

FCC TEST REPORT

For

LTE Remote Radio Unit

Model Number: ZXSDR BS8922 L1700

FCC ID: Q78-BS8922L1700

Report Number : WT178008127

Test Laboratory : Shenzhen Academy of Metrology and Quality
Inspection
National Digital Electronic Product Testing Center
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Test report declaration

Applicant : ZTE Corporation
Address : ZTE Plaza, Hi-tech Park, Nanshan District, Shenzhen, Guangdong, China 518057
Manufacturer : ZTE Corporation
Address : ZTE Plaza, Hi-tech Park, Nanshan District, Shenzhen, Guangdong, China 518057
EUT Description : LTE Remote Radio Unit
Model No : ZXSDR BS8922 L1700
Trade mark : ZTE
Serial Number : /
FCC ID : Q78-BS8922L1700

Test Standards:

FCC PART 27

The EUT described above is tested by Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory to determine the maximum emissions from the EUT. Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory is assumed full responsibility for the accuracy of the test results. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI/TIA-603-E (2016) & KDB971168 and the energy emitted by the sample EUT tested as described in this report is in compliance with FCC Rules Part 27.

The test report is valid for above tested sample only and shall not be reproduced in part without written approval of the laboratory.

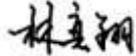
Project Engineer:	 _____ (Chen Silin 陈司林)	Date:	<u>Jan.16, 2018</u>
Checked by:	 _____ (Lin Yixiang 林奕翔)	Date:	<u>Jan.16, 2018</u>
Approved by:	 _____ (Lin Bin 林斌)	Date:	<u>Jan.16, 2018</u>

TABLE OF CONTENTS

TEST REPORT DECLARATION	2
1. GENERAL INFORMATION.....	5
1.1. Report information.....	5
1.2. Laboratory Accreditation and Relationship to Customer	5
1.3. Measurement Uncertainty	6
2. PRODUCT DESCRIPTION.....	7
2.1. EUT Description.....	7
2.2. Related Submittal(s) / Grant (s)	7
2.3. Operating Condition of EUT	8
3. TEST RESULTS.....	9
3.1. RF Power Output.....	9
3.2. RF Exposure	34
3.3. Moudulation Characteristics	35
3.4. Spurious Emissions Radiated	136
3.5. Spurious Emissions At Antenna Terminals.....	145
3.6. Occupied Bandwidth	206
3.7. Band Edges.....	231
3.8. Frequency Stability.....	248

TEST Results Summary

Table 1 Test Results Summary

FCC RULES	DESCRIPTION OF TEST	RESULT
§ 2.1046 , §27.50	Transmitter output Power	Compliant
§ 2.1091 , §1.1037	RF Exposure	Compliant
§ 2.1047	Modulation Characteristic	Compliant
§ 2.1053, §27.53	Spurious Radiated Emissions	Compliant
§ 2.1051, §27.53	Spurious Emissions AT Antenna Terminals	Compliant
§ 2.1049	Occupied Bandwidth	Compliant
§ 2.1051, §27.53	Band Edge	Compliant
§ 2.1055, §27.54	Frequency stability	Compliant

CFR 47 (FCC) Part 27.

Remark: "N/A" means "Not applicable."

The tests documented in this report were performed in accordance with ANSI/TIA-603-E (2016) & KDB971168, FCC CFR 47 Part 2, and Part 27.

1. GENERAL INFORMATION

1.1. Report information

This report is not a certificate of quality; it only applies to the sample of the specific product/equipment given at the time of its testing. The results are not used to indicate or imply that they are application to the similar items. In addition, such results must not be used to indicate or imply that SMQ approves recommends or endorses the manufacture, supplier or use of such product/equipment, or that SMQ in any way guarantees the later performance of the product/equipment.

The samples mentioned in this report is/are supplied by Applicant, SMQ therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture or any information supplied.

Additional copies of the report are available to the Applicant at an additional fee. No third part can obtain a copy of this report through SMQ, unless the applicant has authorized SMQ in writing to do so.

1.2. Laboratory Accreditation and Relationship to Customer

The testing report were performed by the Shenzhen Academy of Metrology and The testing report were performed by the Shenzhen Academy of Metrology and quality Inspection EMC Laboratory (Guangdong EMC compliance testing center), in their facilities located at NETC Building, No.4 Tongfa Rd., Xili, Nanshan, Shenzhen, China. At the time of testing, Laboratory is accredited by the following organizations:

China National Accreditation Service for Conformity Assessment (CNAS) accredits the Laboratory for conformance to FCC standards, EMC international standards and EN standards. The Registration Number is CNAS L0579.

The Laboratory is listed in the United States of American Federal Communications Commission (FCC), and the registration number is 582918.

The Laboratory is registered to perform emission tests with Industry Canada (IC), and the registration number is 11177A-1 11177A-2.

TUV Rhineland accredits the Laboratory for conformance to IEC and EN standards, the registration number is E2024086Z02.

1.3. Measurement Uncertainty

For a 95% confidence level ($k = 2$), the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 as following:

Radiated Emission

30MHz~1000MHz 4.5dB

1GHz~26.5GHz 4.6dB

2. PRODUCT DESCRIPTION

2.1.EUT Description

The ZTE Corporation's product, model number: ZXSDR BS8922 L1700 or the "EUT" as referred to in this report is a LTE Remote Radio Unit.

Technical specification:

Size: 290 mm x 270 mm x 90 mm (HxWxD)

Input voltage:DC: -48 V(-37V to -60V)&AC: 220V/110V (86V to 286V)

Frequency range: UL:1710MHz~1755MHz; DL: 2110MHz~2155MHz

Max RF output power: 37dBm

Gain of the antenna: 15dBi

Appearance of EUT:

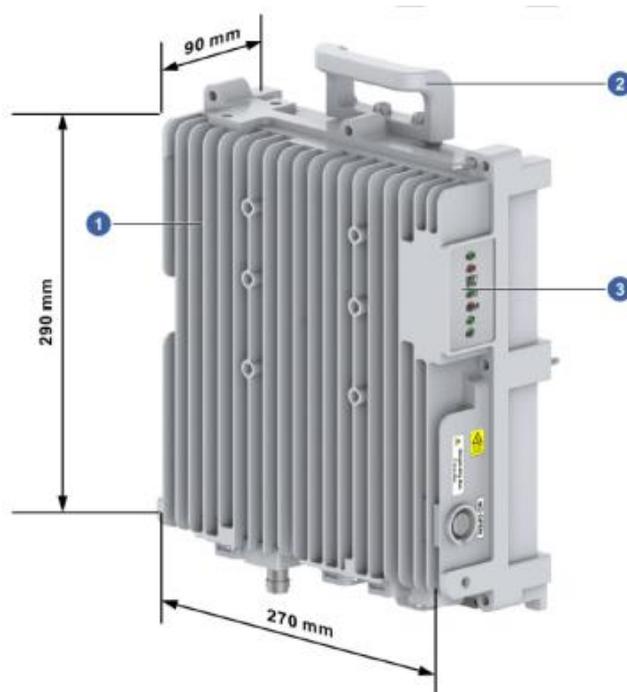


Figure 1 External View of the ZXSDR BS8922 L1700

2.2.Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for FCC ID: **Q78-BS8922L1700** filing to comply with FCC PART 27.

2.3. Operating Condition of EUT

Justification

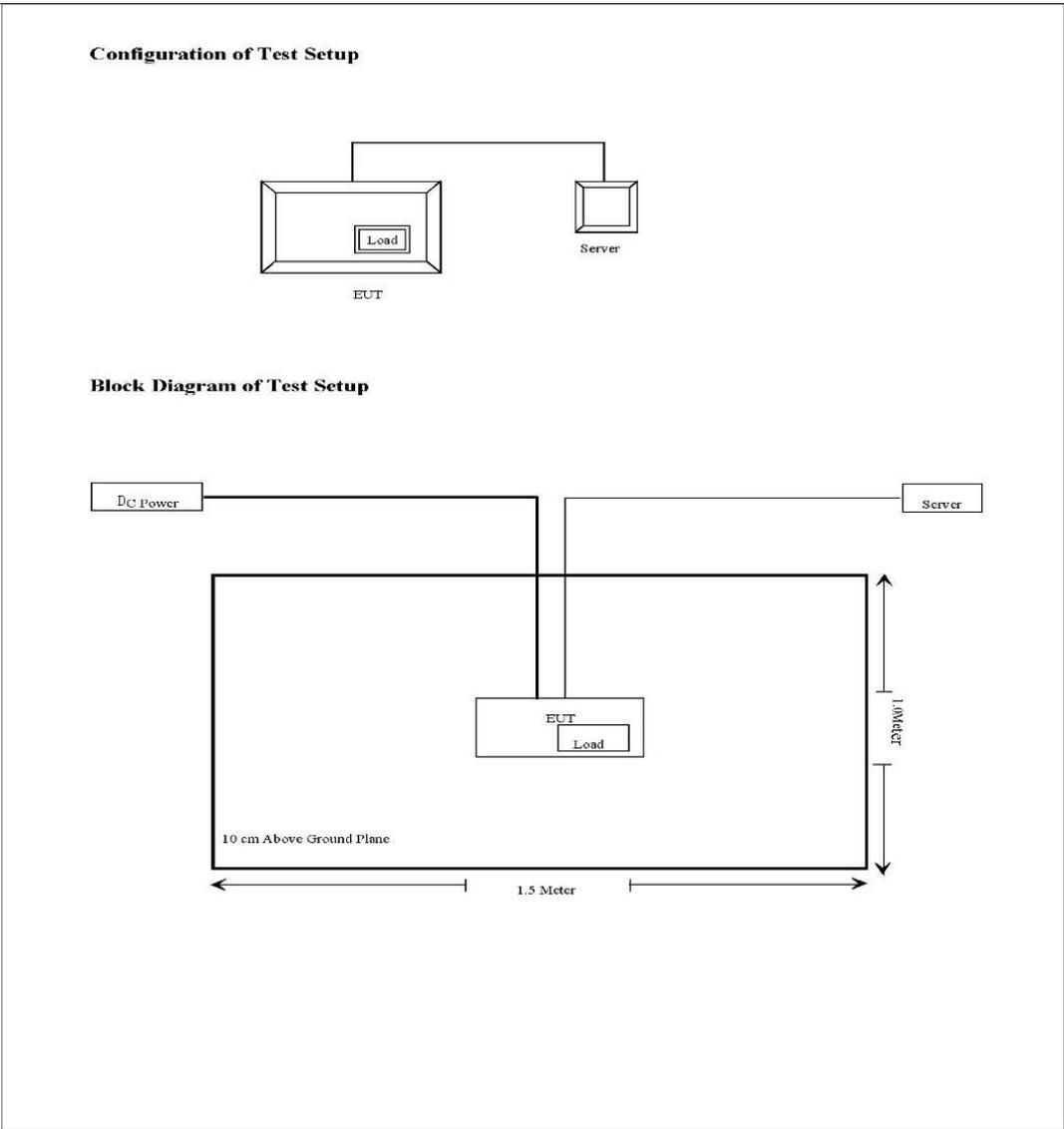
The EUT was configured for testing according to ANSI/TIA-603-E (2016).
The final qualification test was performed with EUT operating at normal mode.

Equipment Modifications

SMQ has not done any modification on the EUT.

Date of test: Dec.4, 2017 - Dec.8, 2017

Date of EUT Receive: Dec.4, 2017



3. TEST RESULTS

3.1. RF Power Output

3.1.1. Applicable Standard: FCC §2.1046, §27.50

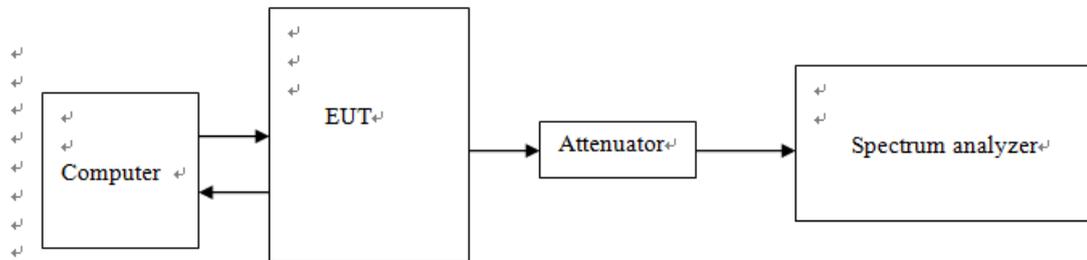
According to FCC §2.1046 & 27.50, the EIRP (equivalent isotropically radiated power) must not exceed 2000Watts.

3.1.2. Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Signal & Spectrum Analyzer	FSW26	SB12724/01	2017.6.19	2018.6.18
DTS	DTS 40dB Attenuator	DTS100-40-3-1	09112005	2017.03.15	2018.03.15

***statement of traceability:** SMQ attests that all calibration has been performed per the A2LA requirements, traceable to NIM.

3.1.3. Test Procedure



The RF output of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation. External attenuation Loss is 40.5dB, Cable Loss is about 1.5dB

3.1.4. Environmental Conditions

Temperature:	20 °C
Relative Humidity:	53 %
ATM Pressure:	1009 mbar

3.1.5. Test Result: Pass

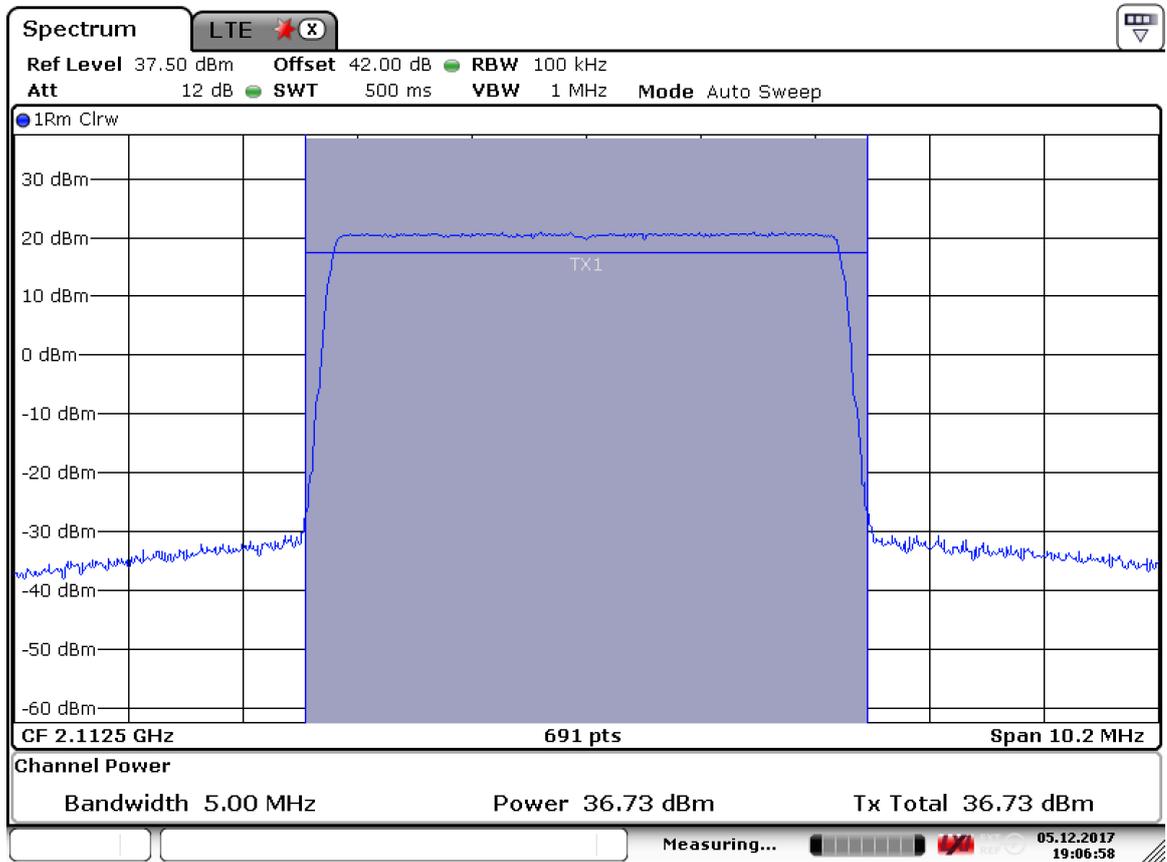
3.1.6. Test Mode: Transmitting LTE

3.1.7.Test Data:

LTE 5MHz

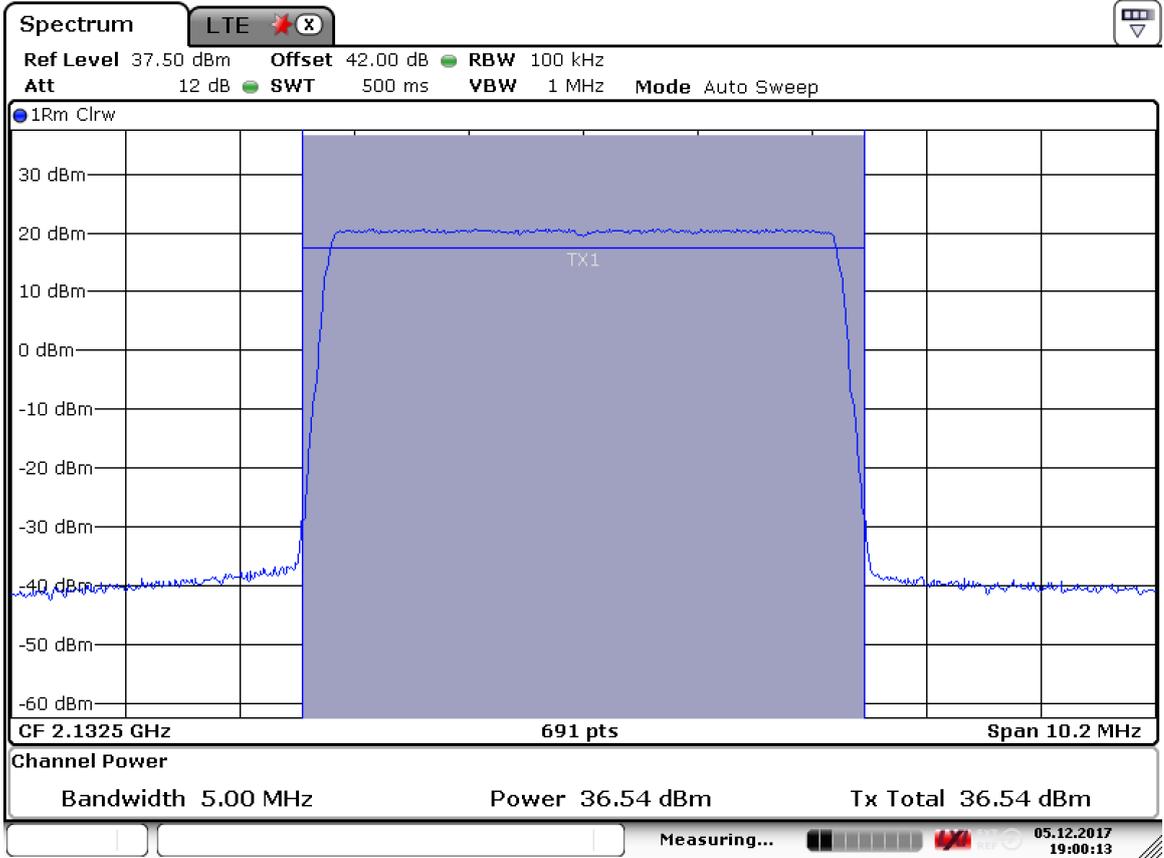
Port	Center Freq. (MHz)	Max output Power in dBm	Antenna gain dBi	Cable Loss dB	equivalent isotropically radiated power dBm Of single antenna	Total Power in W Of single antenna
1	2112.5	36.73	15	0.5	51.23	132.74
	2132.5	36.54	15	0.5	51.04	127.06
	2152.5	36.67	15	0.5	51.17	130.92
2	2112.5	36.61	15	0.5	51.11	129.12
	2132.5	36.72	15	0.5	51.22	132.43
	2152.5	36.61	15	0.5	51.11	129.12

Port 1 -2122.5MHz



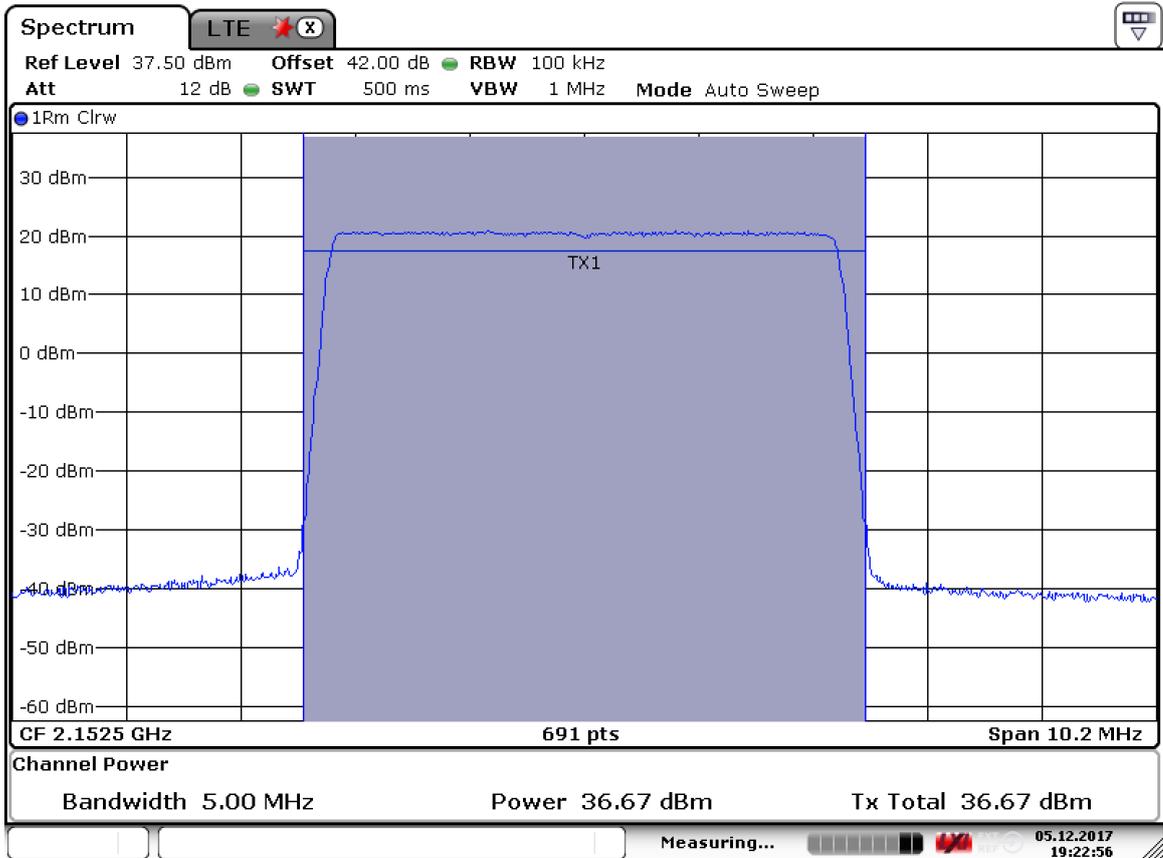
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Port 1 -2132.5MHz



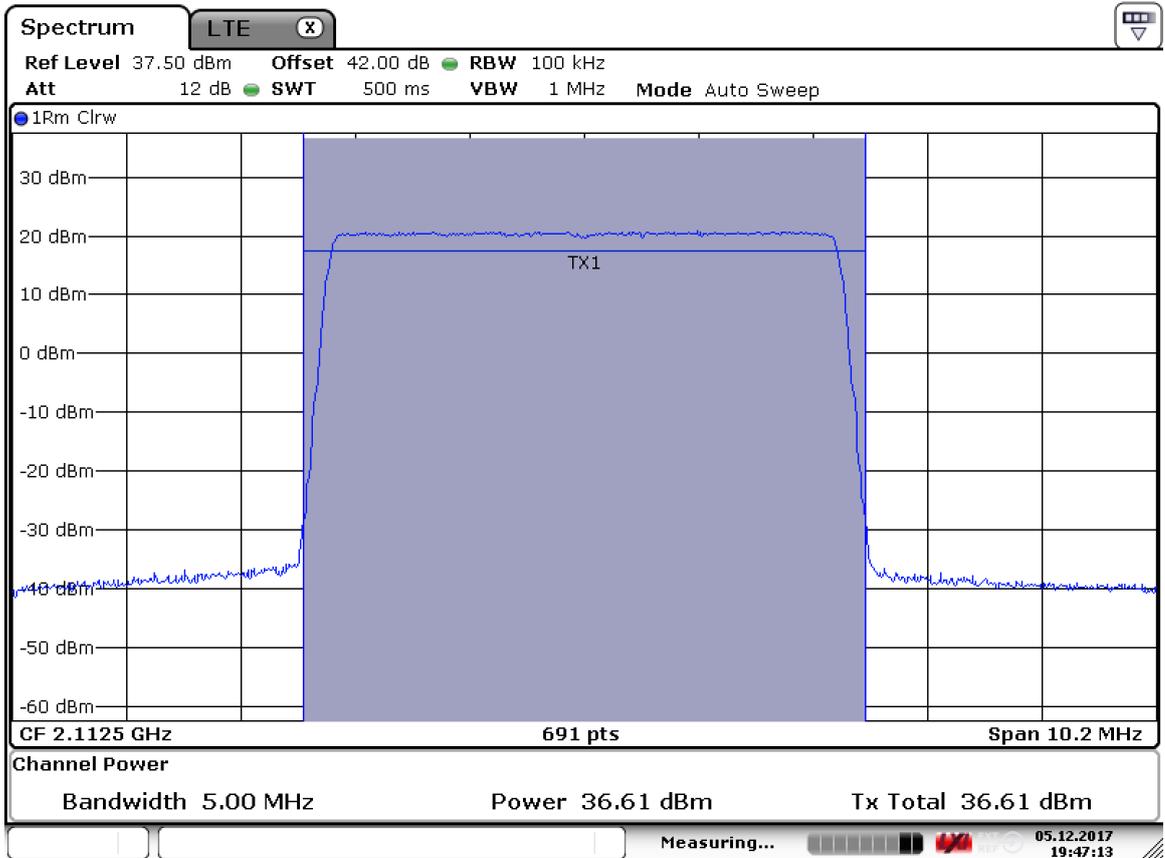
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Port 1 -2152.5MHz



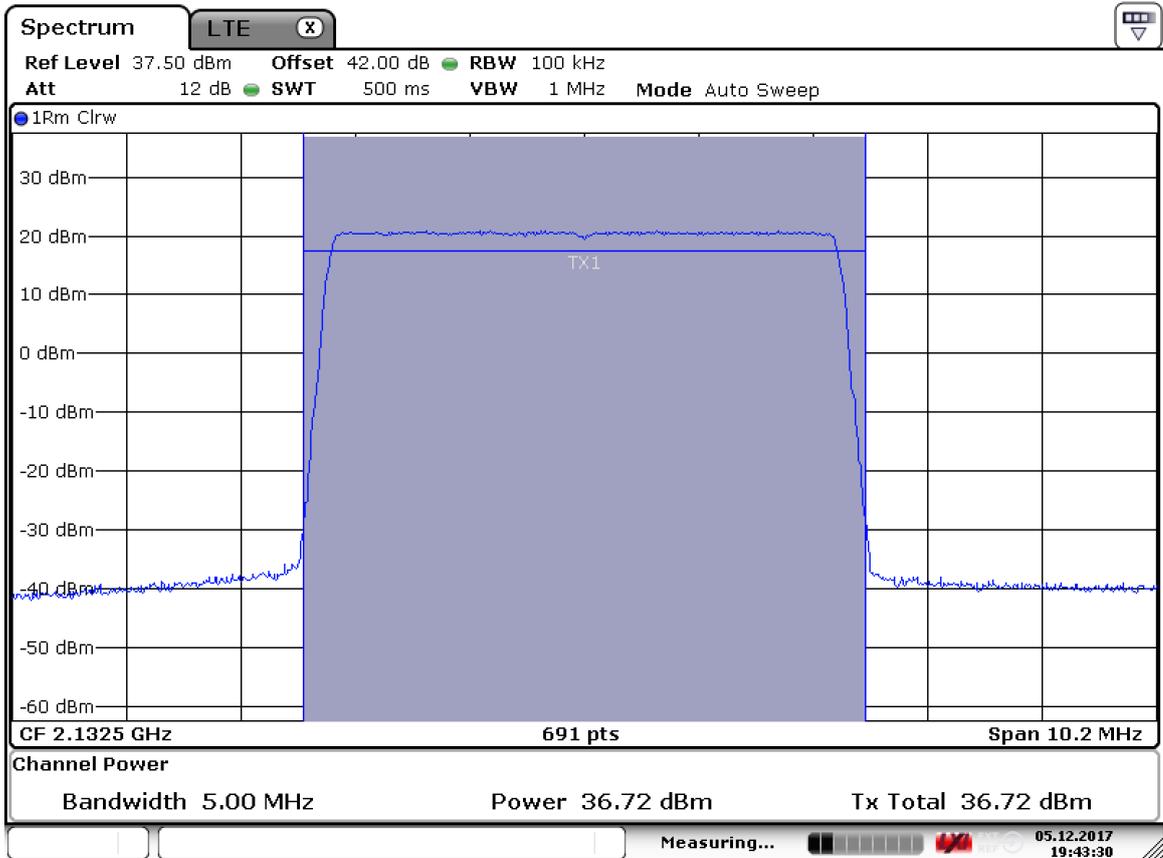
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Port 2 -2122.5MHz



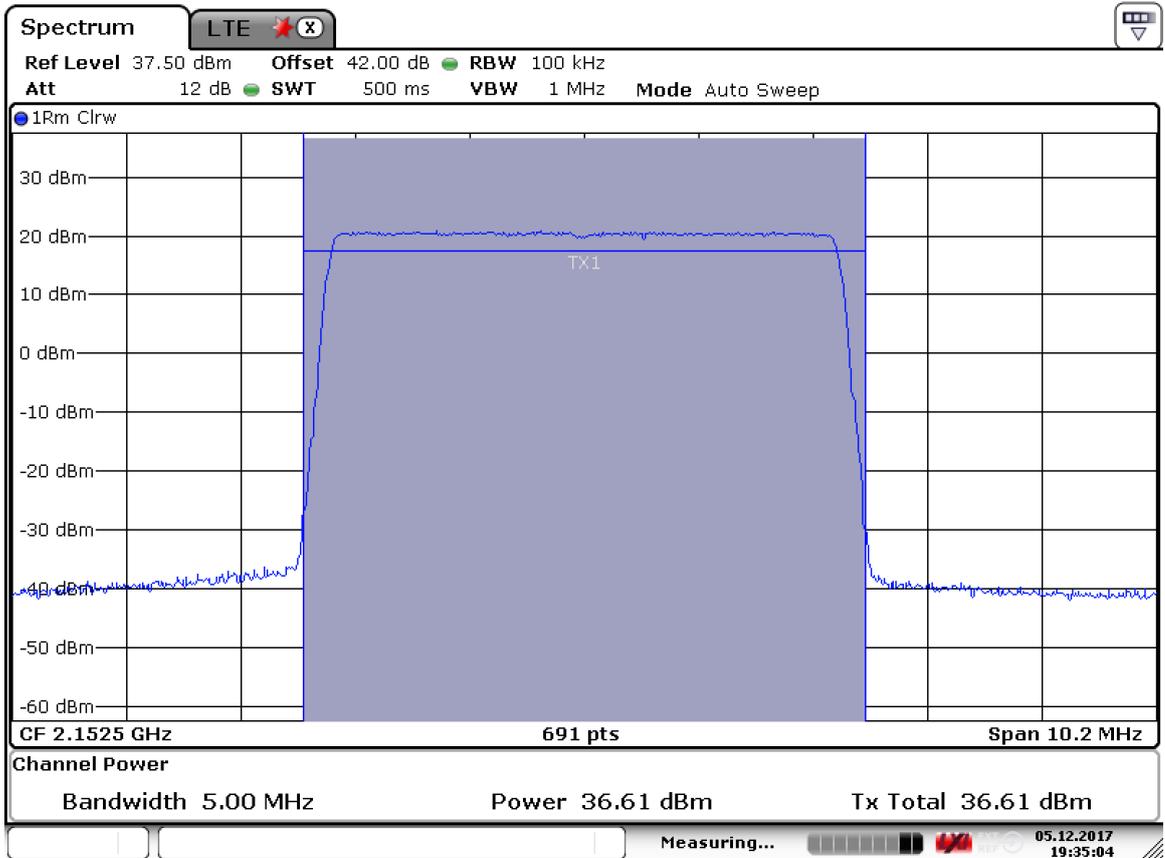
Date: 5.DEC.2017 19:47:14

Port 2 -2132.5MHz



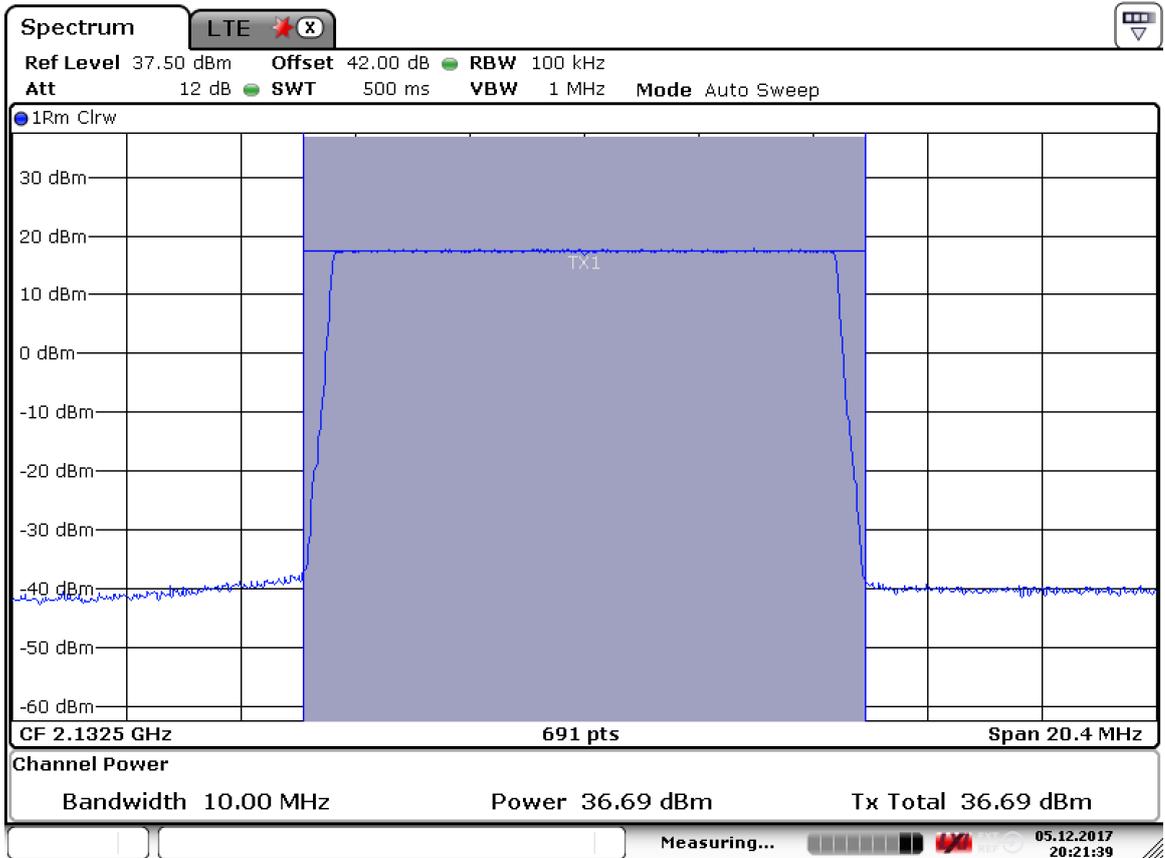
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Port 2 -2152.5MHz



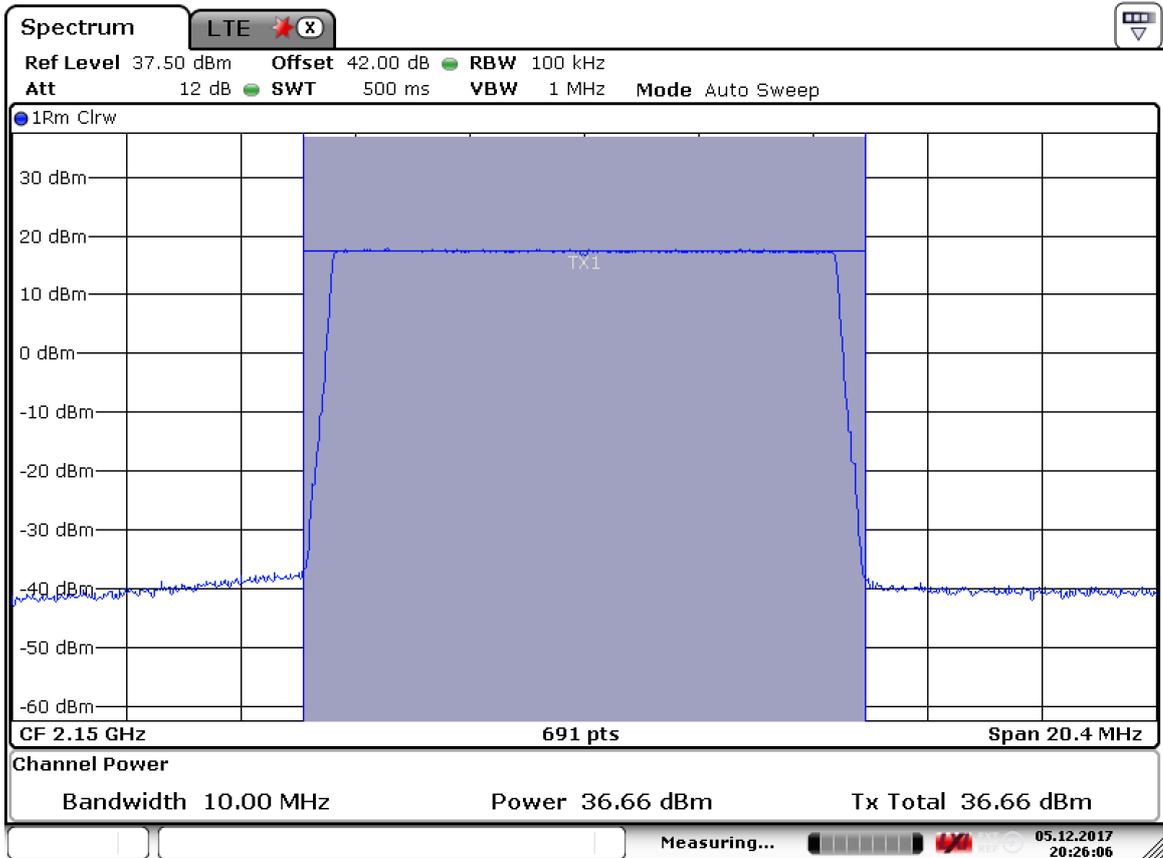
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Port 1 -2132.5MHz



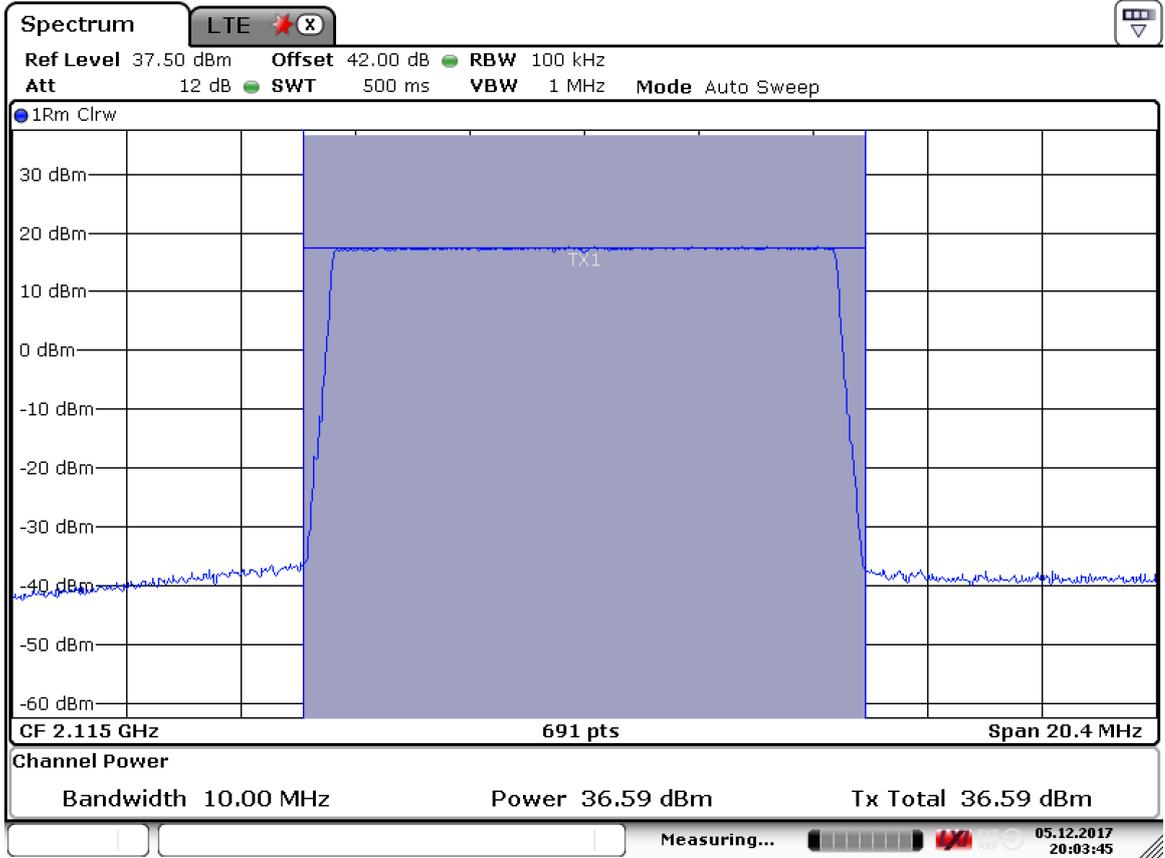
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Port 1 -2150MHz



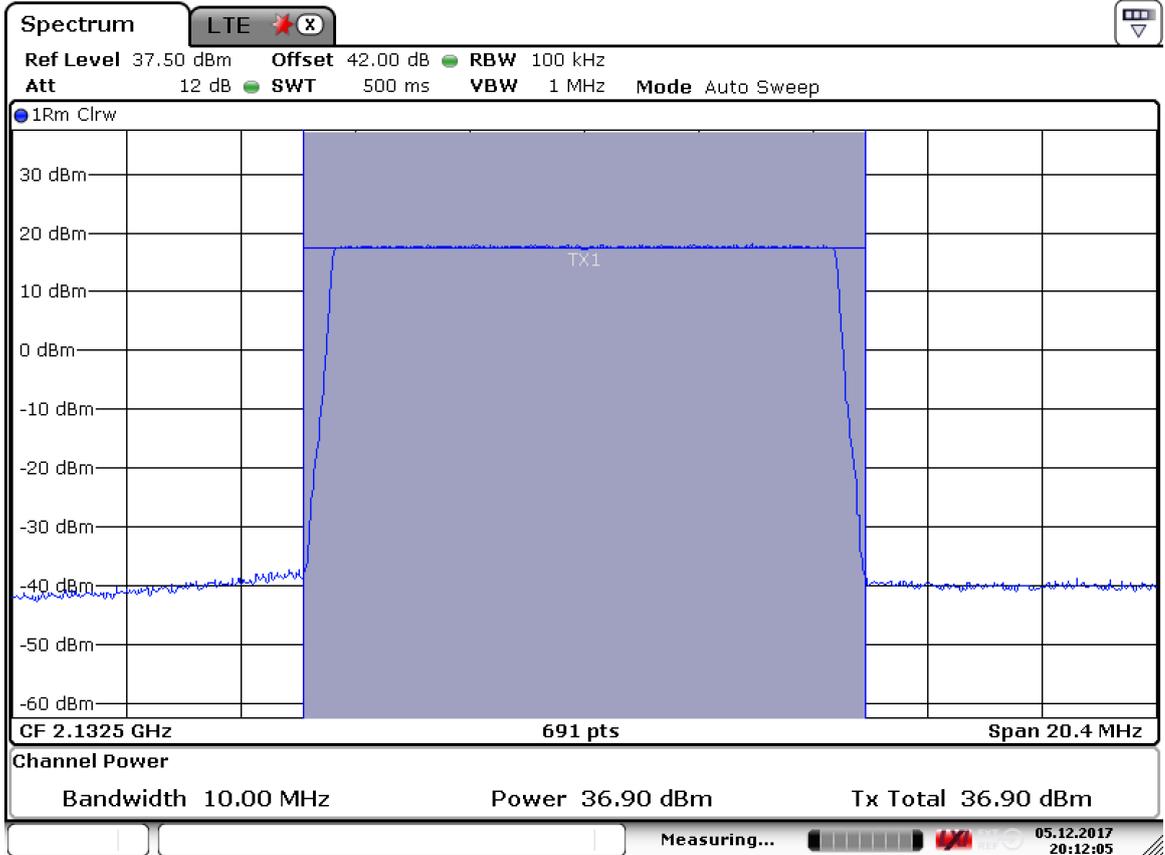
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Port 2 -2115MHz



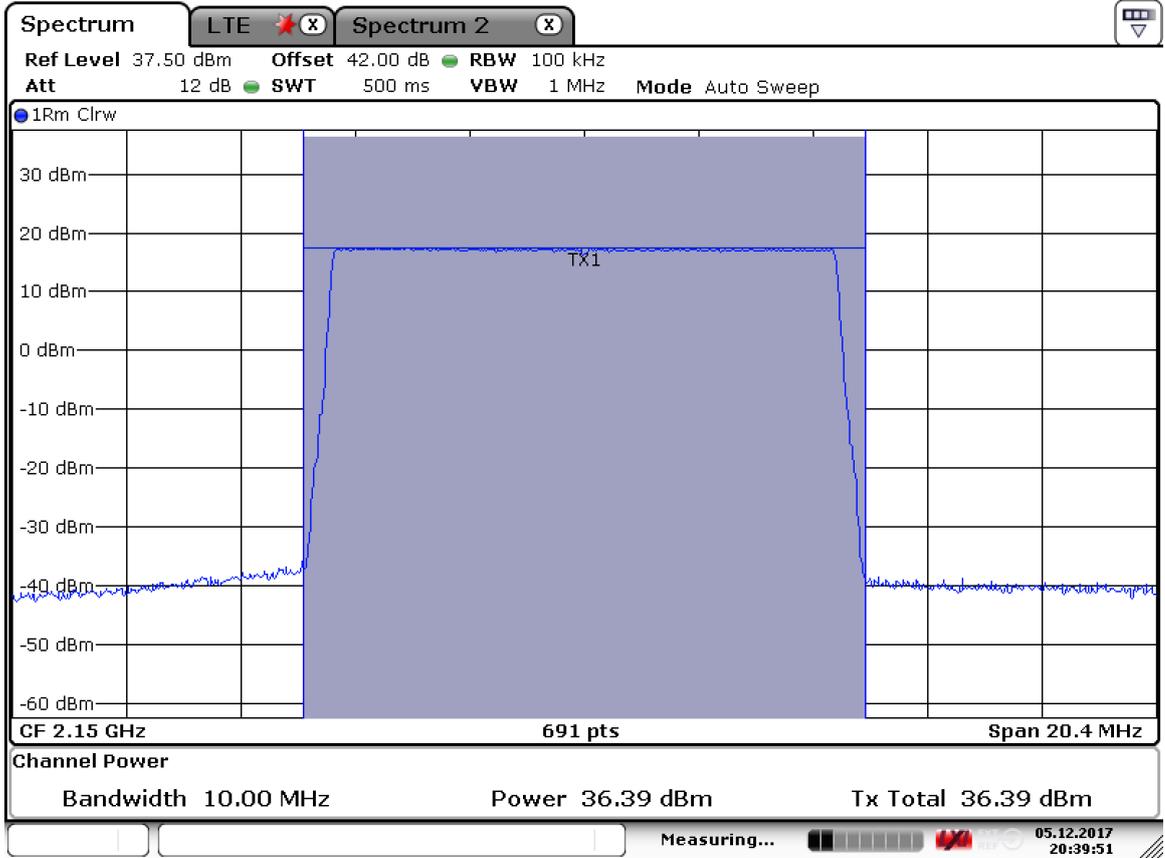
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Port 2 -2132.5MHz



Date: 5.DEC.2017 20:12:05

Port 2 -2150MHz

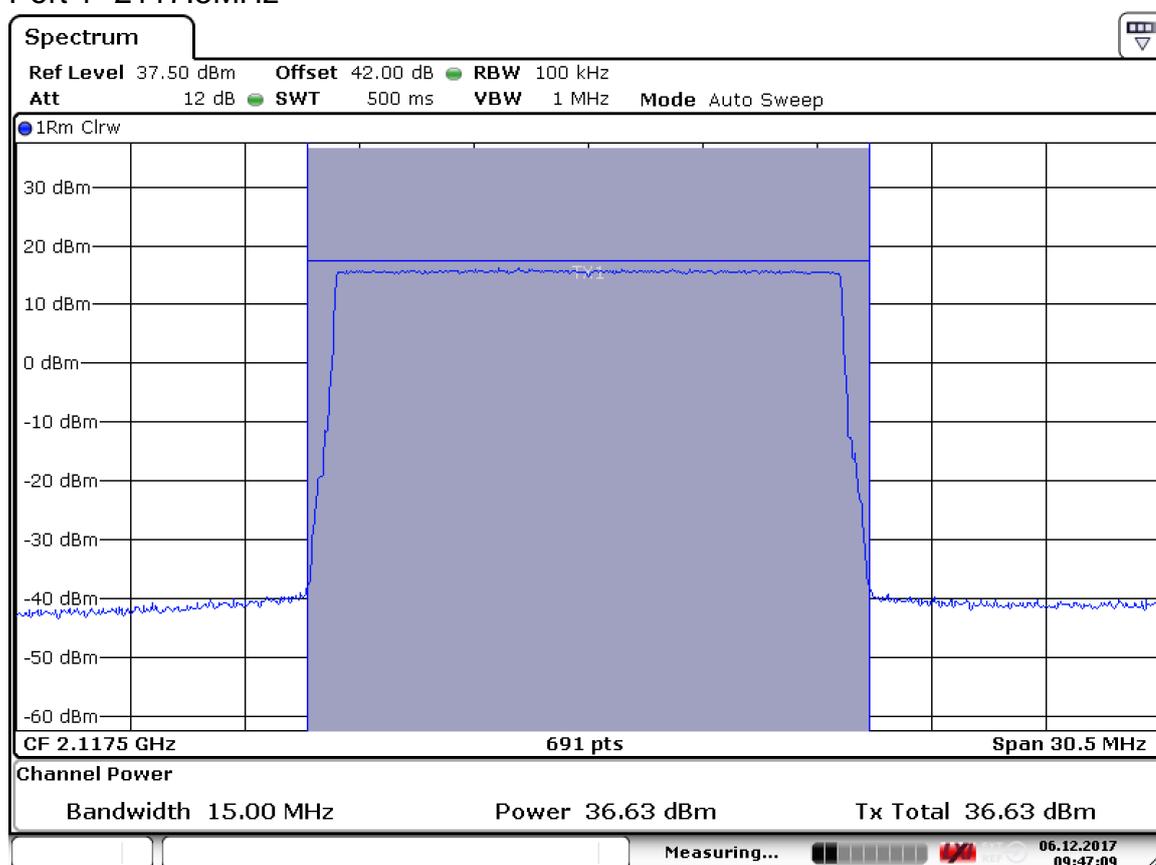


Date: 5.DEC.2017 20:39:51

LTE 15MHz

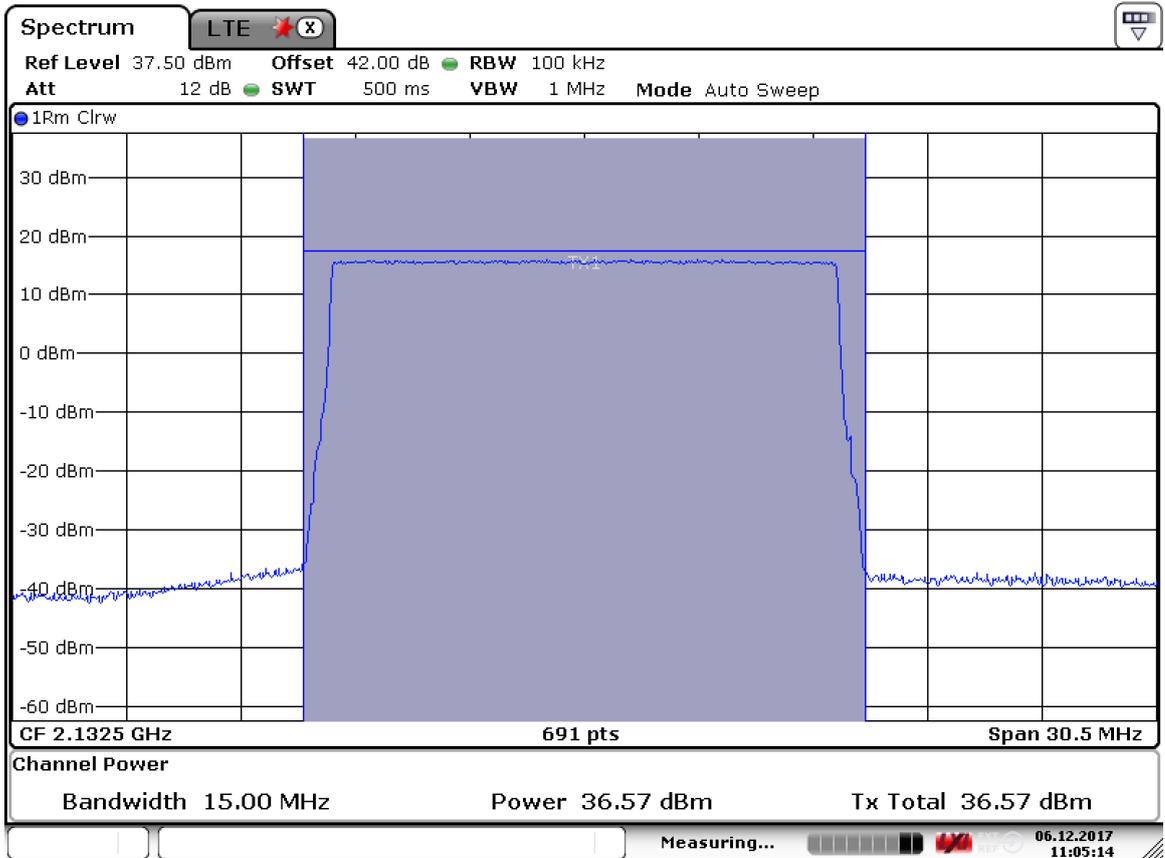
Port	Center Freq. (MHz)	Max output Power in dBm	Antenna gain dBi	Cable Loss dB	equivalent isotropically radiated power dBm Of single antenna	Total Power in W Of single antenna
1	2117.5	36.63	15	0.5	51.13	129.72
	2132.5	36.57	15	0.5	51.07	127.94
	2147.5	36.58	15	0.5	51.08	128.23
2	2117.5	36.45	15	0.5	50.95	124.45
	2132.5	36.27	15	0.5	50.77	119.40
	2147.5	36.81	15	0.5	51.31	135.21

Port 1 -2117.5MHz



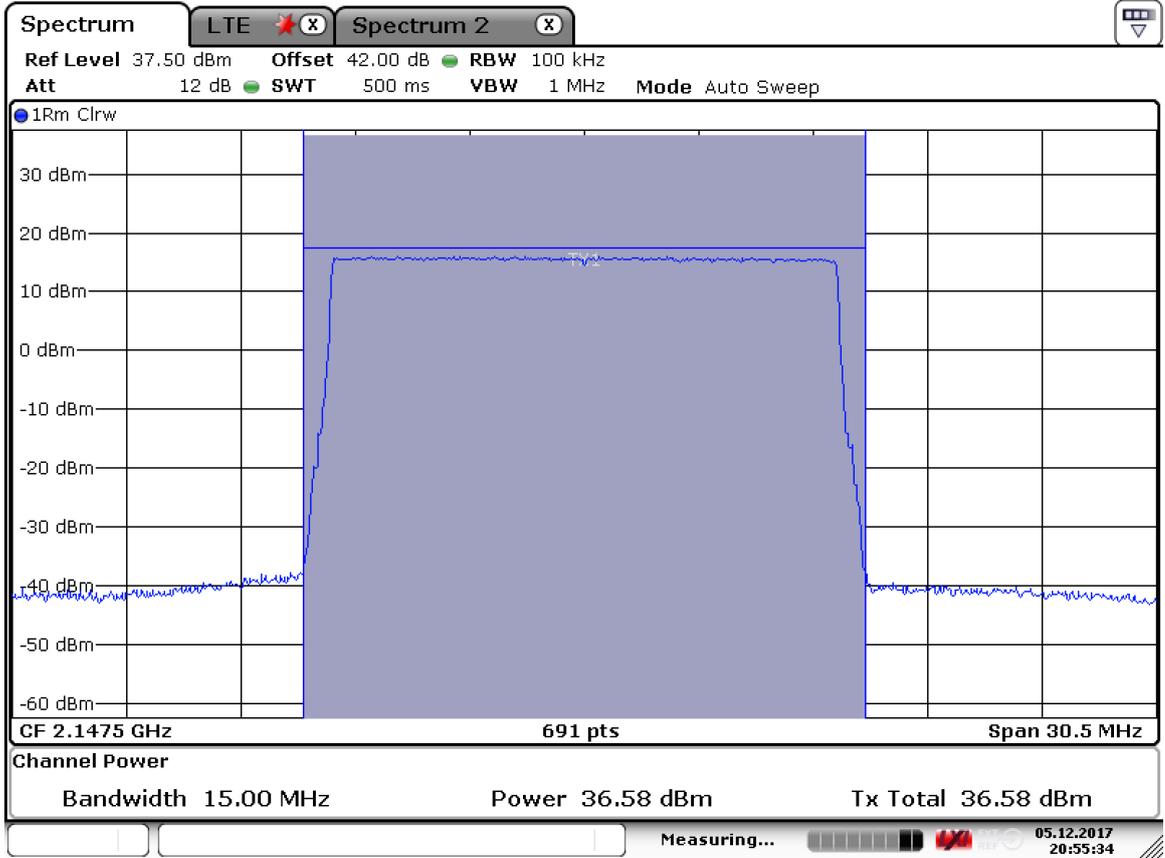
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Port 1 -2132.5MHz



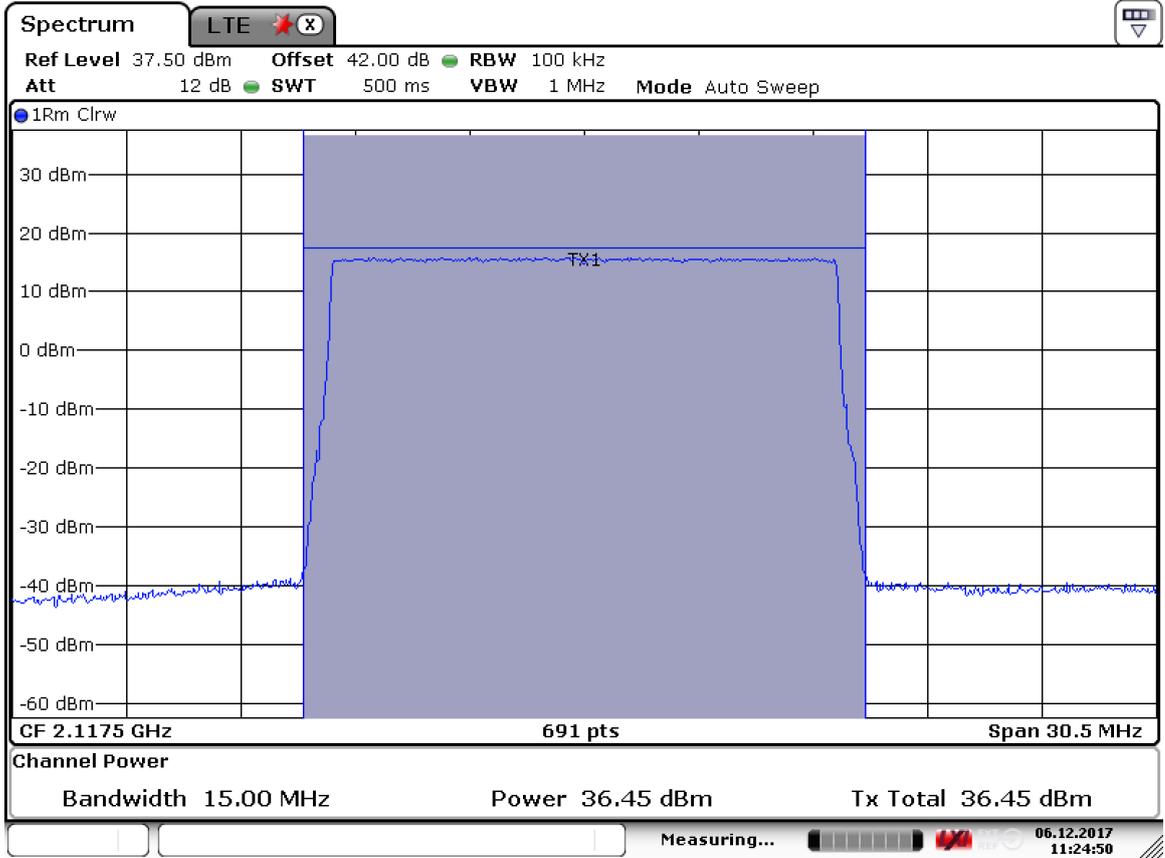
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Port 1 -2147.5MHz



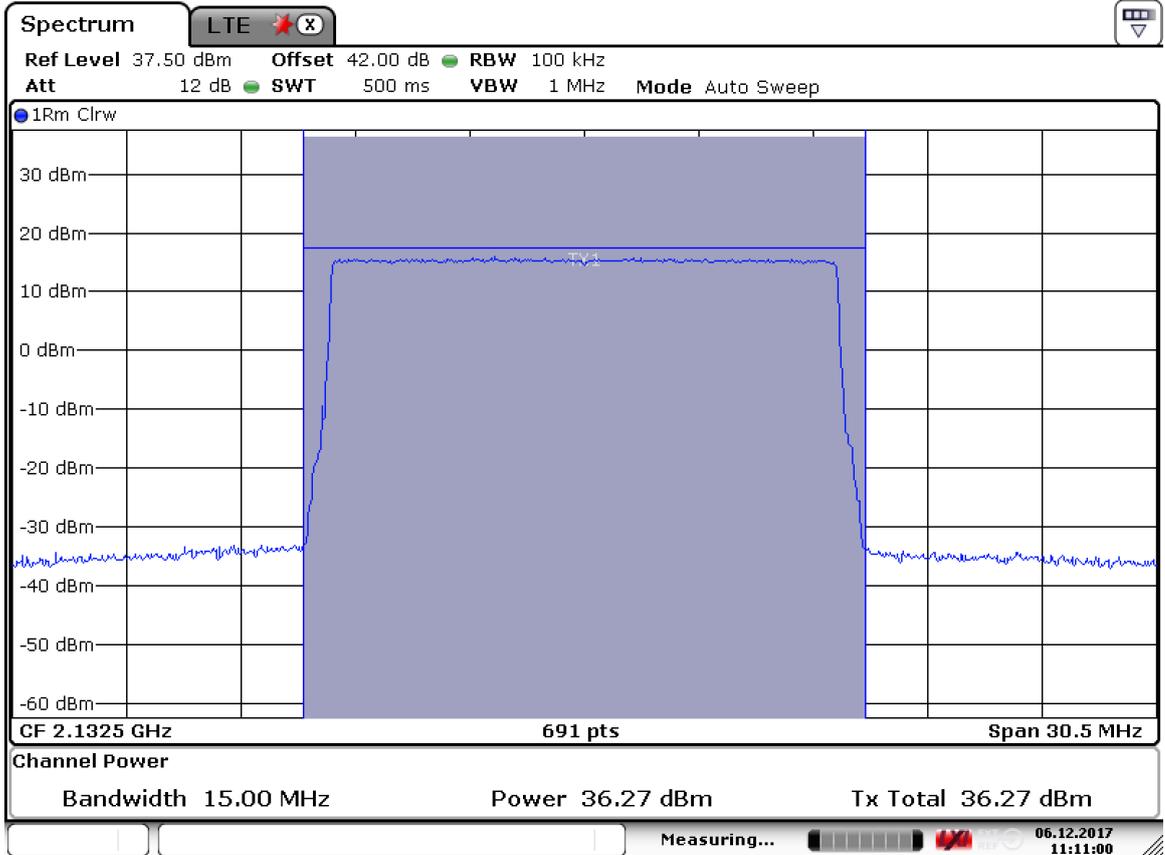
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Port 2 -2117.5MHz



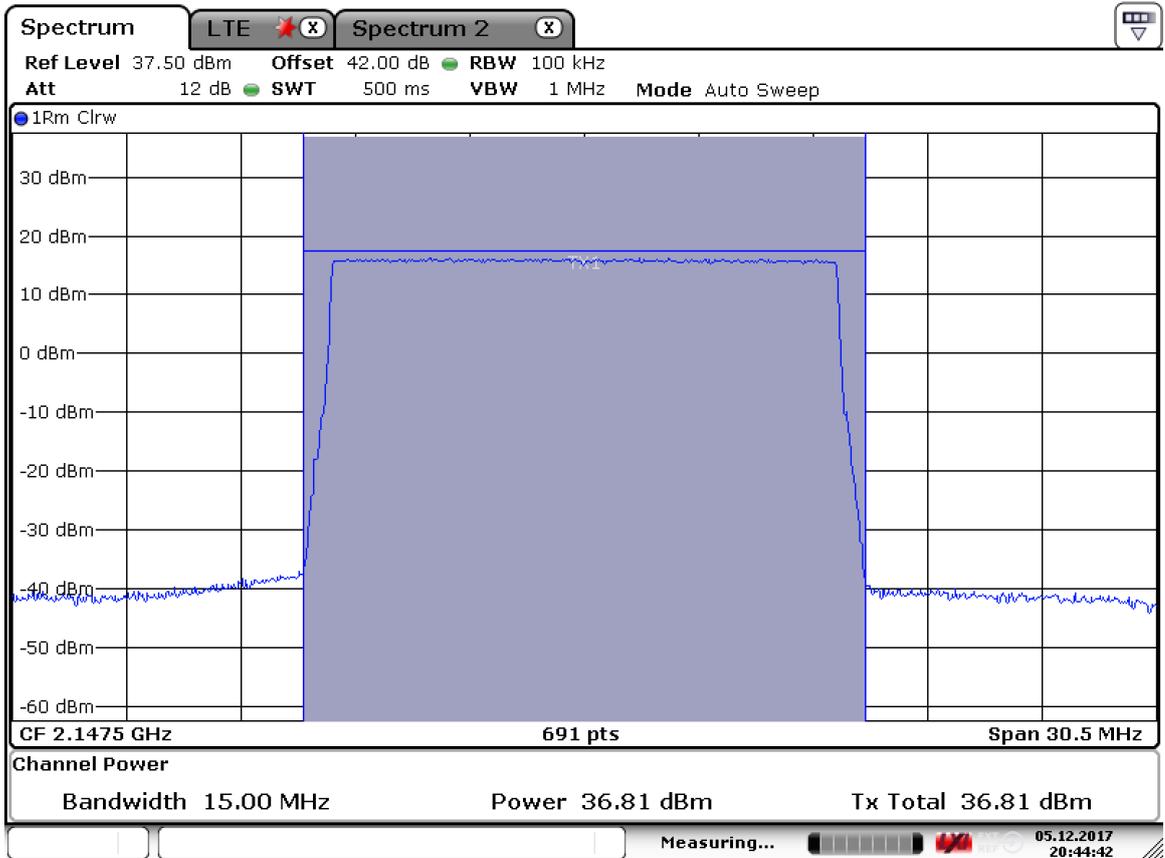
Date: 6.DEC.2017 11:24:51

Port 2 -2132.5MHz



Date: 6.DEC.2017 11:11:00

Port 2 -2147.5MHz

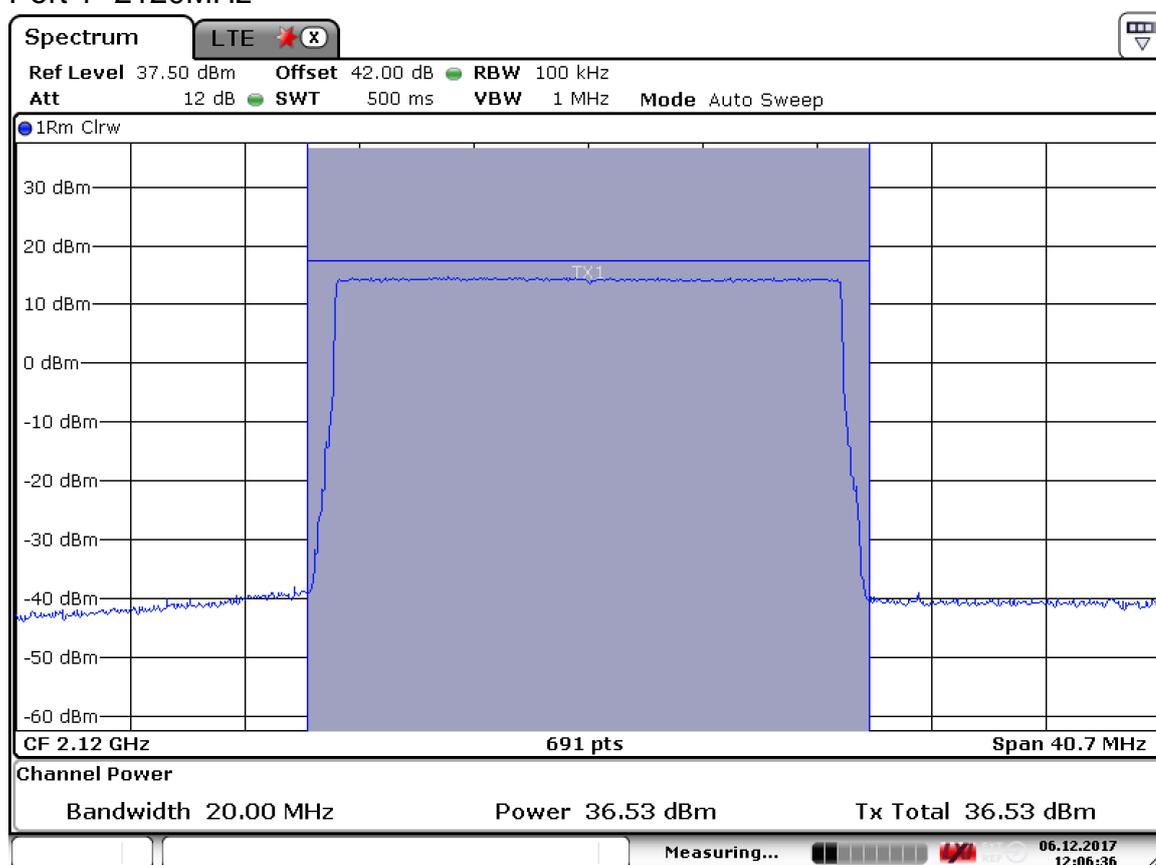


Date: 5.DEC.2017 20:44:42

LTE 20MHz

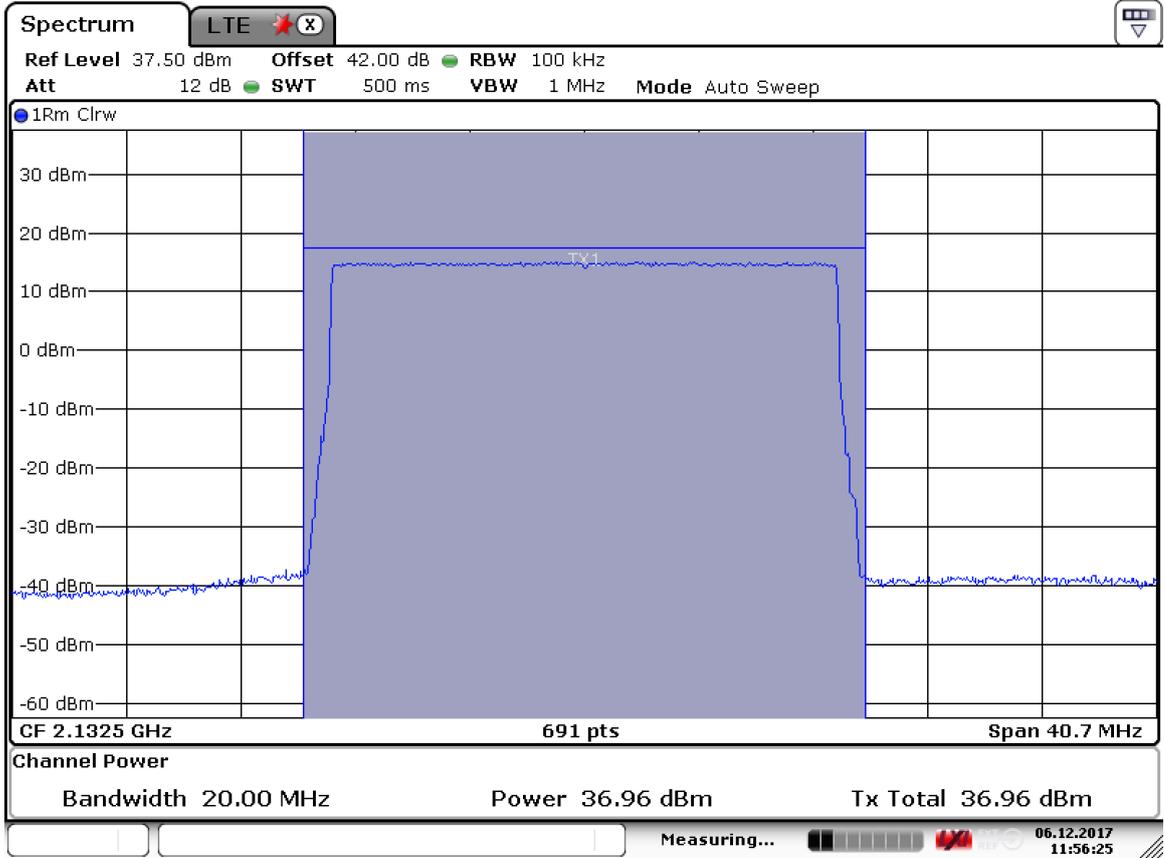
Port	Center Freq. (MHz)	Max output Power in dBm	Antenna gain dBi	Cable Loss dB	equivalent isotropically radiated power dBm Of single antenna	Total Power in W Of single antenna
1	2120	36.53	15	0.5	51.03	126.77
	2132.5	36.96	15	0.5	51.46	139.96
	2145	36.58	15	0.5	51.08	128.23
2	2120	36.52	15	0.5	51.02	126.47
	2132.5	36.85	15	0.5	51.35	136.46
	2145	36.85	15	0.5	51.35	136.46

Port 1 -2120MHz



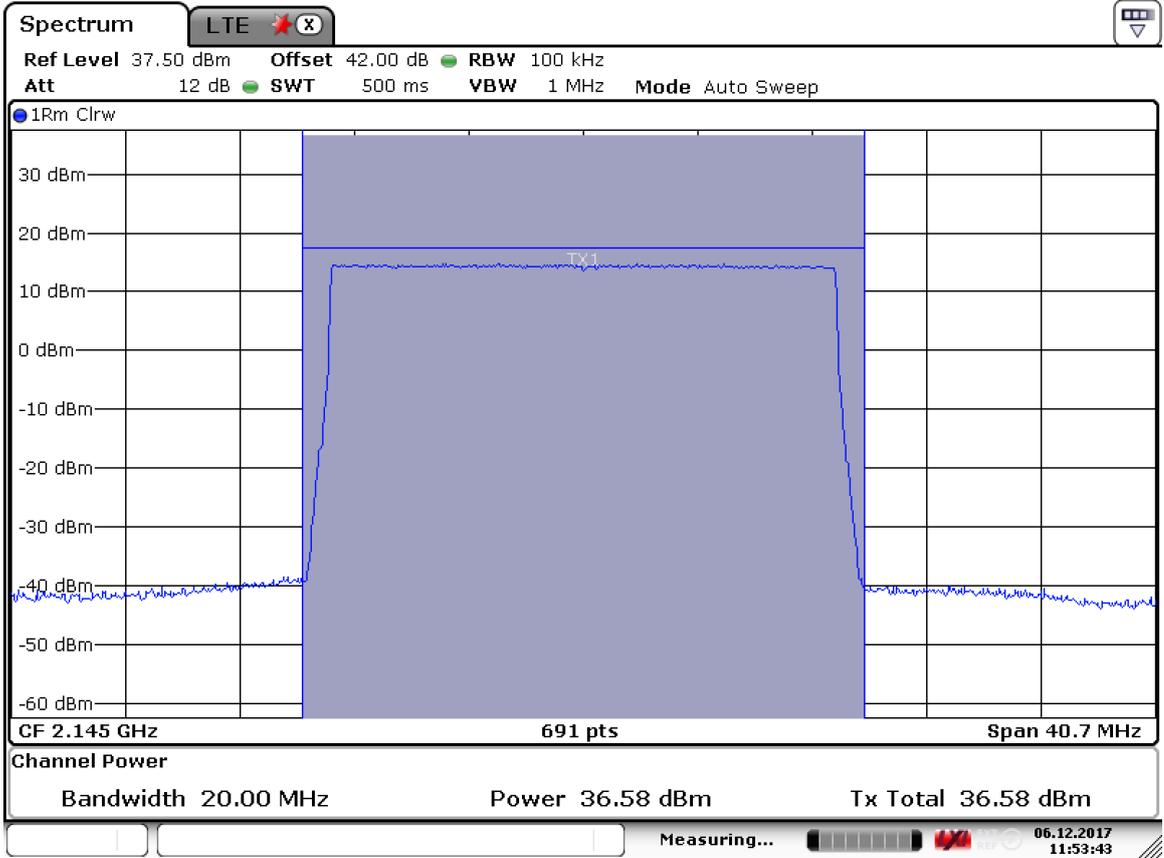
Date: 6.DEC.2017 12:06:36

Port 1 -2132.5MHz



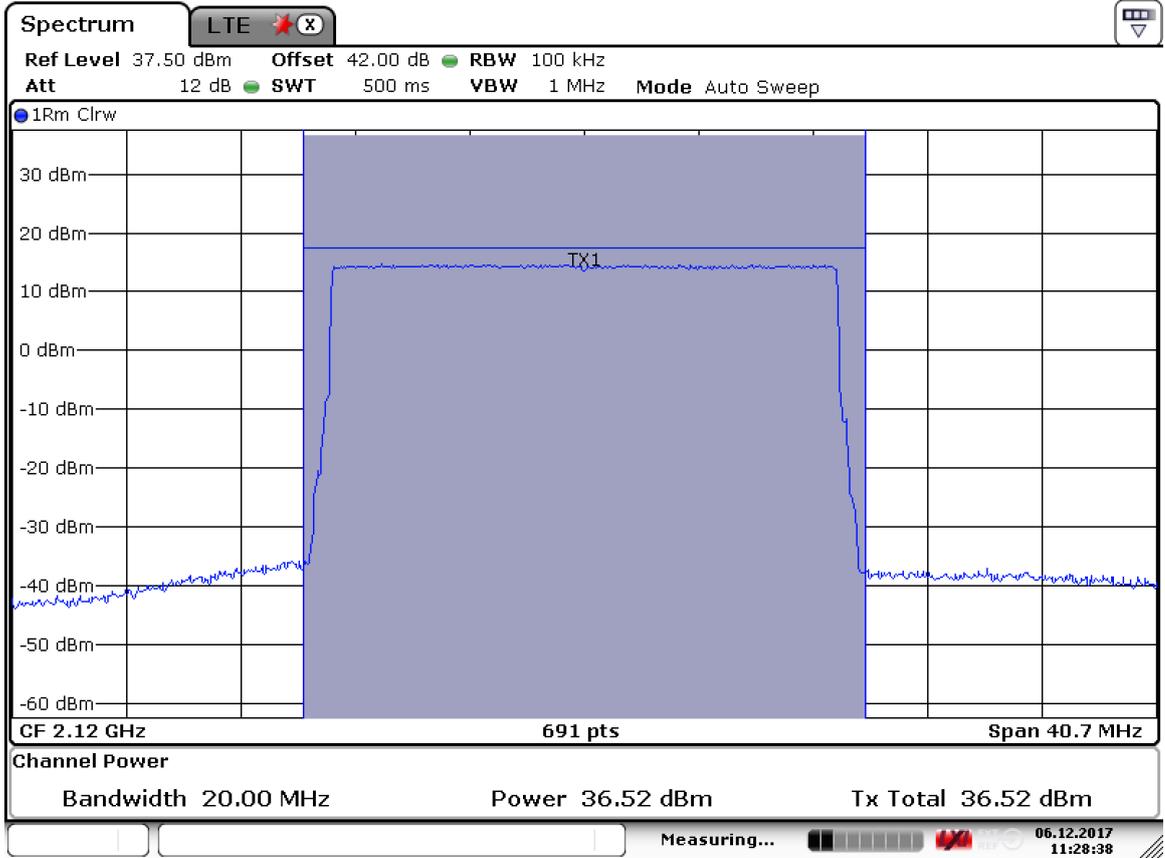
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Port 1 -2145MHz



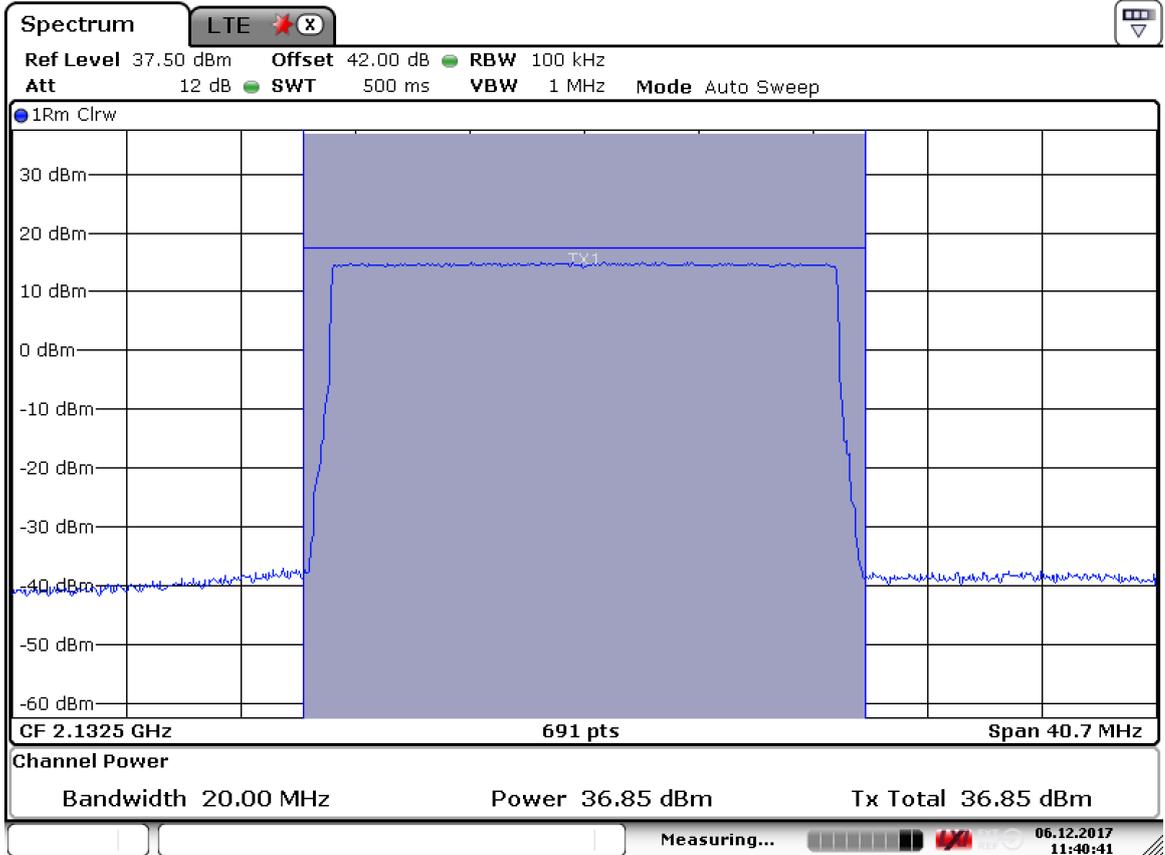
Date: 6.DEC.2017 11:53:44

Port 2 -2120MHz



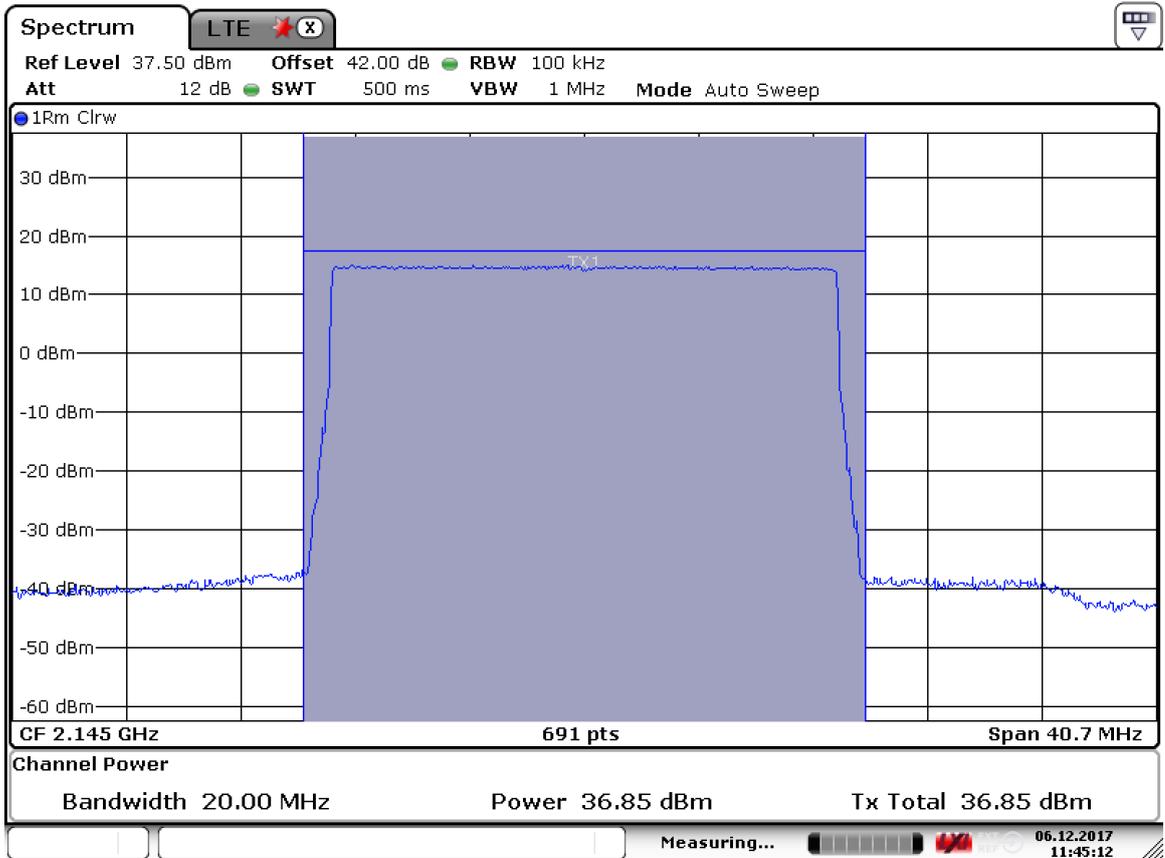
Date: 6.DEC.2017 11:28:38

Port 2 -2132.5MHz



Date: 6.DEC.2017 11:40:42

Port 2 -2145MHz



Date: 6.DEC.2017 11:45:12

3.2. RF Exposure

3.2.1. Applicable standard: FCC §2.1091 §1.1037

3.2.2. Limit

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

According to §1.1310 and §2.1091 RF exposure is calculated. Limits for Maximum Permissible Exposure (MPE)

(B) Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

3.2.3. Test Data

Predication of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = \text{EIRP} / 4\pi R^2$$

Where: S = power density

R = distance to the center of radiation of the antenna = $[\text{EIRP} / 4\pi S]^{1/2}$

According to §27.50, the equivalent isotropically radiated power (EIRP) of base transmitters and cellular repeaters must not exceed 2000 Watts.

Frequency 2155MHz is between 1500MHz and 100,000MHz, and the Maximum S=1mW/cm²

$$\Rightarrow R = 3.99\text{m.}$$

This equipment should be installed and operated with minimum distance 3.99m between the radiator & your body.

3.2.4. Test Result: pass

3.3. Moudulation Characteristics

3.3.1. Applicable Standard:

FCC §2.1047

3.3.2. Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Signal & Spectrum Analyzer	FSW26	SB12724/01	2017.6.19	2018.6.18
DTS	DTS 40dB Attenuator	DTS100-40-3-1	09112005	2017.03.15	2018.03.15

***statement of traceability:** SMQ attests that all calibration has been performed per the A2LA requirements, traceable to NIM.

3.3.3. Test Procedure

LTE digital mode is used by EUT.

3.3.4. Environmental Conditions

Temperature:	20 °C
Relative Humidity:	53 %
ATM Pressure:	1009 mbar

3.3.5. Test Result: Pass

3.3.6. Test Mode: Transmitting LTE

3.3.7. Test Data:

LTE 5MHz

Port	LTE Center Freq. (MHz) (MHz)	Test mode	EVM%
1	2112.5	E-TM2	1.21
		E-TM3.1	1.50
		E-TM 3.2	1.82
		E-TM 3.3	3.44
	2132.5	E-TM2	1.14
		E-TM3.1	1.59
		E-TM 3.2	1.92
		E-TM 3.3	3.43
	2152.5	E-TM2	1.07
		E-TM3.1	1.54
		E-TM 3.2	2.08
		E-TM 3.3	3.41
2	2112.5	E-TM2	1.25
		E-TM3.1	1.47
		E-TM 3.2	1.87
		E-TM 3.3	3.37
	2132.5	E-TM2	1.26
		E-TM3.1	1.54
		E-TM 3.2	1.96
		E-TM 3.3	3.44
	2152.5	E-TM2	1.24
		E-TM3.1	1.54
		E-TM 3.2	1.91
		E-TM 3.3	3.46

Port 1 -2112.5MHz-E-TM2

Spectrum
LTE X

Freq 2.1125 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 25 RB (5 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.21	1.21		1.21	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All	0.75	0.93			1.09	%
EVM Phys. Channel	0.81	1.01			1.23	%
EVM Phys. Signal	0.62	0.78			0.93	%
Frequency Error	- 0.99	1.18			3.22	Hz
Sampling Error	- 0.21	- 0.01			0.12	ppm
IQ Offset	- 62.13	- 60.91			- 59.82	dB
IQ Gain Imbalance	- 0.01	- 0.00			- 0.00	dB
IQ Quadrature Error	- 0.09	- 0.02			0.04	°
RSTP	11.95	11.95			11.96	dBm
OSTP	21.28	22.49			23.47	dBm
Power	26.87	27.43			29.58	dBm
Crest Factor		16.71				dB

Running ...

05.12.2017 19:08:45

Date: 5.DEC.2017 19:08:46

Port 1 -2112.5MHz-E-TM3.1

Spectrum
LTE X
☰

Freq 2.1125 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 25 RB (5 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.50	1.50		1.50	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	Unit
EVM All		1.15	1.49		1.99	%
EVM Phys. Channel		1.15	1.48		1.96	%
EVM Phys. Signal		1.00	1.62		2.49	%
Frequency Error		- 2.56	0.39		4.07	Hz
Sampling Error		- 0.36	0.07		0.52	ppm
IQ Offset		- 75.71	- 68.45		- 62.97	dB
IQ Gain Imbalance		- 0.01	- 0.00		0.01	dB
IQ Quadrature Error		- 0.09	- 0.00		0.07	°
RSTP		11.86	11.88		11.90	dBm
OSTP		36.40	36.63		36.77	dBm
Power		36.56	36.66		36.69	dBm
Crest Factor			8.62			dB

Running ...05.12.2017
19:08:06

Date: 5.DEC.2017 19:08:07

Port 1 -2112.5MHz-E-TM3.3

Spectrum
LTE X
☰

Freq 2.1125 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 25 RB (5 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	3.44	3.44		3.44	18.50	%
EVM PDSCH 16QAM	1.47	1.47		1.47	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	Unit
EVM All		1.61	2.61		3.34	%
EVM Phys. Channel		1.62	2.65		3.40	%
EVM Phys. Signal		1.00	1.81		2.70	%
Frequency Error		- 0.69	0.65		1.49	Hz
Sampling Error		- 0.40	0.31		1.37	ppm
IQ Offset		- 78.69	- 70.23		- 65.64	dB
IQ Gain Imbalance		- 0.01	- 0.00		0.02	dB
IQ Quadrature Error		- 0.05	0.01		0.10	°
RSTP		11.85	11.87		11.89	dBm
OSTP		36.44	36.91		37.27	dBm
Power		36.69	36.95		37.04	dBm
Crest Factor			8.36			dB

Running ... ██████████ 🔴

05.12.2017
19:09:48

Date: 5.DEC.2017 19:09:48

Port 1 -2132.5MHz-E-TM2

Spectrum LTE (X) ☰

Freq 2.1325 GHz **Meas Setup** 1 TX x 1 RX **Ext. Att** 42 dB
Mode DL FDD, 25 RB (5 MHz), Normal (CP) **Sync State** OK **Capture Time** 20.1 ms
TRG : FREE RUN **Frame** 1 Of 1 (1)

Result Summary						
Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.14	1.14		1.14	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All	0.80		0.96		1.12	%
EVM Phys. Channel	0.87		1.03		1.20	%
EVM Phys. Signal	0.65		0.83		1.16	%
Frequency Error	- 1.42		0.70		2.15	Hz
Sampling Error	- 0.31		- 0.04		0.17	ppm
IQ Offset	- 64.28		- 61.11		- 59.01	dB
IQ Gain Imbalance	- 0.02		- 0.02		- 0.02	dB
IQ Quadrature Error	- 0.02		- 0.01		- 0.01	°
RSTP	11.83		11.84		11.85	dBm
OSTP	21.19		22.37		23.34	dBm
Power	26.76		27.32		29.47	dBm
Crest Factor			15.47			dB

Running ... 05.12.2017 19:15:50

Date: 5.DEC.2017 19:15:51

Port 1 -2132.5MHz-E-TM3.1

Spectrum
LTE X

Freq 2.1325 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 25 RB (5 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.59	1.59		1.59	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All	1.25		1.58		2.07	%
EVM Phys. Channel	1.26		1.58		2.04	%
EVM Phys. Signal	1.13		1.73		2.55	%
Frequency Error	- 2.42		0.45		2.43	Hz
Sampling Error	- 0.72		- 0.09		0.65	ppm
IQ Offset	- 72.21		- 66.89		- 63.22	dB
IQ Gain Imbalance	- 0.01		- 0.00		0.01	dB
IQ Quadrature Error	- 0.06		- 0.01		0.08	°
RSTP	11.77		11.78		11.79	dBm
OSTP	36.31		36.53		36.68	dBm
Power	36.47		36.56		36.60	dBm
Crest Factor			8.71			dB

Running ...

05.12.2017 19:15:23

Date: 5.DEC.2017 19:15:23

Port 1 -2132.5MHz-E-TM3.2

Spectrum
LTE X
⌵

Freq 2.1325 GHz

Mode DL FDD, 25 RB (5 MHz), Normal (CP)

TRG : FREE RUN

Meas Setup 1 TX x 1 RX

Sync State OK

Frame 1 Of 1 (1)

Ext. Att 42 dB

Capture Time 20.1 ms

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	1.39	1.39		1.39	18.50	%
EVM PDSCH 16QAM	1.92	1.92		1.92	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection Subframe(s) ALL Selection Antenna 1 Frame Result 1/1

EVM All	1.19	1.72		2.57	%
EVM Phys. Channel	1.21	1.72		2.51	%
EVM Phys. Signal	1.03	1.78		3.58	%
Frequency Error	- 2.43	- 0.09		3.35	Hz
Sampling Error	- 0.90	0.02		0.64	ppm
IQ Offset	- 75.95	- 66.80		- 62.64	dB
IQ Gain Imbalance	- 0.01	0.00		0.01	dB
IQ Quadrature Error	- 0.12	- 0.02		0.05	°
RSTP	11.77	11.80		11.81	dBm
OSTP	36.12	36.26		36.39	dBm
Power	36.27	36.31		36.36	dBm
Crest Factor		8.91			dB

Running ... ▬ X

05.12.2017
19:16:12

Date: 5.DEC.2017 19:16:13

Port 1 -2132.5MHz-E-TM3.3

Spectrum
LTE X
⌵

Freq 2.1325 GHz

Mode DL FDD, 25 RB (5 MHz), Normal (CP)

TRG : FREE RUN

Meas Setup 1 TX x 1 RX

Sync State OK

Frame 1 Of 1 (1)

Ext. Att 42 dB

Capture Time 20.1 ms

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	3.43	3.43		3.43	18.50	%
EVM PDSCH 16QAM	1.54	1.54		1.54	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1
EVM All			1.60	2.62	3.37 %
EVM Phys. Channel			1.61	2.66	3.44 %
EVM Phys. Signal			1.09	1.84	2.75 %
Frequency Error			- 3.79	- 0.04	2.21 Hz
Sampling Error			- 0.58	0.11	1.03 ppm
IQ Offset			- 84.74	- 69.55	- 63.82 dB
IQ Gain Imbalance			- 0.02	- 0.00	0.02 dB
IQ Quadrature Error			- 0.05	0.01	0.09 °
RSTP			11.73	11.76	11.78 dBm
OSTP			36.33	36.79	37.15 dBm
Power			36.57	36.83	36.92 dBm
Crest Factor				8.33	dB

Running ... ▬ 🔴

05.12.2017
19:16:48

Date: 5.DEC.2017 19:16:49

Port 1 -2152.5MHz-E-TM2

Spectrum
LTE X
☰

Freq 2.1525 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 25 RB (5 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.07	1.07		1.07	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	Unit
EVM All		0.70	0.86		1.01	%
EVM Phys. Channel		0.79	0.96		1.14	%
EVM Phys. Signal		0.53	0.66		0.78	%
Frequency Error		- 0.08	1.30		3.34	Hz
Sampling Error		- 0.13	0.01		0.14	ppm
IQ Offset		- 62.03	- 60.71		- 59.60	dB
IQ Gain Imbalance		- 0.02	- 0.01		0.01	dB
IQ Quadrature Error		- 0.10	- 0.05		- 0.00	°
RSTP		12.00	12.00		12.00	dBm
OSTP		21.46	22.60		23.52	dBm
Power		26.93	27.49		29.63	dBm
Crest Factor			15.56			dB

Running ...
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05.12.2017
19:20:48

Date: 5.DEC.2017 19:20:49

Port 1 -2152.5MHz-E-TM3.1

Spectrum
LTE (X)
☰

Freq 2.1525 GHz

Mode DL FDD, 25 RB (5 MHz), Normal (CP)

TRG : FREE RUN

Meas Setup 1 TX x 1 RX

Sync State OK

Frame 1 Of 1 (1)

Ext. Att 42 dB

Capture Time 20.1 ms

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.54	1.54		1.54	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	Unit
EVM All		1.24	1.54		2.09	%
EVM Phys. Channel		1.24	1.53		2.06	%
EVM Phys. Signal		1.10	1.71		2.71	%
Frequency Error		- 1.32	0.68		2.14	Hz
Sampling Error		- 0.27	0.13		0.49	ppm
IQ Offset		- 80.17	- 67.46		- 60.39	dB
IQ Gain Imbalance		- 0.01	- 0.00		0.01	dB
IQ Quadrature Error		- 0.07	- 0.01		0.10	°
RSTP		12.24	12.25		12.26	dBm
OSTP		36.78	37.00		37.15	dBm
Power		36.93	37.03		37.07	dBm
Crest Factor			8.59			dB

Running ... ██████████ 🔴

05.12.2017
19:19:35

Date: 5.DEC.2017 19:19:36

Port 1 -2152.5MHz-E-TM3.2

Spectrum
LTE X
☰

Freq 2.1525 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 25 RB (5 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	1.43	1.43		1.43	18.50	%
EVM PDSCH 16QAM	2.08	2.08		2.08	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All					1.35	%
EVM Phys. Channel					1.37	%
EVM Phys. Signal					1.17	%
Frequency Error					- 2.17	Hz
Sampling Error					- 0.93	ppm
IQ Offset					- 72.46	dB
IQ Gain Imbalance					- 0.01	dB
IQ Quadrature Error					- 0.12	°
RSTP					11.87	dBm
OSTP					36.21	dBm
Power					36.37	dBm
Crest Factor					8.75	dB

Running ...
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05.12.2017 19:21:14

Date: 5.DEC.2017 19:21:15

Port 1 -2152.5MHz-E-TM3.3

Spectrum
LTE X
⌵

Freq 2.1525 GHz

Mode DL FDD, 25 RB (5 MHz), Normal (CP)

TRG : FREE RUN

Meas Setup 1 TX x 1 RX

Sync State OK

Frame 1 Of 1 (1)

Ext. Att 42 dB

Capture Time 20.1 ms

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	3.41	3.41		3.41	18.50	%
EVM PDSCH 16QAM	1.52	1.52		1.52	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	Unit
EVM All		1.52	2.61		3.36	%
EVM Phys. Channel		1.53	2.64		3.44	%
EVM Phys. Signal		1.25	1.86		2.77	%
Frequency Error		- 1.42	0.11		2.89	Hz
Sampling Error		- 0.81	0.09		0.67	ppm
IQ Offset		- 76.51	- 68.17		- 64.25	dB
IQ Gain Imbalance		- 0.02	- 0.00		0.01	dB
IQ Quadrature Error		- 0.07	0.01		0.09	°
RSTP		11.84	11.86		11.88	dBm
OSTP		36.43	36.89		37.25	dBm
Power		36.68	36.93		37.01	dBm
Crest Factor			8.34			dB

Running ... ▬ 🔴

05.12.2017
19:21:38

Date: 5.DEC.2017 19:21:39

Port 2 -2112.5MHz-E-TM2

Spectrum
LTE X

Freq 2.1125 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 25 RB (5 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.25	1.25		1.25	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	Unit
EVM All		0.84	0.94		1.14	%
EVM Phys. Channel		0.91	1.04		1.29	%
EVM Phys. Signal		0.67	0.76		0.86	%
Frequency Error		- 0.38	1.33		3.29	Hz
Sampling Error		- 0.19	0.00		0.17	ppm
IQ Offset		- 65.81	- 61.41		- 59.71	dB
IQ Gain Imbalance		0.00	0.01		0.01	dB
IQ Quadrature Error		- 0.09	- 0.06		- 0.03	°
RSTP		11.82	11.83		11.84	dBm
OSTP		21.15	22.36		23.35	dBm
Power		26.75	27.31		29.45	dBm
Crest Factor			16.74			dB

Running ...
05.12.2017
19:48:30

Date: 5.DEC.2017 19:48:31

Port 2-2112.5MHz-E-TM3.1

Spectrum
LTE X

Freq 2.1125 GHz

Mode DL FDD, 25 RB (5 MHz), Normal (CP)

TRG : FREE RUN

Meas Setup 1 TX x 1 RX

Sync State OK

Frame 1 Of 1 (1)

Ext. Att 42 dB

Capture Time 20.1 ms

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.47	1.47		1.47	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1
EVM All		1.18	1.47		1.97 %
EVM Phys. Channel		1.18	1.46		1.94 %
EVM Phys. Signal		1.06	1.64		2.51 %
Frequency Error		0.12	1.12		2.52 Hz
Sampling Error		- 0.40	0.09		0.62 ppm
IQ Offset		- 73.52	- 68.89		- 61.60 dB
IQ Gain Imbalance		- 0.01	- 0.00		0.00 dB
IQ Quadrature Error		- 0.07	- 0.01		0.10 °
RSTP		11.75	11.77		11.78 dBm
OSTP		36.30	36.52		36.66 dBm
Power		36.45	36.55		36.58 dBm
Crest Factor			8.59		dB

Running ...

05.12.2017
19:48:04

Date: 5.DEC.2017 19:48:05

Port 2 -2112.5MHz-E-TM3.3

Spectrum
LTE X
☰

Freq 2.1125 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 25 RB (5 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	3.37	3.37		3.37	18.50	%
EVM PDSCH 16QAM	1.45	1.45		1.45	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All		1.47	2.56		3.32	%
EVM Phys. Channel		1.48	2.60		3.39	%
EVM Phys. Signal		1.15	1.79		2.73	%
Frequency Error		- 0.38	0.85		2.01	Hz
Sampling Error		- 0.99	0.10		1.05	ppm
IQ Offset		- 77.51	- 69.49		- 64.56	dB
IQ Gain Imbalance		- 0.01	- 0.00		0.02	dB
IQ Quadrature Error		- 0.06	0.01		0.10	°
RSTP		11.74	11.77		11.78	dBm
OSTP		36.33	36.80		37.16	dBm
Power		36.58	36.84		36.93	dBm
Crest Factor			8.28			dB

Running ...
██████████ 🔴
05.12.2017
19:49:20

Date: 5.DEC.2017 19:49:21

Port 2 -2132.5MHz-E-TM3.2

Spectrum
LTE X
☰

Freq 2.1325 GHz
Mode DL FDD, 25 RB (5 MHz), Normal (CP)
 TRG : FREE RUN

Meas Setup 1 TX x 1 RX
Sync State OK
Frame 1 Of 1 (1)

Ext. Att 42 dB
Capture Time 20.1 ms

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	1.39	1.39		1.39	18.50	%
EVM PDSCH 16QAM	1.96	1.96		1.96	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All	1.22		1.74		2.53	%
EVM Phys. Channel	1.24		1.74		2.47	%
EVM Phys. Signal	1.00		1.76		3.56	%
Frequency Error	- 2.90		0.28		1.68	Hz
Sampling Error	- 1.01		- 0.08		0.46	ppm
IQ Offset	- 78.12		- 69.28		- 66.69	dB
IQ Gain Imbalance	- 0.01		0.00		0.01	dB
IQ Quadrature Error	- 0.09		- 0.02		0.04	°
RSTP	11.93		11.95		11.97	dBm
OSTP	36.27		36.41		36.54	dBm
Power	36.42		36.46		36.50	dBm
Crest Factor			8.93			dB

Running ...
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05.12.2017
19:42:11

Date: 5.DEC.2017 19:42:11

Port 2 -2132.5MHz-E-TM3.3

Spectrum
LTE X
☰

Freq 2.1325 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 25 RB (5 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	3.44	3.44		3.44	18.50	%
EVM PDSCH 16QAM	1.54	1.54		1.54	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	Unit
EVM All		1.70	2.63		3.42	%
EVM Phys. Channel		1.70	2.67		3.49	%
EVM Phys. Signal		1.06	1.83		2.68	%
Frequency Error		- 1.83	0.62		2.43	Hz
Sampling Error		- 0.92	0.13		1.22	ppm
IQ Offset		- 77.52	- 69.63		- 65.03	dB
IQ Gain Imbalance		- 0.02	- 0.00		0.02	dB
IQ Quadrature Error		- 0.06	0.02		0.09	°
RSTP		11.88	11.91		11.92	dBm
OSTP		36.48	36.94		37.30	dBm
Power		36.72	36.98		37.07	dBm
Crest Factor			8.34			dB

Running ...
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05.12.2017
19:42:44

Date: 5.DEC.2017 19:42:43

Port 2 -2152.5MHz-E-TM2

Spectrum
LTE X

Freq 2.1525 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 25 RB (5 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.24	1.24		1.24	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	Unit
EVM All		0.84	0.97		1.08	%
EVM Phys. Channel		0.94	1.08		1.15	%
EVM Phys. Signal		0.62	0.75		1.04	%
Frequency Error		- 0.22	1.69		4.57	Hz
Sampling Error		- 0.11	- 0.02		0.11	ppm
IQ Offset		- 62.30	- 60.89		- 59.51	dB
IQ Gain Imbalance		- 0.01	0.00		0.02	dB
IQ Quadrature Error		- 0.05	- 0.04		- 0.03	°
RSTP		11.81	11.81		11.82	dBm
OSTP		21.24	22.38		23.30	dBm
Power		26.74	27.30		29.44	dBm
Crest Factor			16.59			dB

Running ...
05.12.2017 19:38:46

Date: 5.DEC.2017 19:38:47

Port 2 -2152.5MHz-E-TM3.1

Spectrum
LTE (X)
☰

Freq 2.1525 GHz

Mode DL FDD, 25 RB (5 MHz), Normal (CP)

TRG : FREE RUN

Meas Setup 1 TX x 1 RX

Sync State OK

Frame 1 Of 1 (1)

Ext. Att 42 dB

Capture Time 20.1 ms

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.54	1.54		1.54	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection

Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1
EVM All	1.18	1.54		2.11
EVM Phys. Channel	1.18	1.53		2.08
EVM Phys. Signal	1.05	1.70		2.62
Frequency Error	- 1.23	0.52		2.81
Sampling Error	- 0.26	0.06		0.71
IQ Offset	- 72.71	- 67.01		- 61.19
IQ Gain Imbalance	- 0.01	- 0.00		0.01
IQ Quadrature Error	- 0.06	- 0.01		0.06
RSTP	11.73	11.75		11.76
OSTP	36.28	36.50		36.64
Power	36.43	36.53		36.56
Crest Factor		8.60		

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05.12.2017
19:38:25

Date: 5.DEC.2017 19:38:26

Port 2 -2152.5MHz-E-TM3.2

Spectrum
LTE X

Freq 2.1525 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 25 RB (5 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	1.34	1.34		1.34	18.50	%
EVM PDSCH 16QAM	1.91	1.91		1.91	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All	1.22	1.70			2.52	%
EVM Phys. Channel	1.23	1.70			2.45	%
EVM Phys. Signal	0.98	1.79			3.63	%
Frequency Error	- 1.47	0.51			2.06	Hz
Sampling Error	- 1.06	- 0.08			0.62	ppm
IQ Offset	- 73.54	- 69.57			- 66.84	dB
IQ Gain Imbalance	- 0.00	0.00			0.01	dB
IQ Quadrature Error	- 0.12	- 0.03			0.03	°
RSTP	11.75	11.76			11.78	dBm
OSTP	36.08	36.22			36.35	dBm
Power	36.24	36.28			36.32	dBm
Crest Factor		8.92				dB

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05.12.2017
19:37:41

Date: 5.DEC.2017 19:37:42

Port 2 -2152.5MHz-E-TM3.3

Spectrum
LTE X
☰

Freq 2.1525 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 25 RB (5 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	3.46	3.46		3.46	18.50	%
EVM PDSCH 16QAM	1.53	1.53		1.53	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	Unit
EVM All		1.59	2.64		3.37	%
EVM Phys. Channel		1.60	2.68		3.44	%
EVM Phys. Signal		1.25	1.85		2.76	%
Frequency Error		- 1.44	0.40		1.75	Hz
Sampling Error		- 0.76	0.28		0.89	ppm
IQ Offset		- 77.59	- 69.85		- 65.29	dB
IQ Gain Imbalance		- 0.01	- 0.00		0.02	dB
IQ Quadrature Error		- 0.05	0.01		0.06	°
RSTP		11.72	11.75		11.76	dBm
OSTP		36.32	36.77		37.13	dBm
Power		36.56	36.82		36.90	dBm
Crest Factor			8.35			dB

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05.12.2017
19:37:59

Date: 5.DEC.2017 19:38:00

LTE 10MHz

Port	LTE Center Freq. (MHz) (MHz)	Test mode	EVM%
1	2115	E-TM2	1.04
		E-TM3.1	1.60
		E-TM 3.2	1.65
		E-TM 3.3	2.14
	2132.5	E-TM2	1.08
		E-TM3.1	1.71
		E-TM 3.2	1.71
		E-TM 3.3	2.23
	2150	E-TM2	1.23
		E-TM3.1	1.67
		E-TM 3.2	1.66
		E-TM 3.3	2.23
2	2115	E-TM2	1.07
		E-TM3.1	1.59
		E-TM 3.2	1.58
		E-TM 3.3	2.01
	2132.5	E-TM2	1.29
		E-TM3.1	1.58
		E-TM 3.2	1.64
		E-TM 3.3	2.11
	2150	E-TM2	1.05
		E-TM3.1	1.59
		E-TM 3.2	1.59
		E-TM 3.3	2.06

Port 1 -2115MHz-E-TM2

Spectrum LTE (X) 

Freq 2.115 GHz **Meas Setup** 1 TX x 1 RX **Ext. Att** 42 dB
Mode DL FDD, 50 RB (10 MHz), Normal (CP) **Sync State** OK **Capture Time** 20.1 ms
TRG : FREE RUN **Frame** 1 Of 1 (1)

Result Summary						
Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.04	1.04		1.04	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All	0.55		0.65		0.81	%
EVM Phys. Channel	0.61		0.73		0.85	%
EVM Phys. Signal	0.44		0.54		0.74	%
Frequency Error	- 2.18		0.39		2.09	Hz
Sampling Error	- 0.06		0.00		0.04	ppm
IQ Offset	- 73.87		- 67.30		- 65.34	dB
IQ Gain Imbalance	- 0.01		- 0.01		- 0.00	dB
IQ Quadrature Error	- 0.04		0.01		0.06	°
RSTP	8.99		8.99		9.00	dBm
OSTP	18.44		19.53		20.58	dBm
Power	25.63		26.02		27.63	dBm
Crest Factor			15.84			dB

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Date: 5.DEC.2017 19:56:09

Port 1 -2115MHz-E-TM3.3

Spectrum
LTE X
☰

Freq 2.115 GHz
Mode DL FDD, 50 RB (10 MHz), Normal (CP)
 TRG : FREE RUN

Meas Setup 1 TX x 1 RX
Sync State OK
Frame 1 Of 1 (1)

Ext. Att 42 dB
Capture Time 20.1 ms

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	2.14	2.14		2.14	18.50	%
EVM PDSCH 16QAM	1.11	1.11		1.11	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All	1.18		1.67		2.12	%
EVM Phys. Channel	1.19		1.69		2.14	%
EVM Phys. Signal	0.87		1.22		1.61	%
Frequency Error	- 1.00		0.34		2.31	Hz
Sampling Error	- 0.13		0.01		0.15	ppm
IQ Offset	- 89.30		- 74.83		- 70.31	dB
IQ Gain Imbalance	- 0.00		0.00		0.01	dB
IQ Quadrature Error	- 0.03		0.00		0.04	°
RSTP	8.92		8.93		8.93	dBm
OSTP	35.96		36.29		36.49	dBm
Power	36.29		36.39		36.44	dBm
Crest Factor			8.94			dB

Running ...
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05.12.2017
19:57:50

Date: 5.DEC.2017 19:57:49

Port 1 -2132.5MHz-E-TM2

Spectrum LTE (X) ☰

Freq 2.1325 GHz **Meas Setup** 1 TX x 1 RX **Ext. Att** 42 dB
Mode DL FDD, 50 RB (10 MHz), Normal (CP) **Sync State** OK **Capture Time** 20.1 ms
TRG : FREE RUN **Frame** 1 Of 1 (1)

Result Summary						
Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.08	1.08		1.08	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All		0.68	0.76		0.86	%
EVM Phys. Channel		0.71	0.87		1.03	%
EVM Phys. Signal		0.49	0.59		0.69	%
Frequency Error		- 2.06	- 0.31		1.42	Hz
Sampling Error		- 0.03	0.00		0.06	ppm
IQ Offset		- 68.35	- 66.07		- 64.33	dB
IQ Gain Imbalance		- 0.00	0.00		0.01	dB
IQ Quadrature Error		- 0.06	- 0.05		- 0.03	°
RSTP		9.01	9.01		9.02	dBm
OSTP		18.35	19.56		20.54	dBm
Power		25.66	26.04		27.65	dBm
Crest Factor			15.73			dB

Running ... 05.12.2017 20:19:10

Date: 5.DEC.2017 20:19:09

Port 1 -2132.5MHz-E-TM3.1

Spectrum LTE (X) 

Freq 2.1325 GHz **Meas Setup** 1 TX x 1 RX **Ext. Att** 42 dB
Mode DL FDD, 50 RB (10 MHz), Normal (CP) **Sync State** OK **Capture Time** 20.1 ms
TRG : FREE RUN **Frame** 1 Of 1 (1)

Result Summary						
Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.71	1.71		1.71	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All	1.43		1.68		2.02	%
EVM Phys. Channel	1.44		1.69		2.05	%
EVM Phys. Signal	1.13		1.50		2.06	%
Frequency Error	- 2.80		- 0.56		0.96	Hz
Sampling Error	- 0.12		0.01		0.13	ppm
IQ Offset	- 81.05		- 73.85		- 66.79	dB
IQ Gain Imbalance	- 0.01		- 0.00		0.01	dB
IQ Quadrature Error	- 0.05		- 0.01		0.08	°
RSTP	8.91		8.92		8.92	dBm
OSTP	36.62		36.74		36.97	dBm
Power	36.63		36.69		36.73	dBm
Crest Factor			8.70			dB

Running ...   05.12.2017 20:18:17

Date: 5.DEC.2017 20:18:17

Port 1 -2132.5MHz-E-TM3.2

Spectrum
LTE X
☰

Freq 2.1325 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 50 RB (10 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	1.23	1.23		1.23	18.50	%
EVM PDSCH 16QAM	1.71	1.71		1.71	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All	1.30	1.53			1.99	%
EVM Phys. Channel	1.31	1.54			2.01	%
EVM Phys. Signal	1.10	1.43			1.65	%
Frequency Error	- 2.02	- 0.34			2.10	Hz
Sampling Error	- 0.12	0.01			0.19	ppm
IQ Offset	- 83.25	- 75.60			- 68.49	dB
IQ Gain Imbalance	- 0.00	0.00			0.01	dB
IQ Quadrature Error	- 0.05	0.01			0.04	°
RSTP	8.92	8.93			8.93	dBm
OSTP	36.37	36.43			36.49	dBm
Power	36.43	36.44			36.47	dBm
Crest Factor		8.86				dB

Running ...
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05.12.2017
20:20:17

Date: 5.DEC.2017 20:20:17

Port 1 -2132.5MHz-E-TM3.3

Spectrum
LTE X
☰

Freq 2.1325 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 50 RB (10 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	2.23	2.23		2.23	18.50	%
EVM PDSCH 16QAM	1.21	1.21		1.21	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	Unit
EVM All		1.33	1.76		2.19	%
EVM Phys. Channel		1.33	1.78		2.21	%
EVM Phys. Signal		1.07	1.27		1.66	%
Frequency Error		- 1.96	- 0.20		1.49	Hz
Sampling Error		- 0.15	0.05		0.23	ppm
IQ Offset		- 83.39	- 73.89		- 69.36	dB
IQ Gain Imbalance		- 0.01	0.00		0.01	dB
IQ Quadrature Error		- 0.02	0.00		0.03	°
RSTP		8.90	8.91		8.92	dBm
OSTP		35.93	36.27		36.48	dBm
Power		36.26	36.36		36.43	dBm
Crest Factor			8.91			dB

Running ...
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20:20:48

Date: 5.DEC.2017 20:20:48

Port 1 -2150MHz-E-TM2

Spectrum LTE (X) 

Freq 2.15 GHz **Meas Setup** 1 TX x 1 RX **Ext. Att** 42 dB
Mode DL FDD, 50 RB (10 MHz), Normal (CP) **Sync State** OK **Capture Time** 20.1 ms
TRG : FREE RUN **Frame** 1 Of 1 (1)

Result Summary						
Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.23	1.23		1.23	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All	0.71		0.79		0.93	%
EVM Phys. Channel	0.78		0.88		1.02	%
EVM Phys. Signal	0.57		0.67		0.80	%
Frequency Error	- 1.20		1.12		3.07	Hz
Sampling Error	- 0.03		- 0.00		0.05	ppm
IQ Offset	- 76.24		- 67.67		- 65.04	dB
IQ Gain Imbalance	0.01		0.01		0.01	dB
IQ Quadrature Error	- 0.04		- 0.03		- 0.01	°
RSTP	8.89		8.89		8.90	dBm
OSTP	18.23		19.43		20.35	dBm
Power	25.54		25.92		27.53	dBm
Crest Factor			15.82			dB

Running ...   05.12.2017 20:27:23

Date: 5.DEC.2017 20:27:22

Port 2 -2115MHz-E-TM2

Spectrum
LTE X
⌵

Freq 2.115 GHz

Mode DL FDD, 50 RB (10 MHz), Normal (CP)

TRG : FREE RUN

Meas Setup 1 TX x 1 RX

Sync State OK

Frame 1 Of 1 (1)

Ext. Att 42 dB

Capture Time 20.1 ms

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.07	1.07		1.07	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection

Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1
EVM All	0.52	0.68		0.76
EVM Phys. Channel	0.59	0.77		0.90
EVM Phys. Signal	0.40	0.54		0.71
Frequency Error	- 1.58	0.39		2.24
Sampling Error	- 0.02	0.00		0.03
IQ Offset	- 74.44	- 71.26		- 68.92
IQ Gain Imbalance	- 0.01	0.00		0.02
IQ Quadrature Error	- 0.12	- 0.07		- 0.01
RSTP	8.93	8.93		8.94
OSTP	18.36	19.46		20.51
Power	25.56	25.96		27.57
Crest Factor		15.78		

Running ... ▬ 🔴

05.12.2017
20:05:36

Date: 5.DEC.2017 20:05:36

Port 2-2115MHz-E-TM3.1

Spectrum
LTE X
☰

Freq 2.115 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 50 RB (10 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.59	1.59		1.59	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	Unit
EVM All	1.22		1.56		2.01	%
EVM Phys. Channel	1.22		1.57		2.05	%
EVM Phys. Signal	1.05		1.44		1.97	%
Frequency Error	- 2.03		- 0.26		1.18	Hz
Sampling Error	- 0.21		0.00		0.17	ppm
IQ Offset	- 91.41		- 77.13		- 70.87	dB
IQ Gain Imbalance	- 0.01		0.00		0.01	dB
IQ Quadrature Error	- 0.05		- 0.00		0.07	°
RSTP	8.81		8.82		8.83	dBm
OSTP	36.52		36.64		36.87	dBm
Power	36.53		36.59		36.63	dBm
Crest Factor			8.79			dB

Running ...
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05.12.2017
20:04:36

Date: 5.DEC.2017 20:04:36

Port 2 -2115MHz-E-TM3.2

Spectrum
LTE X
☰

Freq 2.115 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 50 RB (10 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	1.11	1.11		1.11	18.50	%
EVM PDSCH 16QAM	1.58	1.58		1.58	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All		1.15	1.40		1.87	%
EVM Phys. Channel		1.16	1.41		1.89	%
EVM Phys. Signal		0.95	1.30		1.50	%
Frequency Error		- 1.92	- 0.58		1.06	Hz
Sampling Error		- 0.06	0.00		0.09	ppm
IQ Offset		- 87.45	- 76.71		- 70.01	dB
IQ Gain Imbalance		- 0.01	0.00		0.01	dB
IQ Quadrature Error		- 0.04	0.00		0.06	°
RSTP		8.90	8.90		8.91	dBm
OSTP		36.34	36.41		36.47	dBm
Power		36.40	36.43		36.45	dBm
Crest Factor			8.96			dB

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20:06:06

Date: 5.DEC.2017 20:06:06

Port 2-2132.5MHz-E-TM2

Spectrum
LTE X
☰

Freq 2.1325 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 50 RB (10 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.29	1.29		1.29	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	Unit
EVM All		0.78	0.86		1.05	%
EVM Phys. Channel		0.85	0.95		1.20	%
EVM Phys. Signal		0.57	0.71		0.87	%
Frequency Error		- 1.73	1.19		4.32	Hz
Sampling Error		- 0.11	- 0.01		0.05	ppm
IQ Offset		- 75.65	- 72.23		- 68.01	dB
IQ Gain Imbalance		0.01	0.02		0.02	dB
IQ Quadrature Error		- 0.14	- 0.07		0.01	°
RSTP		9.12	9.12		9.13	dBm
OSTP		18.44	19.64		20.61	dBm
Power		25.77	26.14		27.75	dBm
Crest Factor			15.84			dB

Running ...
05.12.2017 20:14:03

Date: 5.DEC.2017 20:14:03

Port 2 -2132.5MHz-E-TM3.1

Spectrum
LTE X
☰

Freq 2.1325 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 50 RB (10 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.58	1.58		1.58	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1
EVM All	1.27		1.56		2.00 %
EVM Phys. Channel	1.26		1.56		2.03 %
EVM Phys. Signal	1.04		1.46		1.92 %
Frequency Error	- 1.96		0.50		2.10 Hz
Sampling Error	- 0.15		0.01		0.15 ppm
IQ Offset	- 93.59		- 77.08		- 71.38 dB
IQ Gain Imbalance	- 0.01		0.00		0.01 dB
IQ Quadrature Error	- 0.04		0.00		0.07 °
RSTP	9.04		9.05		9.06 dBm
OSTP	36.75		36.87		37.10 dBm
Power	36.76		36.82		36.86 dBm
Crest Factor			8.75		8.75 dB

Running ...
05.12.2017 20:13:39

Date: 5.DEC.2017 20:13:38

Port 2 -2132.5MHz-E-TM3.2

Spectrum
LTE X
⌵

Freq 2.1325 GHz

Mode DL FDD, 50 RB (10 MHz), Normal (CP)

TRG : FREE RUN

Meas Setup 1 TX x 1 RX

Sync State OK

Frame 1 Of 1 (1)

Ext. Att 42 dB

Capture Time 20.1 ms

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	1.18	1.18		1.18	18.50	%
EVM PDSCH 16QAM	1.64	1.64		1.64	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1
EVM All		1.23	1.46		1.92 %
EVM Phys. Channel		1.23	1.47		1.94 %
EVM Phys. Signal		0.98	1.32		1.60 %
Frequency Error		- 1.49	0.36		2.54 Hz
Sampling Error		- 0.23	- 0.01		0.15 ppm
IQ Offset		- 106.21	- 76.92		- 69.23 dB
IQ Gain Imbalance		- 0.01	0.00		0.01 dB
IQ Quadrature Error		- 0.05	0.00		0.07 °
RSTP		9.12	9.12		9.13 dBm
OSTP		36.56	36.62		36.69 dBm
Power		36.62	36.64		36.67 dBm
Crest Factor			8.93		dB

Running ... ▬ X

05.12.2017
20:14:29

Date: 5.DEC.2017 20:14:28

Port 2 -2132.5MHz-E-TM3.3

Spectrum
LTE X

Freq 2.1325 GHz

Mode DL FDD, 50 RB (10 MHz), Normal (CP)

TRG : FREE RUN

Meas Setup 1 TX x 1 RX

Sync State OK

Frame 1 Of 1 (1)

Ext. Att 42 dB

Capture Time 20.1 ms

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	2.11	2.11		2.11	18.50	%
EVM PDSCH 16QAM	1.22	1.22		1.22	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection

Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1
EVM All	1.28	1.70		2.11
EVM Phys. Channel	1.29	1.72		2.14
EVM Phys. Signal	1.12	1.26		1.51
Frequency Error	- 1.30	0.22		2.08
Sampling Error	- 0.02	0.09		0.17
IQ Offset	- 86.81	- 79.97		- 73.39
IQ Gain Imbalance	- 0.01	- 0.00		0.01
IQ Quadrature Error	- 0.04	- 0.01		0.03
RSTP	9.07	9.09		9.09
OSTP	36.11	36.45		36.66
Power	36.44	36.54		36.61
Crest Factor		9.02		

Running ...

05.12.2017
20:15:07

Date: 5.DEC.2017 20:15:07

Port 2 -2150MHz-E-TM2

Spectrum
LTE X
☰

Freq 2.15 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 50 RB (10 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.05	1.05		1.05	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All	0.60	0.73			0.88	%
EVM Phys. Channel	0.65	0.81			0.99	%
EVM Phys. Signal	0.48	0.60			0.76	%
Frequency Error	- 0.29	0.63			2.69	Hz
Sampling Error	- 0.03	0.00			0.06	ppm
IQ Offset	- 75.95	- 72.15			- 69.57	dB
IQ Gain Imbalance	- 0.01	- 0.01			- 0.00	dB
IQ Quadrature Error	- 0.08	- 0.03			0.01	°
RSTP	8.75	8.75			8.76	dBm
OSTP	18.13	19.33			20.26	dBm
Power	25.41	25.79			27.40	dBm
Crest Factor		15.75				dB

Running ...
██████████ ❌
05.12.2017
20:36:59

Date: 5.DEC.2017 20:36:58

Port 2 -2150MHz-E-TM3.1

Spectrum
LTE X

Freq 2.15 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 50 RB (10 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.59	1.59		1.59	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	Unit
EVM All		1.31	1.57		2.00	%
EVM Phys. Channel		1.31	1.58		2.04	%
EVM Phys. Signal		1.04	1.46		1.97	%
Frequency Error		- 2.02	0.62		2.74	Hz
Sampling Error		- 0.10	0.05		0.22	ppm
IQ Offset		- 91.42	- 75.62		- 68.16	dB
IQ Gain Imbalance		- 0.01	- 0.00		0.01	dB
IQ Quadrature Error		- 0.06	- 0.01		0.06	°
RSTP		9.00	9.00		9.01	dBm
OSTP		36.71	36.82		37.05	dBm
Power		36.72	36.78		36.81	dBm
Crest Factor			8.76			dB

Running ...
05.12.2017 20:35:55

Date: 5.DEC.2017 20:35:55

Port 2 -2150MHz-E-TM3.2

Spectrum
LTE X
⌵

Freq 2.15 GHz

Mode DL FDD, 50 RB (10 MHz), Normal (CP)

TRG : FREE RUN

Meas Setup 1 TX x 1 RX

Sync State OK

Frame 1 Of 1 (1)

Ext. Att 42 dB

Capture Time 20.1 ms

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	1.14	1.14		1.14	18.50	%
EVM PDSCH 16QAM	1.59	1.59		1.59	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	Unit
EVM All			1.42		1.84	%
EVM Phys. Channel			1.42		1.86	%
EVM Phys. Signal			1.32		1.51	%
Frequency Error			- 0.22		2.34	Hz
Sampling Error			0.04		0.17	ppm
IQ Offset			- 77.98		- 72.64	dB
IQ Gain Imbalance			0.00		0.01	dB
IQ Quadrature Error			0.00		0.04	°
RSTP			8.62		8.63	dBm
OSTP			36.12		36.19	dBm
Power			36.14		36.17	dBm
Crest Factor			9.11			dB

Running ... ▬ 🔴

05.12.2017
20:37:48

Date: 5.DEC.2017 20:37:48

Port 2 -2150MHz-E-TM3.3

Spectrum
LTE X

Freq 2.15 GHz

Mode DL FDD, 50 RB (10 MHz), Normal (CP)

TRG : FREE RUN

Meas Setup 1 TX x 1 RX

Sync State OK

Frame 1 Of 1 (1)

Ext. Att 42 dB

Capture Time 20.1 ms

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	2.06	2.06		2.06	18.50	%
EVM PDSCH 16QAM	1.13	1.13		1.13	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1
EVM All		1.23	1.62		1.96 %
EVM Phys. Channel		1.24	1.64		1.99 %
EVM Phys. Signal		1.00	1.19		1.47 %
Frequency Error		- 2.60	- 0.12		1.26 Hz
Sampling Error		- 0.09	0.02		0.16 ppm
IQ Offset		- 87.36	- 81.42		- 77.14 dB
IQ Gain Imbalance		- 0.00	- 0.00		0.01 dB
IQ Quadrature Error		- 0.02	- 0.00		0.02 °
RSTP		8.58	8.59		8.60 dBm
OSTP		35.61	35.95		36.17 dBm
Power		35.94	36.04		36.12 dBm
Crest Factor			9.03		dB

Running ... ██████████ 🔴

05.12.2017
20:38:39

Date: 5.DEC.2017 20:38:39

LTE 15MHz

Port	LTE Center Freq. (MHz) (MHz)	Test mode	EVM%
1	2117.5	E-TM2	1.13
		E-TM3.1	1.58
		E-TM 3.2	2.05
		E-TM 3.3	2.11
	2132.5	E-TM2	1.15
		E-TM3.1	1.63
		E-TM 3.2	2.14
		E-TM 3.3	2.21
	2147.5	E-TM2	1.18
		E-TM3.1	1.61
		E-TM 3.2	2.09
		E-TM 3.3	2.13
2	2117.5	E-TM2	1.06
		E-TM3.1	1.48
		E-TM 3.2	1.92
		E-TM 3.3	2.00
	2132.5	E-TM2	1.19
		E-TM3.1	1.57
		E-TM 3.2	2.02
		E-TM 3.3	2.09
	2147.5	E-TM2	1.05
		E-TM3.1	1.54
		E-TM 3.2	1.95
		E-TM 3.3	2.02

Port 1 -2117.5MHz-E-TM2

Spectrum
LTE X
⌵

Freq 2.1175 GHz

Mode DL FDD, 75 RB (15 MHz), Normal (CP)

TRG : FREE RUN

Meas Setup 1 TX x 1 RX

Sync State OK

Frame 1 Of 1 (1)

Ext. Att 42 dB

Capture Time 20.1 ms

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.13	1.13		1.13	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	Unit
EVM All		0.64	0.71		0.77	%
EVM Phys. Channel		0.62	0.73		0.84	%
EVM Phys. Signal		0.62	0.69		0.78	%
Frequency Error		- 0.80	0.37		1.35	Hz
Sampling Error		- 0.02	- 0.00		0.03	ppm
IQ Offset		- 93.63	- 76.15		- 72.49	dB
IQ Gain Imbalance		- 0.01	- 0.01		- 0.00	dB
IQ Quadrature Error		- 0.03	0.02		0.07	°
RSTP		6.98	6.99		6.99	dBm
OSTP		16.15	17.54		18.56	dBm
Power		24.81	25.10		26.41	dBm
Crest Factor			15.80			dB

Running ... ▬ 🔴

06.12.2017
09:54:23

Date: 6.DEC.2017 09:54:23

Port 1 -2117.5MHz-E-TM3.1

Spectrum
LTE X

Freq 2.1175 GHz

Mode DL FDD, 75 RB (15 MHz), Normal (CP)

TRG : FREE RUN

Meas Setup 1 TX x 1 RX

Sync State OK

Frame 1 Of 1 (1)

Ext. Att 42 dB

Capture Time 20.1 ms

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.58	1.58		1.58	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection

Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1
EVM All	1.30	1.56		2.11
EVM Phys. Channel	1.30	1.57		2.11
EVM Phys. Signal	1.17	1.48		2.06
Frequency Error	- 3.17	- 0.24		1.01
Sampling Error	- 0.08	- 0.01		0.07
IQ Offset	- 93.03	- 78.47		- 73.10
IQ Gain Imbalance	- 0.01	- 0.00		0.01
IQ Quadrature Error	- 0.06	- 0.01		0.03
RSTP	6.87	6.88		6.89
OSTP	36.25	36.43		36.57
Power	36.37	36.41		36.46
Crest Factor		8.73		

Running ... ■■■■■■■■■ X

06.12.2017
09:53:42

Date: 6.DEC.2017 09:53:42

Port 1 -2117.5MHz-E-TM3.2

Spectrum
LTE X

Freq 2.1175 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 75 RB (15 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	1.32	1.32		1.32	18.50	%
EVM PDSCH 16QAM	2.05	2.05		2.05	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	Unit
EVM All			1.81		2.27	%
EVM Phys. Channel			1.83		2.31	%
EVM Phys. Signal			1.44		2.00	%
Frequency Error	- 1.21		0.05		1.26	Hz
Sampling Error	- 0.03		0.02		0.13	ppm
IQ Offset	- 93.67		- 81.92		- 73.13	dB
IQ Gain Imbalance	- 0.01		- 0.00		0.01	dB
IQ Quadrature Error	- 0.05		0.01		0.07	°
RSTP	6.87		6.89		6.90	dBm
OSTP	36.38		36.44		36.48	dBm
Power	36.39		36.42		36.45	dBm
Crest Factor			8.75			dB

Running ...
06.12.2017 09:56:05

Date: 6.DEC.2017 09:56:05

Port 1 -2132.5MHz-E-TM2

Spectrum
LTE (X)
Spectrum 2 (X)
☰

Freq	2.1325 GHz	Meas Setup	1 TX x 1 RX	Ext. Att	42 dB
Mode	DL FDD, 75 RB (15 MHz), Normal (CP)	Sync State	OK	Capture Time	20.1 ms
	TRG : FREE RUN	Frame	1 Of 1 (1)		

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.15	1.15		1.15	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	Unit
EVM All	0.72		0.81		0.91	%
EVM Phys. Channel	0.70		0.85		0.97	%
EVM Phys. Signal	0.70		0.77		0.86	%
Frequency Error	- 0.41		0.54		1.49	Hz
Sampling Error	- 0.05		- 0.02		0.01	ppm
IQ Offset	- 81.51		- 76.43		- 71.18	dB
IQ Gain Imbalance	- 0.01		0.00		0.02	dB
IQ Quadrature Error	- 0.09		- 0.04		- 0.00	°
RSTP	6.95		6.95		6.96	dBm
OSTP	16.12		17.51		18.53	dBm
Power	24.78		25.06		26.37	dBm
Crest Factor			15.76			dB

Running ...
05.12.2017
21:00:14

Date: 5.DEC.2017 21:00:14

Port 1 -2132.5MHz-E-TM3.1

Spectrum LTE (X) Spectrum 2 (X) 

Freq 2.1325 GHz Meas Setup 1 TX x 1 RX Ext. Att 42 dB
 Mode DL FDD, 75 RB (15 MHz), Normal (CP) Sync State OK Capture Time 20.1 ms
 TRG : FREE RUN Frame 1 Of 1 (1)

Result Summary						
Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.63	1.63		1.63	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All	1.39		1.62		2.14	%
EVM Phys. Channel	1.39		1.62		2.14	%
EVM Phys. Signal	1.26		1.53		2.12	%
Frequency Error	- 1.24		- 0.16		0.78	Hz
Sampling Error	- 0.09		- 0.02		0.09	ppm
IQ Offset	- 83.55		- 76.63		- 70.72	dB
IQ Gain Imbalance	- 0.01		- 0.00		0.01	dB
IQ Quadrature Error	- 0.04		- 0.01		0.03	°
RSTP	6.87		6.88		6.89	dBm
OSTP	36.24		36.43		36.57	dBm
Power	36.37		36.41		36.45	dBm
Crest Factor			8.71			dB

Running ...   05.12.2017 20:59:24

Date: 5.DEC.2017 20:59:24

Port 1 -2132.5MHz-E-TM3.2

Spectrum
LTE (X)
Spectrum 2 (X)
☰

Freq 2.1325 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 75 RB (15 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	1.40	1.40		1.40	18.50	%
EVM PDSCH 16QAM	2.14	2.14		2.14	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	Unit
EVM All			1.90		2.33	%
EVM Phys. Channel			1.91		2.37	%
EVM Phys. Signal			1.56		2.09	%
Frequency Error	- 1.39		- 0.28		2.54	Hz
Sampling Error	- 0.08		- 0.01		0.05	ppm
IQ Offset	- 86.71		- 79.72		- 73.88	dB
IQ Gain Imbalance	- 0.01		- 0.00		0.01	dB
IQ Quadrature Error	- 0.06		0.00		0.07	°
RSTP	6.90		6.92		6.92	dBm
OSTP	36.40		36.47		36.51	dBm
Power	36.42		36.45		36.47	dBm
Crest Factor			8.67			dB

Running ...
05.12.2017 21:00:49

Date: 5.DEC.2017 21:00:48

Port 1 -2132.5MHz-E-TM3.3

Spectrum LTE (X) Spectrum 2 (X) 

Freq 2.1325 GHz Meas Setup 1 TX x 1 RX Ext. Att 42 dB
 Mode DL FDD, 75 RB (15 MHz), Normal (CP) Sync State OK Capture Time 20.1 ms
 TRG : FREE RUN Frame 1 Of 1 (1)

Result Summary						
Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	2.21	2.21		2.21	18.50	%
EVM PDSCH 16QAM	1.31	1.31		1.31	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All	1.51		1.80		2.29	%
EVM Phys. Channel	1.52		1.81		2.32	%
EVM Phys. Signal	1.22		1.46		1.73	%
Frequency Error	- 2.32		- 0.43		0.91	Hz
Sampling Error	- 0.10		- 0.01		0.06	ppm
IQ Offset	- 93.71		- 76.49		- 70.34	dB
IQ Gain Imbalance	- 0.00		0.00		0.00	dB
IQ Quadrature Error	- 0.02		0.01		0.03	°
RSTP	6.90		6.90		6.91	dBm
OSTP	36.00		36.09		36.24	dBm
Power	36.02		36.07		36.10	dBm
Crest Factor			9.06			dB

Running ...   05.12.2017 21:01:14

Date: 5.DEC.2017 21:01:14

Port 1 -2147.5MHz-E-TM2

Spectrum LTE Spectrum 2

Freq 2.1475 GHz Meas Setup 1 TX x 1 RX Ext. Att 42 dB
 Mode DL FDD, 75 RB (15 MHz), Normal (CP) Sync State OK Capture Time 20.1 ms
 TRG : FREE RUN Frame 1 Of 1 (1)

Result Summary						
Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.18	1.18		1.18	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All	0.72		0.78		0.89	%
EVM Phys. Channel	0.67		0.79		0.95	%
EVM Phys. Signal	0.68		0.76		0.82	%
Frequency Error	- 0.97		0.57		3.14	Hz
Sampling Error	- 0.02		0.00		0.03	ppm
IQ Offset	- 82.95		- 76.63		- 72.76	dB
IQ Gain Imbalance	- 0.00		0.01		0.02	dB
IQ Quadrature Error	- 0.05		0.00		0.05	°
RSTP	7.07		7.07		7.07	dBm
OSTP	16.29		17.59		18.62	dBm
Power	24.88		25.17		26.47	dBm
Crest Factor			16.17			dB

Running ... 05.12.2017 20:53:41

Date: 5.DEC.2017 20:53:41

Port 1 -2147.5MHz-E-TM3.1

Spectrum LTE (X) Spectrum 2 (X) 

Freq 2.1475 GHz Meas Setup 1 TX x 1 RX Ext. Att 42 dB
 Mode DL FDD, 75 RB (15 MHz), Normal (CP) Sync State OK Capture Time 20.1 ms
 TRG : FREE RUN Frame 1 Of 1 (1)

Result Summary						
Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.61	1.61		1.61	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All	1.35		1.60		2.18	%
EVM Phys. Channel	1.35		1.60		2.18	%
EVM Phys. Signal	1.10		1.51		2.11	%
Frequency Error	- 1.58		0.03		1.76	Hz
Sampling Error	- 0.13		- 0.01		0.09	ppm
IQ Offset	- 82.98		- 77.45		- 70.05	dB
IQ Gain Imbalance	- 0.01		- 0.00		0.01	dB
IQ Quadrature Error	- 0.05		- 0.01		0.02	°
RSTP	6.94		6.95		6.95	dBm
OSTP	36.31		36.50		36.64	dBm
Power	36.44		36.48		36.52	dBm
Crest Factor			8.76			dB

Running ...   05.12.2017 20:53:03

Date: 5.DEC.2017 20:53:02

Port 1 -2147.5MHz-E-TM3.2

Spectrum LTE Spectrum 2

Freq 2.1475 GHz Meas Setup 1 TX x 1 RX Ext. Att 42 dB
 Mode DL FDD, 75 RB (15 MHz), Normal (CP) Sync State OK Capture Time 20.1 ms
 TRG : FREE RUN Frame 1 Of 1 (1)

Result Summary						
Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	1.35	1.35		1.35	18.50	%
EVM PDSCH 16QAM	2.09	2.09		2.09	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All						%
EVM Phys. Channel						%
EVM Phys. Signal						%
Frequency Error	- 2.48	0.31			2.01	Hz
Sampling Error	- 0.06	0.01			0.07	ppm
IQ Offset	- 118.29	- 82.57			- 72.22	dB
IQ Gain Imbalance	- 0.00	- 0.00			0.01	dB
IQ Quadrature Error	- 0.05	0.01			0.08	°
RSTP	7.03	7.04			7.05	dBm
OSTP	36.53	36.60			36.64	dBm
Power	36.54	36.58			36.60	dBm
Crest Factor		8.67				dB

Running ... 05.12.2017 20:54:08

Date: 5.DEC.2017 20:54:08

Port 1 -2147.5MHz-E-TM3.3

Spectrum
LTE (X)
Spectrum 2 (X)
☰

Freq 2.1475 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 75 RB (15 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	2.13	2.13		2.13	18.50	%
EVM PDSCH 16QAM	1.25	1.25		1.25	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	Unit
EVM All			1.73		2.23	%
EVM Phys. Channel			1.74		2.25	%
EVM Phys. Signal			1.38		1.70	%
Frequency Error			0.68		2.85	Hz
Sampling Error			-0.02		0.05	ppm
IQ Offset			-76.62		-71.57	dB
IQ Gain Imbalance			0.00		0.00	dB
IQ Quadrature Error			0.00		0.03	°
RSTP			7.01		7.02	dBm
OSTP			36.20		36.36	dBm
Power			36.18		36.22	dBm
Crest Factor			9.03			dB

Running ...
05.12.2017 20:54:42

Date: 5.DEC.2017 20:54:41

Port 2 -2117.5MHz-E-TM2

Spectrum
LTE X

Freq 2.1175 GHz

Mode DL FDD, 75 RB (15 MHz), Normal (CP)

TRG : FREE RUN

Meas Setup 1 TX x 1 RX

Sync State OK

Frame 1 Of 1 (1)

Ext. Att 42 dB

Capture Time 20.1 ms

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.06	1.06		1.06	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection

Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1
EVM All	0.64	0.72		0.83
EVM Phys. Channel	0.60	0.72		0.86
EVM Phys. Signal	0.66	0.72		0.80
Frequency Error	- 2.21	- 0.61		0.93
Sampling Error	- 0.03	- 0.01		0.03
IQ Offset	- 66.54	- 64.79		- 63.28
IQ Gain Imbalance	- 0.00	0.00		0.00
IQ Quadrature Error	- 0.02	- 0.01		0.00
RSTP	6.93	6.93		6.94
OSTP	16.11	17.49		18.52
Power	24.76	25.04		26.35
Crest Factor		16.27		

Running ... ■■■■■■■■■ ✖

06.12.2017
11:23:26

Date: 6.DEC.2017 11:23:26

Port 2-2117.5MHz-E-TM3.1

Spectrum LTE (X) 

Freq 2.1175 GHz **Meas Setup** 1 TX x 1 RX **Ext. Att** 42 dB
Mode DL FDD, 75 RB (15 MHz), Normal (CP) **Sync State** OK **Capture Time** 20.1 ms
TRG : FREE RUN **Frame** 1 Of 1 (1)

Result Summary						
Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.48	1.48		1.48	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All	1.25		1.47		2.01	%
EVM Phys. Channel	1.26		1.48		2.01	%
EVM Phys. Signal	1.12		1.42		1.98	%
Frequency Error	- 2.23		- 0.89		0.55	Hz
Sampling Error	- 0.07		0.01		0.08	ppm
IQ Offset	- 92.32		- 77.00		- 70.09	dB
IQ Gain Imbalance	- 0.01		- 0.00		0.01	dB
IQ Quadrature Error	- 0.03		- 0.00		0.03	°
RSTP	7.23		7.24		7.25	dBm
OSTP	36.61		36.79		36.93	dBm
Power	36.73		36.78		36.82	dBm
Crest Factor			8.87			dB

Running ...   06.12.2017 11:22:47

Date: 6.DEC.2017 11:22:47

Port 2 -2117.5MHz-E-TM3.2

Spectrum
LTE X
☰

Freq 2.1175 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 75 RB (15 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	1.27	1.27		1.27	18.50	%
EVM PDSCH 16QAM	1.92	1.92		1.92	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	Unit
EVM All		1.36	1.70		2.13	%
EVM Phys. Channel		1.37	1.72		2.16	%
EVM Phys. Signal		1.13	1.38		1.85	%
Frequency Error		- 1.97	0.02		1.78	Hz
Sampling Error		- 0.12	- 0.01		0.06	ppm
IQ Offset		- 80.85	- 74.13		- 68.41	dB
IQ Gain Imbalance		- 0.01	0.00		0.01	dB
IQ Quadrature Error		- 0.05	- 0.00		0.06	°
RSTP		6.89	6.90		6.91	dBm
OSTP		36.38	36.45		36.50	dBm
Power		36.40	36.43		36.46	dBm
Crest Factor			9.00			dB

Running ...
██████████ 🔴
06.12.2017
11:23:49

Date: 6.DEC.2017 11:23:49

Port 2 -2117.5MHz-E-TM3.3

Spectrum
LTE X
☰

Freq 2.1175 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 75 RB (15 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	2.00	2.00		2.00	18.50	%
EVM PDSCH 16QAM	1.18	1.18		1.18	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	Unit
EVM All		1.35	1.63		2.10	%
EVM Phys. Channel		1.36	1.64		2.12	%
EVM Phys. Signal		1.11	1.32		1.65	%
Frequency Error		- 2.59	- 0.40		1.67	Hz
Sampling Error		- 0.09	- 0.03		0.03	ppm
IQ Offset		- 81.61	- 74.50		- 67.12	dB
IQ Gain Imbalance		- 0.00	0.00		0.00	dB
IQ Quadrature Error		- 0.03	0.00		0.03	°
RSTP		6.86	6.87		6.87	dBm
OSTP		35.97	36.06		36.21	dBm
Power		35.99	36.04		36.07	dBm
Crest Factor			9.24			dB

Running ...
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06.12.2017
11:24:11

Date: 6.DEC.2017 11:24:11

Port 2 -2147.5MHz-E-TM2

Spectrum
LTE (X)
Spectrum 2 (X)
☰

Freq 2.1475 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 75 RB (15 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.05	1.05		1.05	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	Unit
EVM All	0.64		0.71		0.80	%
EVM Phys. Channel	0.63		0.70		0.82	%
EVM Phys. Signal	0.64		0.72		0.83	%
Frequency Error	- 1.05		0.61		1.76	Hz
Sampling Error	- 0.02		0.00		0.03	ppm
IQ Offset	- 67.21		- 64.61		- 62.65	dB
IQ Gain Imbalance	- 0.00		- 0.00		0.00	dB
IQ Quadrature Error	- 0.00		0.00		0.00	°
RSTP	7.25		7.25		7.25	dBm
OSTP	16.52		17.82		18.84	dBm
Power	25.07		25.36		26.66	dBm
Crest Factor			16.03			dB

Running ...
05.12.2017 20:47:47

Date: 5.DEC.2017 20:47:47

Port 2 -2147.5MHz-E-TM3.1

Spectrum LTE Spectrum 2

Freq 2.1475 GHz Meas Setup 1 TX x 1 RX Ext. Att 42 dB
 Mode DL FDD, 75 RB (15 MHz), Normal (CP) Sync State OK Capture Time 20.1 ms
 TRG : FREE RUN Frame 1 Of 1 (1)

Result Summary						
Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.54	1.54		1.54	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All	1.25		1.53		2.09	%
EVM Phys. Channel	1.24		1.53		2.09	%
EVM Phys. Signal	1.09		1.46		2.03	%
Frequency Error	- 2.55		- 0.48		2.41	Hz
Sampling Error	- 0.13		- 0.01		0.09	ppm
IQ Offset	- 86.79		- 76.03		- 71.91	dB
IQ Gain Imbalance	- 0.01		- 0.00		0.00	dB
IQ Quadrature Error	- 0.05		- 0.01		0.04	°
RSTP	7.13		7.14		7.14	dBm
OSTP	36.50		36.68		36.82	dBm
Power	36.63		36.67		36.71	dBm
Crest Factor			8.96			dB

Running ... 05.12.2017 20:46:51

Date: 5.DEC.2017 20:46:51

Port 2 -2147.5MHz-E-TM3.2

Spectrum
LTE (X)
Spectrum 2 (X)
☰

Freq 2.1475 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 75 RB (15 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	1.29	1.29		1.29	18.50	%
EVM PDSCH 16QAM	1.95	1.95		1.95	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	Unit
EVM All					2.15	%
EVM Phys. Channel					2.19	%
EVM Phys. Signal					1.91	%
Frequency Error					2.05	Hz
Sampling Error					0.10	ppm
IQ Offset	- 80.21	- 74.44			- 69.96	dB
IQ Gain Imbalance	- 0.00	- 0.00			0.01	dB
IQ Quadrature Error	- 0.03	- 0.00			0.08	°
RSTP	6.80	6.81			6.82	dBm
OSTP	36.30	36.37			36.41	dBm
Power	36.31	36.34			36.37	dBm
Crest Factor		8.98				dB

Running ...05.12.2017 20:48:19

Date: 5.DEC.2017 20:48:19

Port 2 -2147.5MHz-E-TM3.3

Spectrum
LTE (X)
Spectrum 2 (X)
☰

Freq 2.1475 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 75 RB (15 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	2.02	2.02		2.02	18.50	%
EVM PDSCH 16QAM	1.19	1.19		1.19	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1
EVM All		1.29	1.64		2.02 %
EVM Phys. Channel		1.30	1.66		2.04 %
EVM Phys. Signal		0.99	1.33		1.69 %
Frequency Error		- 0.99	0.16		1.62 Hz
Sampling Error		- 0.10	- 0.04		0.03 ppm
IQ Offset		- 87.80	- 74.50		- 67.91 dB
IQ Gain Imbalance		- 0.00	0.00		0.01 dB
IQ Quadrature Error		- 0.02	0.00		0.02 °
RSTP		6.77	6.77		6.78 dBm
OSTP		35.87	35.95		36.11 dBm
Power		35.88	35.94		35.98 dBm
Crest Factor			9.31		dB

Running ...
05.12.2017 20:48:51

Date: 5.DEC.2017 20:48:50

LTE 20MHz

Port	LTE Center Freq. (MHz) (MHz)	Test mode	EVM%
1	2120	E-TM2	1.08
		E-TM3.1	1.61
		E-TM 3.2	1.77
		E-TM 3.3	2.30
	2132.5	E-TM2	1.24
		E-TM3.1	1.63
		E-TM 3.2	1.84
		E-TM 3.3	2.37
	2145	E-TM2	1.10
		E-TM3.1	1.58
		E-TM 3.2	1.77
		E-TM 3.3	2.32
2	2120	E-TM2	1.04
		E-TM3.1	1.50
		E-TM 3.2	1.68
		E-TM 3.3	2.20
	2132.5	E-TM2	1.06
		E-TM3.1	1.55
		E-TM 3.2	1.74
		E-TM 3.3	2.20
	2145	E-TM2	0.93
		E-TM3.1	1.55
		E-TM 3.2	1.69
		E-TM 3.3	2.16

Port 1 -2120MHz-E-TM2

Spectrum LTE (X) 

Freq 2.12 GHz **Meas Setup** 1 TX x 1 RX **Ext. Att** 42 dB
Mode DL FDD, 100 RB (20 MHz), Normal (CP) **Sync State** OK **Capture Time** 20.1 ms
TRG : FREE RUN **Frame** 1 Of 1 (1)

Result Summary						
Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.08	1.08		1.08	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All	0.56		0.63		0.76	%
EVM Phys. Channel	0.58		0.69		0.80	%
EVM Phys. Signal	0.47		0.55		0.71	%
Frequency Error	- 1.32		0.47		2.43	Hz
Sampling Error	- 0.01		0.00		0.01	ppm
IQ Offset	- 84.89		- 75.60		- 70.88	dB
IQ Gain Imbalance	- 0.00		0.02		0.03	dB
IQ Quadrature Error	- 0.09		- 0.05		- 0.00	°
RSTP	5.75		5.75		5.75	dBm
OSTP	14.97		16.28		17.24	dBm
Power	24.53		24.77		25.83	dBm
Crest Factor			16.36			dB

Running ...   06.12.2017 12:04:30

Date: 6.DEC.2017 12:04:31

Port 1 -2120MHz-E-TM3.1

Spectrum
LTE X

Freq 2.12 GHz

Mode DL FDD, 100 RB (20 MHz), Normal (CP)

TRG : FREE RUN

Meas Setup 1 TX x 1 RX

Sync State OK

Frame 1 Of 1 (1)

Ext. Att 42 dB

Capture Time 20.1 ms

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.61	1.61		1.61	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns

Results for Selection

Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	Unit
EVM All	1.39	1.62		1.93	%
EVM Phys. Channel	1.39	1.61		1.95	%
EVM Phys. Signal	1.15	1.67		2.48	%
Frequency Error	- 1.24	0.38		1.41	Hz
Sampling Error	- 0.09	- 0.01		0.06	ppm
IQ Offset	- 79.68	- 76.72		- 74.45	dB
IQ Gain Imbalance	- 0.00	0.00		0.01	dB
IQ Quadrature Error	- 0.05	- 0.01		0.06	°
RSTP	5.69	5.70		5.71	dBm
OSTP	36.41	36.52		36.63	dBm
Power	36.44	36.48		36.52	dBm
Crest Factor		8.72			dB

Running ... ■■■■■■■■■

06.12.2017
12:03:57

Date: 6.DEC.2017 12:03:57

Port 1 -2132.5MHz-E-TM2

Spectrum
LTE X

Freq 2.1325 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 100 RB (20 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.24	1.24		1.24	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All	0.68	0.77			0.85	%
EVM Phys. Channel	0.71	0.82			0.93	%
EVM Phys. Signal	0.63	0.72			0.81	%
Frequency Error	- 1.20	0.73			2.85	Hz
Sampling Error	- 0.03	- 0.01			0.00	ppm
IQ Offset	- 77.29	- 74.56			- 70.74	dB
IQ Gain Imbalance	- 0.01	- 0.00			0.00	dB
IQ Quadrature Error	- 0.01	0.02			0.06	°
RSTP	6.11	6.11			6.12	dBm
OSTP	15.29	16.59			17.54	dBm
Power	24.89	25.13			26.20	dBm
Crest Factor		16.82				dB

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Port 1 -2132.5MHz-E-TM3.2

Spectrum
LTE X

Freq 2.1325 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 100 RB (20 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	1.29	1.29		1.29	18.50	%
EVM PDSCH 16QAM	1.84	1.84		1.84	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All	1.42	1.64			2.00	%
EVM Phys. Channel	1.43	1.65			2.03	%
EVM Phys. Signal	1.03	1.49			2.16	%
Frequency Error	- 1.64	- 0.35			0.44	Hz
Sampling Error	- 0.04	0.01			0.04	ppm
IQ Offset	- 87.90	- 79.56			- 76.92	dB
IQ Gain Imbalance	- 0.00	0.00			0.01	dB
IQ Quadrature Error	- 0.04	0.00			0.04	°
RSTP	5.68	5.70			5.70	dBm
OSTP	36.17	36.20			36.24	dBm
Power	36.22	36.22			36.24	dBm
Crest Factor		9.01				dB

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Date: 6.DEC.2017 11:58:42

Port 1 -2132.5MHz-E-TM3.3

Spectrum
LTE X
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Freq 2.1325 GHz
Meas Setup 1 TX x 1 RX
Ext. Att 42 dB

Mode DL FDD, 100 RB (20 MHz), Normal (CP)
Sync State OK
Capture Time 20.1 ms

TRG : FREE RUN
Frame 1 Of 1 (1)

Result Summary

Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK	2.37	2.37		2.37	18.50	%
EVM PDSCH 16QAM	1.28	1.28		1.28	13.50	%
EVM PDSCH 64QAM					9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All	1.65	1.89			2.22	%
EVM Phys. Channel	1.67	1.91			2.25	%
EVM Phys. Signal	1.15	1.54			2.24	%
Frequency Error	- 1.64	- 0.02			1.60	Hz
Sampling Error	- 0.03	0.02			0.08	ppm
IQ Offset	- 94.39	- 79.73			- 74.74	dB
IQ Gain Imbalance	- 0.00	0.00			0.01	dB
IQ Quadrature Error	- 0.04	0.00			0.03	°
RSTP	5.68	5.69			5.69	dBm
OSTP	36.00	36.13			36.30	dBm
Power	36.08	36.14			36.18	dBm
Crest Factor		9.07				dB

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Port 1 -2145MHz-E-TM2

Spectrum LTE (X) 

Freq 2.145 GHz **Meas Setup** 1 TX x 1 RX **Ext. Att** 42 dB
Mode DL FDD, 100 RB (20 MHz), Normal (CP) **Sync State** OK **Capture Time** 20.1 ms
TRG : FREE RUN **Frame** 1 Of 1 (1)

Result Summary						
Frame Result 1/1	Min	Mean	Limit	Max	Limit	Unit
EVM PDSCH QPSK					18.50	%
EVM PDSCH 16QAM					13.50	%
EVM PDSCH 64QAM	1.10	1.10		1.10	9.00	%
EVM PDSCH 256QAM						%
Time Alignment Error 2,1						ns
Time Alignment Error 3,1						ns
Time Alignment Error 4,1						ns
Results for Selection	Subframe(s)	ALL	Selection	Antenna 1	Frame Result 1/1	
EVM All	0.61		0.67		0.79	%
EVM Phys. Channel	0.62		0.69		0.85	%
EVM Phys. Signal	0.57		0.64		0.71	%
Frequency Error	0.06		1.41		2.60	Hz
Sampling Error	- 0.04		- 0.00		0.03	ppm
IQ Offset	- 87.28		- 75.07		- 71.79	dB
IQ Gain Imbalance	- 0.01		- 0.01		- 0.00	dB
IQ Quadrature Error	0.02		0.06		0.10	°
RSTP	5.77		5.77		5.77	dBm
OSTP	15.07		16.25		17.17	dBm
Power	24.54		24.79		25.86	dBm
Crest Factor			16.21			dB

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