40.44 32.30 -31.37 40.43 84.38 43.95 54.7 100.3 26.11 35.10 -30.95 29.12 84.38 55.26 140.6 100.0

4.25503125 GHz 5.10603750 GHz 5.95704375 GHz 25.42 36.01 -30.59 29.74 84.38 54.64 140.6 100.0 6.80805000 GHz 25.92 37.43 -30.60 31.75 84.38 52.63 140.6 100.0 7.65905625 GHz 27.39 37.57 -30.64 33.57 84.38 50.81 140.6 100.0 8.51006250 GHz 34.77 84.38 140.6 27.72 38.09 -30.7249.61 100.0 Project #: 12675, Sample #: 3506 Temp.: 20.1 C. Hum.: 42.0 % Barometer Pres.: 101.8 kPa

LabTest Certification Inc. Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Vertical

Operator: Jeremy Lee Model #: t30-SN-1NB
Contact: Sean Jung
04:44:41 PM, Friday, April 10, 2015 Company: Dali Wireless Inc.

requency	Measured_PK	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
.70201250 GHz	42.84	26.10	-32.14	36.23	84.38	48.15	60.8	105.2	V
.55301875 GHz	35.32	30.02	-31.97	32.98	84.38	51.40	226.3	100.4	V
.40402500 GHz	43.74	31.09	-31.65	42.87	84.38	41.51	296.1	137.5	V
1.25503125 GHz	36.26	32.31	-31.37	36.36	84.38	48.02	341.6	108.2	V
5.10603750 GHz	26.92	35.21	-30.95	29.94	84.38	54.44	300.0	150.1	V
.95704375 GHz	25.82	35.76	-30.59	30.16	84.38	54.22	300.0	150.1	V
3.80805000 GHz	25.95	37.37	-30.60	31.89	84.38	52.49	300.0	150.1	V
.65905625 GHz	26.70	37.65	-30.64	33.01	84.38	51,37	300.0	150.1	V
3.51006250 GHz	26.55	38.20	-30.72	33.58	84.38	50.80	300.0	150.1	V
Project # : 1267	5, Sample #: 35	506							
emp.: 20.1 C,	Hum.: 42.0 %								
arometer Pres.:	101.8 kPa								

#### - The Table of Radiated Spurious Emissions; P25- HDQPSK, Middle; 1 to 10GHz, SAS-571 was used.

LabTest Certification Inc. Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Horizontal

Operator: Jeremy Lee Model #: t30-SN-1NB
Contact: Sean Jung
04:45:11 PM, Friday, April 10, 2015
Company: Dali Wireless Inc.

Frequency	Measured	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
1.71300000 GHz	53.26	26.18	-32.13	46.71	84.38	37.67	299.9	100.3	Н
2.56950000 GHz	41.77	30.01	-31.96	39.39	84.38	44.99	154.6	145.5	Н
3.42600000 GHz	47.42	31.06	-31.64	46.36	84.38	38.02	169.9	100.0	Н
4.28250000 GHz	39.11	32.29	-31.35	39.14	84.38	45.24	354.8	101.0	H
5.13900000 GHz	26.86	35.04	-30.94	29.96	84.38	54.42	160.3	100.0	H
5.99550000 GHz	26.22	36.15	-30.57	30.64	84.38	53.74	160.3	100.0	Н
6.85200000 GHz	26.41	37.45	-30.60	32.30	84.38	52.08	160.3	100.0	Н
7.70850000 GHz	27.01	37.68	-30.63	33.31	84.38	51.07	160.3	100.0	Н
8.56500000 GHz	27.21	38.01	-30.69	34.27	84.38	50.11	160.3	100.0	Н
Project # : 1267	5. Sample #:	3506							
Temp.: 20.1 C, I	Hum.: 42.0 %								
Barometer Pres.:	101.8 kPa								

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Date Issued: April 09, 2015 Project No: 12675

Report No.: Revision No.: Dali Wireless Inc. 12675-1E

Client:

0

LabTest Certification Inc. Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Vertical

Operator: Jeremy Lee

04:45:11 PM, Friday, April 10, 2015

Model #: t30-SN-1NB Contact: Sean Jung Company: Dali Wireless Inc.

Measured_PK	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL
dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
46.14	26.13	-32.13	39.60	84.38	44.78	58.5	138.9	V
39.46	30.03	-31.96	37.12	84.38	47.26	140.3	168.5	V
47.17	31.06	-31.64	46.20	84.38	38.18	291.1	117.7	V
37.24	32.30	-31.35	37.32	84.38	47.06	37.0	154.3	V
26.39	35.16	-30.94	29.48	84.38	54.90	145.8	150.1	V
25.39	35.90	-30.57	29.91	84.38	54.47	145.8	150.1	V
26.67	37.40	-30.60	32.67	84.38	51.71	145.8	150.1	V
27.37	37.77	-30.63	33.74	84.38	50.64	145.8	150.1	V
26.66	38.11	-30.69	33.70	84.38	50.68	145.8	150.1	V
	506							
Hum.: 42.0 % 101.8 kPa								
	dBuV 46. 14 39. 46 47. 17 37. 24 26. 39 25. 39 26. 67 27. 37 26. 66  5. Sample #: 38	dBuV dB/m 46.14 26.13 39.46 30.03 47.17 31.06 37.24 32.30 26.39 35.16 25.39 35.90 26.67 37.40 27.37 37.77 26.66 38.11 5. Sample #: 3506	dBuV dB/m dB dB 46.14 26.13 -32.13 39.46 30.03 -31.96 47.17 31.06 -31.64 37.24 32.30 -31.35 26.39 35.16 -30.94 25.39 35.90 -30.57 26.67 37.40 -30.60 27.37 37.77 -30.63 26.66 38.11 -30.69 5. Sample #: 3506 Hum.: 42.0 %	dBuV dB/m dB dBuV/m 46.14 26.13 -32.13 39.60 39.46 30.03 -31.96 37.12 47.17 31.06 -31.64 46.20 37.24 32.30 -31.35 37.32 26.39 35.16 -30.94 29.48 25.39 35.90 -30.57 29.91 26.67 37.40 -30.60 32.67 27.37 37.77 -30.63 33.74 26.66 38.11 -30.69 33.70  5. Sample #: 3506	dBuV         dB/m         dB         dBuV/m         dBuV/m           46.14         26.13         -32.13         39.60         84.38           39.46         30.03         -31.96         37.12         84.38           47.17         31.06         -31.64         46.20         84.38           37.24         32.30         -31.35         37.32         84.38           26.39         35.16         -30.94         29.48         84.38           25.39         35.90         -30.57         29.91         84.38           26.67         37.40         -30.60         32.67         84.38           27.37         37.77         -30.63         33.74         84.38           26.66         38.11         -30.69         33.70         84.38           5. Sample #: 3506         3506         3506         3506	dBuV         dB/m         dB         dBuV/m         dBuV/m         dBuV/m         dB           46.14         26.13         -32.13         39.60         84.38         44.78           39.46         30.03         -31.96         37.12         84.38         47.26           47.17         31.06         -31.64         46.20         84.38         38.18           37.24         32.30         -31.35         37.32         84.38         47.06           26.39         35.16         -30.94         29.48         84.38         54.90           25.39         35.90         -30.57         29.91         84.38         54.47           26.67         37.40         -30.60         32.67         84.38         51.71           27.37         37.77         -30.63         33.74         84.38         50.64           26.66         38.11         -30.69         33.70         84.38         50.68           5. Sample #: 3506         3506         44.38         50.68	dBuV         dB/m         dB         dBuV/m         dBuV/m         dB uV/m         dB uV uV         dB u uV/m         dB uV uV         dB uV/m	dBuV         dB/m         dB         dBuV/m         dBuV/m         dB v/m         dB v/m

#### - The Table of Radiated Spurious Emissions, P25- HDQPSK, Highend; 1 to 10GHz, SAS-571 was used.

LabTest Certification Inc. Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Horizontal

Operator: Jeremy Lee

04:44:06 PM, Friday, April 10, 2015

Model #: t30-SN-1NB Contact: Sean Jung Company: Dali Wireless Inc.

Frequency	Measured	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL	
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	12.	
1.72398750 GHz	55.33	26.22	-32.13	48.83	84.38	35.55	65.5	124.4	H	
2.58598125 GHz	39.97	30.00	-31.96	37.58	84.38	46.80	146.8	161.3	Н	
3.44797500 GHz	45.71	31.03	-31.63	44.51	84.38	39.87	169.3	100.5	Н	
4.30996875 GHz	38.34	32.33	-31.33	38.42	84.38	45.96	205.8	110.6	H	
5.17196250 GHz	25.59	34.97	-30.93	28.73	84.38	55.65	60.0	100.8	H	
6.03395625 GHz	25.39	36.14	-30.57	29.86	84.38	54.52	60.0	100.8	H	
6.89595000 GHz	26.06	37.48	-30.59	32.02	84.38	52.36	60.0	100.8	Н	
7.75794375 GHz	26.73	37.80	-30.63	33.15	84.38	51.23	60.0	100.8	Н	
8.61993750 GHz	26.13	37.95	-30.66	33.19	84.38	51.19	60.0	100.8	Н	
Project # : 12675	5, Sample #: 3	506								
Temp.: 20.1 C. H	Hum.: 42.0 %									
Barometer Pres.:1	101.8 kPa									

LabTest Certification Inc. Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Vertical

Operator: Jeremy Lee

04:44:06 PM, Friday, April 10, 2015

Frequency	Measured_PK	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
1.72398750 GHz	50.69	26.16	-32.13	44.23	84.38	40.15	60.3	117.5	V
2.58598125 GHz	37.92	30.03	-31.96	35.57	84.38	48.81	231.0	100.3	V
3.44797500 GHz	44.84	31.02	-31.63	43.76	84.38	40.62	330.4	134.5	V
4.30996875 GHz	39.95	32.34	-31.33	40.06	84.38	44.32	77.7	131.1	V
5.17196250 GHz	24.28	35.12	-30.93	27.43	84.38	56.95	330.0	150.1	V
6.03395625 GHz	25.90	35.90	-30.57	30.46	84.38	53.92	330.0	150.1	V
6.89595000 GHz	27.06	37.43	-30.59	33.13	84.38	51.25	330.0	150.1	V
7.75794375 GHz	26.70	37.88	-30.63	33.18	84.38	51.20	330.0	150.1	V
8.61993750 GHz	27.07	38.05	-30.66	34.14	84.38	50.24	330.0	150.1	V
Project # : 1267	5, Sample #: 35	506		-					
Temp.: 20.1 C,	Hum.: 42.0 %								
Barometer Pres.:	101.8 kPa					11		1 1	

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Date Issued: April 09, 2015 Project No: 12675

Dali Wireless Inc. Client: Report No.: 12675-1E

Revision No.: 0

# - The Table of Radiated Spurious Emissions, P25- CQPSK, Lowend; 1 to 10GHz, SAS-571 was used. LabTest Certification Inc. Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Horizontal

Operator: Jeremy Lee

04:40:59 PM, Friday, April 10, 2015

Model #: t30-SN-1NB Contact: Sean Jung

Company: Dali Wireless Inc.

Frequency	Measured	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
1.70200625 GHz	54.99	26.14	-32.14	48.38	84.38	36.00	21.7	130.4	Н
2.55300937 GHz	41.11	30.02	-31.97	38.73	84.38	45.65	360.0	100.5	Н
3.40401250 GHz	41.44	31.09	-31.65	40.53	84.38	43.85	5.2	204.6	H
4.25500156 GHz	38.01	32.30	-31.37	38.00	84.38	46.38	60.3	128.5	H
5.10600187 GHz	21.14	35.10	-30.95	24.15	84.38	60.23	304.8	100.0	H
5.95702187 GHz	20.35	36.01	-30.59	24.67	84.38	59.71	304.8	100.0	H
6.80802500 GHz	20.79	37.43	-30.60	26.62	84.38	57.76	304.8	100.0	H
7.65902812 GHz	21.46	37.57	-30.64	27.64	84.38	56.74	304.8	100.0	Н
8.51003125 GHz	21.09	38.09	-30.72	28.14	84.38	56.24	304.8	100.0	Н
Project # : 12675	Sample #:	3506							
Temp.: 20.1 C. H	lum.: 42.0 %								
Barometer Pres.:1	01.8 kPa								

LabTest Certification Inc. Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Vertical

Operator: Jeremy Lee

04:40:59 PM, Friday, April 10, 2015

Model #: t30-SN-1NB

Contact: Sean Jung Company: Dali Wireless Inc.

requency	Measured_PK	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
1.70200625 GHz	45.03	26.10	-32.14	38.42	84.38	45.96	150.6	202.4	V
2.55300937 GHz	35.71	30.02	-31.97	33.37	84.38	51.01	140.5	199.5	V
3.40401250 GHz	48.83	31.09	-31.65	47.96	84.38	36.42	300.3	138.2	V
4.25500156 GHz	35.06	32.31	-31.37	35.16	84.38	49.22	63.9	240.6	V
5.10600187 GHz	23.09	35.21	-30.95	26.11	84.38	58.27	60.6	150.0	V
5.95702187 GHz	20.45	35.76	-30.59	24.79	84.38	59.59	60.6	150.0	V
6.80802500 GHz	21.11	37.37	-30.60	27.05	84.38	57.33	60.6	150.0	V
7.65902812 GHz	21.47	37.65	-30.64	27.78	84.38	56.60	60.6	150.0	V
8.51003125 GHz	20.57	38.20	-30.72	27.60	84.38	56.78	60.6	150.0	V
Project # : 1267		506							
	Hum.: 42.0 %								
Barometer Pres.:	101.8 kPa								

#### - The Table of Radiated Spurious Emissions; P25- CQPSK, Middle; 1 to 10GHz, SAS-571 was used.

LabTest Certification Inc. Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters. Horizontal

04:41:34 PM, Friday, April 10, 2015

Operator: Jeremy Lee

Frequency	Measured	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
1.71300000 GHz	55.73	26.18	-32,13	49.18	84.38	35.20	93.6	100.3	Н
2.56950000 GHz	46.01	30.01	-31.96	43.63	84.38	40.75	145.8	100.7	Н
3.42600000 GHz	49.32	31.06	-31.64	48.26	84.38	36.12	263.5	136.6	H
4.28250000 GHz	38.10	32.29	-31.35	38.13	84.38	46.25	352.9	155.7	H
5.13900000 GHz	21.31	35.04	-30.94	24.41	84.38	59.97	17.9	100.0	H
5.99550000 GHz	21.07	36.15	-30.57	25.49	84.38	58.89	17.9	100.0	H
6.85200000 GHz	22.55	37.45	-30.60	28.44	84.38	55.94	17.9	100.0	H
7.70850000 GHz	22.00	37.68	-30.63	28.30	84.38	56.08	17.9	100.0	H
8.56500000 GHz	21.98	38.01	-30.69	29.04	84.38	55.34	17.9	100.0	Н
Project # : 12675	. Sample #: 350	06							
Temp.: 20.1 C. H	um.: 42.0 %								
Barometer Pres.:1	01.8 kPa								

Date Issued: April 09, 2015 Project No: 12675

LabTest Certification Inc.

Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Vertical

04:41:34 PM, Friday, April 10, 2015

Operator: Jeremy Lee

Model #: t30-SN-1NB Contact: Sean Jung Company: Dali Wireless Inc.

Dali Wireless Inc.

12675-1E

0

Client:

Report No.:

Revision No.:

requency	Measured_PK	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
1.71300000 GHz	46.28	26.13	-32.13	39.74	84.38	44.64	55.4	200.3	V
2.56950000 GHz	39.42	30.03	-31.96	37.08	84.38	47.30	330.1	115.6	V
3.42600000 GHz	50.34	31.06	-31.64	49.37	84.38	35.01	55.4	105.2	V
4.28250000 GHz	36.23	32.30	-31.35	36.31	84.38	48.07	57.6	157.8	V
5.13900000 GHz	22.21	35.16	-30.94	25.30	84.38	59.08	60.3	150.0	V
5.99550000 GHz	21.02	35.90	-30.57	25.54	84.38	58.84	60.3	150.0	V
6.85200000 GHz	21.28	37.40	-30.60	27.28	84.38	57.10	60.3	150.0	V
7.70850000 GHz	22.28	37.77	-30.63	28.65	84.38	55.73	60.3	150.0	V
3.56500000 GHz	21.62	38.11	-30.69	28.66	84.38	55.72	60.3	150.0	V
Project # : 1267	5. Sample #: 35	506							
Temp.: 20.1 C, 1	Hum.: 42.0 %								
Parameter Pres :	101 9 LPa								

#### - The Table of Radiated Spurious Emissions, P25- CQPSK, Highend; 1 to 10GHz, SAS-571 was used.

LabTest Certification Inc. Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Horizontal

Operator: Jeremy Lee

04:40:06 PM, Friday, April 10, 2015

Model #: t30-SN-1NB Contact: Sean Jung Company: Dali Wireless Inc.

Frequency	Measured	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
1.72399375 GHz	60.12	26.22	-32.13	53.62	84.38	30.76	63.5	180.0	Н
2.58599063 GHz	43.35	30.00	-31.96	40.96	84.38	43.42	330.2	100.2	Н
3.44798750 GHz	53.07	31.03	-31.63	51.87	84.38	32.51	0.3	133.4	Н
4.30998438 GHz	34.82	32.33	-31.33	34.90	84.38	49.48	350.9	180.4	Н
5.17198125 GHz	20.72	34.97	-30.93	23.86	84.38	60.52	0.2	100.4	H
6.03397813 GHz	20.51	36.14	-30.57	24.98	84.38	59.40	0.2	100.4	Н
6.89597500 GHz	20.86	37.48	-30.59	26.82	84.38	57.56	0.2	100.4	H
7.75797188 GHz	21.71	37.80	-30.63	28.13	84.38	56.25	0.2	100.4	Н
8.61996875 GHz	21.13	37.95	-30.66	28.19	84.38	56.19	0.2	100.4	H
Project # : 12675	5. Sample #: 3	3506							
Temp.: 20.1 C, H	lum.: 42.0 %								
Barometer Pres.:	101.8 kPa								

LabTest Certification Inc. Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Vertical

Operator: Jeremy Lee

04:40:06 PM, Friday, April 10, 2015

requency	Measured_PK	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
1.72399375 GHz	51.93	26.16	-32.13	45.47	84.38	38.91	57.0	198.5	V
2.58599063 GHz	37.82	30.03	-31.96	35.47	84.38	48.91	72.4	198.3	V
3.44798750 GHz	50.10	31.02	-31.63	49.02	84.38	35.36	305.2	165.5	V
4.30998438 GHz	35.02	32.34	-31.33	35.13	84.38	49.25	235.6	100.3	V
5.17198125 GHz	21.55	35.12	-30.93	24.70	84.38	59.68	48.6	150.0	V
6.03397813 GHz	20.86	35.90	-30.57	25.42	84.38	58.96	48.6	150.0	V
6.89597500 GHz	22.10	37.43	-30.59	28.17	84.38	56.21	48.6	150.0	V
7.75797188 GHz	22.02	37.88	-30.63	28.50	84.38	55.88	48.6	150.0	V
3.61996875 GHz	21.13	38.05	-30.66	28.20	84.38	56.18	48.6	150.0	V
Project # : 12675	5. Sample #: 35	506							
Temp.: 20.1 C, h	Hum.: 42.0 %								
Barometer Pres.:	101.8 kPa								

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Prepared by: LabTest Certification Inc. Client: Date Issued: April 09, 2015 Report No.:

Project No: 12675 Revision No.: 0

# - The Table of Radiated Spurious Emissions, FM, Lowend; 1 to 10GHz, SAS-571 was used.

Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Horizontal

Operator: Jeremy Lee

04:36:11 PM, Friday, April 10, 2015

Model #: t30-SN-1NB Contact: Sean Jung Company: Dali Wireless Inc.

Dali Wireless Inc.

12675-1E

Frequency	Measured	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
1.70202500 GHz	50.37	26.14	-32.14	43.76	84.38	40,62	26.7	125.7	Н
2.55303750 GHz	38.32	30.02	-31.97	35.94	84.38	48.44	150.5	115.6	Н
3.40405000 GHz	38.79	31.09	-31.65	37.88	84.38	46.50	272.0	120.2	Н
4.25506250 GHz	37.39	32.30	-31.37	37.38	84.38	47.00	78.4	111.2	H
5.10607500 GHz	26.37	35.10	-30.95	29.38	84.38	55.00	45.8	120.2	H
5.95708750 GHz	26.18	36.01	-30.59	30.50	84.38	53.88	45.8	120.2	Н
6.80810000 GHz	26.66	37.43	-30,60	32.49	84.38	51.89	45.8	120.2	Н
7.65911250 GHz	27.29	37.57	-30.64	33.47	84.38	50.91	45.8	120.2	H
8.51012500 GHz	26.17	38.08	-30.72	33.22	84.38	51.16	45.8	120.2	Н
Project # : 1267	5. Sample #: :	3506							
Temp.: 20.1 C, I	Hum.: 42.0 %								
Barometer Pres.:	101.8 kPa								

LabTest Certification Inc. Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Vertical

Operator: Jeremy Lee

04:36:11 PM, Friday, April 10, 2015

Model #: t30-SN-1NB Contact: Sean Jung

Company: Dali Wireless Inc.

Frequency	Measured_PK	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
1.70202500 GHz	40.89	26.10	-32.14	34.28	84.38	50.10	43.5	224.6	V
2.55303750 GHz	35.56	30.02	-31.97	33.22	84.38	51.16	145.8	172.8	V
3.40405000 GHz	37.11	31.09	-31.65	36.24	84.38	48.14	303.4	103.2	V
4.25506250 GHz	35.37	32.31	-31.37	35.47	84.38	48.91	64.8	235.8	V
5.10607500 GHz	26.29	35.21	-30.95	29.31	84.38	55.07	30.1	150.0	V
5.95708750 GHz	26.27	35.76	-30.59	30.61	84.38	53.77	30.1	150.0	V
6.80810000 GHz	25.70	37.37	-30.60	31.64	84.38	52.74	30.1	150.0	V
7.65911250 GHz	26.87	37.65	-30.64	33.18	84.38	51.20	30.1	150.0	V
8.51012500 GHz	26.30	38.20	-30.72	33.33	84.38	51.05	30.1	150.0	V
Project # : 1267	5. Sample #: 35	506							
Temp.: 20.1 C.	Hum.: 42.0 %							- 1	
Barometer Pres.:	101.8 kPa								

#### - The Table of Radiated Spurious Emissions; FM, Middle; 1 to 10GHz, SAS-571 was used.

LabTest Certification Inc. Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Horizontal

Operator: Jeremy Lee 04:36:52 PM, Friday, April 10, 2015

Contact: Sean Jung Company: Dali Wireless Inc.

Model #: t30-SN-1NB

requency	Measured	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
1.71300000 GHz	49.81	26.18	-32.13	43.26	84.38	41.12	94.8	100.7	Н
2.56950000 GHz	28.81	30.01	-31.96	26.43	84.38	57.95	154.5	113.1	Н
3.42600000 GHz	41.10	31.06	-31.64	40.04	84.38	44.34	171.4	160.3	H
4.28250000 GHz	35.81	32.29	-31.35	35.84	84.38	48.54	355.8	107.4	H
5.13900000 GHz	26.02	35.04	-30.94	29.12	84.38	55.26	95.9	100.0	H
5.99550000 GHz	25.73	36.15	-30.57	30.15	84.38	54.23	95.9	100.0	H
6.85200000 GHz	26.71	37.45	-30.60	32.60	84.38	51.78	95.9	100.0	)H
7.70850000 GHz	26.31	37.68	-30.63	32.61	84.38	51.77	95.9	100.0	)H
8.56500000 GHz	26.28	38.01	-30.69	33.34	84.38	51.04	95.9	100.0	Н
Project # : 1267	5, Sample #:	3506							
Temp.: 20.1 C,	Hum.: 42.0 %		* 1	444					
Barometer Pres.:	101.8 kPa								

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Date Issued: April 09, 2015 12675 Project No:

LabTest Certification Inc.

Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Vertical

Operator: Jeremy Lee

04:36:52 PM, Friday, April 10, 2015

Model #: t30-SN-1NB Contact: Sean Jung Company: Dali Wireless Inc.

Dali Wireless Inc.

12675-1E

0

Client:

Report No.:

Revision No.:

Frequency	Measured_PK	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL	
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm		
1.71300000 GHz	42.10	26.13	-32.13	35.56	84.38	48.82	53.5	216.6	V	
2.56950000 GHz	35.94	30.03	-31.96	33.60	84.38	50.78	334.7	109.7	V	
3.42600000 GHz	41.82	31.06	-31.64	40.84	84.38	43.53	290.8	121.1	V	
4.28250000 GHz	34.79	32.30	-31.35	34.87	84.38	49.51	62.5	229.0	V	
5.13900000 GHz	26.52	35.16	-30.94	29.61	84.38	54.77	151.4	150.0	V	
5.99550000 GHz	26.26	35.90	-30.57	30.78	84.38	53.60	151.4	150.0	V	
3.85200000 GHz	27.01	37.40	-30.60	33.01	84.38	51.37	151.4	150.0	V	
7.70850000 GHz	27.31	37.77	-30.63	33.68	84.38	50.70	151.4	150.0	V	
3.56500000 GHz	27.00	38.11	-30.69	34.04	84.38	50.34	151.4	150.0	V	=
Project # : 12675		506								
emp.: 20.1 C, F										
arometer Pres.:1	01.8 kPa									

# - The Table of Radiated Spurious Emissions, FM, Highend; 1 to 10GHz, SAS-571 was used.

Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Horizontal

Operator: Jeremy Lee

04:34:58 PM, Friday, April 10, 2015

Model #: t30-SN-1NB Contact: Sean Jung

Company: Dali Wireless Inc.

requency	Measured	AntFactor	PathLoss	Measured_ERP	_Limit_ERP	Margin_ERP	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
1.72397500 GHz	52.06	26.22	-32,13	45.56	84.38	38.82	75.3	100.1	H
2.58596250 GHz	38.04	30.00	-31.96	35.65	84.38	48.73	329.5	110.1	H
3.44795000 GHz	40.13	31.03	-31.63	38.93	84.38	45.45	0.1	110.2	H
4.30993750 GHz	38.58	32.33	-31.33	38.66	84.38	45.72	12.4	130.3	H
5.17192500 GHz	25.98	34.97	-30.93	29.12	84.38	55.26	90.0	100.1	H
6.03391250 GHz	25.52	36.14	-30.57	29.99	84.38	54.39	90.0	100.1	H
3.89590000 GHz	26.52	37.48	-30.59	32.48	84.38	51.90	90.0	100.1	Н
7.75788750 GHz	27.17	37.80	-30.63	33.59	84.38	50.79	90.0	100.1	Н
8.61987500 GHz	26.56	37.95	-30.66	33.62	84.38	50.76	90.0	100.1	Н
Project # : 1267	5. Sample #:	3506							
Temp.: 20.1 C.									
Barometer Pres.:	101.8 kPa						1 1 1 = -	- 11 - 1	

LabTest Certification Inc. Radiated Spurious-Harmonics FCC 90.210 & 219, 3 meters, Vertical

Operator: Jeremy Lee

04:34:58 PM, Friday, April 10, 2015

requency	Measured_PK	AntFactor	PathLoss	Measured_ERP	Limit_ERP	Margin_ERP	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
1.72397500 GHz	49.26	26.16	-32.13	42.80	84.38	41.58	46.8	108.8	V
2.58596250 GHz	34.81	30.03	-31.96	32.46	84.38	51.92	86.2	107.7	V
3.44795000 GHz	41.39	31.02	-31.63	40.31	84.38	44.07	289.7	105.5	V
4.30993750 GHz	34.42	32.34	-31.33	34.53	84.38	49.85	59.2	111.2	V
5.17192500 GHz	25.91	35.12	-30.93	29.06	84.38	55.32	87.3	110.1	V
6.03391250 GHz	25.49	35.90	-30.57	30.05	84.38	54.33	87.3	110.1	V
6.89590000 GHz	26.36	37.43	-30.59	32.43	84.38	51.95	87.3	110.1	V
7.75788750 GHz	26.58	37.88	-30.63	33.06	84.38	51.32	87.3	110.1	V
8.61987500 GHz	26.10	38.05	-30.66	33.17	84.38	51.21	87.3	110.1	V
Project # : 1267	5, Sample #: 35	506							
Temp.: 20.1 C, I	Hum.: 42.0 %					1 11 -		11 11	
Barometer Pres.:	101.8 kPa								

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# **APPENDIX A: Test Equipment Used**

ID No.	Description	Manufacturer	Model	Serial No.	Calibration Date	Calibration Due Date	Calibration Certificate No:	Calibration Laboratory
059	AC Power Source	California Instrument	5000i	HK51870	N/A	N/A	N/A	N/A
227-3	Horn Antenna	A.H. Systems	SAS-571	936	31-Jul-2014	31-Jul-2016	1407300211	Liberty Labs
241	Active Loop Antenna	AL-130	Com-Power	17075	09-Oct-2013	09-Oct-2015	1310070101	Liberty Labs
266	Humidity/ Temperature Logger	Onset HOBO	U14-001	2436907	23-Jan-2014	23-Jan-2016	890824060	Techmaster
272	EMC Analyzer	Agilent	E7405A	US41110263	13-May-2014	13-May-2015	1-5983694499-1	Agilent
273	RF Preamplifier	Agilent	8449B	3008A02264	07-Oct-2014	07-Oct-2015	35231	Tradeport
371	EMC Broadband Antenna	Sunol	JB1	A022012	17-Mar-2014	17-Mar-2016	1403130381	Liberty Labs
374	EMC Shielded Enclosure	USC	USC-26	111811	N/A	N/A	N/A	N/A
516	Pre-Amplifier	Agilent	AT8447D	2944A10969	N/A	N/A	N/A	N/A

Date Issued: April 09, 2015

Project No: 12675

Client: Dali Wireless Inc.
Report No.: 12675-1E
Revision No.: 0

## **APPENDIX B: EUT photos**

- EUT: Bottom View

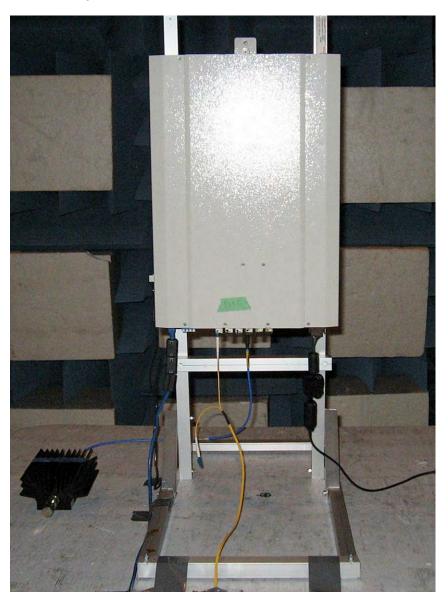


LabTest Certification Inc.

Prepared by: Date Issued: Dali Wireless Inc. Client: April 09, 2015 Report No.: 12675-1E Project No: 12675 Revision No.:

## **APPENDIX C: Test setup photos**

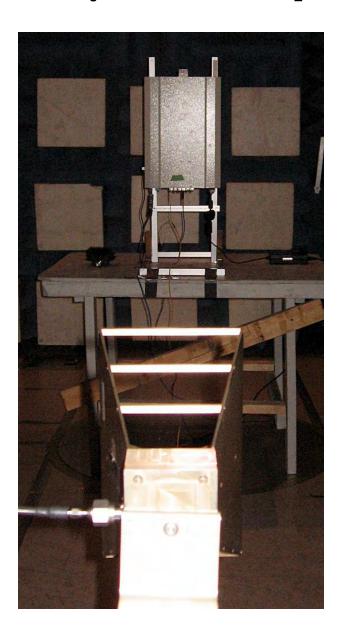
#### - Table Setup for Measurement



#### - Test configuration for Radiated Emissions under 1GHz



#### - Test configuration for Radiated Emissions\_Harmonics over 1GHz



#### **END OF REPORT**