




# TEST REPORT


**Test Report No. : UL-RPT-RP11856640JD01B V2.0**

**Manufacturer** : Telensa Ltd  
**Model No.** : T2A1P  
**FCC ID** : XYD-2NPD  
**Technology** : FHSS  
**Test Standard(s)** : FCC Parts 15.209(a), 15.247(b)(2) & 15.247(d)

1. This test report shall not be reproduced in full or partial, without the written approval of UL VS LTD.
2. The results in this report apply only to the sample(s) tested.
3. The sample tested is in compliance with the above standard(s).
4. The test results in this report are traceable to the national or international standards.
5. Version 2.0 supersedes all previous versions.

**Date of Issue:** 01 November 2017

**Checked by:**   
Sarah Williams  
Senior Test Engineer, Radio Laboratory

**Company Signatory:**   
Ian Watch  
Senior Test Engineer, Radio Laboratory  
UL VS LTD



This laboratory is accredited by UKAS.  
The tests reported herein have been  
performed in accordance with its terms  
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## UL VS LTD

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**Table of Contents**

<b>1. Customer Information.....</b>	<b>4</b>
<b>2. Summary of Testing.....</b>	<b>5</b>
2.1. General Information	5
2.2. Summary of Test Results	5
2.3. Methods and Procedures	5
2.4. Deviations from the Test Specification	5
<b>3. Equipment Under Test (EUT) .....</b>	<b>6</b>
3.1. Identification of Equipment Under Test (EUT)	6
3.2. Description of EUT	6
3.3. Modifications Incorporated in the EUT	6
3.4. Additional Information Related to Testing	6
3.5. Support Equipment	7
<b>4. Operation and Monitoring of the EUT during Testing .....</b>	<b>9</b>
4.1. Operating Modes	9
4.2. Configuration and Peripherals	9
<b>5. Measurements, Examinations and Derived Results.....</b>	<b>10</b>
5.1. General Comments	10
5.2. Test Results	11
5.2.1. Transmitter Maximum Peak Output Power	11
5.2.2. Transmitter Radiated Emissions	16
5.2.3. Transmitter Radiated Emissions	19
5.2.4. Transmitter Band Edge Radiated Emissions	23
<b>6. Measurement Uncertainty .....</b>	<b>27</b>
<b>7. Report Revision History .....</b>	<b>28</b>

**1. Customer Information**






<b>Company Name:</b>	Telensa Ltd
<b>Address:</b>	Iconix 3, London Road, Pampisford, Cambridge, CB22 3EG

## **2. Summary of Testing**

### **2.1. General Information**

<b>Specification Reference:</b>	47CFR15.247
<b>Specification Title:</b>	Code of Federal Regulations Volume 47 (Telecommunications): Part 15 Subpart C (Intentional Radiators) - Section 15.247
<b>Specification Reference:</b>	47CFR15.209
<b>Specification Title:</b>	Code of Federal Regulations Volume 47 (Telecommunications): Part 15 Subpart C (Intentional Radiators) - Section 15.209
<b>Site Registration:</b>	FCC: 209735
<b>Location of Testing:</b>	UL VS LTD, Unit 3 Horizon, Wade Road, Kingsland Business Park, Basingstoke, Hampshire, RG24 8AH, United Kingdom
<b>Test Dates:</b>	23 August 2017 to 12 September 2017

### **2.2. Summary of Test Results**

<b>FCC Reference (47CFR)</b>	<b>Measurement</b>	<b>Result</b>
Part 15.247(b)(2)	Transmitter Maximum Peak Output Power	
Part 15.247(d) / 15.209(a)	Transmitter Radiated Emissions	
Part 15.247(d) / 15.209(a)	Transmitter Band Edge Radiated Emissions	
<b>Key to Results</b>  = Complied  = Did not comply		

### **2.3. Methods and Procedures**

<b>Reference:</b>	ANSI C63.10-2013
<b>Title:</b>	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

### **2.4. Deviations from the Test Specification**

For the measurements contained within this test report, there were no deviations from, additions to, or exclusions from the test specification identified above.

### **3. Equipment Under Test (EUT)**

#### **3.1. Identification of Equipment Under Test (EUT)**

<b>Brand Name:</b>	Telensa
<b>Model Name or Number:</b>	T2A1P
<b>Test Sample Serial Number:</b>	30463
<b>Hardware Version:</b>	6LP1B1(6LYJ0021)
<b>Software Version:</b>	2.13.22
<b>FCC ID:</b>	XYD-2NPD

#### **3.2. Description of EUT**

The Equipment Under Test was a public lighting control unit. It contains an FHSS transceiver operating over six sub-bands in the 902–928 MHz band.

#### **3.3. Modifications Incorporated in the EUT**

No modifications were applied to the EUT during testing.

#### **3.4. Additional Information Related to Testing**

Tested Technology:	Frequency hopping system with a 20 dB bandwidth of less than 250 kHz and hopping on at least 50 frequencies		
Power Supply Requirement:	Nominal	120 VAC 60 Hz	
Type of Unit:	Transceiver		
Channel Spacing:	25 kHz		
Modulation:	2 level FSK		
Data Rates (bit/s)	62.5 & 500		
Maximum Conducted Output Power:	20.1 dBm		
Antenna Gain:	5.0 dBi		
Transmit Frequency Range:	902 MHz to 928 MHz		
Transmit Channels Tested:	Channel ID	Channel Number	Channel Frequency (MHz)
	Bottom	Sub-band 0 Channel 0	910.500
	Middle	Sub-band 2 Channel 58	915.000
	Top	Sub-band 5 Channel 58	919.975

### **3.5. Support Equipment**

The following support equipment was used to exercise the EUT during testing:

<b>Description:</b>	Representative road lighting luminaire
<b>Brand Name:</b>	Philips
<b>Model Name or Number:</b>	SGS252
<b>Serial Number:</b>	104688292

<b>Description:</b>	Linux PC
<b>Brand Name:</b>	Raspberry Pi Foundation
<b>Model Name or Number:</b>	Raspberry Pi 3 Model B V1.2
<b>Serial Number:</b>	Not marked or stated

<b>Description:</b>	Laptop PC
<b>Brand Name:</b>	HP
<b>Model Name or Number:</b>	Probook 455 G1
<b>Serial Number:</b>	2CE3400GZD

<b>Description:</b>	Power supply
<b>Brand Name:</b>	Raspberry Pi PSU
<b>Model Name or Number:</b>	Not marked or stated
<b>Serial Number:</b>	Not marked or stated

<b>Description:</b>	External antenna attached to 0.4 m length coaxial cable
<b>Brand Name:</b>	Panorama
<b>Model Name or Number:</b>	BS926
<b>Serial Number:</b>	Not marked or stated

<b>Description:</b>	2 metre USB cable
<b>Brand Name:</b>	Not marked or stated
<b>Model Name or Number:</b>	Not marked or stated
<b>Serial Number:</b>	Not marked or stated

<b>Description:</b>	10 metre Ethernet cable
<b>Brand Name:</b>	Not marked or stated
<b>Model Name or Number:</b>	Not marked or stated
<b>Serial Number:</b>	Not marked or stated

**Support Equipment (continued)**

<b>Description:</b>	Near field communications transceiver
<b>Brand Name:</b>	ST Microelectronics
<b>Model Name or Number:</b>	MB1054B CR95HF
<b>Serial Number:</b>	2160900329



## **4. Operation and Monitoring of the EUT during Testing**

### **4.1. Operating Modes**

The EUT was tested in the following operating mode(s):

- Constantly transmitting at maximum power on fixed frequencies.
- Constantly transmitting at maximum power in hopping mode.

### **4.2. Configuration and Peripherals**

The EUT was tested in the following configuration(s):

- Controlled using the test application 'icstest.py' on the Support Laptop supplied by the customer. The application was used to enable a suitable transmission mode and to select the test channels and data rates, via the Raspberry Pi computer and Near Field communications transceiver. The Support Laptop was connected to the Raspberry Pi via Ethernet and the Raspberry Pi was connected to the Near Field communications transceiver via a USB cable. The Near Field communications transceiver was placed alongside the EUT to allow communication to take place. Once the appropriate transmit mode was enabled, the PC, Raspberry Pi and Near Field communications transceiver were disconnected from the EUT.
- During all testing the EUT was connected to a representative road lighting luminaire. The luminaire was connected to a 120 VAC 60 Hz single phase supply.
- Radiated spurious emissions were performed with the EUT transmitting at fixed frequencies, with a data rate of 62.5 bit/s. This was found to be the worst case with regards to emissions after preliminary investigations and, as this mode emits the highest output power level, it was deemed to be the worst case.
- The EUT was only tested in the one orientation (luminaire facing downwards), as this is representative of the orientation in which the complete configuration would be, in its operational mode.
- The radiated sample was converted to a conducted sample by disconnecting the external antenna from the SMA connector and connecting a cable in its place.

## **5. Measurements, Examinations and Derived Results**

### **5.1. General Comments**

Measurement uncertainties are evaluated in accordance with current best practice. Our reported expanded uncertainties are based on standard uncertainties, which are multiplied by an appropriate coverage factor to provide a statistical confidence level of approximately 95%. Please refer to *Section 6. Measurement Uncertainty* for details.

In accordance with UKAS requirements all the measurement equipment is on a calibration schedule. All equipment was within the calibration period on the date of testing.

## 5.2. Test Results

### 5.2.1. Transmitter Maximum Peak Output Power

#### Test Summary:

Test Engineer:	David Doyle	Test Date:	25 August 2017
Test Sample Serial Number:	30463		

FCC Reference:	Part 15.247(b)(2)
Test Method Used:	ANSI C63.10 Section 7.8.5 & Notes below

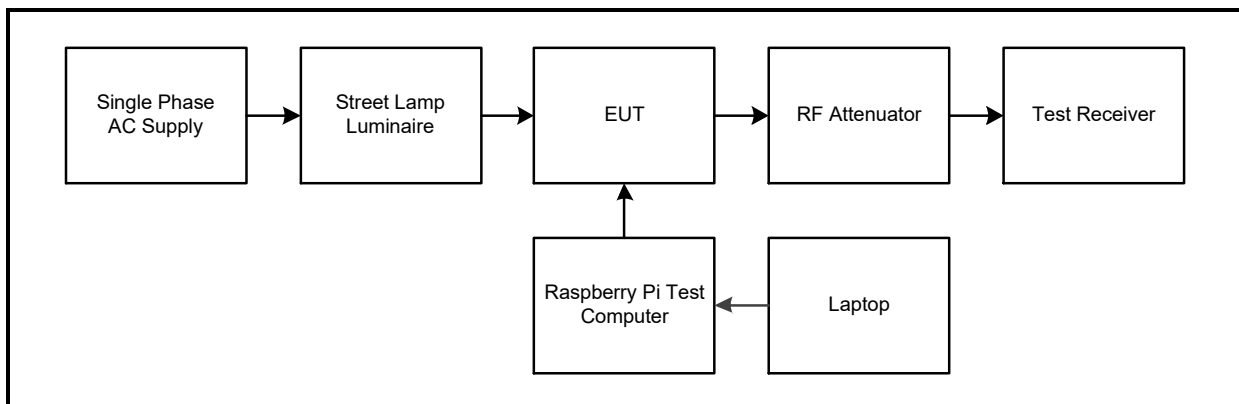
#### Environmental Conditions:

Temperature (°C):	23
Relative Humidity (%):	57

#### Note(s):

1. For frequency hopping systems employing at least 50 hopping channels.
2. For the data rate of 62.5 bit/s, the test receiver's resolution bandwidth was set to 1 kHz and the video bandwidth to 3 kHz. A peak detector was used, sweep time was set to auto and trace mode was Max Hold. The span was set to 3 kHz. A marker was placed at the peak of the signal and the results recorded in the table below.
3. For the data rate of 500 bit/s, the test receiver's resolution bandwidth was set to 2 kHz and the video bandwidth to 10 kHz. A peak detector was used, sweep time was set to auto and trace mode was Max Hold. The span was set to 5 kHz. A marker was placed at the peak of the signal and the results recorded in the table below.
4. The test receiver was connected to the RF port on the EUT using suitable attenuation and RF cable. An RF offset level was entered on the test receiver to compensate for the loss of the attenuator and RF cable.

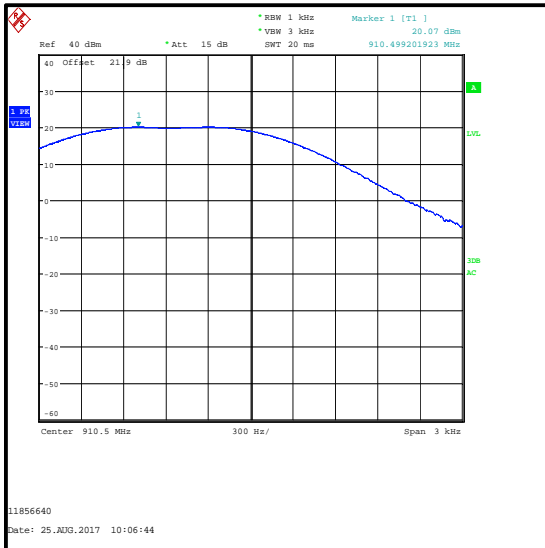
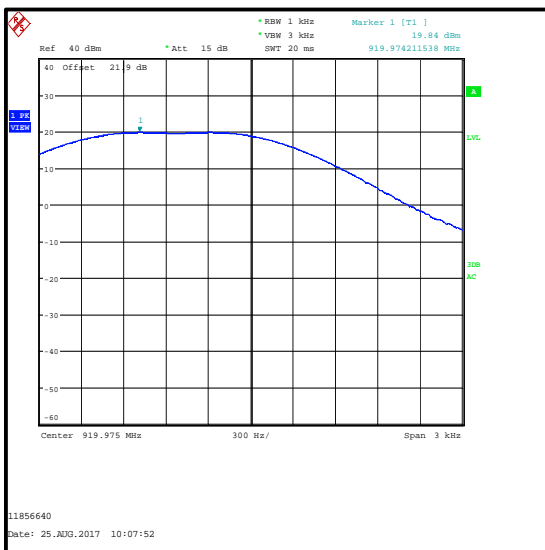
#### Test setup for Maximum Peak Output Power measurement:



**Transmitter Maximum Peak Output Power (continued)****Results: 62.5 bit/s**

Channel	Conducted Peak Power (dBm)	Conducted Peak Power Limit (dBm)	Margin (dB)	Note	Result
Bottom	20.1	30.0	9.9	1	Complied
Middle	19.9	30.0	10.1	1	Complied
Top	19.8	30.0	10.2	1	Complied

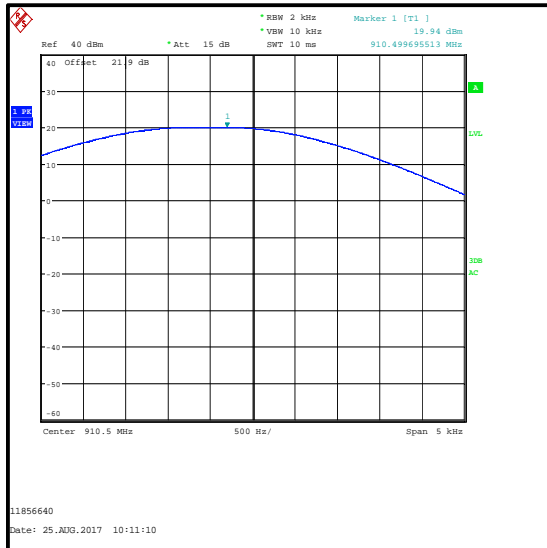
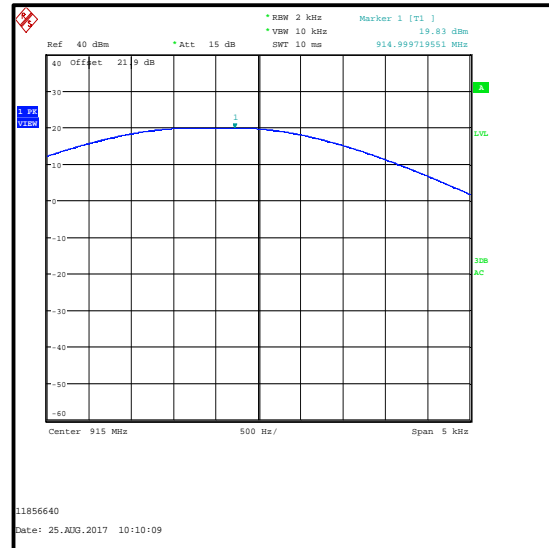
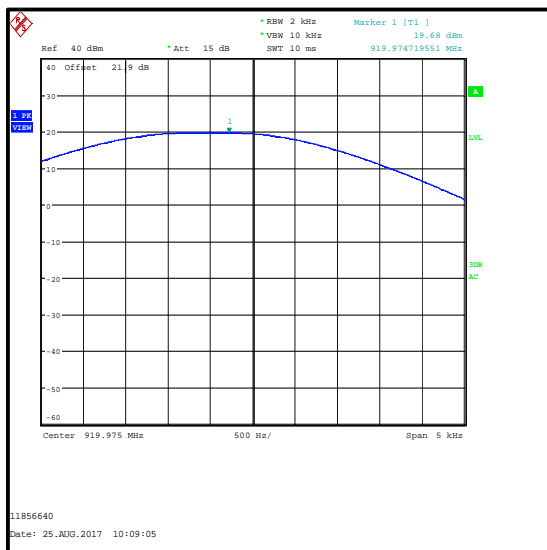
Channel	Conducted Peak Power (dBm)	Declared Antenna Gain (dBi)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Note	Result
Bottom	20.1	5.0	25.1	36.0	10.9	1	Complied
Middle	19.9	5.0	24.9	36.0	11.1	1	Complied
Top	19.8	5.0	24.8	36.0	11.2	1	Complied

**Transmitter Maximum Peak Output Power (continued)****Results: 62.5 bit/s****Bottom Channel****Middle Channel****Top Channel**

**Transmitter Maximum Peak Output Power (continued)****Results: 500 bit/s**

Channel	Conducted Peak Power (dBm)	Conducted Peak Power Limit (dBm)	Margin (dB)	Note	Result
Bottom	19.9	30.0	10.1	1	Complied
Middle	19.8	30.0	10.2	1	Complied
Top	19.7	30.0	10.3	1	Complied

Channel	Conducted Peak Power (dBm)	Declared Antenna Gain (dBi)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Note	Result
Bottom	19.9	5.0	24.9	36.0	11.1	1	Complied
Middle	19.8	5.0	24.8	36.0	11.2	1	Complied
Top	19.7	5.0	24.7	36.0	11.3	1	Complied

**Transmitter Maximum Peak Output Power (continued)****Results: 500 bit/s****Bottom Channel****Middle Channel****Top Channel****Test Equipment Used:**

Asset No.	Instrument	Manufacturer	Type No.	Serial No.	Date Calibration Due	Cal. Interval (Months)
M2002	Thermohygrometer	Testo	608-H1	45041825	22 Feb 2018	12
M1886	Test Receiver	Rohde & Schwarz	ESU26	100554	04 Apr 2018	12
A2526	Attenuator	AtlanTecRF	AN18W5-20	832828#1	Calibrated before use	-
M260	Signal Generator	Rohde & Schwarz	SMP02	829076/008	12 Apr 2018	12
M199	Power Meter	Rohde & Schwarz	NRVS	827023/075	11 Apr 2018	24
M1267	Power Sensor	Rohde & Schwarz	NRV-Z52	100155	15 Apr 2018	24

**... Transmitter Radiated Emissions****Test Summary:**

<b>Test Engineer:</b>	David Doyle	<b>Test Date:</b>	25 August 2017
<b>Test Sample Serial Number:</b>	30463		

<b>FCC Reference:</b>	Parts 15.247(d) & 15.209(a)
<b>Test Method Used:</b>	ANSI C63.10 Sections 6.3 and 6.5
<b>Frequency Range</b>	30 MHz to 1000 MHz

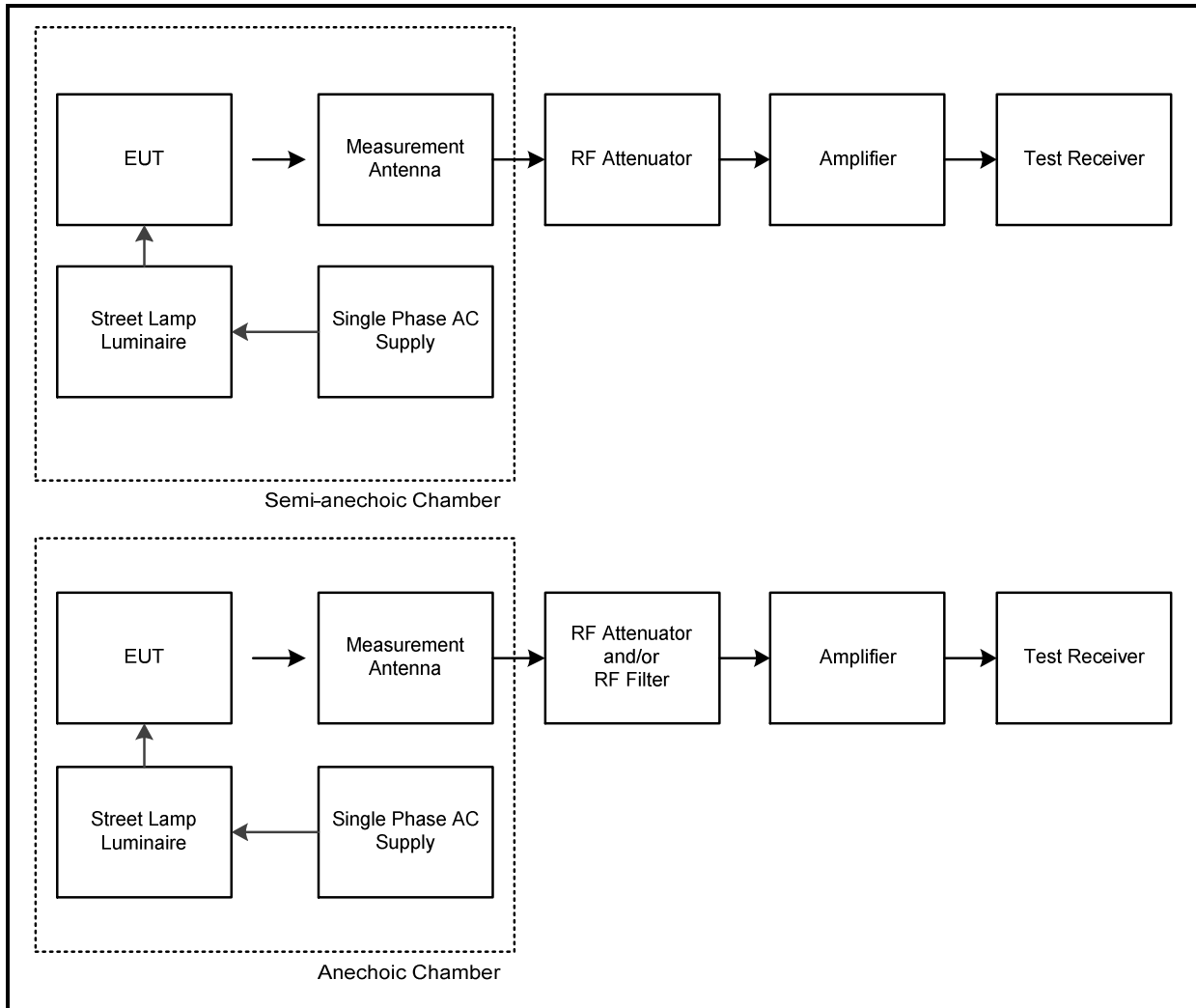
**Environmental Conditions:**

<b>Temperature (°C):</b>	25
<b>Relative Humidity (%):</b>	48

**Note(s):**

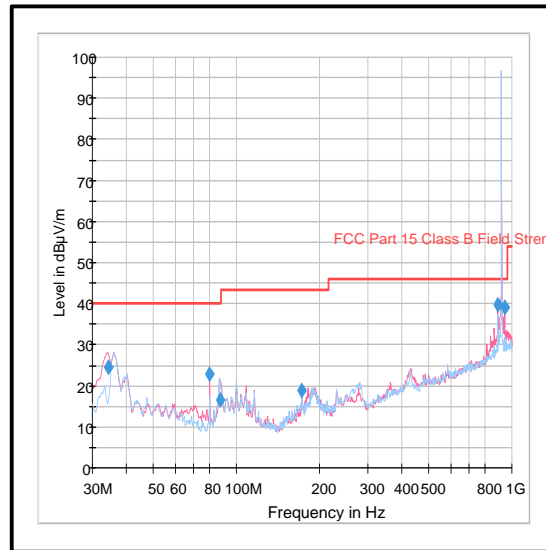
1. The EUT was transmitting at full power with a data rate of 62.5 bit/s.
2. The emission at 915 MHz shown on the 30 MHz to 1 GHz plot is the EUT fundamental.
3. The final measured value, for the given emission, in the table below incorporates the calibrated antenna factor and cable loss.
4. The preliminary scans showed similar emission levels below 1 GHz, for each channel of operation. Therefore final radiated emissions measurements were performed with the EUT set to the middle channel only.
5. All other emissions shown on the pre-scan plot were investigated and found to be ambient or >20 dB below the applicable limit or below the measurement system noise floor.
6. Measurements below 1 GHz were performed in a semi-anechoic chamber (Asset Number K0001) at a distance of 3 metres. The EUT was placed at a height of 80 cm above the reference ground plane in the centre of the chamber turntable. Maximum emission levels were determined by height searching the measurement antenna over the range 1 metre to 4 metres.
7. Pre-scans were performed and markers placed on the highest measured levels. The test receiver resolution bandwidth was set to 100 kHz and video bandwidth 300 kHz. The sweep time was set to auto. A peak detector was used, sweep time was set to auto and trace mode was Max Hold.
8. Final measurements were performed on the marker frequencies and the results entered into the table below. The test receiver resolution bandwidth was set to 120 kHz, using a CISPR quasi-peak detector and span wide enough to see the whole emission.



**Transmitter Radiated Emissions (continued)****Test setup for radiated measurements:**

**Transmitter Radiated Emissions (continued)****Results: Quasi-Peak**

Frequency (MHz)	Antenna Polarity	Level (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Result
34.279	Vertical	24.4	40.0	15.6	Complied
79.988	Vertical	22.9	40.0	17.1	Complied
888.995	Vertical	39.7	46.0	6.3	Complied
940.998	Vertical	39.2	46.0	6.8	Complied

**Test Equipment Used:**

Asset No.	Instrument	Manufacturer	Type No.	Serial No.	Date Calibration Due	Cal. Interval (Months)
M2009	Thermohygrometer	Testo	608-H1	45046699	20 Jun 2018	12
K0001	5m RSE Chamber	Rainford EMC	N/A	N/A	07 Dec 2017	12
A2959	Antenna	Schwarzbeck	VULB 9163	9163-967	08 Sep 2017	12
M1273	Test Receiver	Rohde & Schwarz	ESIB 26	100275	20 Apr 2018	12
G0543	Amplifier	Sonoma	310N	230801	09 Dec 2017	6
A1834	Attenuator	Hewlett Packard	8491B	10444	23 Feb 2018	12

**5.2.3. Transmitter Radiated Emissions****Test Summary:**

<b>Test Engineer:</b>	David Doyle	<b>Test Date:</b>	12 September 2017
<b>Test Sample Serial Number:</b>	30463		

<b>FCC Reference:</b>	Parts 15.247(d) & 15.209(a)
<b>Test Method Used:</b>	ANSI C63.10 Sections 6.3 and 6.6
<b>Frequency Range</b>	1 GHz to 9.3 GHz

**Environmental Conditions:**

<b>Temperature (°C):</b>	22
<b>Relative Humidity (%):</b>	49

**Note(s):**

1. The final measured value, for the given emission, in the table below incorporates the calibrated antenna factor and cable loss.
2. The EUT was transmitting at full power with a data rate of 62.5 bit/s.
3. All other emissions shown on the pre-scan plot were investigated and found to be ambient or >20 dB below the applicable limit or below the measurement system noise floor.
4. In accordance with ANSI C63.10 Section 6.6.4.3 (Note 1), if the peak measured value complies with the average limit, it is unnecessary to perform an average measurement.
5. Pre-scans above 1 GHz were performed in a fully anechoic chamber (Asset Number K0017) at a distance of 3 metres. The EUT was placed at a height of 1.5 metres above the test chamber floor in the centre of the chamber turntable. All measurement antennas were placed at a fixed height of 1.5 metres above the test chamber floor, in line with the EUT. Final measurements above 1 GHz were performed in a fully anechoic chamber (Asset Number K0017) at a distance of 3 metres. The EUT was placed at a height of 1.5 metres above the reference ground plane in the centre of the chamber turntable. Maximum emission levels were determined by height searching the measurement antenna over the range 1 metre to 4 metres.
6. Pre-scans were performed and markers were placed on the highest measured levels of the appropriate plot. The test receiver resolution bandwidth was set to 1 MHz and video bandwidth 3 MHz. The sweep time was set to auto. Peak and average measurements were performed with their own appropriate detectors during the pre-scan measurements.

**Transmitter Radiated Emissions (continued)****Results: Bottom Channel**

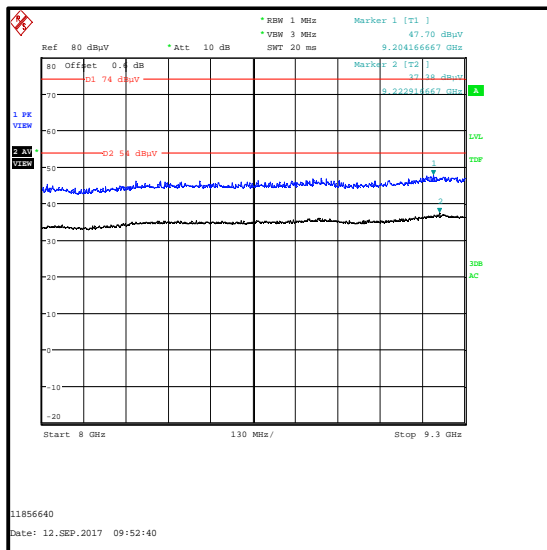
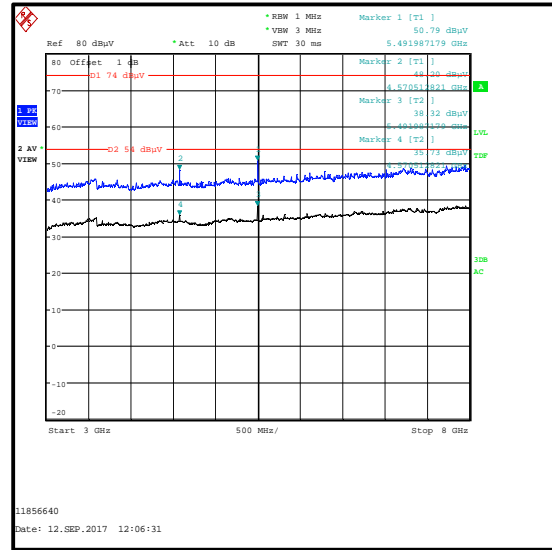
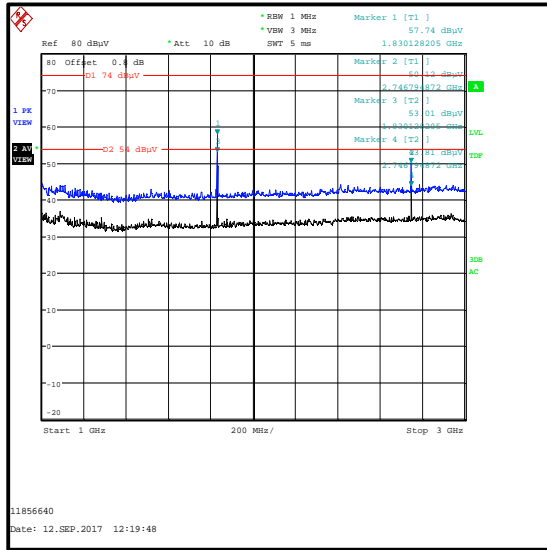
Frequency (MHz)	Antenna Polarity	Peak Level (dB $\mu$ V/m)	Average Limit (dB $\mu$ V/m)	Margin (dB)	Result
2731.412	Horizontal	51.6	54.0	2.4	Complied
3641.712	Vertical	47.5	54.0	6.5	Complied
4552.476	Vertical	48.6	54.0	5.4	Complied
7284.040	Horizontal	49.8	54.0	4.2	Complied

**Results: Middle Channel**

Frequency (MHz)	Antenna Polarity	Peak Level (dB $\mu$ V/m)	Average Limit (dB $\mu$ V/m)	Margin (dB)	Result
2745.048	Horizontal	51.3	54.0	2.7	Complied
3659.768	Vertical	48.0	54.0	6.0	Complied
4574.784	Vertical	49.4	54.0	4.6	Complied
7320.280	Horizontal	49.4	54.0	4.6	Complied

**Results: Top Channel**

Frequency (MHz)	Antenna Polarity	Peak Level (dB $\mu$ V/m)	Average Limit (dB $\mu$ V/m)	Margin (dB)	Result
2759.957	Vertical	50.3	54.0	3.7	Complied
3680.261	Vertical	46.5	54.0	7.5	Complied
4599.691	Vertical	48.2	54.0	5.8	Complied
7359.119	Vertical	49.4	54.0	4.6	Complied

**Transmitter Radiated Emissions (continued)**

Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

**Transmitter Radiated Emissions (continued)****Test Equipment Used:**

<b>Asset No.</b>	<b>Instrument</b>	<b>Manufacturer</b>	<b>Type No.</b>	<b>Serial No.</b>	<b>Date Calibration Due</b>	<b>Cal. Interval (Months)</b>
M2003	Thermohygrometer	Testo	608-H1	45046641	22 Feb 2018	12
K0017	3m RSE Chamber	Rainford EMC	N/A	N/A	14 Apr 2018	12
M1995	Test Receiver	Rohde & Schwarz	ESU40	100428	13 Apr 2018	12
A2863	Pre Amplifier	Agilent	8449B	3008A02100	11 Apr 2018	12
A2891	Pre Amplifier	Schwarzbeck	BBV 9718	9718-306	11 Apr 2018	12
A2893	Pre Amplifier	Schwarzbeck	BBV 9721	9721-021	11 Apr 2018	12
A2889	Antenna	Schwarzbeck	BBHA 9120 B	BBHA 9120 B 653	11 Apr 2018	12
A2890	Antenna	Schwarzbeck	HWRD 750	014	11 Apr 2018	12
A2908	High Pass Filter	Wainwright Instruments GmbH	WHJE5-920-1000-4000-60EE	3	06 Mar 2018	12
A2914	High Pass Filter	AtlanTecRF	AFH-03000	2155	06 Mar 2018	12
A2947	High Pass Filter	AtlanTecRF	AFH-07000	1601900001	18 May 2018	12

**5.2.4. Transmitter Band Edge Radiated Emissions****Test Summary:**

<b>Test Engineer:</b>	David Doyle	<b>Test Date:</b>	23 August 2017
<b>Test Sample Serial Number:</b>	30463		

<b>FCC Reference:</b>	Parts 15.247(d) & 15.209(a)
<b>Test Method Used:</b>	ANSI C63.10 Section 6.10.4

**Environmental Conditions:**

<b>Temperature (°C):</b>	24
<b>Relative Humidity (%):</b>	51

**Note(s):**

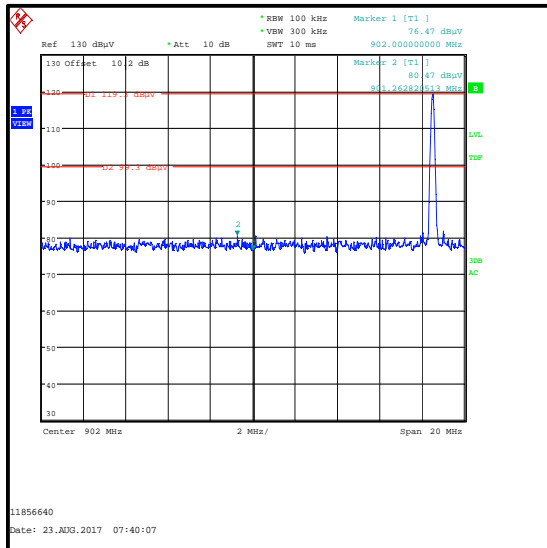
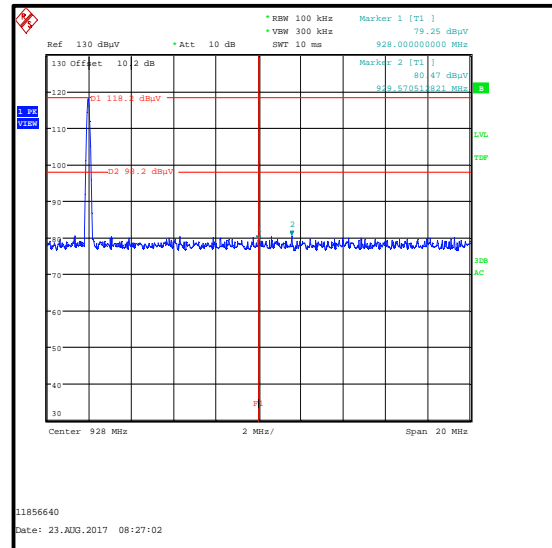
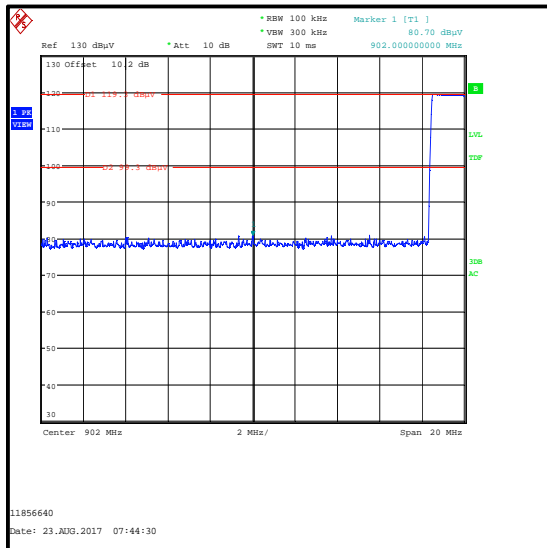
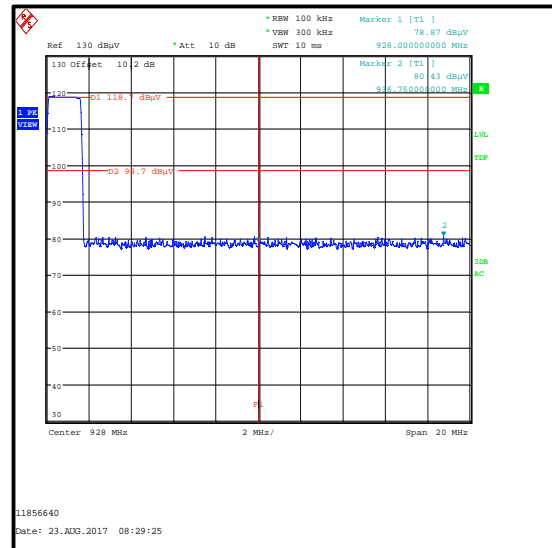
1. The final measured value, for the given emission, in the table below incorporates the calibrated antenna factor and cable loss.
2. As both band edges fall within the non-restricted bands, only peak measurements are required. The test receiver resolution bandwidth was set to 100 kHz and video bandwidth 300 kHz. A peak detector was used, sweep time was set to auto and trace mode was Max Hold. The test receiver was left to sweep for a sufficient length of time in order to maximise the carrier level and out-of-band emissions. A reference level line was placed on the peak of the carrier and a second reference line was placed at -20 dBc. A marker was placed on the band edge spot frequencies and a second marker placed on the highest emission or noise floor level in the adjacent band. Marker frequencies and levels were recorded.

**Results: Static Mode / 62.5 bit/s**

Frequency (MHz)	Peak Level (dBμV/m)	-20 dBc Limit (dBμV/m)	Margin (dB)	Result
901.263	80.5	99.3	18.8	Complied
902	76.5	99.3	22.8	Complied
928	79.3	98.2	18.9	Complied
929.571	80.5	98.2	17.7	Complied

**Results: Hopping Mode / 62.5 bit/s**

Frequency (MHz)	Peak Level (dBμV/m)	-20 dBc Limit (dBμV/m)	Margin (dB)	Result
902	80.7	99.3	18.6	Complied
928	78.9	98.7	19.8	Complied
936.750	80.4	98.7	18.3	Complied

**Transmitter Band Edge Radiated Emissions (continued)****Results: 62.5 bit/s****Lower Band Edge / Static Mode****Upper Band Edge / Static Mode****Lower Band Edge / Hopping Mode****Upper Band Edge / Hopping Mode**

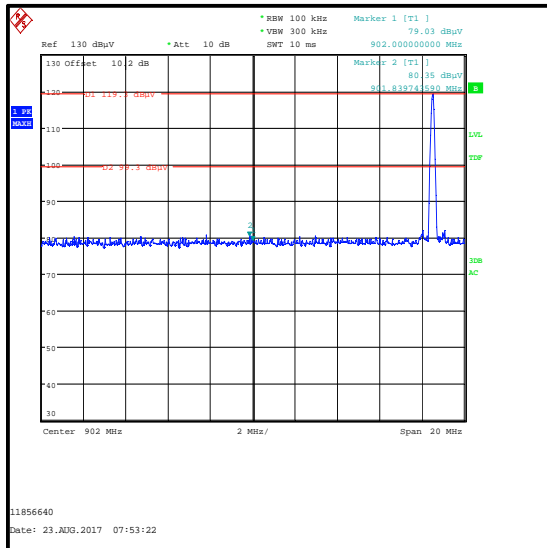
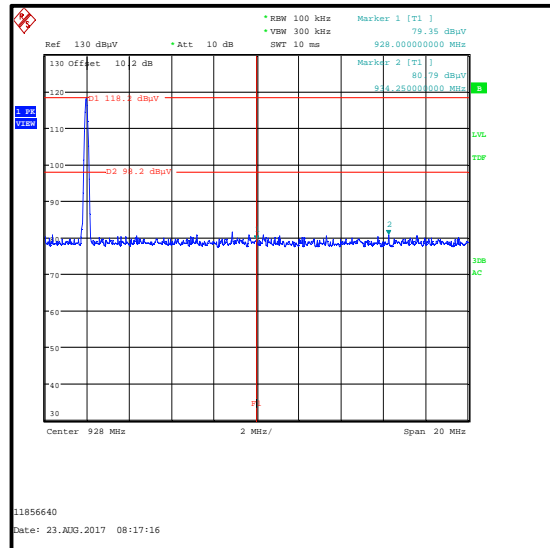
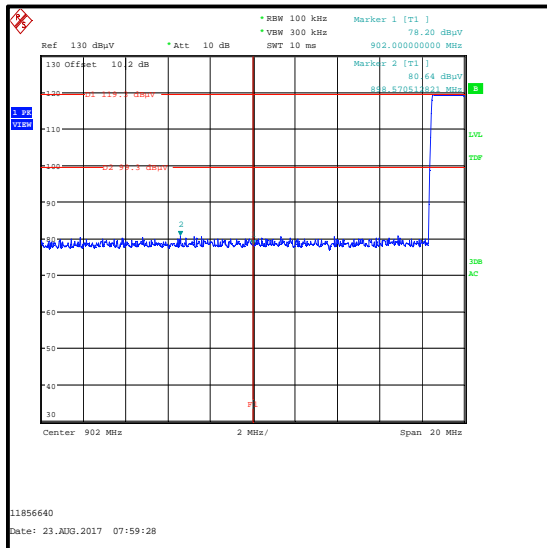
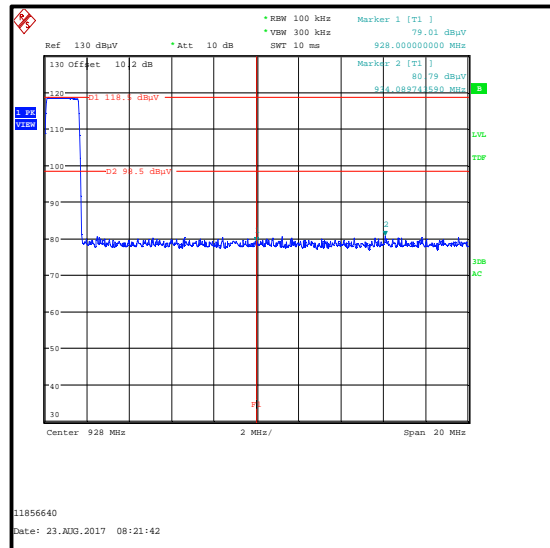


**Transmitter Band Edge Radiated Emissions (continued)****Results: Static Mode / 500 bit/s**

Frequency (MHz)	Peak Level (dB $\mu$ V/m)	-20 dBc Limit (dB $\mu$ V/m)	Margin (dB)	Result
901.840	80.4	99.3	18.9	Complied
902	79.0	99.3	20.3	Complied
928	79.4	98.2	18.8	Complied
934.250	80.8	98.2	17.4	Complied

**Results: Hopping Mode / 500 bit/s**

Frequency (MHz)	Peak Level (dB $\mu$ V/m)	-20 dBc Limit (dB $\mu$ V/m)	Margin (dB)	Result
898.571	80.6	99.3	18.7	Complied
902	78.2	99.3	21.1	Complied
928	79.0	98.5	19.5	Complied
934.090	80.8	98.5	17.7	Complied

**Transmitter Band Edge Radiated Emissions (continued)****Results: 500 bit/s****Lower Band Edge / Static Mode****Upper Band Edge / Static Mode****Lower Band Edge / Hopping Mode****Upper Band Edge / Hopping Mode****Test Equipment Used:**

Asset No.	Instrument	Manufacturer	Type No.	Serial No.	Date Calibration Due	Cal. Interval (Months)
M2003	Thermohygrometer	Testo	608-H1	45046641	22 Feb 2018	12
K0017	3m RSE Chamber	Rainford EMC	N/A	N/A	14 Apr 2018	12
M1995	Test Receiver	Rohde & Schwarz	ESU40	100428	13 Apr 2018	12
A2888	Antenna	Schwarzbeck	VULB 9163	9163-941	25 Apr 2018	12
A2916	Attenuator	AtlanTecRF	AN18W5-10	832827#1	03 Mar 2018	12

## **6. Measurement Uncertainty**

No measurement or test can ever be perfect and the imperfections give rise to error of measurement in the results. Consequently the result of a measurement is only an approximation to the value of the measurand (the specific quantity subject to measurement) and is only complete when accompanied by a statement of the uncertainty of the approximation.

The expression of uncertainty of a measurement result allows realistic comparison of results with reference values and limits given in specifications and standards.

The uncertainty of the result may need to be taken into account when interpreting the measurement results.

The reported expanded uncertainties below are based on a standard uncertainty multiplied by an appropriate coverage factor such that a confidence level of approximately 95% is maintained. For the purposes of this document "approximately" is interpreted as meaning "effectively" or "for most practical purposes".

Measurement Type	Range	Confidence Level (%)	Calculated Uncertainty
Conducted Maximum Peak Output Power	902 MHz to 928 MHz	95%	$\pm 1.13$ dB
Radiated Spurious Emissions	30 MHz to 1 GHz	95%	$\pm 5.65$ dB
Radiated Spurious Emissions	1 GHz to 9.3 GHz	95%	$\pm 2.94$ dB

The methods used to calculate the above uncertainties are in line with those recommended within the various measurement specifications. Where measurement specifications do not include guidelines for the evaluation of measurement uncertainty the published guidance of the appropriate accreditation body is followed.

**7. Report Revision History**

Version Number	Revision Details		
	Page No(s)	Clause	Details
1.0	-	-	Initial Version
2.0	-	-	Section 4.2 updated

--- END OF REPORT ---