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Report On

FCC and IC Testing of the
Ericsson LTE RBS 6402 B2 (1900 MHz) Base Station in accordance
with FCC CFR 47 Part 2 and 24 and Industry Canada RSS-133 and
RSS-GEN

COMMERCIAL-IN-CONFIDENCE

FCC ID: TA8AKRD901060

IC: 287AB-AS901060

PREPARED BY

Nic Forsyth
Senior Engineer

APPROVED BY

Steve Scarfe
Authorised Signatory

DATED

07 April 2015

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Product Service

SECTION 1

REPORT INFORMATION

1.1 REPORT DETAILS

Manufacturer	Ericsson
Address	Box 3 Stockholm 17281 Sweden
Product Name	RBS 6402
Product Number	KRD 901 060/2X
IC Model Name	See table below
Serial Number(s)	C829217441 , C829278261
Software Version	RASW_20150213
Hardware Version	R1B
Test Specification/Issue/Date	FCC CFR 47 Part 2: 2014 FCC CFR 47 Part 24: 2014 Industry Canada RSS-133: Issue 6: 2013 Industry Canada RSS-GEN Issue 4: 2014
Start of Test	24 February 2015
Finish of Test	16 March 2015
Name of Engineer(s)	N Forsyth
Related Document(s)	ANSI C63.4: 2009

ENGINEERING STATEMENT

The measurements shown in this report were made in accordance with the procedures described on test pages. All reported testing was carried out on a sample equipment to demonstrate limited compliance with FCC CFR Part 2, FCC CFR Part 24, Industry Canada RSS-133 and Industry Canada RSS-GEN. The sample tested was found to comply with the requirements defined in the applied rules.

Test Engineer(s);



Nic Forsyth



Guangdi Dong

Function Designation	Product No.	FCC ID:	IC:	IC Model No:
RBS 6402;B2/25 B4 B7	KRD 901 060/1	TA8AKRD901060	287AB-AS901060	AS9010601
RBS 6402;2x B2/25 B4 B7	KRD 901 060/2	TA8AKRD901060	287AB-AS901060	AS9010602
RBS 6402;B2/25	KRD 901 060/7	TA8AKRD901060	287AB-AS901060	AS9010607

1.2 BRIEF SUMMARY OF RESULTS

A brief summary of results for each configuration, in accordance with FCC CFR 47 Part 2, 24 and Industry Canada RSS-133 and RSS-GEN is shown below.

Section	Spec Clause				Test Description	Result
	Part 2	Part 24	RSS 133	RSS GEN		
2.1	2.1046	24.232 (a)	6.4	-	Maximum Peak Output Power – Conducted	Pass
2.2	2.1049	24.238 (b)	-	6.6	Occupied Bandwidth	Pass
2.3	2.1051	24.238 (b)	6.5	-	Spurious Emissions at Band Edge	Pass
2.4	2.1051	24.238 (a)	6.5	-	Conducted Spurious Emissions	Pass
2.5	2.1055	24.235	6.3	-	Frequency Stability Under Temperature Variations	Pass
2.6	2.1055	24.235	6.3	-	Frequency Stability Under Voltage Variations	Pass
-	2.1053	24.238	-	6.13	Transmitter Radiated Emissions	Pass*

* See test report from Intertek, Sweden Report Reference Number 1507865STO-001

1.3 CONFIGURATION DESCRIPTION

The RBS 6402 supports LTE single carrier only and is capable of 4 port MIMO operation.

In addition, the EUT supports Test Models E-TM1.1, E-TM3.2 and E-TM3.1 as defined in 3GPP TS 36.141. Test Model E-TM1.1 was used to represent QPSK modulation only, Test Model E-TM3.2 was used to represent 16QAM modulation, and Test Model E-TM3.1 was used to represent 64QAM modulation.

For TX test cases: Maximum Conducted Output Power, Spurious Emissions at Antenna Terminals (± 1 MHz) and Conducted Spurious Emissions, measurements were performed on RF Port A using a test limit accounting for MIMO operation with 4 ports. All RF ports were tested for RF Carrier Power and results recorded using the Measure and Sum approach to account for MIMO operation. All testing was performed with the EUT transmitting at maximum RF power unless otherwise stated.

Channel Configurations

Configuration	RAT	Number of Carriers	Bandwidth	Carrier Frequency Configuration (MHz)		
				Bottom	Middle	Top
A	LTE	1	5 MHz	1932.5	1960.0	1987.5
			10 MHz	1935.0	1960.0	1985.0
			15 MHz	1937.5	1960.0	1982.5
			20 MHz	1940.0	1960.0	1980.0

1.4 DECLARATION OF BUILD STATUS

Manufacturer	Ericsson AB		
Model number(s)	RBS 6402		
Identification/Type(s)	KRD 901 060/*		
Cabinet type(s)	Indoor		
Cabinet identification(s)	N/A		
Number of sectors	1		
Number of carriers	1		
Base station class	Local Area		
Maximum rated output power(s)	4 x 250mW		
Duplex Mode	FDD		
Frequency Band	1900 MHz Band 2		
	1900 MHz Band 25		
	2100 MHz Band 4		
	2600 MHz Band 7		
Modulation type(s)	QPSK		
	16 QAM		
	64 QAM		
Channel Bandwidth(s)	LTE: 5MHz, 10MHz, 15MHz, 20MHz		
Transmit diversity	Yes ¹		
Receive diversity	Yes ²		
MIMO	LTE 4x4 MIMO		
ITU designation or class of emission	LTE: 4M48G7D, 8M93G7D, 13M4G7D, 17M9G7D, 4M48W7D, 8M93W7D, 13M4W7D, 17M9W7D		
Environment temperature range(s)	Minimum 0 C		Maximum +50 C (+40 C without fan)
AC Power source	Yes		
	Voltage Range(s)		
	Minimum VAC 100	Nominal VAC 230	Maximum VAC 240
DC Power source	Yes (PoE)		
	Voltage Range(s)		
	Minimum VDC 37	Nominal VDC 48	Maximum VDC 58
Options	Type	Model	

(The * in the model number KRD 901 060* denotes 1, 2, 7, 8, 9 depending on different HW and SW configurations)

¹ Each transmitter path is declared to be equivalent.

² Each receiver path is declared to be equivalent.

I hereby declare that I am entitled to sign on behalf of the manufacturer and that the information supplied is correct and complete.

Signature: 

Name : Mika Savilakso

Position held : Senior Developer, Regulatory Approvals

Date : 30.03.2015

1.5 PRODUCT INFORMATION

1.5.1 Technical Description

The Equipment Under Test (EUT) is shown in the photograph below. A full technical description can be found in the Manufacturer's documentation.

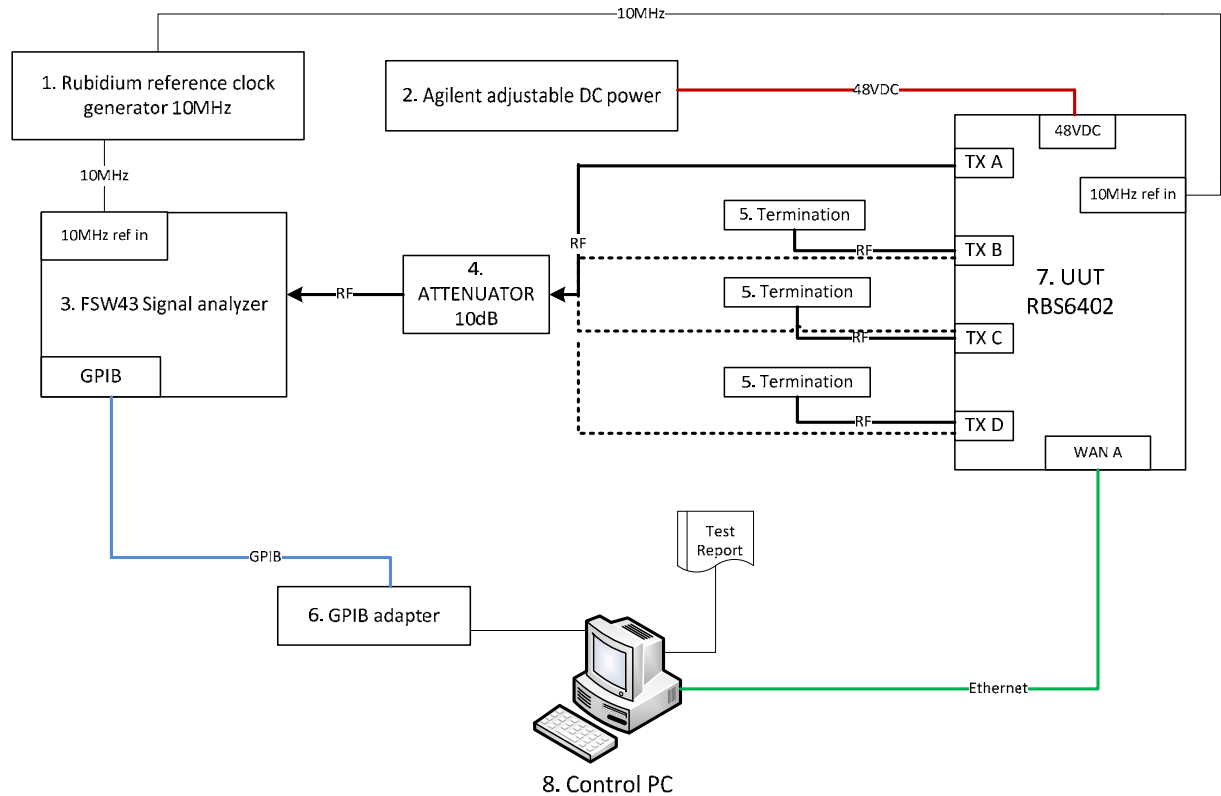


Equipment Under Test

1.6 TEST SETUP

Test Setup, Conducted Measurement:

TS#7 (Manual) Test system diagram



See Section 3 for a list of the test equipment used in the test.

Test Setup, Radiated Measurement:

See test report from Intertek, Sweden, Report Reference Number 1507865STO-001

1.7 TEST CONDITIONS

For all tests the EUT was set up in accordance with the relevant test standard and to represent typical operating conditions. Tests were applied with the EUT situated in a shielded enclosure, test laboratories or a chamber as appropriate.

The EUT was powered from a +48V DC supply.

1.8 DEVIATION FROM THE STANDARD

No deviations from the applicable test standards or test plan were made during testing.

1.9 MODIFICATION RECORD

No modifications were made to the EUT during testing.

1.10 ALTERNATIVE TEST SITE

Under our group UKAS Accreditation, TÜV SÜD Product Service conducted the following tests at Ericsson in Oulu, Finland.



Product Service

SECTION 2

TEST DETAILS

2.1 MAXIMUM PEAK OUTPUT POWER AND PEAK TO AVERAGE RATIO - CONDUCTED

2.1.1 Specification Reference

FCC CFR 47 Part 2, Clause 2.1046
FCC CFR 47 Part 24, Clause 24.232(a)
Industry Canada RSS-133, Clause 6.4

2.1.2 Date of Test and Modification State

23, 24, 25 and 26 February 2015 - Modification State 0

2.1.3 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.1.4 Environmental Conditions

Ambient Temperature	24.3 - 25.2°C
Relative Humidity	17.4 - 20.2%

2.1.5 Test Method

Using a spectrum analyser and attenuator, the output power of the EUT was measured at the antenna terminal. The path loss between the EUT and the spectrum analyser was measured and recorded for the test band. The measured path losses were entered as a transducer factor in the Spectrum Analyser

The EUT was configured to transmit on maximum power on the configurations defined in the tables below. Since the EUT transmits on four antennas simultaneously in the same frequency range for MIMO devices, i.e., TX MIMO mode, using the Measure-and-Sum approach, the output power at all antennas were tested, and the total output power were then summed mathematically in linear power units according to FCC KDB 662911 D01.

A peak to average ratio measurement is performed at the conducted ports of the EUT for single carrier for Multiple RAT mode. The spectrum analyzers Complementary Cumulative Distribution Function (CCDF) was used and 0.1% probability value recorded.

The RMS Power and Peak to Average Ratio was measured and recorded with the results being compared with the limits. All measurements were made in accordance with FCC KDB 971168 D01.

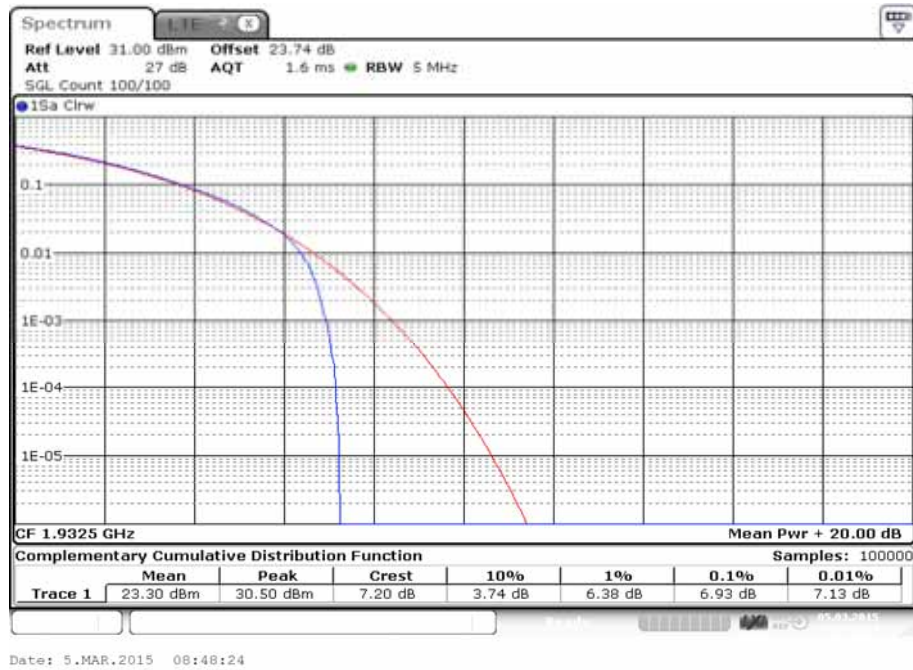
2.1.6 Test Results

Configuration A

Maximum Output Power 24 dBm

Modulation	Carrier Bandwidth (MHz)	Antenna	Output Power / Peak to Average Ratio (PAR)					
			Channel Position B					
			PAR (dB)	Average Power (dB)	Antenna Gain (dBi)	Average EIRP (dBm)	Average EIRP (dBm/MHz)	Average EIRP (W/MHz)
QPSK	5.0 MHz	A	7.20	24.18	4.00	28.18	21.19	0.13
		B	7.28	24.29	4.00	28.29	21.30	0.13
		C	7.35	24.02	4.00	28.02	21.03	0.13
		D	7.30	24.05	4.00	28.05	21.06	0.13
Total			-	30.16	10.02	40.18	33.19	2.08
QPSK	10.0 MHz	A	7.40	24.12	4.00	28.12	18.12	0.06
		B	7.36	24.25	4.00	28.25	18.25	0.07
		C	7.26	24.12	4.00	28.12	18.12	0.06
		D	7.29	24.25	4.00	28.25	18.25	0.07
Total			-	30.21	10.02	40.23	30.23	1.05
QPSK	15.0 MHz	A	7.30	24.00	4.00	28.00	16.24	0.04
		B	7.33	24.13	4.00	28.13	16.37	0.04
		C	7.35	23.88	4.00	27.88	16.12	0.04
		D	7.34	23.76	4.00	27.76	16.00	0.04
Total			-	29.97	10.02	39.99	28.22	0.66
QPSK	20.0 MHz	A	7.52	23.98	4.00	27.98	14.97	0.03
		B	7.34	23.97	4.00	27.97	14.96	0.03
		C	7.48	23.81	4.00	27.81	14.80	0.03
		D	7.50	23.89	4.00	27.89	14.88	0.03
Total			-	29.93	10.02	39.95	26.94	0.49

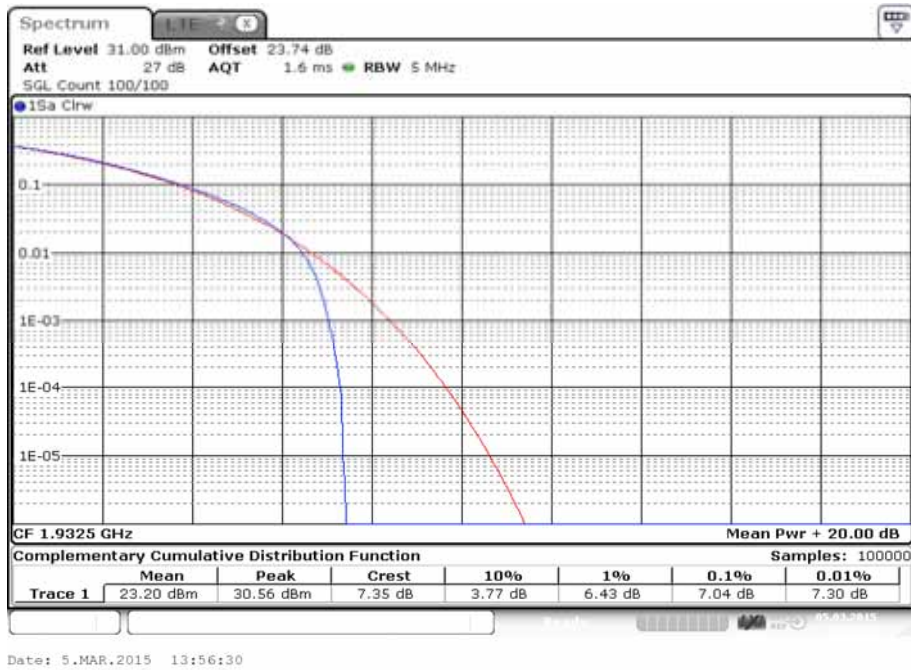
Modulation QPSK - Bandwidth 5.0 MHz - Antenna A - Channel Position B



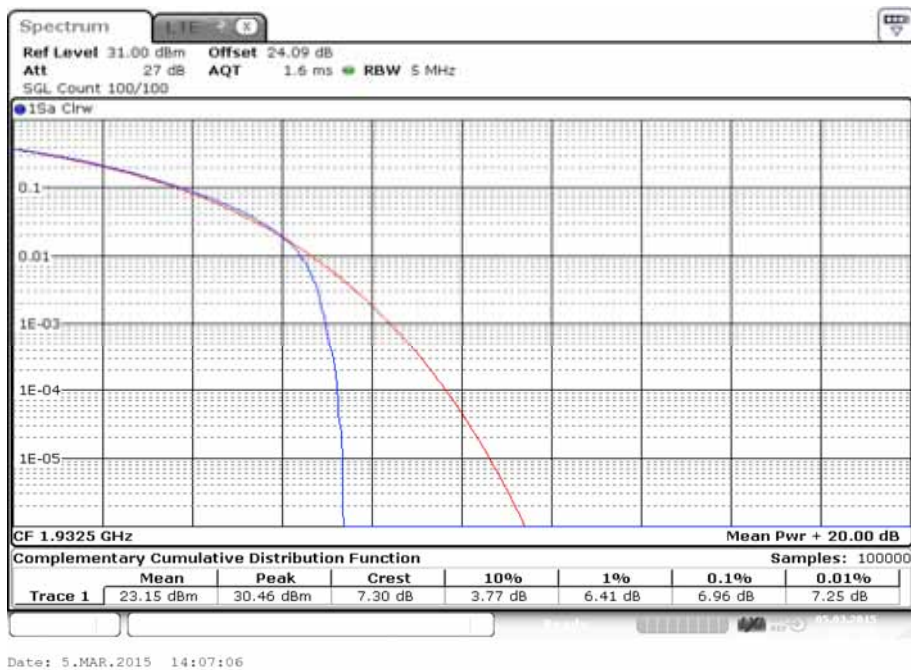
Modulation QPSK - Bandwidth 5.0 MHz - Antenna B - Channel Position B



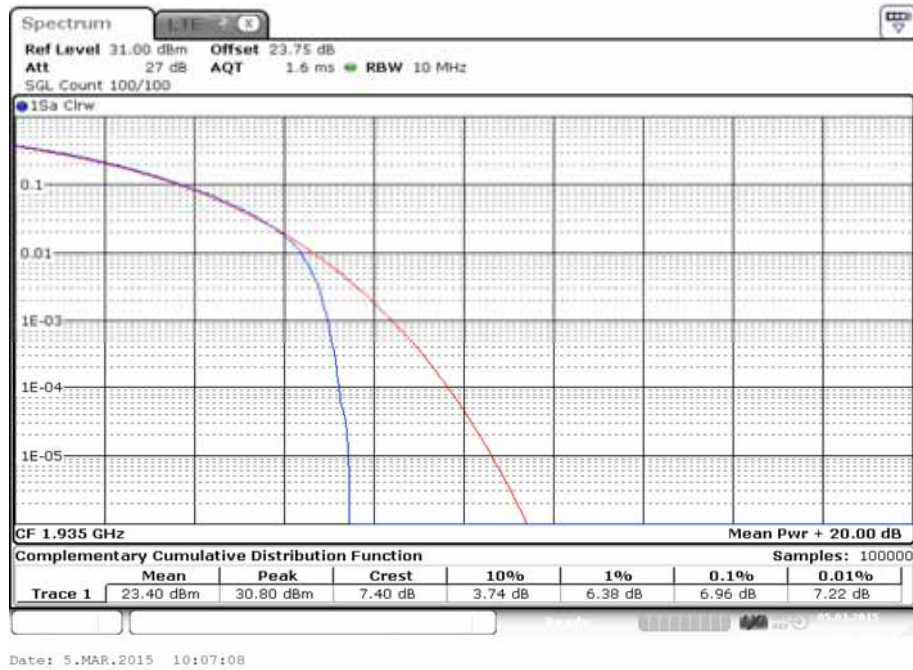
Modulation QPSK - Bandwidth 5.0 MHz - Antenna C - Channel Position B



Modulation QPSK - Bandwidth 5.0 MHz - Antenna D - Channel Position B



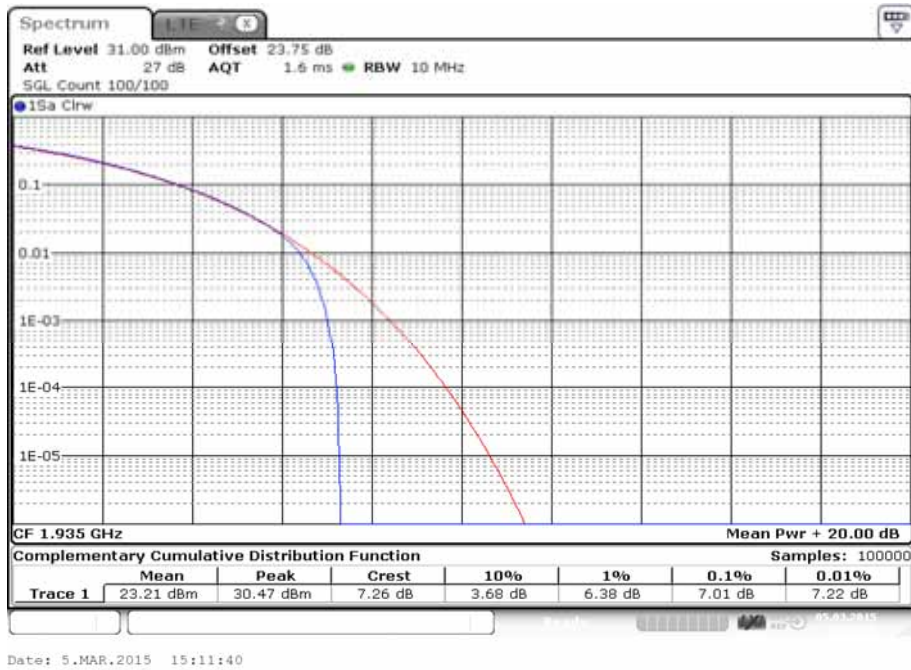
Modulation QPSK - Bandwidth 10.0 MHz - Antenna A - Channel Position B



Modulation QPSK - Bandwidth 10.0 MHz - Antenna B - Channel Position B



Modulation QPSK - Bandwidth 10.0 MHz - Antenna C - Channel Position B



Modulation QPSK - Bandwidth 10.0 MHz - Antenna D - Channel Position B



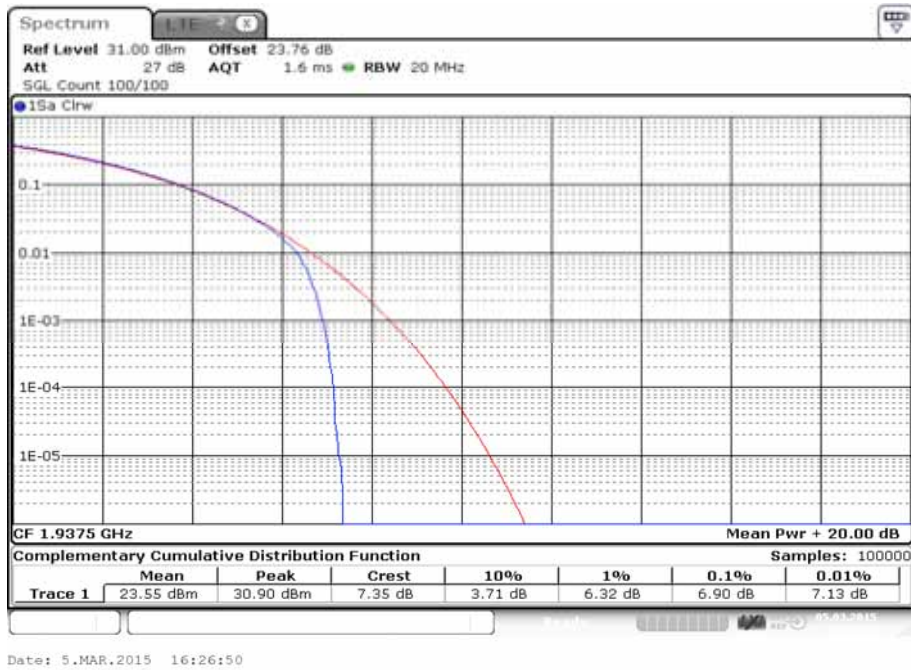
Modulation QPSK - Bandwidth 15.0 MHz - Antenna A - Channel Position B



Modulation QPSK - Bandwidth 15.0 MHz - Antenna B - Channel Position B



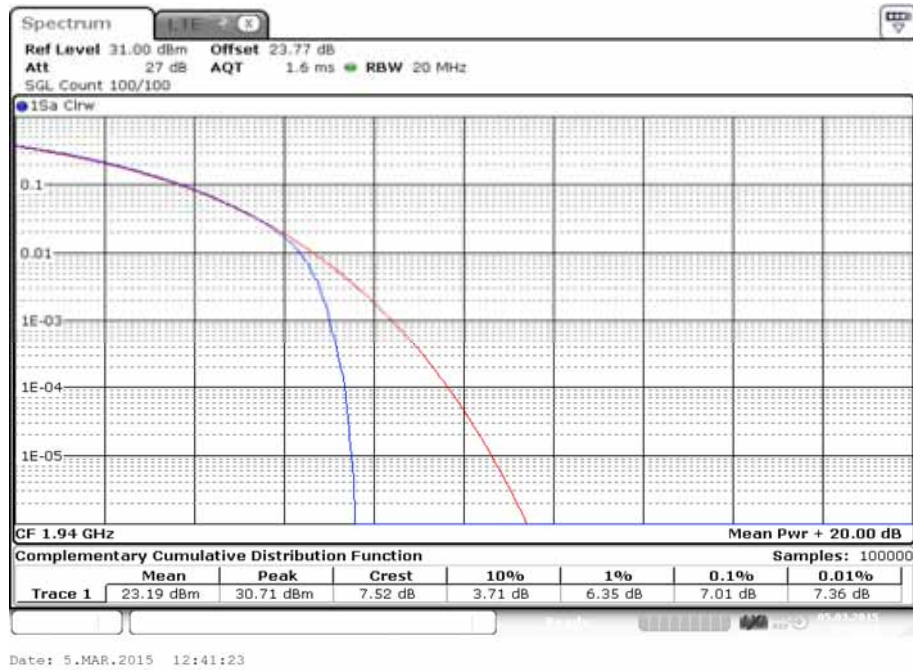
Modulation QPSK - Bandwidth 15.0 MHz - Antenna C - Channel Position B



Modulation QPSK - Bandwidth 15.0 MHz - Antenna D - Channel Position B



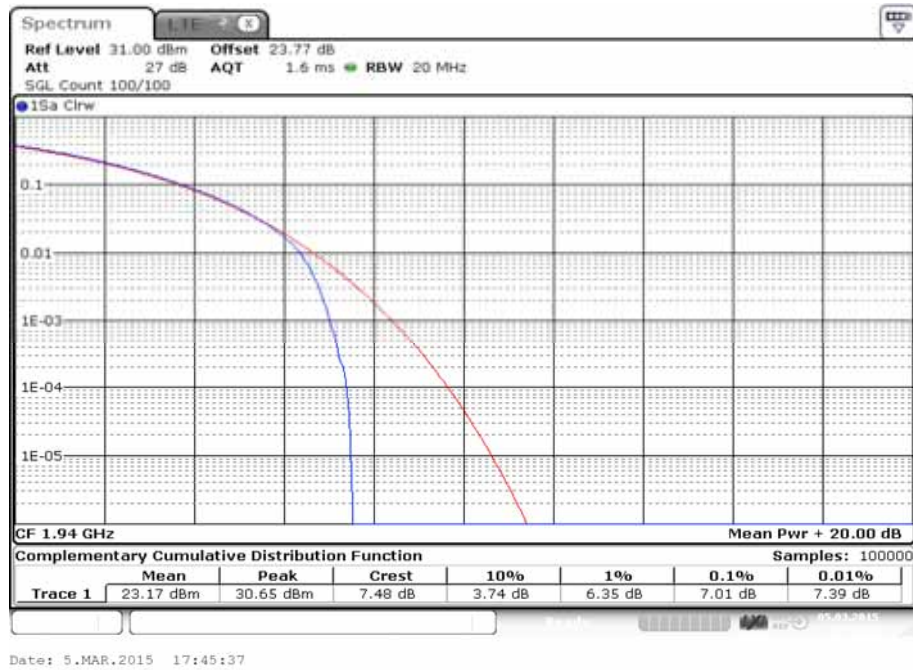
Modulation QPSK - Bandwidth 20.0 MHz - Antenna A - Channel Position B



Modulation QPSK - Bandwidth 20.0 MHz - Antenna B - Channel Position B



Modulation QPSK - Bandwidth 20.0 MHz - Antenna C - Channel Position B



Modulation QPSK - Bandwidth 20.0 MHz - Antenna D - Channel Position B

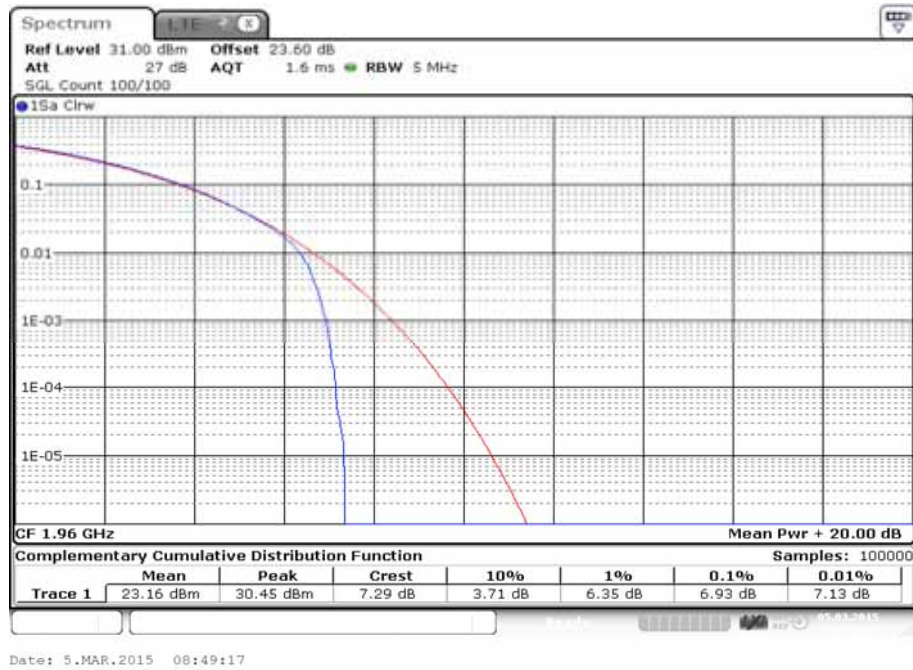


Configuration A

Maximum Output Power 24 dBm

Modulation	Carrier Bandwidth (MHz)	Antenna	Output Power / Peak to Average Ratio (PAR)					
			Channel Position M					
			PAR (dB)	Average Power (dB)	Antenna Gain (dBi)	Average EIRP (dBm)	Average EIRP (dBm/MHz)	Average EIRP (W/MHz)
QPSK	5.0 MHz	A	7.29	23.83	4.00	27.83	20.84	0.12
		B	7.30	23.96	4.00	27.96	20.97	0.13
		C	7.36	23.79	4.00	27.79	20.80	0.12
		D	7.29	23.86	4.00	27.86	20.87	0.12
Total			-	29.88	10.02	39.90	32.91	1.96
QPSK	10.0 MHz	A	7.23	24.02	4.00	28.02	18.02	0.06
		B	7.24	24.09	4.00	28.09	18.09	0.06
		C	7.51	24.07	4.00	28.07	18.07	0.06
		D	7.37	24.07	4.00	28.07	18.07	0.06
Total			-	30.08	10.02	40.10	30.10	1.02
QPSK	15.0 MHz	A	7.04	23.99	4.00	27.99	16.23	0.04
		B	7.10	24.15	4.00	28.15	16.39	0.04
		C	7.08	23.99	4.00	27.99	16.23	0.04
		D	7.09	23.88	4.00	27.88	16.12	0.04
Total			-	30.02	10.02	40.04	28.28	0.67
QPSK	20.0 MHz	A	7.43	24.02	4.00	28.02	15.01	0.03
		B	7.47	24.08	4.00	28.08	15.07	0.03
		C	7.22	23.98	4.00	27.98	14.97	0.03
		D	7.42	24.02	4.00	28.02	15.01	0.03
Total			-	30.05	10.02	40.07	27.06	0.51

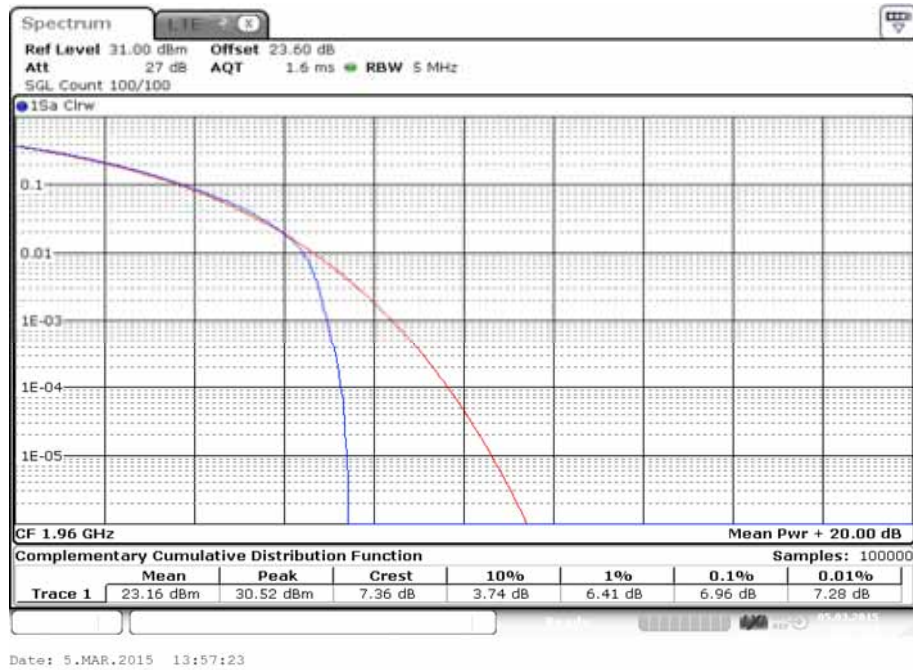
Modulation QPSK - Bandwidth 5.0 MHz - Antenna A - Channel Position M



Modulation QPSK - Bandwidth 5.0 MHz - Antenna B - Channel Position M



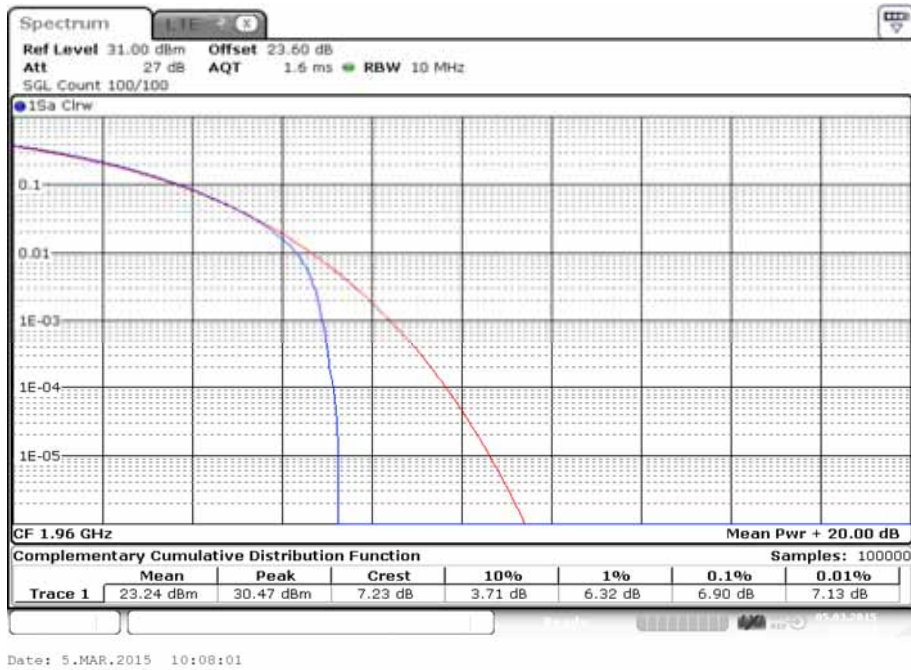
Modulation QPSK - Bandwidth 5.0 MHz - Antenna C - Channel Position M



Modulation QPSK - Bandwidth 5.0 MHz - Antenna D - Channel Position M



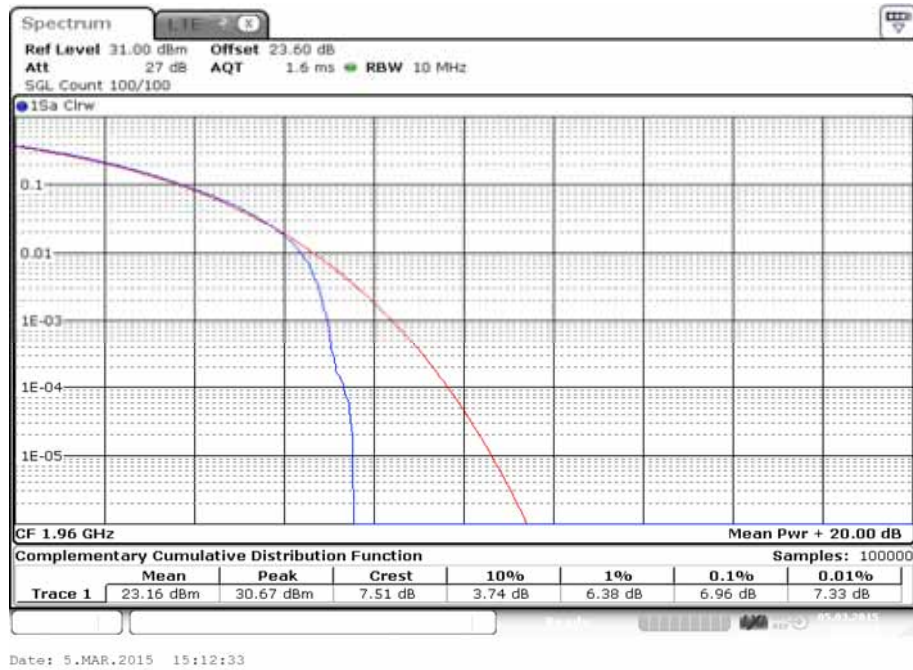
Modulation QPSK - Bandwidth 10.0 MHz - Antenna A - Channel Position M



Modulation QPSK - Bandwidth 10.0 MHz - Antenna B - Channel Position M



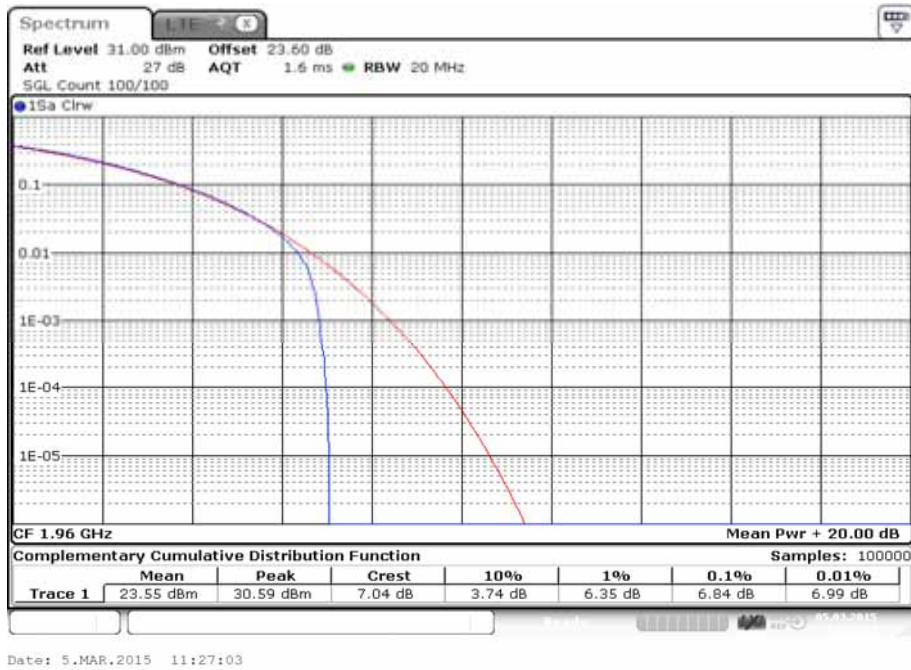
Modulation QPSK - Bandwidth 10.0 MHz - Antenna C - Channel Position M



Modulation QPSK - Bandwidth 10.0 MHz - Antenna D - Channel Position M



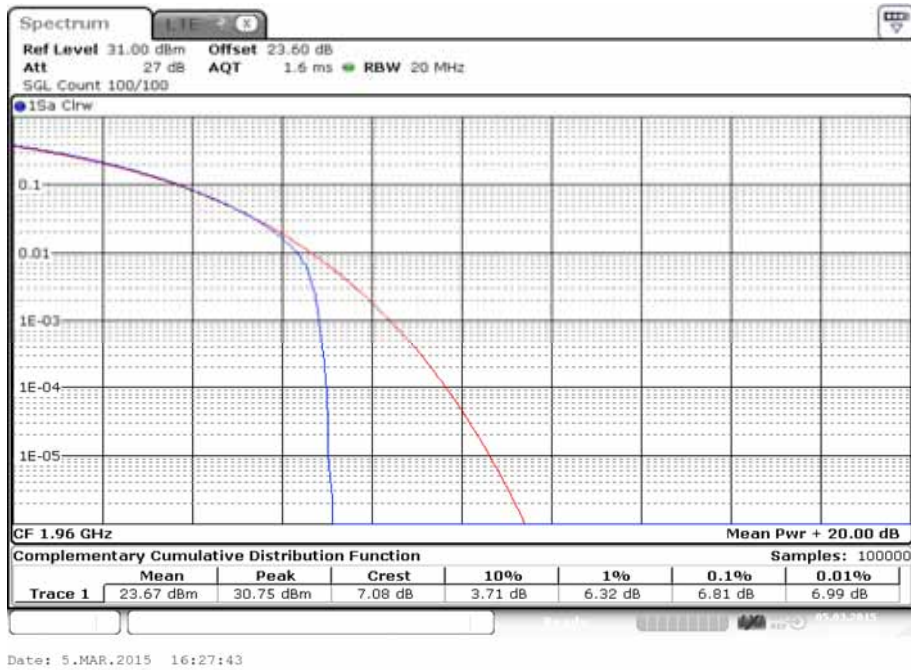
Modulation QPSK - Bandwidth 15.0 MHz - Antenna A - Channel Position M



Modulation QPSK - Bandwidth 15.0 MHz - Antenna B - Channel Position M



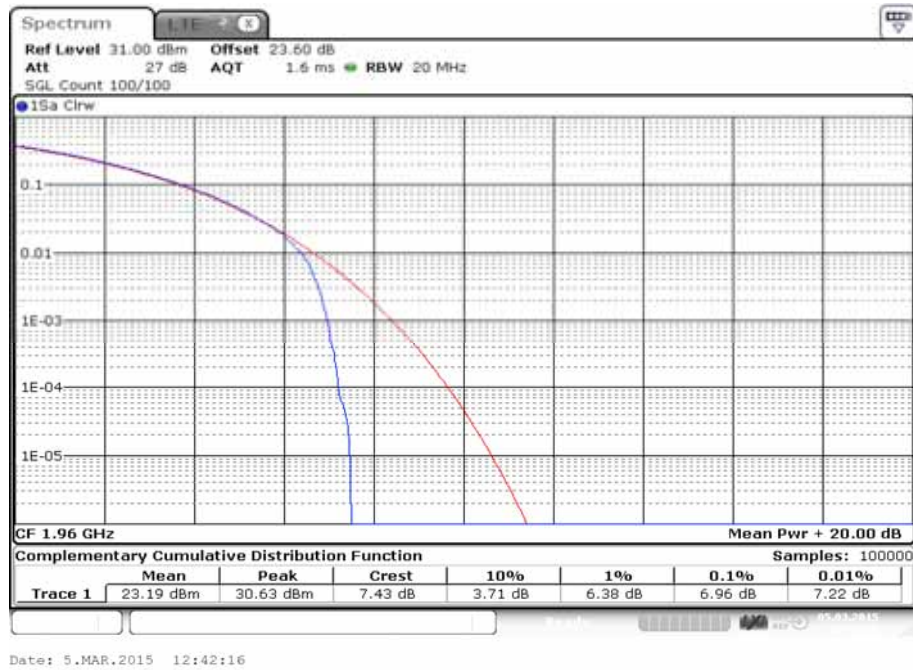
Modulation QPSK - Bandwidth 15.0 MHz - Antenna C - Channel Position M



Modulation QPSK - Bandwidth 15.0 MHz - Antenna D - Channel Position M



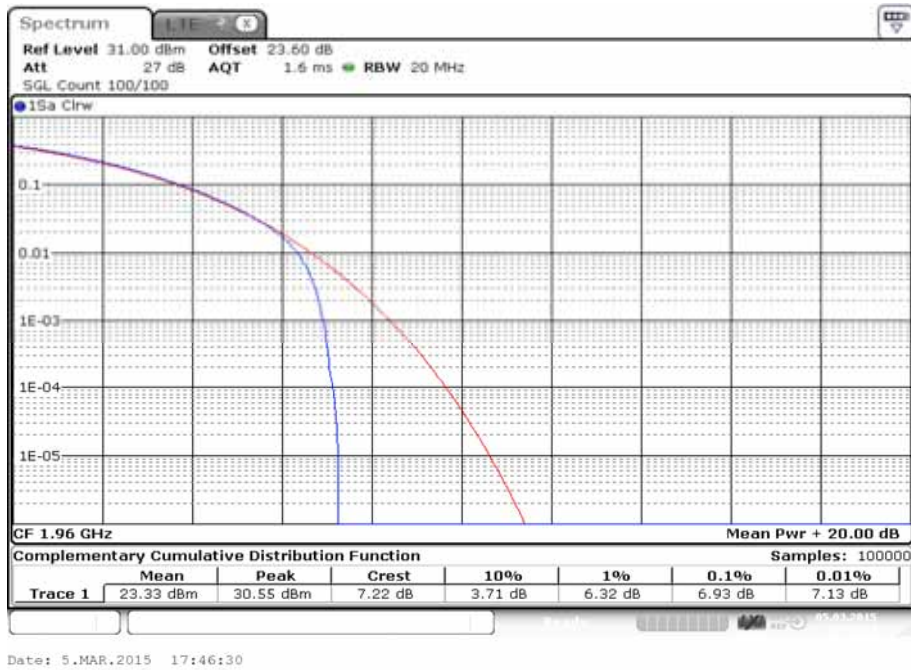
Modulation QPSK - Bandwidth 20.0 MHz - Antenna A - Channel Position M



Modulation QPSK - Bandwidth 20.0 MHz - Antenna B - Channel Position M



Modulation QPSK - Bandwidth 20.0 MHz - Antenna C - Channel Position M



Modulation QPSK - Bandwidth 20.0 MHz - Antenna D - Channel Position M

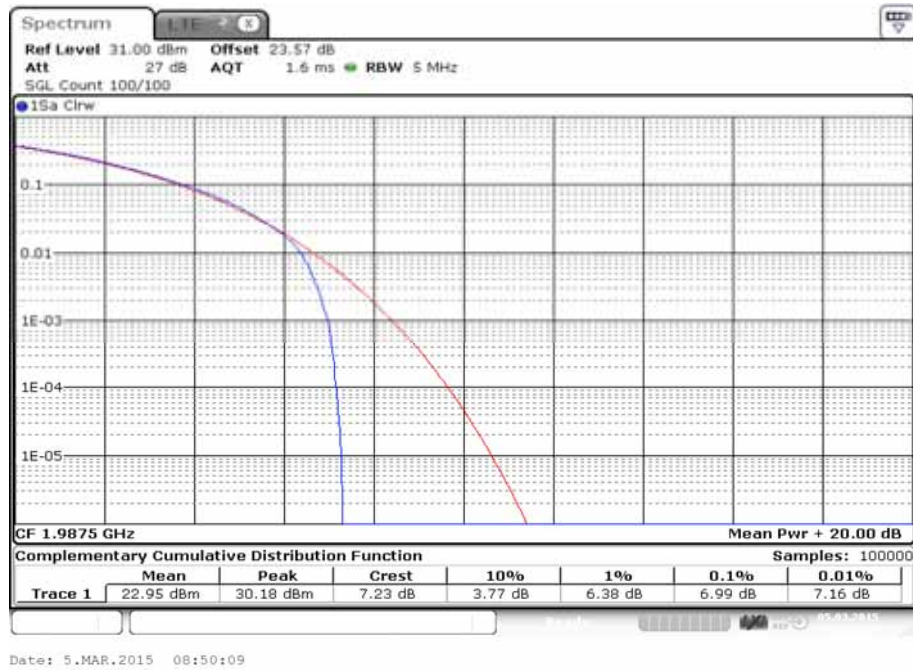


Configuration A

Maximum Output Power 24 dBm

Modulation	Carrier Bandwidth (MHz)	Antenna	Output Power / Peak to Average Ratio (PAR)					
			Channel Position T					
			PAR (dB)	Average Power (dB)	Antenna Gain (dBi)	Average EIRP (dBm)	Average EIRP (dBm/MHz)	Average EIRP (W/MHz)
QPSK	5.0 MHz	A	7.23	23.67	4.00	27.67	20.68	0.12
		B	7.22	23.81	4.00	27.81	20.82	0.12
		C	7.28	23.69	4.00	27.69	20.70	0.12
		D	7.18	23.68	4.00	27.68	20.69	0.12
Total			-	29.73	10.02	39.75	32.76	1.89
QPSK	10.0 MHz	A	7.38	23.89	4.00	27.89	17.89	0.06
		B	7.35	23.90	4.00	27.90	17.90	0.06
		C	7.42	23.91	4.00	27.91	17.91	0.06
		D	7.26	23.82	4.00	27.82	17.82	0.06
Total			-	29.90	10.02	39.92	29.92	0.98
QPSK	15.0 MHz	A	7.18	23.82	4.00	27.82	16.06	0.04
		B	7.14	23.83	4.00	27.83	16.07	0.04
		C	7.16	23.77	4.00	27.77	16.01	0.04
		D	7.15	23.55	4.00	27.55	15.79	0.04
Total			-	29.76	10.02	39.79	28.02	0.63
QPSK	20.0 MHz	A	7.41	23.87	4.00	27.87	14.86	0.03
		B	7.67	23.87	4.00	27.87	14.86	0.03
		C	7.56	23.80	4.00	27.80	14.79	0.03
		D	7.62	23.72	4.00	27.72	14.71	0.03
Total			-	29.84	10.02	39.86	26.85	0.48

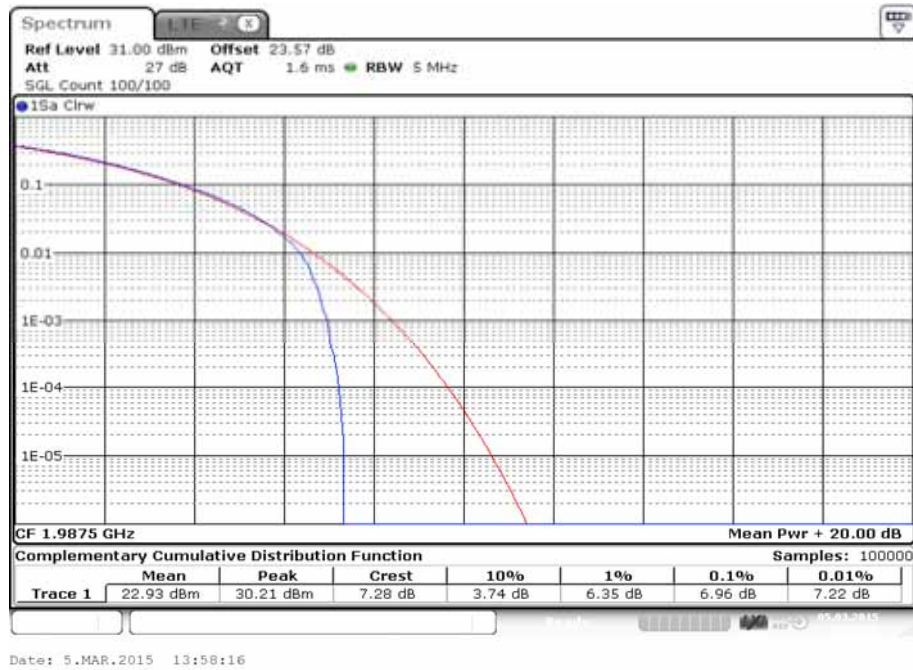
Modulation QPSK - Bandwidth 5.0 MHz - Antenna A - Channel Position T



Modulation QPSK - Bandwidth 5.0 MHz - Antenna B - Channel Position T



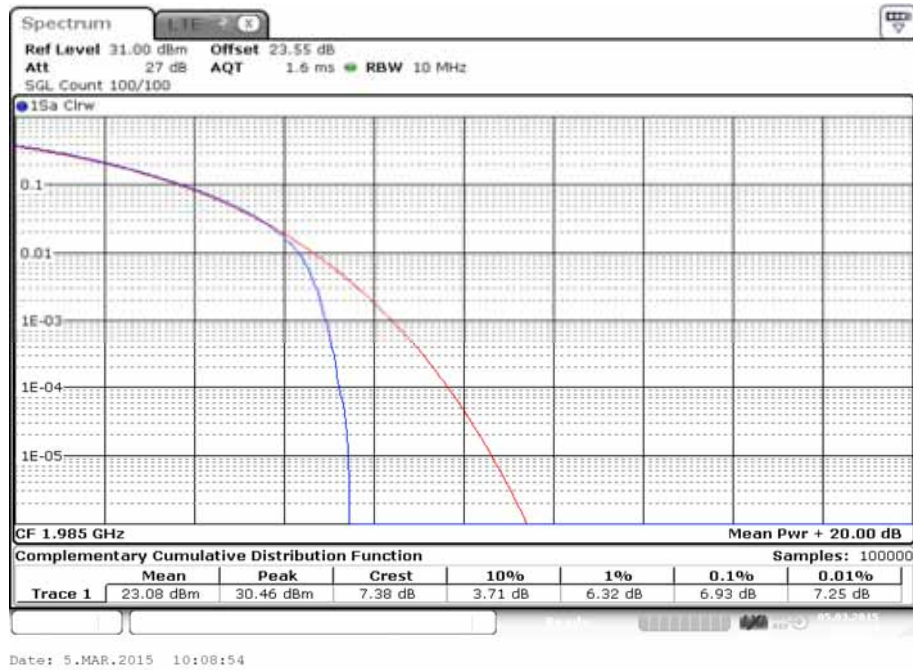
Modulation QPSK - Bandwidth 5.0 MHz - Antenna C - Channel Position T



Modulation QPSK - Bandwidth 5.0 MHz - Antenna D - Channel Position T



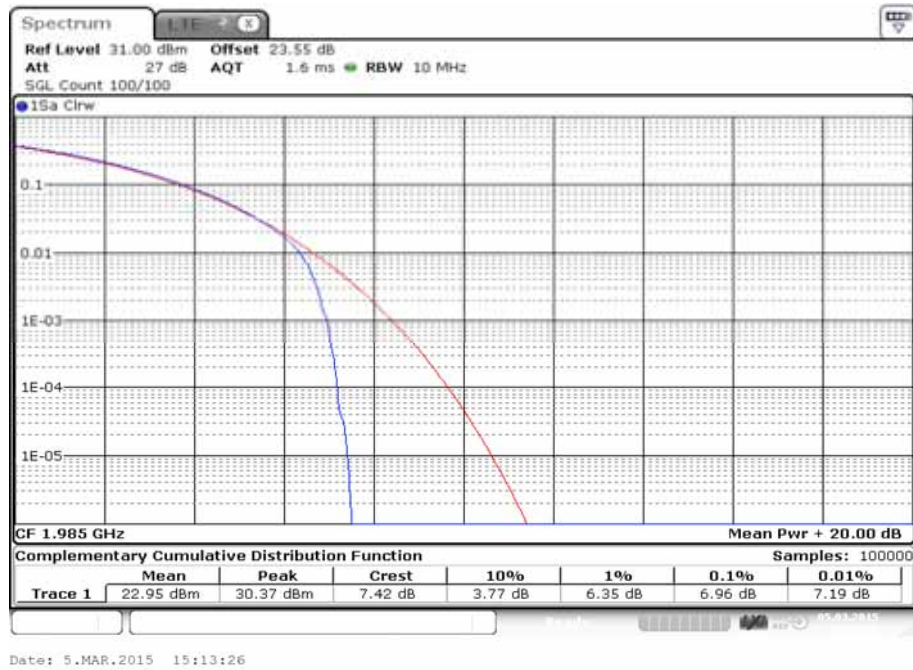
Modulation QPSK - Bandwidth 10.0 MHz - Antenna A - Channel Position T



Modulation QPSK - Bandwidth 10.0 MHz - Antenna B - Channel Position T



Modulation QPSK - Bandwidth 10.0 MHz - Antenna C - Channel Position T



Modulation QPSK - Bandwidth 10.0 MHz - Antenna D - Channel Position T



Modulation QPSK - Bandwidth 15.0 MHz - Antenna A - Channel Position T



Modulation QPSK - Bandwidth 15.0 MHz - Antenna B - Channel Position T



Modulation QPSK - Bandwidth 15.0 MHz - Antenna C - Channel Position T



Modulation QPSK - Bandwidth 15.0 MHz - Antenna D - Channel Position T



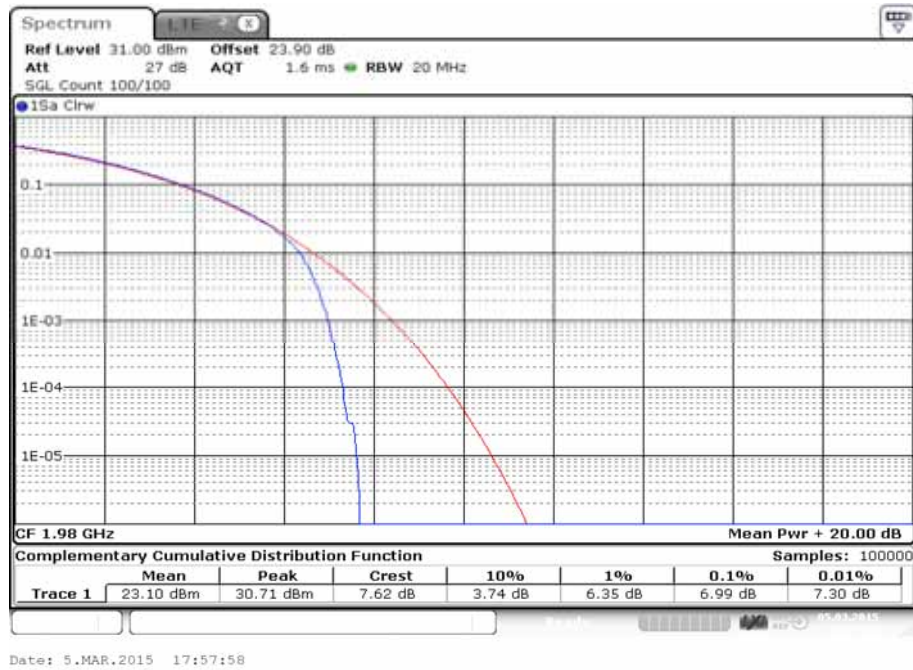
Modulation QPSK - Bandwidth 20.0 MHz - Antenna A - Channel Position T



Modulation QPSK - Bandwidth 20.0 MHz - Antenna B - Channel Position T



Modulation QPSK - Bandwidth 20.0 MHz - Antenna C - Channel Position T



Modulation QPSK - Bandwidth 20.0 MHz - Antenna D - Channel Position T

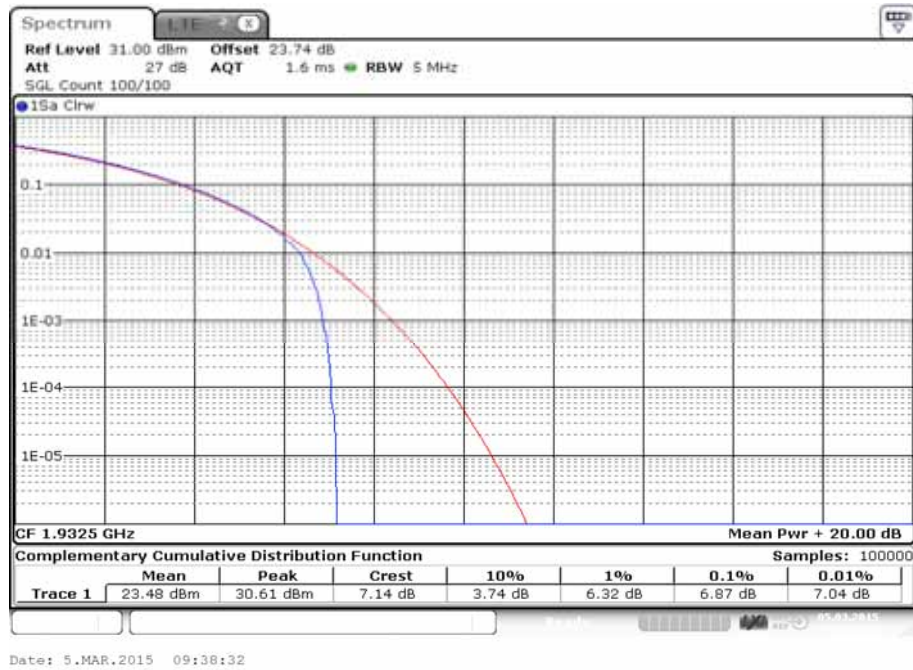


Configuration A

Maximum Output Power 24 dBm

Modulation	Carrier Bandwidth (MHz)	Antenna	Output Power / Peak to Average Ratio (PAR)					
			Channel Position B					
			PAR (dB)	Average Power (dB)	Antenna Gain (dBi)	Average EIRP (dBm)	Average EIRP (dBm/MHz)	Average EIRP (W/MHz)
16QAM	5.0 MHz	A	7.14	24.32	4.00	28.32	21.33	0.14
		B	7.14	24.32	4.00	28.32	21.33	0.14
		C	7.39	24.18	4.00	28.18	21.19	0.13
		D	7.20	24.11	4.00	28.11	21.12	0.13
Total			-	30.25	10.02	40.27	33.28	2.13
16QAM	10.0 MHz	A	7.34	24.13	4.00	28.13	18.13	0.07
		B	7.24	24.13	4.00	28.13	18.13	0.07
		C	7.38	24.07	4.00	28.07	18.07	0.06
		D	7.28	23.86	4.00	27.86	17.86	0.06
Total			-	30.07	10.02	40.09	30.09	1.02
16QAM	15.0 MHz	A	7.29	23.91	4.00	27.91	16.15	0.04
		B	7.28	23.94	4.00	27.94	16.18	0.04
		C	7.25	23.78	4.00	27.78	16.02	0.04
		D	7.17	23.76	4.00	27.76	16.00	0.04
Total			-	29.87	10.02	39.89	28.13	0.65
16QAM	20.0 MHz	A	7.62	23.88	4.00	27.88	14.87	0.03
		B	7.51	23.96	4.00	27.96	14.95	0.03
		C	7.69	23.79	4.00	27.79	14.78	0.03
		D	7.50	23.85	4.00	27.85	14.84	0.03
Total			-	29.89	10.02	39.91	26.90	0.49

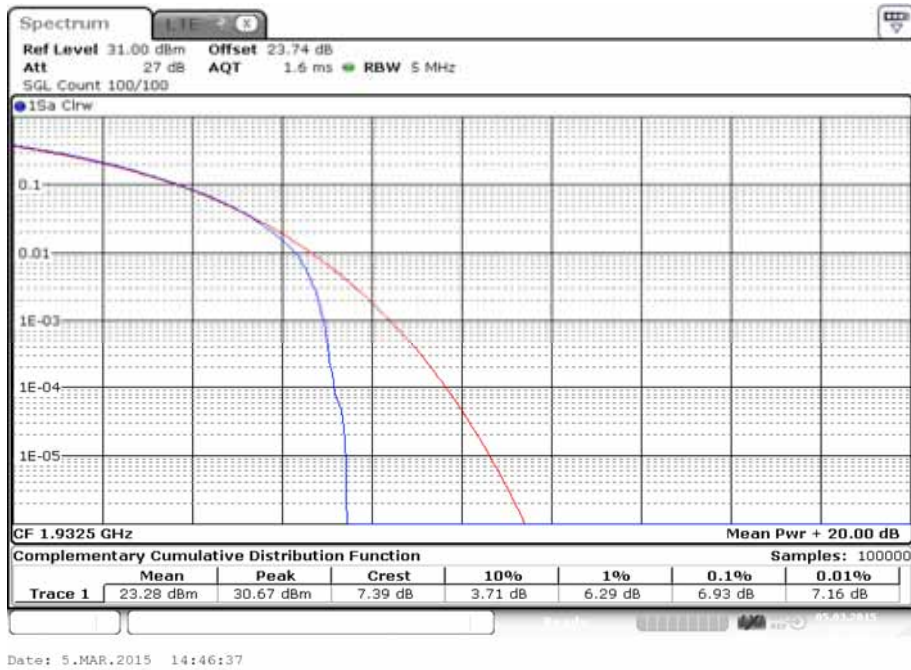
Modulation 16QAM - Bandwidth 5.0 MHz - Antenna A - Channel Position B



Modulation 16QAM - Bandwidth 5.0 MHz - Antenna B - Channel Position B



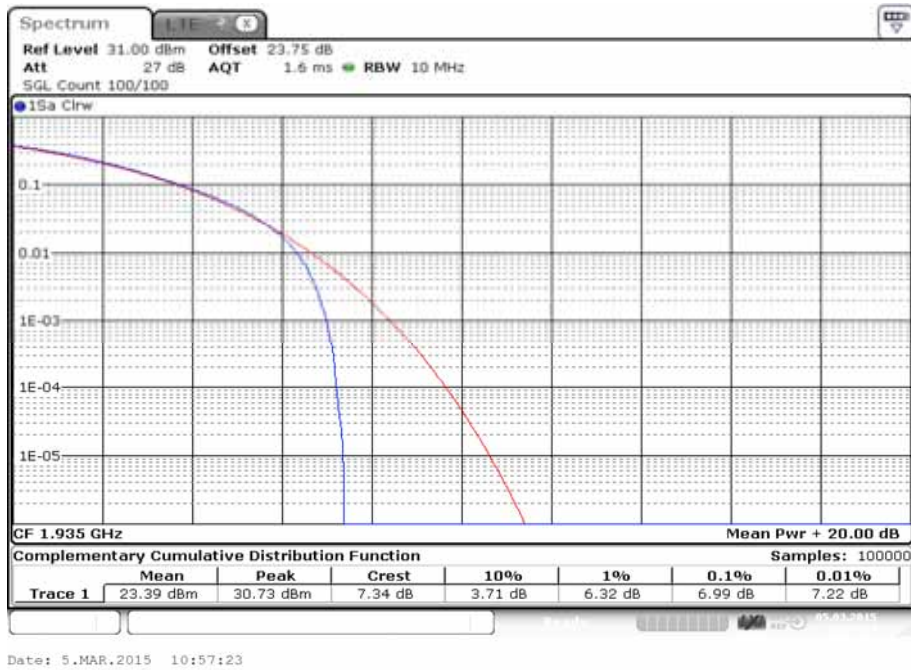
Modulation 16QAM - Bandwidth 5.0 MHz - Antenna C - Channel Position B



Modulation 16QAM - Bandwidth 5.0 MHz - Antenna D - Channel Position B



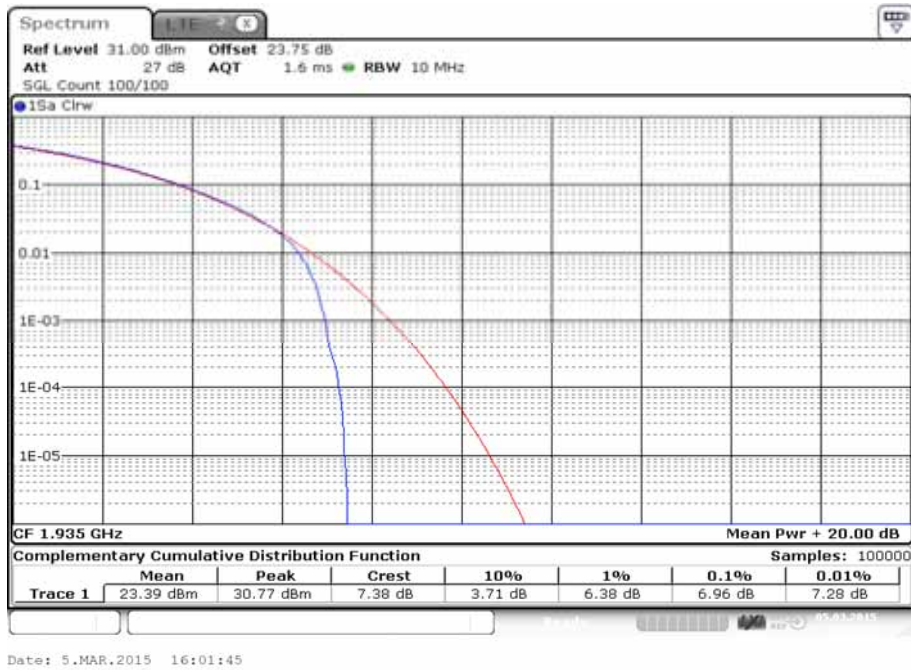
Modulation 16QAM - Bandwidth 10.0 MHz - Antenna A - Channel Position B



Modulation 16QAM - Bandwidth 10.0 MHz - Antenna B - Channel Position B



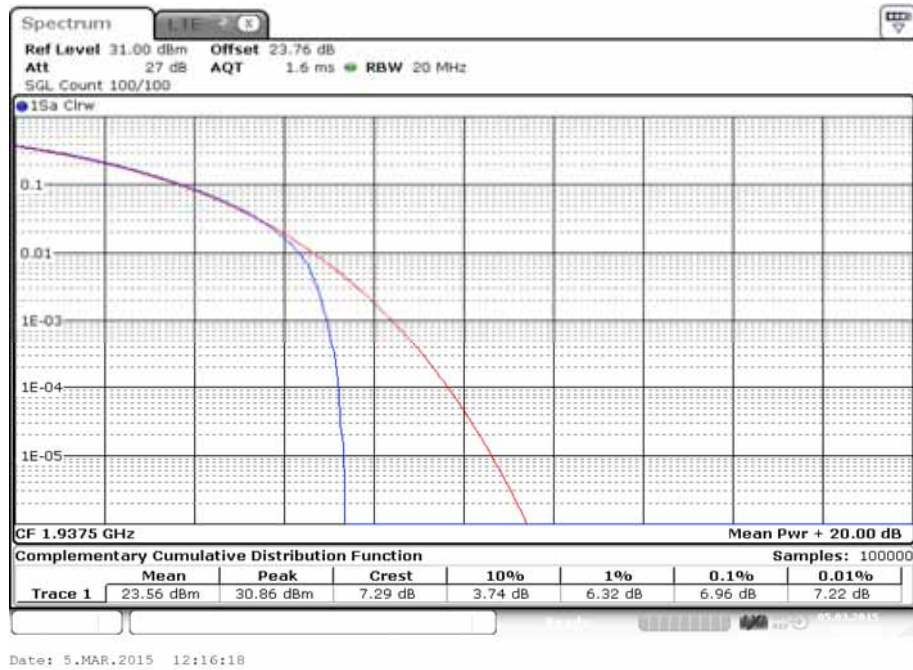
Modulation 16QAM - Bandwidth 10.0 MHz - Antenna C - Channel Position B



Modulation 16QAM - Bandwidth 10.0 MHz - Antenna D - Channel Position B



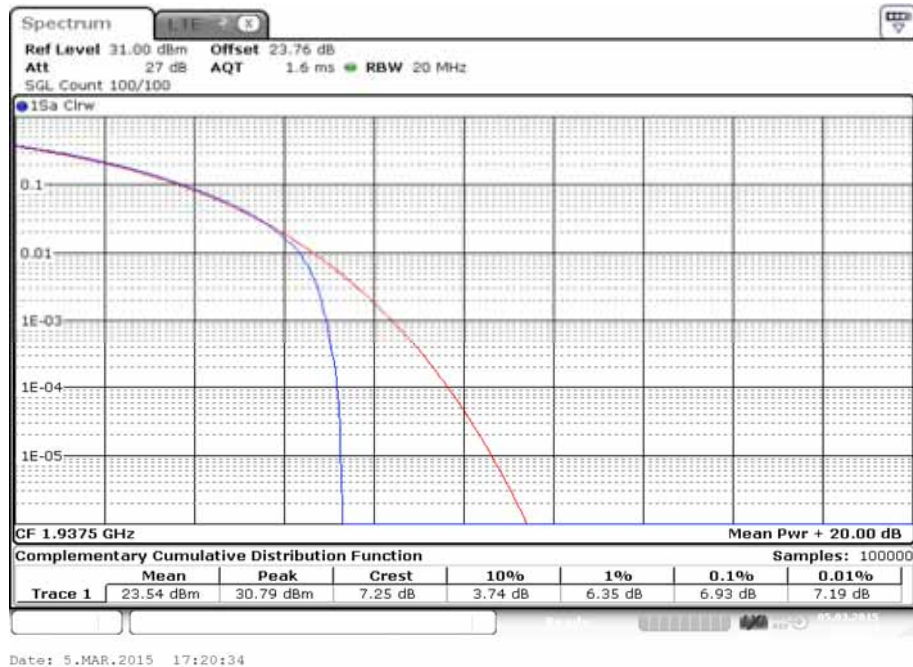
Modulation 16QAM - Bandwidth 15.0 MHz - Antenna A - Channel Position B



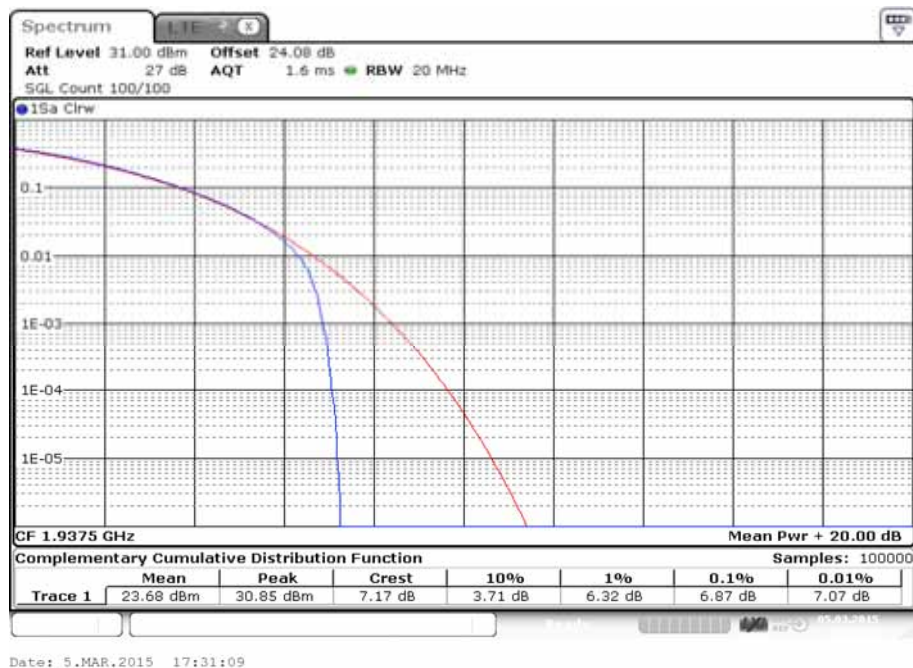
Modulation 16QAM - Bandwidth 15.0 MHz - Antenna B - Channel Position B



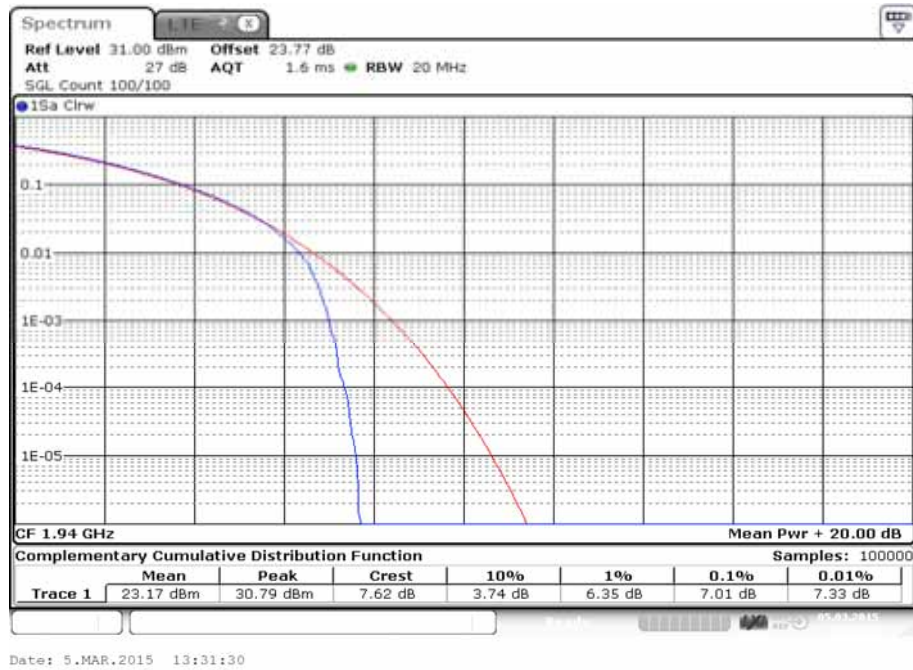
Modulation 16QAM - Bandwidth 15.0 MHz - Antenna C - Channel Position B



Modulation 16QAM - Bandwidth 15.0 MHz - Antenna D - Channel Position B



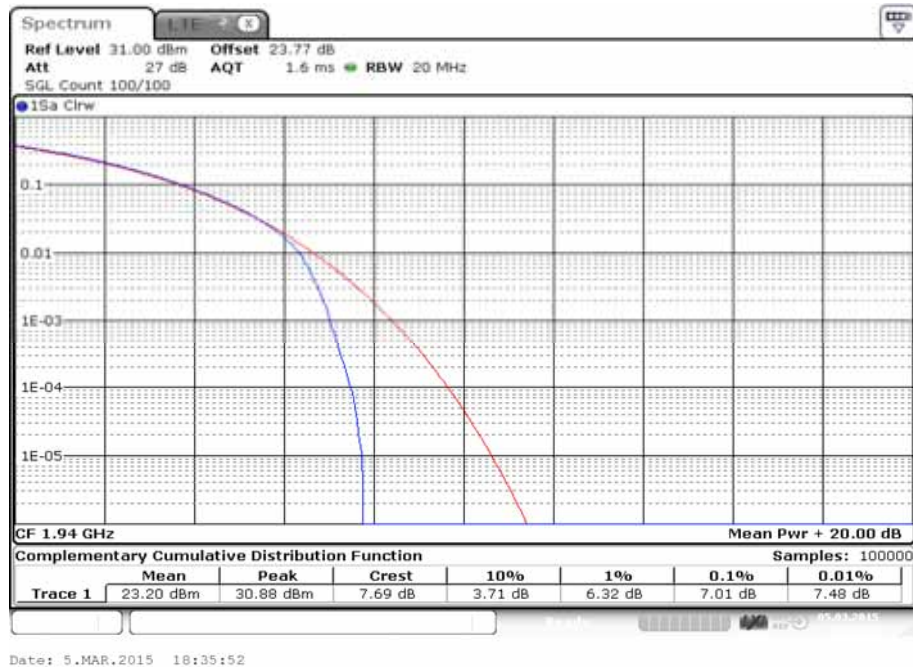
Modulation 16QAM - Bandwidth 20.0 MHz - Antenna A - Channel Position B



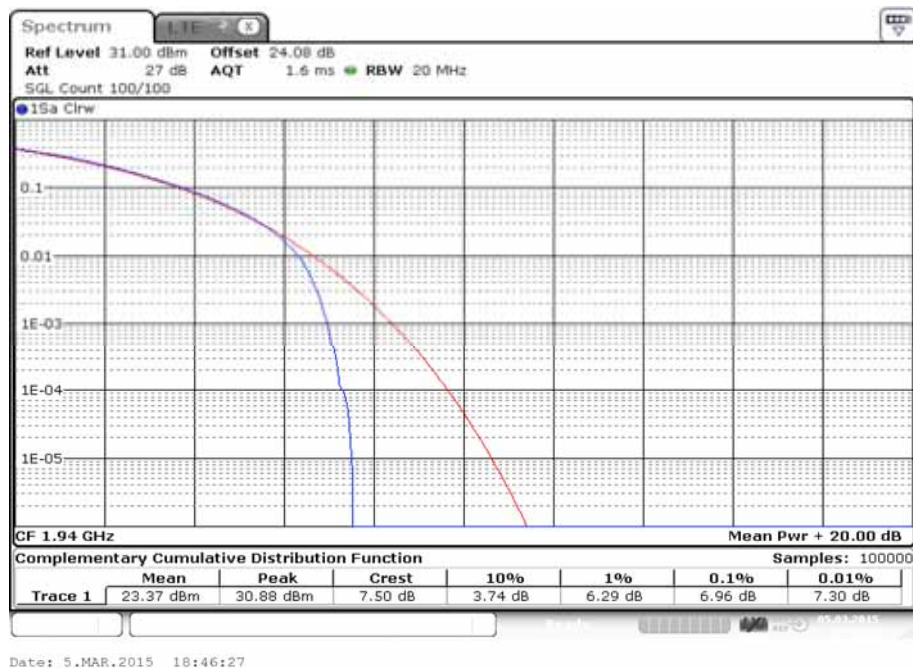
Modulation 16QAM - Bandwidth 20.0 MHz - Antenna B - Channel Position B



Modulation 16QAM - Bandwidth 20.0 MHz - Antenna C - Channel Position B



Modulation 16QAM - Bandwidth 20.0 MHz - Antenna D - Channel Position B

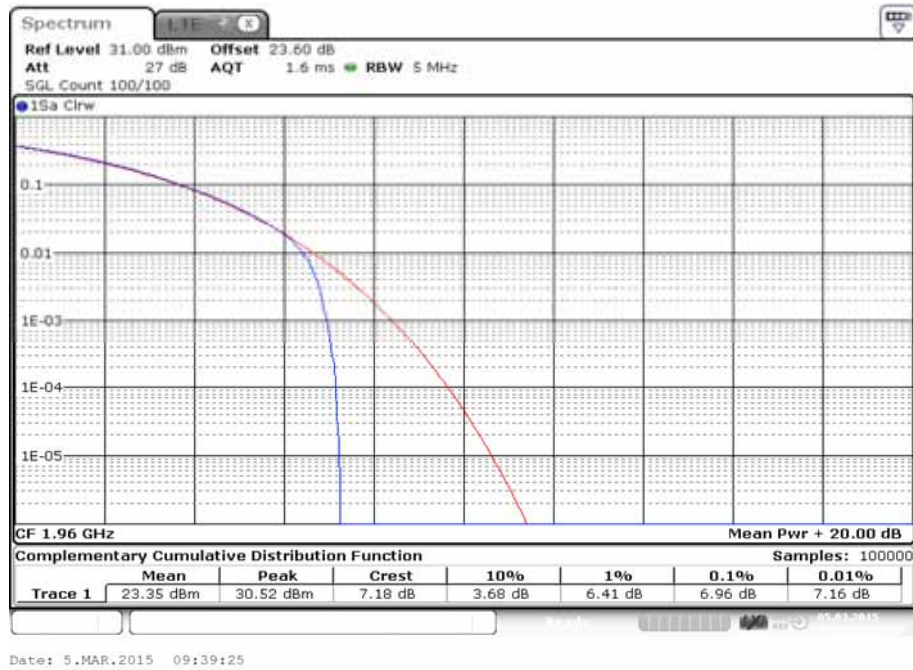


Configuration A

Maximum Output Power 24 dBm

Modulation	Carrier Bandwidth (MHz)	Antenna	Output Power / Peak to Average Ratio (PAR)					
			Channel Position M					
			PAR (dB)	Average Power (dB)	Antenna Gain (dBi)	Average EIRP (dBm)	Average EIRP (dBm/MHz)	Average EIRP (W/MHz)
16QAM	5.0 MHz	A	7.18	23.95	4.00	27.95	20.96	0.12
		B	7.28	23.98	4.00	27.98	20.99	0.13
		C	7.29	23.95	4.00	27.95	20.96	0.12
		D	7.37	24.01	4.00	28.01	21.02	0.13
Total			-	29.99	10.02	40.01	33.02	2.01
16QAM	10.0 MHz	A	7.37	23.90	4.00	27.90	17.90	0.06
		B	7.16	23.99	4.00	27.99	17.99	0.06
		C	7.36	24.00	4.00	28.00	18.00	0.06
		D	7.31	23.81	4.00	27.81	17.81	0.06
Total			-	29.95	10.02	39.97	29.97	0.99
16QAM	15.0 MHz	A	7.03	23.92	4.00	27.92	16.16	0.04
		B	7.04	23.97	4.00	27.97	16.21	0.04
		C	7.08	23.88	4.00	27.88	16.12	0.04
		D	7.03	23.86	4.00	27.86	16.10	0.04
Total			-	29.93	10.02	39.95	28.19	0.66
16QAM	20.0 MHz	A	7.25	24.02	4.00	28.02	15.01	0.03
		B	7.39	24.11	4.00	28.11	15.10	0.03
		C	7.51	23.96	4.00	27.96	14.95	0.03
		D	7.26	23.94	4.00	27.94	14.93	0.03
Total			-	30.03	10.02	40.05	27.04	0.51

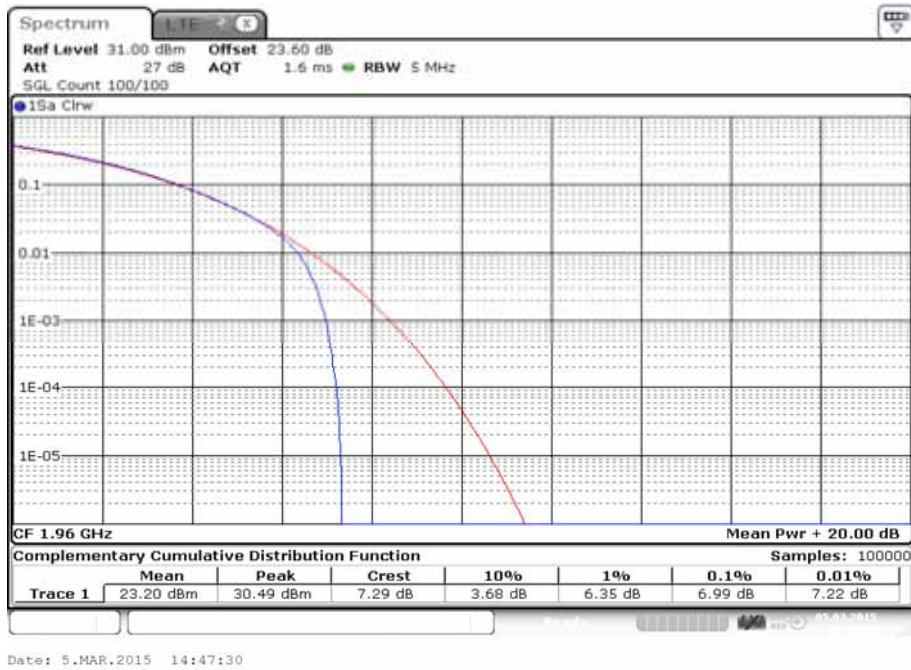
Modulation 16QAM - Bandwidth 5.0 MHz - Antenna A - Channel Position M



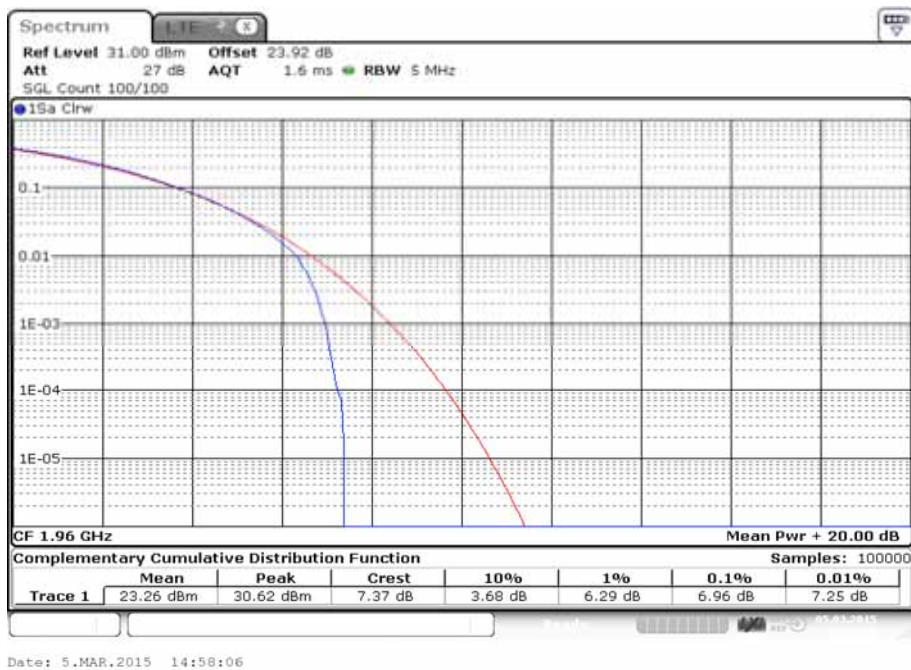
Modulation 16QAM - Bandwidth 5.0 MHz - Antenna B - Channel Position M



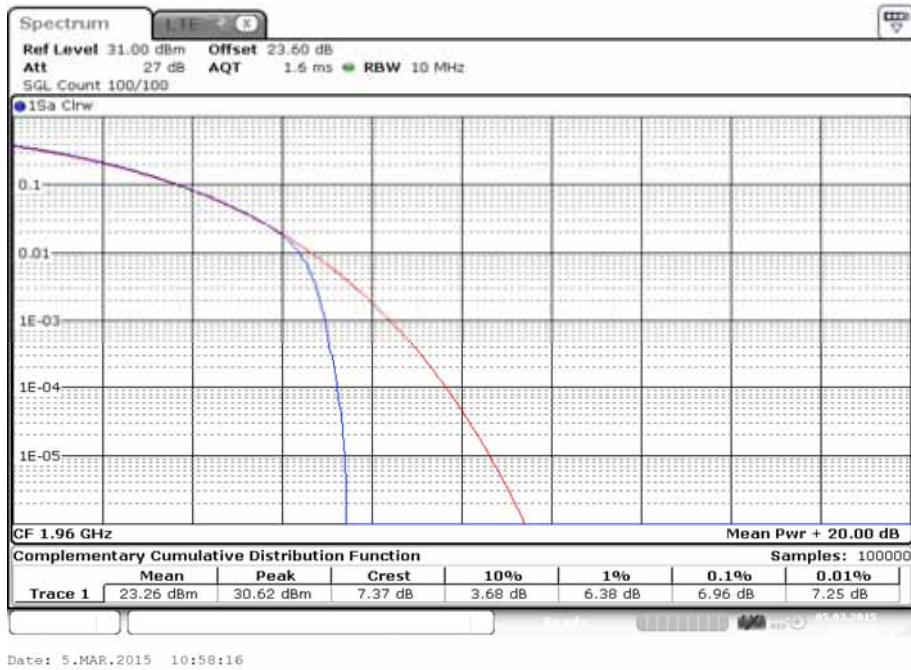
Modulation 16QAM - Bandwidth 5.0 MHz - Antenna C - Channel Position M



Modulation 16QAM - Bandwidth 5.0 MHz - Antenna D - Channel Position M



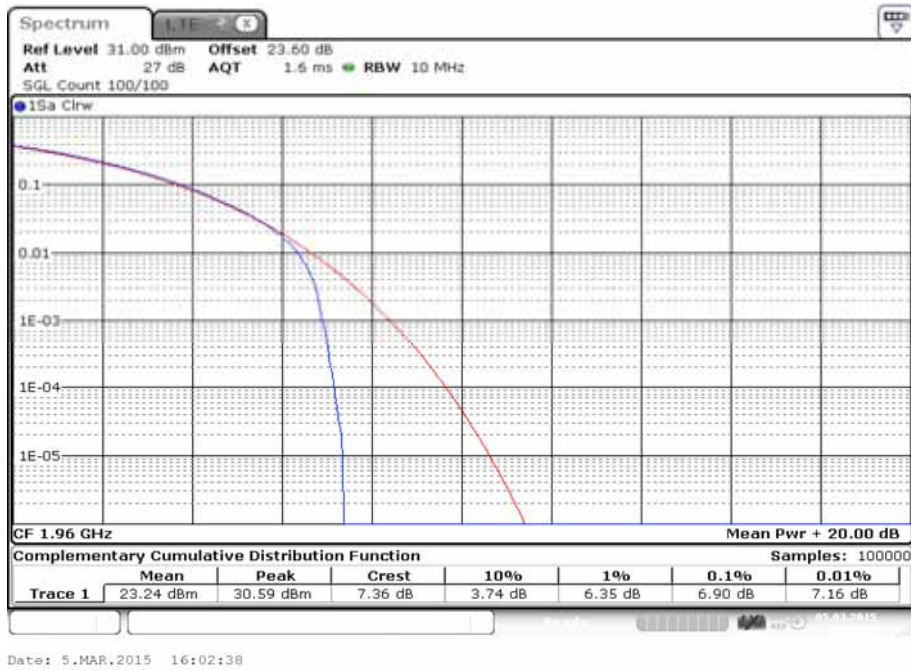
Modulation 16QAM - Bandwidth 10.0 MHz - Antenna A - Channel Position M



Modulation 16QAM - Bandwidth 10.0 MHz - Antenna B - Channel Position M



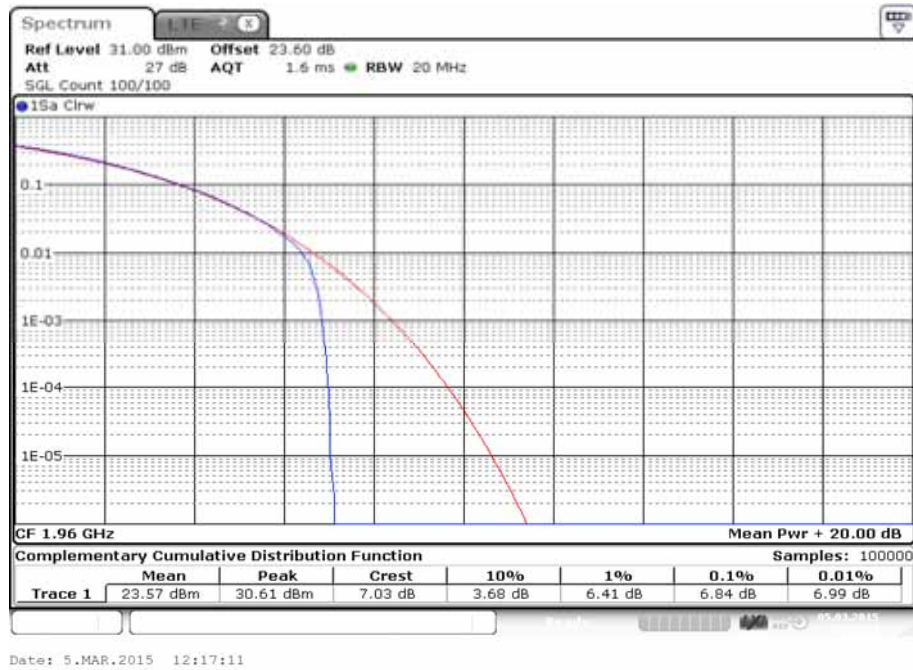
Modulation 16QAM - Bandwidth 10.0 MHz - Antenna C - Channel Position M



Modulation 16QAM - Bandwidth 10.0 MHz - Antenna D - Channel Position M



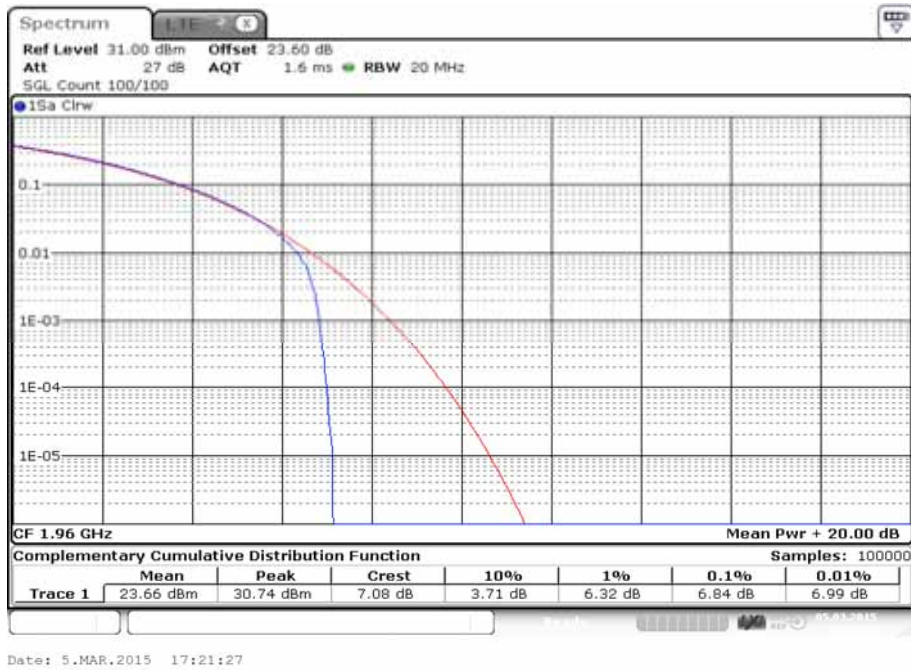
Modulation 16QAM - Bandwidth 15.0 MHz - Antenna A - Channel Position M



Modulation 16QAM - Bandwidth 15.0 MHz - Antenna B - Channel Position M



Modulation 16QAM - Bandwidth 15.0 MHz - Antenna C - Channel Position M



Modulation 16QAM - Bandwidth 15.0 MHz - Antenna D - Channel Position M



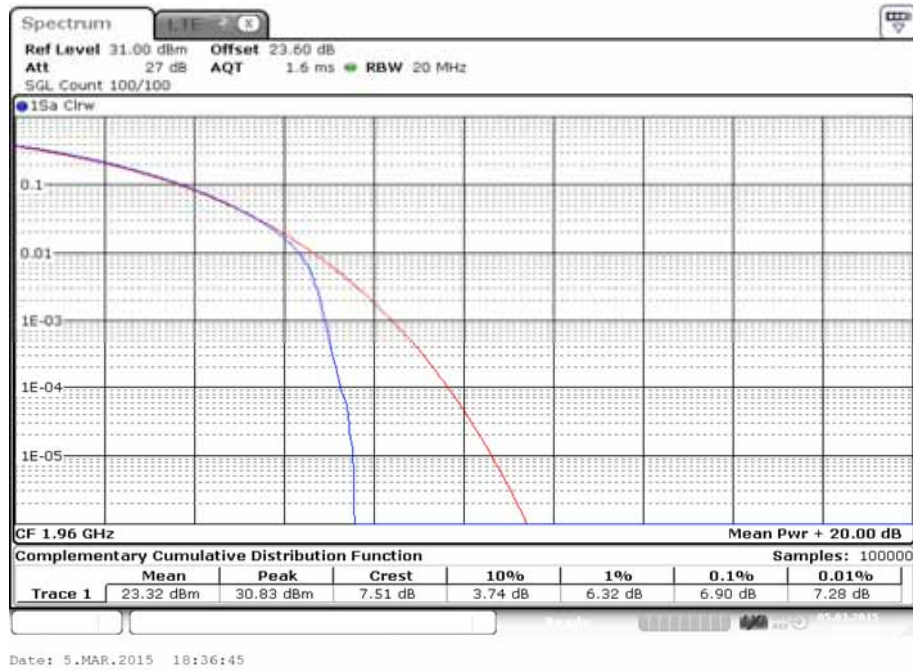
Modulation 16QAM - Bandwidth 20.0 MHz - Antenna A - Channel Position M



Modulation 16QAM - Bandwidth 20.0 MHz - Antenna B - Channel Position M



Modulation 16QAM - Bandwidth 20.0 MHz - Antenna C - Channel Position M



Modulation 16QAM - Bandwidth 20.0 MHz - Antenna D - Channel Position M

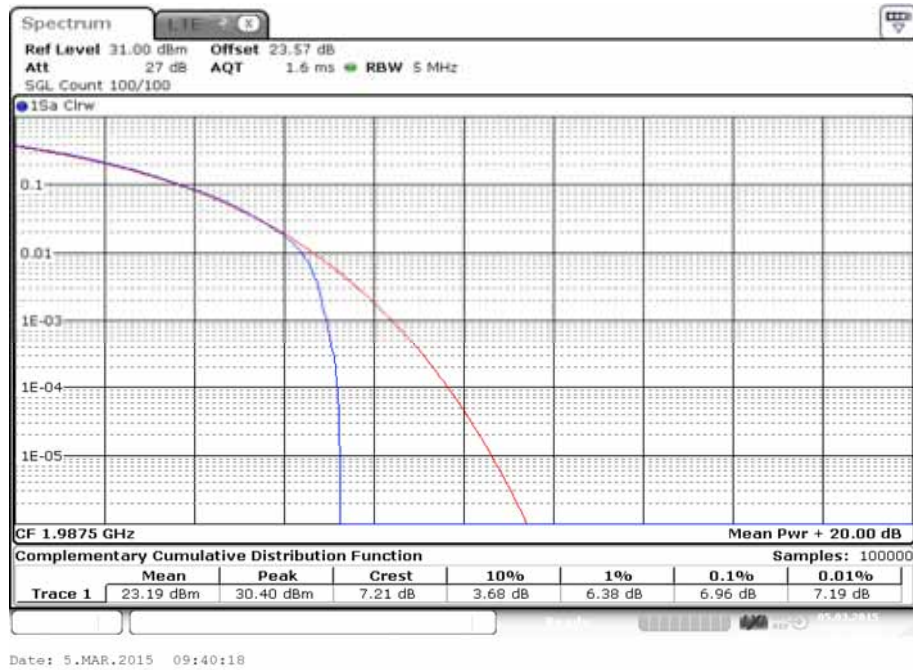


Configuration A

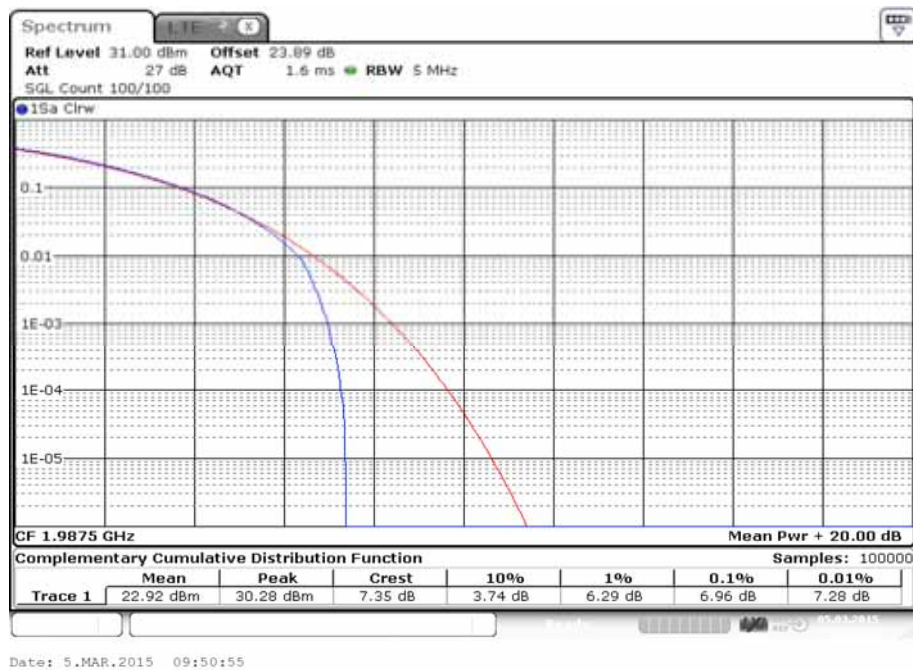
Maximum Output Power 24 dBm

Modulation	Carrier Bandwidth (MHz)	Antenna	Output Power / Peak to Average Ratio (PAR)					
			Channel Position T					
			PAR (dB)	Average Power (dB)	Antenna Gain (dBi)	Average EIRP (dBm)	Average EIRP (dBm/MHz)	Average EIRP (W/MHz)
16QAM	5.0 MHz	A	7.21	23.98	4.00	27.98	20.99	0.13
		B	7.35	24.02	4.00	28.02	21.03	0.13
		C	7.38	23.85	4.00	27.85	20.86	0.12
		D	7.20	24.06	4.00	28.06	21.07	0.13
Total			-	30.00	10.02	40.02	33.03	2.01
16QAM	10.0 MHz	A	7.29	23.78	4.00	27.78	17.78	0.06
		B	7.44	23.76	4.00	27.76	17.76	0.06
		C	7.32	23.88	4.00	27.88	17.88	0.06
		D	7.29	23.57	4.00	27.57	17.57	0.06
Total			-	29.77	10.02	39.79	29.79	0.95
16QAM	15.0 MHz	A	7.21	23.71	4.00	27.71	15.95	0.04
		B	7.27	23.66	4.00	27.66	15.90	0.04
		C	7.24	23.66	4.00	27.66	15.90	0.04
		D	7.13	23.54	4.00	27.54	15.78	0.04
Total			-	29.66	10.02	39.68	27.92	0.62
16QAM	20.0 MHz	A	7.54	23.84	4.00	27.84	14.83	0.03
		B	7.49	23.85	4.00	27.85	14.84	0.03
		C	7.44	23.74	4.00	27.74	14.73	0.03
		D	7.53	23.65	4.00	27.65	14.64	0.03
Total			-	29.79	10.02	39.81	26.80	0.48

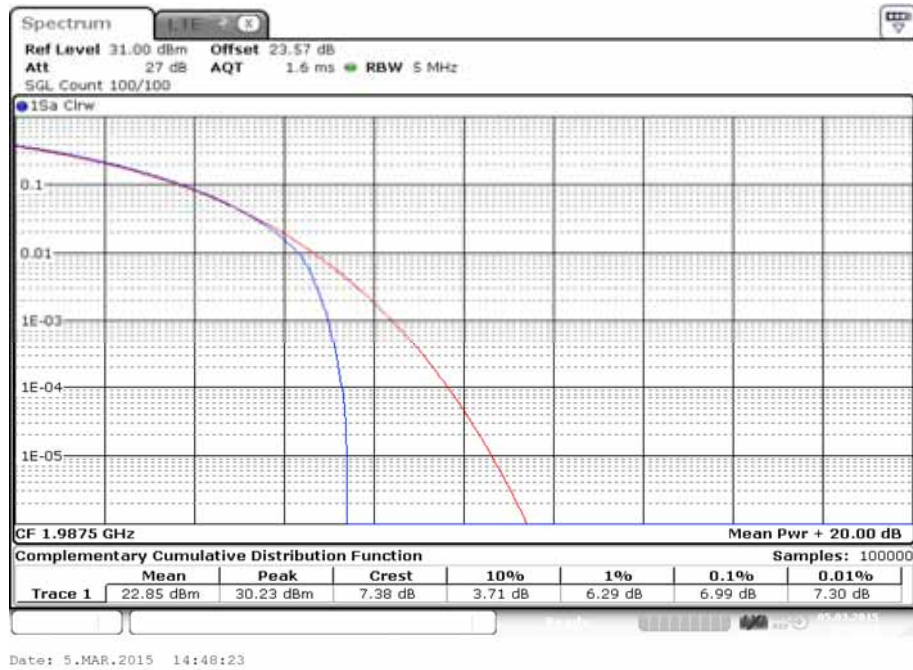
Modulation 16QAM - Bandwidth 5.0 MHz - Antenna A - Channel Position T



Modulation 16QAM - Bandwidth 5.0 MHz - Antenna B - Channel Position T



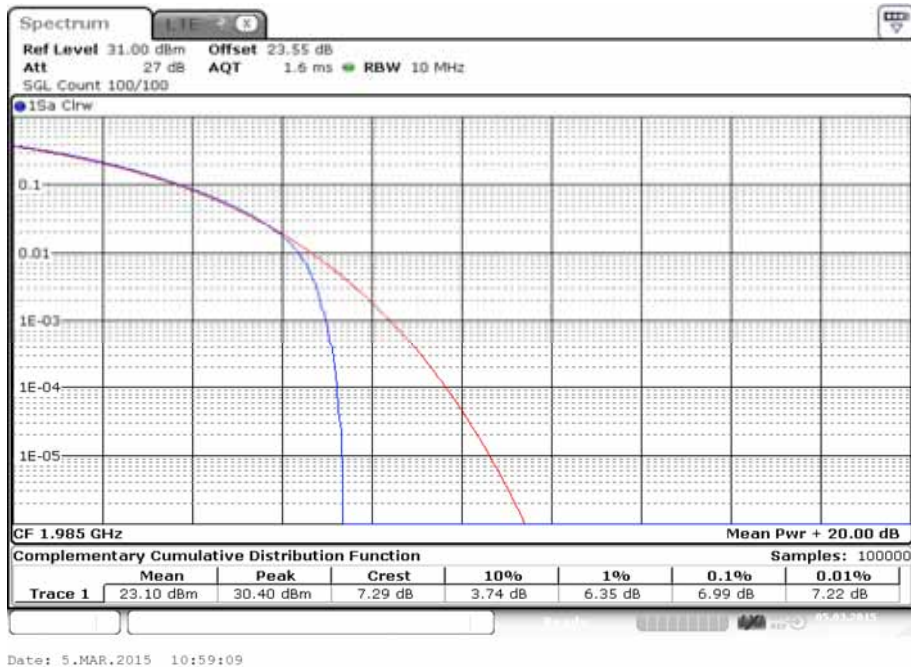
Modulation 16QAM - Bandwidth 5.0 MHz - Antenna C - Channel Position T



Modulation 16QAM - Bandwidth 5.0 MHz - Antenna D - Channel Position T



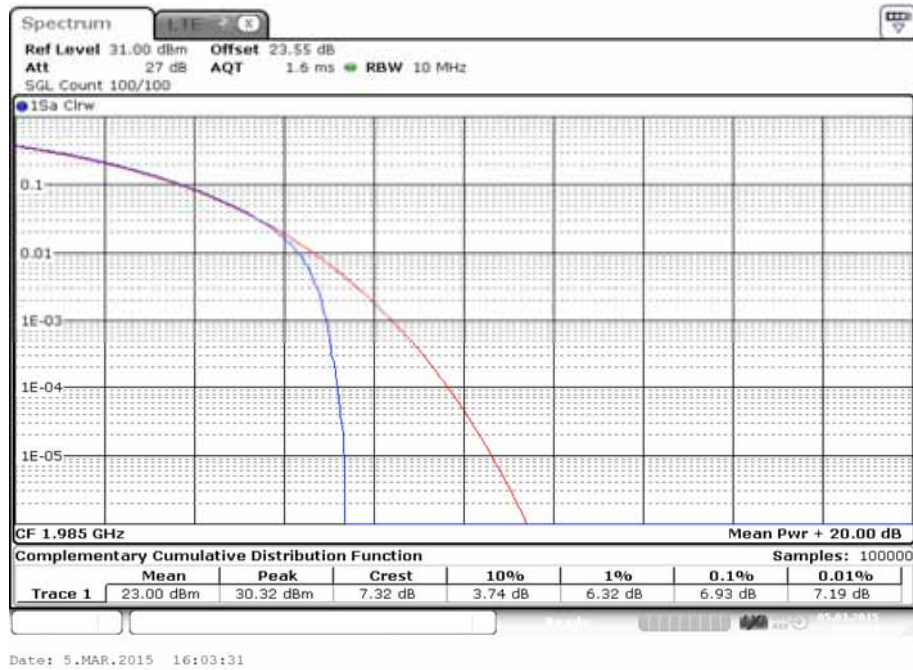
Modulation 16QAM - Bandwidth 10.0 MHz - Antenna A - Channel Position T



Modulation 16QAM - Bandwidth 10.0 MHz - Antenna B - Channel Position T



Modulation 16QAM - Bandwidth 10.0 MHz - Antenna C - Channel Position T



Modulation 16QAM - Bandwidth 10.0 MHz - Antenna D - Channel Position T



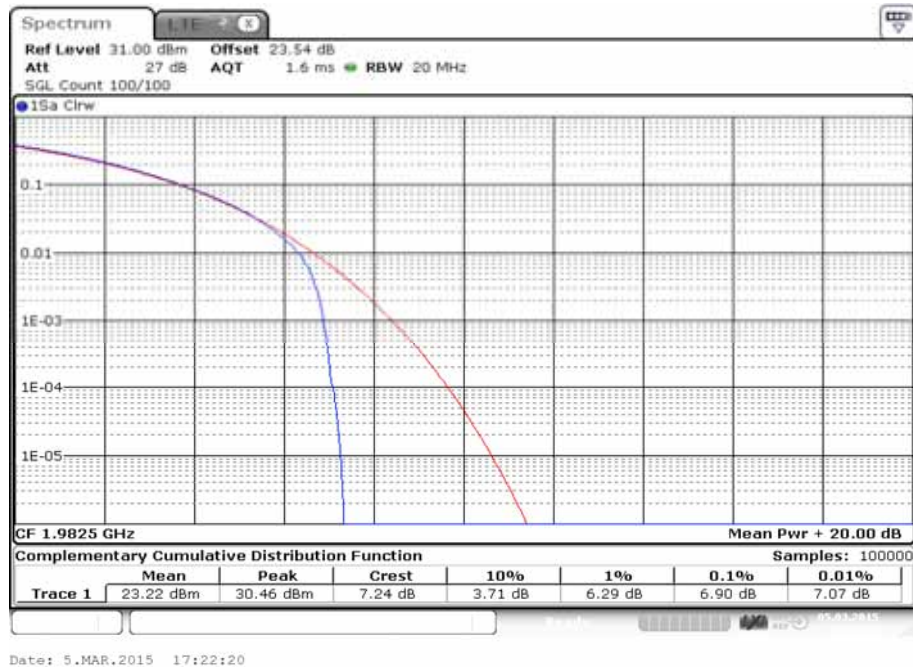
Modulation 16QAM - Bandwidth 15.0 MHz - Antenna A - Channel Position T



Modulation 16QAM - Bandwidth 15.0 MHz - Antenna B - Channel Position T



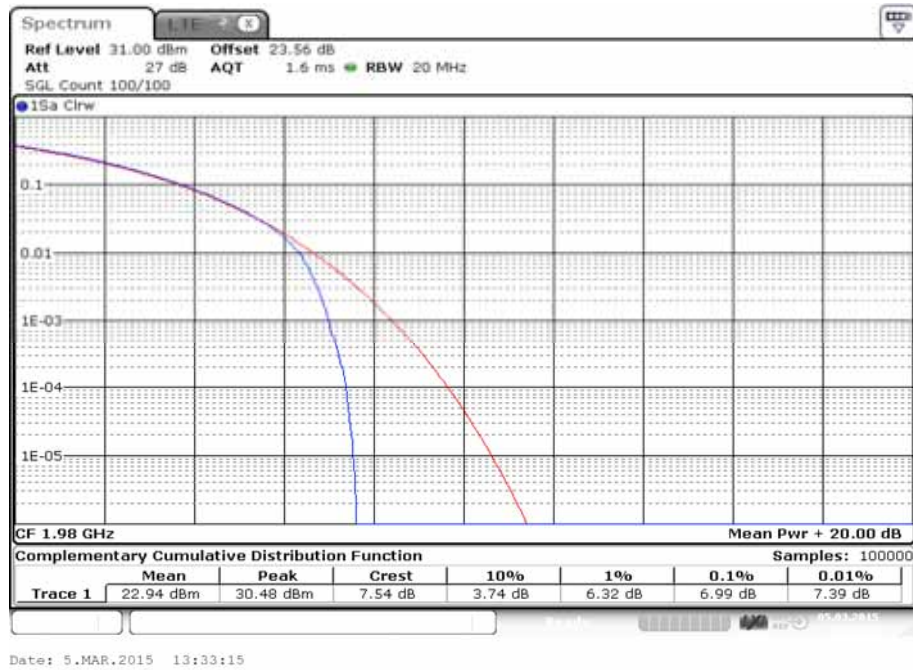
Modulation 16QAM - Bandwidth 15.0 MHz - Antenna C - Channel Position T



Modulation 16QAM - Bandwidth 15.0 MHz - Antenna D - Channel Position T



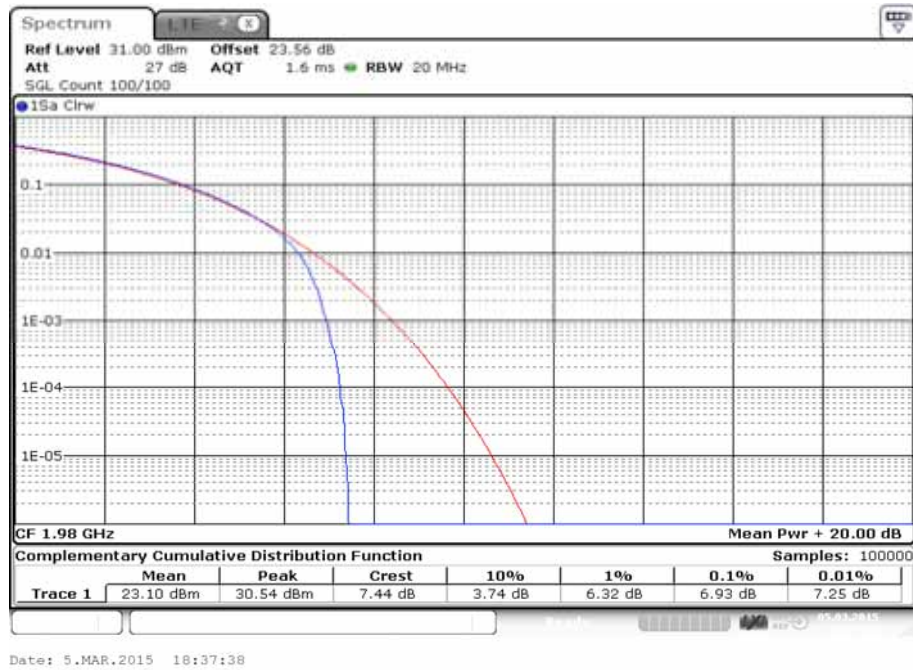
Modulation 16QAM - Bandwidth 20.0 MHz - Antenna A - Channel Position T



Modulation 16QAM - Bandwidth 20.0 MHz - Antenna B - Channel Position T



Modulation 16QAM - Bandwidth 20.0 MHz - Antenna C - Channel Position T



Modulation 16QAM - Bandwidth 20.0 MHz - Antenna D - Channel Position T

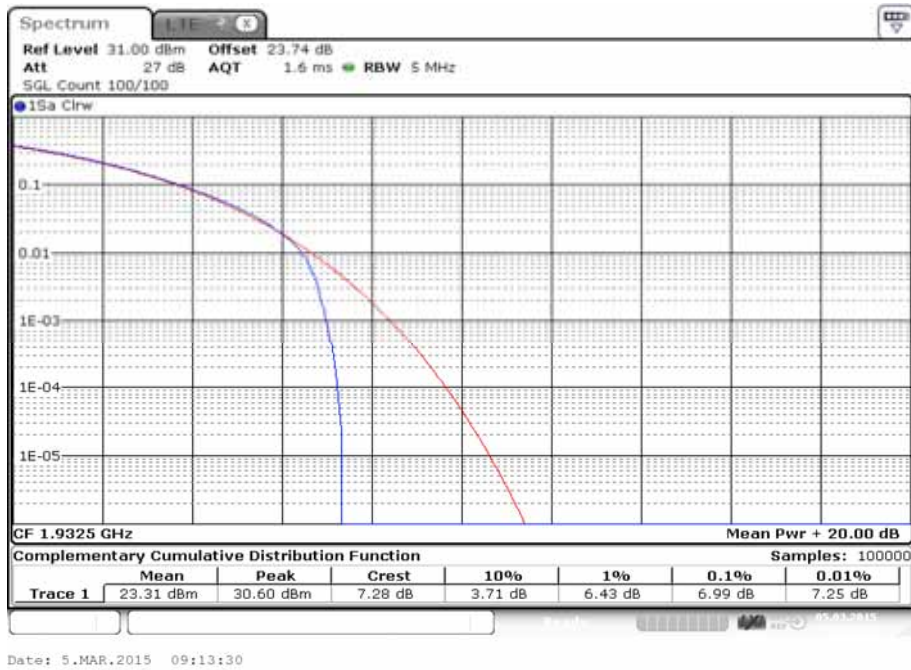


Configuration A

Maximum Output Power 24 dBm

Modulation	Carrier Bandwidth (MHz)	Antenna	Output Power / Peak to Average Ratio (PAR)					
			Channel Position B					
			PAR (dB)	Average Power (dB)	Antenna Gain (dBi)	Average EIRP (dBm)	Average EIRP (dBm/MHz)	Average EIRP (W/MHz)
64QAM	5.0 MHz	A	7.28	24.23	4.00	28.23	21.24	0.13
		B	7.22	24.21	4.00	28.21	21.22	0.13
		C	7.29	23.92	4.00	27.92	20.93	0.12
		D	7.50	24.16	4.00	28.16	21.17	0.13
Total			-	30.15	10.02	40.17	33.18	2.08
64QAM	10.0 MHz	A	7.35	24.13	4.00	28.13	18.13	0.07
		B	7.24	24.13	4.00	28.13	18.13	0.07
		C	7.40	24.13	4.00	28.13	18.13	0.07
		D	7.41	24.13	4.00	28.13	18.13	0.07
Total			-	30.15	10.02	40.17	30.17	1.04
64QAM	15.0 MHz	A	7.39	23.99	4.00	27.99	16.23	0.04
		B	7.33	24.11	4.00	28.11	16.35	0.04
		C	7.41	23.77	4.00	27.77	16.01	0.04
		D	7.31	23.75	4.00	27.75	15.99	0.04
Total			-	29.93	10.02	39.95	28.19	0.66
64QAM	20.0 MHz	A	7.62	23.83	4.00	27.83	14.82	0.03
		B	7.45	24.09	4.00	28.09	15.08	0.03
		C	7.48	23.90	4.00	27.90	14.89	0.03
		D	7.59	23.68	4.00	27.68	14.67	0.03
Total			-	29.90	10.02	39.92	26.91	0.49

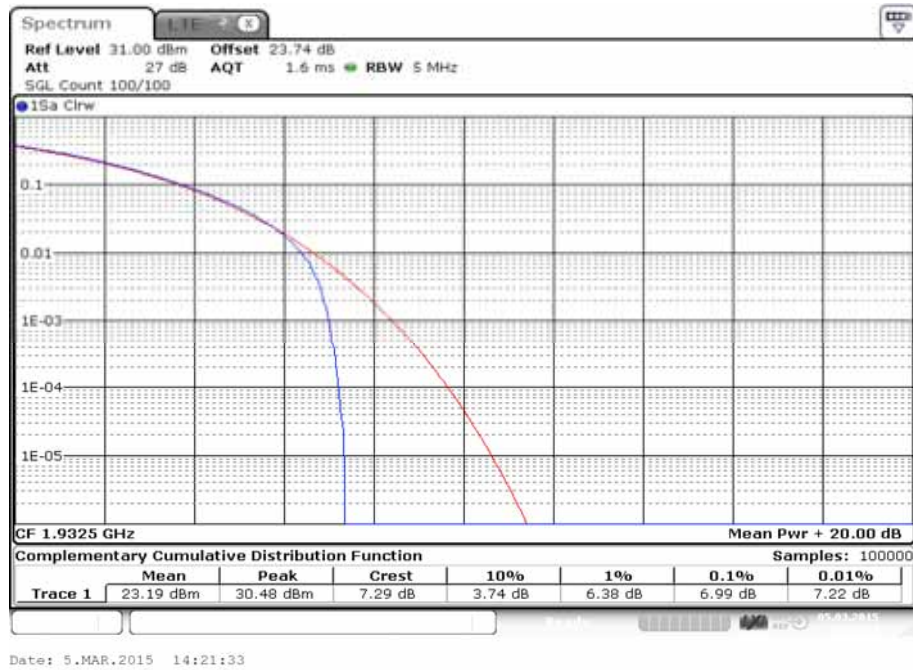
Modulation 64QAM - Bandwidth 5.0 MHz - Antenna A - Channel Position B



Modulation 64QAM - Bandwidth 5.0 MHz - Antenna B - Channel Position B



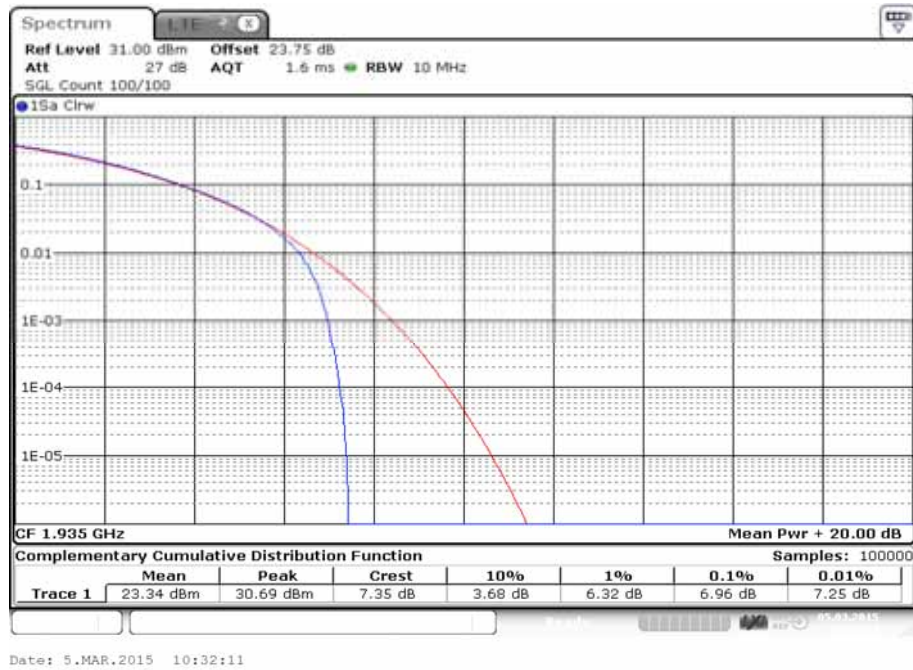
Modulation 64QAM - Bandwidth 5.0 MHz - Antenna C - Channel Position B



Modulation 64QAM - Bandwidth 5.0 MHz - Antenna D - Channel Position B



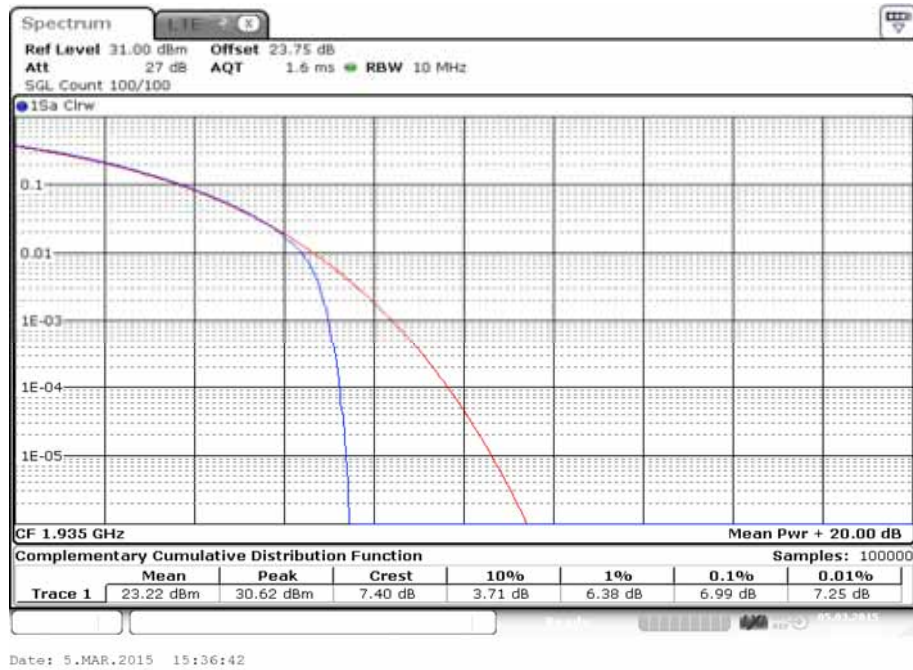
Modulation 64QAM - Bandwidth 10.0 MHz - Antenna A - Channel Position B



Modulation 64QAM - Bandwidth 10.0 MHz - Antenna B - Channel Position B



Modulation 64QAM - Bandwidth 10.0 MHz - Antenna C - Channel Position B



Modulation 64QAM - Bandwidth 10.0 MHz - Antenna D - Channel Position B



Modulation 64QAM - Bandwidth 15.0 MHz - Antenna A - Channel Position B



Modulation 64QAM - Bandwidth 15.0 MHz - Antenna B - Channel Position B



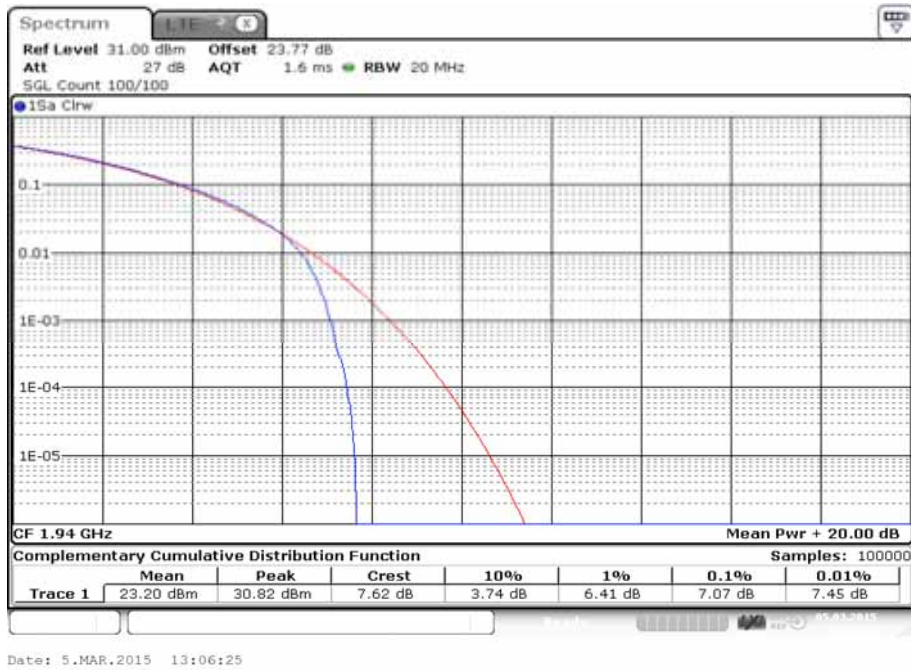
Modulation 64QAM - Bandwidth 15.0 MHz - Antenna C - Channel Position B



Modulation 64QAM - Bandwidth 15.0 MHz - Antenna D - Channel Position B



Modulation 64QAM - Bandwidth 20.0 MHz - Antenna A - Channel Position B



Modulation 64QAM - Bandwidth 20.0 MHz - Antenna B - Channel Position B

