TEST REPORT

MEASUREMENT PER SECTION 2.1033 (C) (14) OF THE RULES

SECTION 2.1033 (c) (14)

The data required by Section 2.1046 through 2.1057, inclusive, measured in accordance with the procedures set out in Section 2.1041.

RESPONSE:

The following pages include the data required for the **AS5BBTRX-13**, measured in accordance with the procedures set out in Section 2. 1033(c)(14) of the Rules.

Each required measurement and its corresponding exhibit number are:

Measurement: 1	Section 2.1046	RF Power Output - See Measurement 3
Measurement: 2	Section 2.1047 Section 27.50(d)(5)	Modulation Characteristics Peak-to-Average ratio (PAR)
Measurement: 3	Section 2.1049	(a) Emissions Bandwidth (b) Occupied Bandwidth/Band Edge spurious Emissions
Measurement: 4	Section 2.1051	Spurious Emissions at Antenna Terminals
Measurement: 5	Section 2.1053	Field Strength of Spurious Radiation
Measurement: 6	Section 2.1055	Measurement of Frequency Stability
	Section 2.1057	Frequency Spectrum to be Investigated

Measurement 1

FCC Section 2.1046
RF Power output

Refer to **Measurement 3** Occupied Bandwidth Measurement during that measurement RF Output was continuously monitored.

Measurement 2

FCC Section 2.1047
Modulation Characteristics
&
Section 27.50(d)(5)
Measurement of Peak-to-Average ratio (PAR)

Section 2.1047
Modulation Characteristics

The modulation techniques used are explained in the submission as part section 2.1033 (c) (13). The RF signal at the antenna port was demodulated and verified for correctness of modulation signal used before each test was performed. The attached plots of graphs show the modulation components: In phase (I) and Quadrature (Q) components.

(1) Quadrature Phase Shift Keying (QPSK) modulation scheme uses 2 bits are transmitted simultaneously (one per channel) and a symbol can be represented by 2 bits. Therefore there are $2^2 = 4$ states (Binary 00 to 11). The theoretical bandwidth is 2bits/second/Hz.

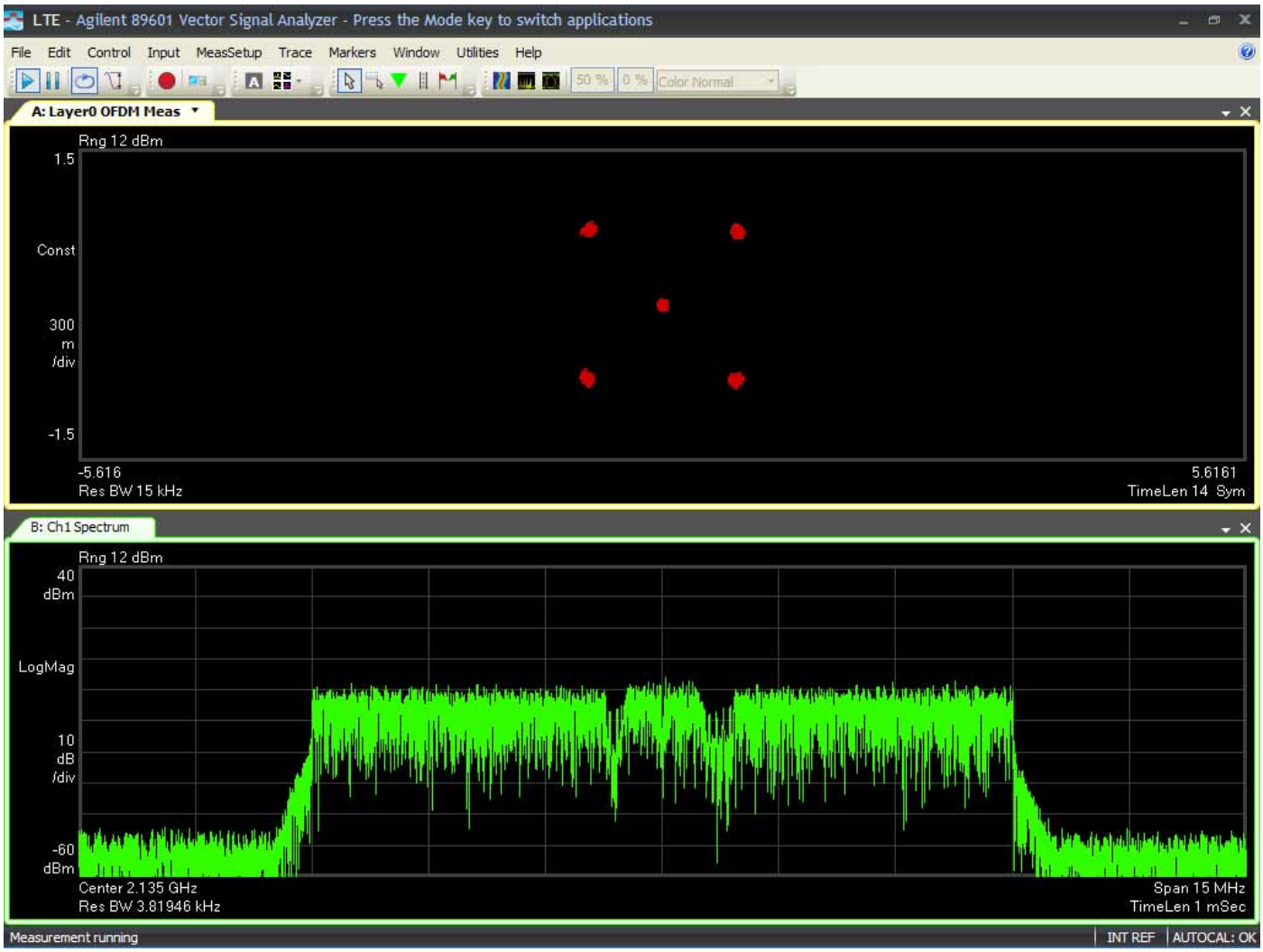
(2) 16 Quadrature amplitude modulation (QAM): In 16QAM, there 16-states. There are four I values and four Q values, therefore 4 bits are available for represent a symbol. Therefore there are $2^4 = 16$ states (Binary 0000 to 1111). The theoretical bandwidth is 4bits/second/Hz.

(3) 64 Quadrature amplitude modulation (QAM): In 64QAM: The 64QAM is similar to 16QAM and there will be 64 states and 6 bits are available to represent a symbol.

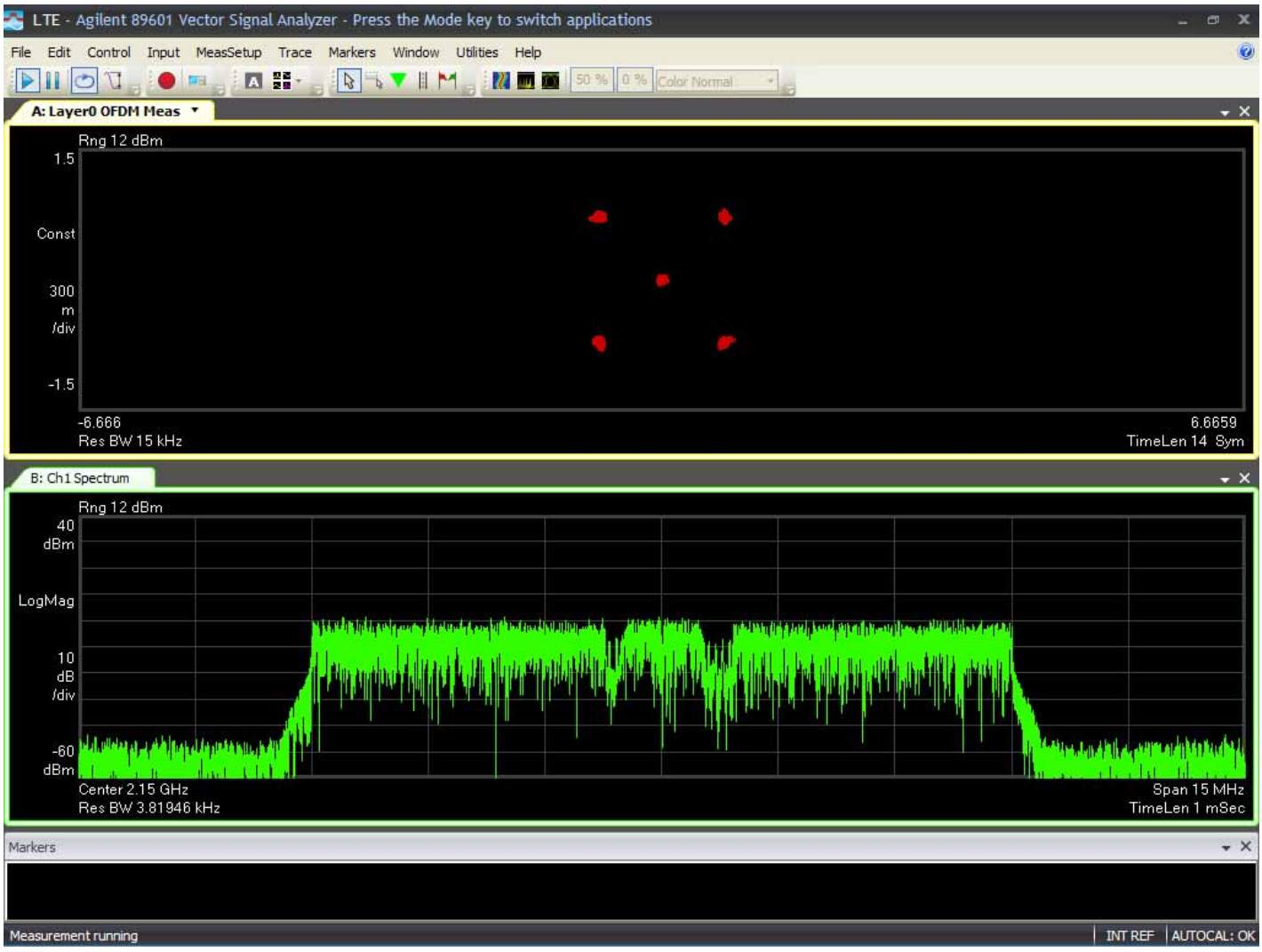
Section 27.50(d) (5)
Measurement of Peak-to-Average ratio (PAR)

The peak-to-average (PAR) is plotted along with demodulated constellation plots. The plots show that average and peak values in dBm. The difference of peak-to-averages ratio does not exceed 13 dB as required in section 27.50(d) (5).

QPSK 120 watts
CF: 2135MHz + 2150MHz (10+10 MHz BW)

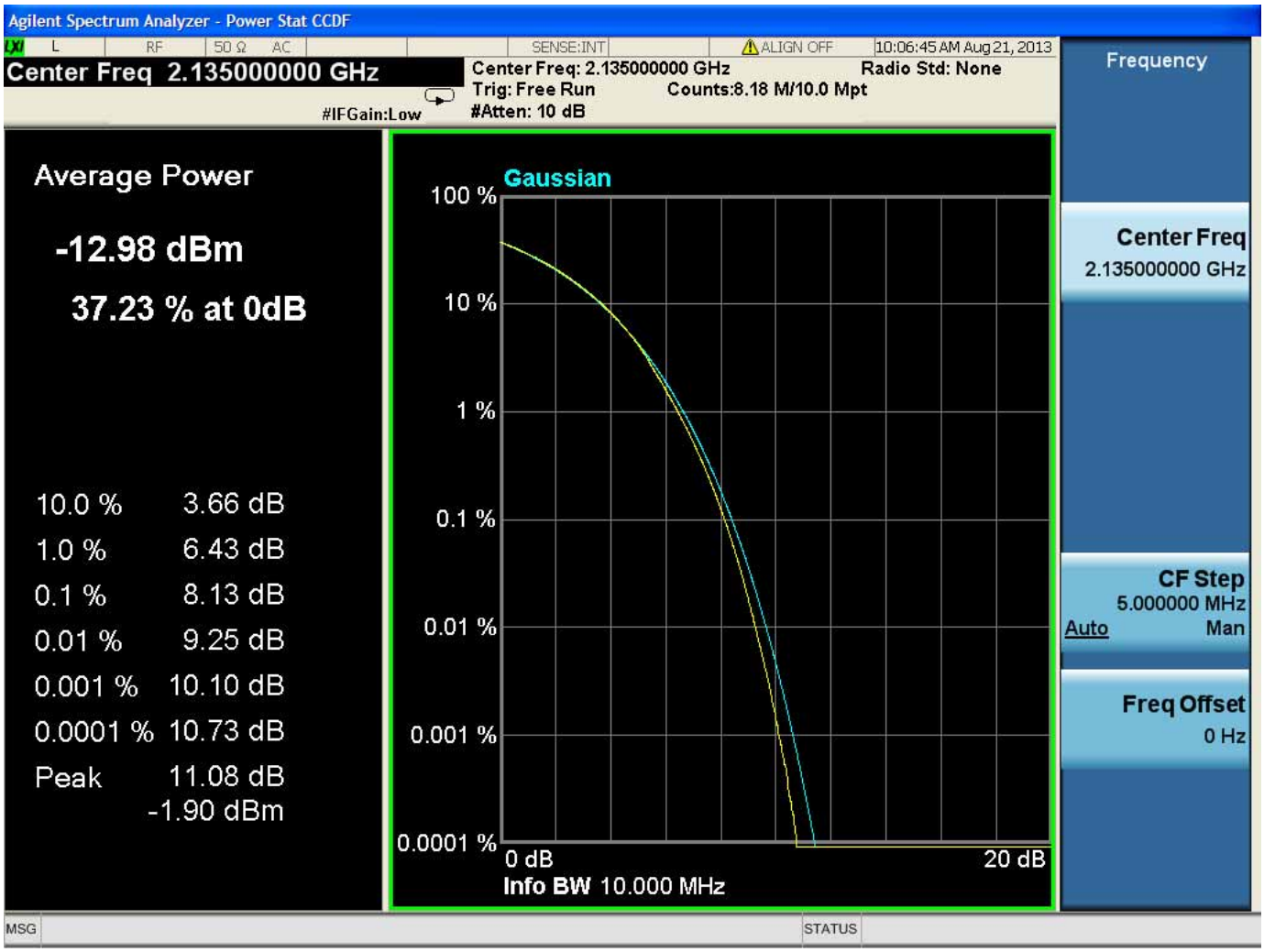


LTE AWS TRDU2X120W
FCC Part 27.53 Block C+D (2130-2140 MHz); PWR: 120 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

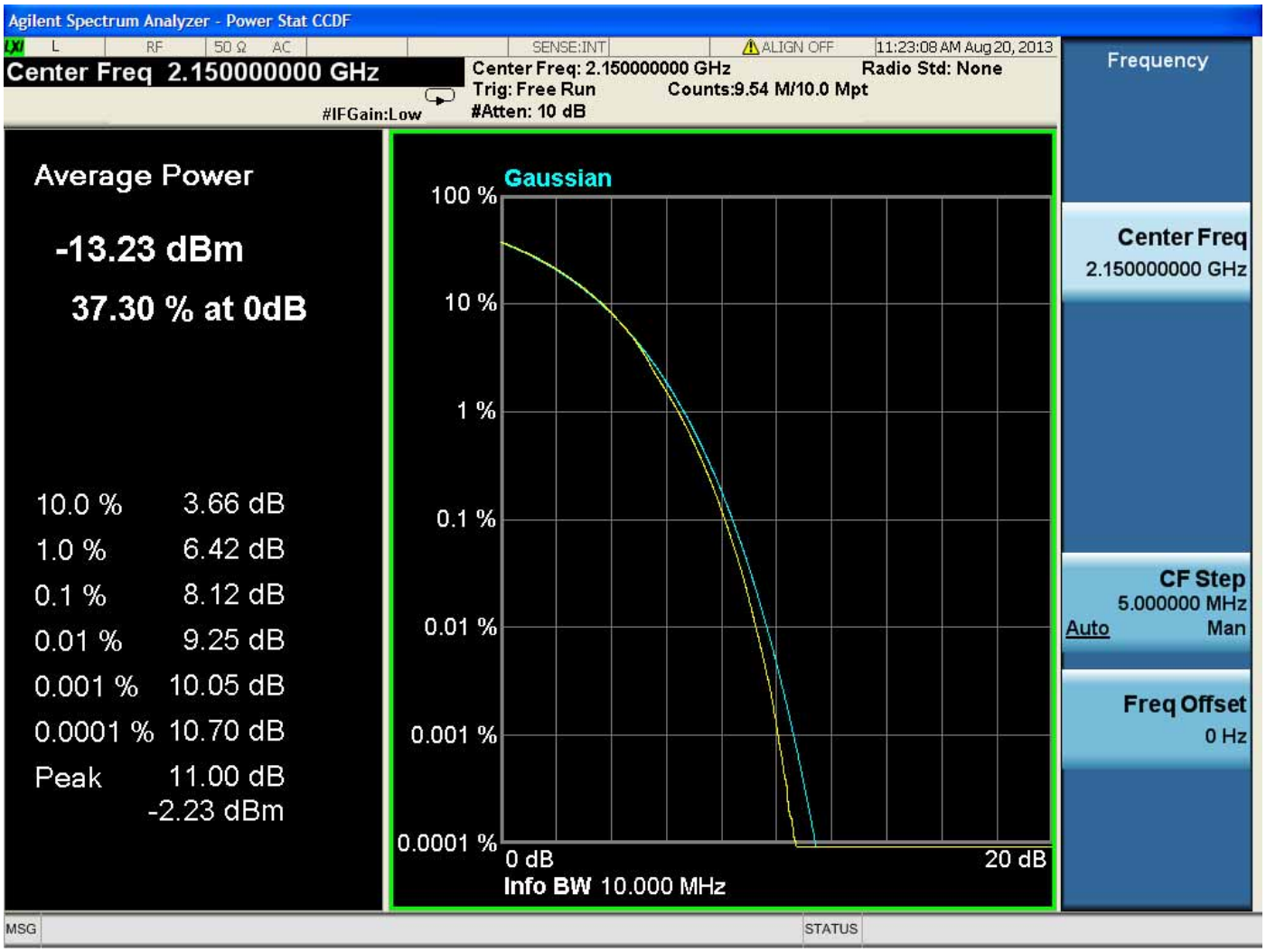


LTE AWS TRDU2X120W
FCC Part 27.53 Block F (2150 MHz); PWR: 120 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

Peak to Average
QPSK 120 watts
CF: 2135MHz + 2150MHz (10+10 MHz BW)

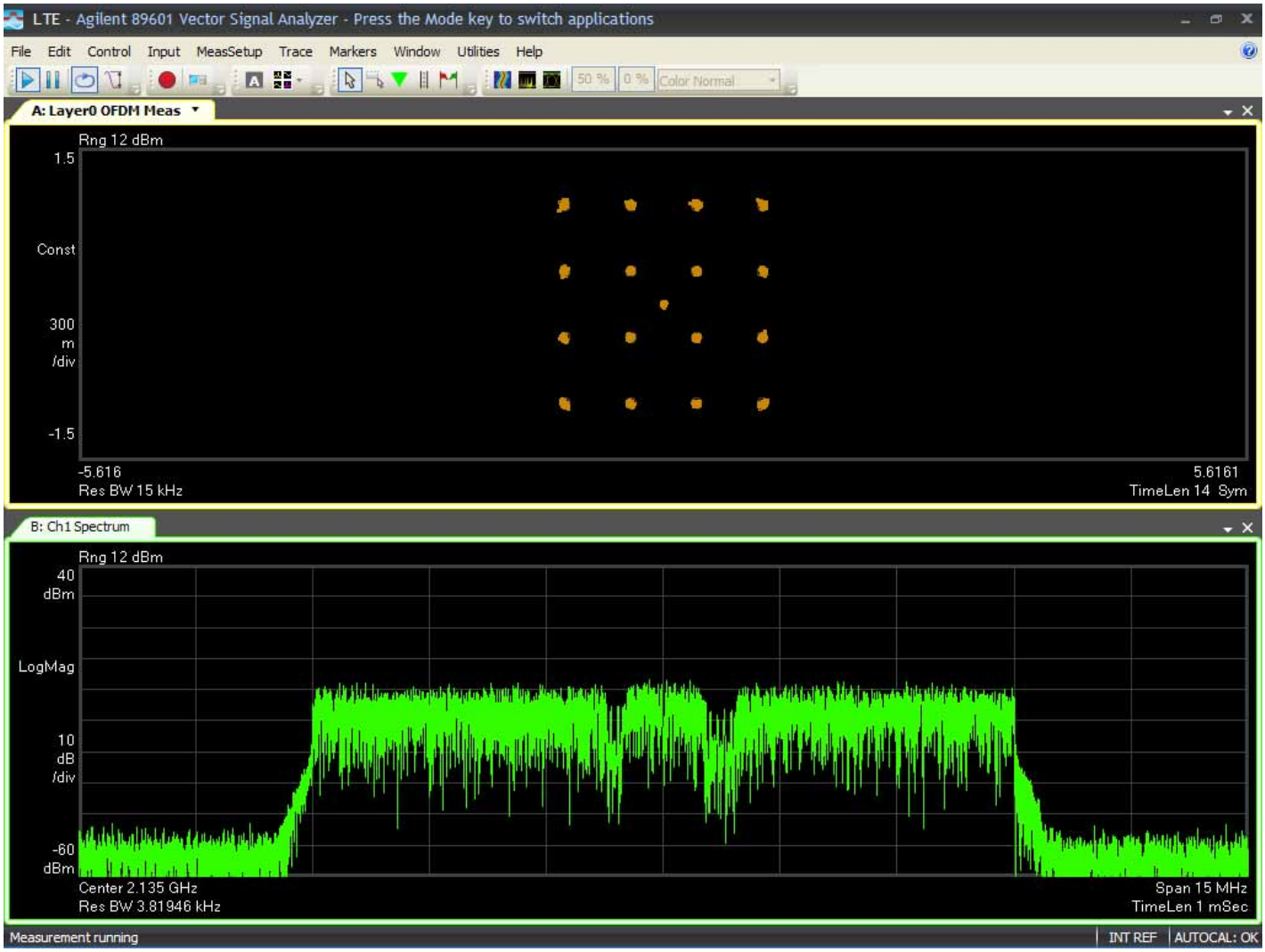


LTE AWS TRDU2X120W
FCC Part 27.53 Block C+D (2130-2140 MHz); PWR: 120 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

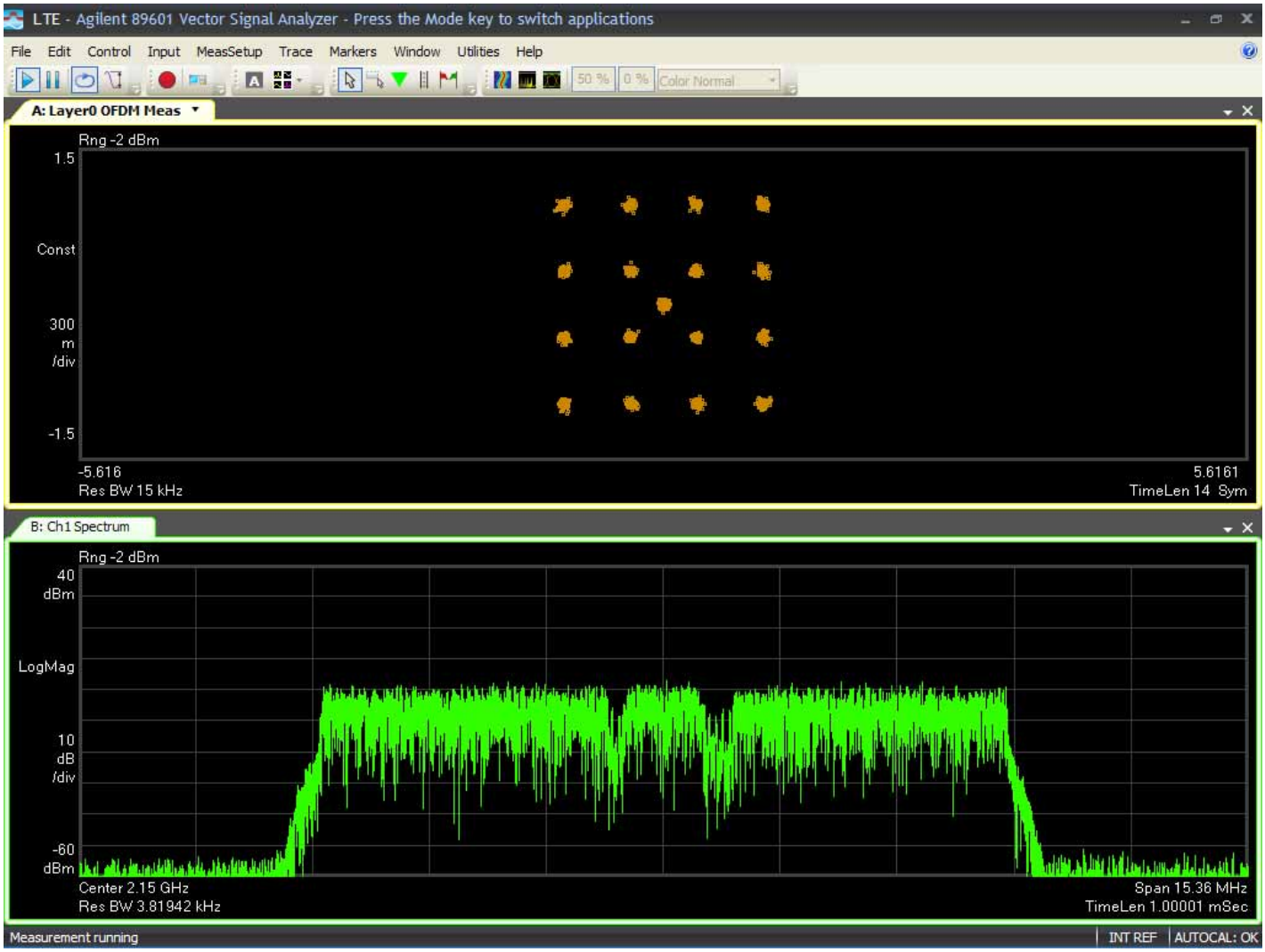


LTE AWS TRDU2X120W
FCC Part 27.53 Block F (2150 MHz); PWR: 120 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

16QAM 120 watts
CF: 2135MHz + 2150 (10+10 MHz BW)



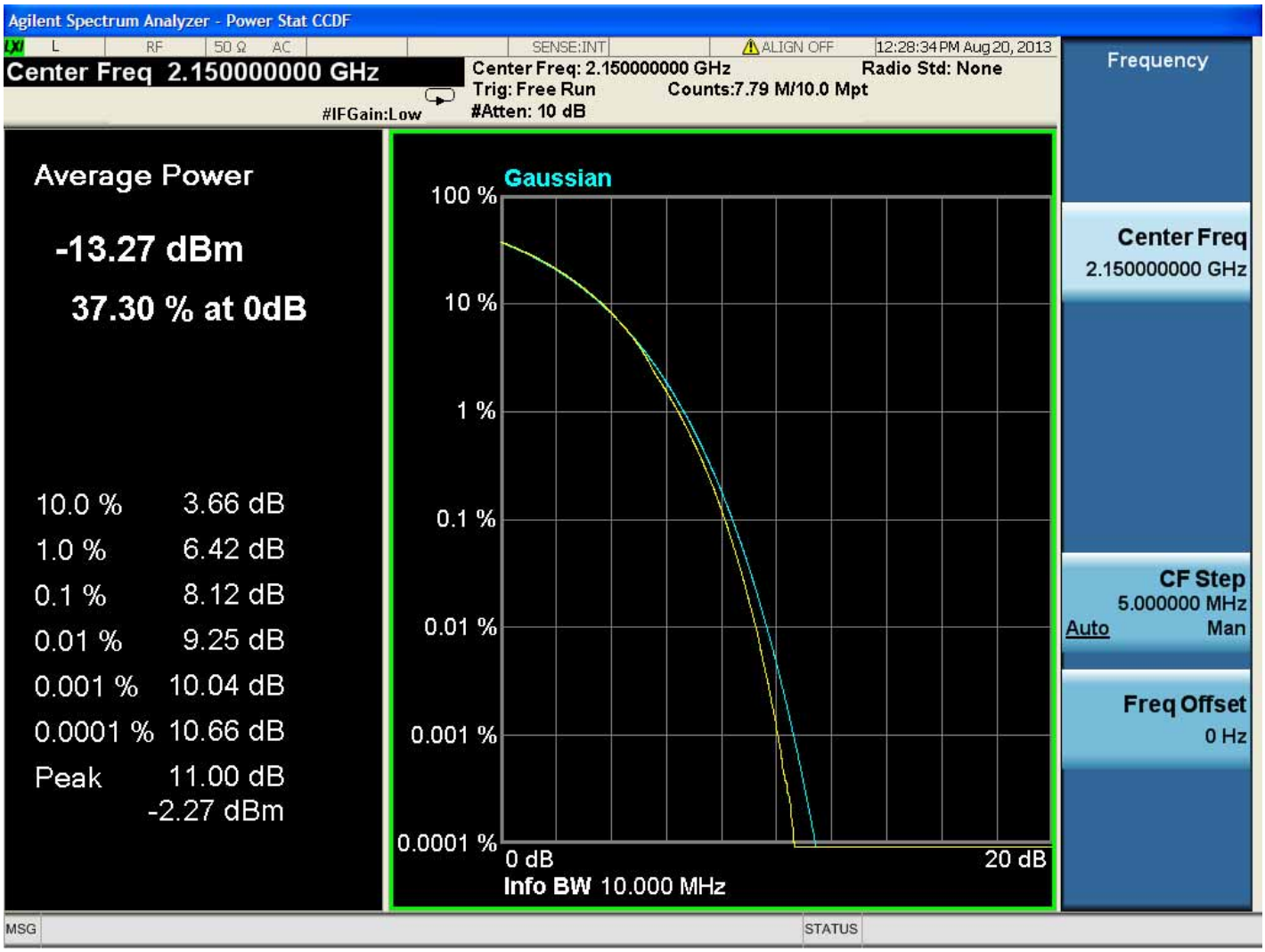
LTE AWS TRDU2X120W
FCC Part 27.53 Block C+D (2130-2140 MHz); PWR: 120 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY



LTE AWS TRDU2X120W
FCC Part 27.53 Block F (2150 MHz); PWR: 120 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

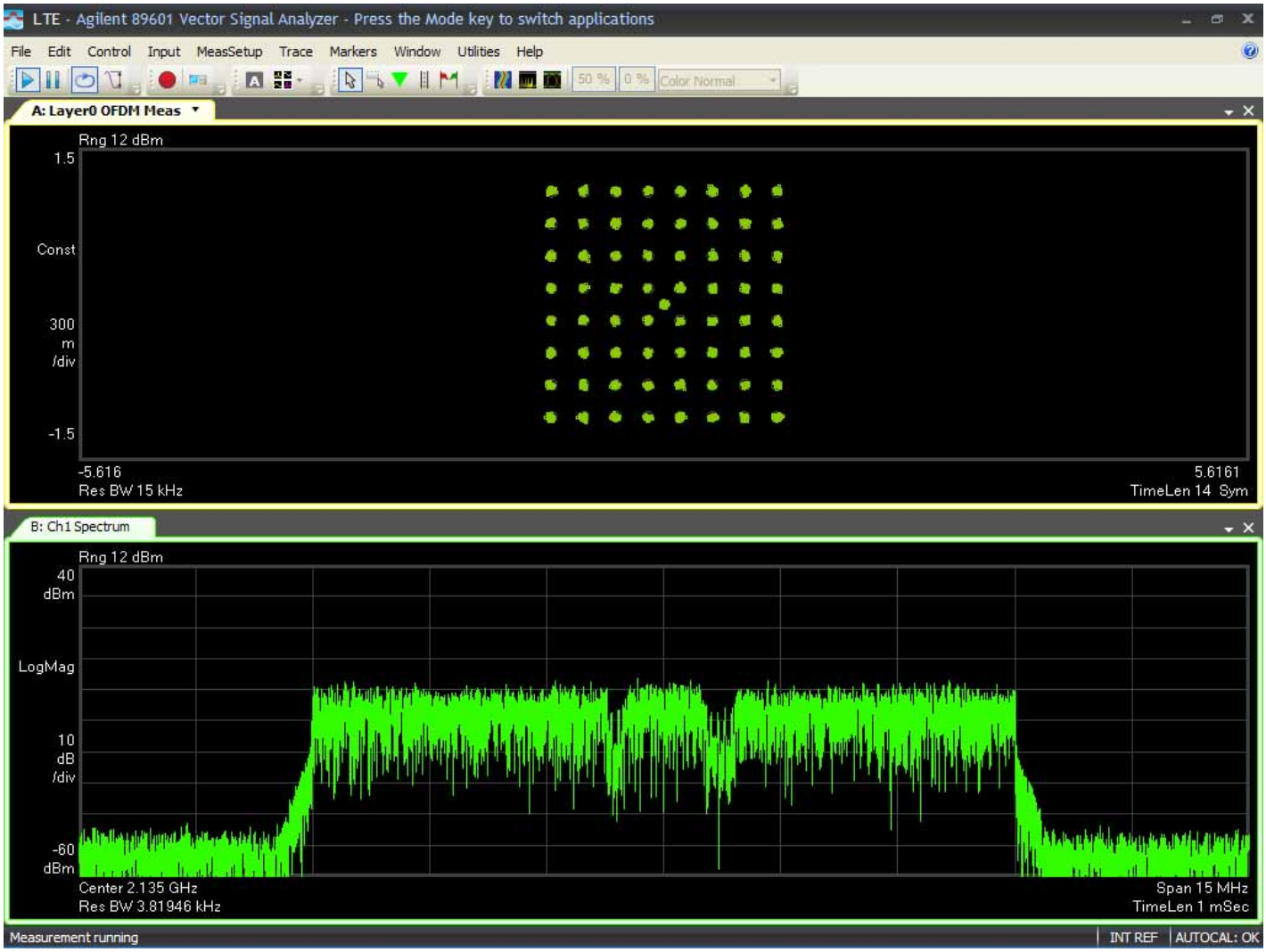
Peak to Average
16QAM 120 watts
CF: 2135MHz + 2150MHz (10+10 MHz BW)

LTE AWS TRDU2X120W
FCC Part 27.53 Block C+D (2130-2140 MHz); PWR: 120 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

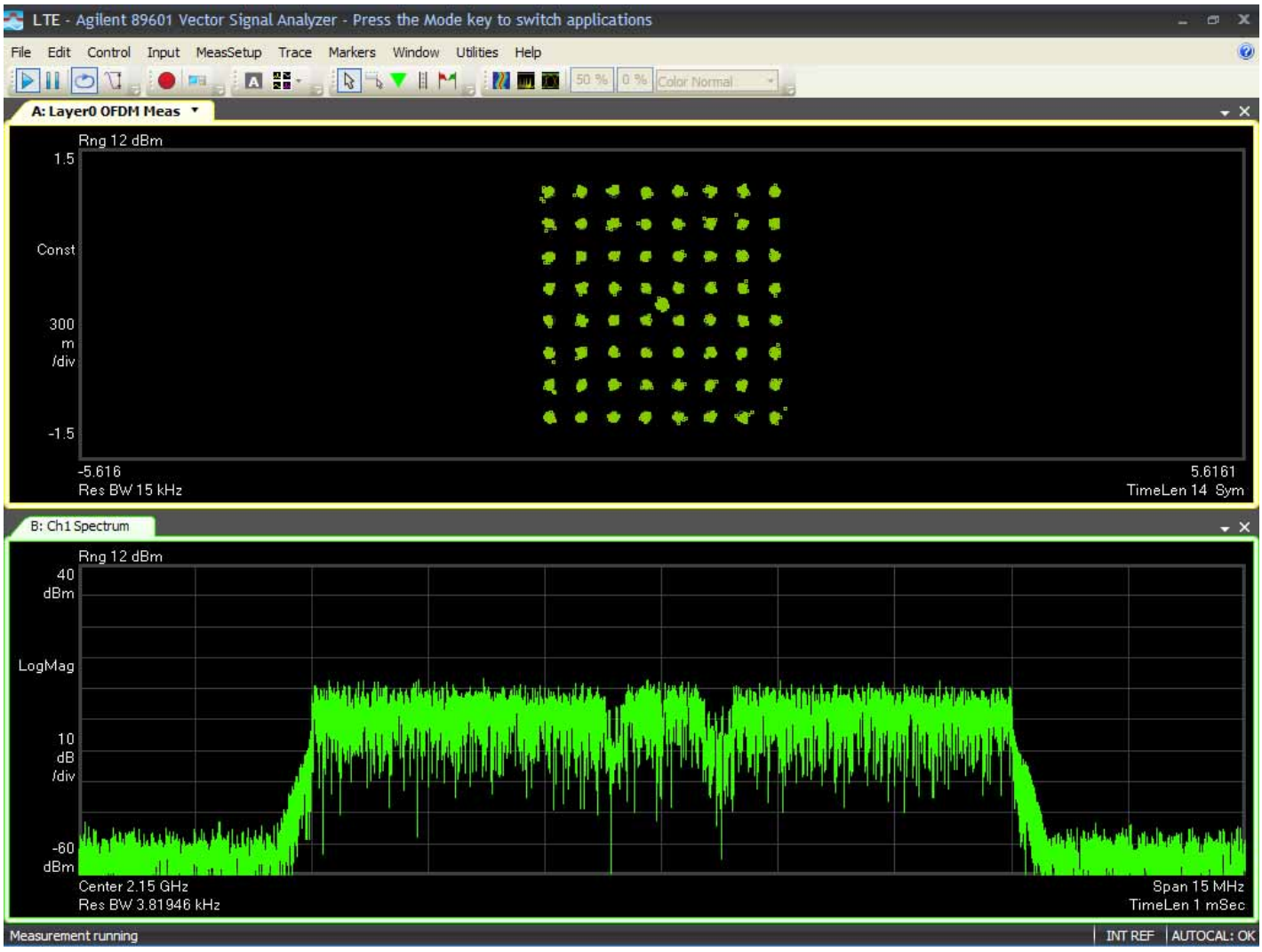


LTE AWS TRDU2X120W
FCC Part 27.53 Block B (2150 MHz); PWR: 120 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

64QAM 120 Watts
CF: 2135MHz + 2150MHz (10+10 MHz BW)

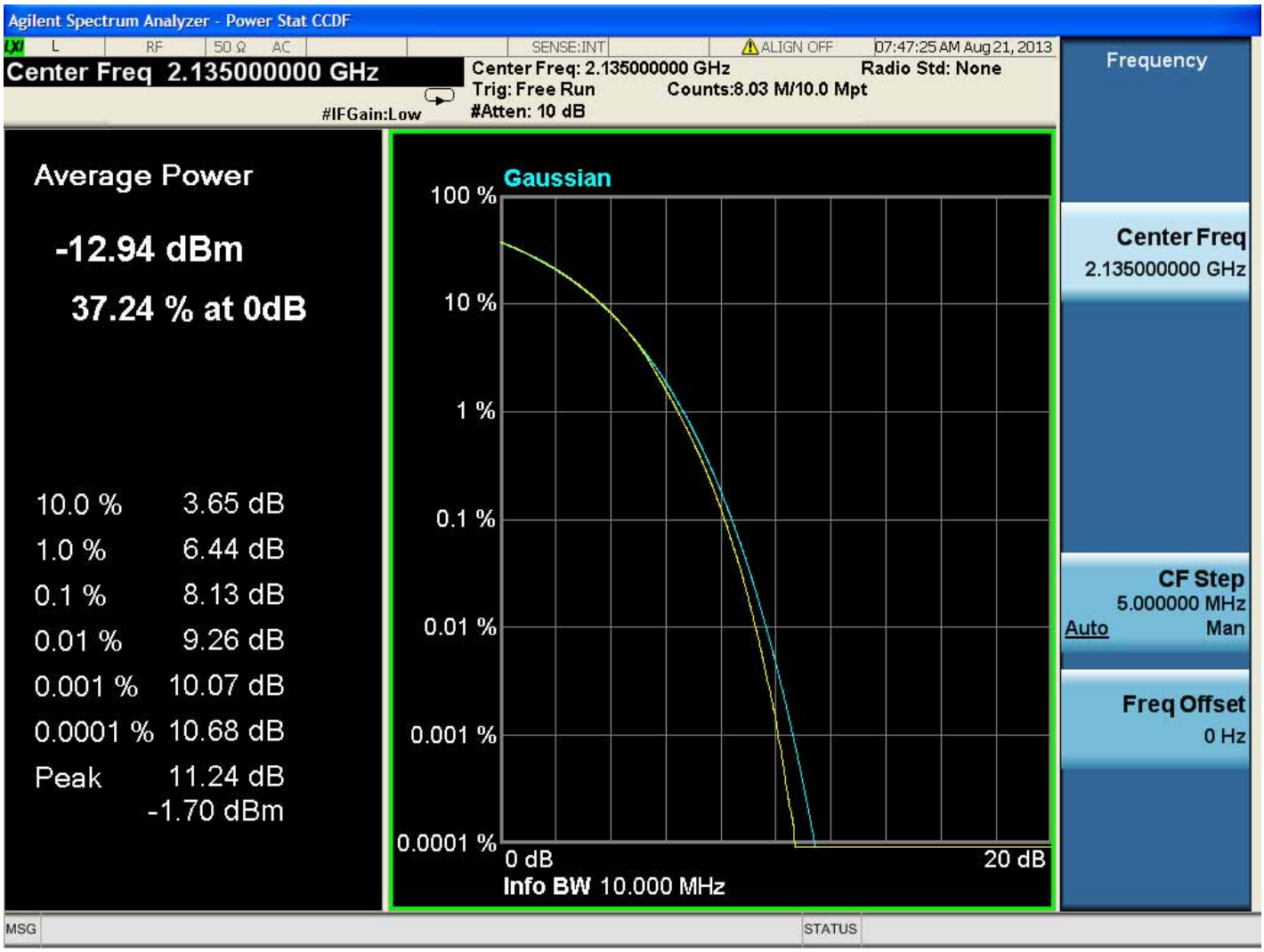


LTE AWS TRDU2X120W
FCC Part 27.53 Block C+D (2130-2140MHz); PWR: 120 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

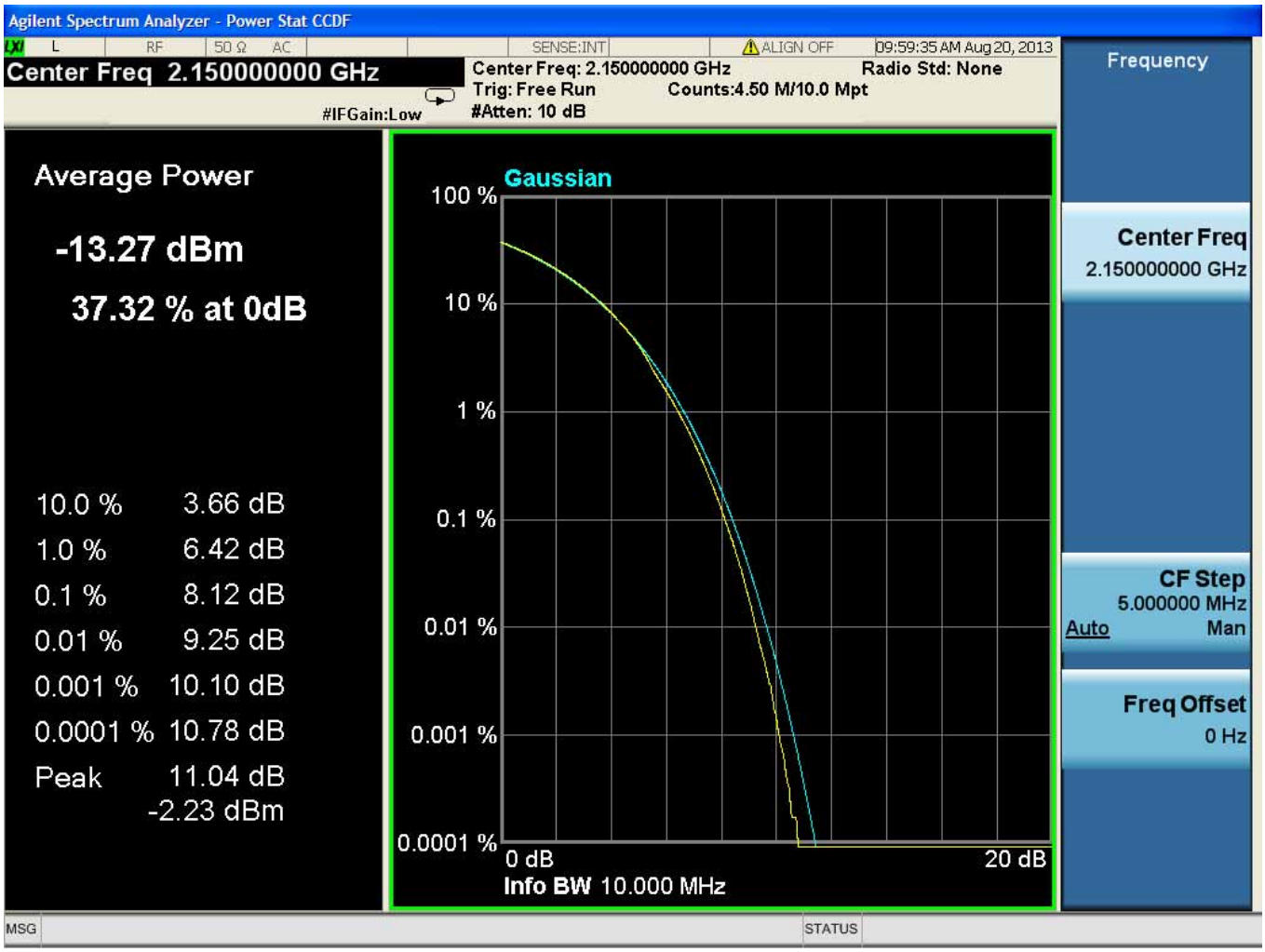


LTE AWS TRDU2X120W
FCC Part 27.53 Block F (2150 MHz); PWR: 120 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

Peak to Average
64QAM 120 watts
CF: 2135MHz + 2150MHz (10+10 MHz BW)

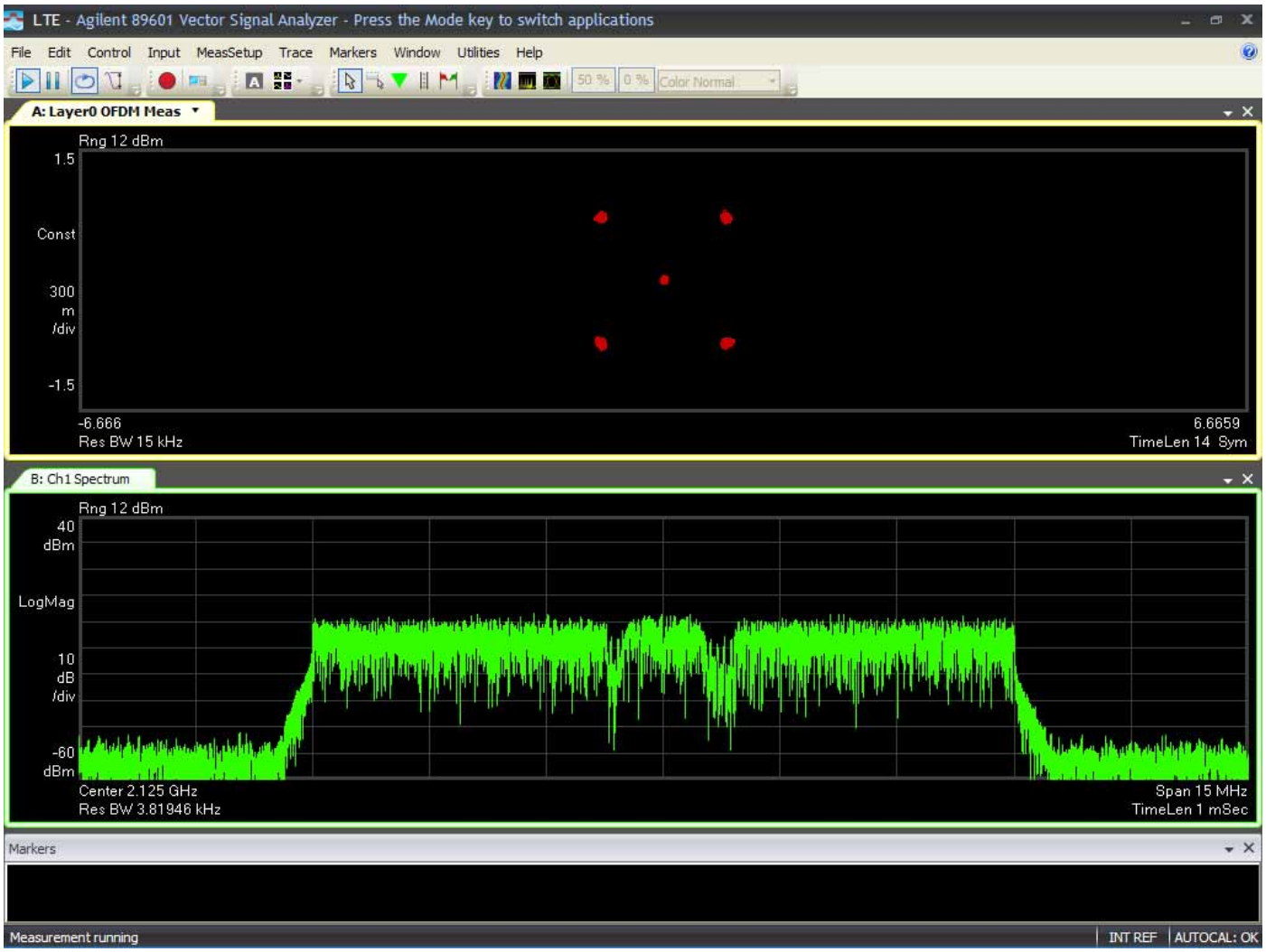


LTE AWS TRDU2X120W
FCC Part 27.53 Block C+D (2130-2140 MHz); PWR: 120 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

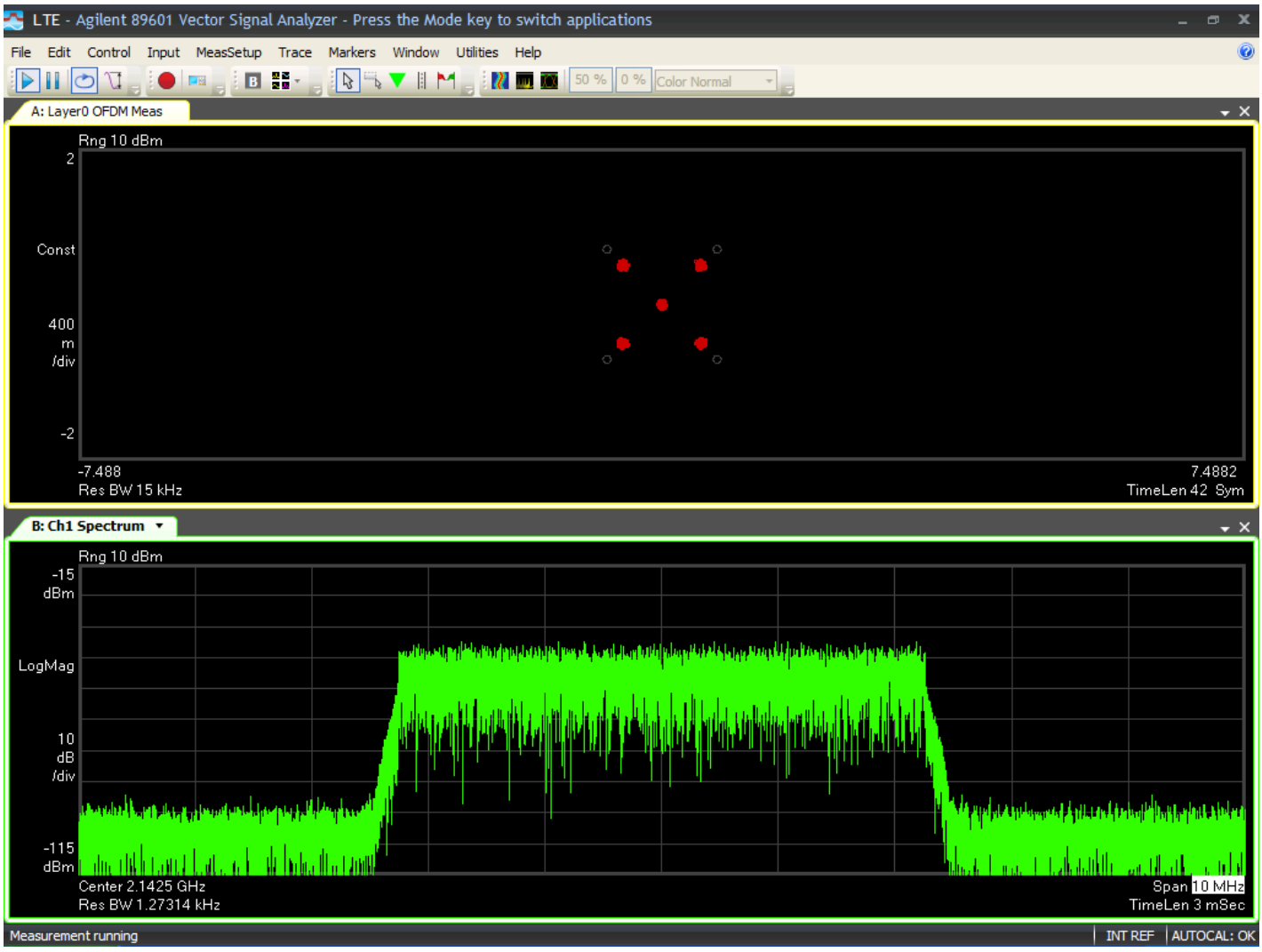


LTE AWS TRDU2X120W
FCC Part 27.53 Block F (2150 MHz); PWR: 120 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

QPSK 120 Watts
CF: 2125MHz + 2142.5MHz (10+5 MHz BW)



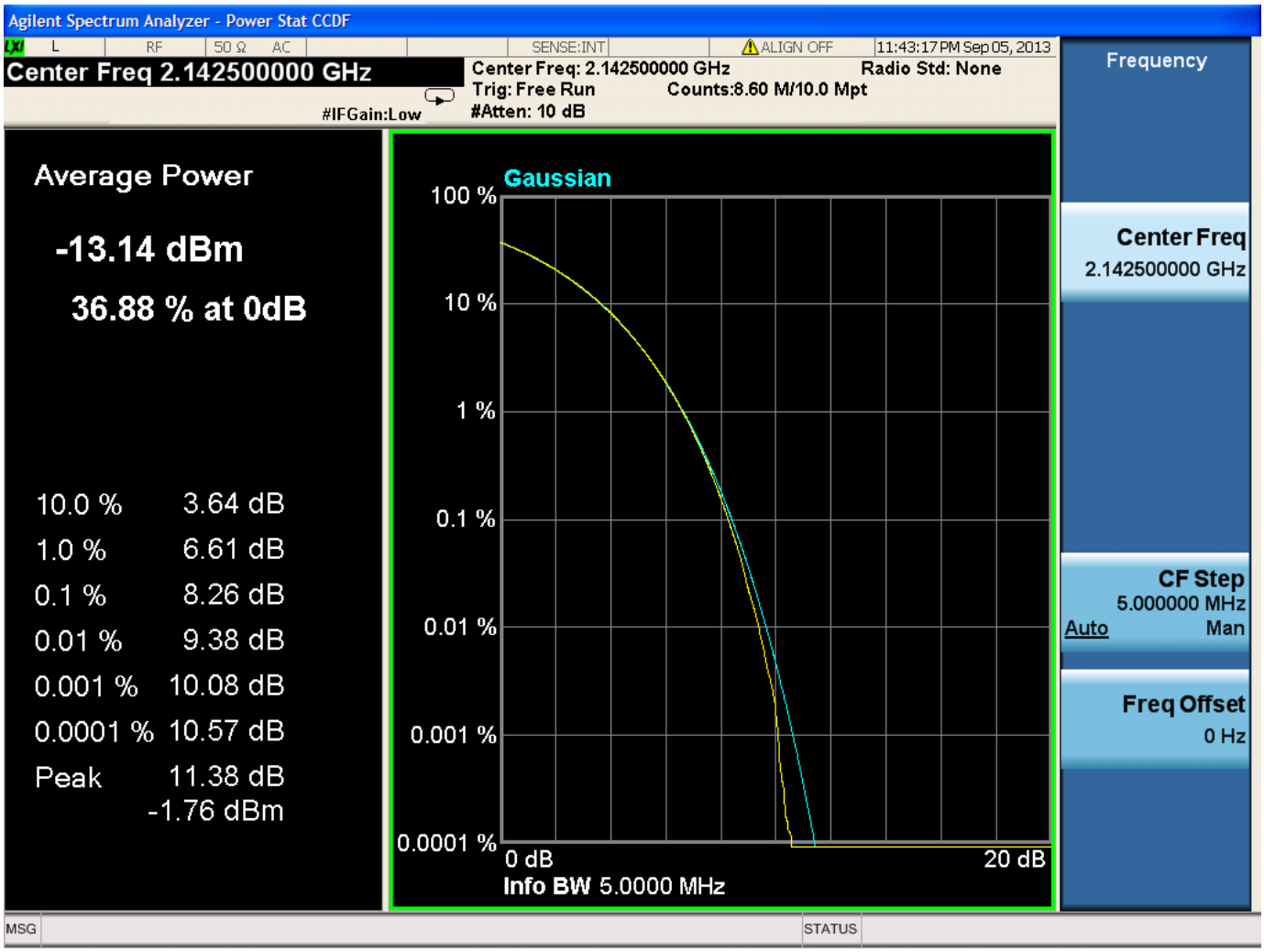
LTE AWS TRDU2X120W
FCC Part 27.53 Block B (2125 MHz); PWR: 120 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY



LTE AWS TRDU2X120W
FCC Part 27.53 Block E (2142.5 MHz); PWR: 120 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

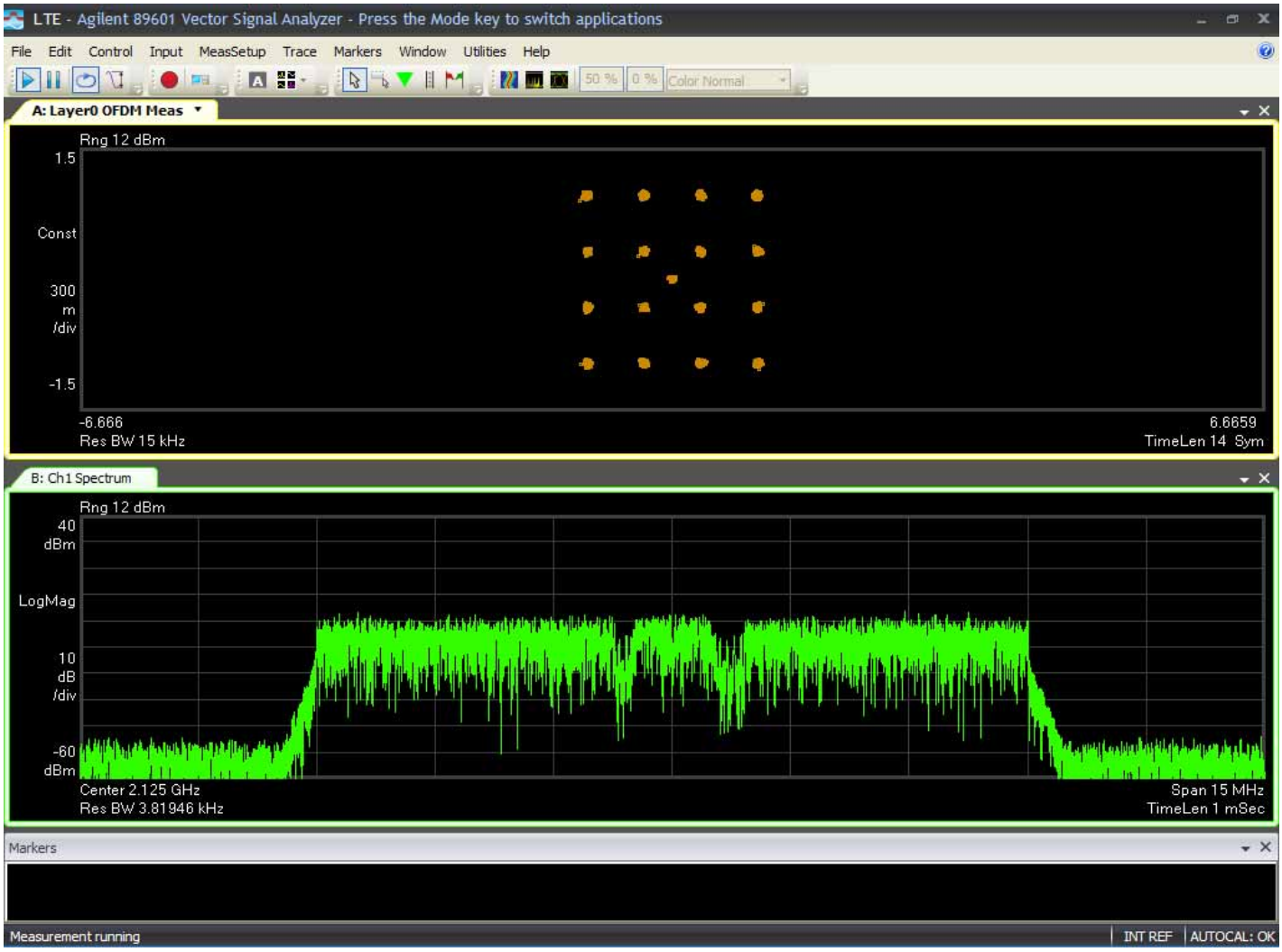
Peak to Average
QPSK 120 Watts
CF: 2125MHz + 2142.5MHz (10+5 MHz BW)

LTE AWS TRDU2X120W
FCC Part 27.53 Block B (2125 MHz); PWR: 120 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

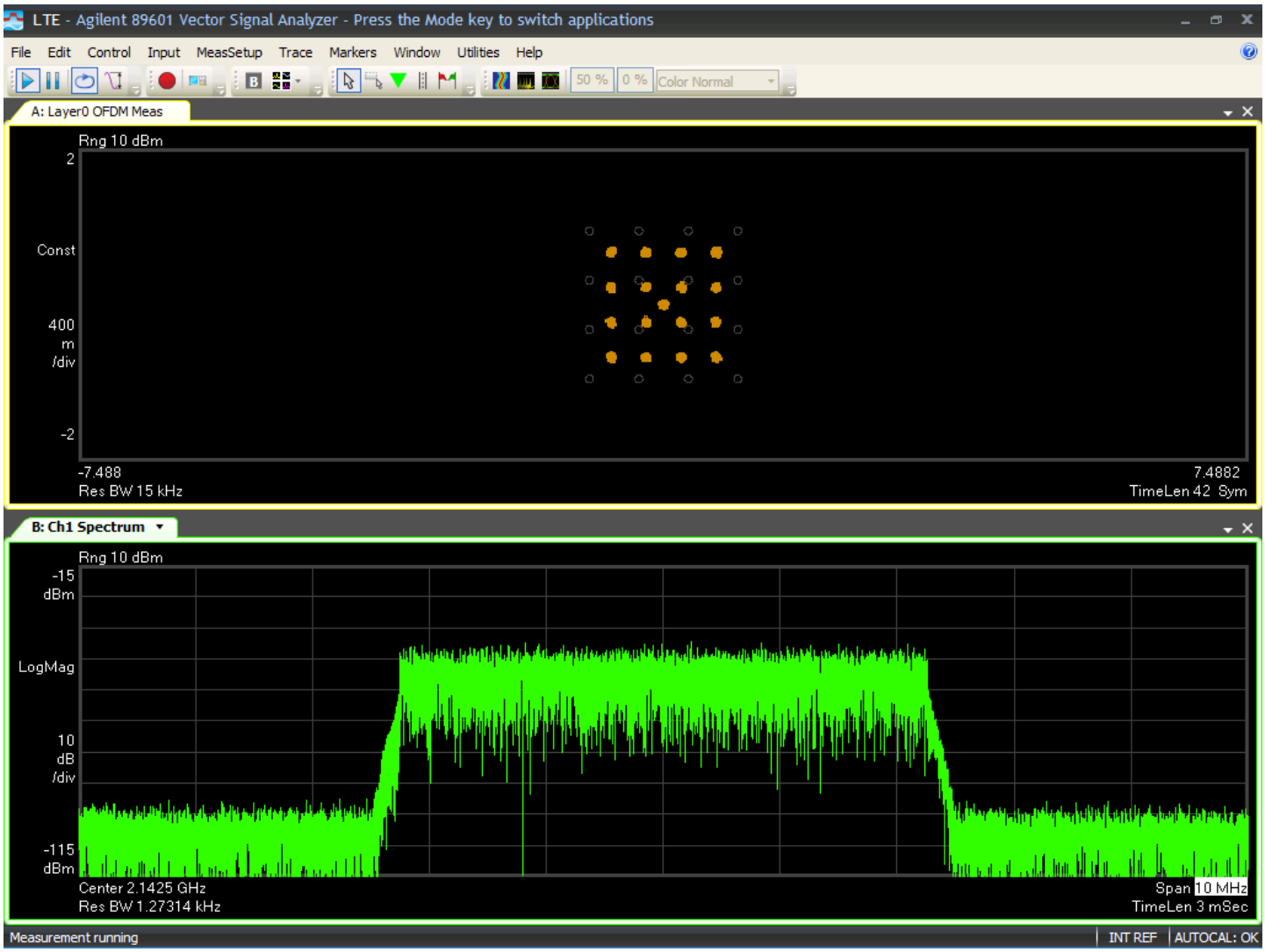


LTE AWS TRDU2X120W
FCC Part 27.53 Block E (2142.5 MHz); PWR: 120 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

16QAM 120 Watts
CF: 2125MHz + 2142.5MHz (10+5 MHz BW)

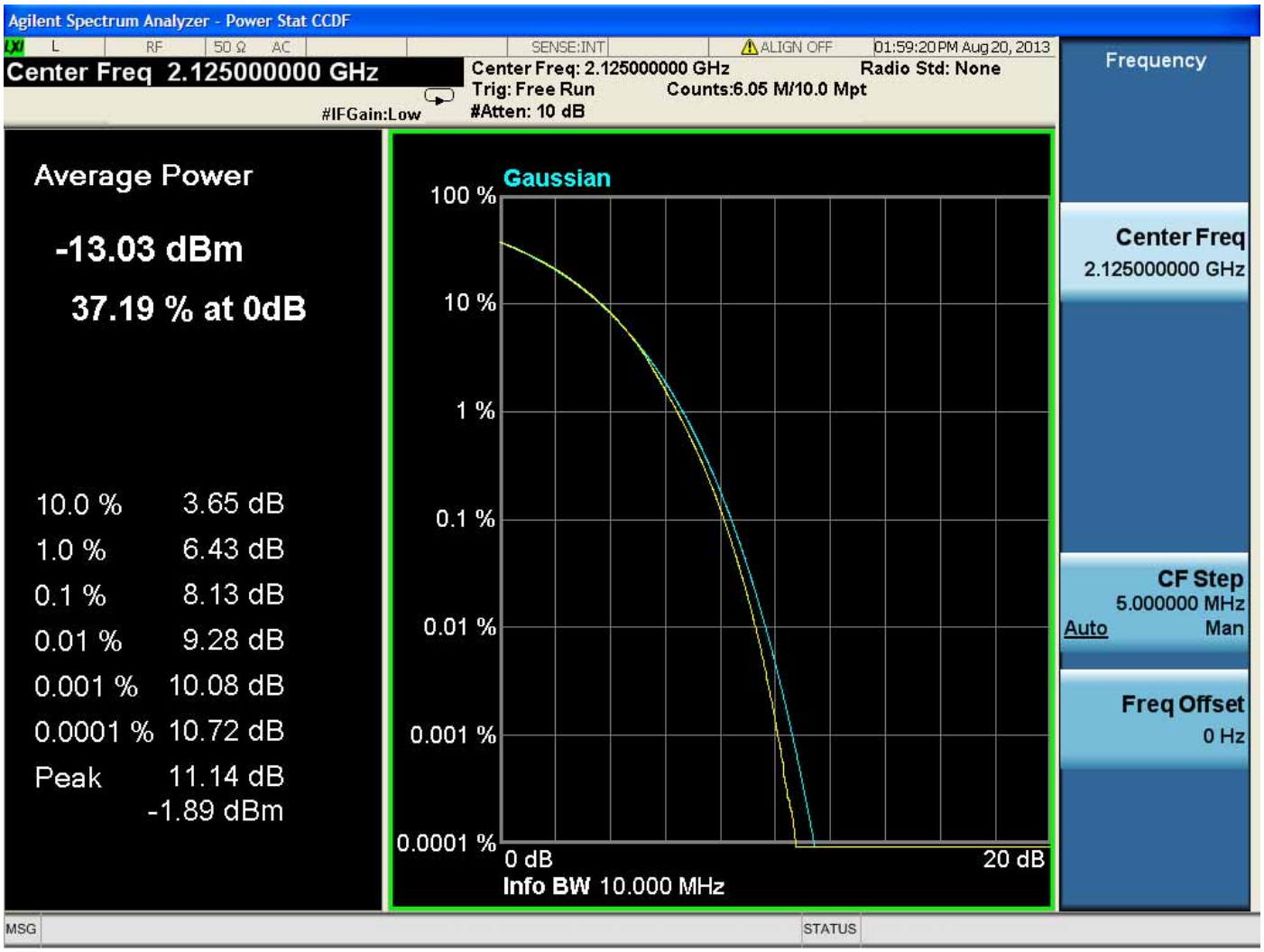


LTE AWS TRDU2X120W
FCC Part 27.53 Block B (2125 MHz); PWR: 120 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

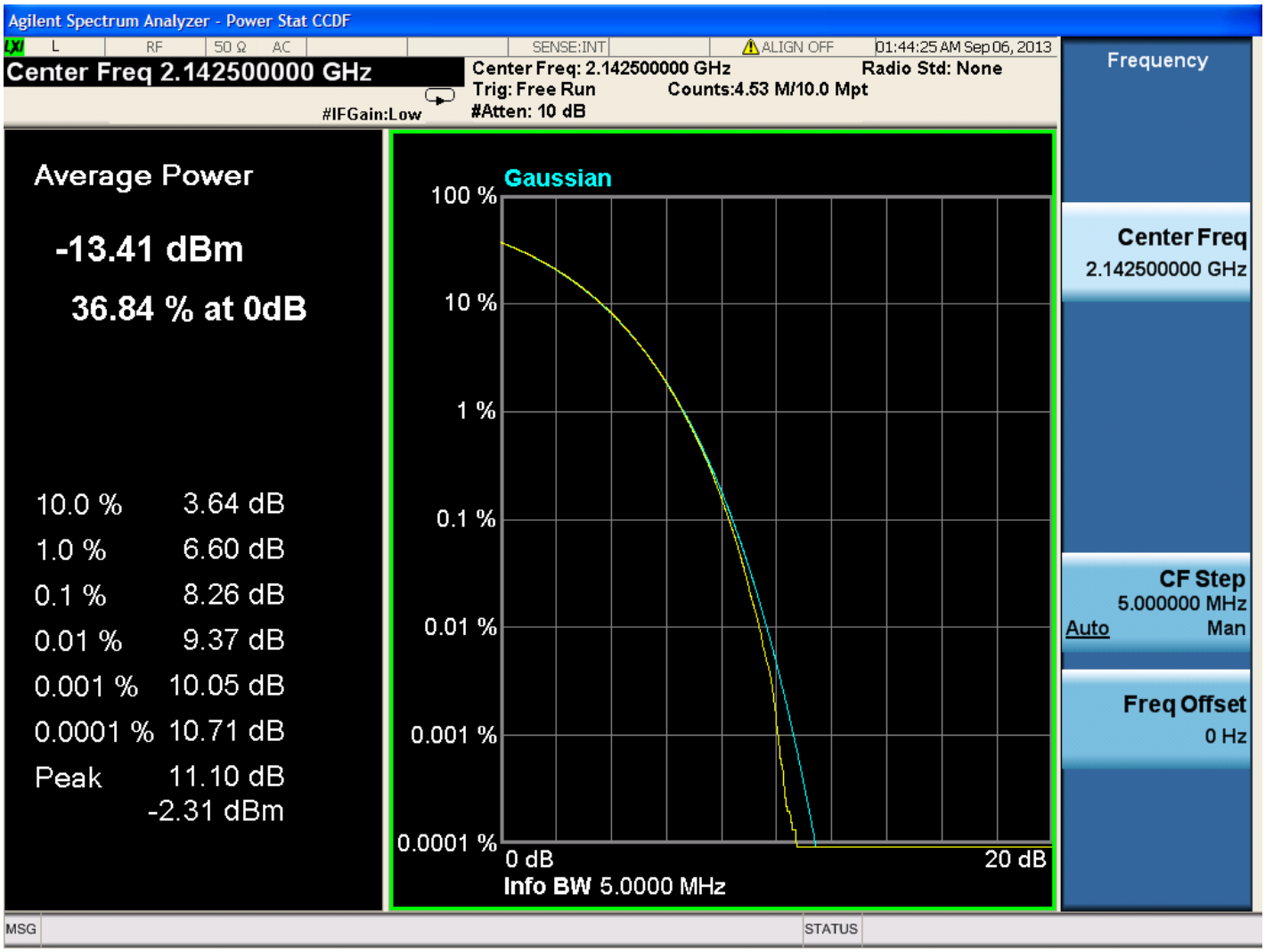


LTE AWS TRDU2X120W
FCC Part 27.53 Block E (2142.5 MHz); PWR: 120 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

Peak to Average
16QAM 120 Watts
CF: 2125MHz + 2142.5MHz (10+5 MHz BW)

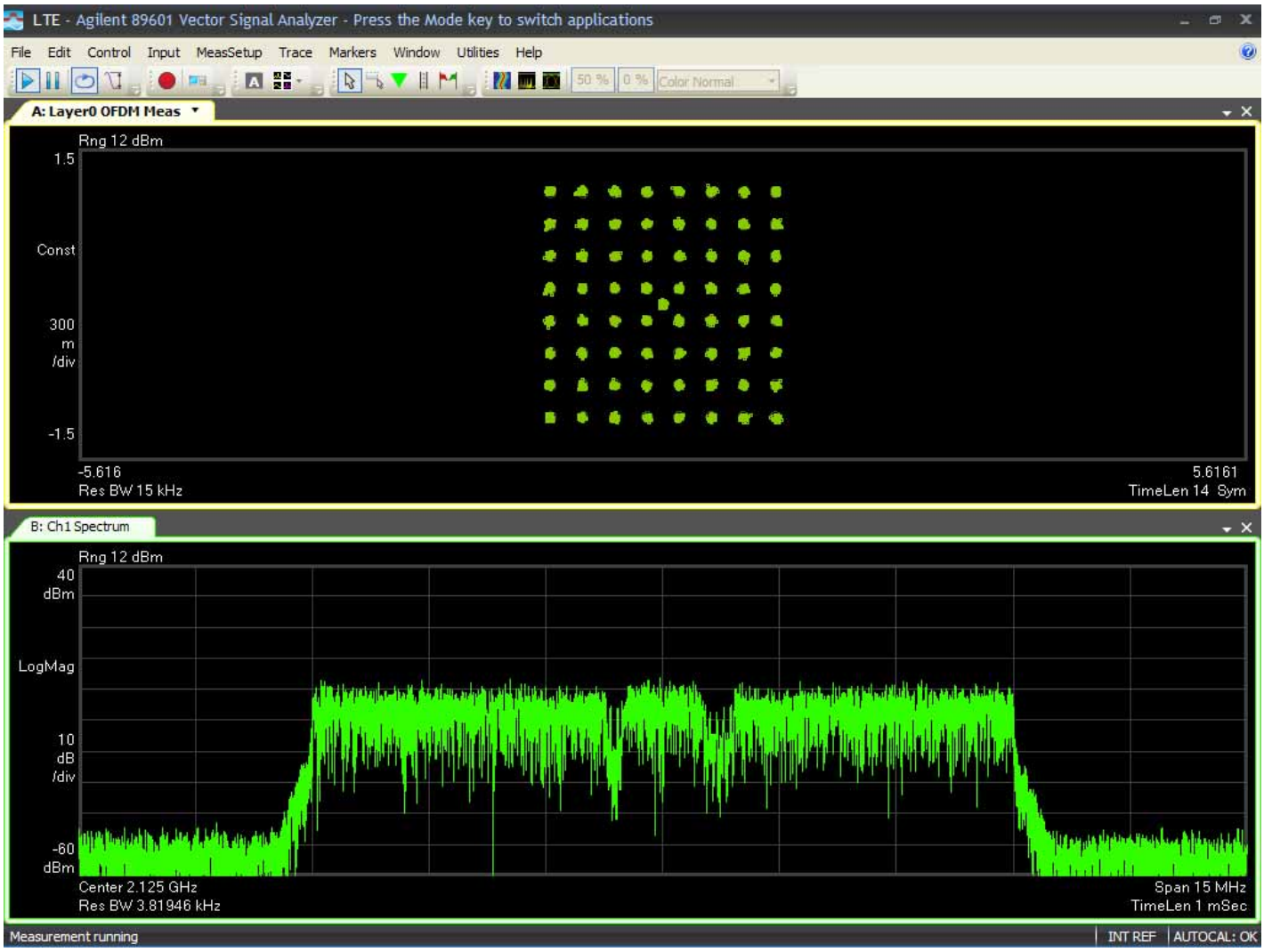


LTE AWS TRDU2X120W
FCC Part 27.53 Block B (2125 MHz); PWR: 120 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

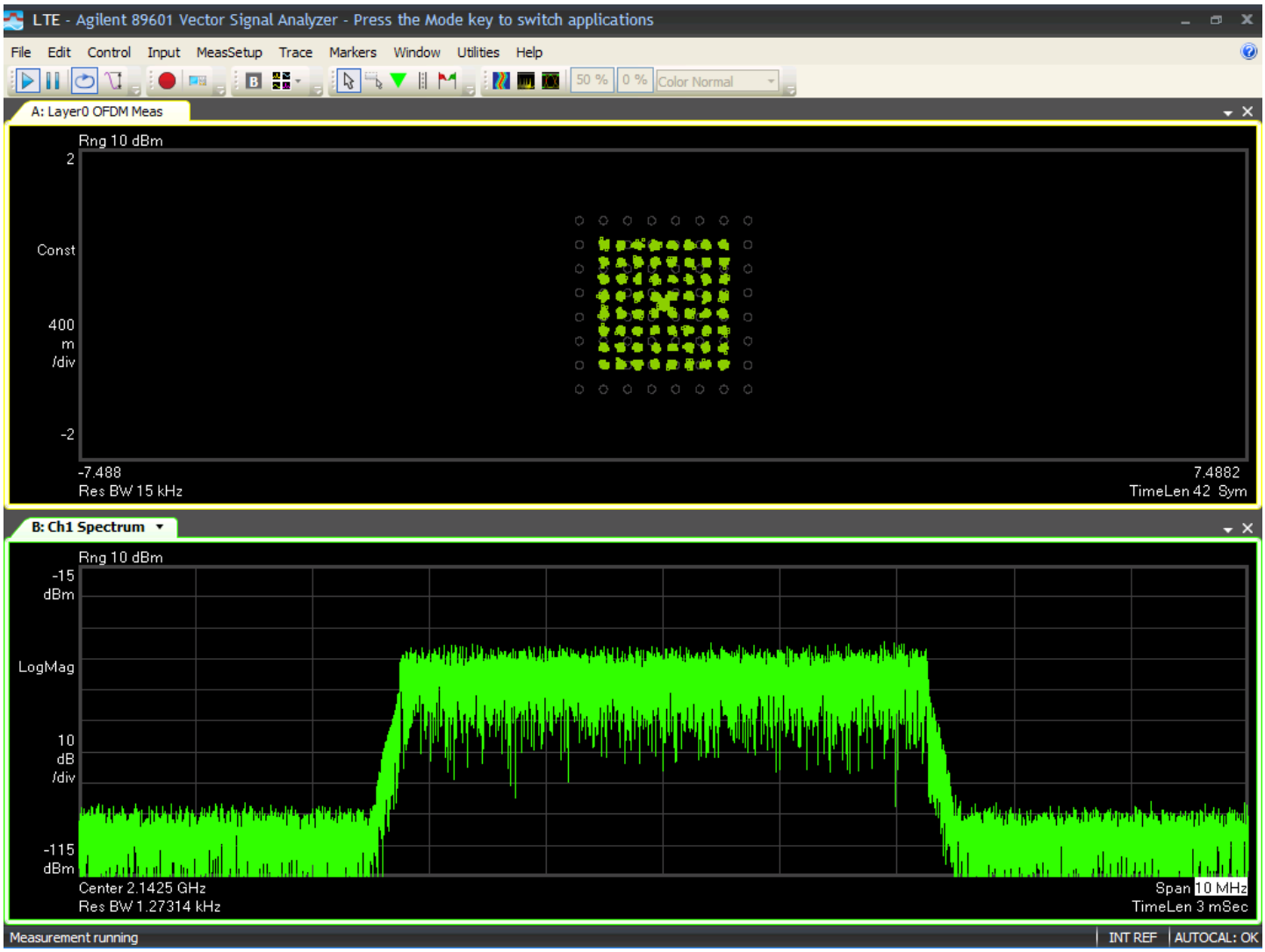


LTE AWS TRDU2X120W
FCC Part 27.53 Block E (2142.5 MHz); PWR: 120 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

64QAM 120 Watts
CF: 2125MHz + 2142.5MHz (10+5 MHz BW)

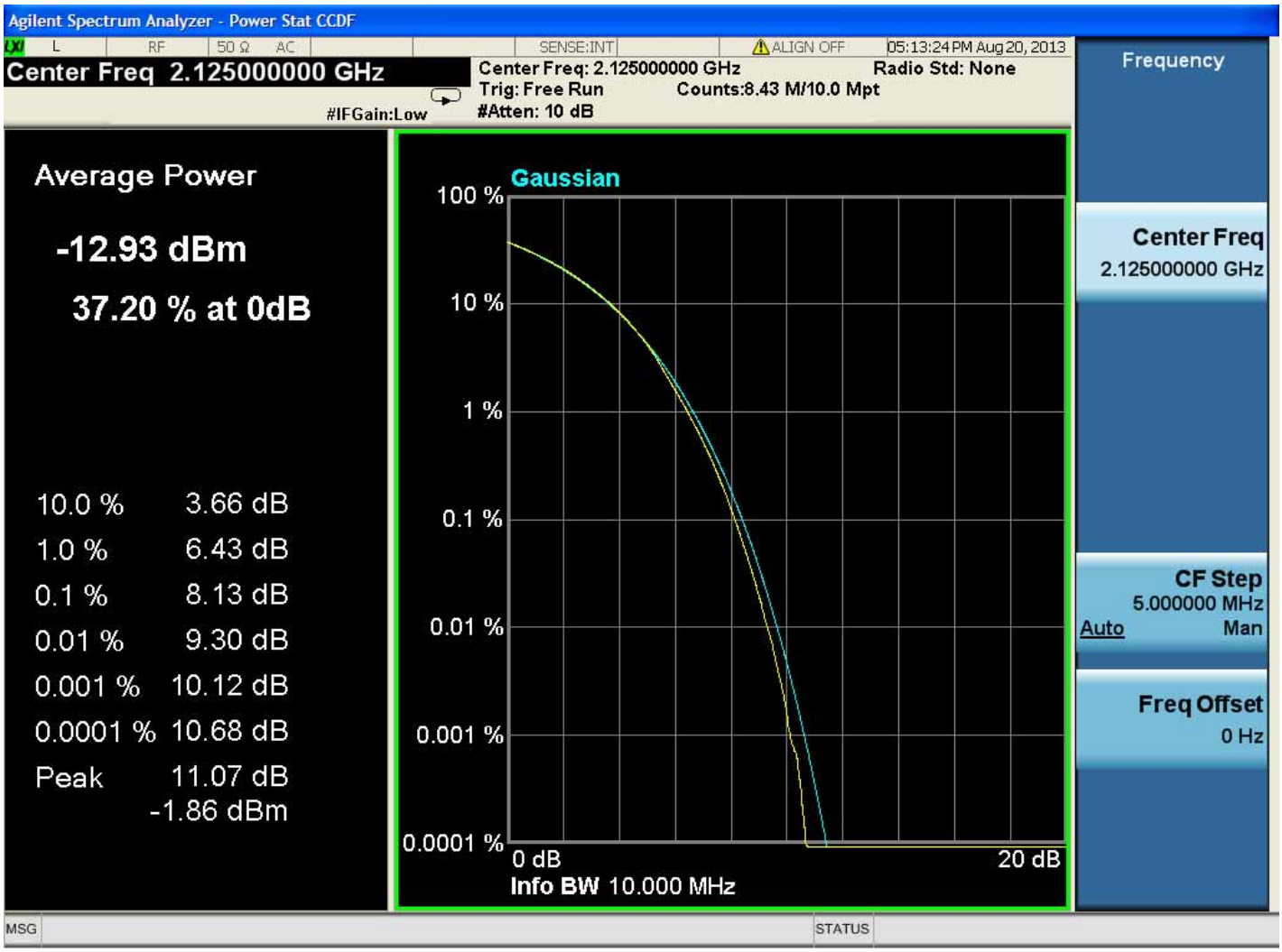


LTE AWS TRDU2X120W
FCC Part 27.53 Block B (2125 MHz); PWR: 120 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

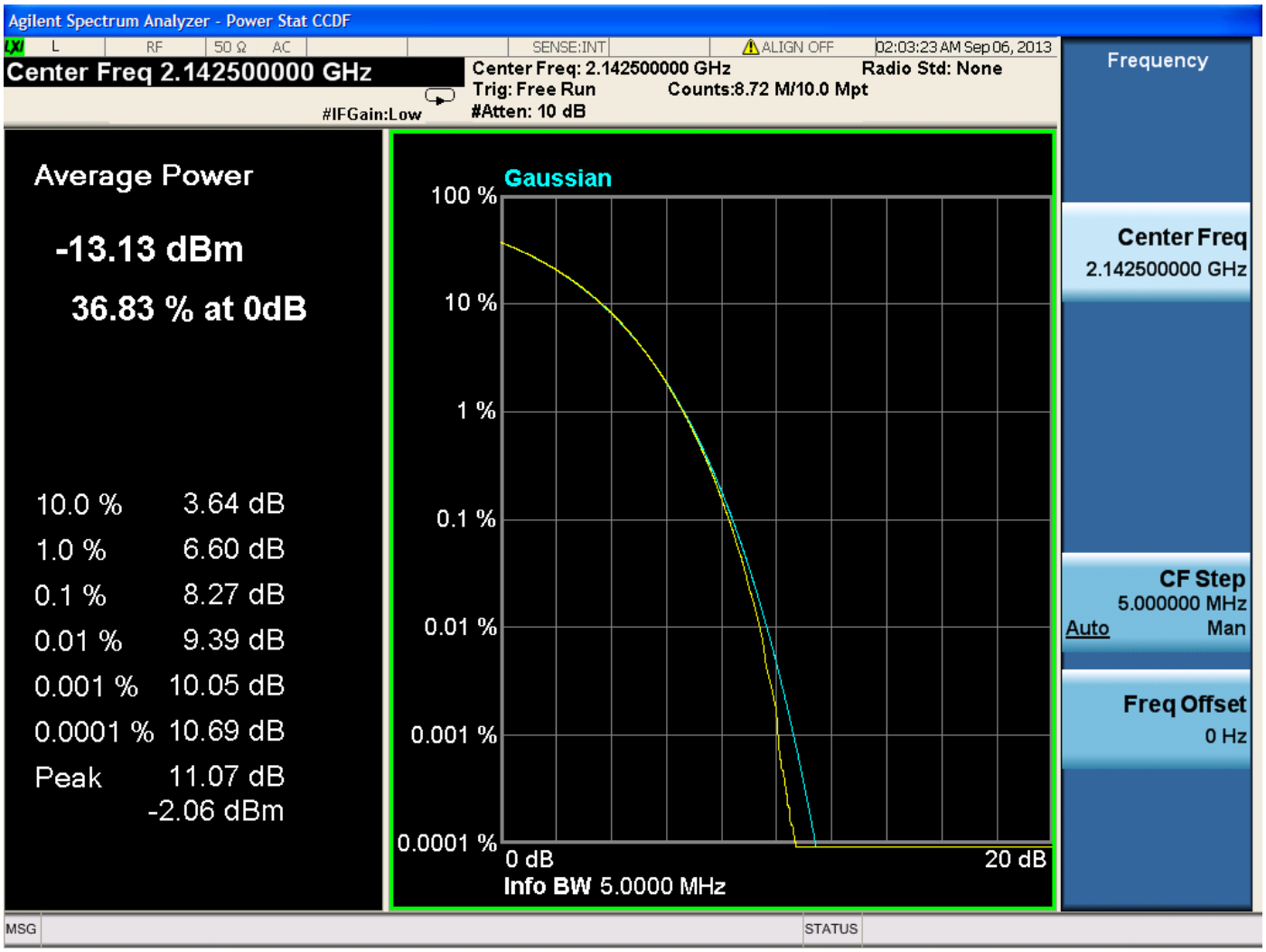


LTE AWS TRDU2X120W
FCC Part 27.53 Block E (2142.5 MHz); PWR: 120 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

Peak to Average
64QAM 120 Watts
CF: 2125MHz + 2142.5MHz (10+5 MHz BW)

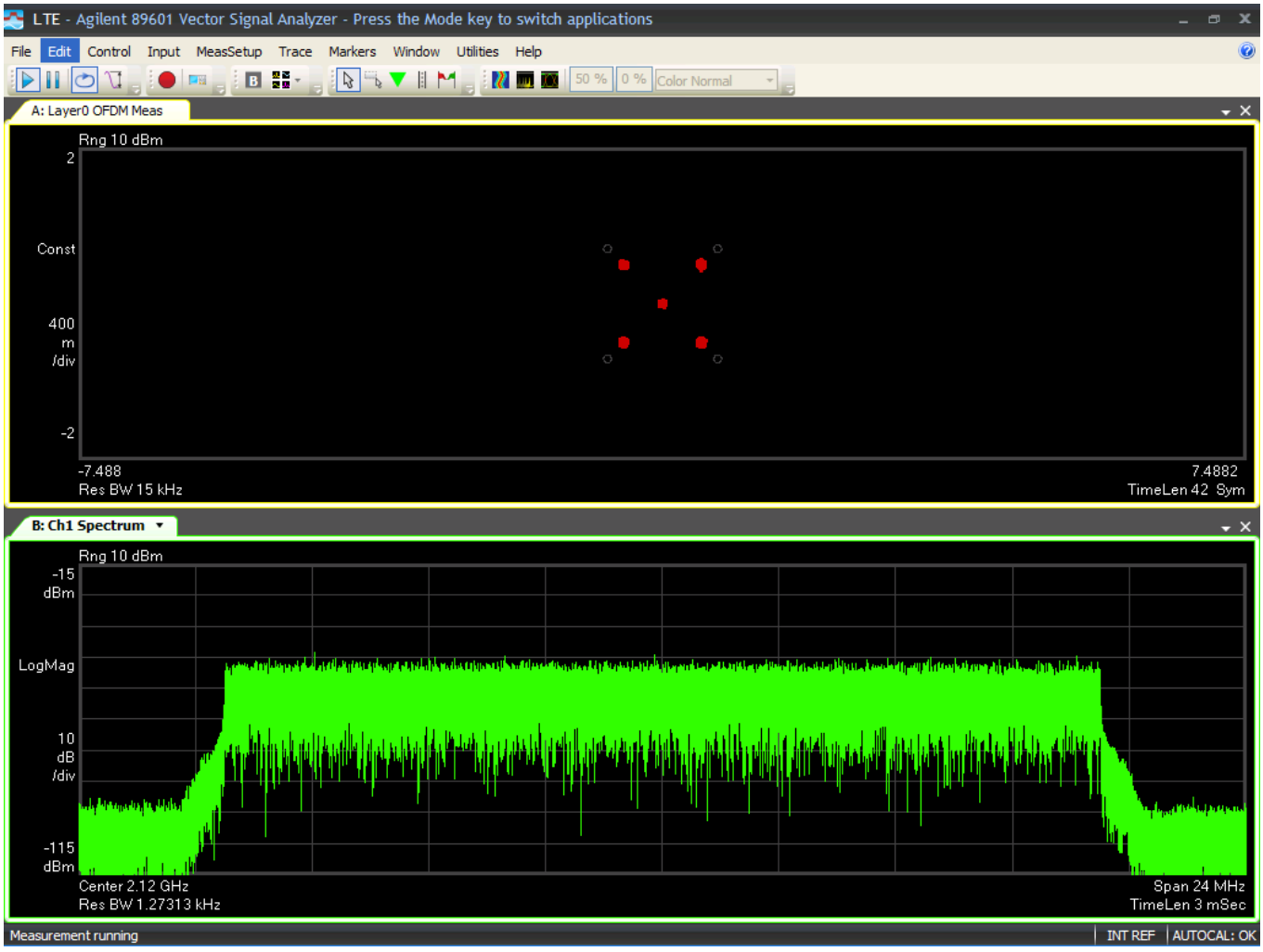


LTE AWS TRDU2X120W
FCC Part 27.53 Block B (2125 MHz); PWR: 120 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY



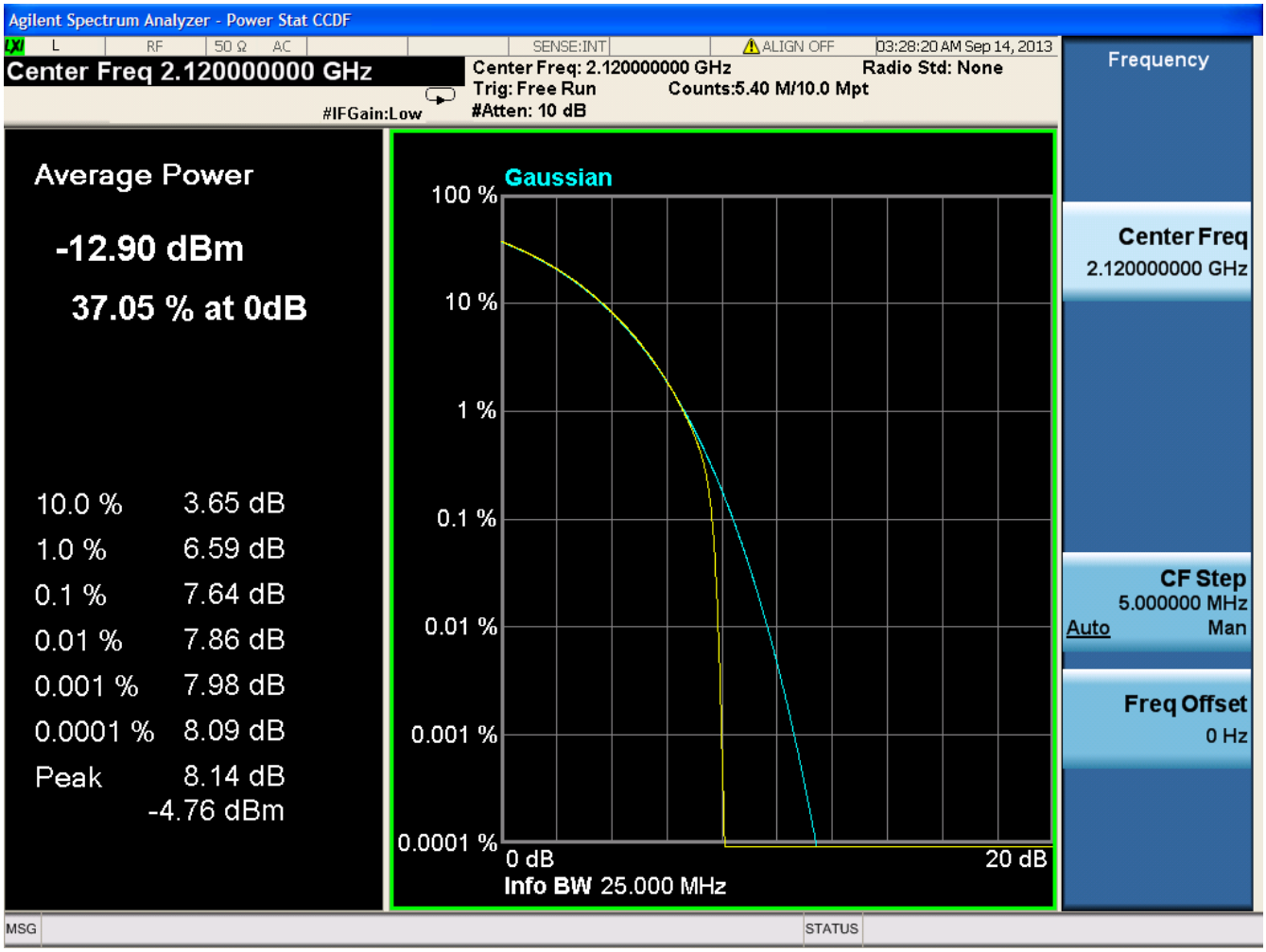
LTE AWS TRDU2X120W
FCC Part 27.53 Block E (2142.5 MHz); PWR: 120 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

QPSK 60 Watts
CF: 2120MHz (20 MHz BW)



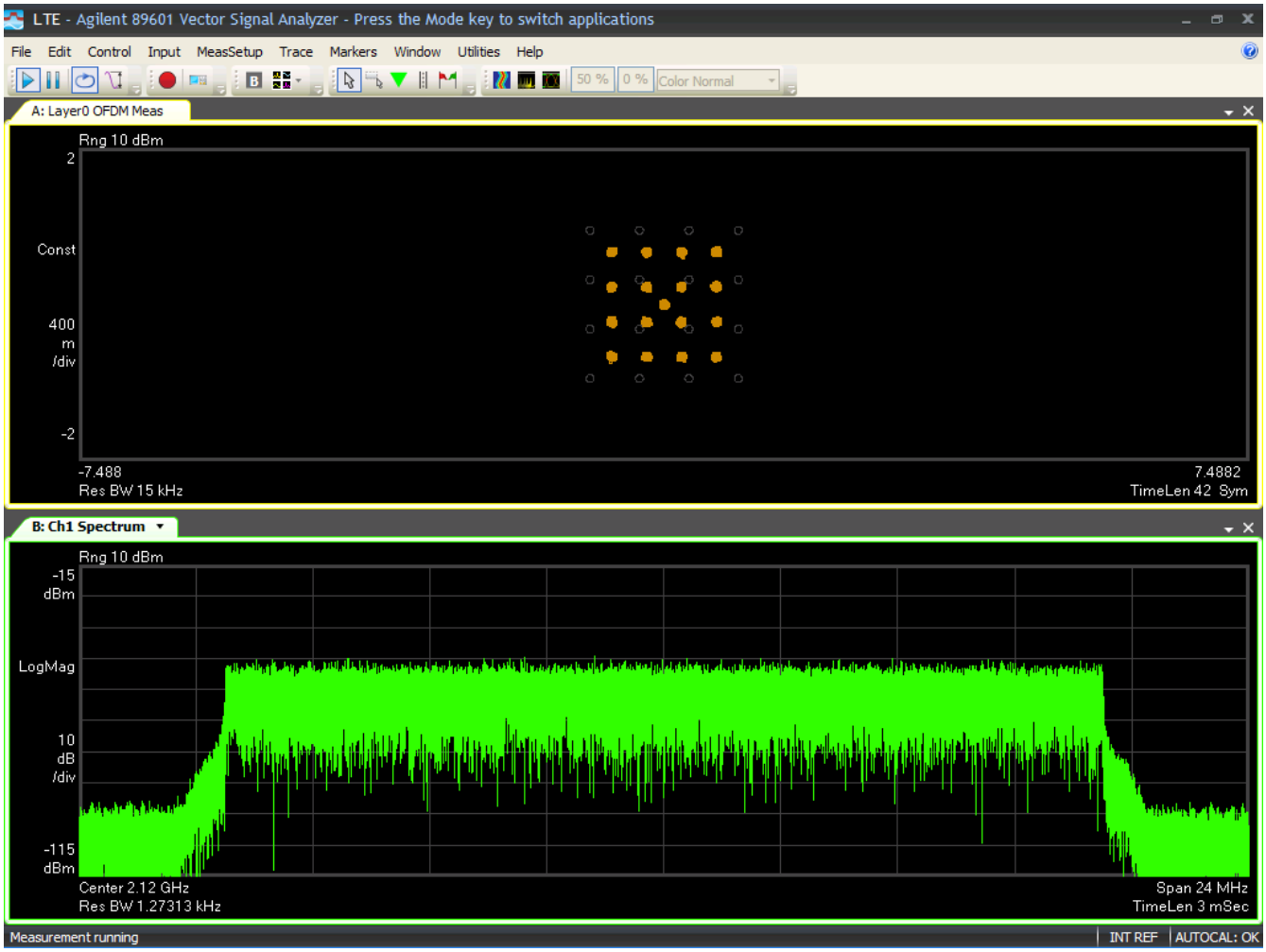
LTE AWS TRDU2X60W
FCC Part 27.53 Block A+B (2110-2130 MHz); PWR: 60 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

Peak to Average
QPSK 60 Watts
2120MHz (20 MHz BW)



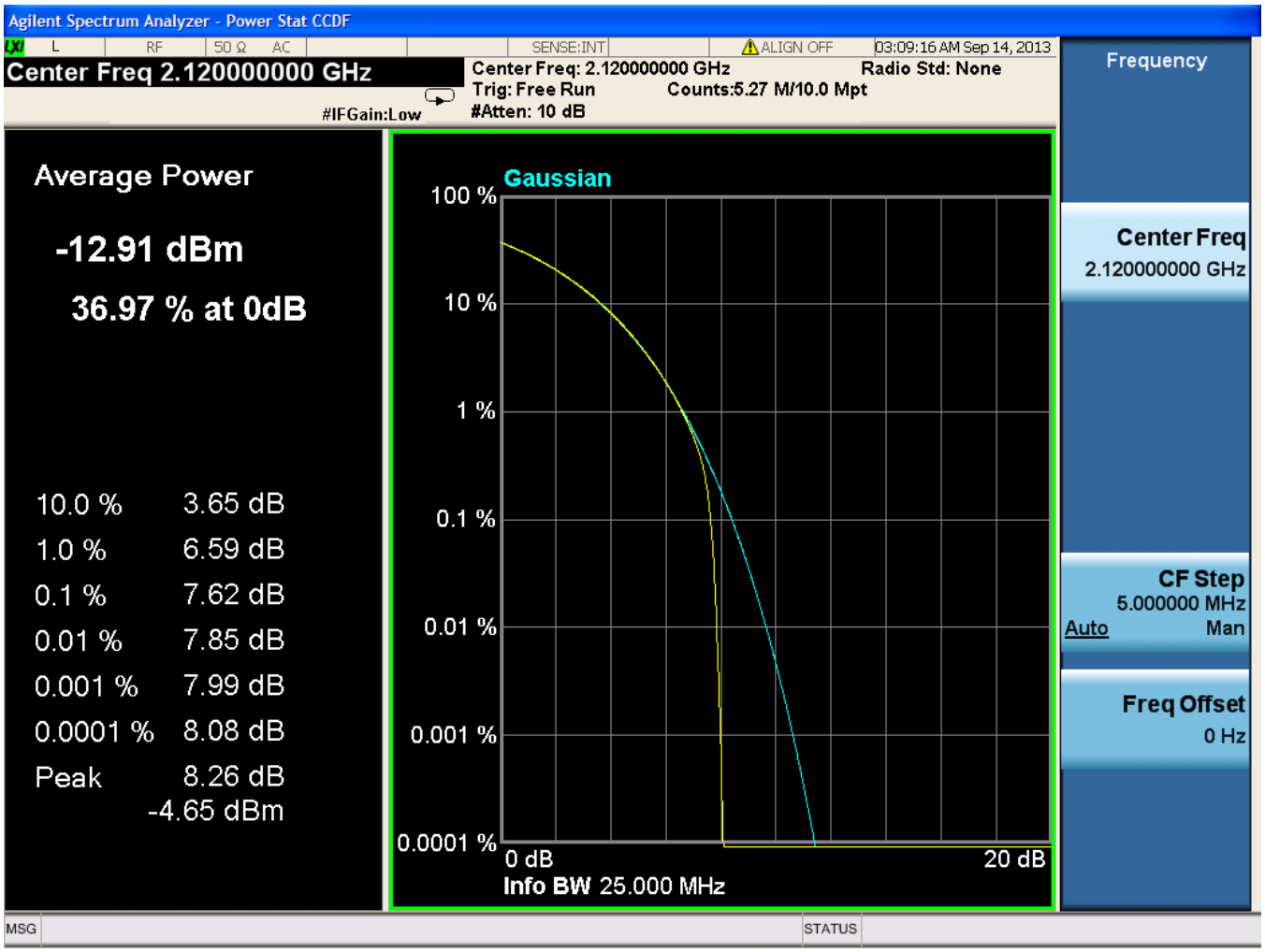
LTE AWS TRDU2X60W
FCC Part 27.53 Block A+B (2110-2130 MHz); PWR: 60 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

16QAM 60 Watts
CF: 2120MHz (20 MHz BW)



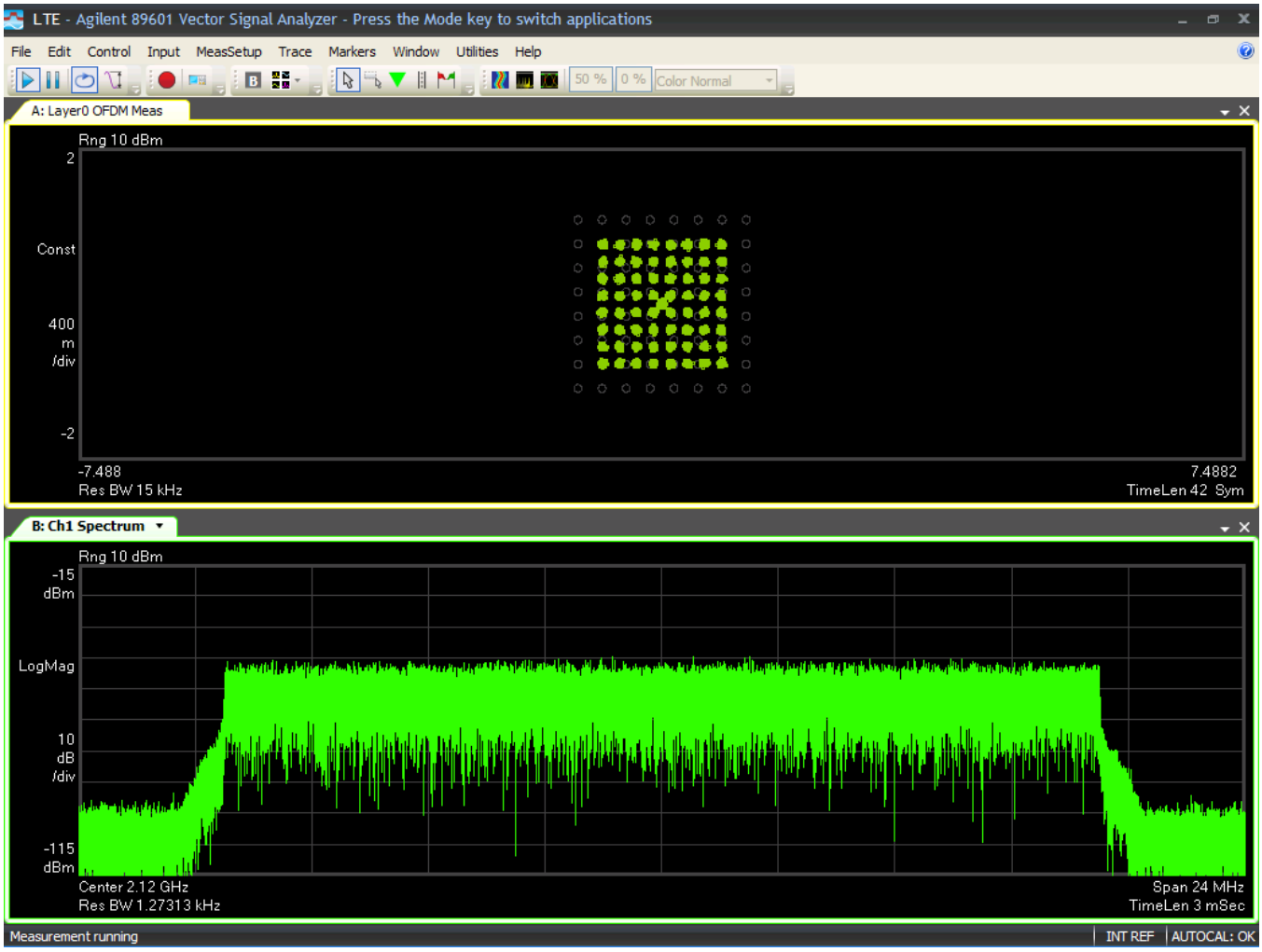
LTE AWS TRDU2X60W
FCC Part 27.53 Block A+B (2110-2130 MHz); PWR: 60 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

Peak to Average
16QAM 60 Watts
CF: 2120MHz (20 MHz BW)



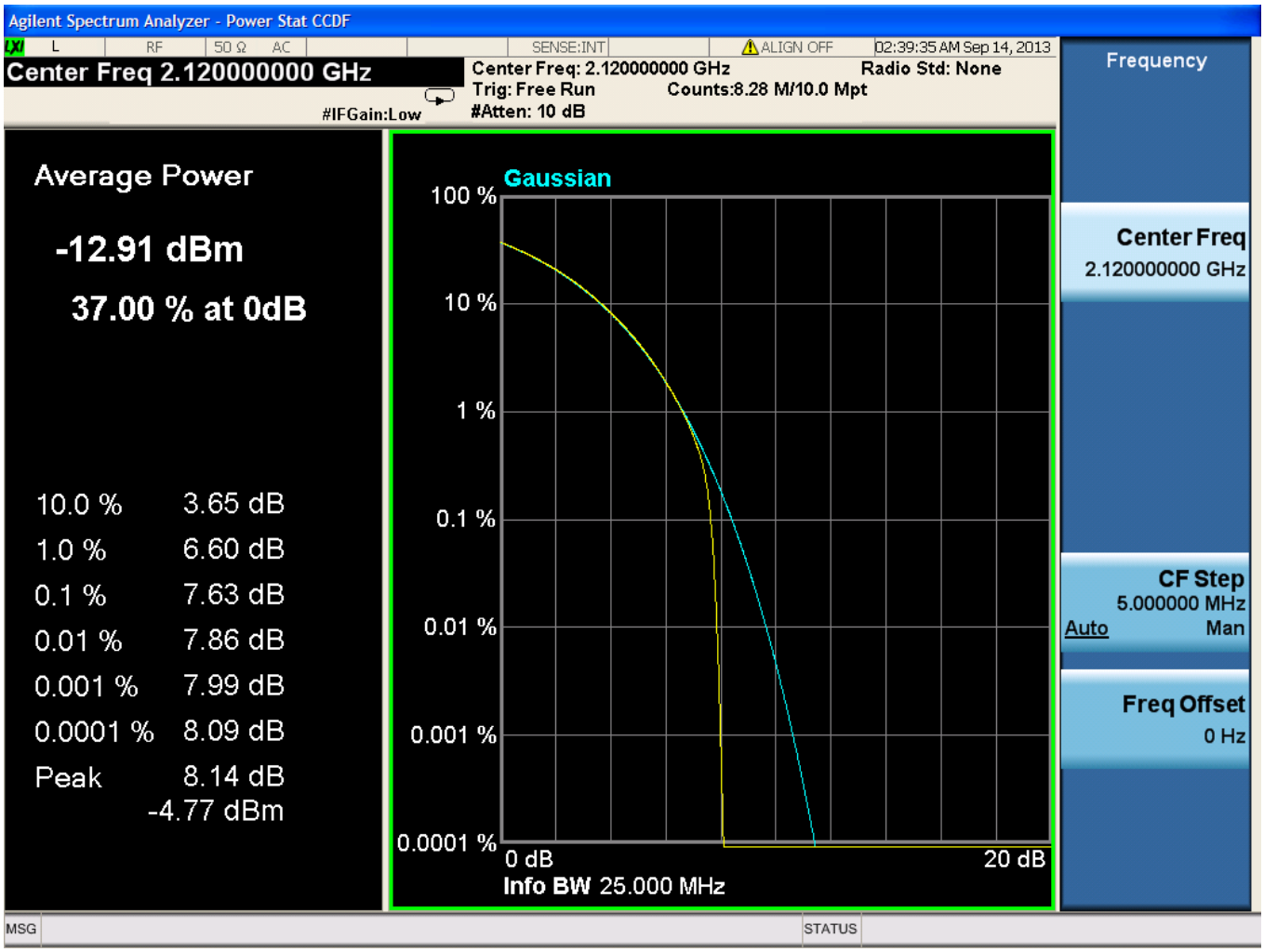
LTE AWS TRDU2X60W
FCC Part 27.53 Block A+B (2110-2130 MHz); PWR: 60 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

64QAM 60 Watts
CF: 2120MHz (20 MHz BW)



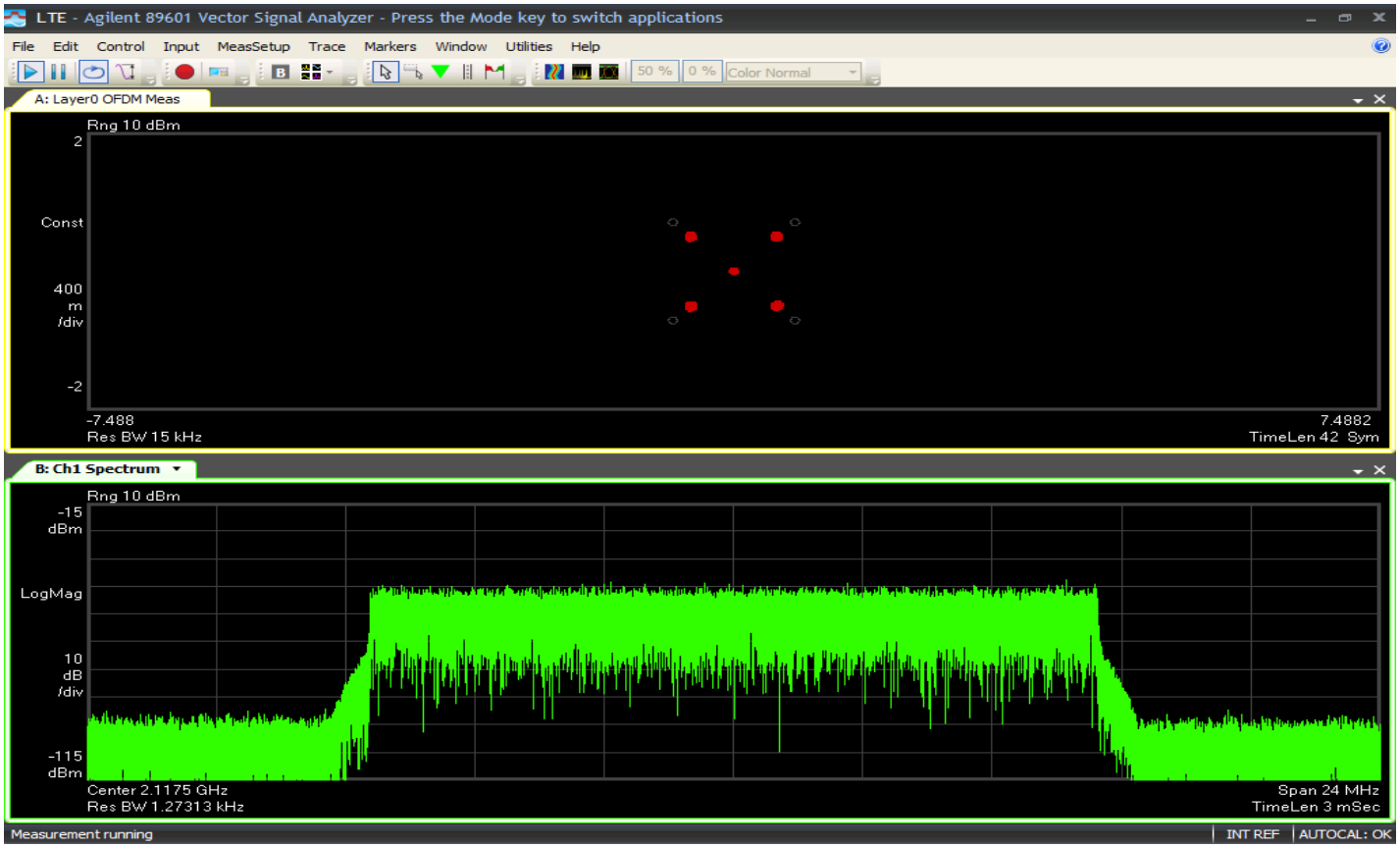
LTE AWS TRDU2X60W
FCC Part 27.53 Block A+B (2110-2130 MHz); PWR: 60 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

Peak to Average
64QAM 60 Watts
CF: 2120MHz (20 MHz BW)



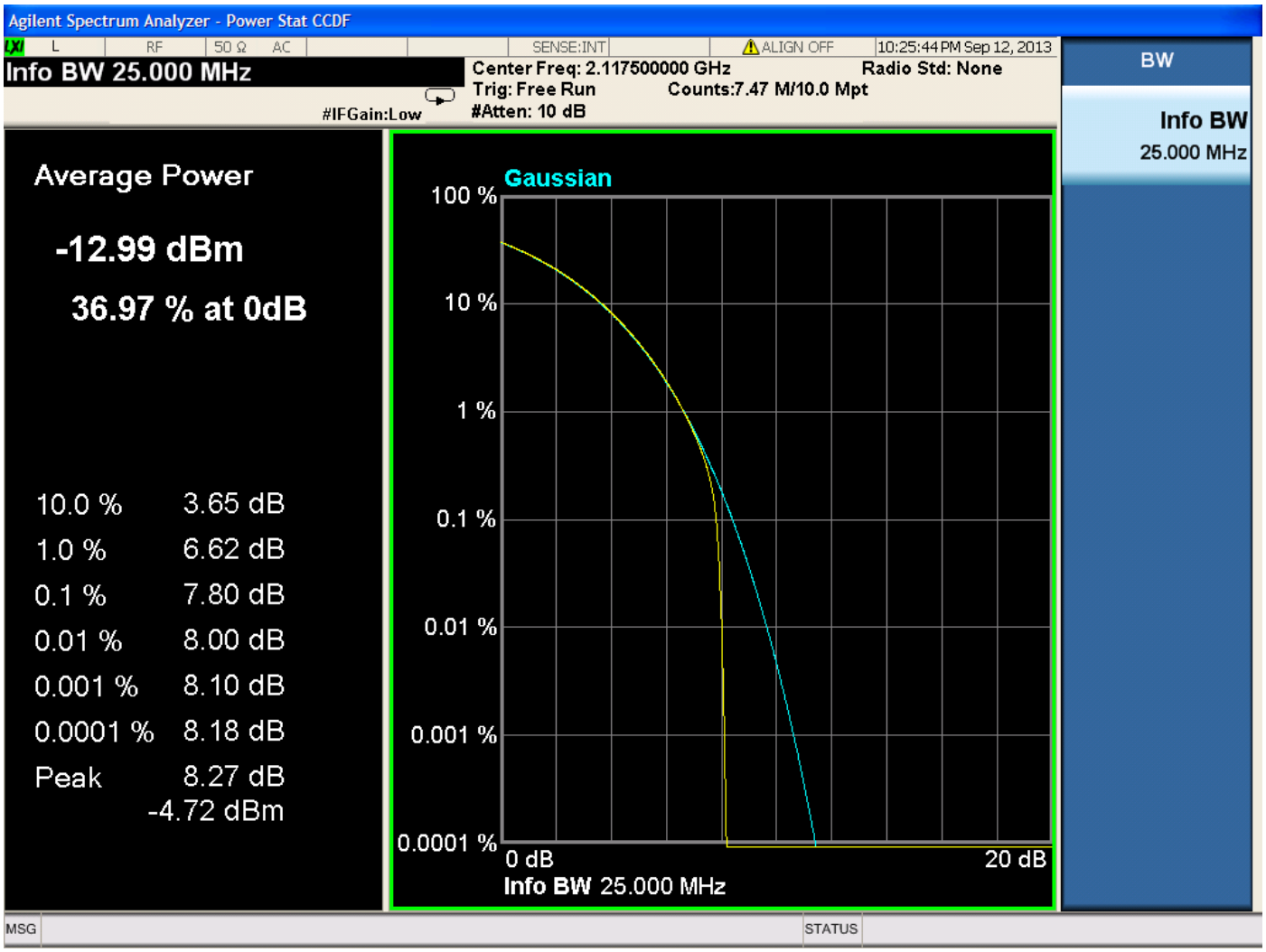
LTE AWS TRDU2X60W
FCC Part 27.53 Block A+B (2110-2130 MHz); PWR: 60 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

QPSK 60 Watts
CF: 2117.5MHz (15 MHz BW)



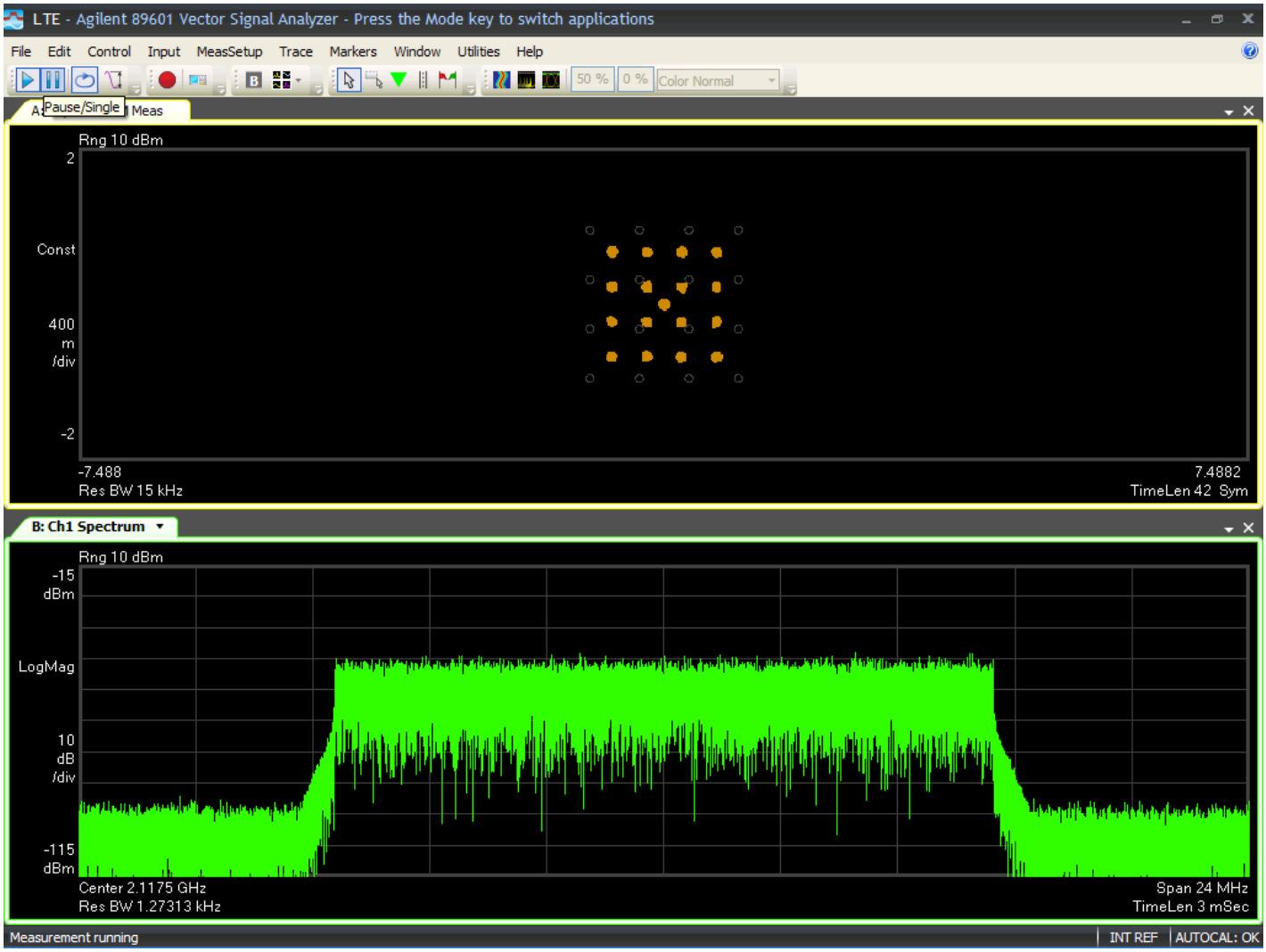
LTE AWS TRDU2X60W
FCC Part 27.53 Block A+B1 (2110-2125 MHz); PWR: 60 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

Peak to Average
QPSK 60 Watts
CF: 2117.5MHz (15 MHz BW)



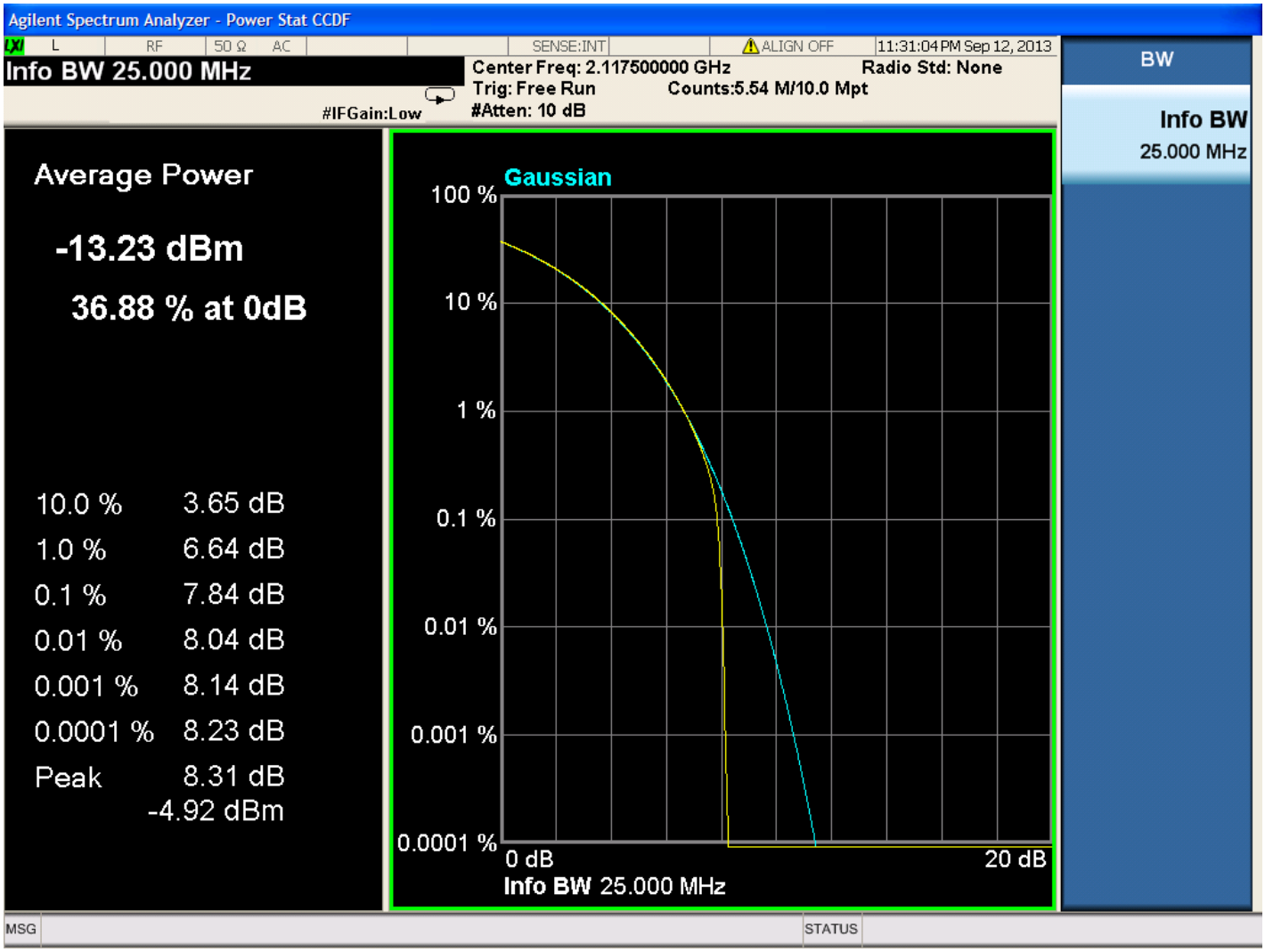
LTE AWS TRDU2X60W
FCC Part 27.53 Block A+B1 (2110-2125 MHz); PWR: 60 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

16QAM 60 Watts
CF: 2117.5MHz (15 MHz BW)



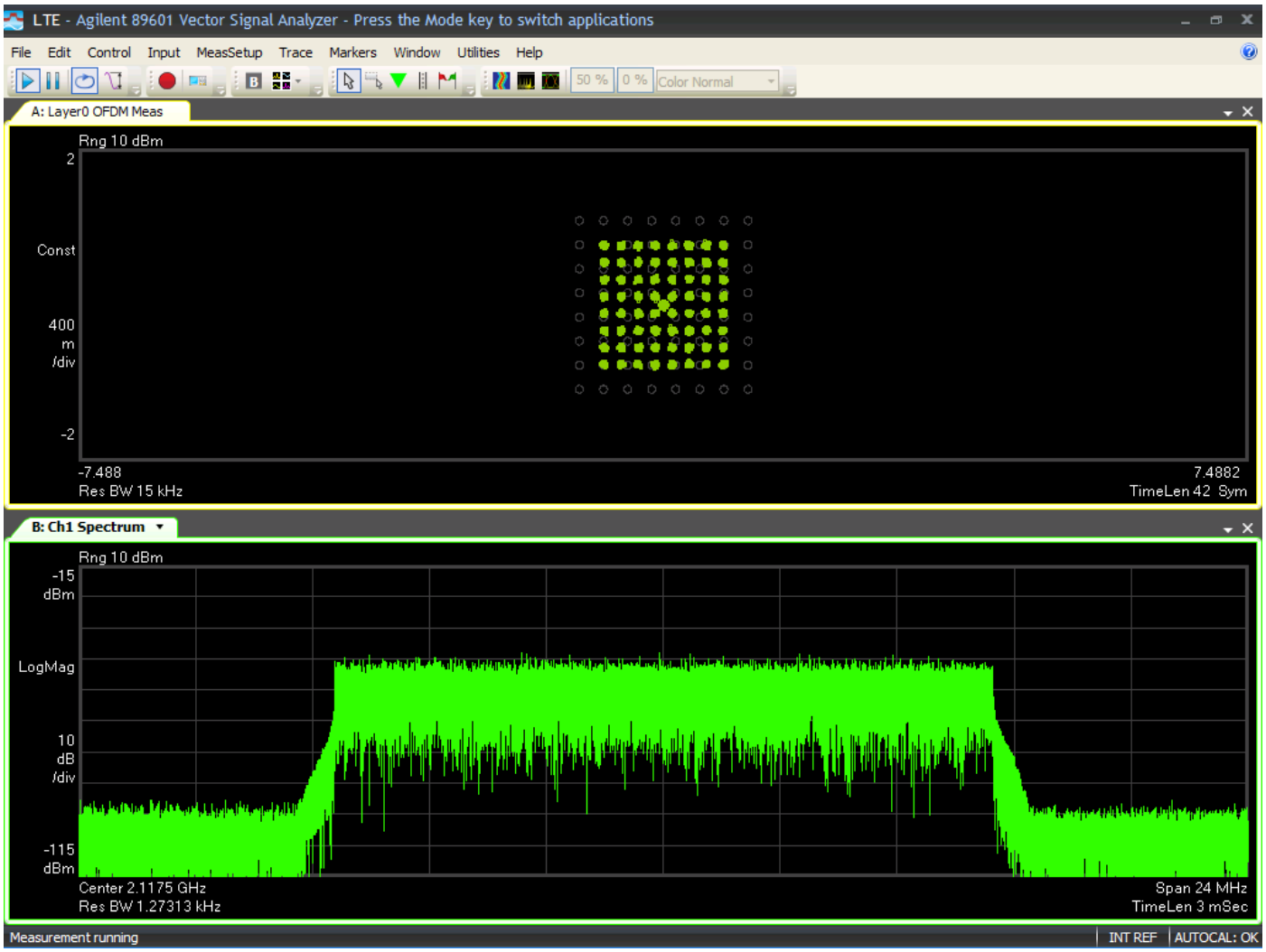
LTE AWS TRDU2X60W
FCC Part 27.53 Block A+B1 (2110-2125 MHz); PWR: 60 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

Peak to Average
16QAM 60 Watts
CF: 2117.5MHz (15 MHz BW)



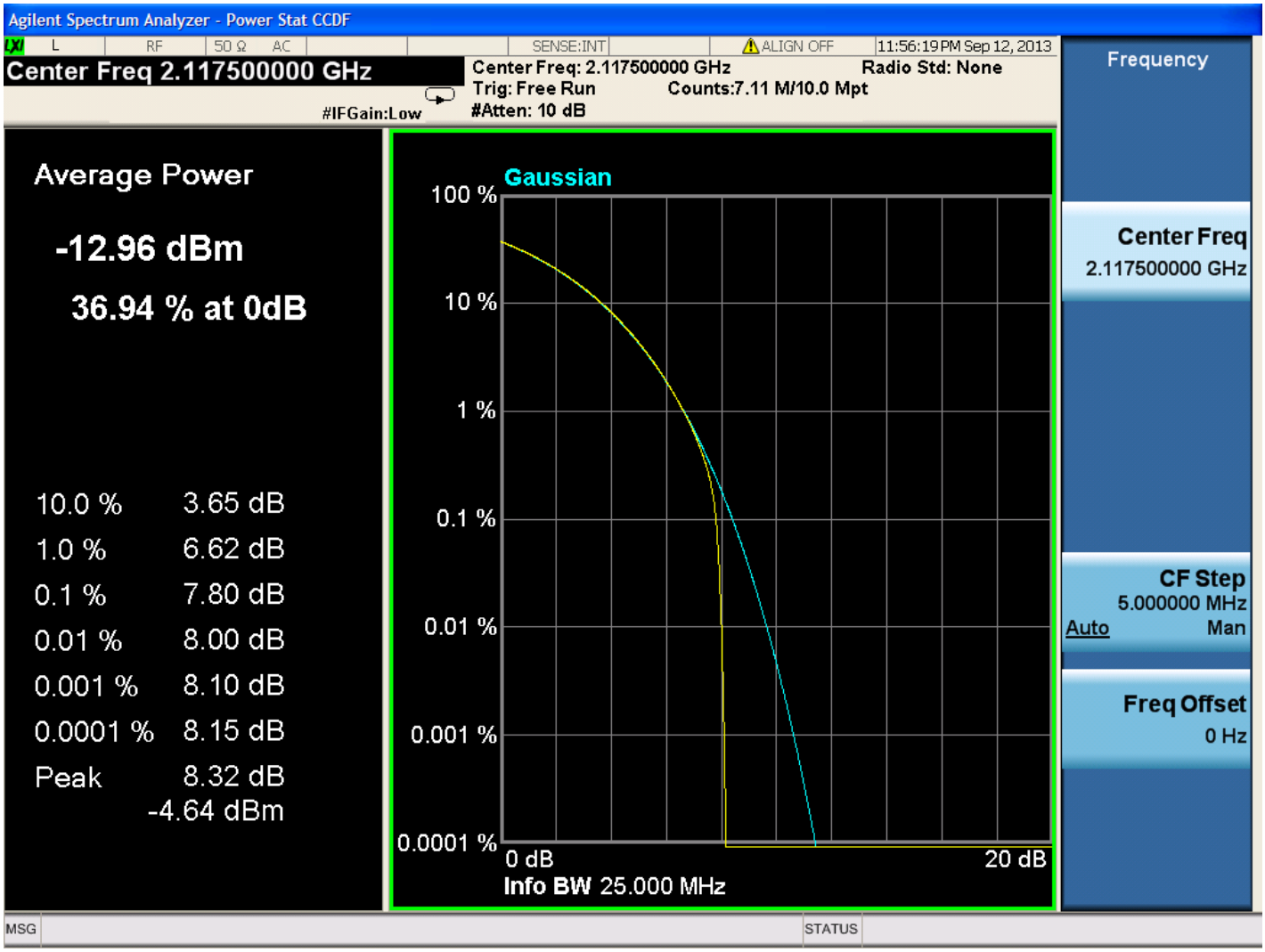
LTE AWS TRDU2X60W
FCC Part 27.53 Block A+B1 (2110-2125 MHz); PWR: 60 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

64QAM 60 Watts
CF: 2117.5MHz (15 MHz BW)



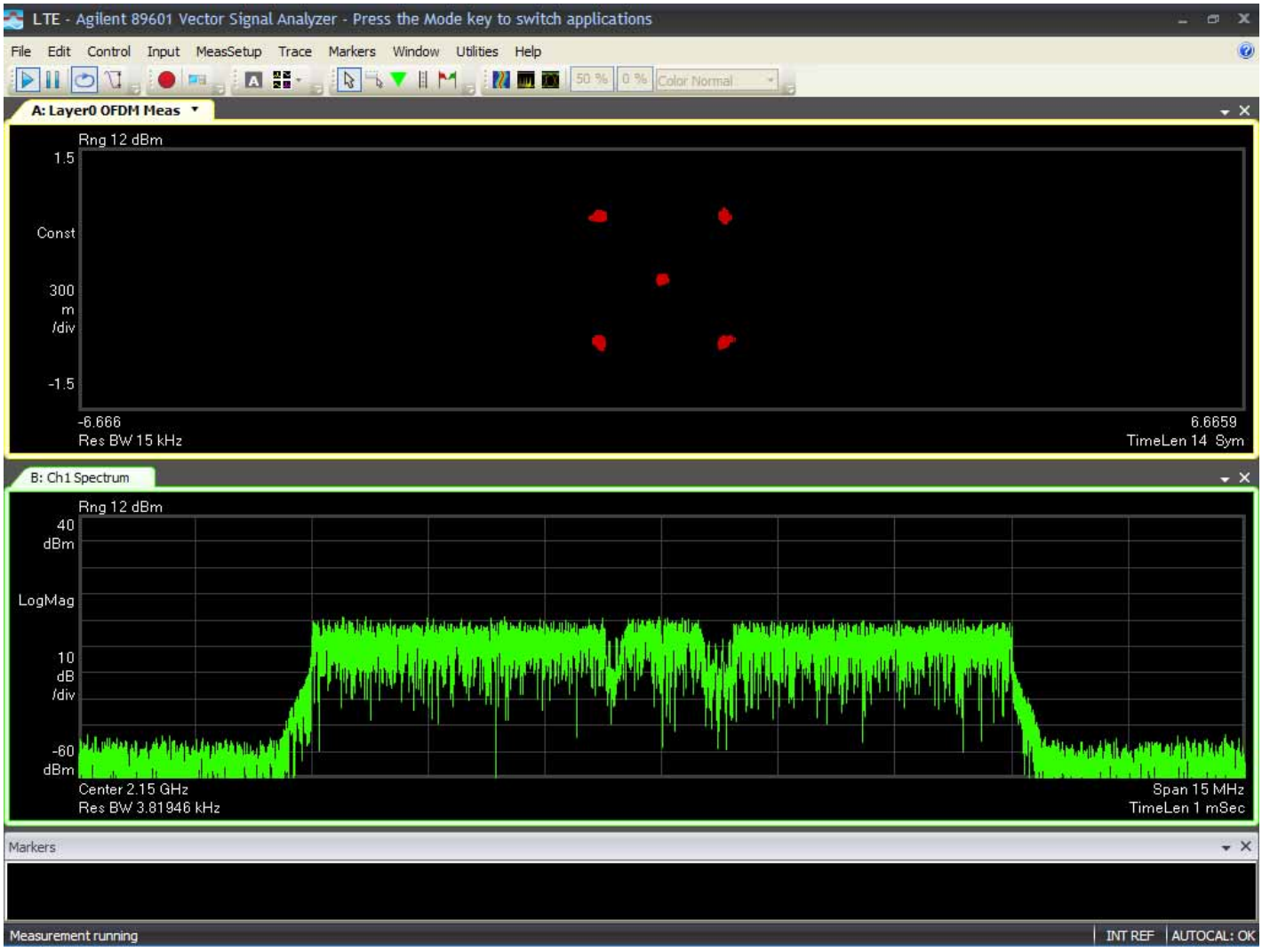
LTE AWS TRDU2X60W
FCC Part 27.53 Block A+B1 (2110-2125 MHz); PWR: 60 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

Peak to Average
64QAM 60 Watts
CF: 2117.5MHz (15 MHz BW)



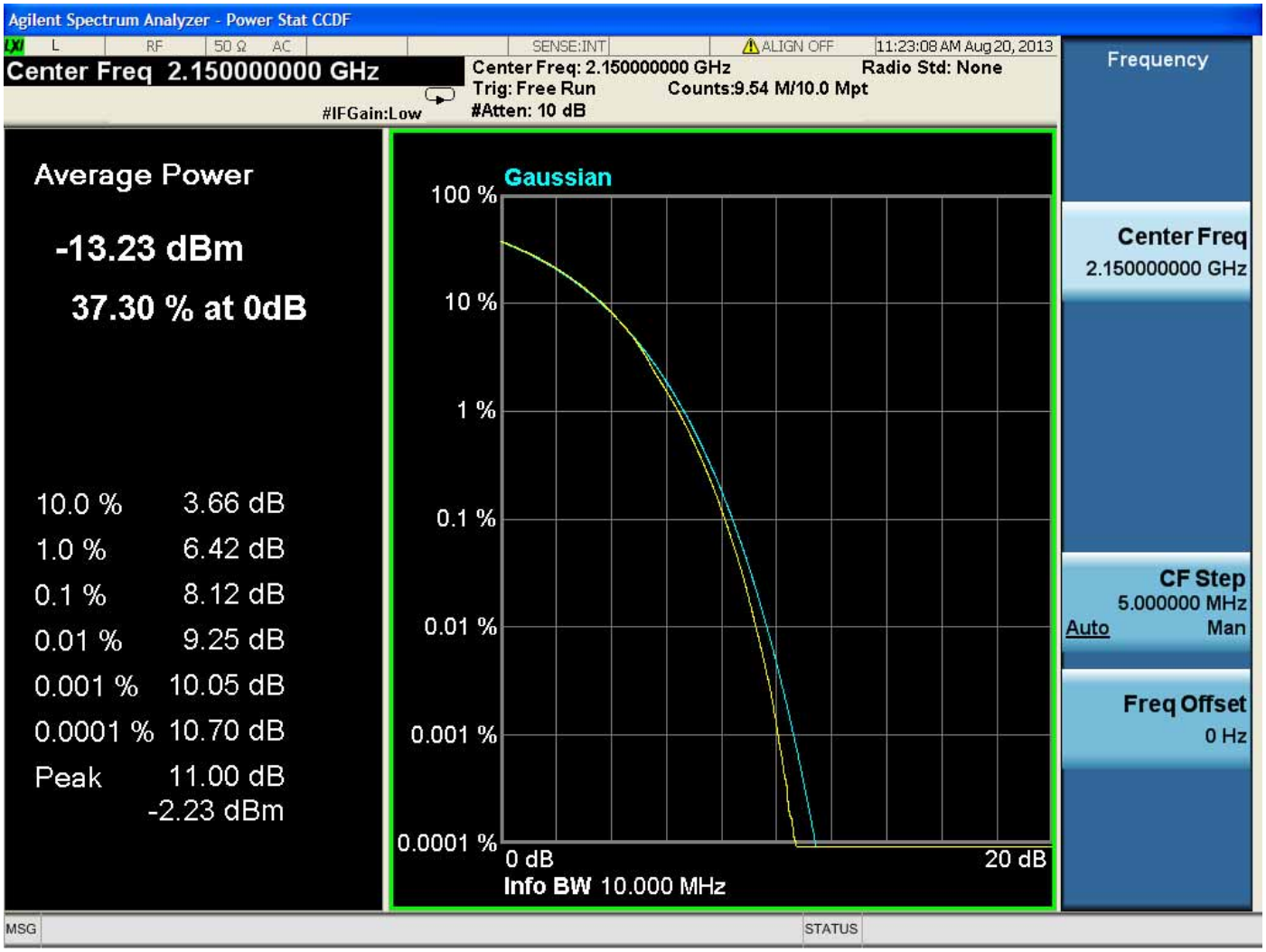
LTE AWS TRDU2X60W
FCC Part 27.53 Block A+B1 (2110-2125 MHz); PWR: 60 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

QPSK 60 Watts
CF: 2150MHz (10 MHz BW)



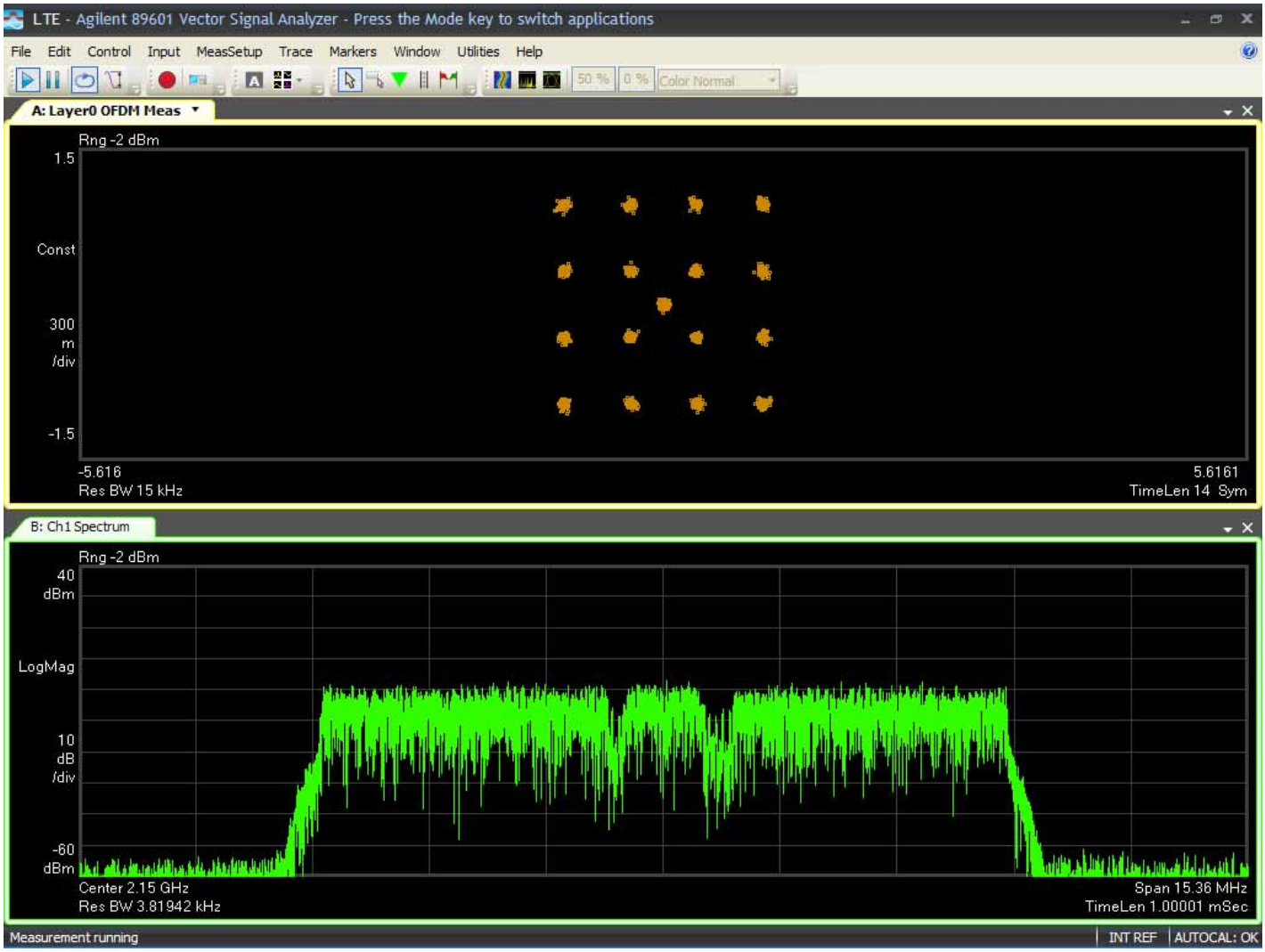
LTE AWS TRDU2X60W
FCC Part 27.53 Block F (2150 MHz); PWR: 60 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

Peak to Average
QPSK 60 Watts
CF: 2150MHz (10 MHz BW)



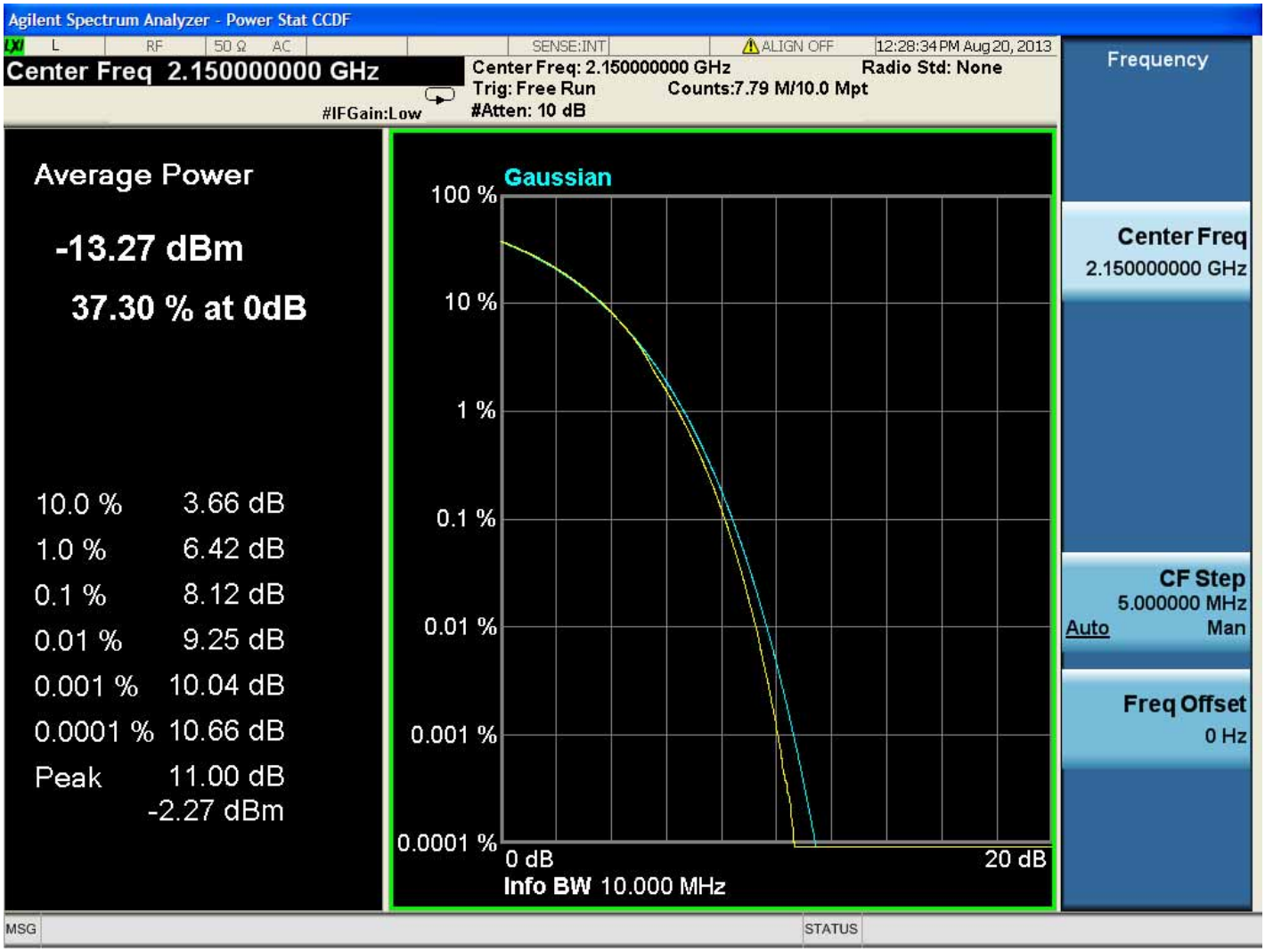
LTE AWS TRDU2X60W
FCC Part 27.53 Block F (2150 MHz); PWR: 60 (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

16QAM 60 Watts
CF: 2150MHz (10 MHz BW)



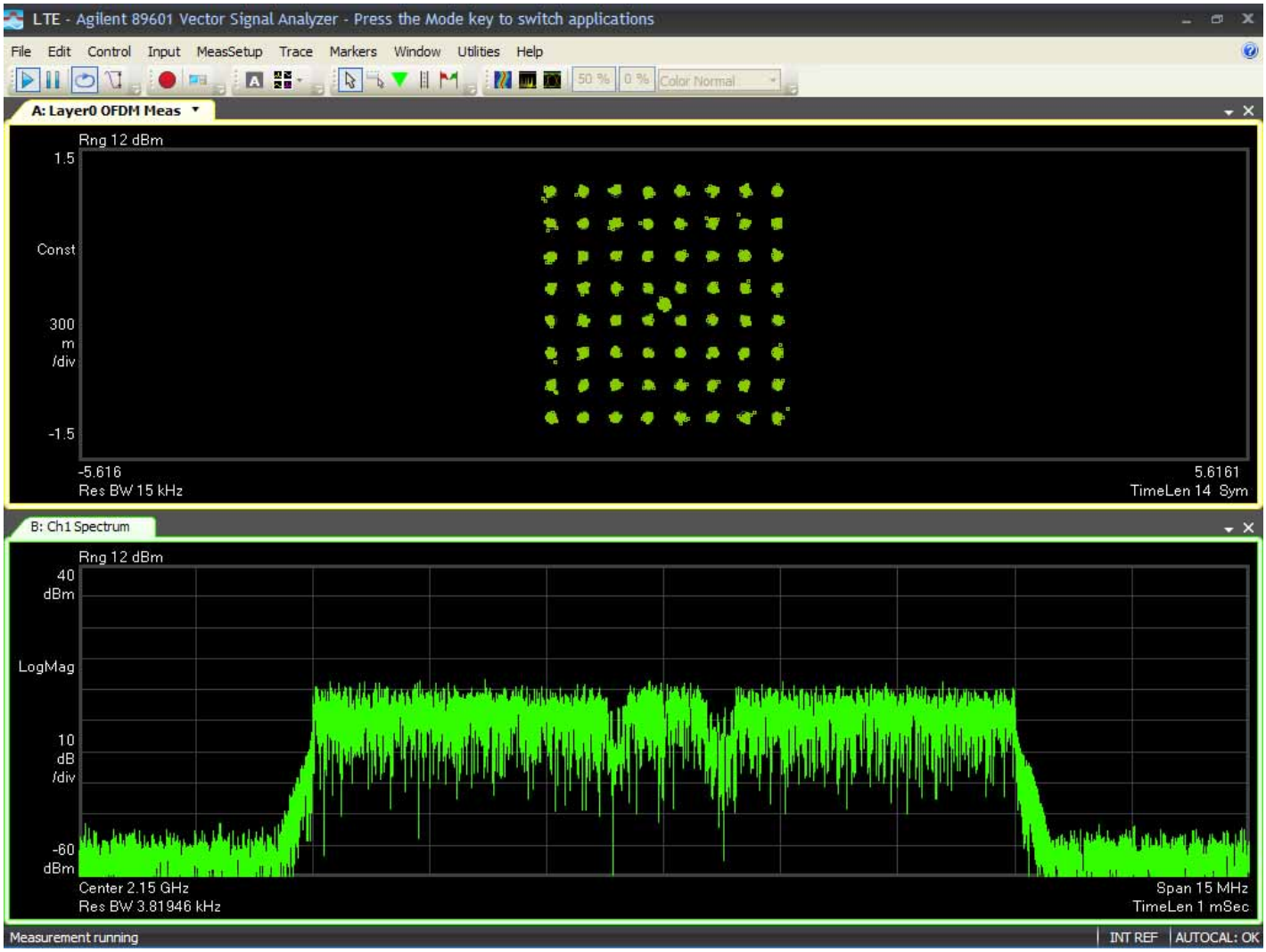
LTE AWS TRDU2X60W
FCC Part 27.53 Block F (2150 MHz); PWR: 60W (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

Peak to Average
16QAM 60 Watts
CF: 2150MHz (10 MHz BW)



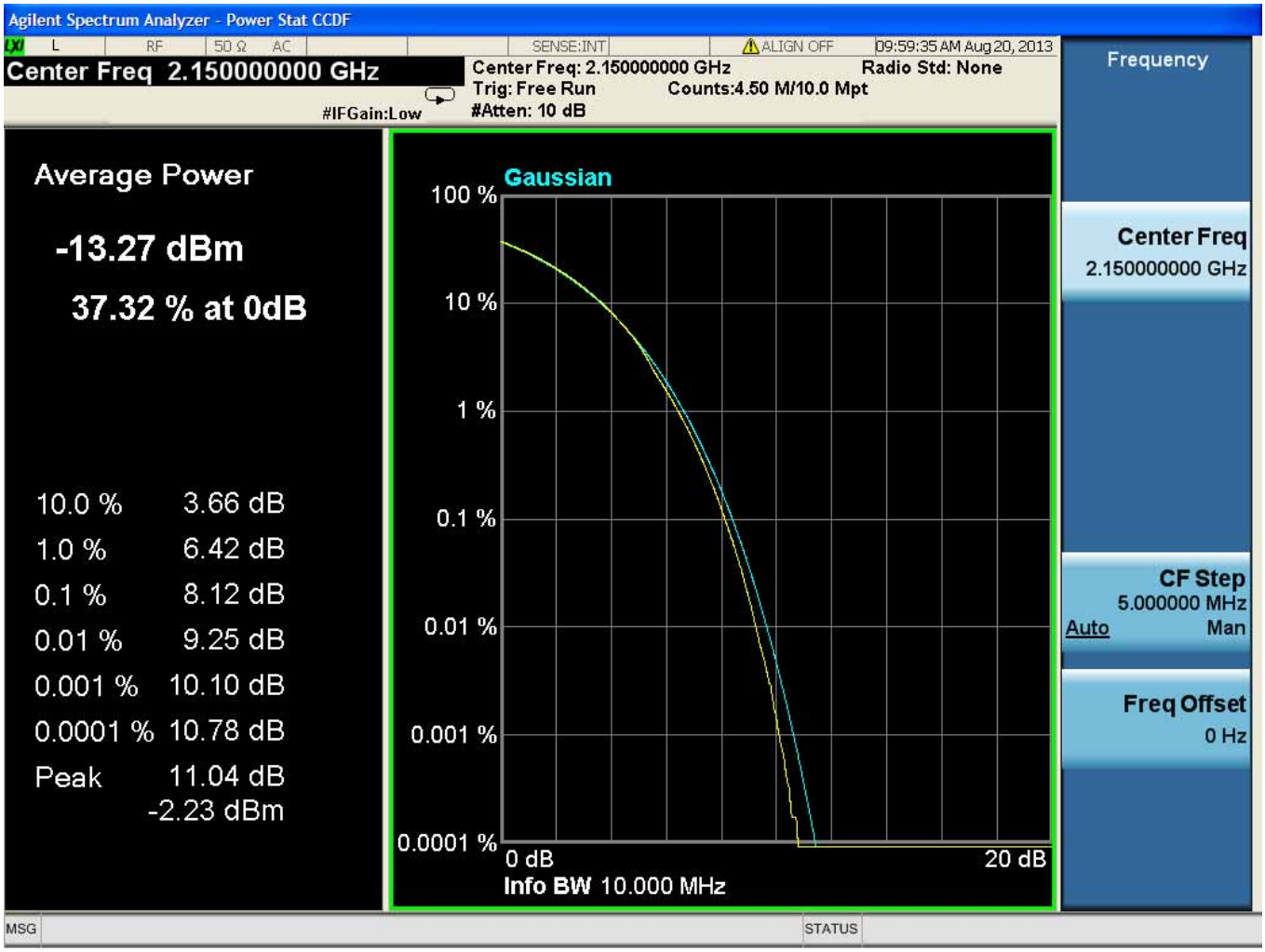
LTE AWS TRDU2X60W
FCC Part 27.53 Block F (2150 MHz); PWR: 60W (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

64QAM 60 Watts
CF: 2150MHz (10 MHz BW)



LTE AWS TRDU2X60W
FCC Part 27.53 Block F (2150 MHz); PWR: 60W (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

Peak to Average
64QAM 60 Watts
CF: 2150MHz (10 MHz BW)



LTE AWS TRDU2X60W
FCC Part 27.53 Block F (2150 MHz); PWR: 60W (2x60W MIMO)
FCCID: AS5BBTRX-13
TEST ENGINEER: JY

Measurement 3

FCC Section 2.1049

(a) Emissions Bandwidth Measurement
(b) Occupied Bandwidth Measurement showing spurious Emissions **1MHz close to Block edges.**

Spectrum Bandwidth Measurement For Emissions Type

FCC approved measurement method for Spectrum Bandwidth.

(A) 26 dB Band width.

This method was used to measure the bandwidth at modulations and highest is recorded. The modulations used are:

1. QPSK
2. 16 QAM
3. 64 QAM

Highest Bandwidth is used for Emissions type designation:
The Measured 26dB emissions bandwidth is:

BW	Tested BW (MHz)
20MHz (10+10)120 Watts	9M53F9W
15MHz (10+5) 120 Watts	9M43F9W + 4M72F9W
20 MHz 60 watts	18M8F9W
15 MHz 60 Watts	14M2F9W
10 MHz 60 Watts	9M42F9W

MEASUREMENT OF EMISSIONS BANDWIDTH
26dB POWER BANDWIDTH

(b) MEASUREMENT OF SPECTRUM BANDWIDTH For Emissions Type

The occupied bandwidth of the Long Term Evolution (LTE) is measured using a Rohde & Schwarz ESI Spectrum Analyzer/Receiver. The emissions bandwidth is described in section 27.53 (h) (3) is used. Accordingly "The emissions bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26dB below the transmitter power."

The measurements were made on a "LTE AWS TRDU 2X120W in 9712 Cabinet**"** in the following configurations:
1. QPSK
2. 16 QAM
3. 64 QAM

Results:
The plots are provided for following modulations: QPSK, 16QAM and 64QAM.

Table 1

Table for (10MHz +10 MHz), (10 MHz +5 MHz) 120W Non-Contiguous BWs

Left Frequency Range (MHz) & Block	Left Frequency BW (MHz)	Left Center Frequency (MHz)	Left Frequency Power (Watts)	Right Frequency Range (MHz) & Block	Right Frequency BW (MHz)	Right Center Frequency (MHz)	Right Frequency Power (MHz)	Total BW (MHz)	Total Power (Watts)
2110-2120 (A)	10	2115	60	2145-2155 (F)	10	2150	60	20	120
2120-2130 (B)	10	2125	60	2135-2140 2140-2145 (D+E)	5+5	2140	60	20	120
2130-2135 2135-2140 (C+D)	5+5	2135	60	2145-2155 (F)	10	2150	60	20	120
2120-2130	10	2125	60	2145-2155	10	2150	60	20	120
2110-2120 (A)	10	2115	60	2135-2140 (D)	5	2137.5	60	15	120
2120-2130 (B)	10	2125	60	2140-2145 (E)	5	2142.5	60	15	120
2135-2140 (D)	5	2137.5	60	2145-2155 (F)	10	2150	60	15	120
2130-2135 (C)	5	2132.5	60	2145-2155 (F)	10	2150	60	15	120

Table 2

Table for 10MHz, 15 MHz and 20 MHz for 60W all Contiguous Bands

Frequency Range (MHz) & Block	Bandwidth (MHz)	Center Frequency (MHz)	Power (Watts)
2110-2130 (A+B)	20	2120	60
2125-2145 (B2+C+D+E)	20	2135	60
2135-2155 (D+E+F)	20	2145	60
2110-2025 (A+B1)	15	2117.5	60
2120-2035 (B+C)	15	2127.5	60
2130-2145 (C+D+E)	15	2137.5	60
2140-2155 (E+F)	15	2147.5	60
2110-2120 (A)	10	2115	60
2120-2130 (B)	10	2125	60
2130-2140 (C+D)	10	2135	60
2135-2145 (D+E)	10	2140	60
2145-2155 (F)	10	2150	60

The Measured Highest 26dB emissions bandwidth is:

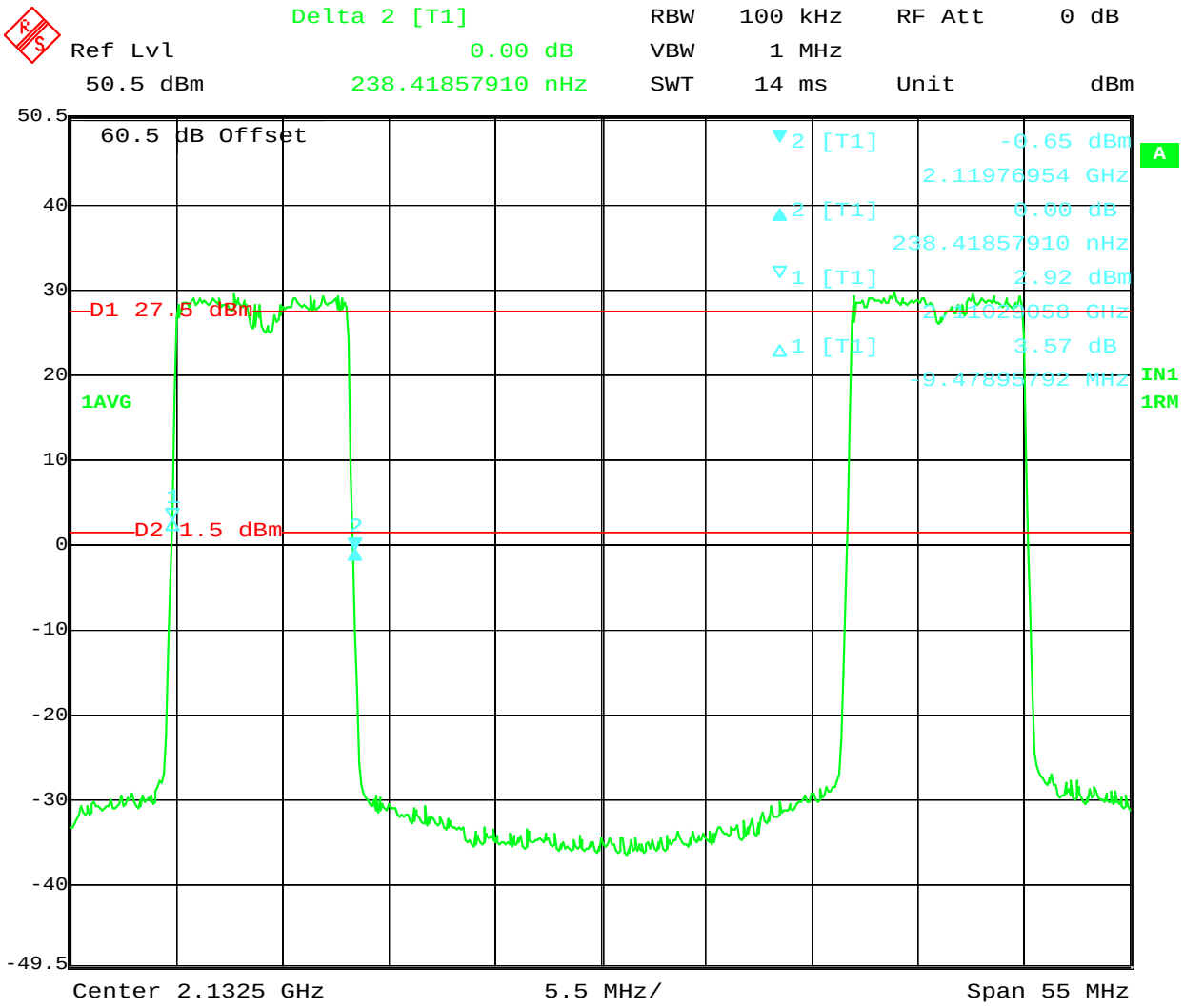
BW	Tested BW (MHz)
20MHz (10+10)120 Watts	9.53
15MHz (10+5) 120 Watts	9.43 + 4.72
20 MHz 60 watts	18.79
15 MHz 60 Watts	14.22
10 MHz 60 Watts	9.42

Block: A+F

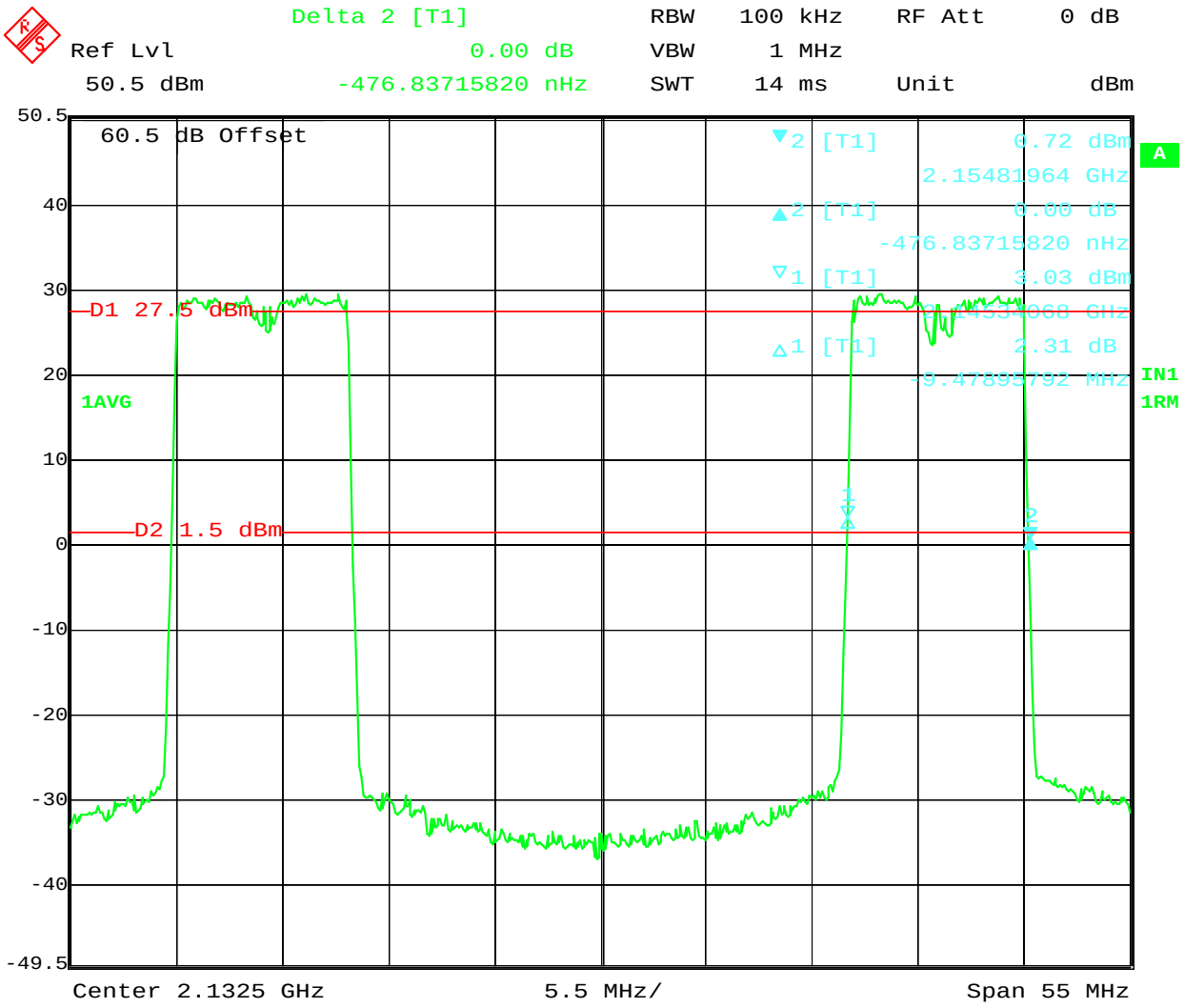
10+10 MHz Bandwidth (2110 – 2120 MHz + 2145-2155 MHz)

2x120 watts (MIMO)

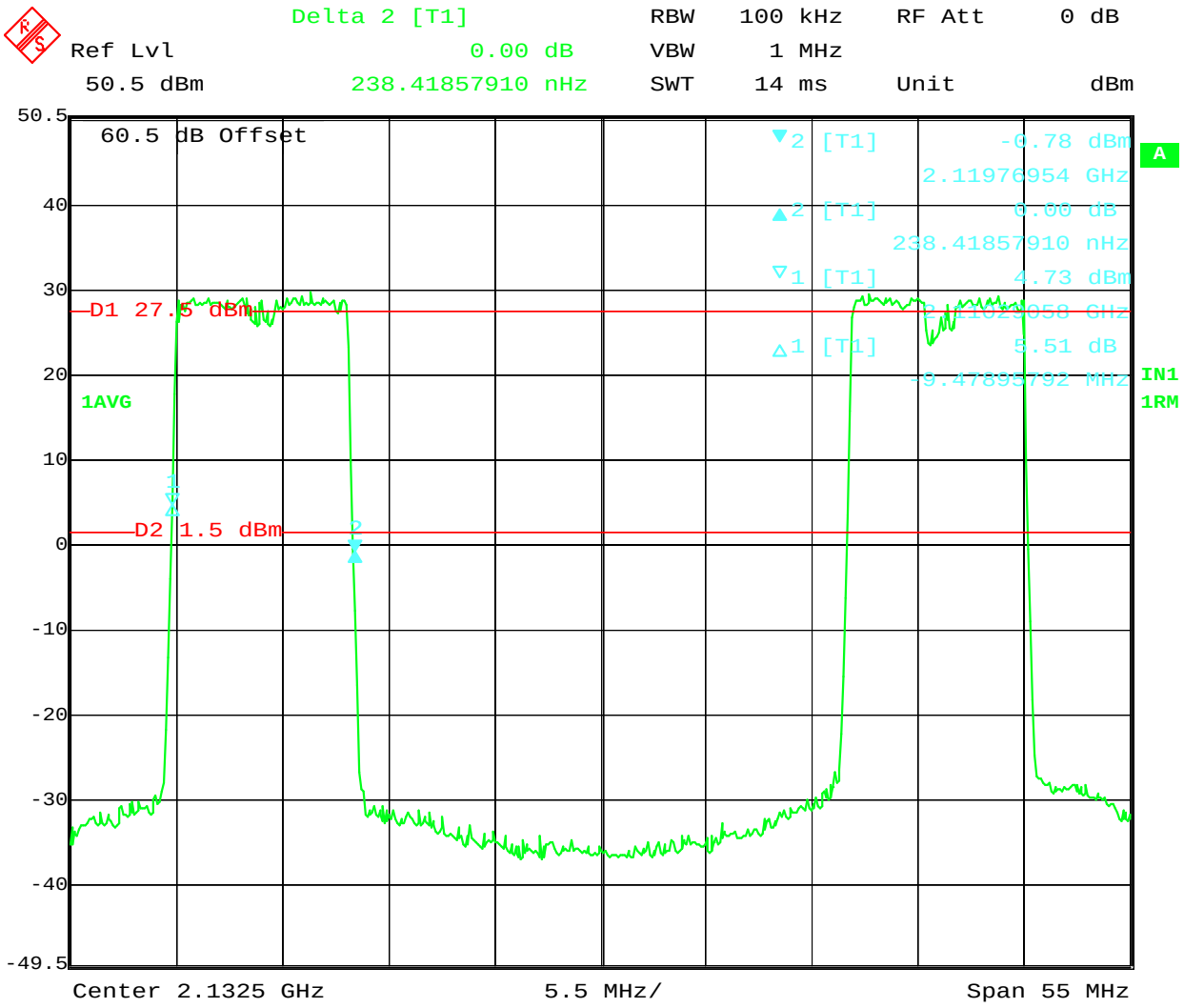
(26dB Bandwidth)



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK A&F; 2115MHz & 2150MHz; 10MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 20.AUG.2013 12:51:32



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK A&F; 2115MHz & 2150MHz; 10MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 20.AUG.2013 12:52:21



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK A&F; 2115MHz & 2150MHz; 10MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
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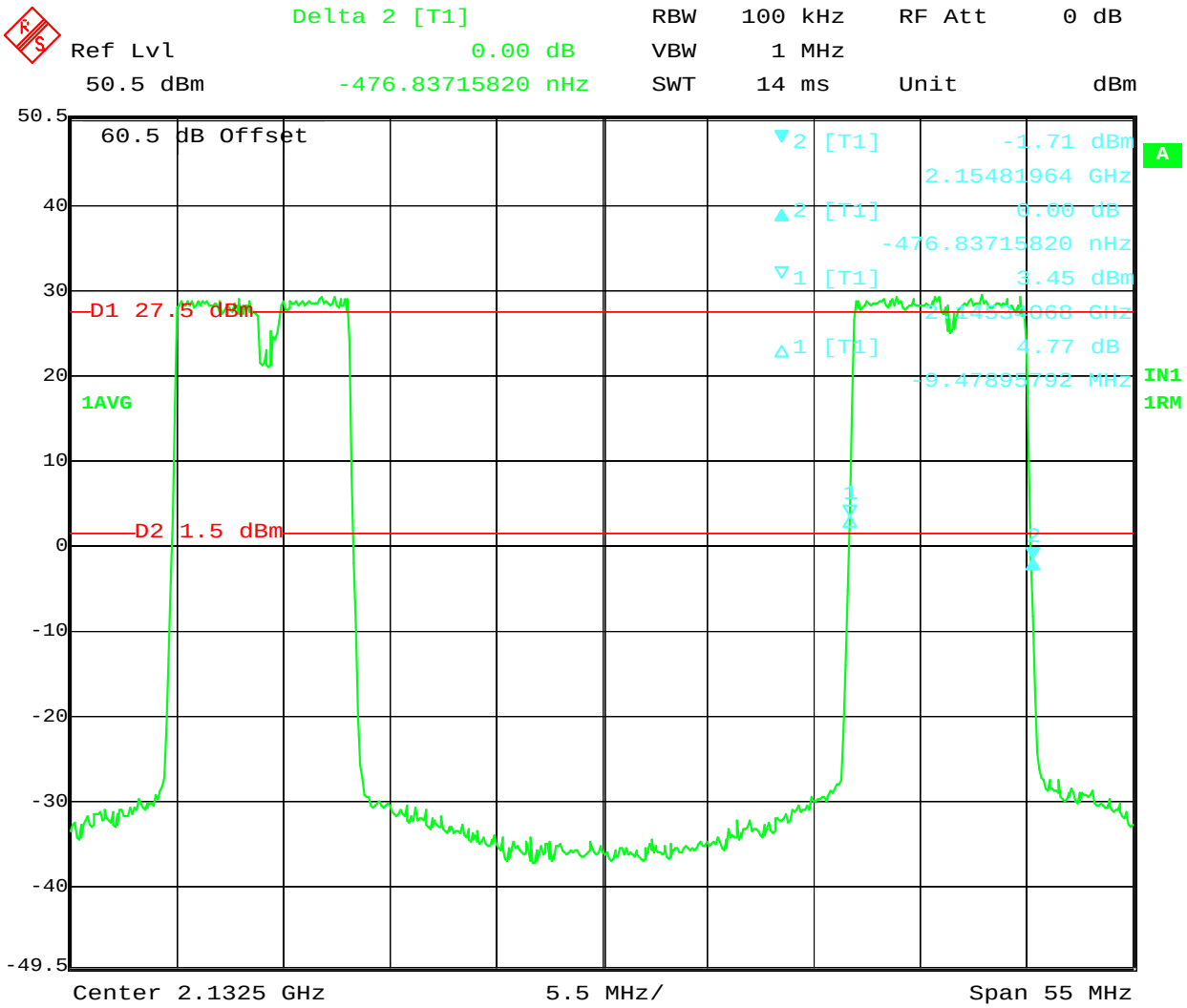

Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK A&F; 2115MHz & 2150MHz; 10MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
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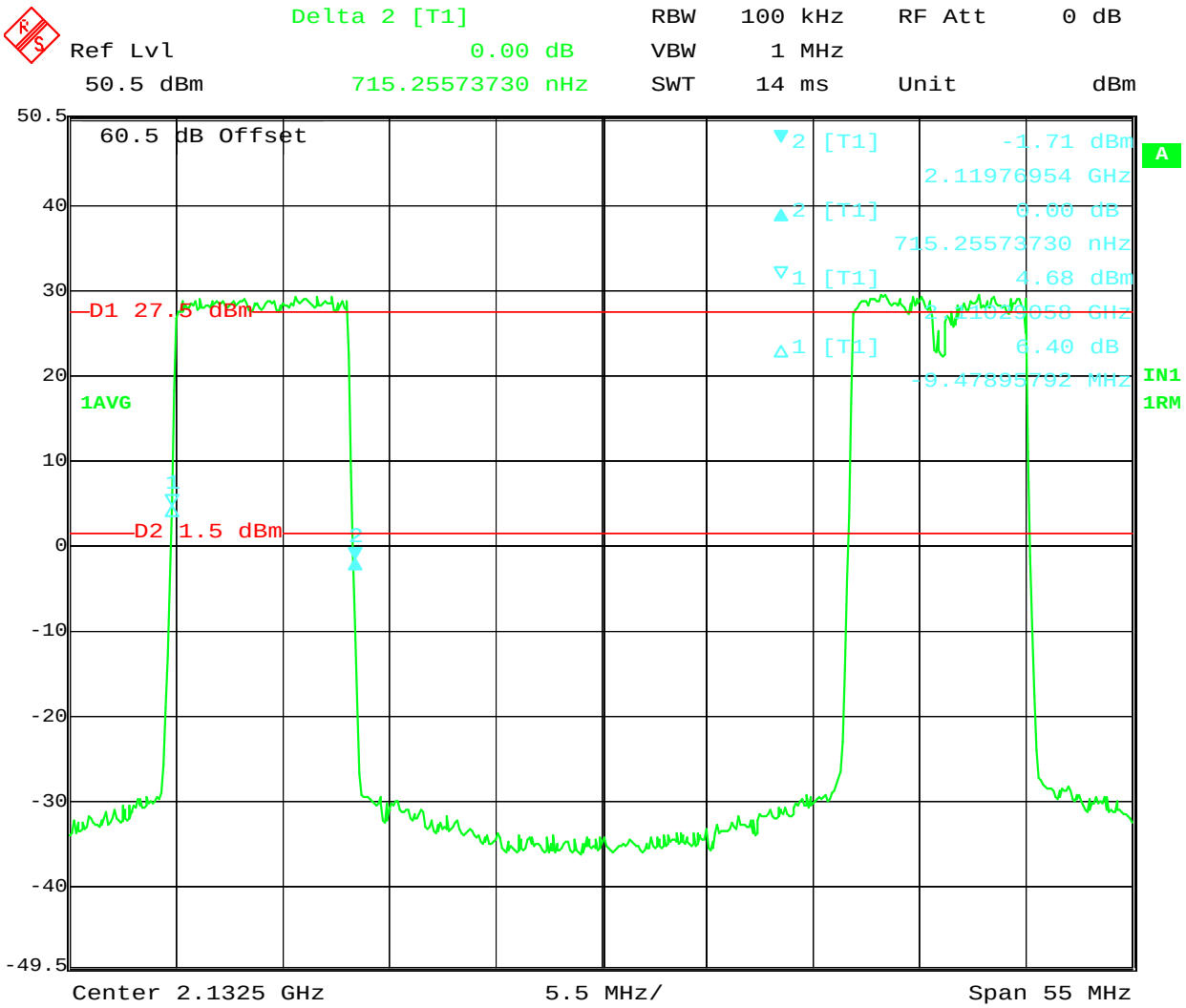
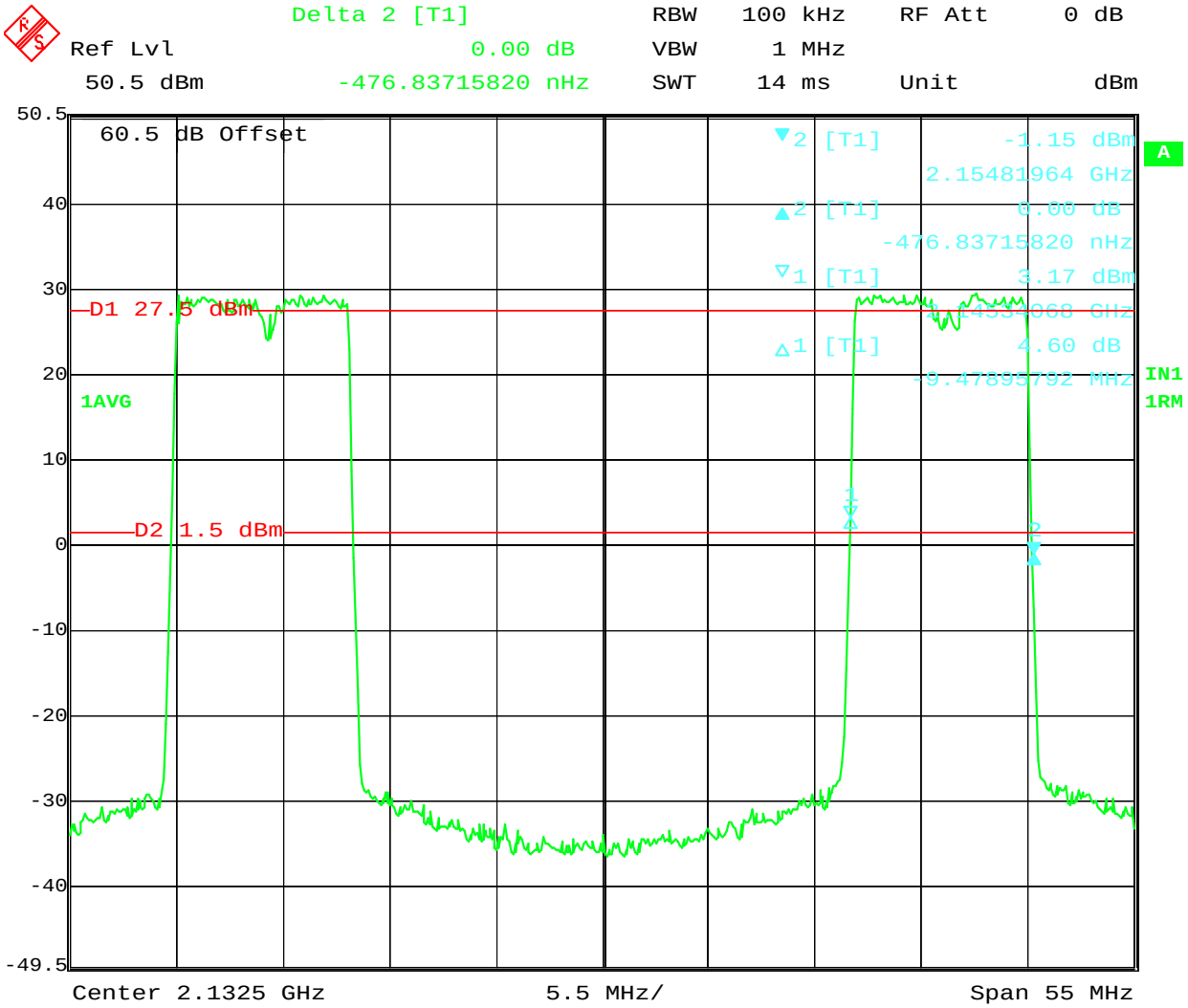


Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK A&F; 2115MHz & 2150MHz; 10MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 20.AUG.2013 13:11:30

APPLICANT: **Alcatel-Lucent** FCC ID: **AS5BBTRX-13**



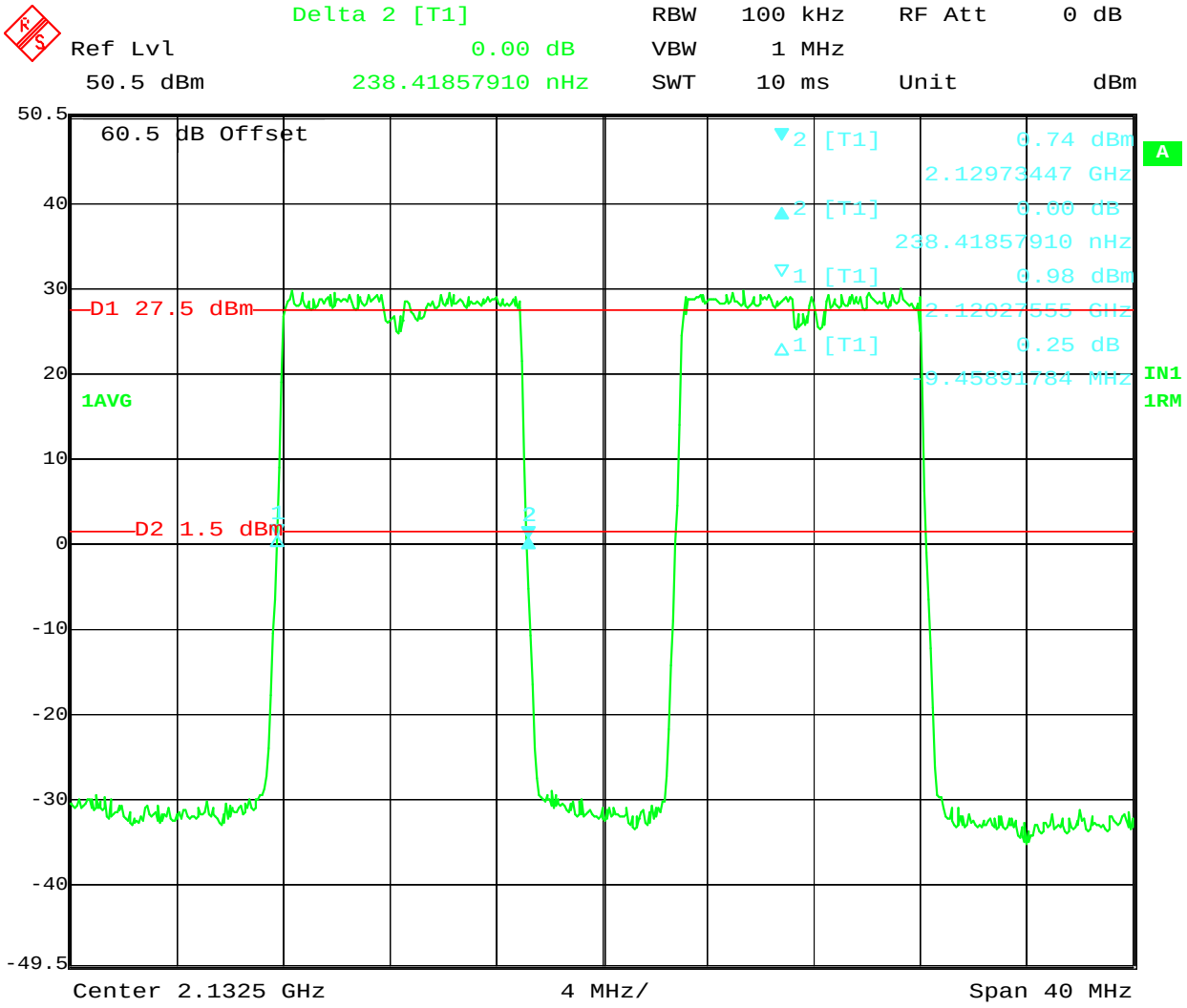
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK A&F; 2115MHz & 2150MHz; 10MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 20.AUG.2013 13:10:19

Block: B+D+E

10+10 MHz Bandwidth (2120-2130 MHz + 2135-2145 MHz)

2x120 watts (MIMO)

(26dB Bandwidth)



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B,D&E; 2125MHz & 2140MHz; 10MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
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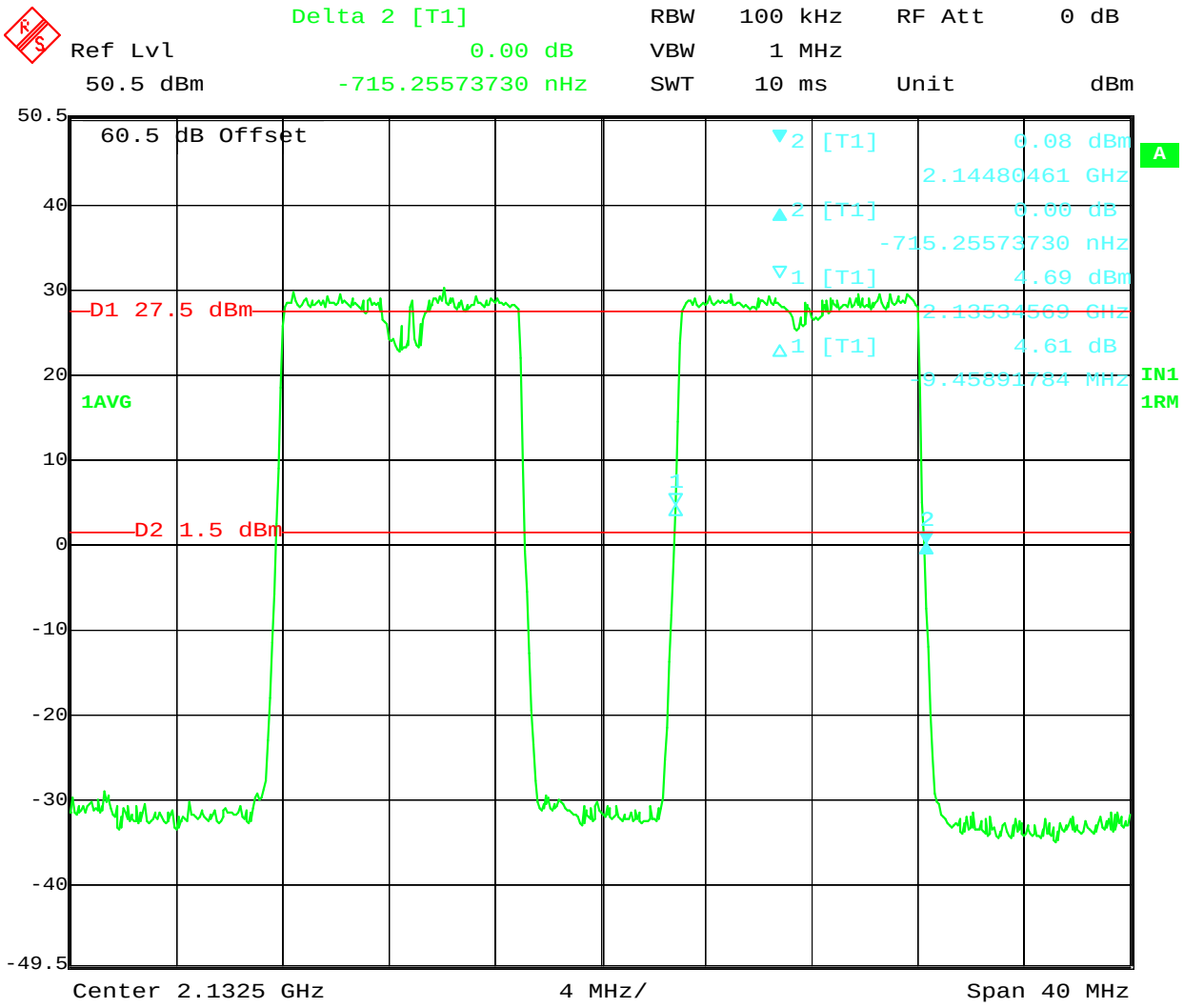

Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B,D&E; 2125MHz & 2140MHz; 10MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
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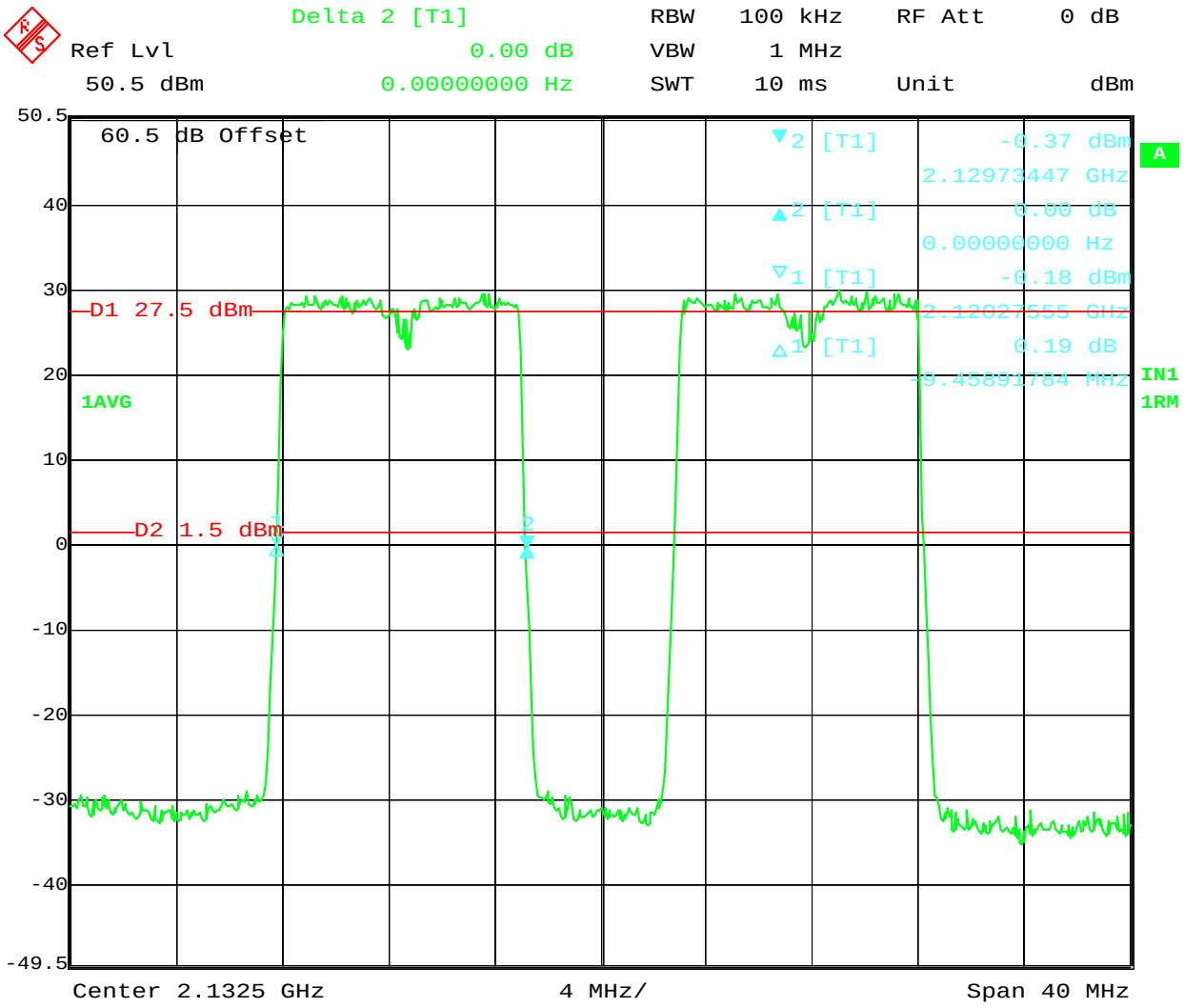

Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B,D&E; 2125MHz & 2140MHz; 10MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
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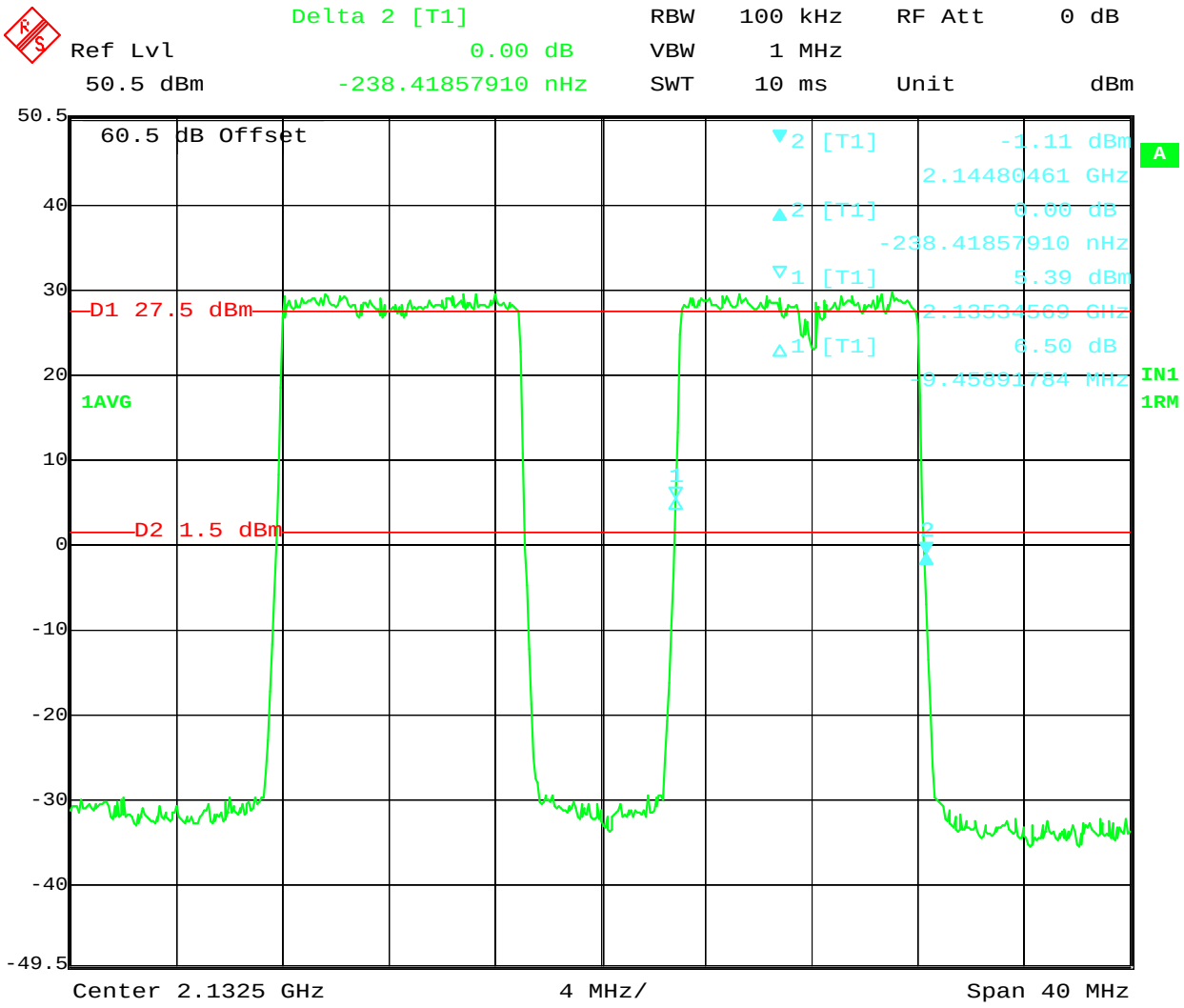

Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B,D&E; 2125MHz & 2140MHz; 10MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
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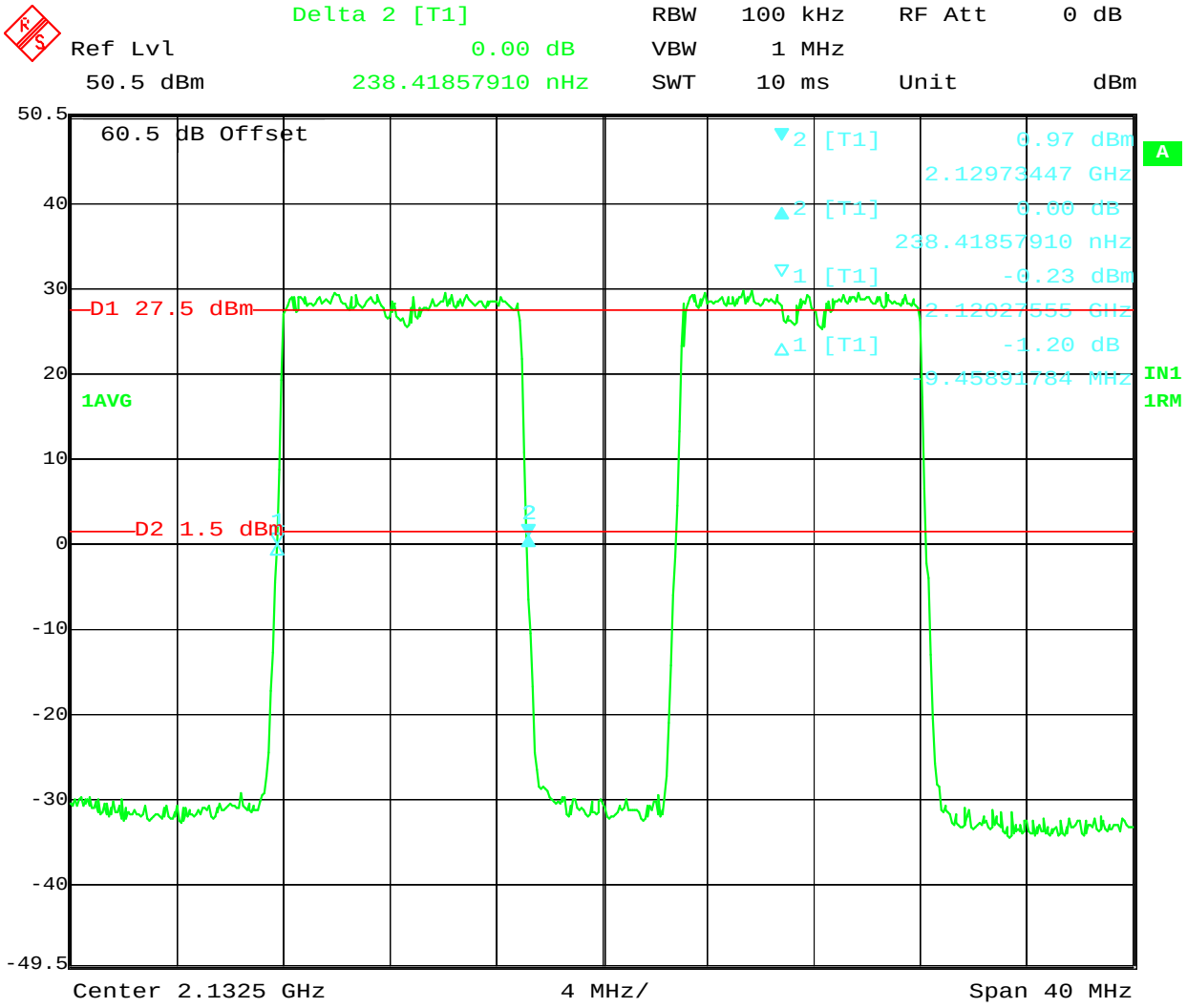

Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B,D&E; 2125MHz & 2140MHz; 10MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
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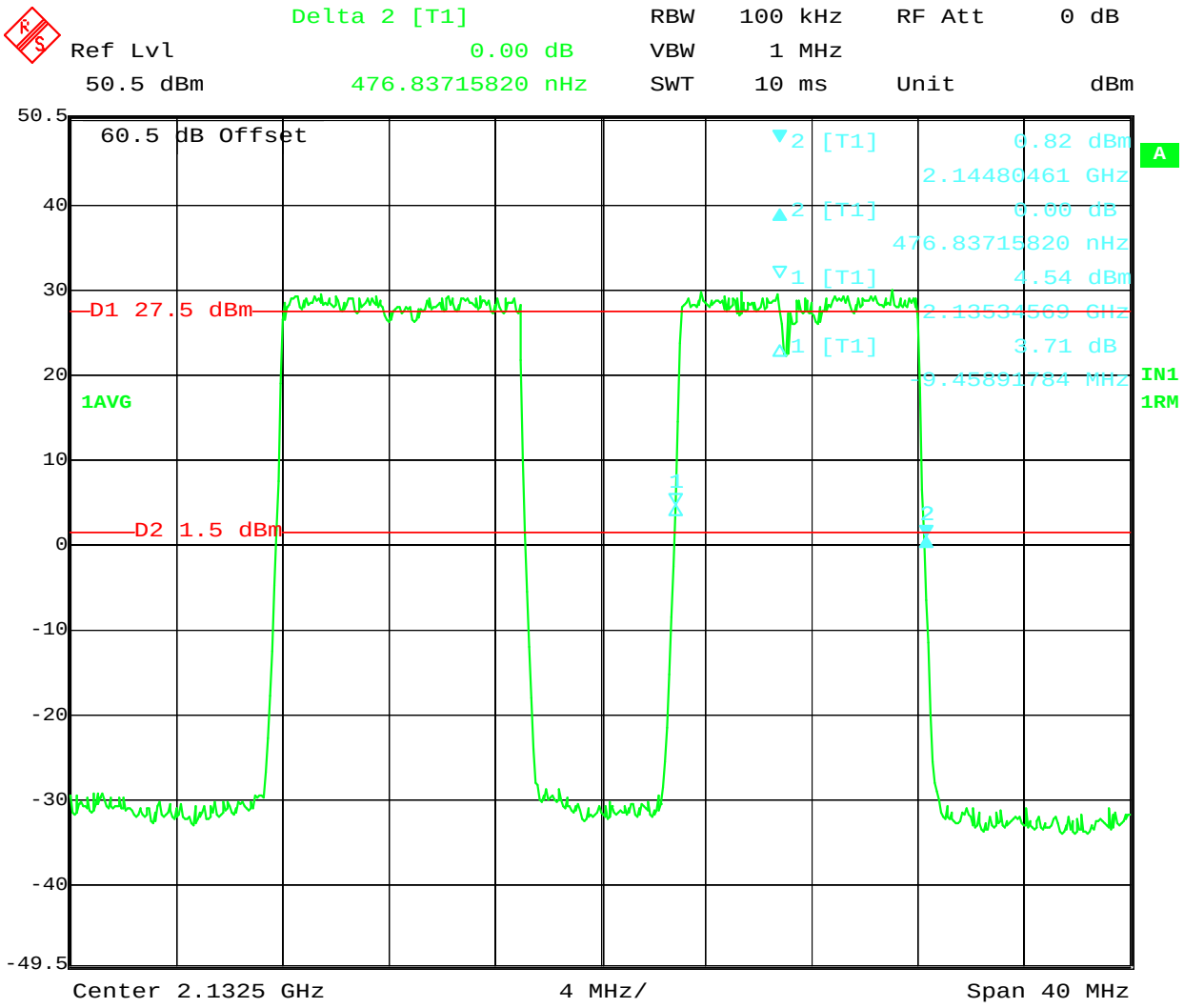


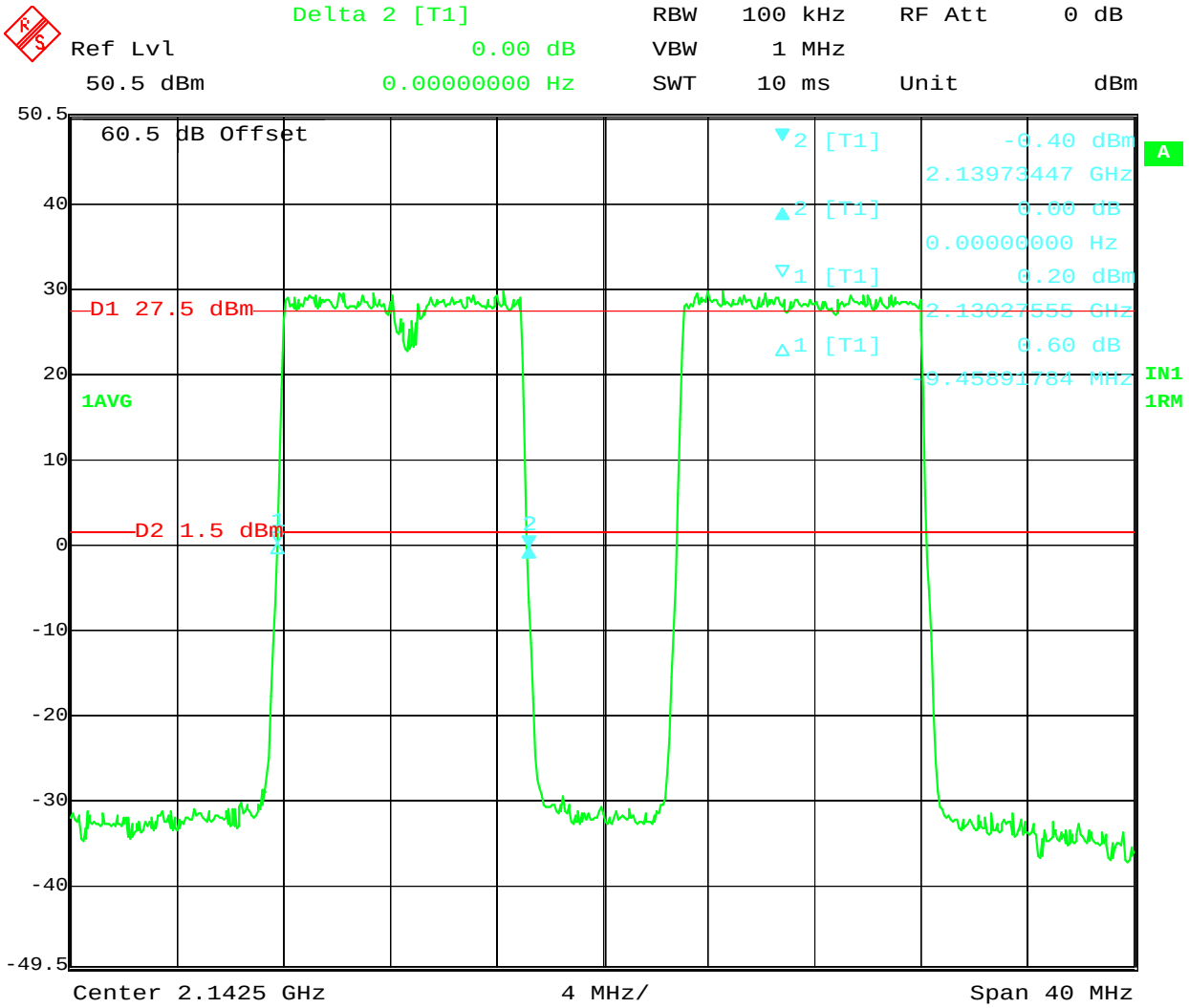
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B,D&E; 2125MHz & 2140MHz; 10MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 20.AUG.2013 13:36:47

Block: C+D+F

10+10 MHz Bandwidth (2130-2140 MHz + 2145-2155 MHz)

2x120 watts (MIMO)

(26dB Bandwidth)



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK C,D&F; 2135MHz & 2150MHz; 10MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
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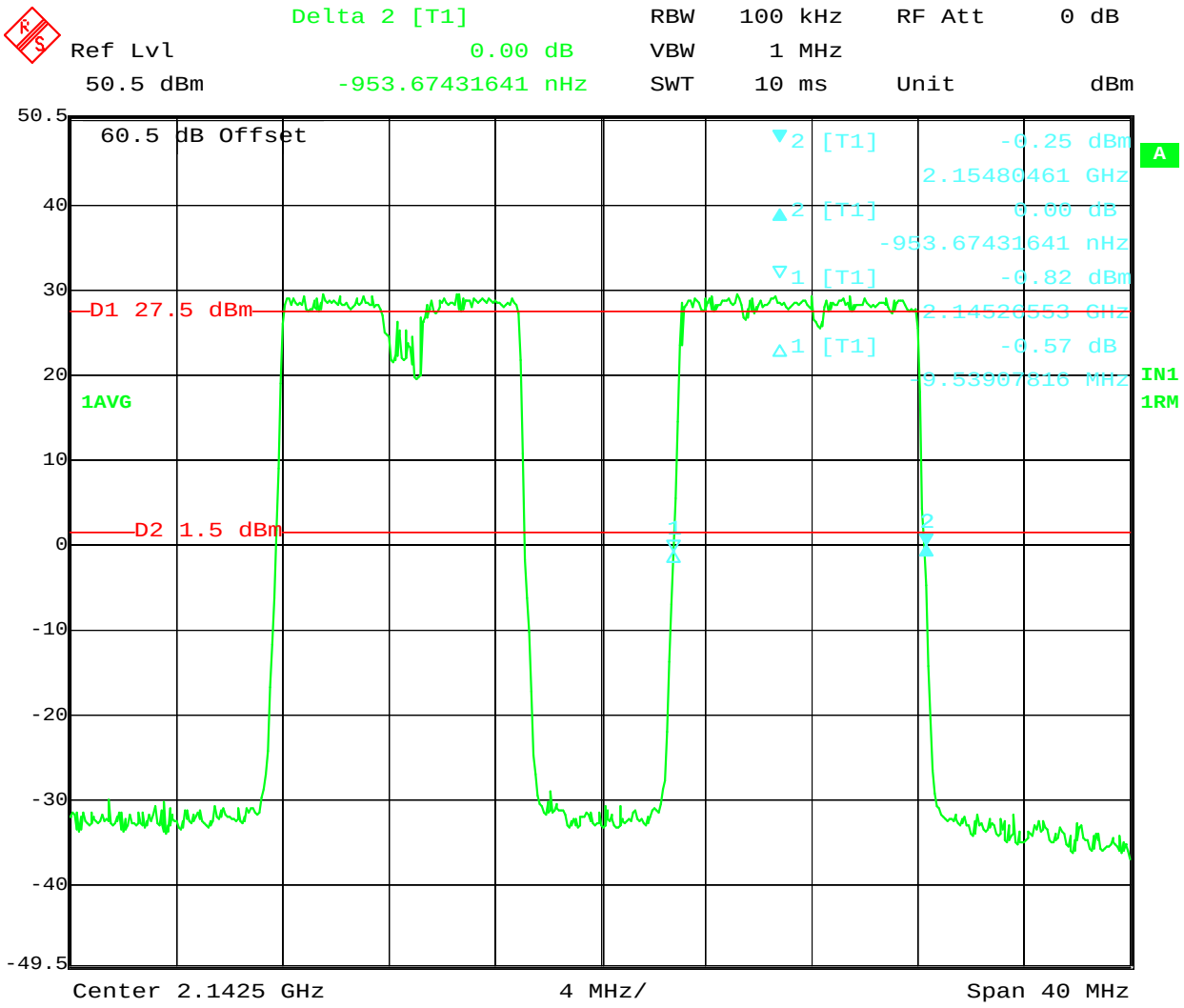
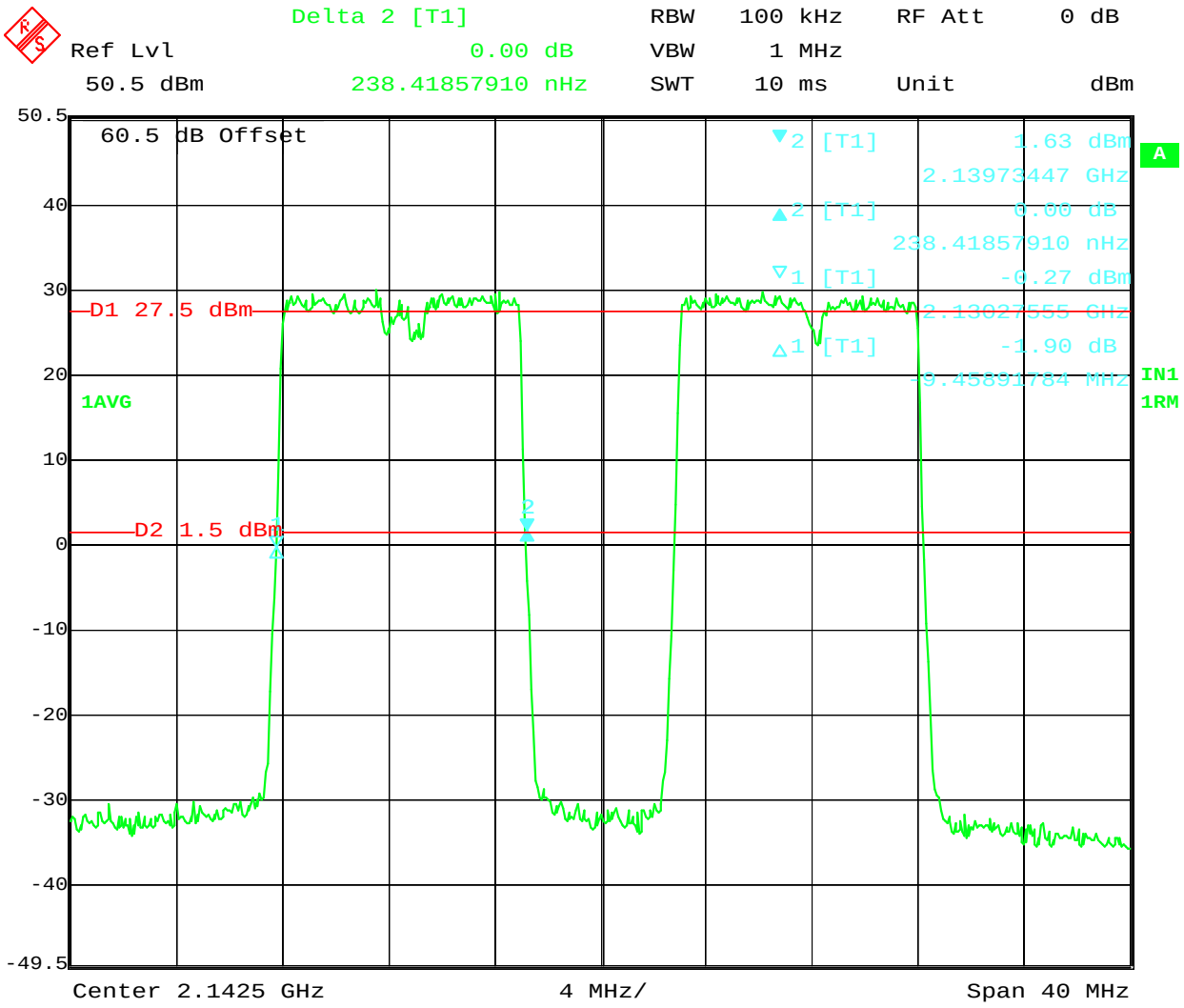


Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK C,D&F; 2135MHz & 2150MHz; 10MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 21.AUG.2013 07:14:36



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK C,D&F; 2135MHz & 2150MHz; 10MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
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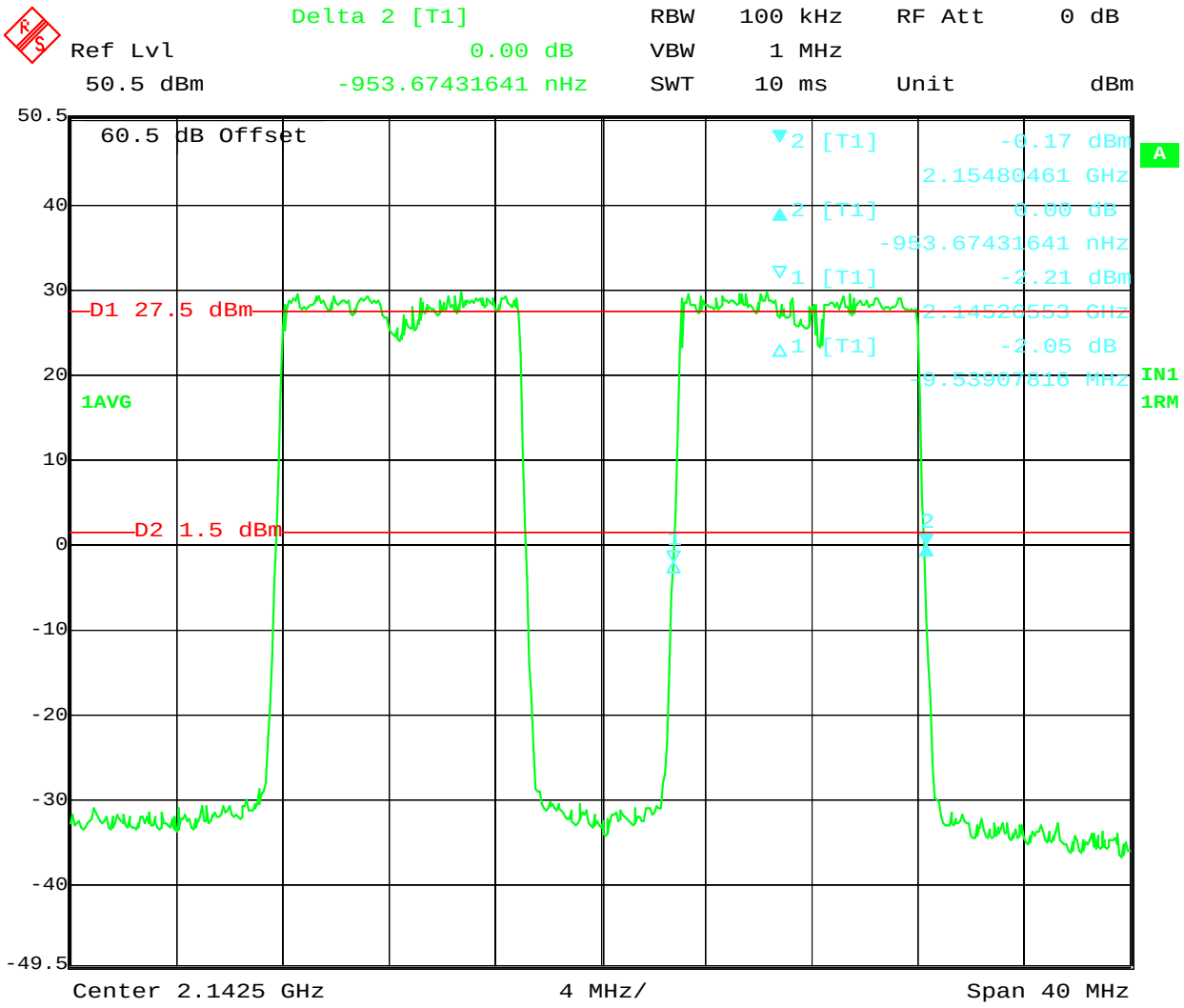

Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK C,D&F; 2135MHz & 2150MHz; 10MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
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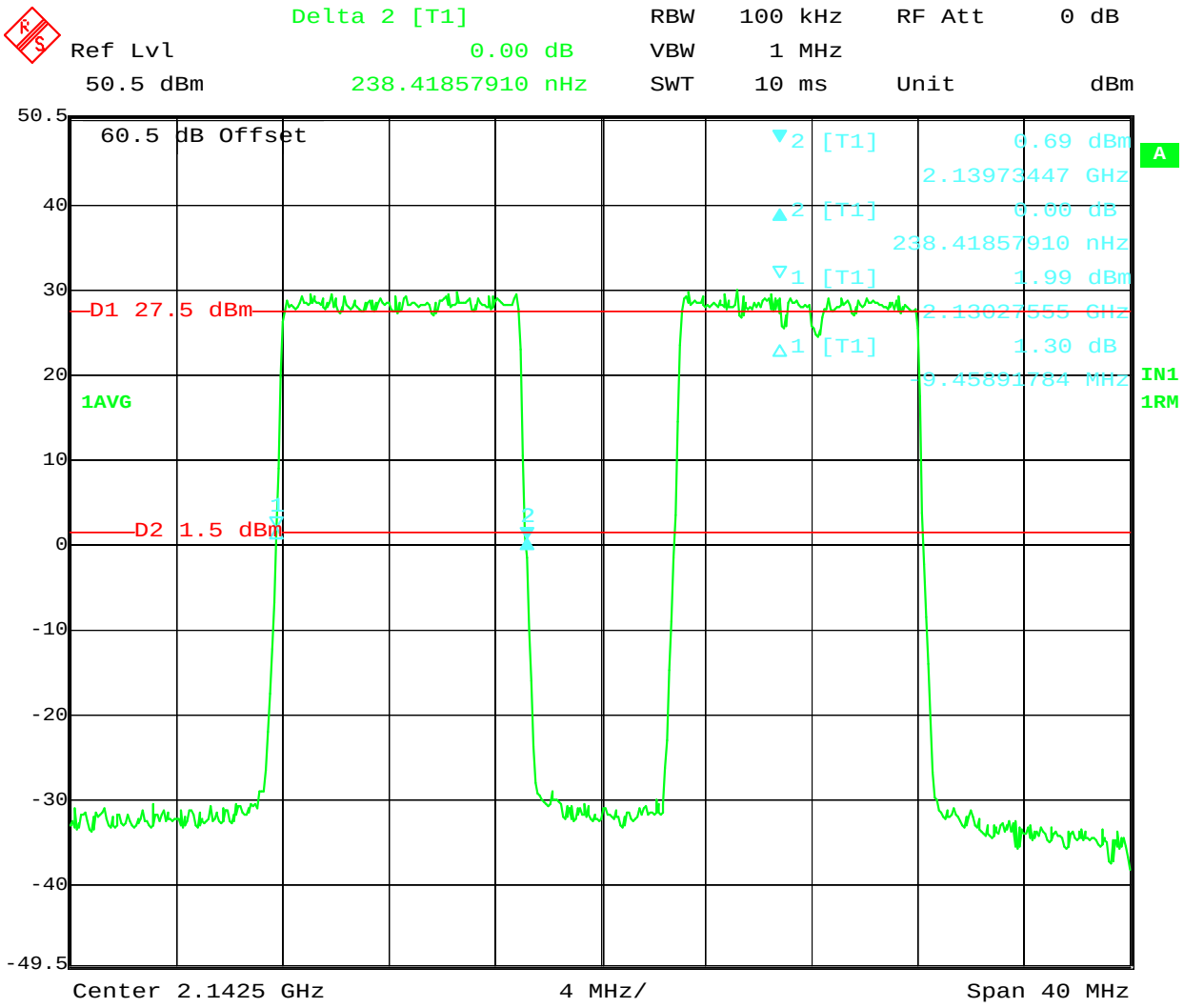

Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK C,D&F; 2135MHz & 2150MHz; 10MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
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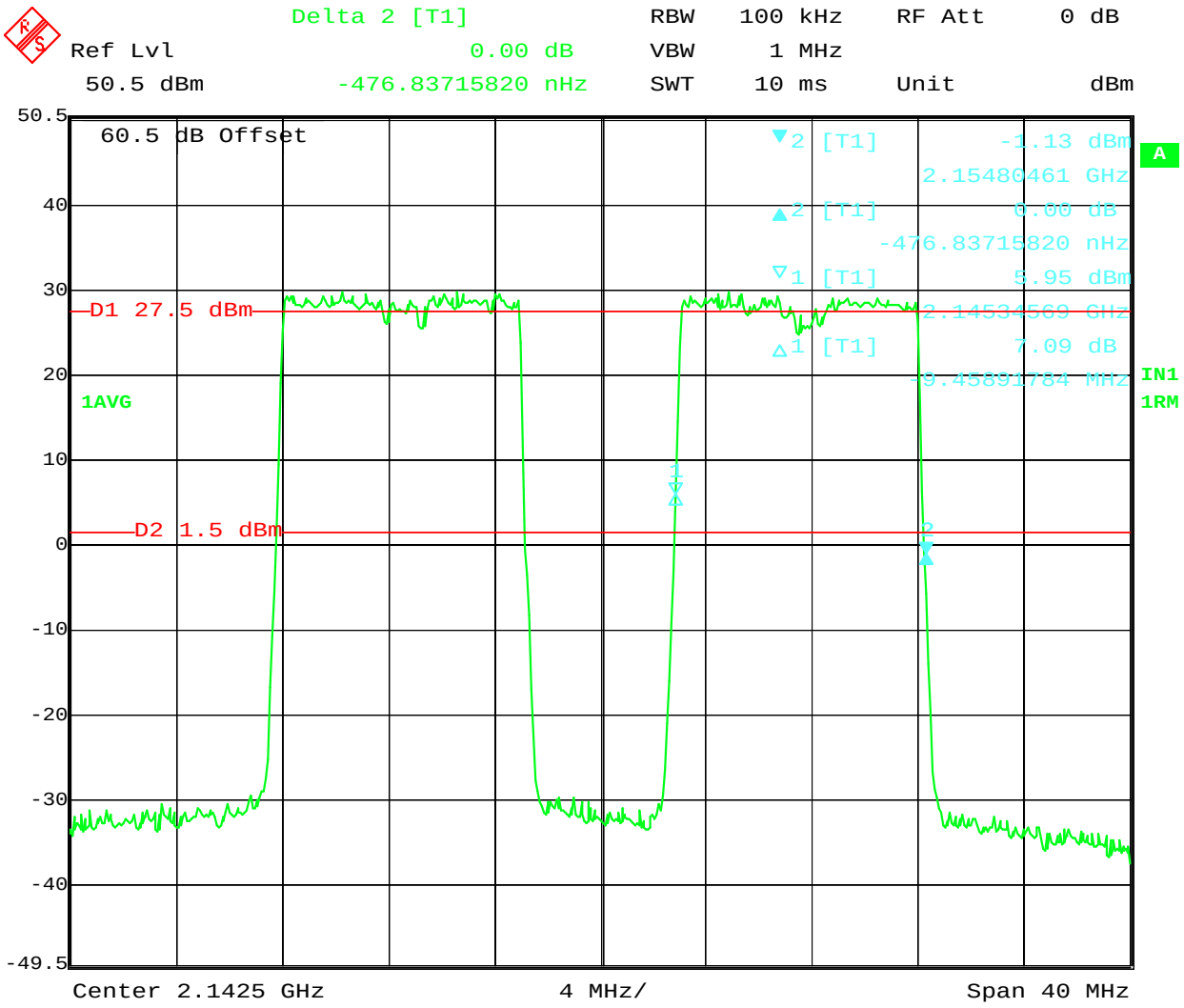


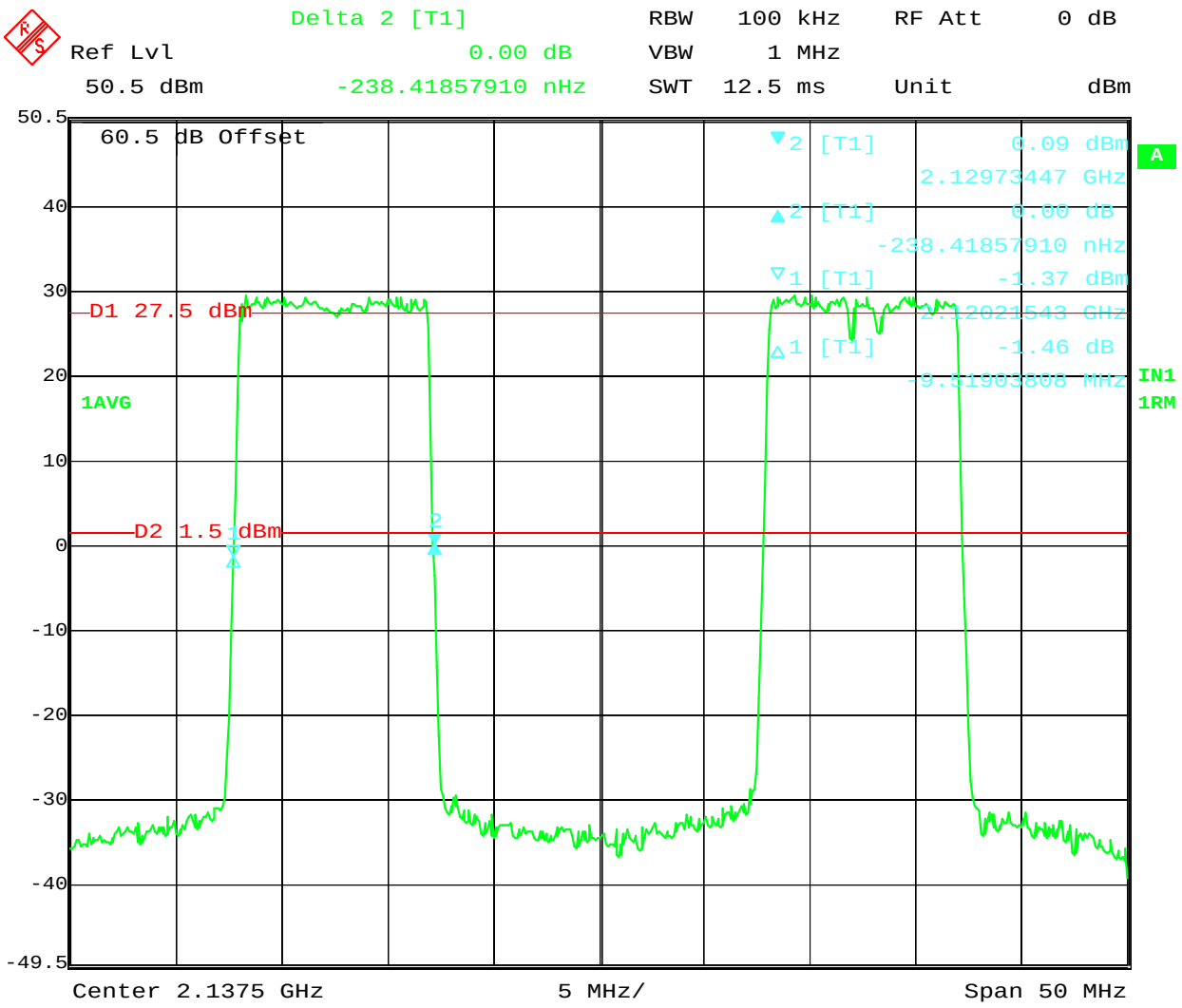
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK C,D&F; 2135MHz & 2150MHz; 10MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 21.AUG.2013 04:25:58

Block: B+F

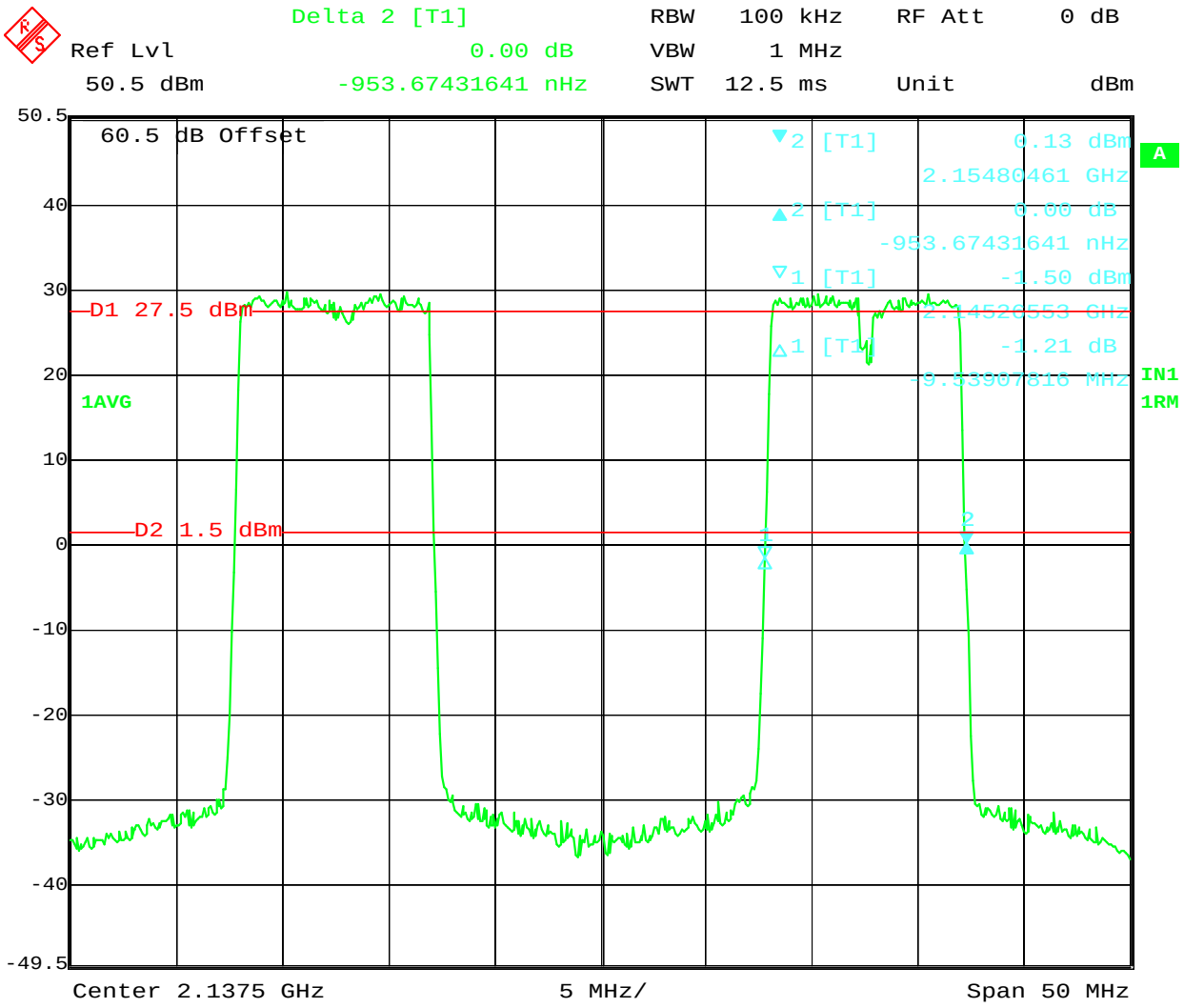
10+10 MHz Bandwidth (2120-2130 MHz + 2145-2155 MHz)

2x120 watts (MIMO)

(26dB Bandwidth)



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B&F; 2125MHz & 2150MHz; 10MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 21.AUG.2013 08:26:20



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B&F; 2125MHz & 2150MHz; 10MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
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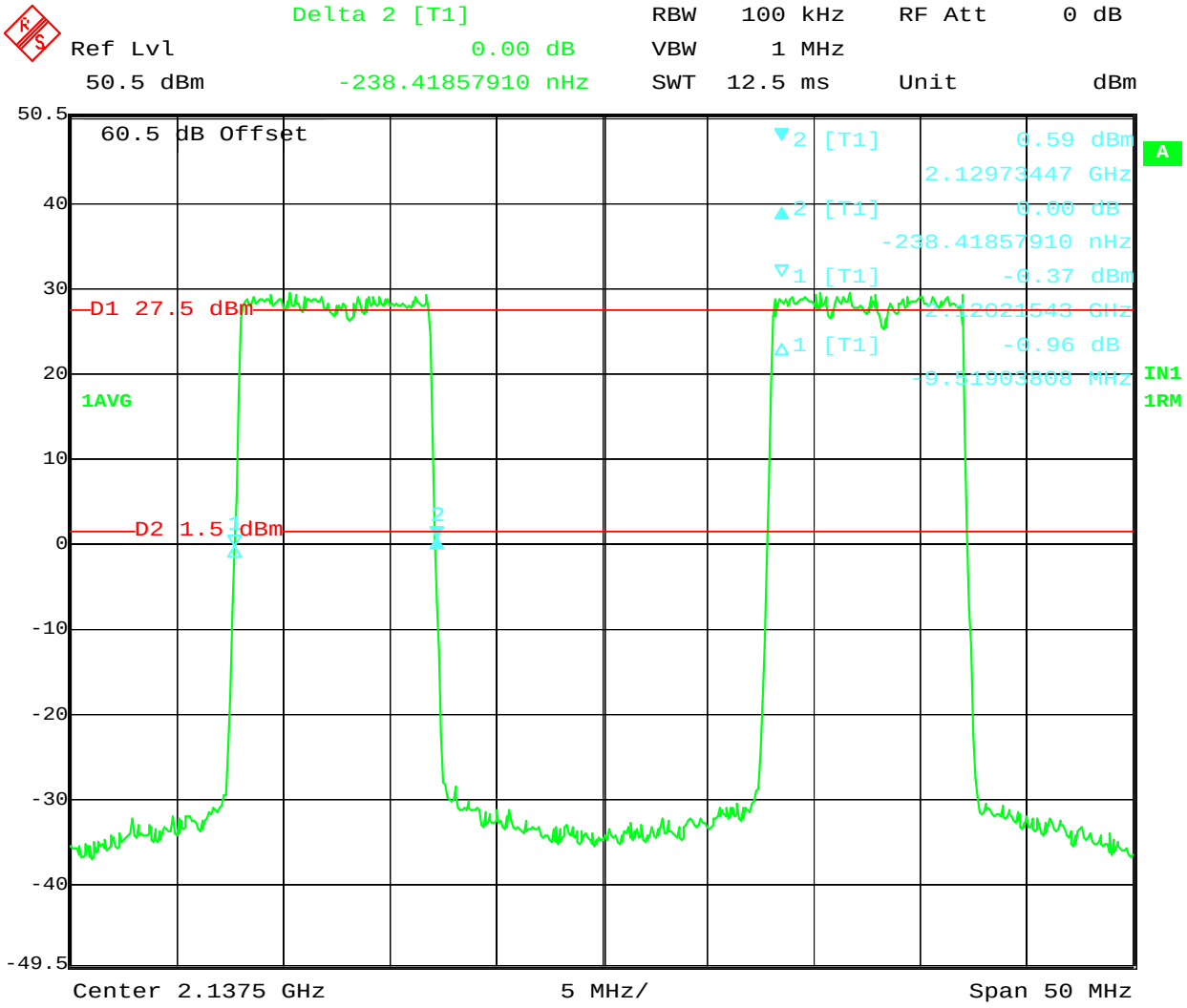
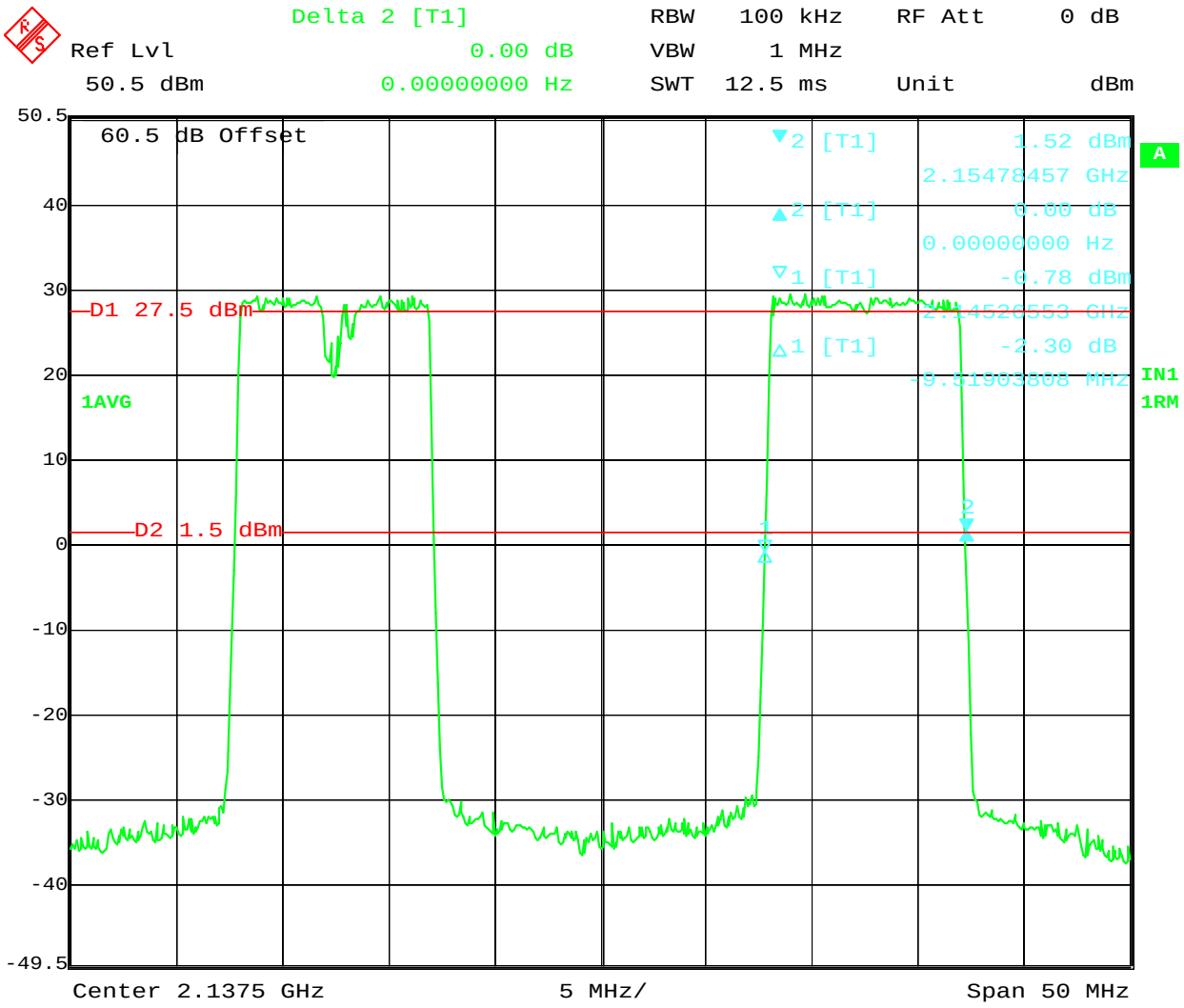
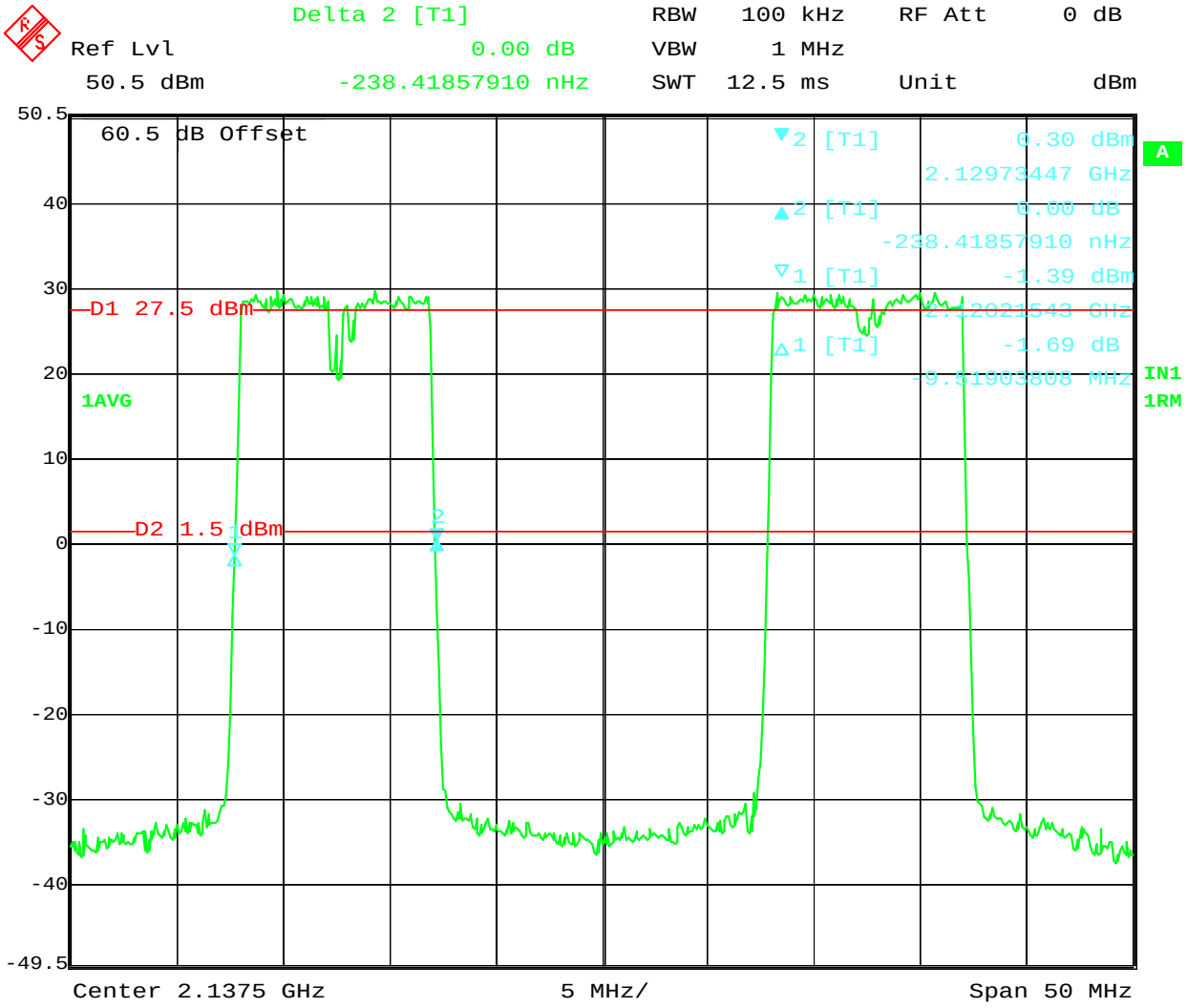


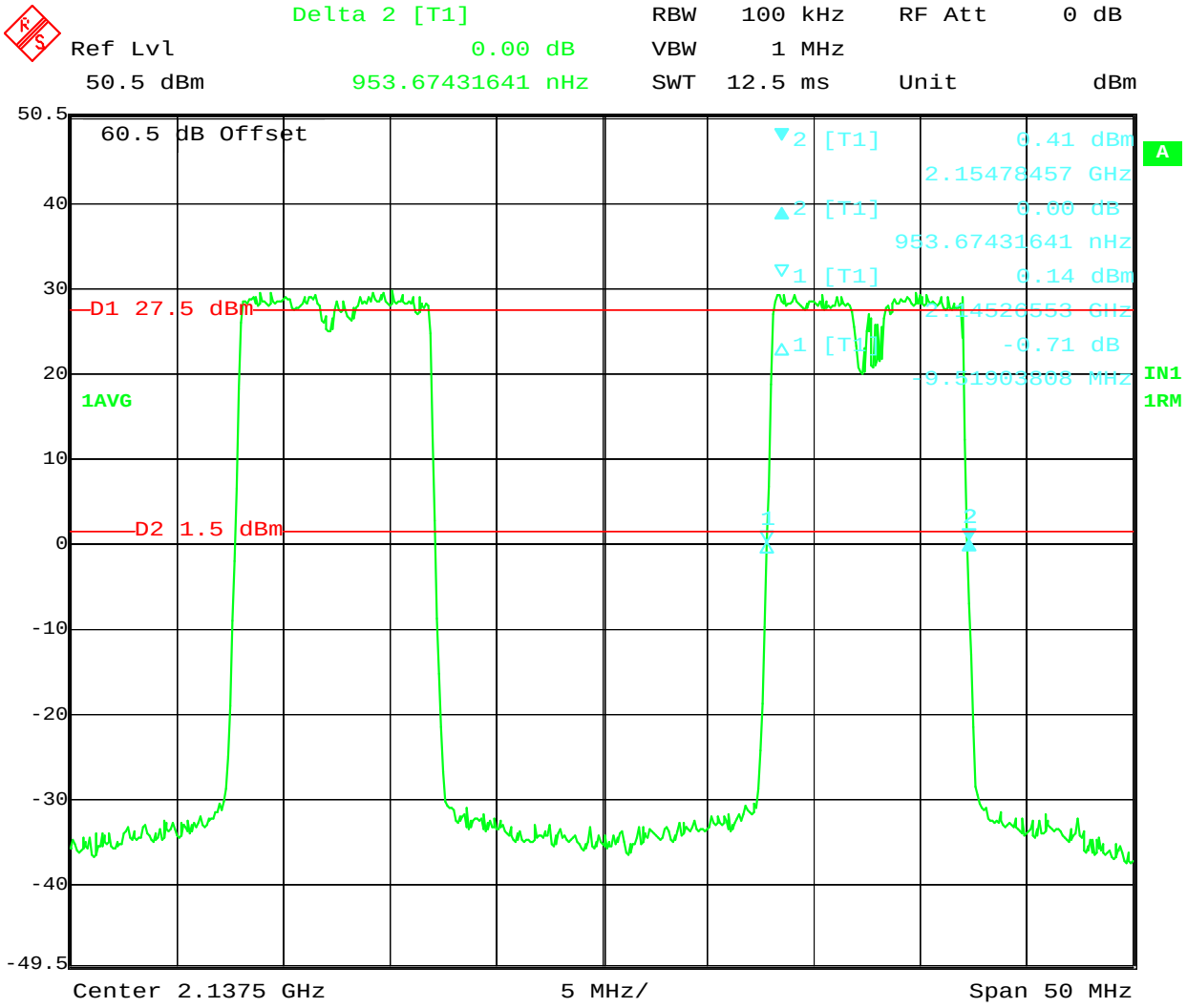
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B&F; 2125MHz & 2150MHz; 10MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 21.AUG.2013 09:53:45



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B&F; 2125MHz & 2150MHz; 10MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 21.AUG.2013 09:54:59



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B&F; 2125MHz & 2150MHz; 10MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 21.AUG.2013 10:52:06



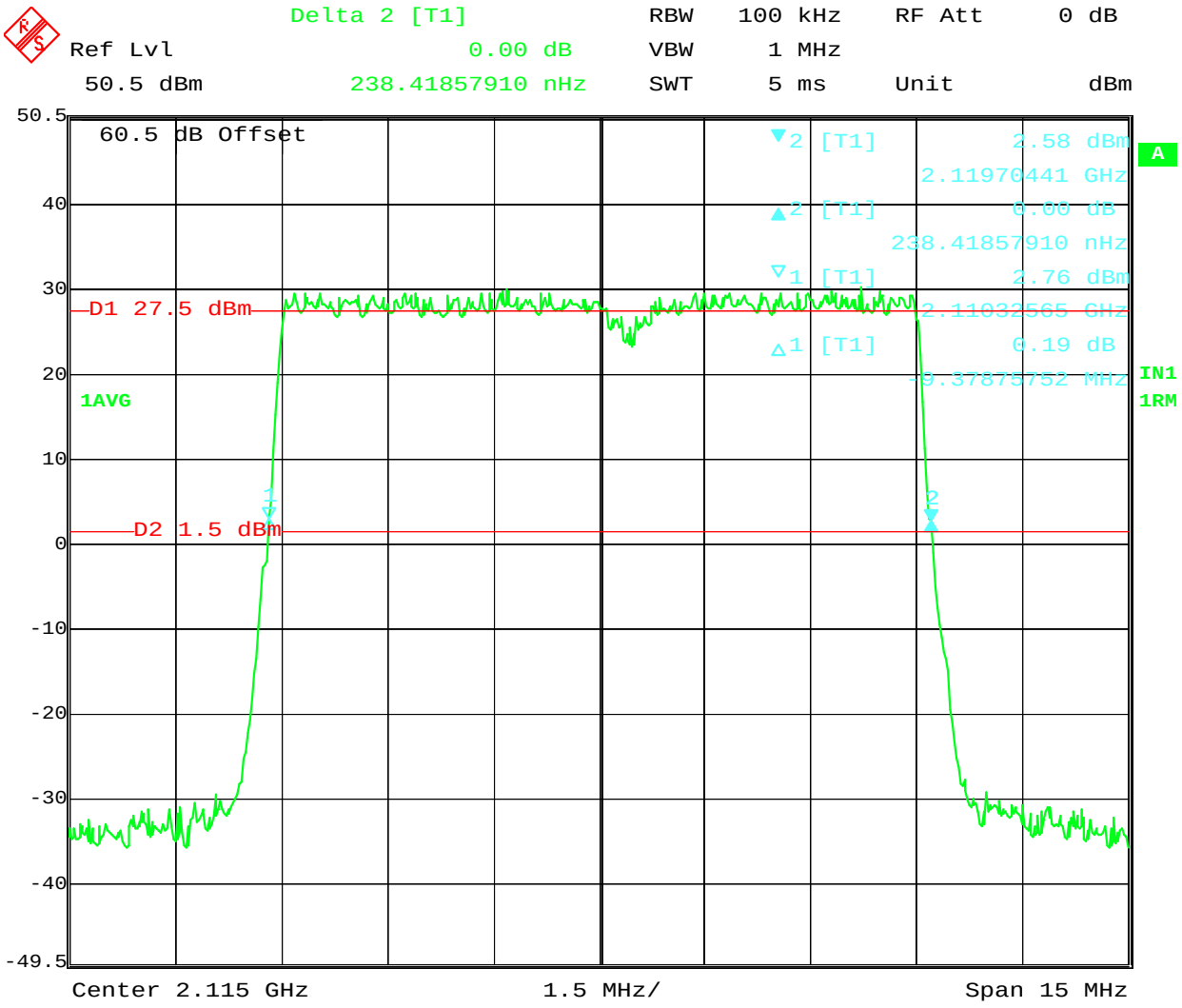
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B&F; 2125MHz & 2150MHz; 10MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 21.AUG.2013 10:53:12

Block: A+D

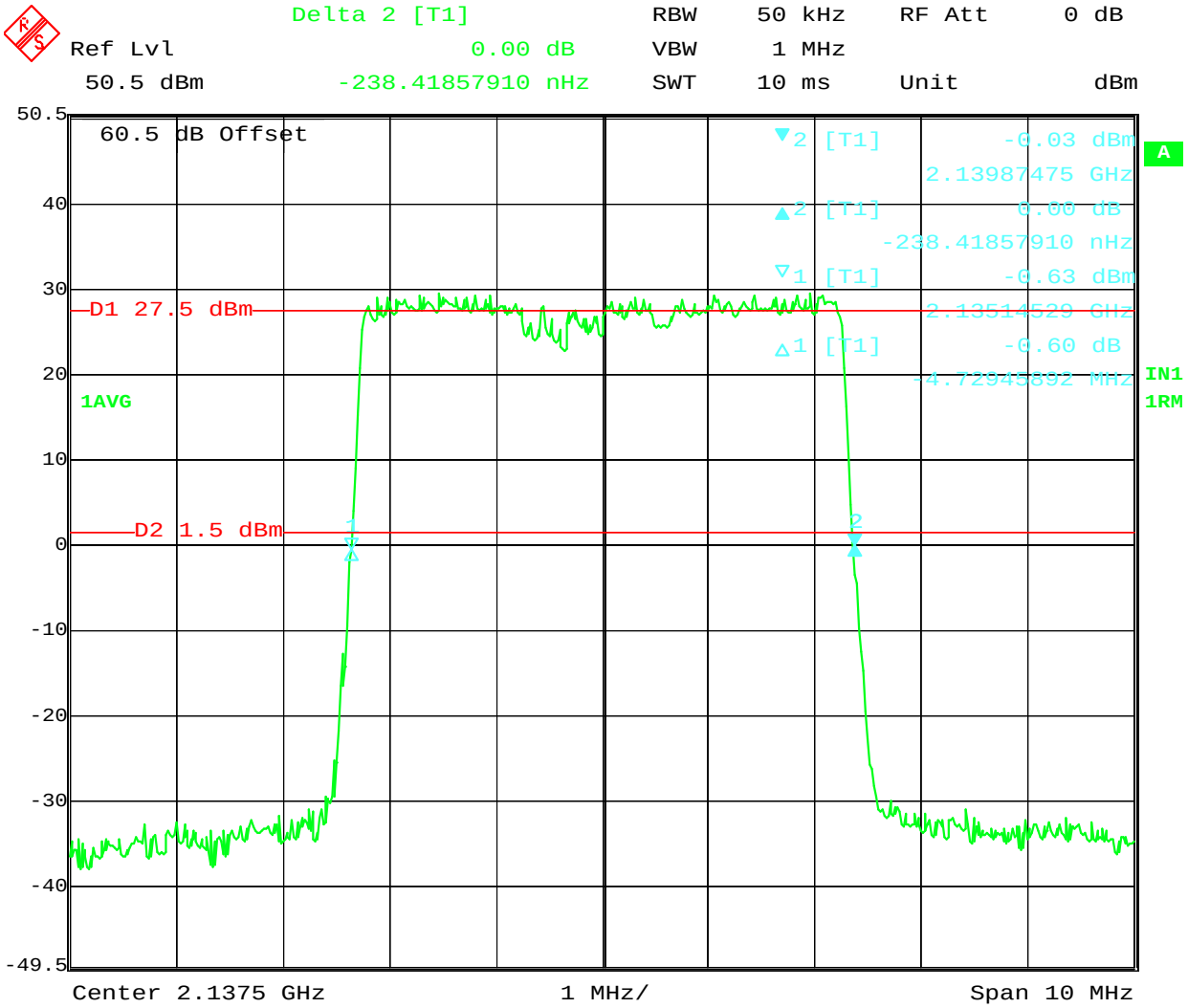
10+5 MHz Bandwidth (2110-2120 MHz + 2135-2140 MHz)

2x120 watts (MIMO)

(26dB Bandwidth)

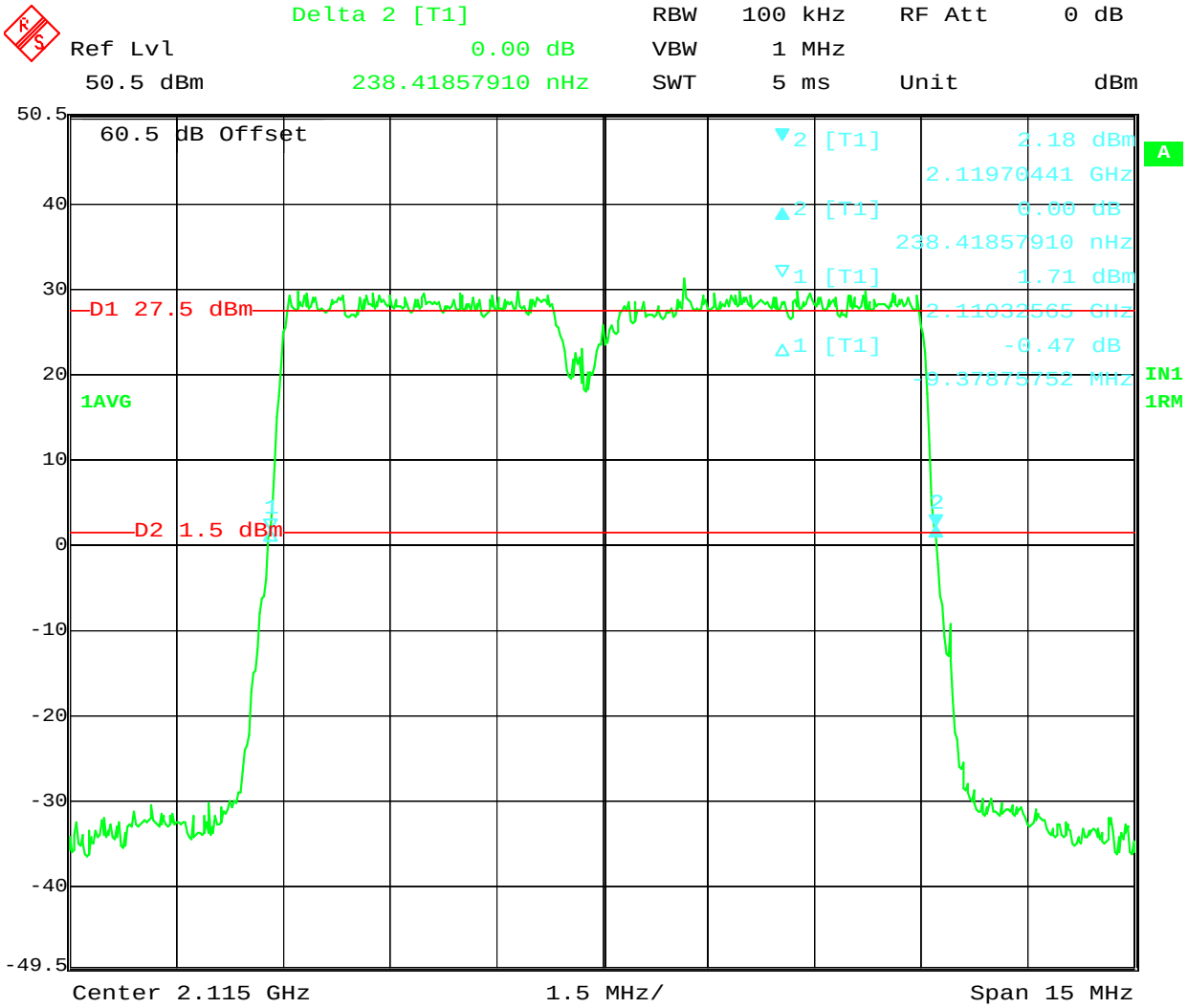


Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK A+D; 2115MHz; 10MHz+5MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 5.SEP.2013 07:16:41

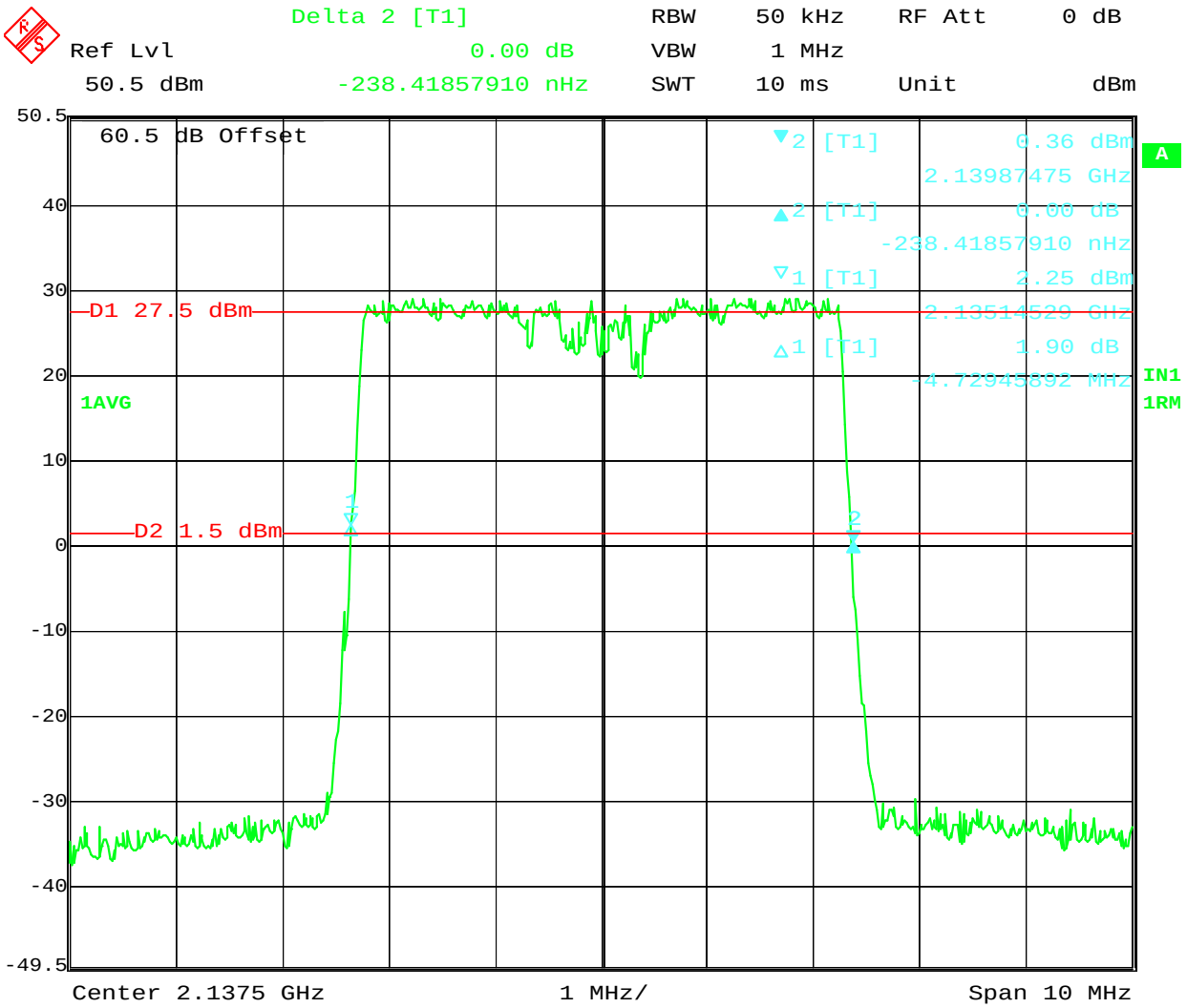


Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK A+D; 2137.5MHz; 10MHz+5MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 5.SEP.2013 07:30:05

APPLICANT: **Alcatel-Lucent** FCC ID: **AS5BBTRX-13**

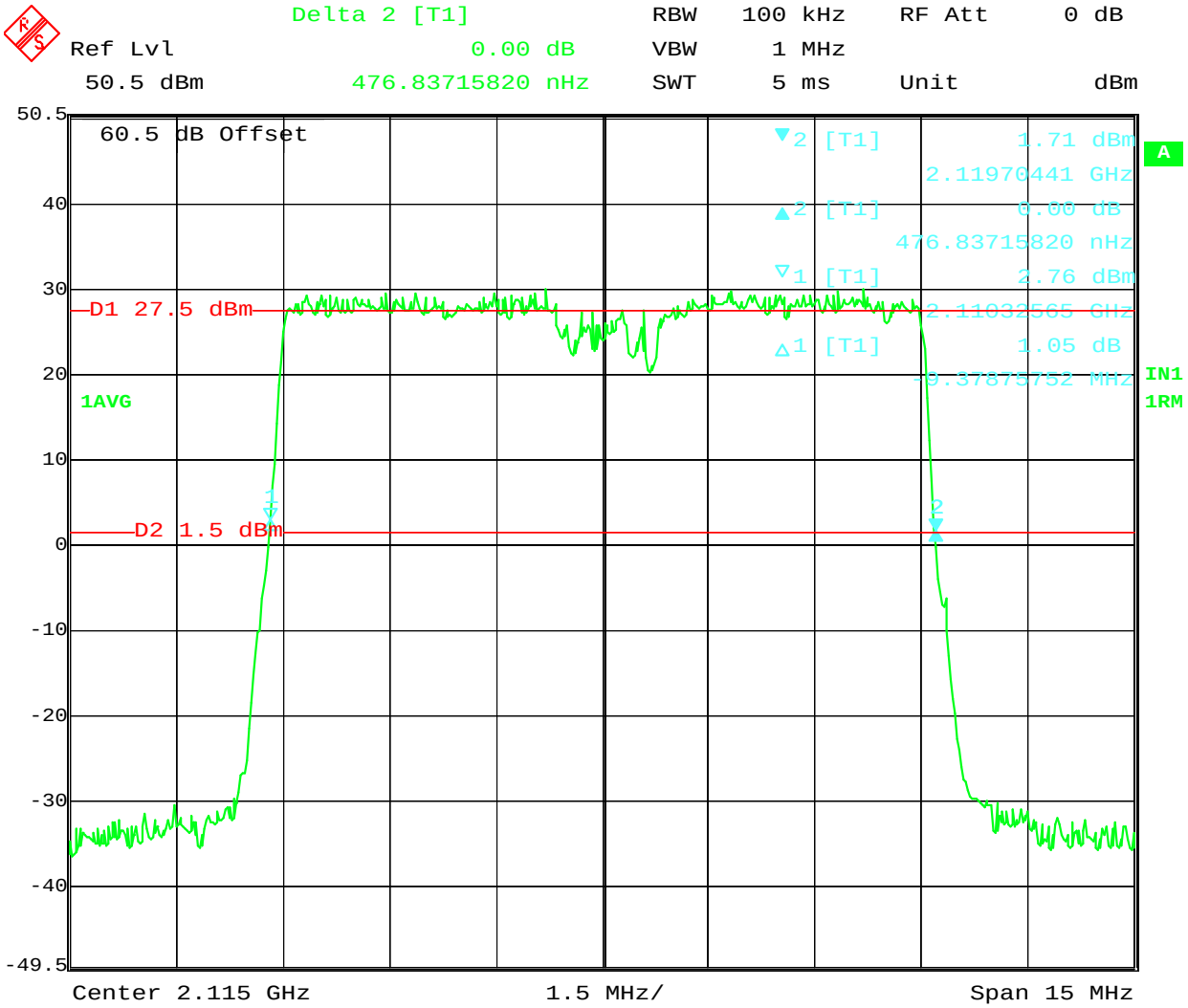


Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK A+D; 2115MHz; 10MHz+5MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 5.SEP.2013 06:50:13

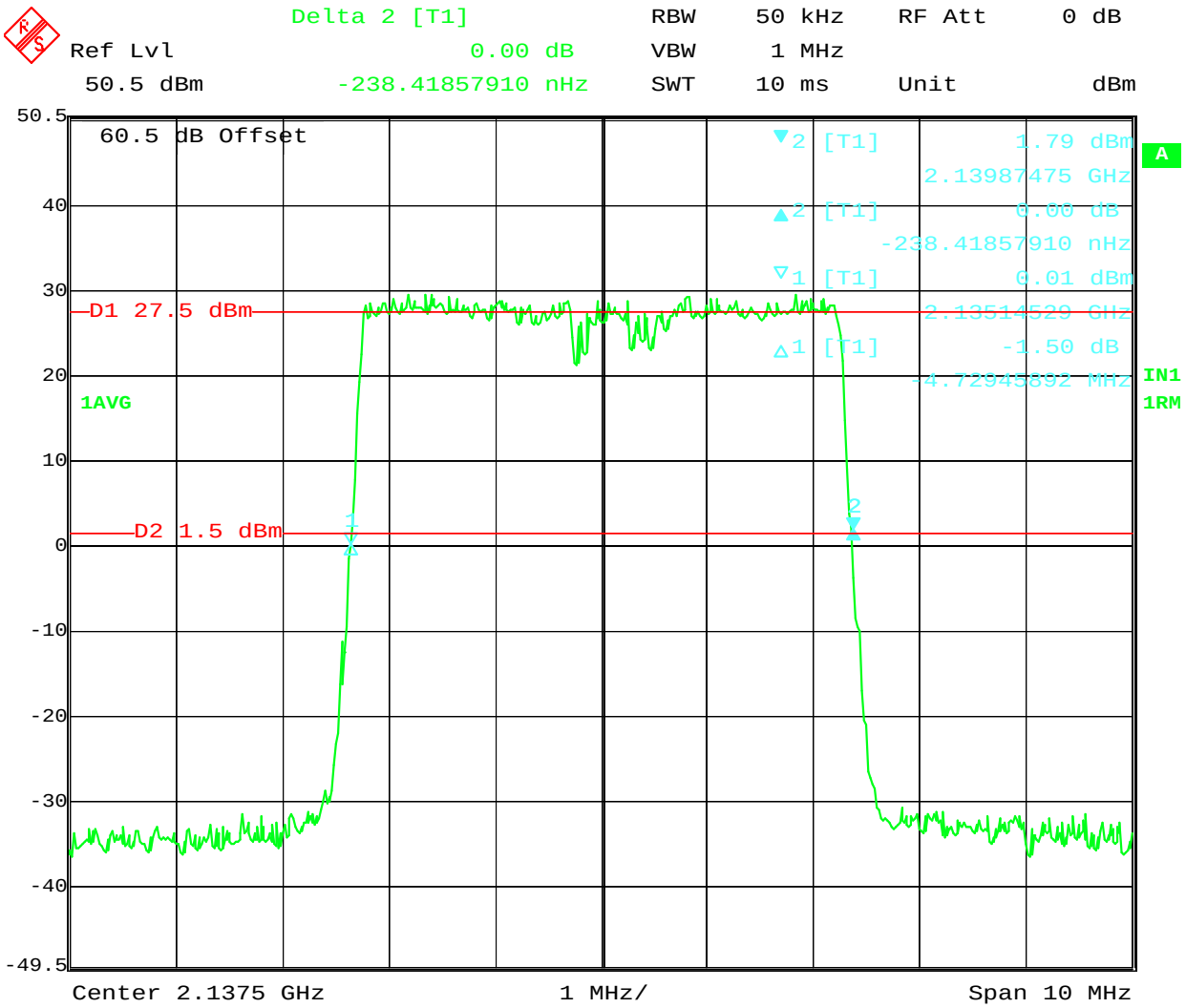


Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK A+D; 2137.5MHz; 10MHz+5MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 5.SEP.2013 06:51:36

APPLICANT: **Alcatel-Lucent** FCC ID: **AS5BBTRX-13**



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK A+D; 2115MHz; 10MHz+5MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 4.SEP.2013 10:38:09



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK A+D; 2137.5MHz; 10MHz+5MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 4.SEP.2013 10:40:23

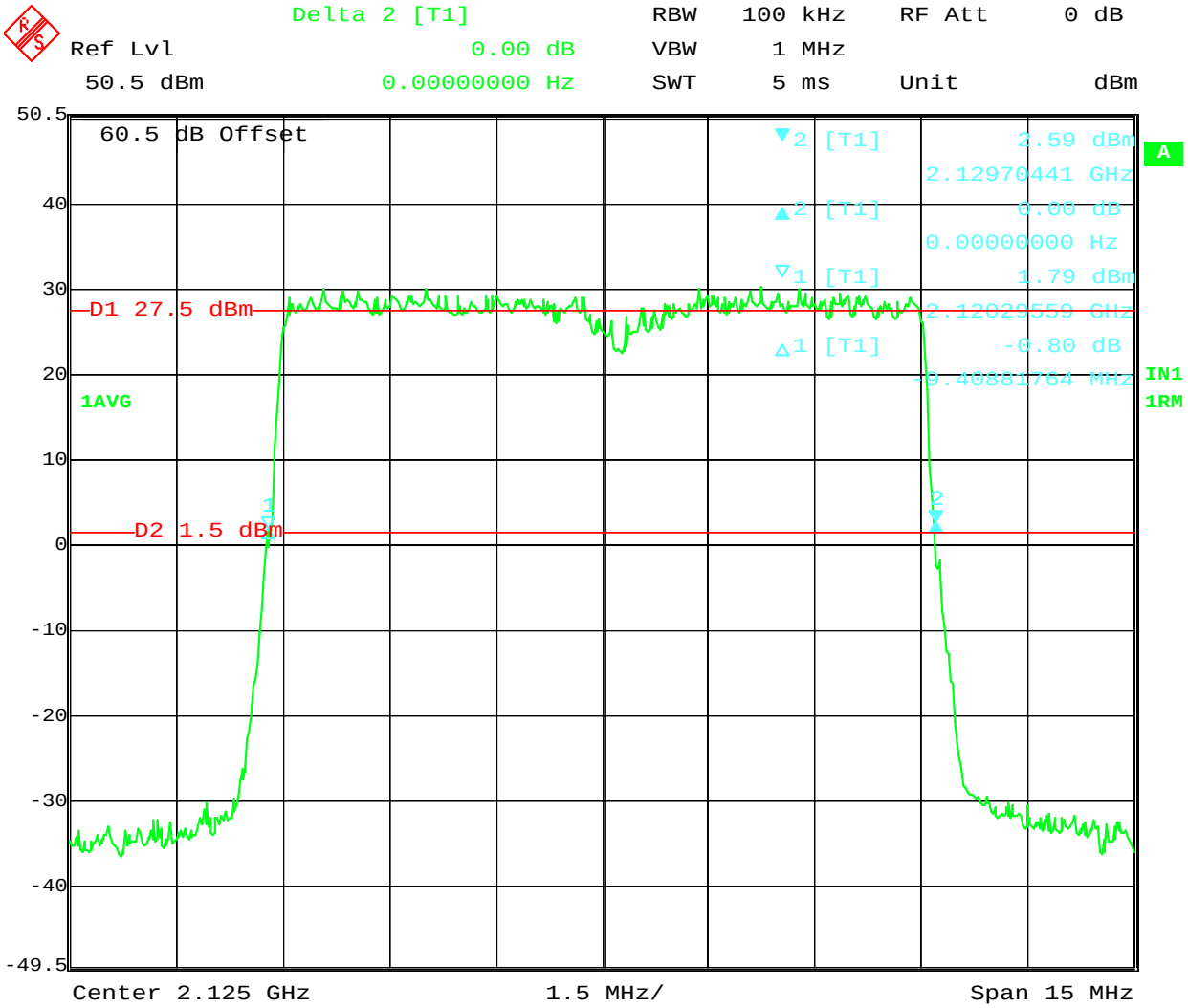
Block: B+E

10+5 MHz Bandwidth (2120-2130 MHz + 2140-2145 MHz)

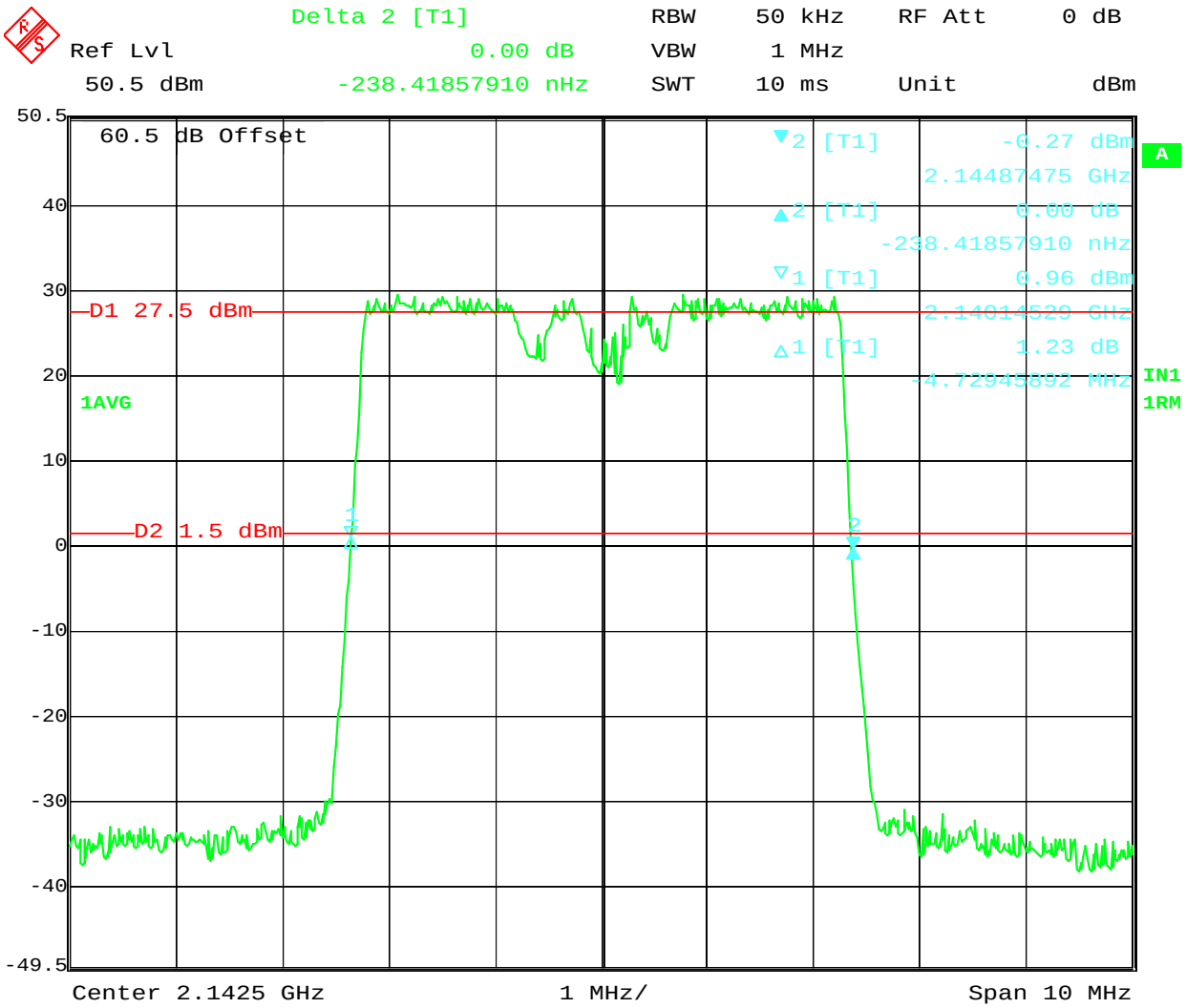
2x120 watts (MIMO)

(26dB Bandwidth)

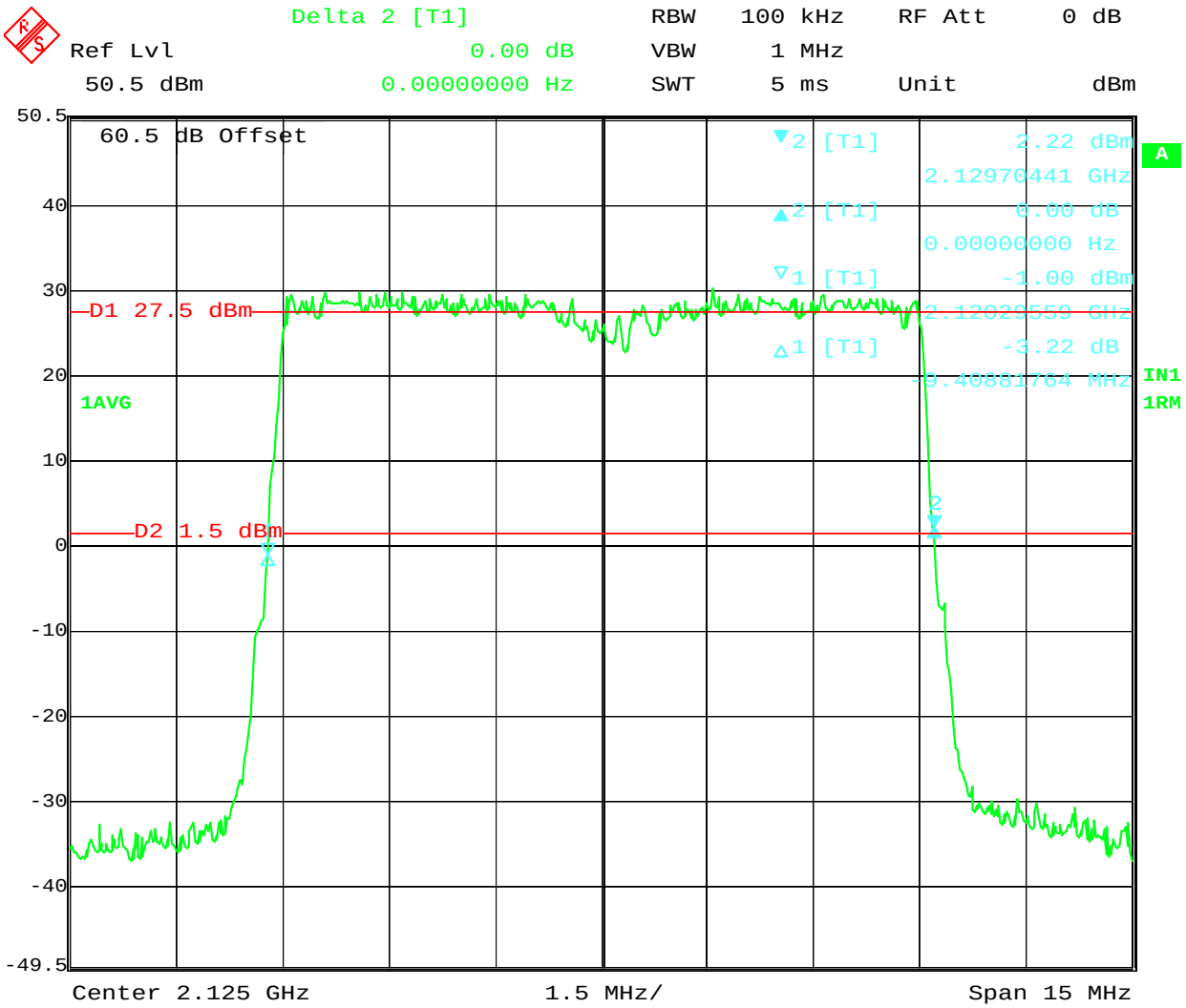
APPLICANT: **Alcatel-Lucent** FCC ID: **AS5BBTRX-13**



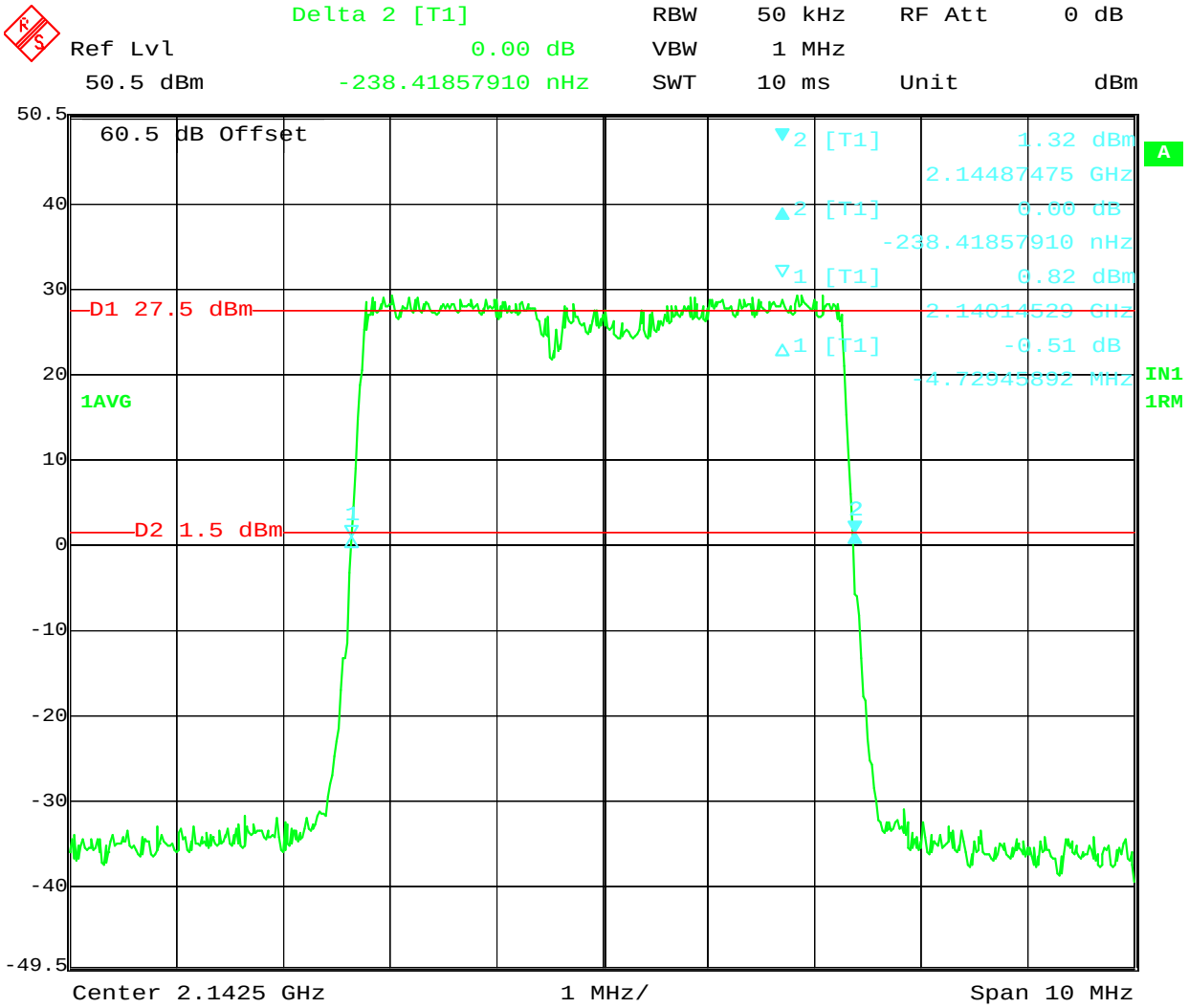
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B+E; 2125MHz; 10MHz+5MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 5.SEP.2013 08:03:36



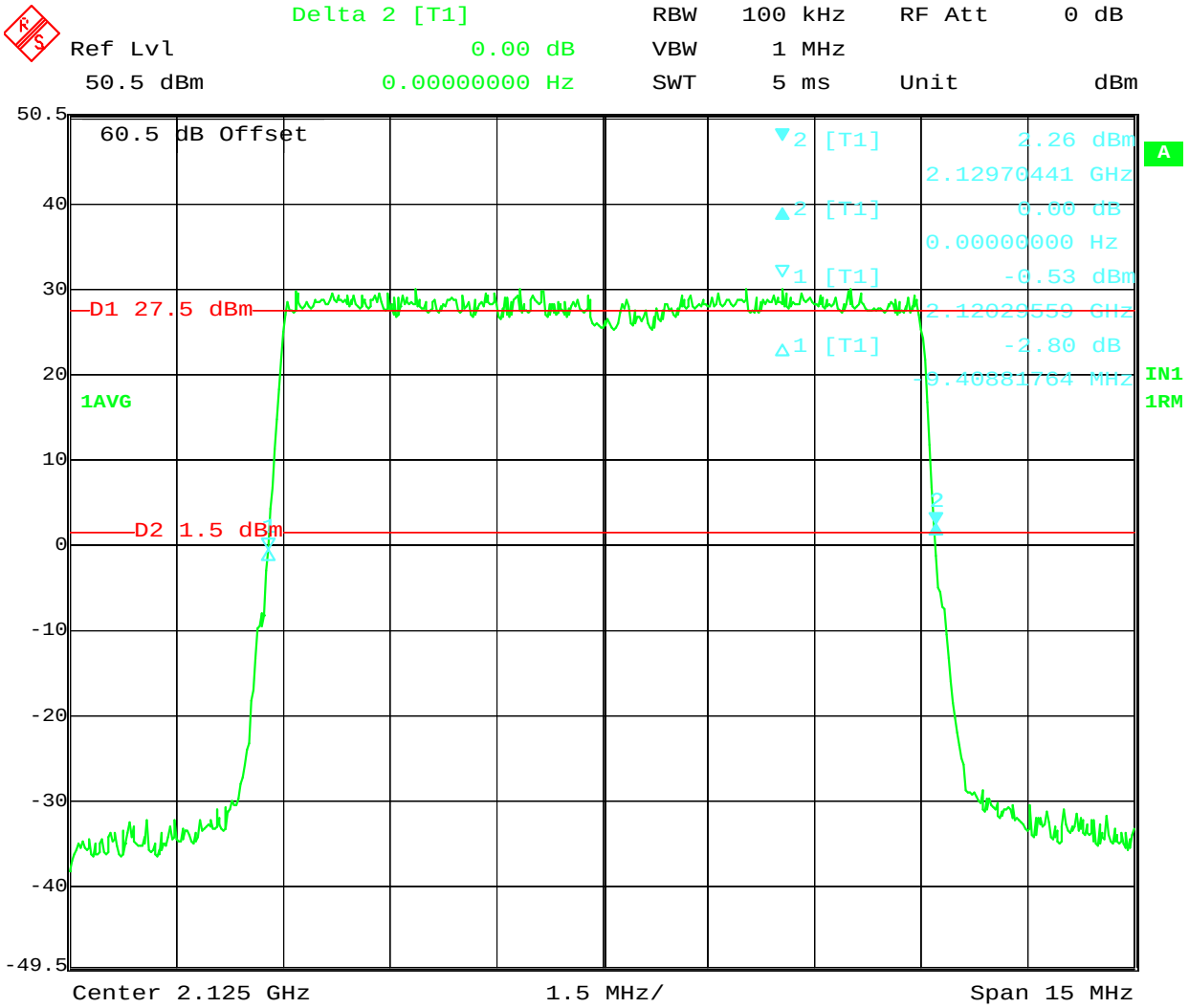
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B+E; 2142.5MHz; 10MHz+5MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 5.SEP.2013 08:06:28



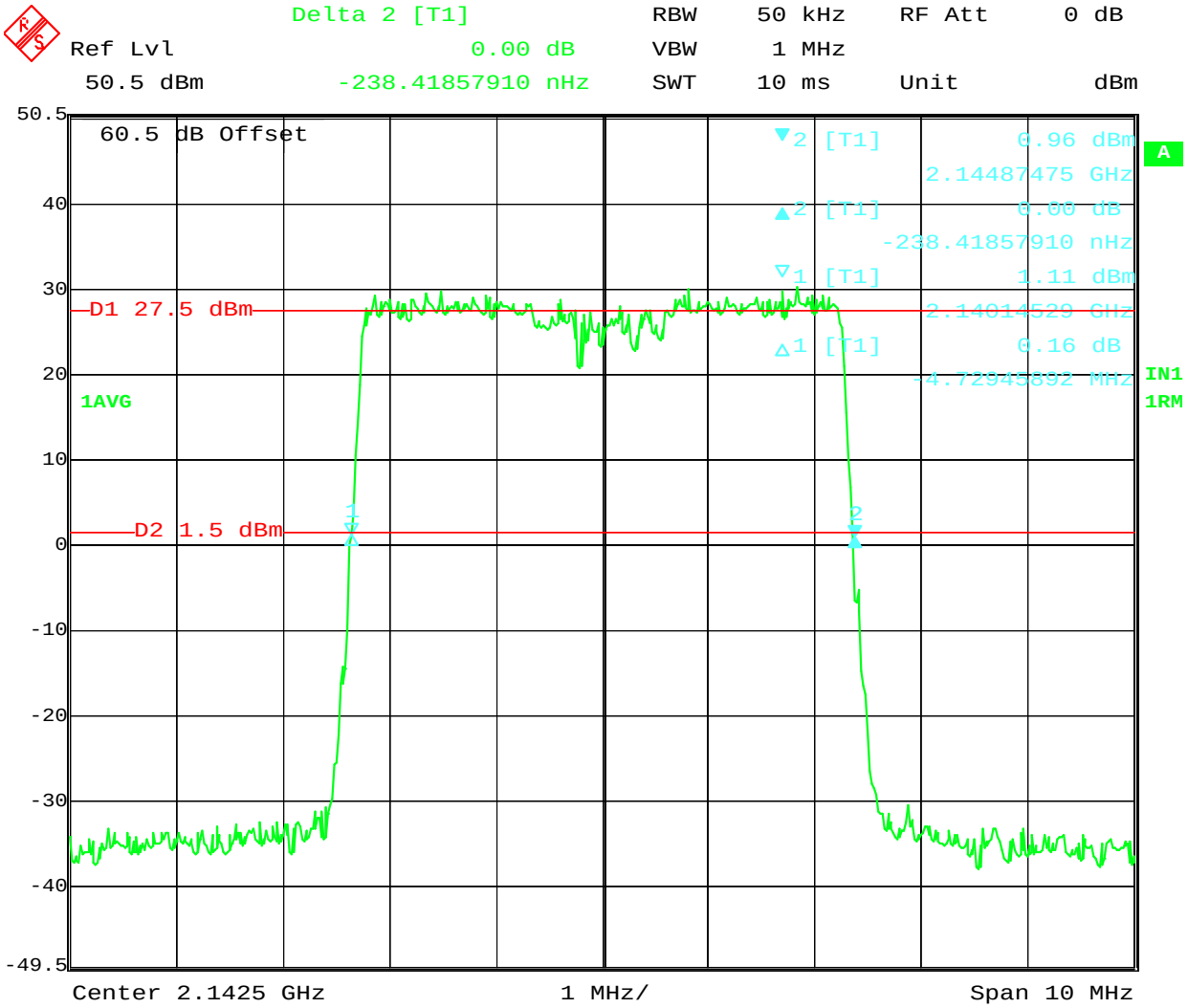
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B+E; 2125MHz; 10MHz+5MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 5.SEP.2013 09:56:13



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B+E; 2142.5MHz; 10MHz+5MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 5.SEP.2013 09:57:50



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B+E; 2125MHz; 10MHz+5MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 5.SEP.2013 10:15:57



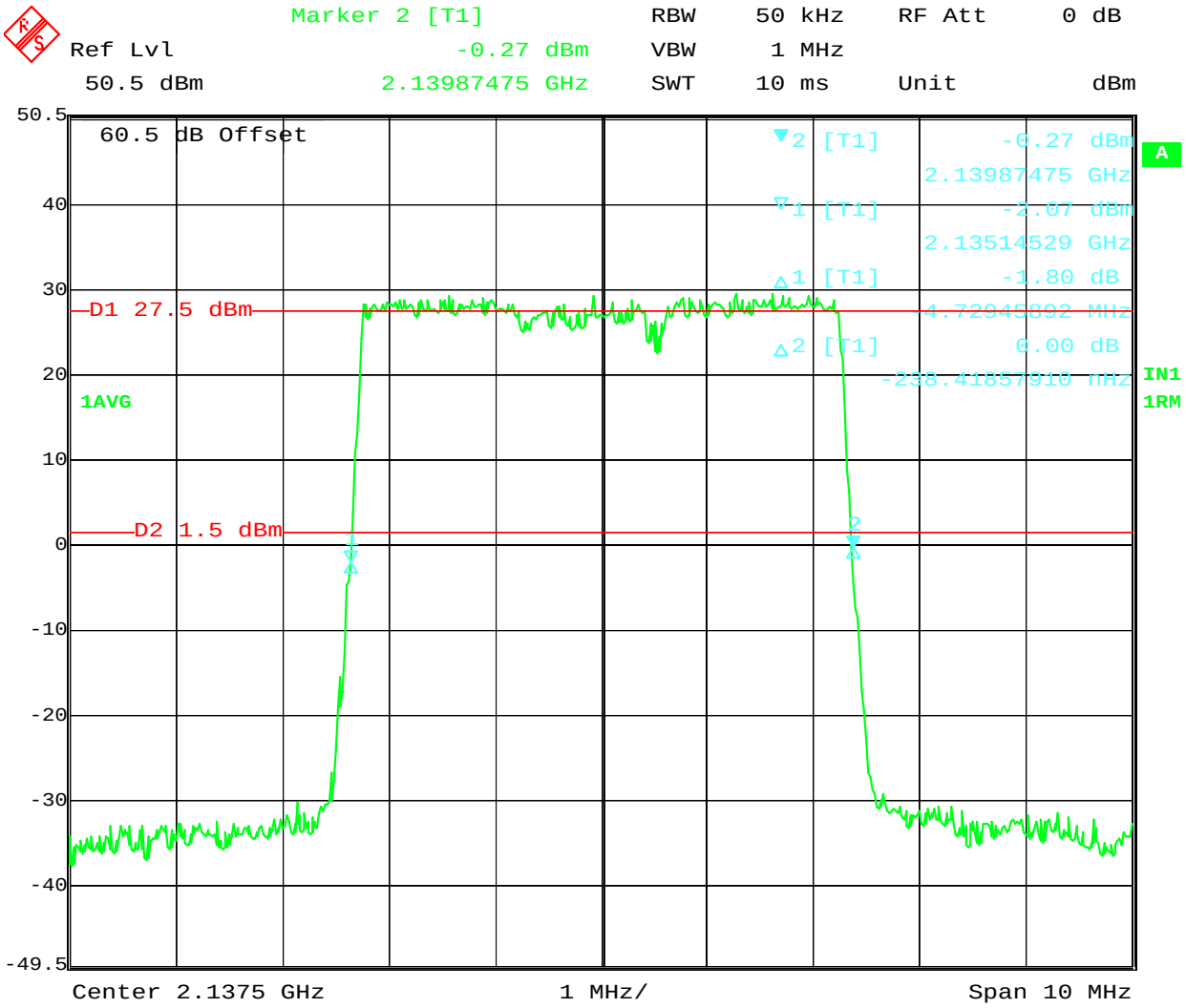
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B+E; 2142.5MHz; 10MHz+5MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 5.SEP.2013 10:54:04

Block: D+F

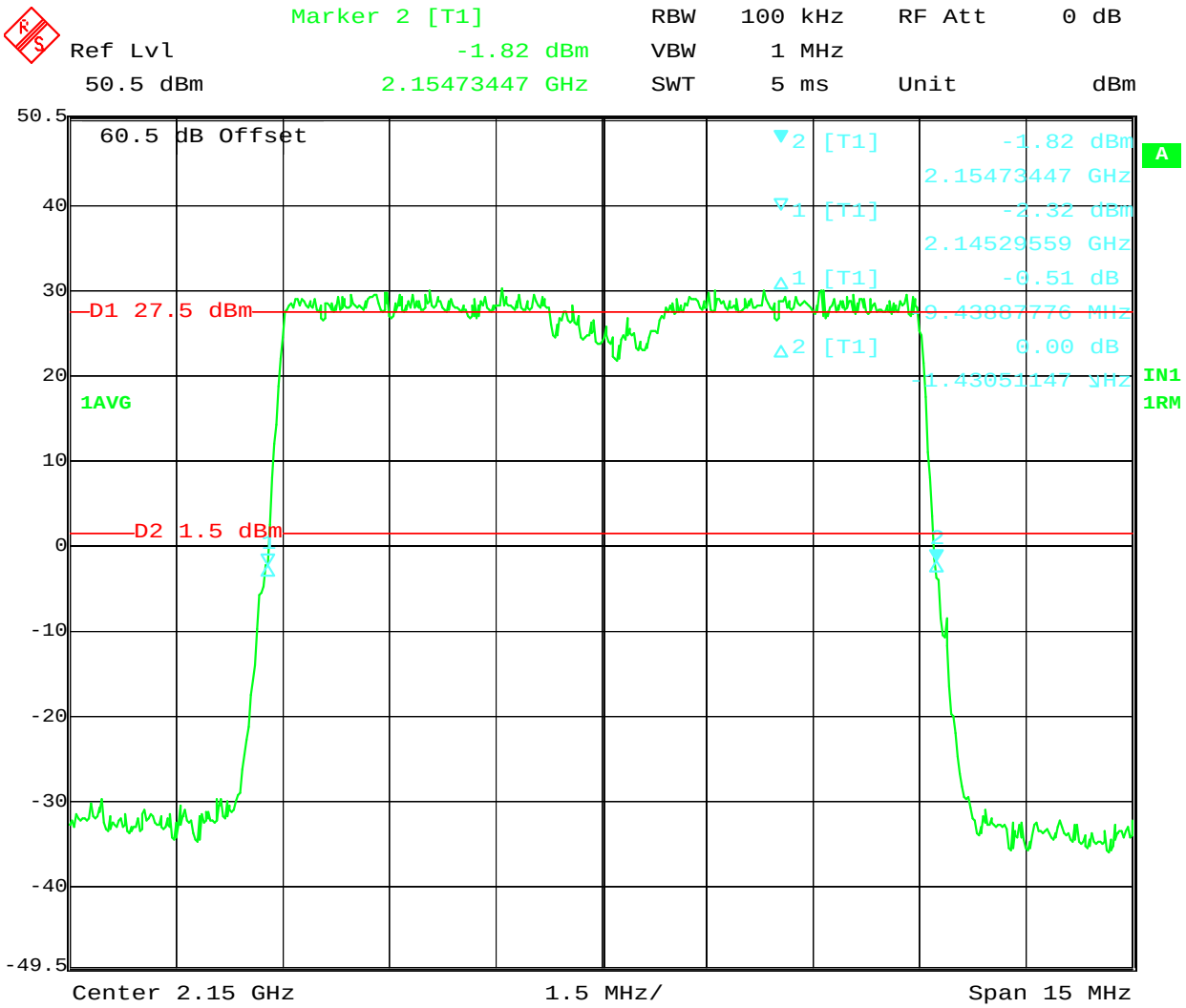
5+10 MHz Bandwidth (2135-2140 MHz + 2145-2155 MHz)

2x120 watts (MIMO)

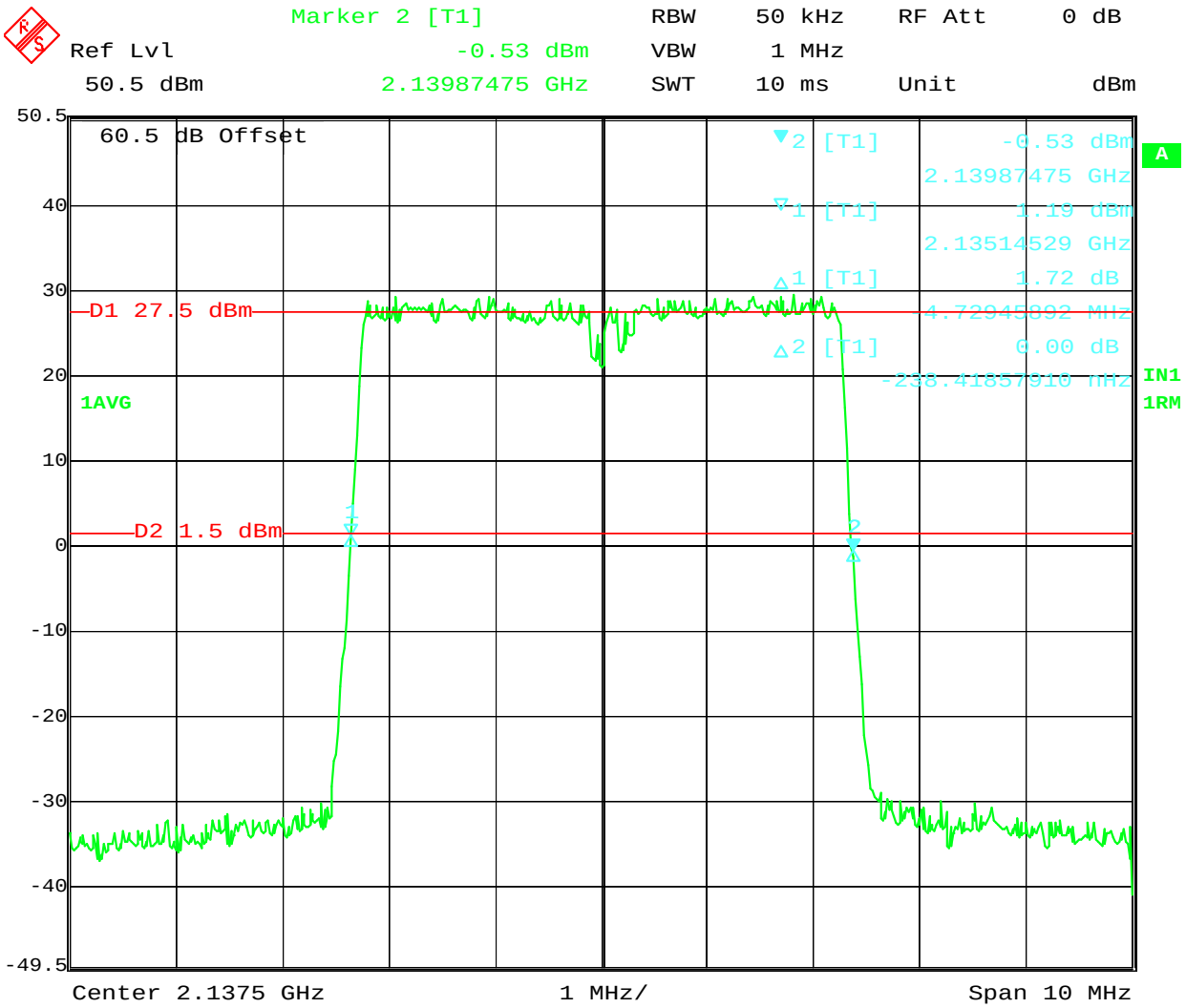
(26dB Bandwidth)



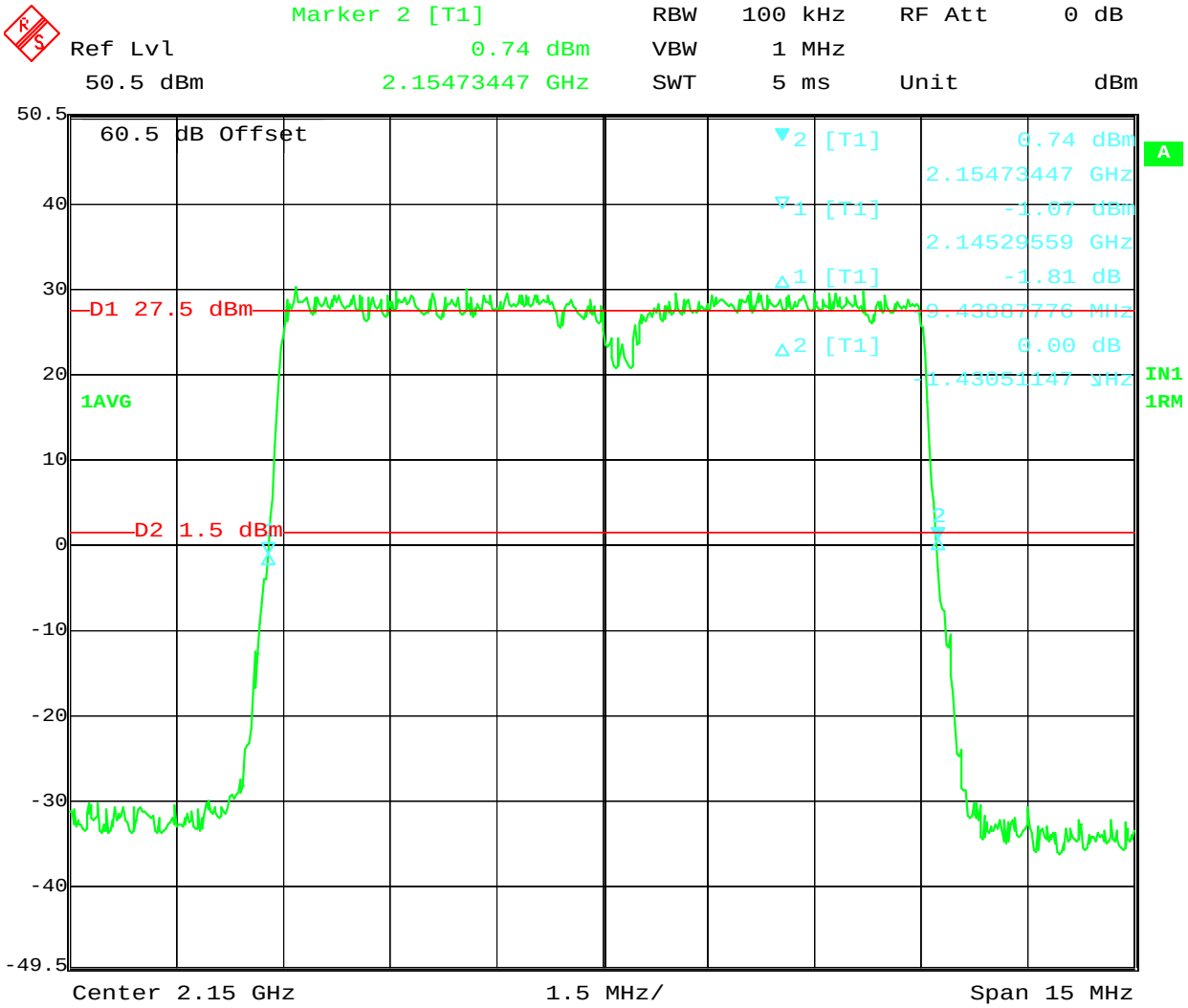
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK D+F; 2137.5MHz; 5MHz+10MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 29.AUG.2013 11:36:04



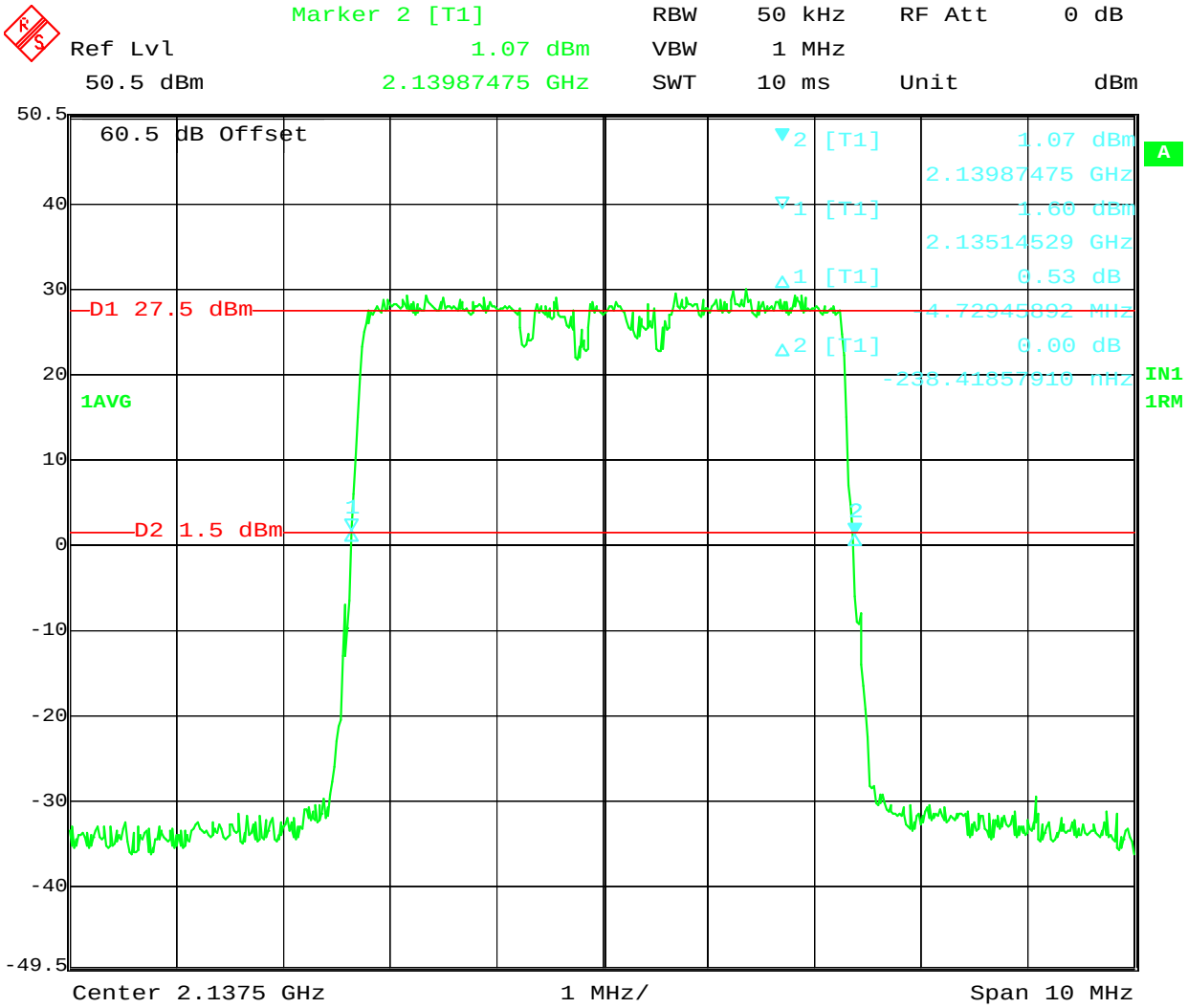
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK D+F; 2150MHz; 5MHz+10MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 29.AUG.2013 11:36:47



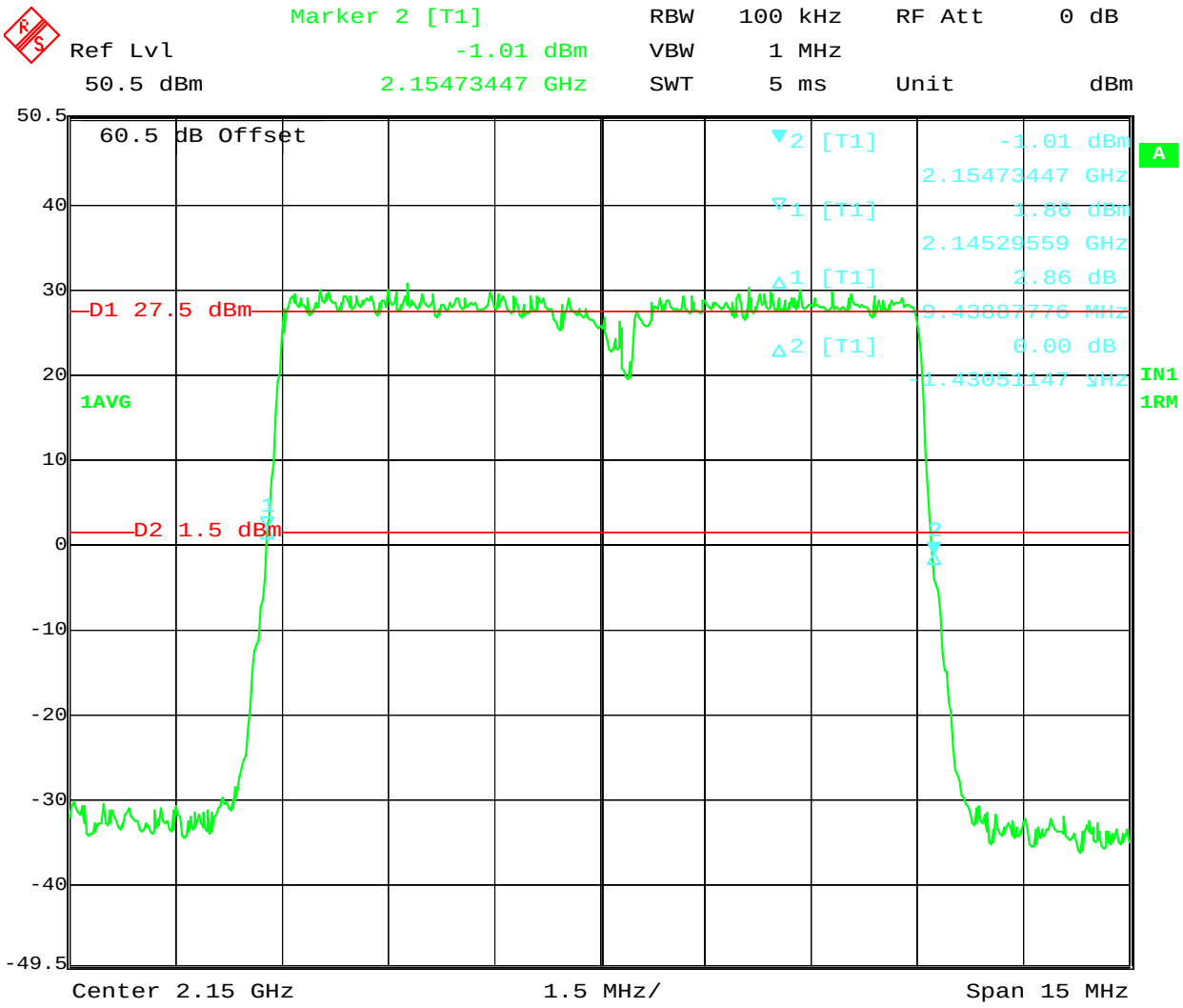
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK D+F; 2137.5MHz; 5MHz+10MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 29.AUG.2013 10:29:59



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK D+F; 2150MHz; 5MHz+10MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 29.AUG.2013 10:31:11



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK D+F; 2137.5MHz; 5MHz+10MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 29.AUG.2013 08:07:52



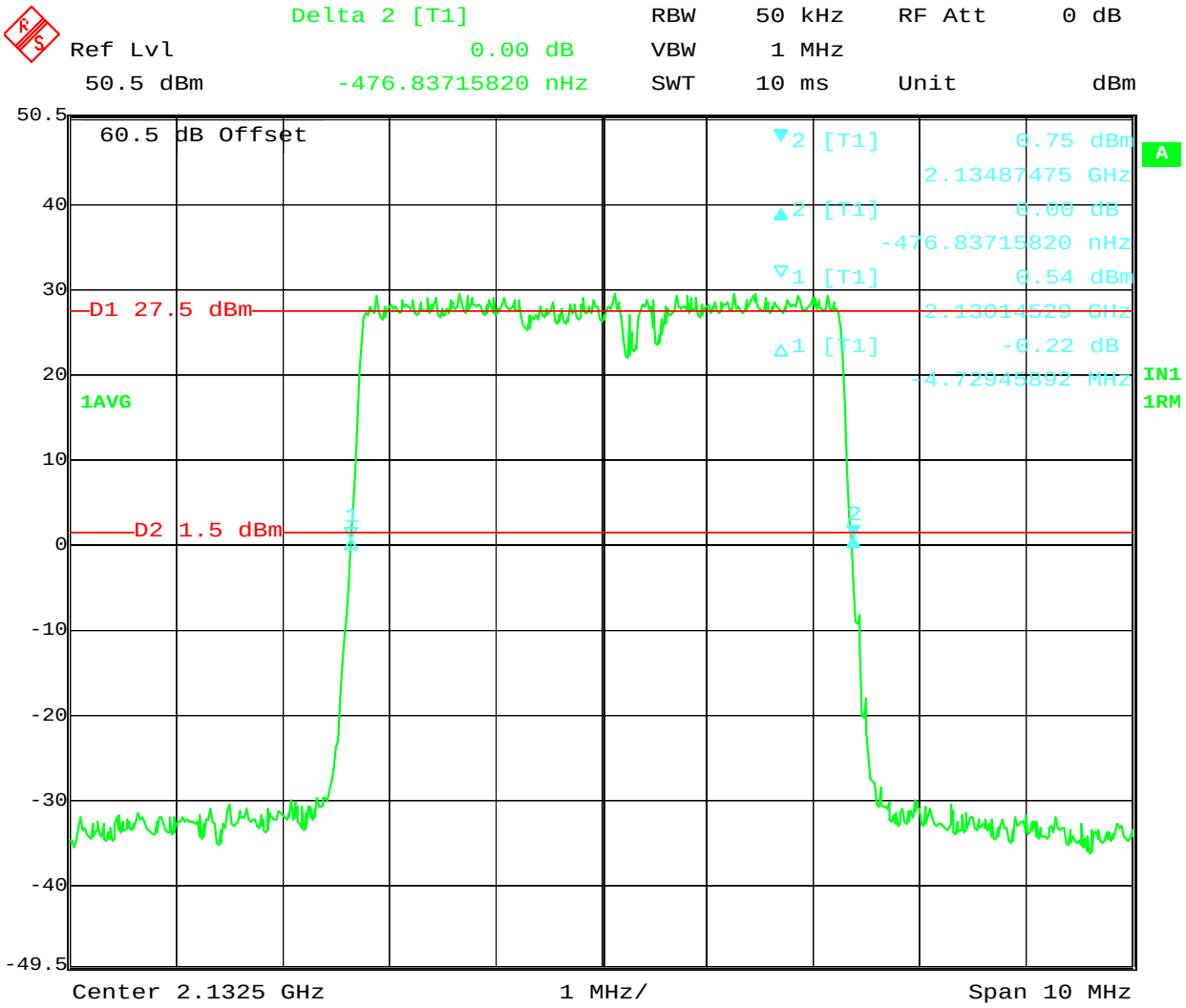
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK D+F; 2150MHz; 5MHz+10MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 29.AUG.2013 08:25:42

Block: C+F

5+10 MHz Bandwidth (2130-2135 MHz + 2145-2155 MHz)

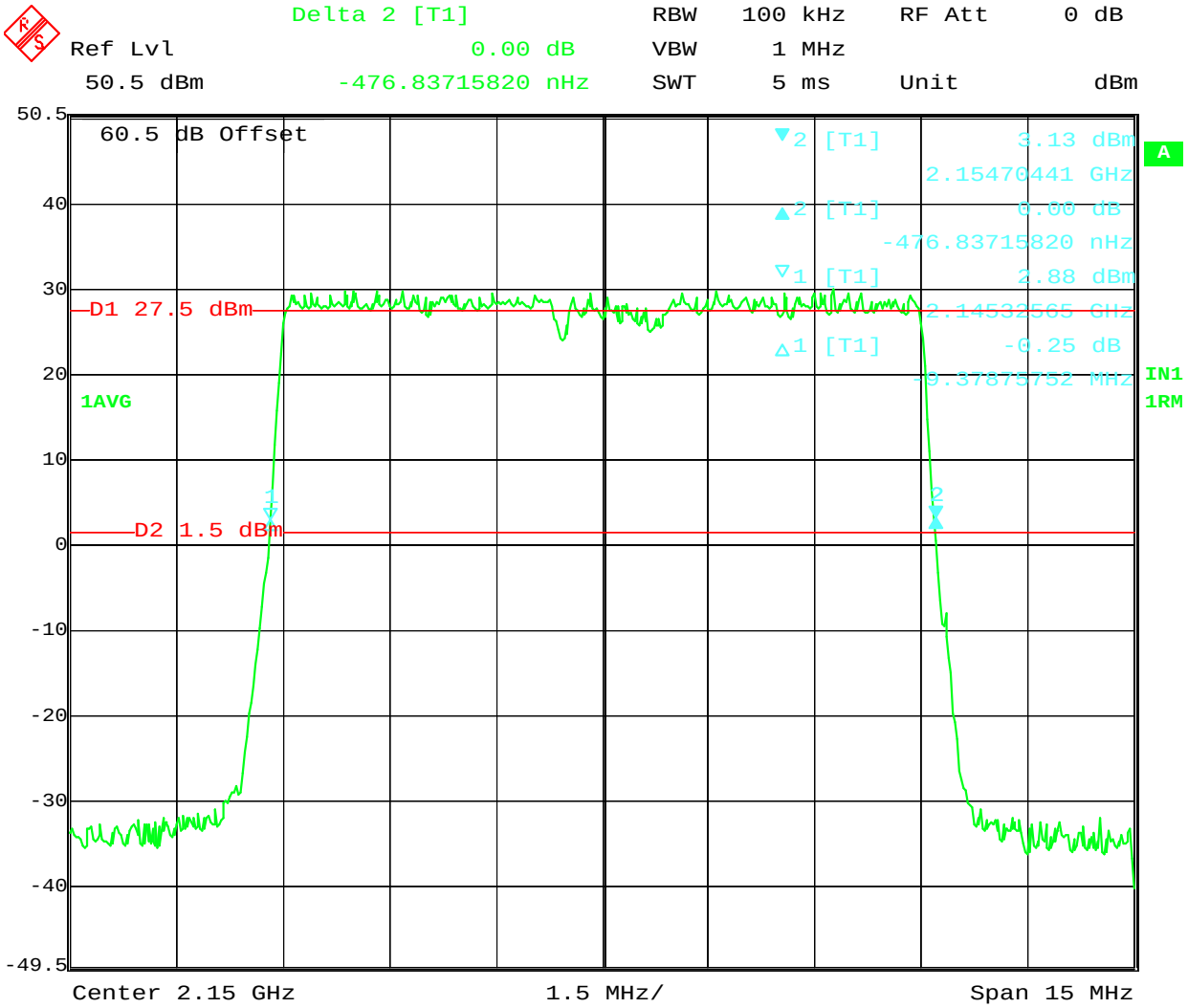
2x120 watts (MIMO)

(26dB Bandwidth)



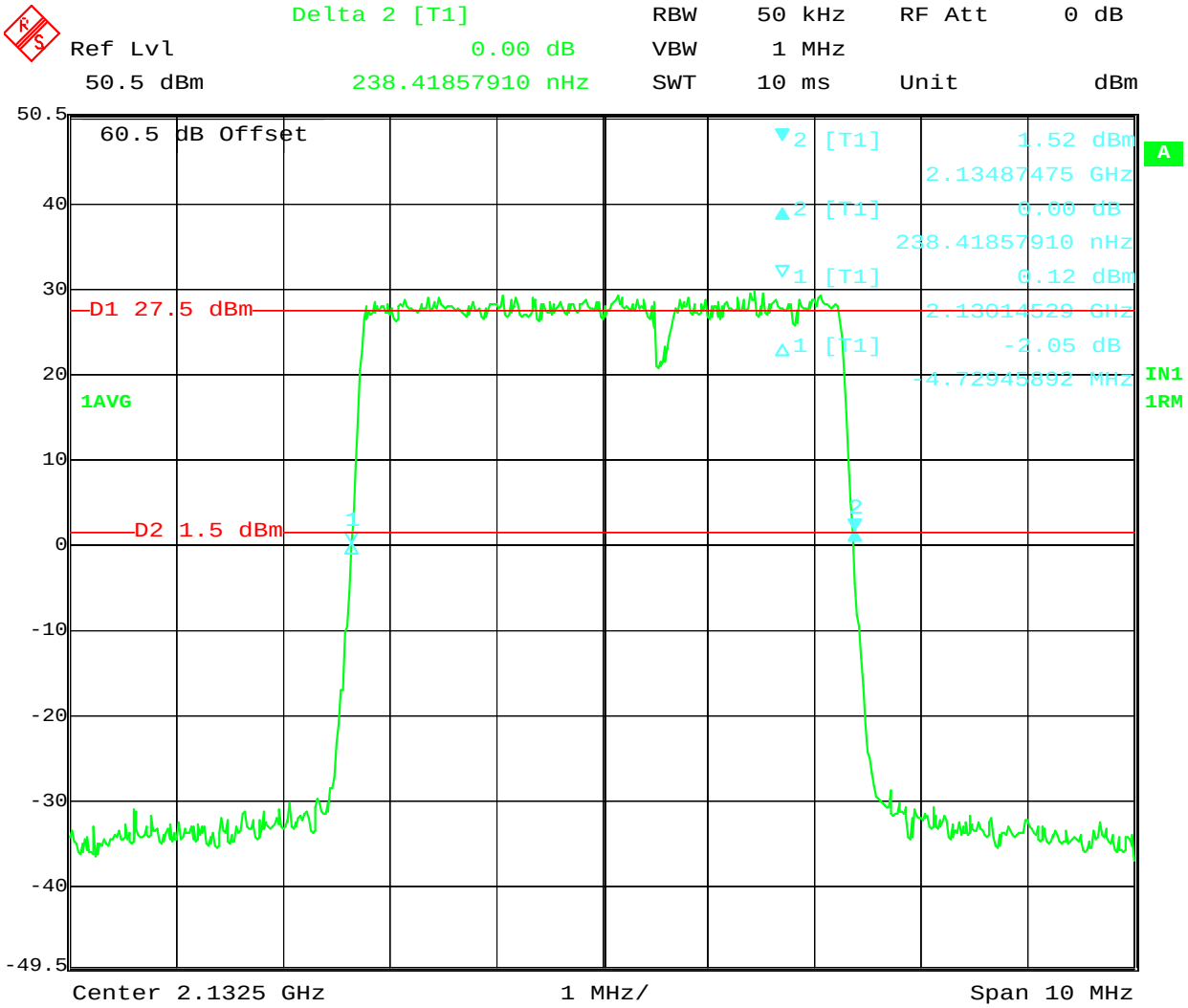
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK C+F; 2132.5MHz; 5MHz+10MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 29.AUG.2013 12:26:40

APPLICANT: **Alcatel-Lucent** FCC ID: **AS5BBTRX-13**

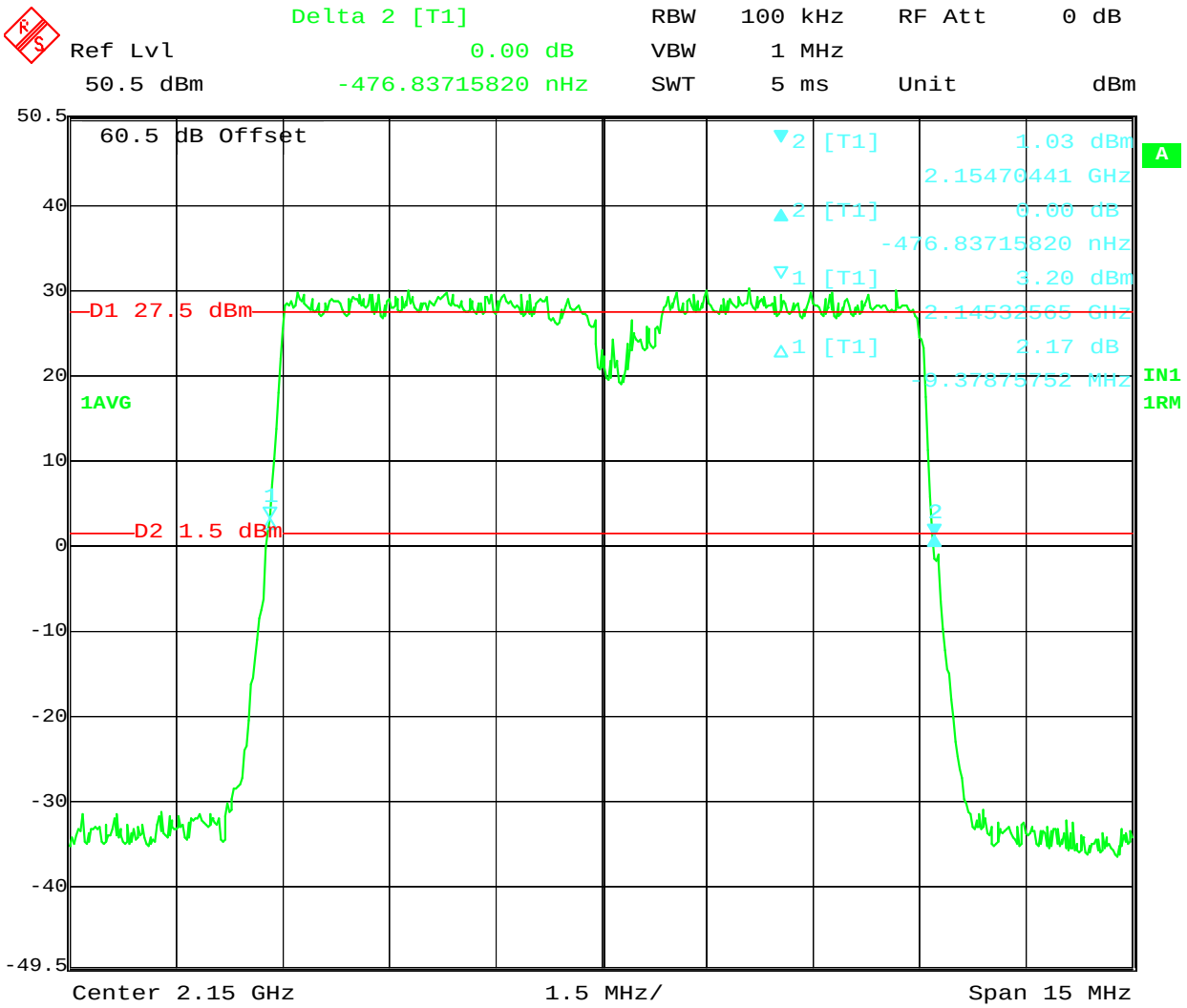


Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK C+F; 2150MHz; 5MHz+10MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 4.SEP.2013 08:17:11

APPLICANT: **Alcatel-Lucent** FCC ID: **AS5BBTRX-13**

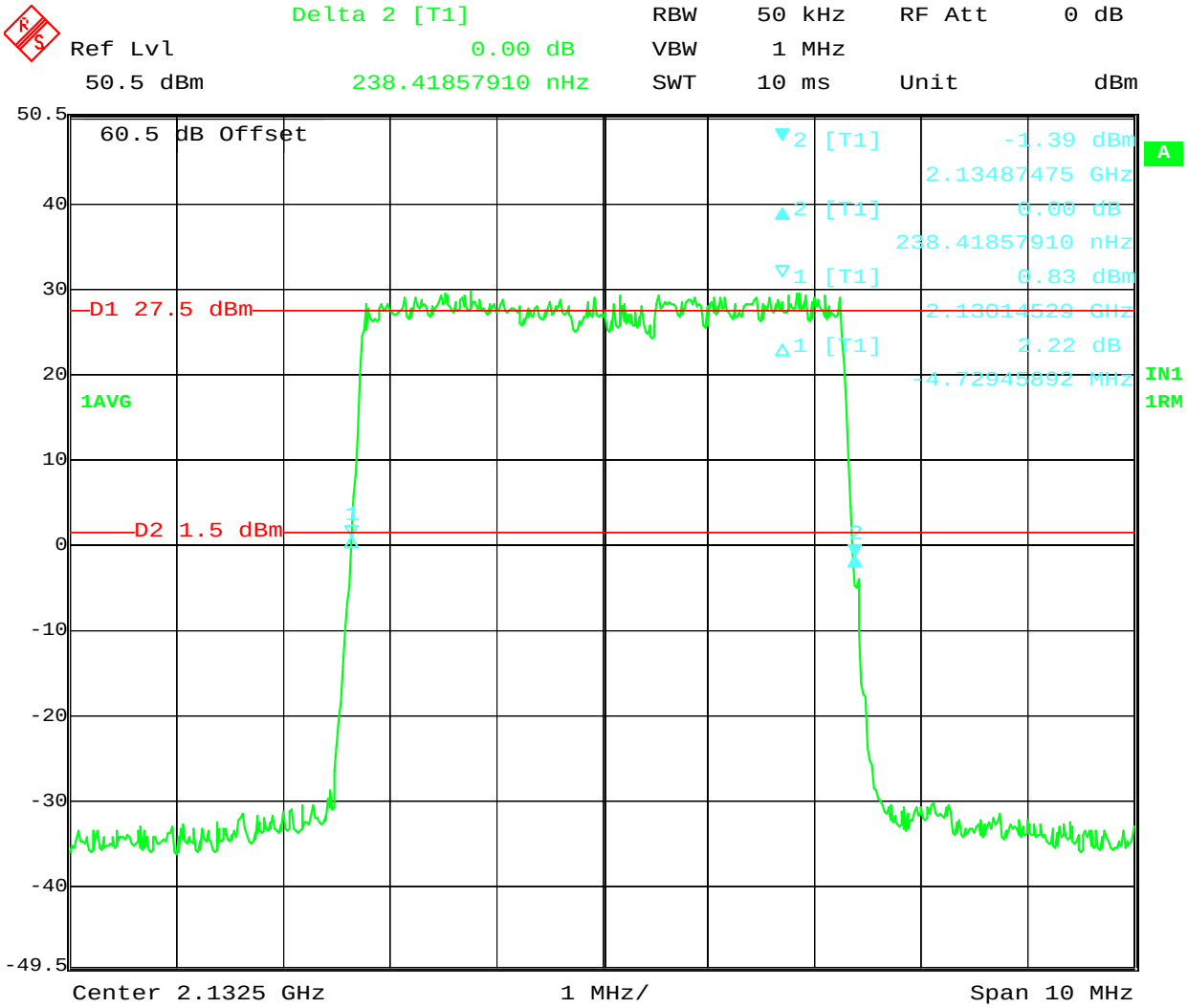


Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK C+F; 2132.5MHz; 5MHz+10MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 4.SEP.2013 07:09:07

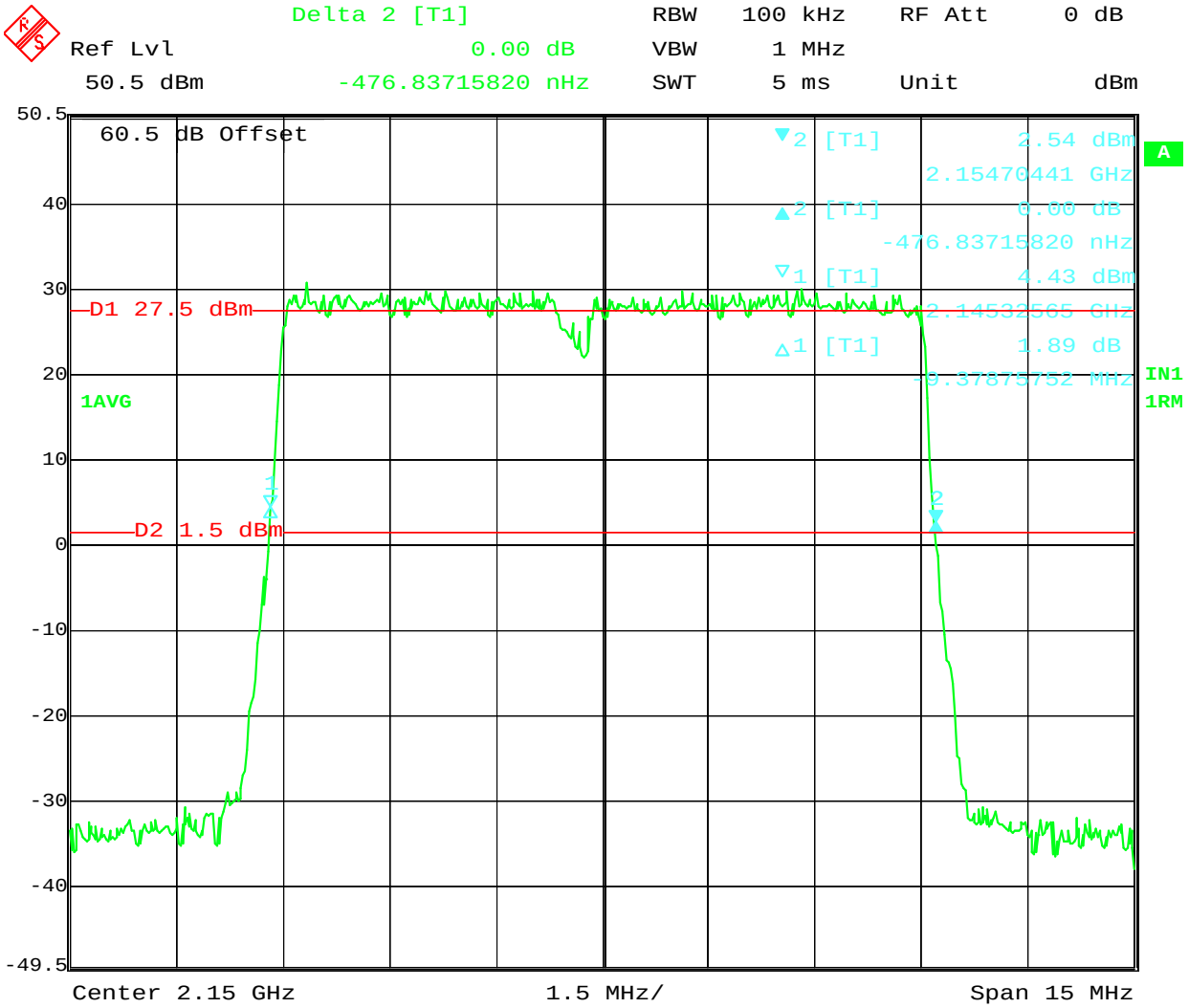


Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK C+F; 2150MHz; 5MHz+10MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 4.SEP.2013 08:12:55

APPLICANT: **Alcatel-Lucent** FCC ID: **AS5BBTRX-13**



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK C+F; 2132.5MHz; 5MHz+10MHz BW; PWR:120W
6QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 4.SEP.2013 07:58:25



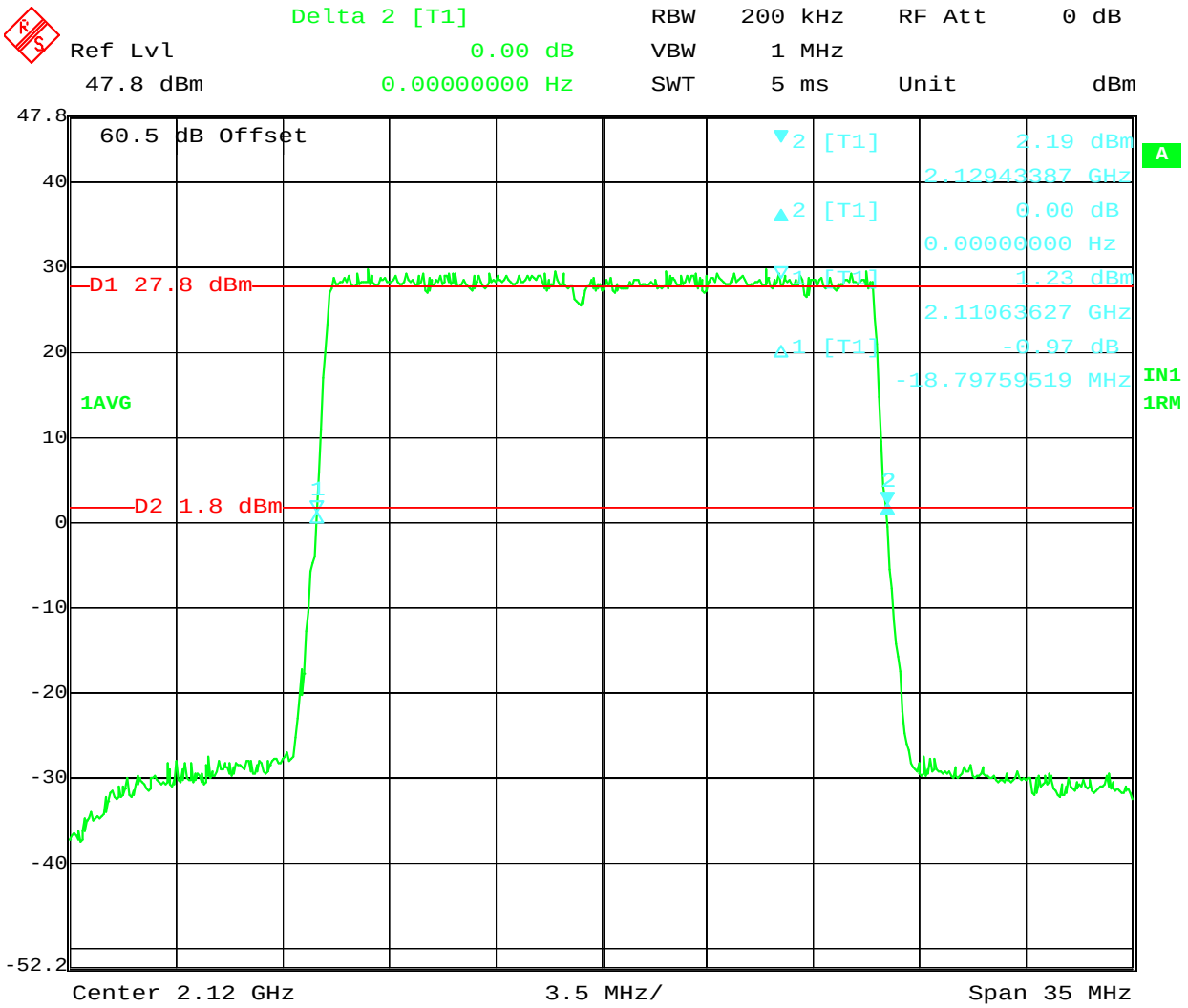
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK C+F; 2150MHz; 5MHz+10MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 4.SEP.2013 08:02:00

Block: A+B

20 MHz Bandwidth (2110-2130 MHz)

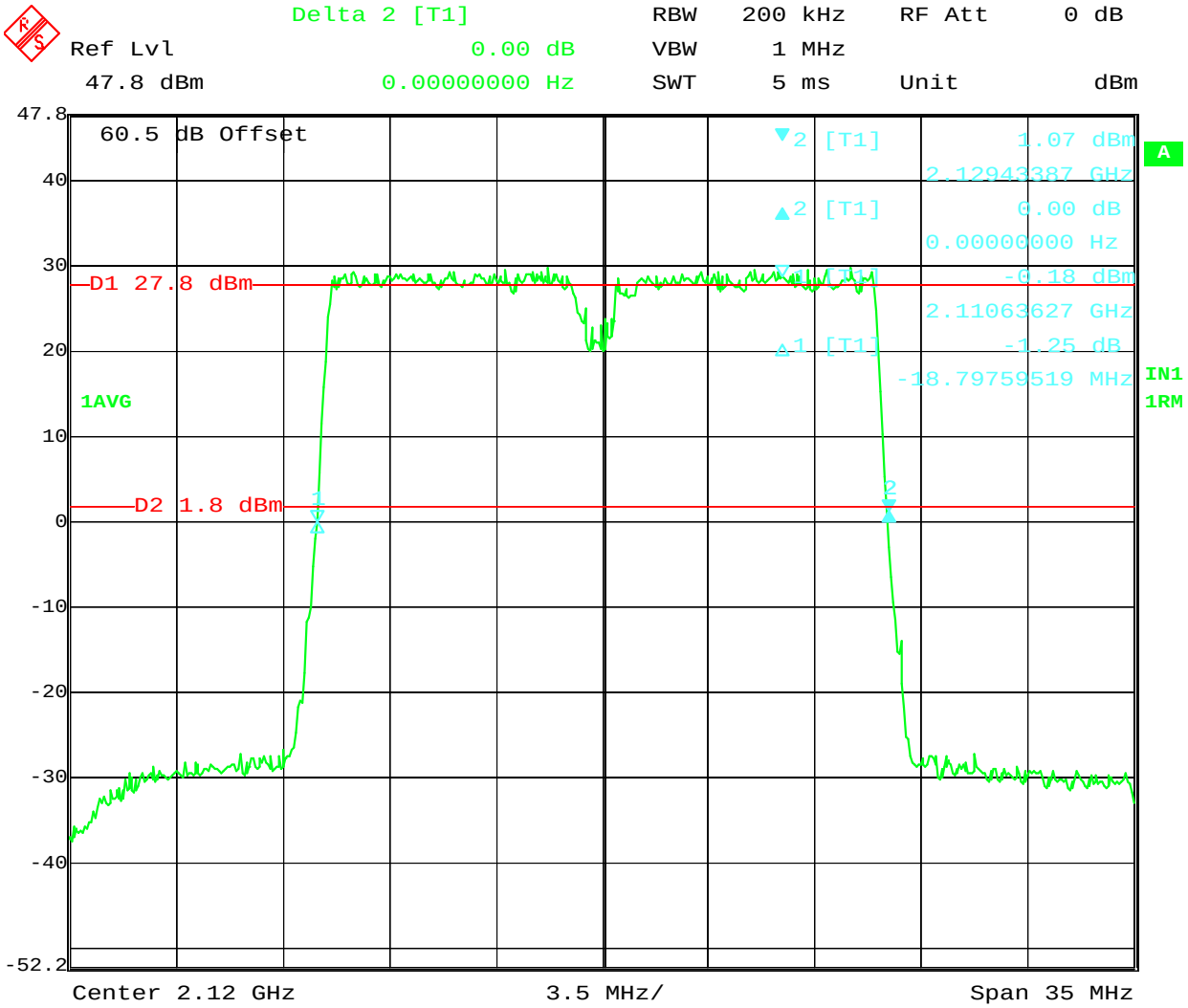
2x60 watts (MIMO)

(26dB Bandwidth)

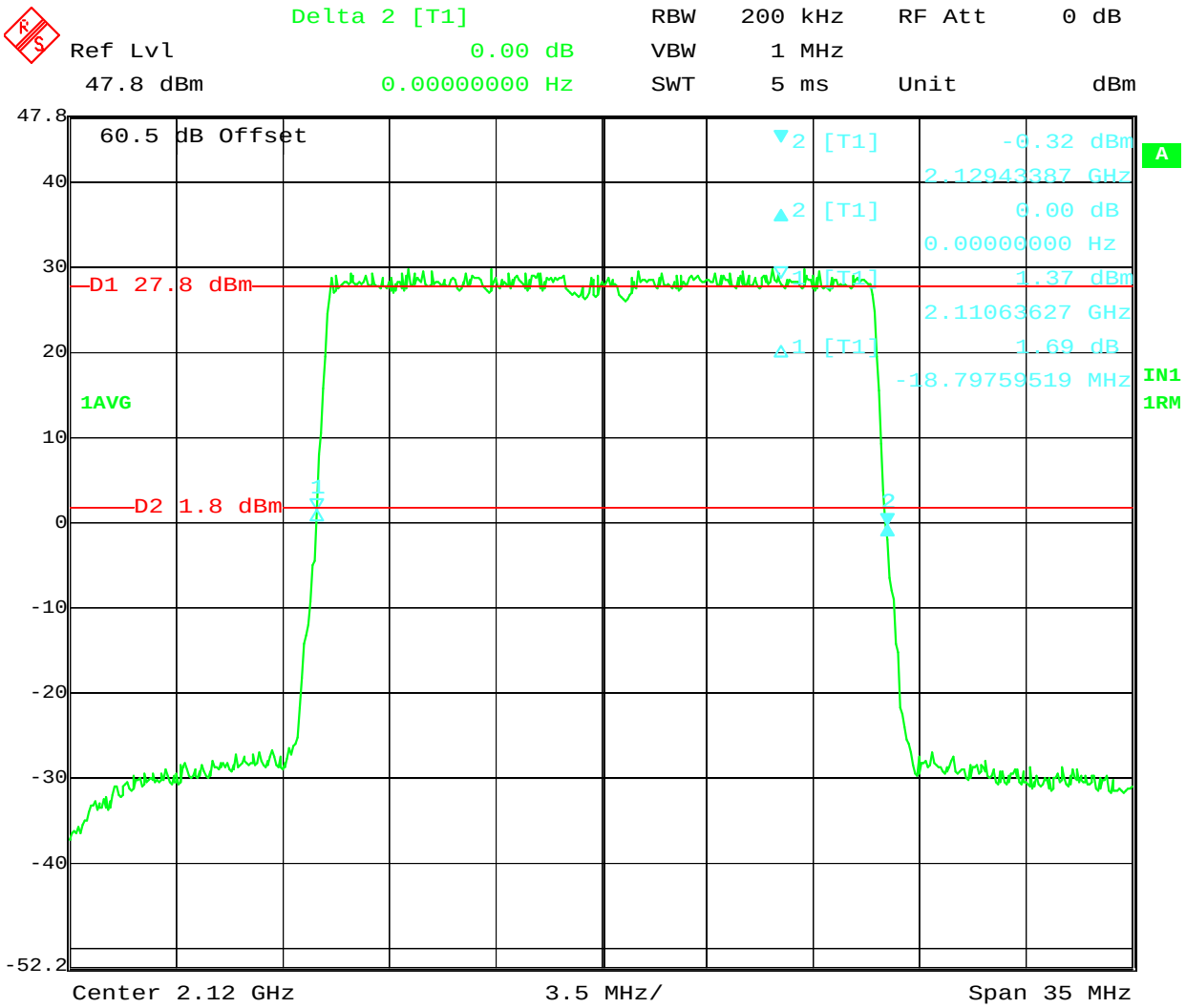


Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK A+B; 2120MHz; 20MHz BW; PWR:60W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 13.SEP.2013 11:38:46

APPLICANT: **Alcatel-Lucent** FCC ID: **AS5BBTRX-13**



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK A+B; 2120MHz; 20MHz BW; PWR:60W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 13.SEP.2013 11:18:36



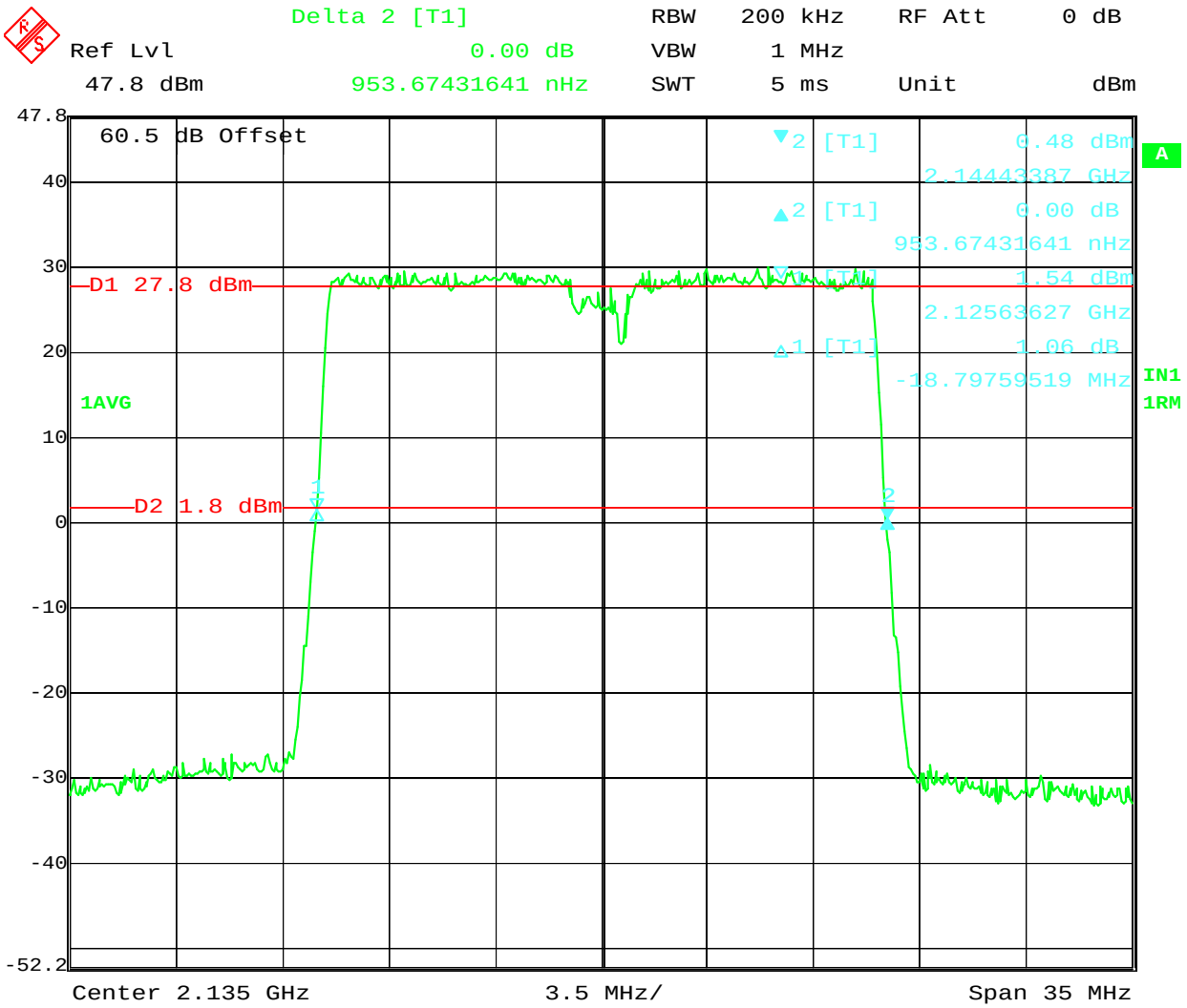
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK A+B; 2120MHz; 20MHz BW; PWR:60W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 13.SEP.2013 10:49:44

Block: B2+C+D+E

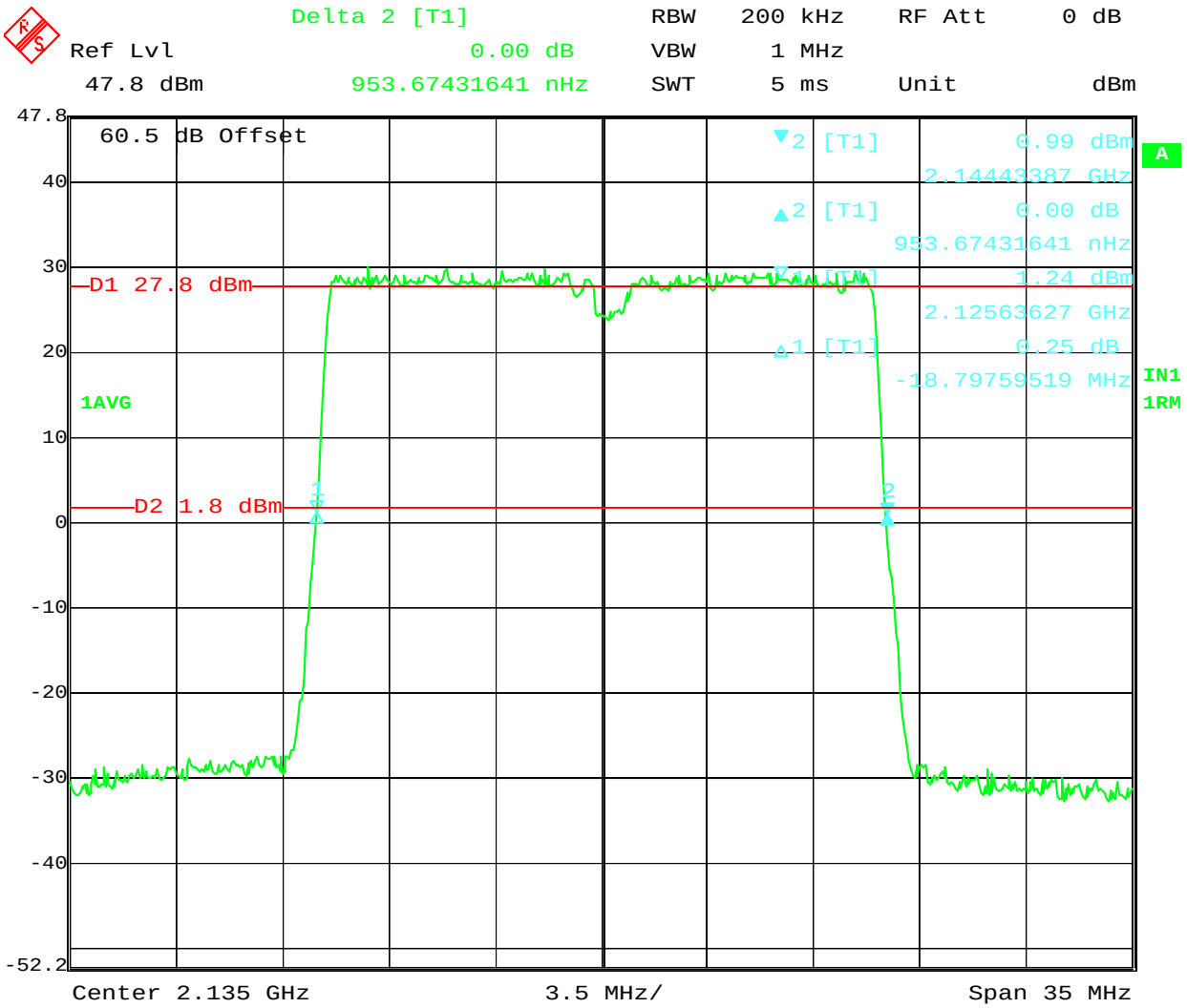
20 MHz Bandwidth (2125-2145 MHz)

2x60 watts (MIMO)

(26dB Bandwidth)

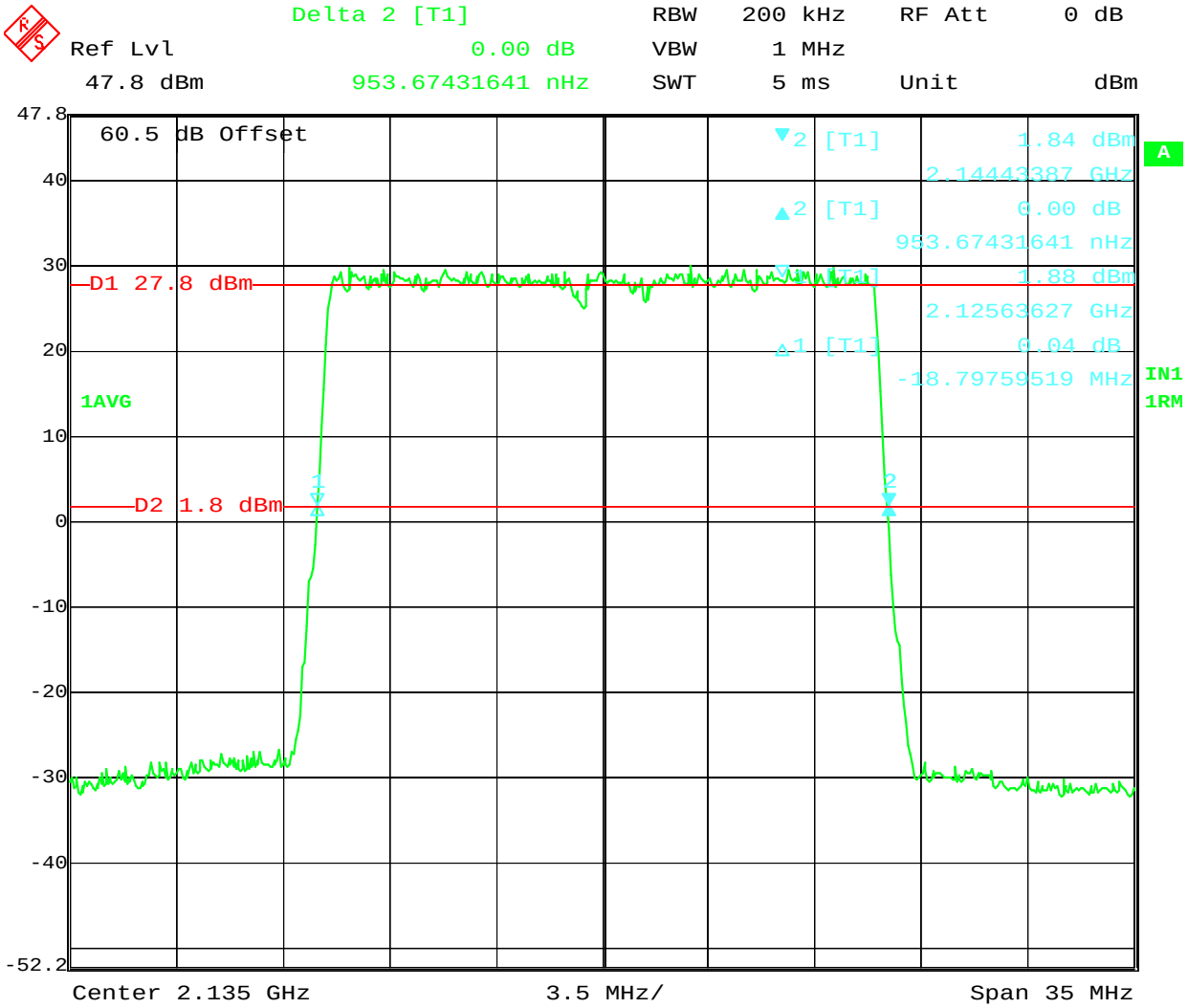


Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK B2+C+D+E; 2135MHz; 20MHz BW; PWR:60W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 16.SEP.2013 03:43:11



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK B2+C+D+E; 2135MHz; 20MHz BW; PWR:60W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 16.SEP.2013 06:18:13

APPLICANT: **Alcatel-Lucent** FCC ID: **AS5BBTRX-13**



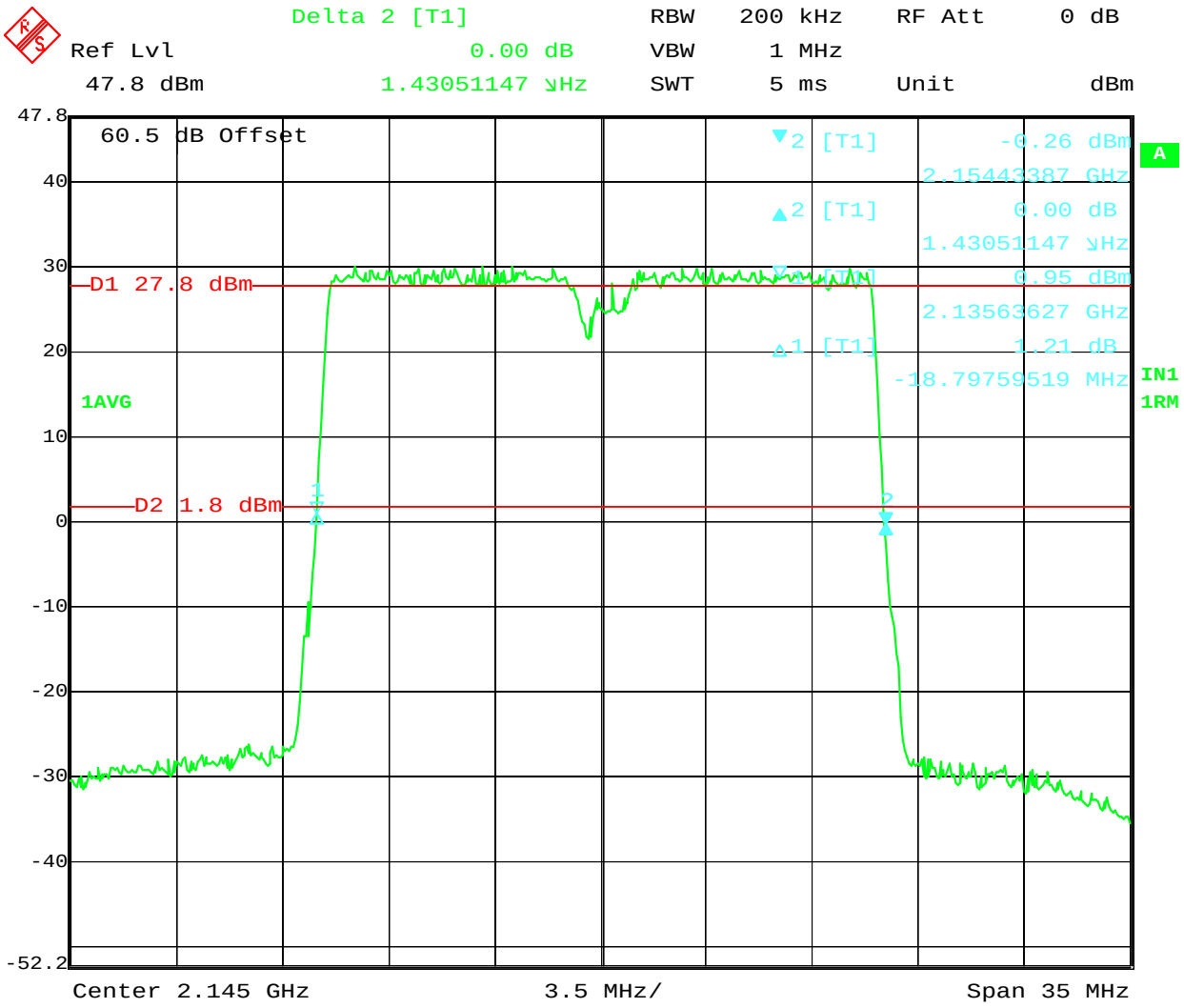
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK B2+C+D+E; 2135MHz; 20MHz BW; PWR:60W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 16.SEP.2013 06:34:17

Block: D+E+F

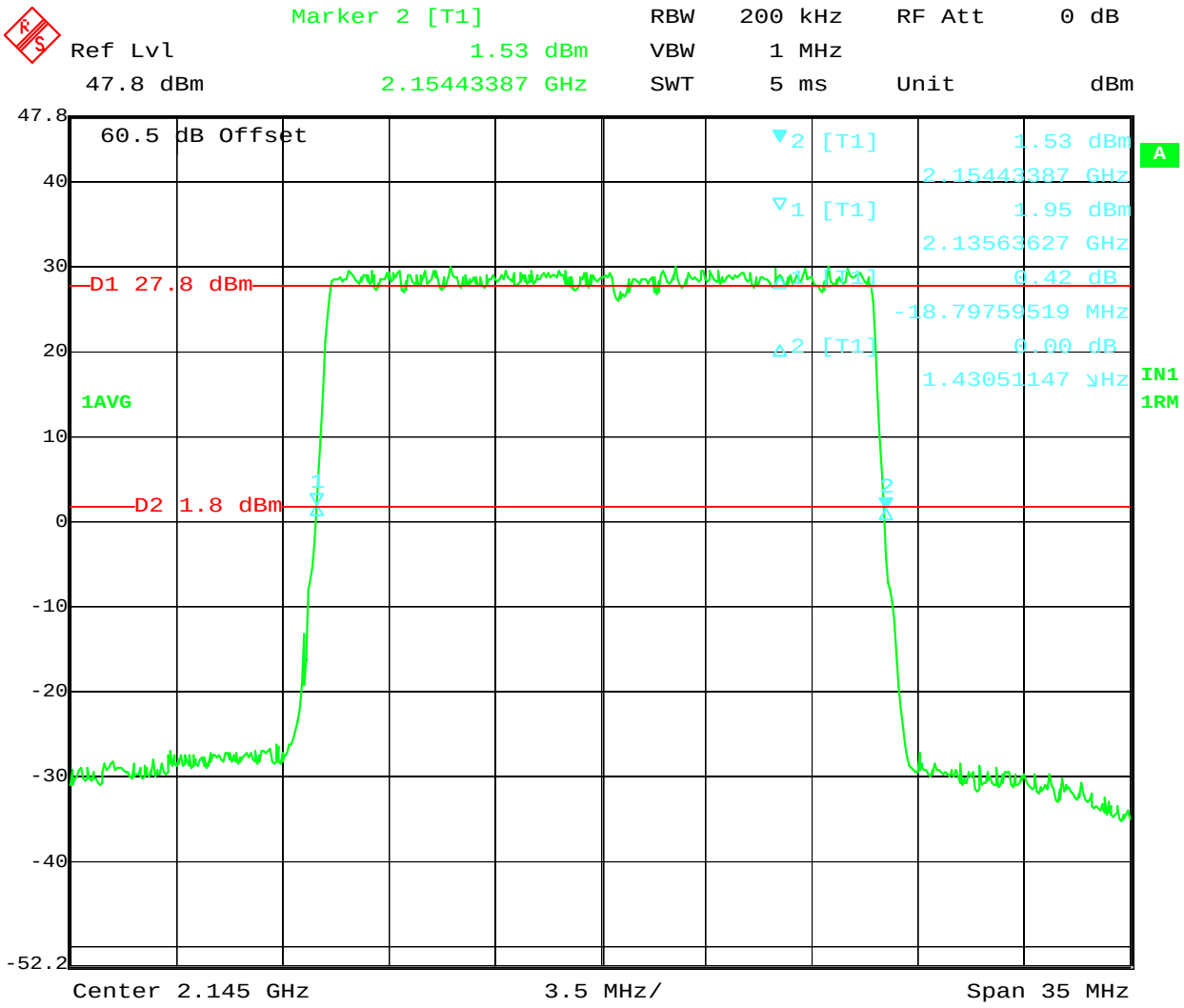
20 MHz Bandwidth (2135-2155 MHz)

2x60 watts (MIMO)

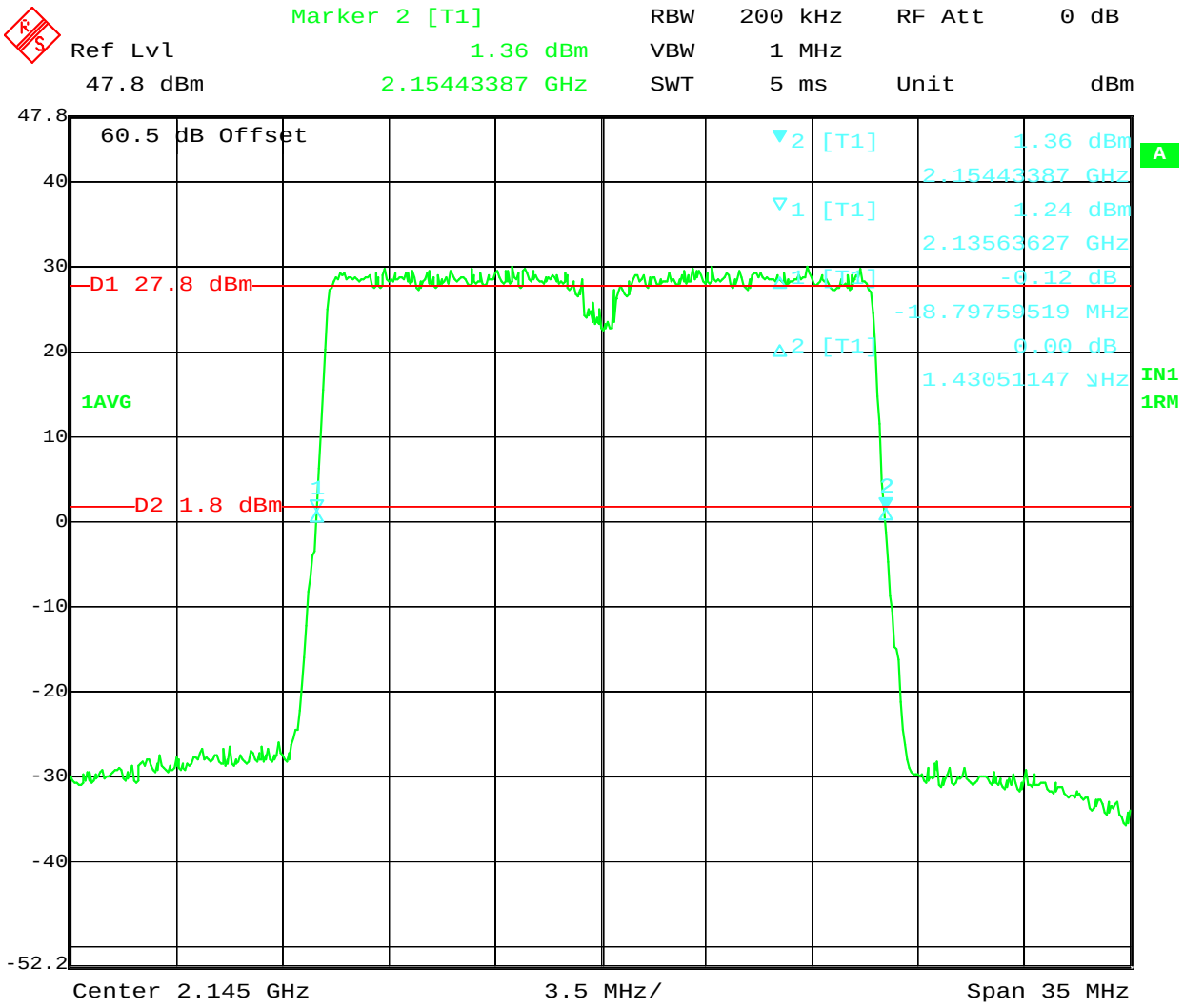
(26dB Bandwidth)



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK D+E+F; 2145MHz; 20MHz BW; PWR:60W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 16.SEP.2013 07:45:50



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK D+E+F; 2145MHz; 20MHz BW; PWR:60W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 16.SEP.2013 07:14:35



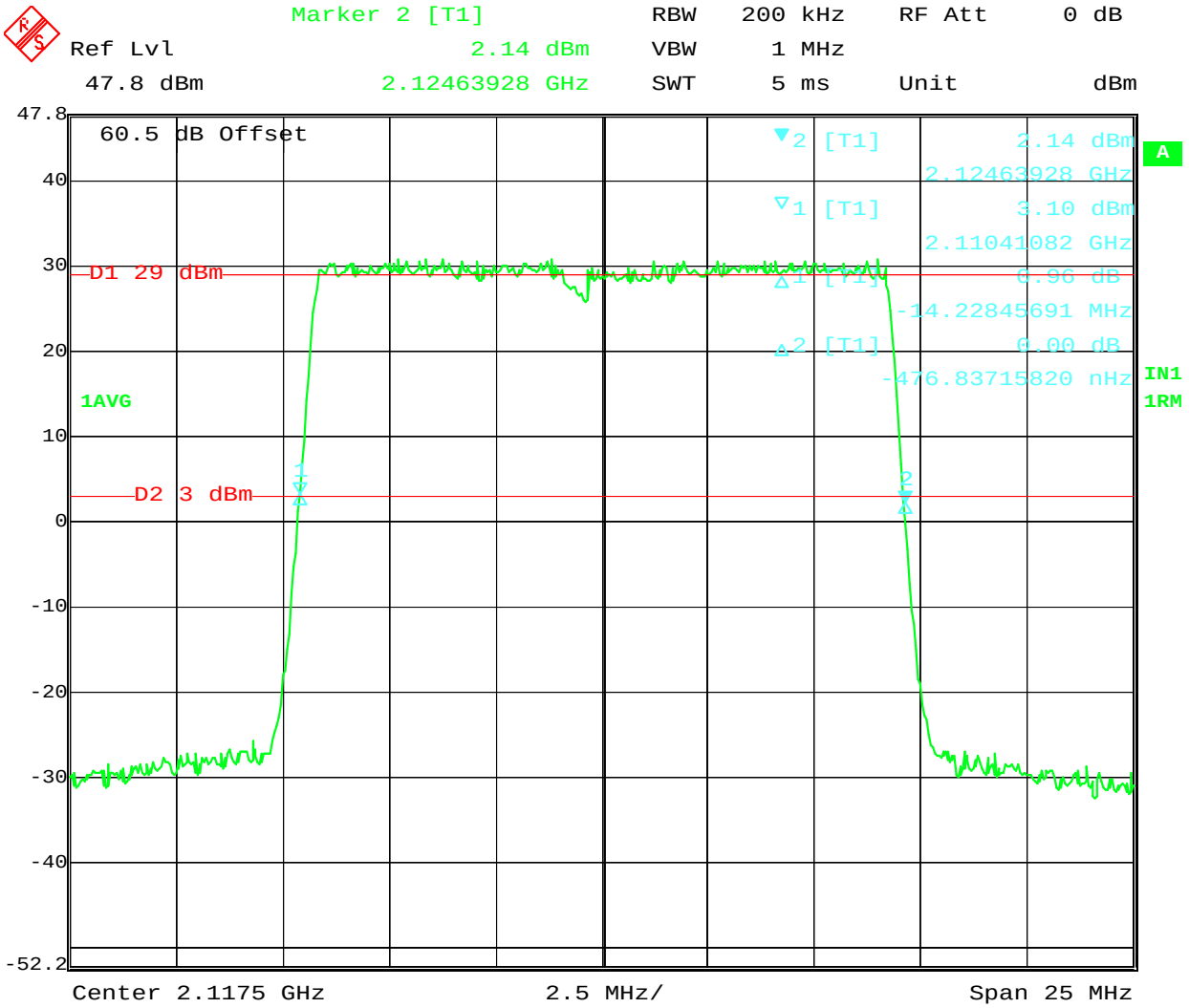
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK D+E+F; 2145MHz; 20MHz BW; PWR:60W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 16.SEP.2013 06:59:12

Block: A+B1

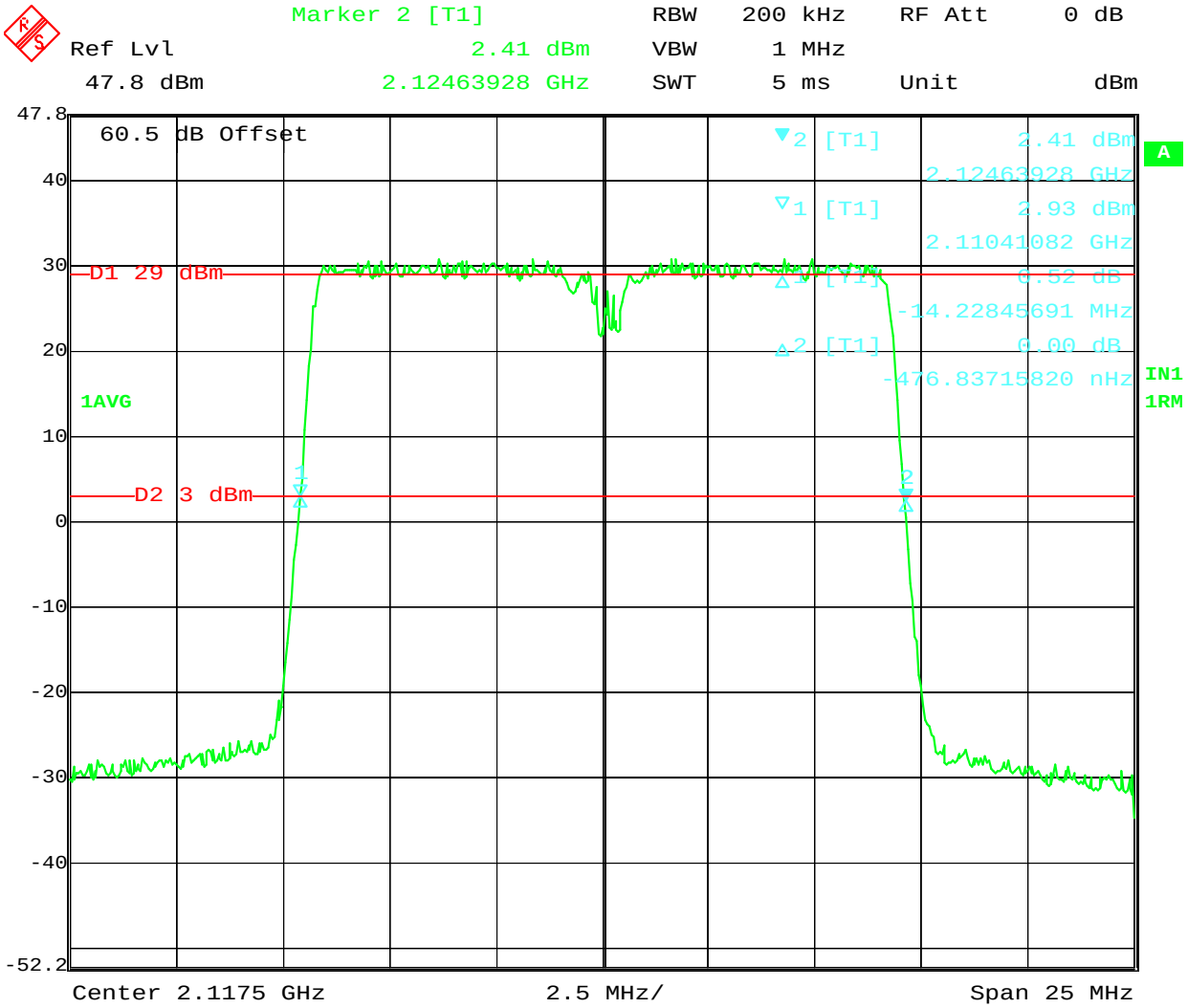
15 MHz Bandwidth (2110-2125 MHz)

2x60 watts (MIMO)

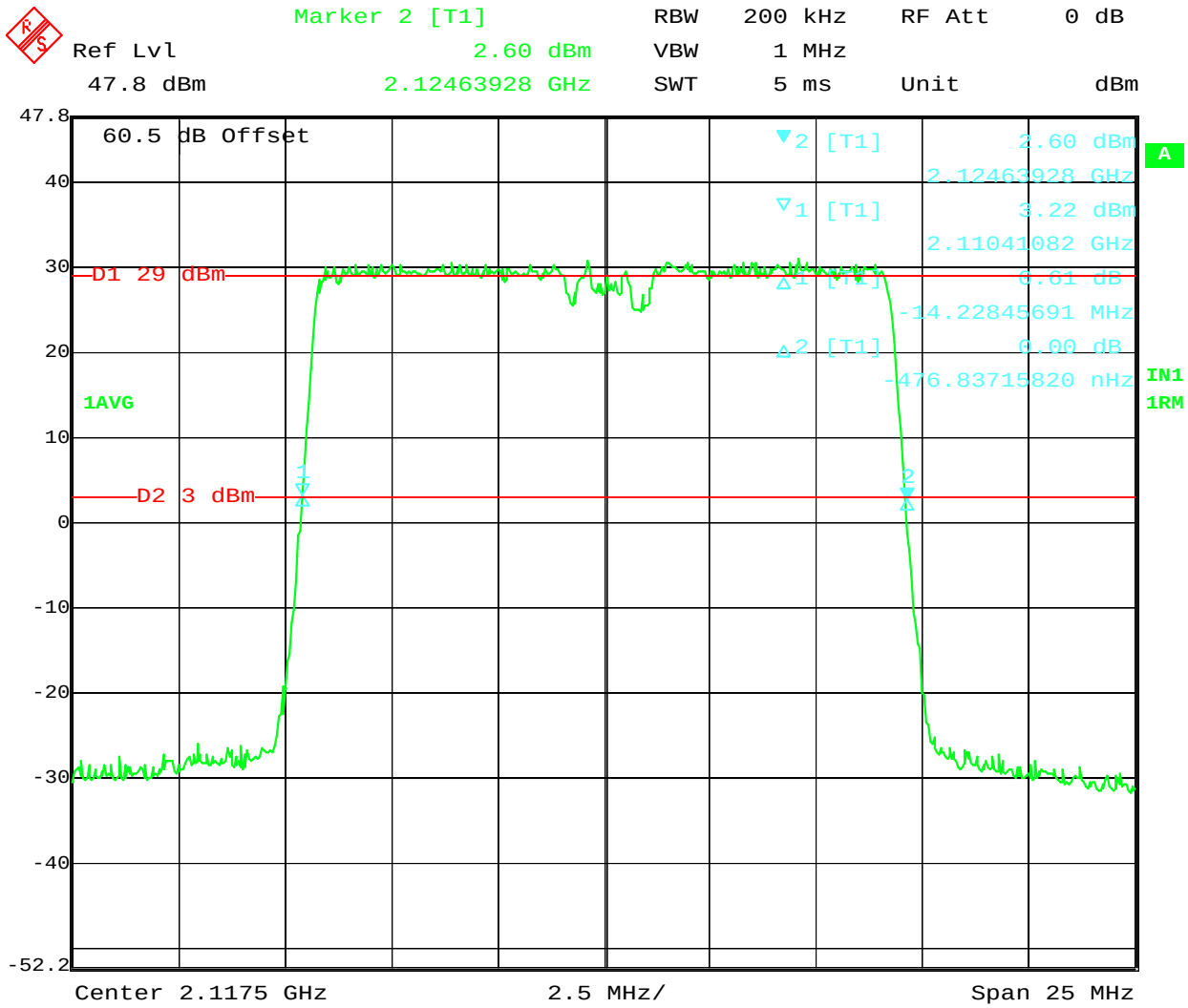
(26dB Bandwidth)



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK A+B1; 2117.5MHz; 15MHZ BW; PWR:60W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 12.SEP.2013 06:50:19



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK A+B1; 2117.5MHz; 15MHZ BW; PWR:60W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 12.SEP.2013 07:59:19



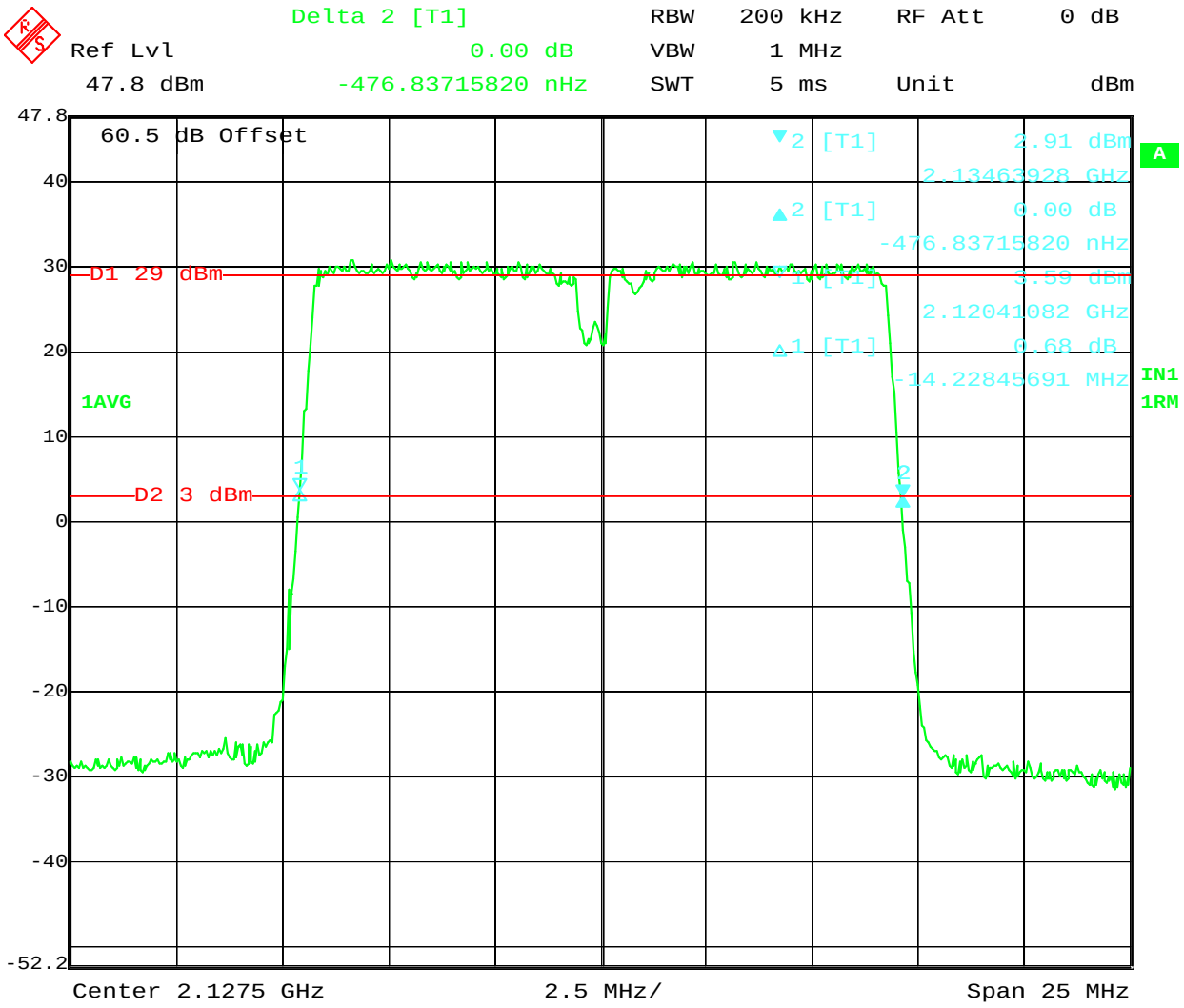
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK A+B1; 2117.5MHz; 15MHZ BW; PWR:60W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 12.SEP.2013 08:09:44

Block: B+C

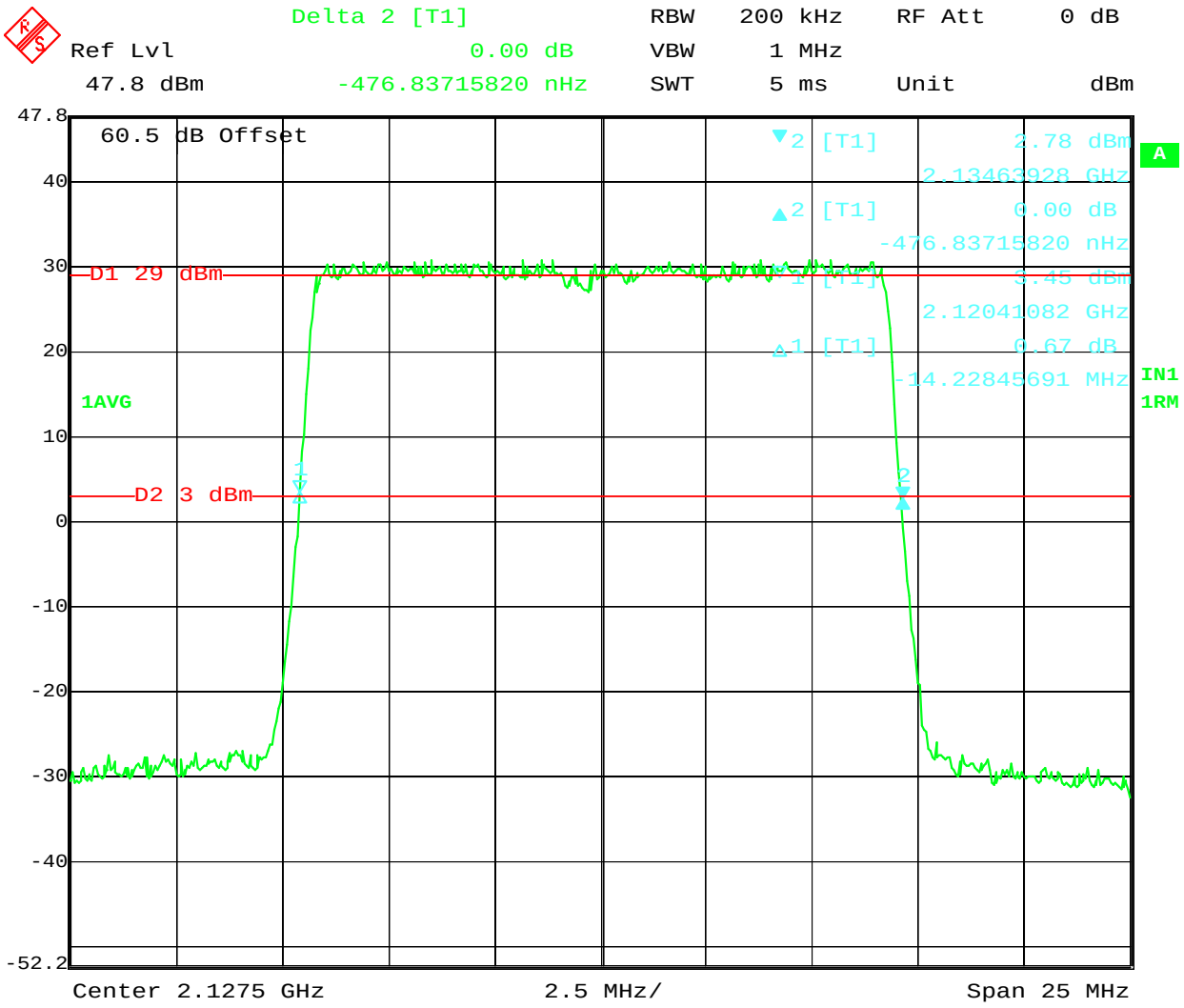
15 MHz Bandwidth (2120-2135 MHz)

2x60 watts (MIMO)

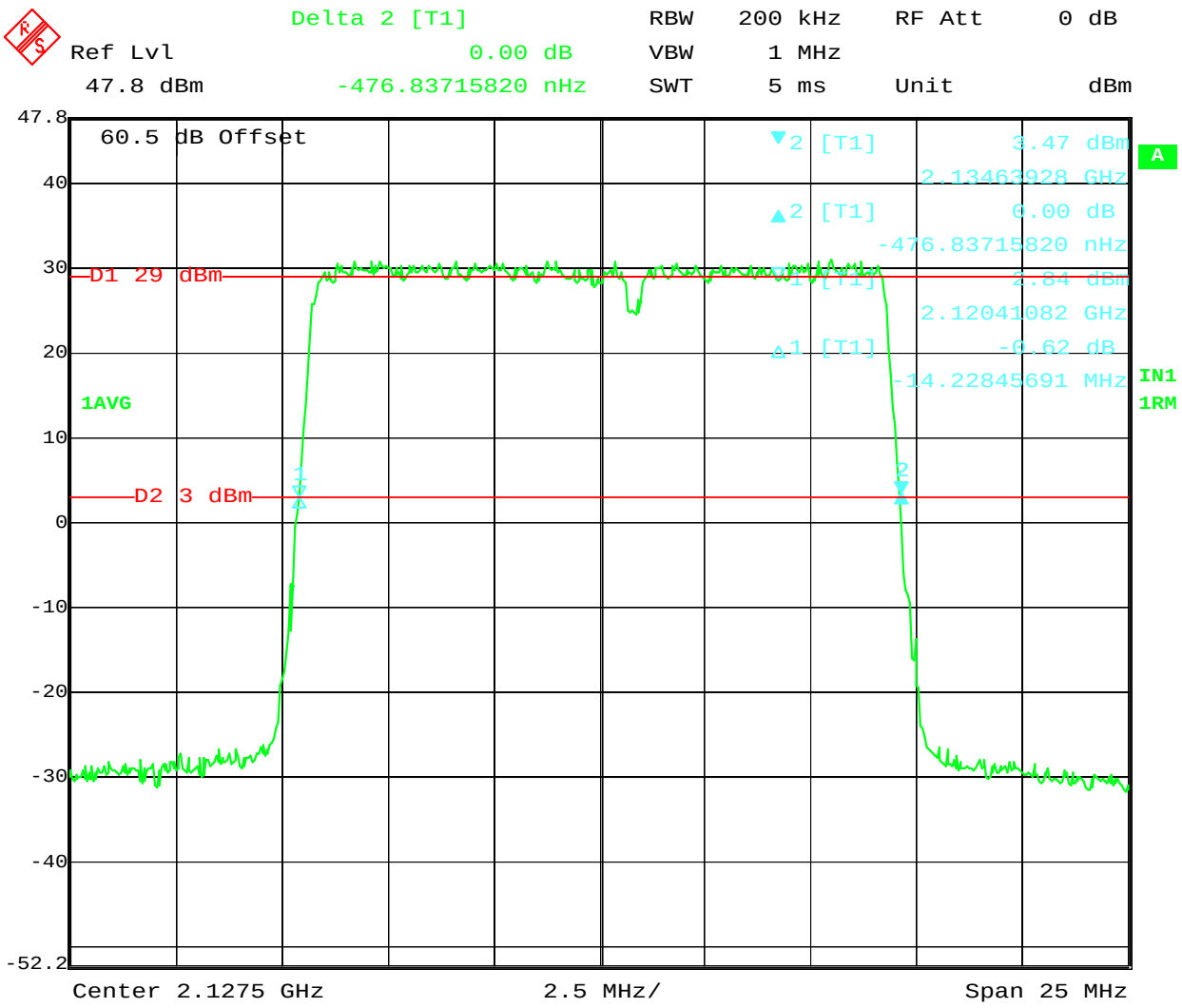
(26dB Bandwidth)



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK B+C; 2127.5MHz; 15MHZ BW; PWR:60W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 13.SEP.2013 08:42:46



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK B+C; 2127.5MHz; 15MHZ BW; PWR:60W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 12.SEP.2013 10:25:10



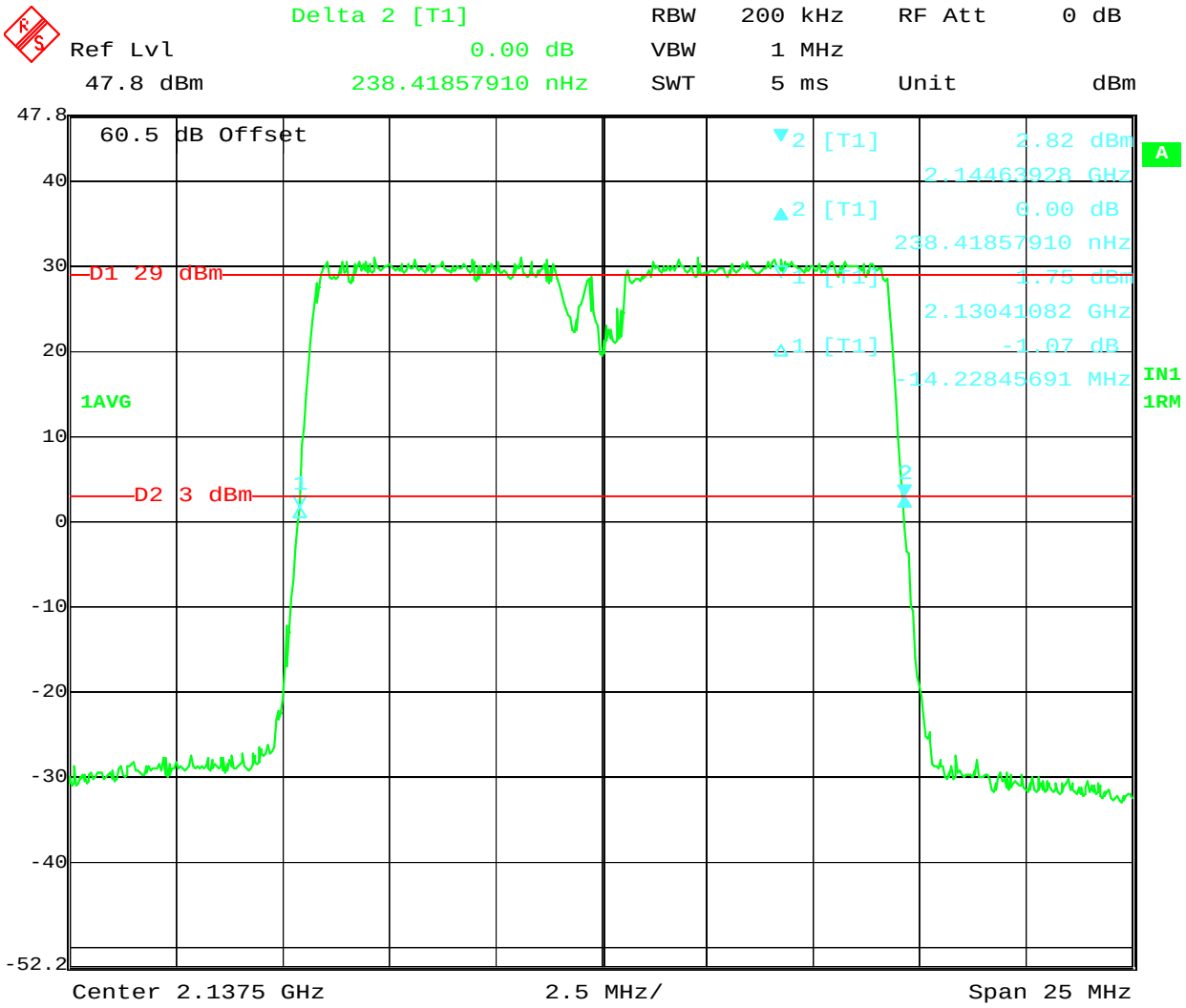
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK B+C; 2127.5MHz; 15MHZ BW; PWR:60W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 12.SEP.2013 10:00:24

Block: C+D+E

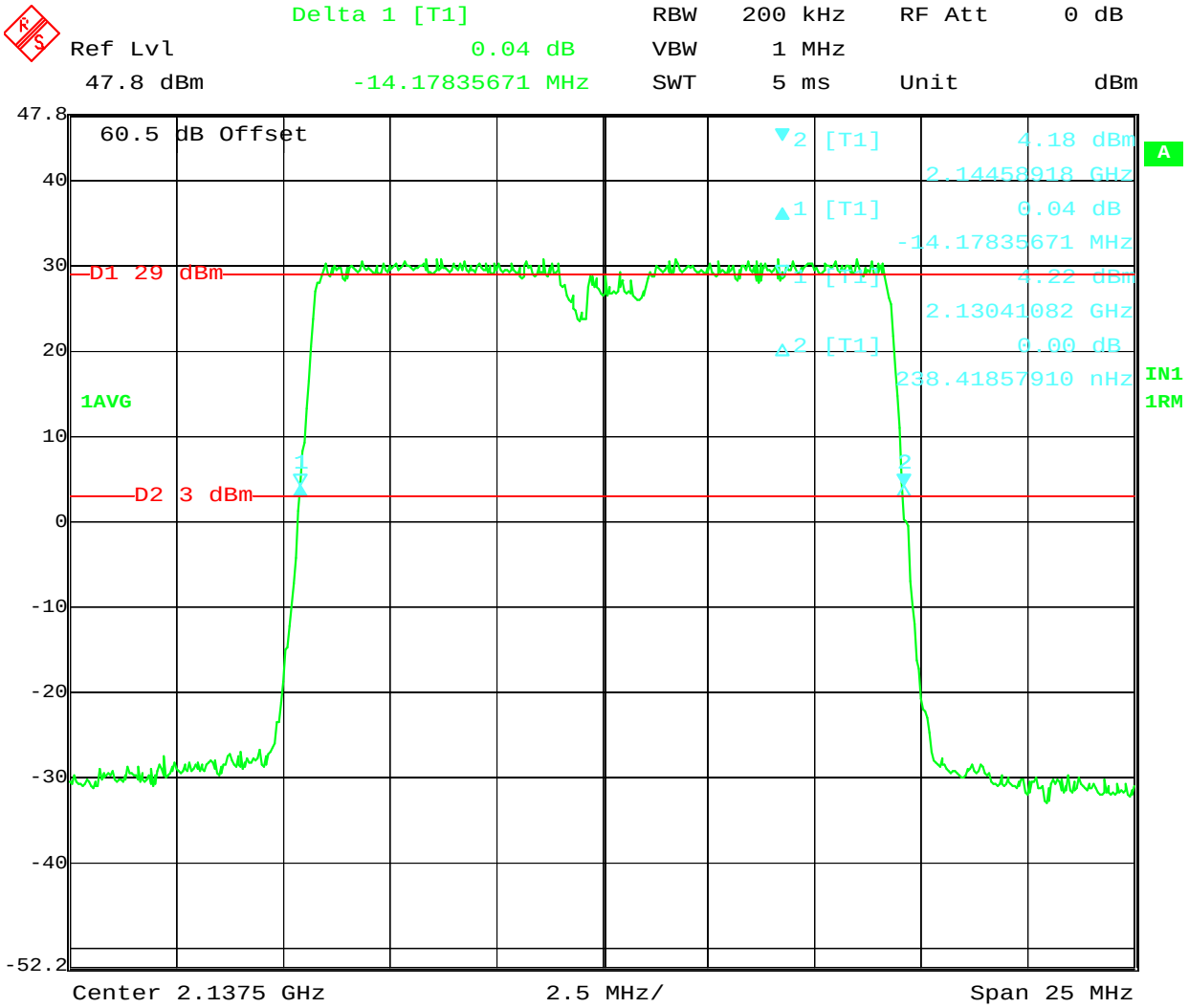
15 MHz Bandwidth (2130-2145 MHz)

2x60 watts (MIMO)

(26dB Bandwidth)

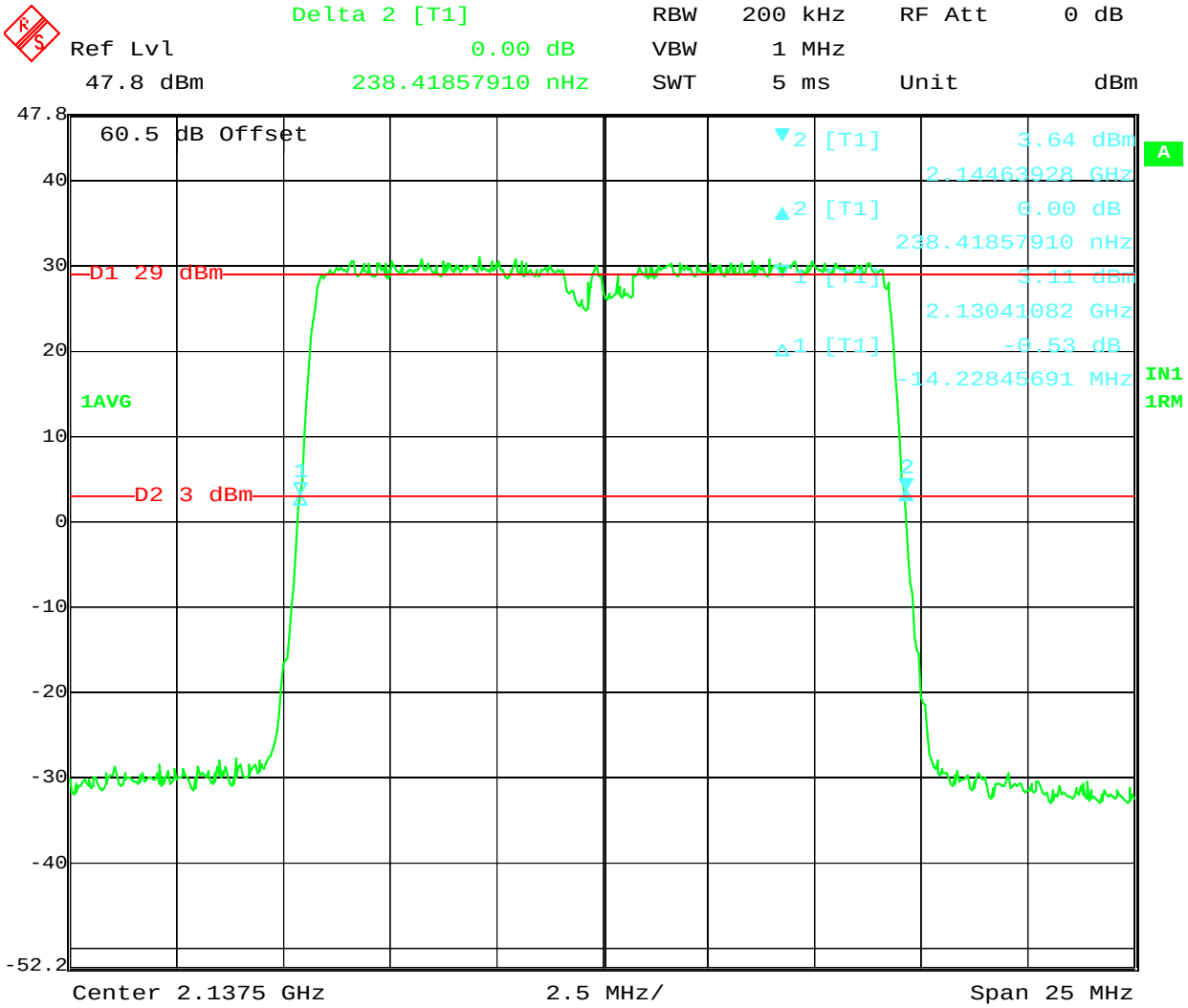


Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK C+D+E; 2137.5MHz; 15MHZ BW; PWR:60W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 12.SEP.2013 11:34:55



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK C+D+E; 2137.5MHz; 15MHZ BW; PWR:60W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 12.SEP.2013 11:47:06

APPLICANT: **Alcatel-Lucent** FCC ID: **AS5BBTRX-13**



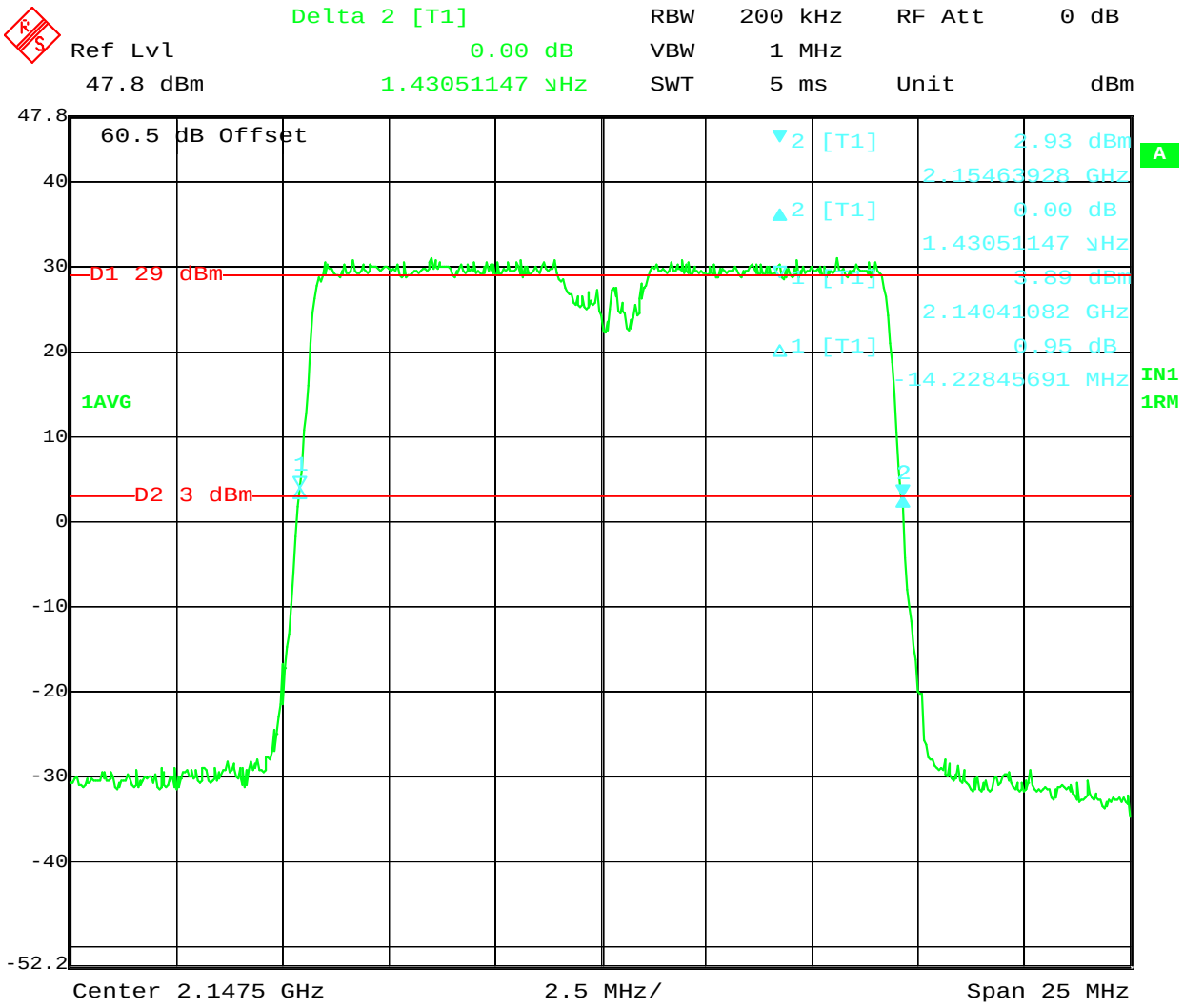
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK C+D+E; 2137.5MHz; 15MHZ BW; PWR:60W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 13.SEP.2013 04:16:32

Block: E+F

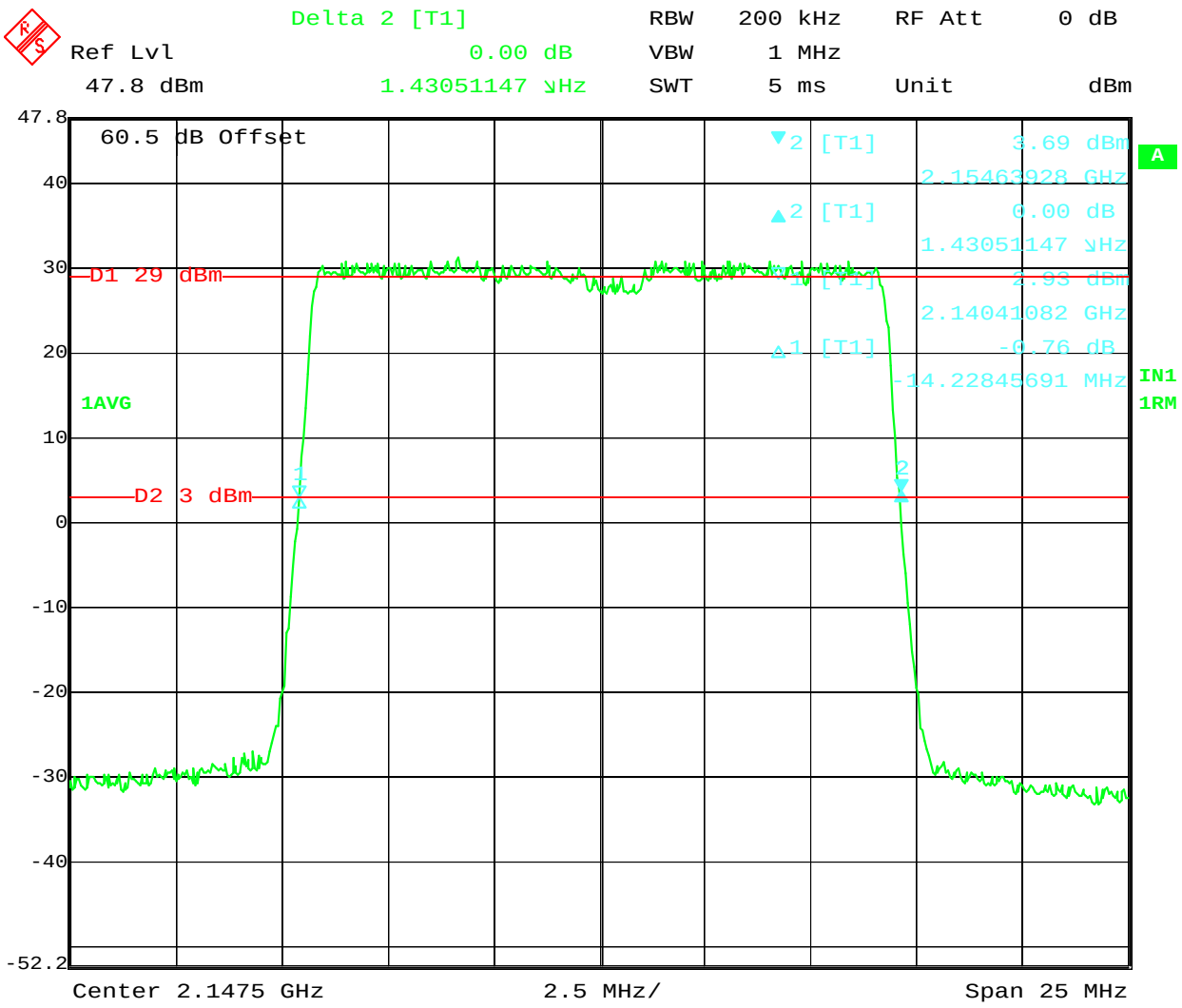
15 MHz Bandwidth (2140-2155 MHz)

2x60 watts (MIMO)

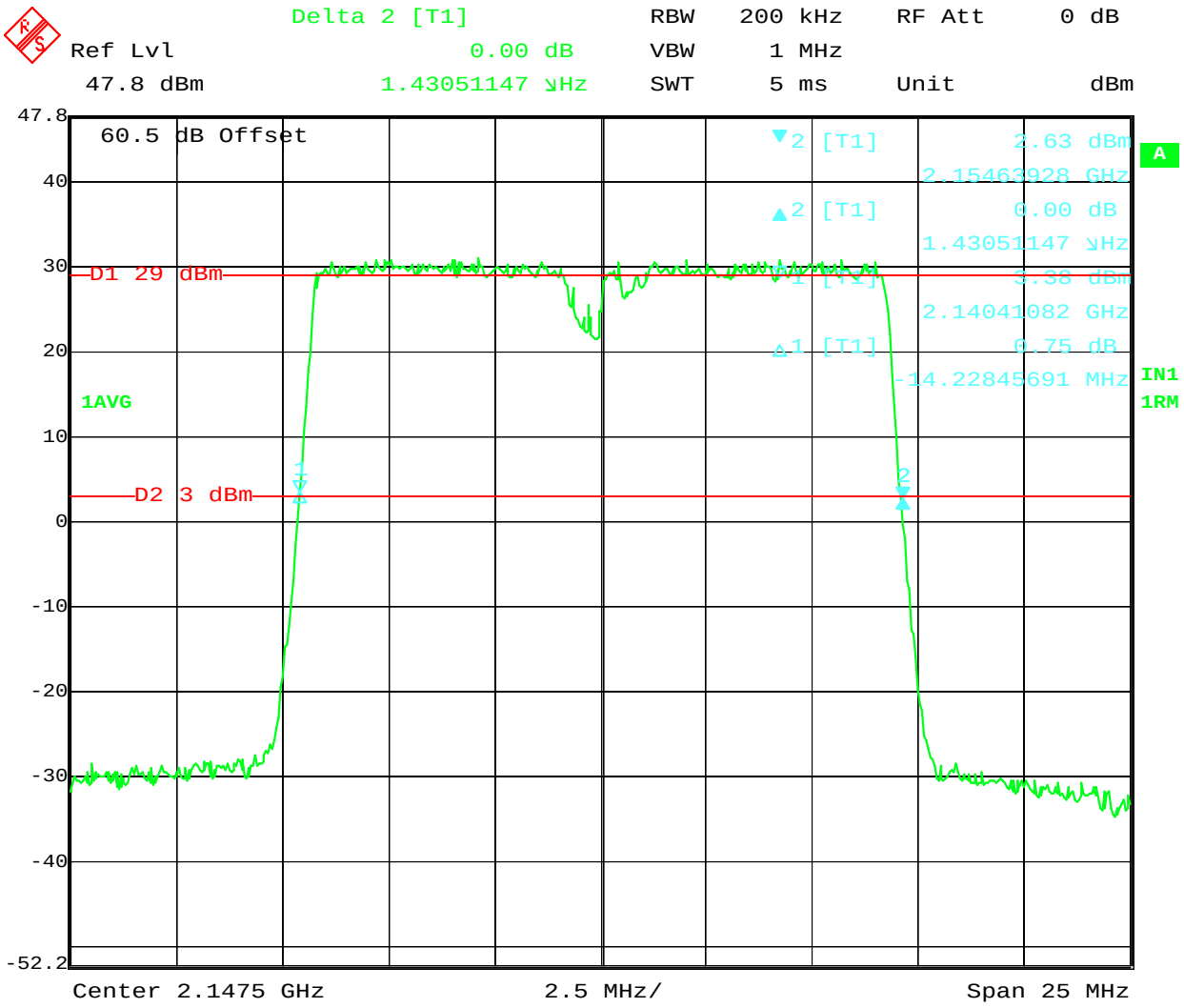
(26dB Bandwidth)



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK E+F; 2147.5MHz; 15MHZ BW; PWR:60W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 13.SEP.2013 08:11:27



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK E+F; 2147.5MHz; 15MHZ BW; PWR:60W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 13.SEP.2013 07:11:27



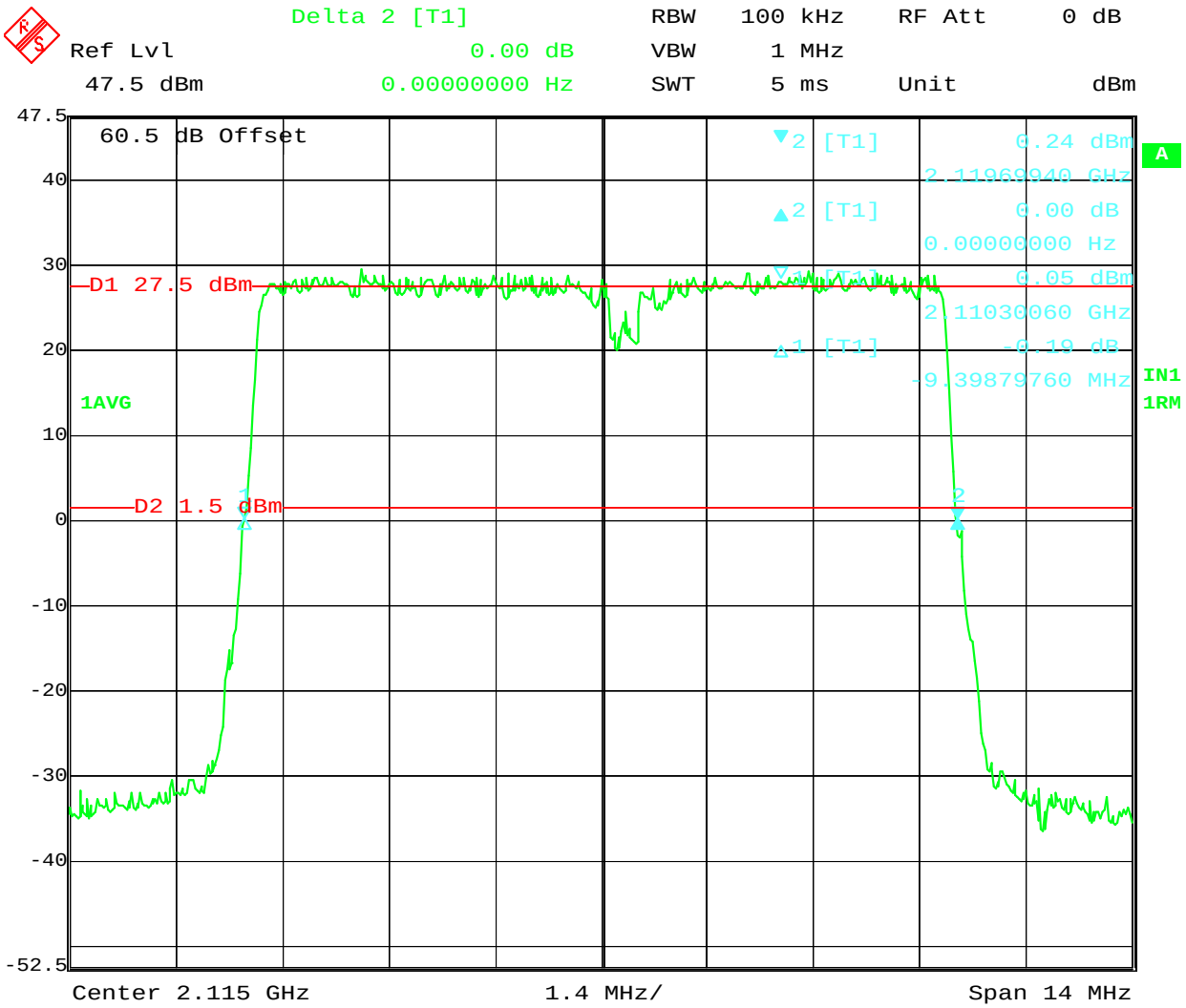
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK E+F; 2147.5MHz; 15MHZ BW; PWR:60W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 13.SEP.2013 06:54:17

Block: A

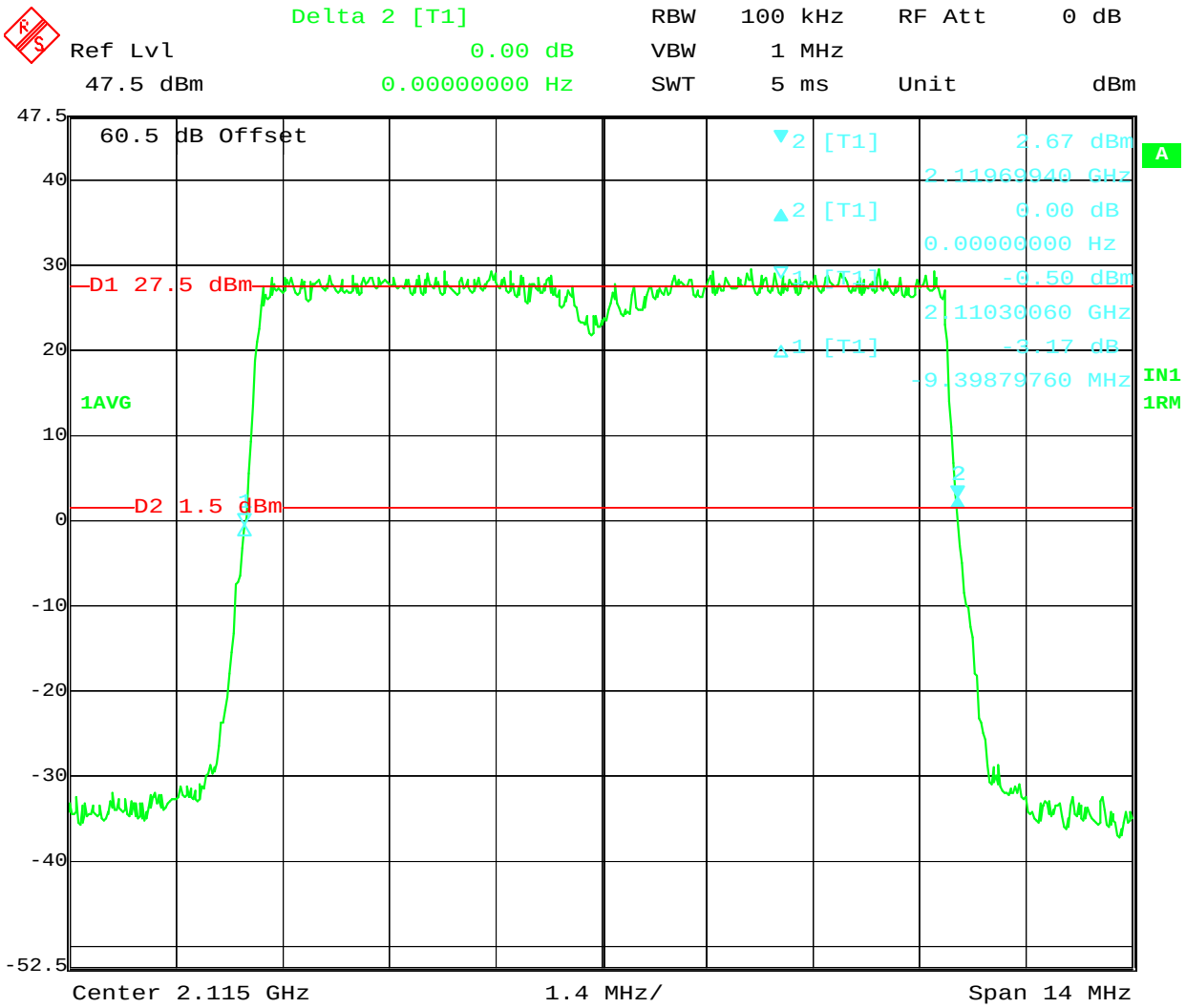
10 MHz Bandwidth (2110-2120 MHz)

2x60 watts (MIMO)

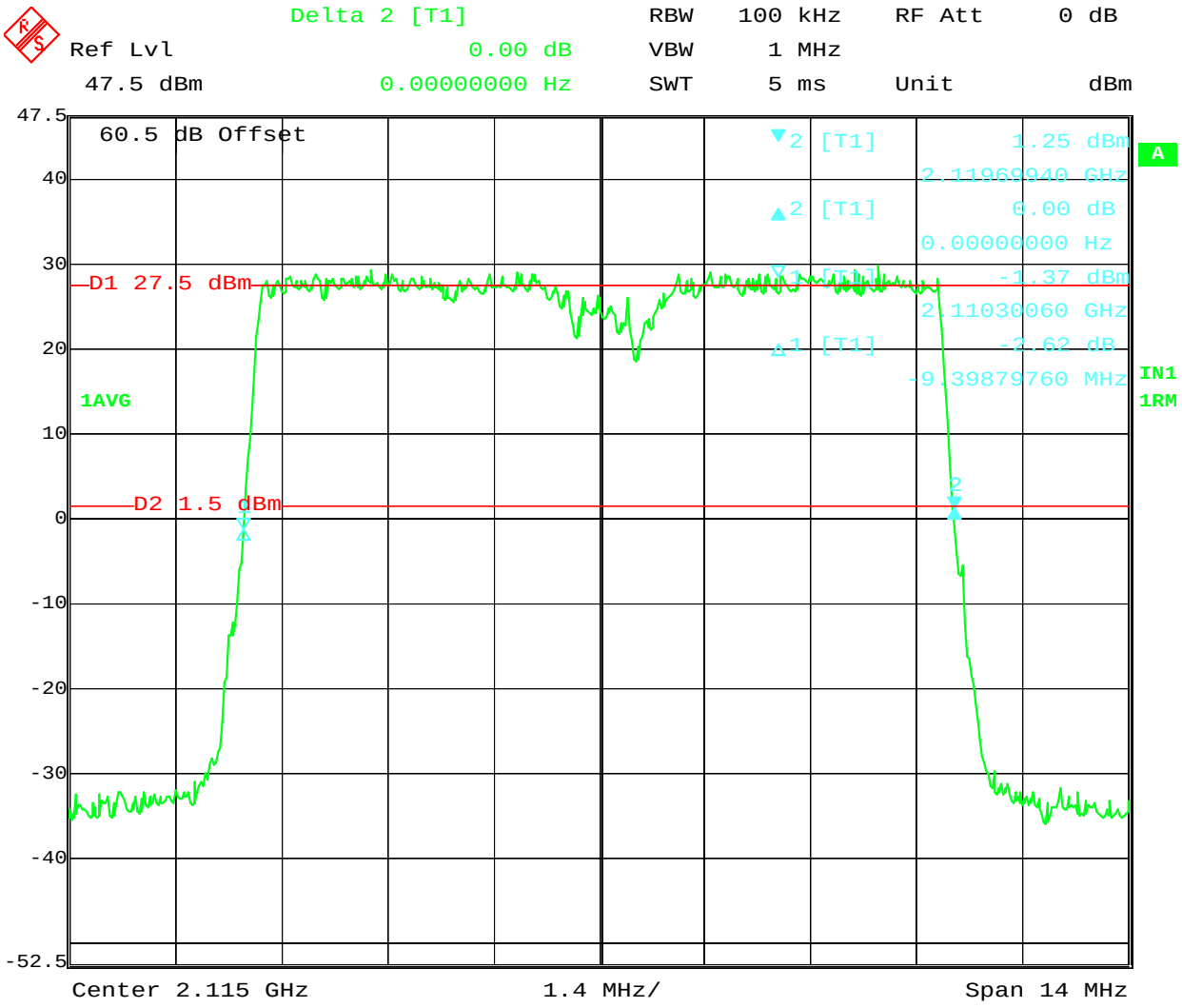
(26dB Bandwidth)



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK A; 2115MHz; 10MHz BW; PWR:60W; QPSK
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 22.AUG.2013 08:25:43



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK A; 2115MHz; 10MHz BW; PWR:60W; 16QAM
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 22.AUG.2013 08:50:59



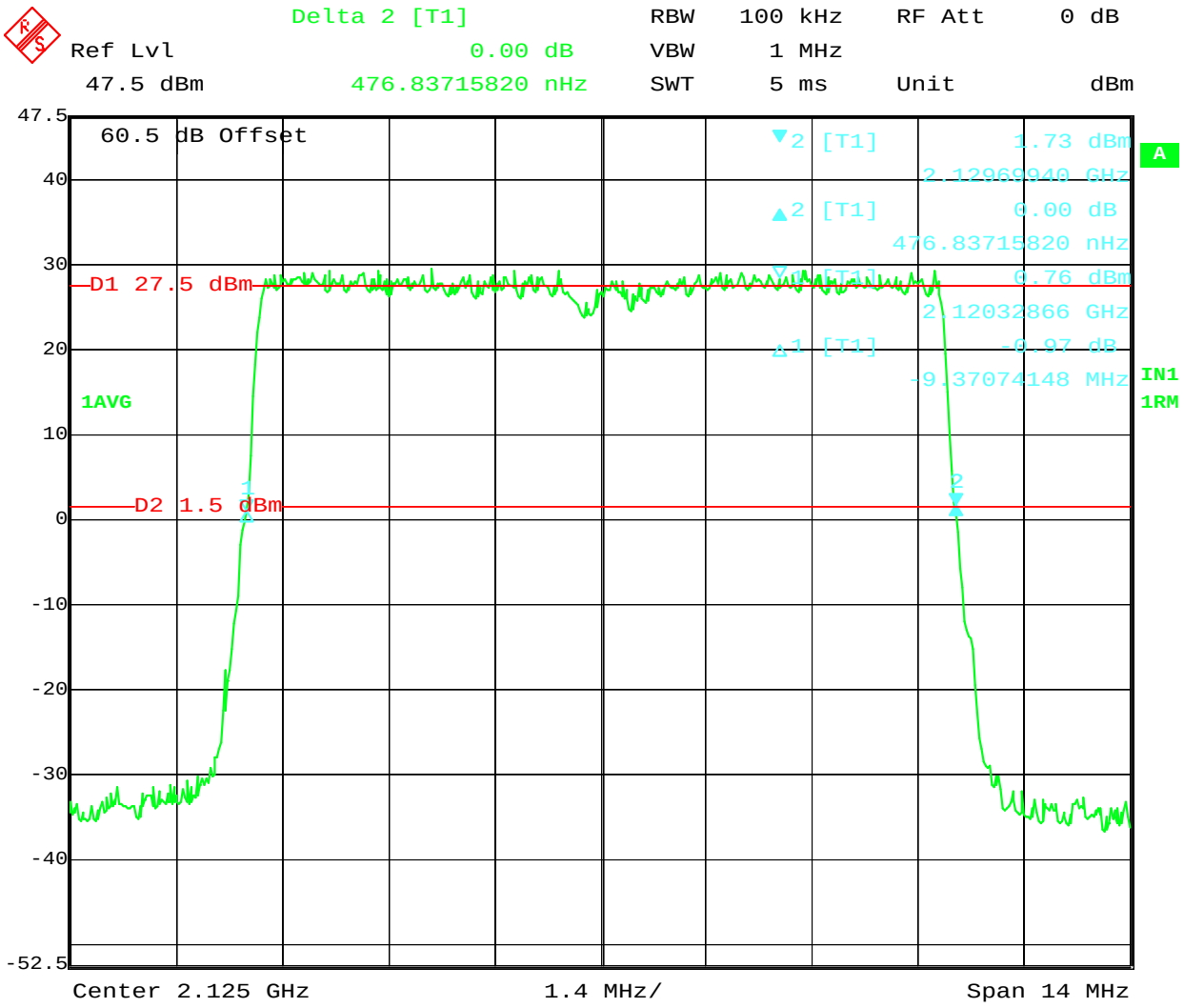
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK A; 2115MHz; 10MHz BW; PWR:60W; 64QAM
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 22.AUG.2013 10:03:18

Block: B

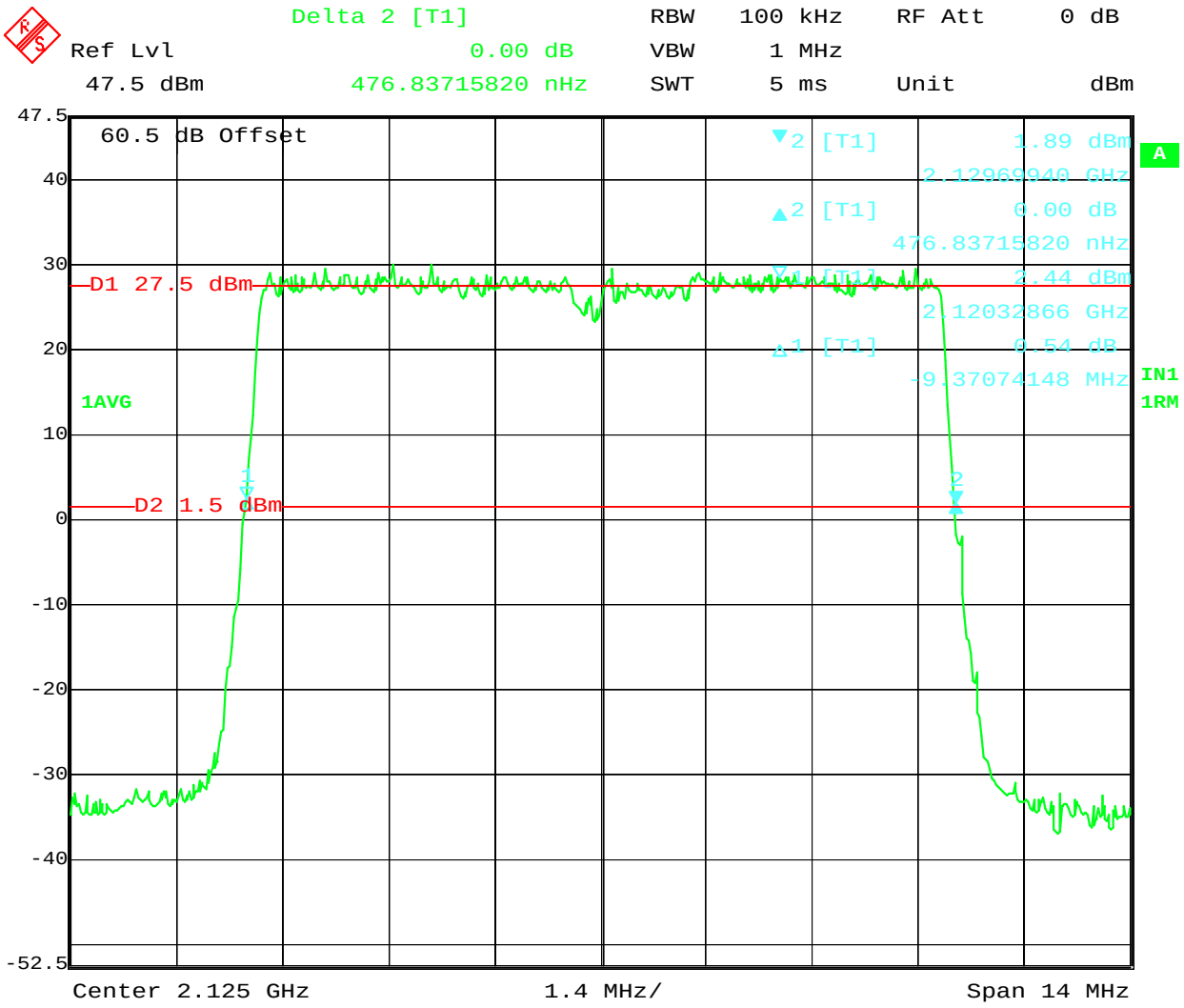
10 MHz Bandwidth (2120-2130 MHz)

2x60 watts (MIMO)

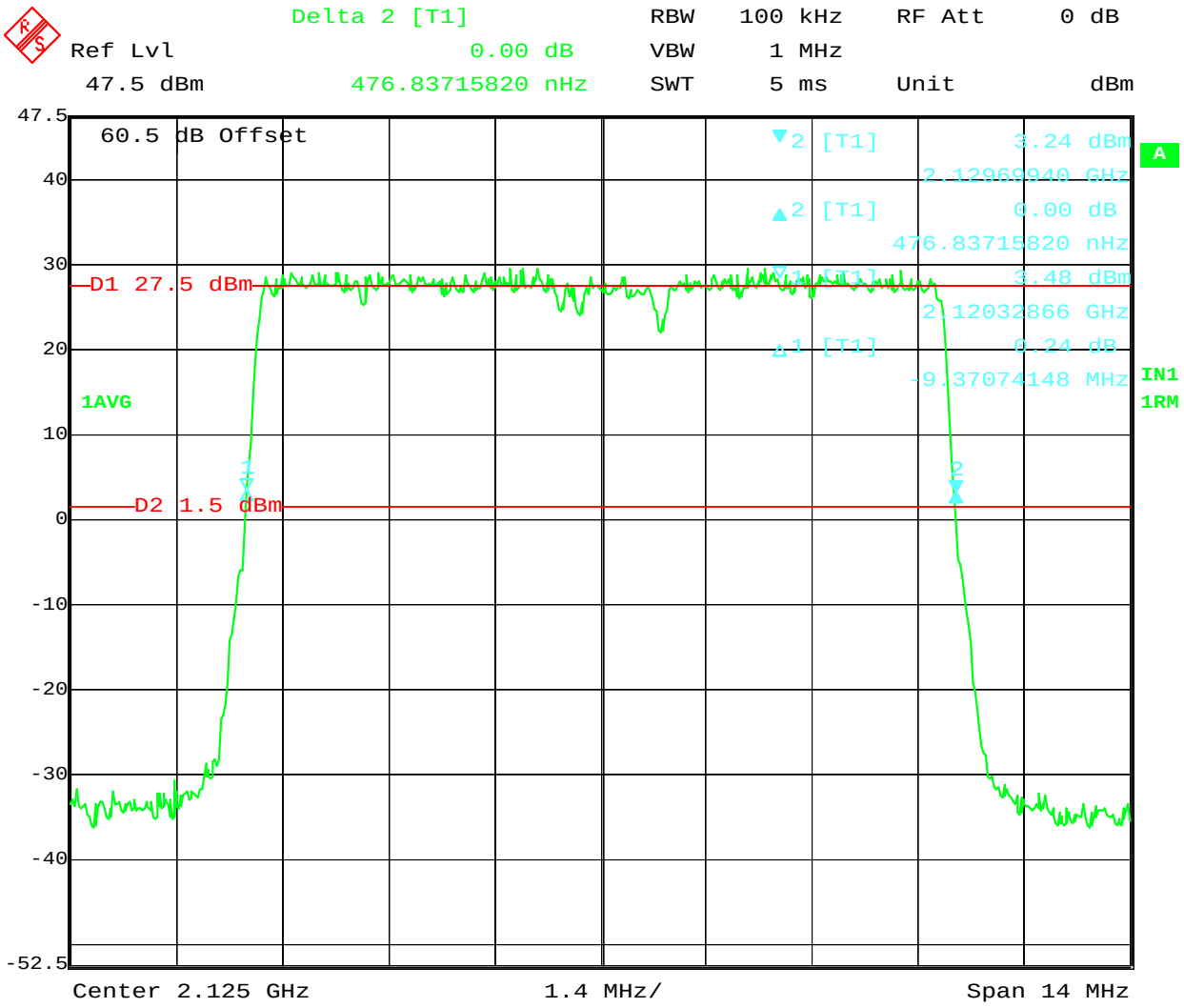
(26dB Bandwidth)



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK B; 2125MHz; 10MHz BW; PWR:60W; QPSK
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 22.AUG.2013 07:52:08



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK B; 2125MHz; 10MHz BW; PWR:60W; 16QAM
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 22.AUG.2013 07:10:40



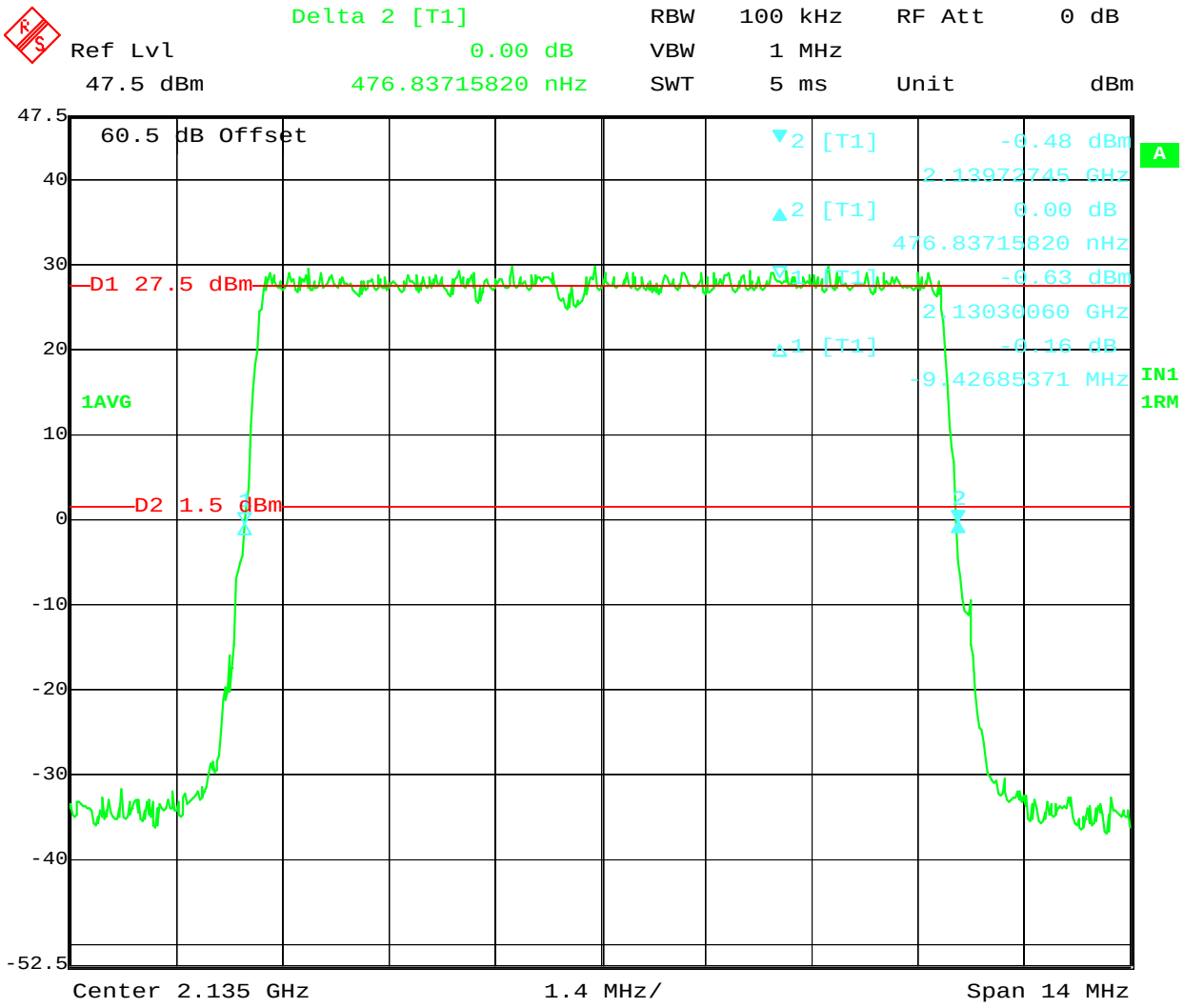
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK B; 2125MHz; 10MHz BW; PWR:60W; 64QAM
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 22.AUG.2013 07:35:00

Block: C+D

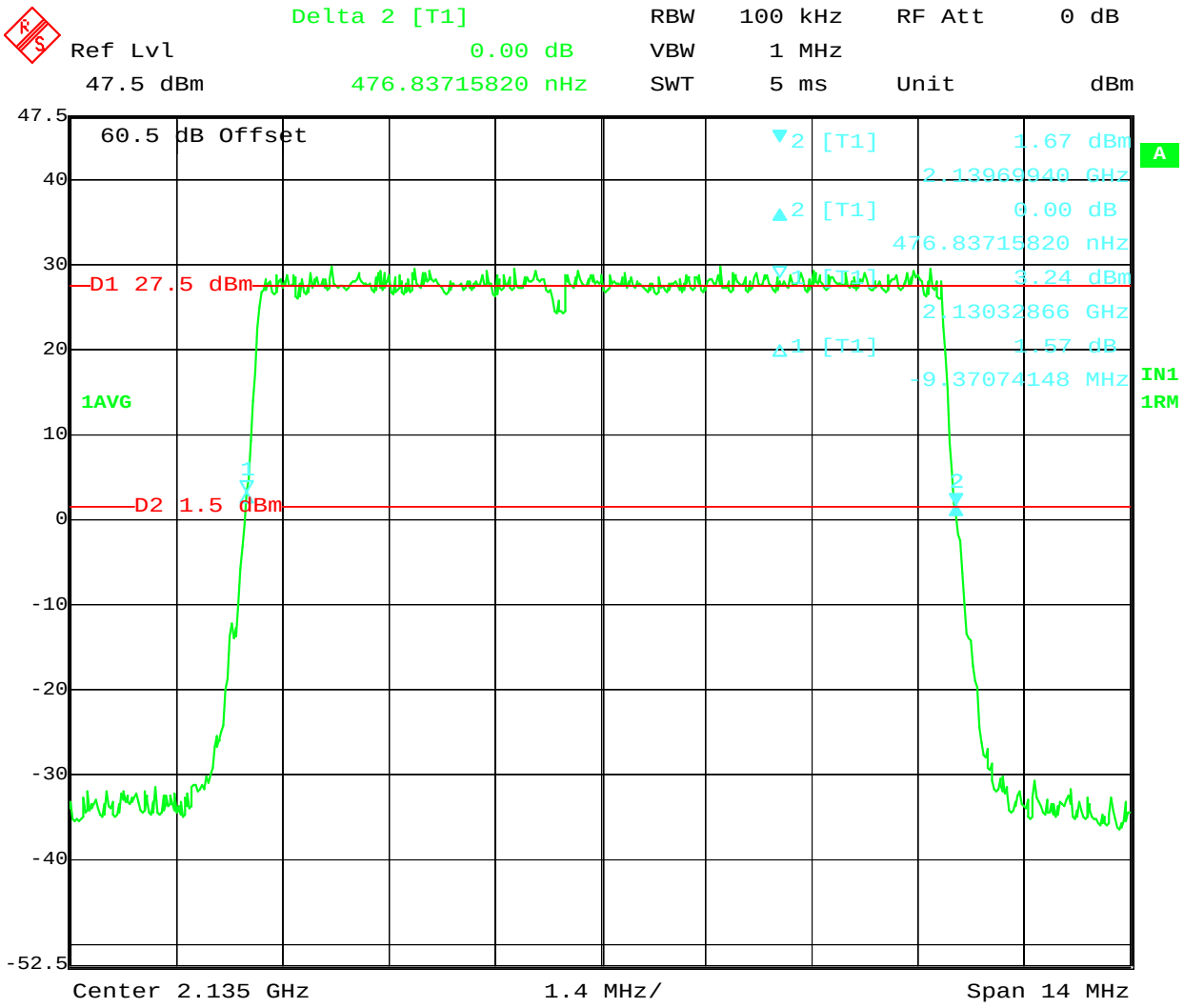
10 MHz Bandwidth (2130-2135+2135-2140 MHz)

2x60 watts (MIMO)

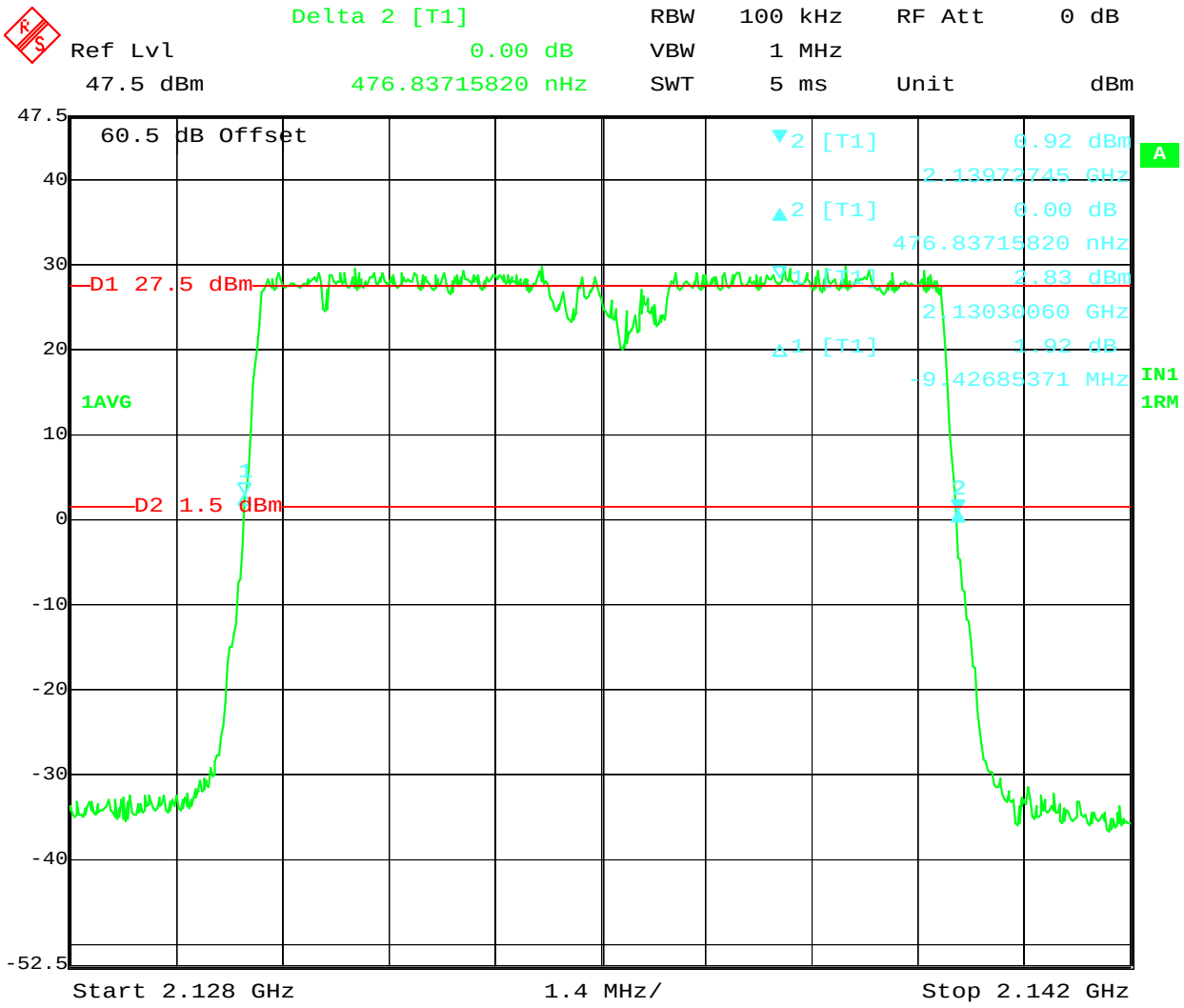
(26dB Bandwidth)



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK C+D; 2135MHz; 10MHz BW; PWR:60W; QPSK
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 26.AUG.2013 05:01:48



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK C+D; 2135MHz; 10MHz BW; PWR:60W; 16QAM
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 22.AUG.2013 12:17:55



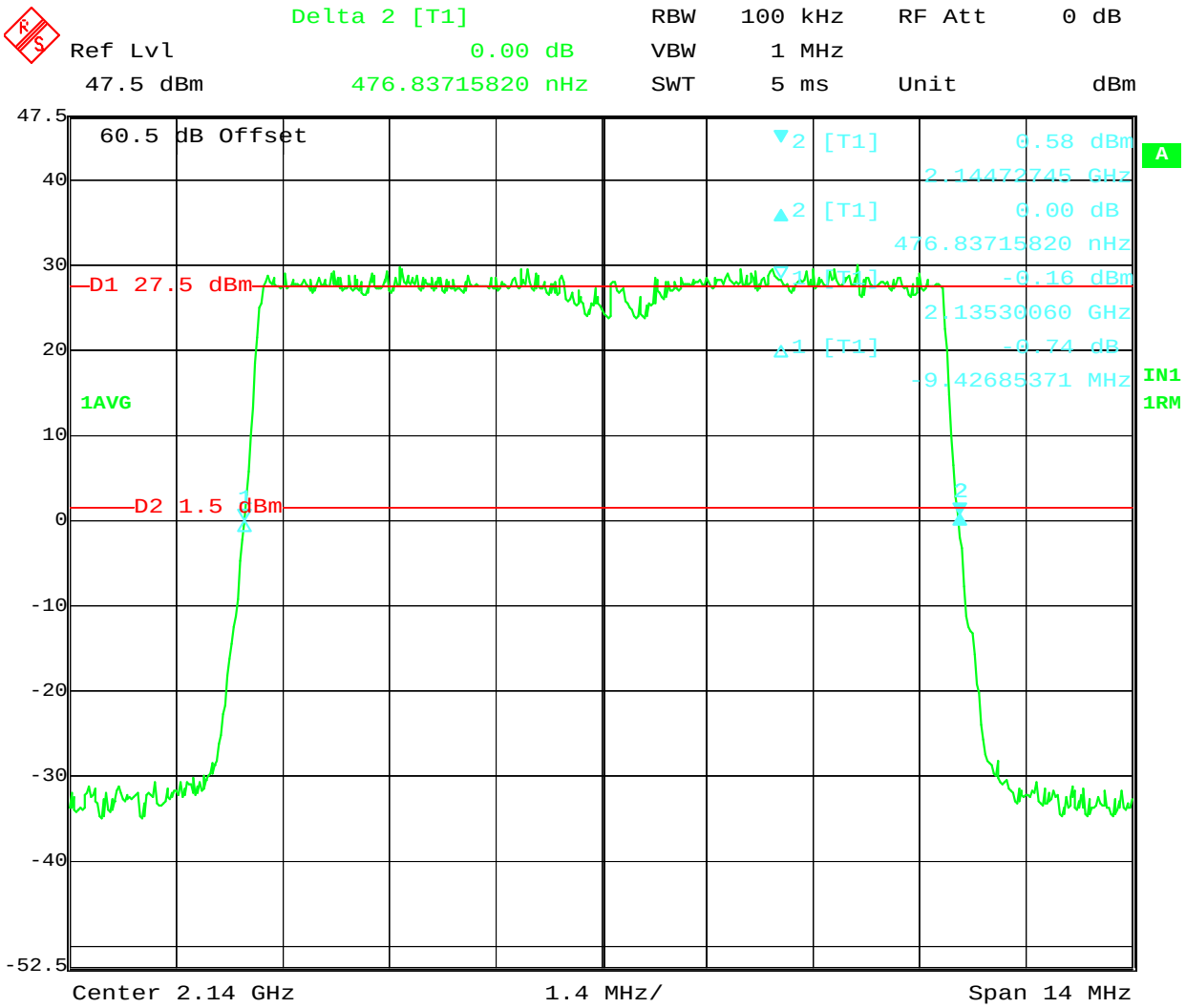
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK C+D; 2135MHz; 10MHz BW; PWR:60W; 64QAM
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 22.AUG.2013 12:30:46

Block: D+E

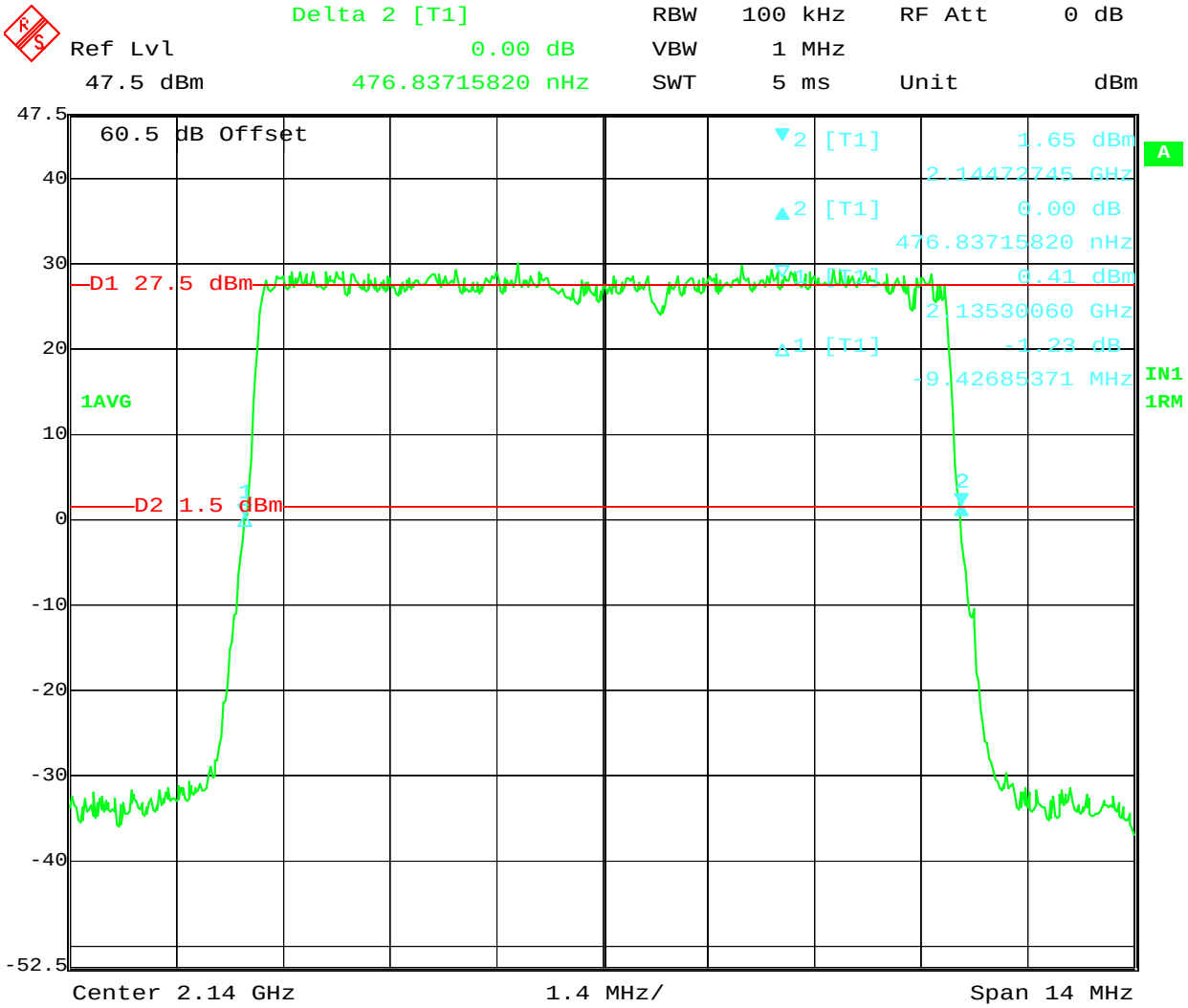
10 MHz Bandwidth (2135-2140 + 2140-2145 MHz)

2x60 watts (MIMO)

(26dB Bandwidth)

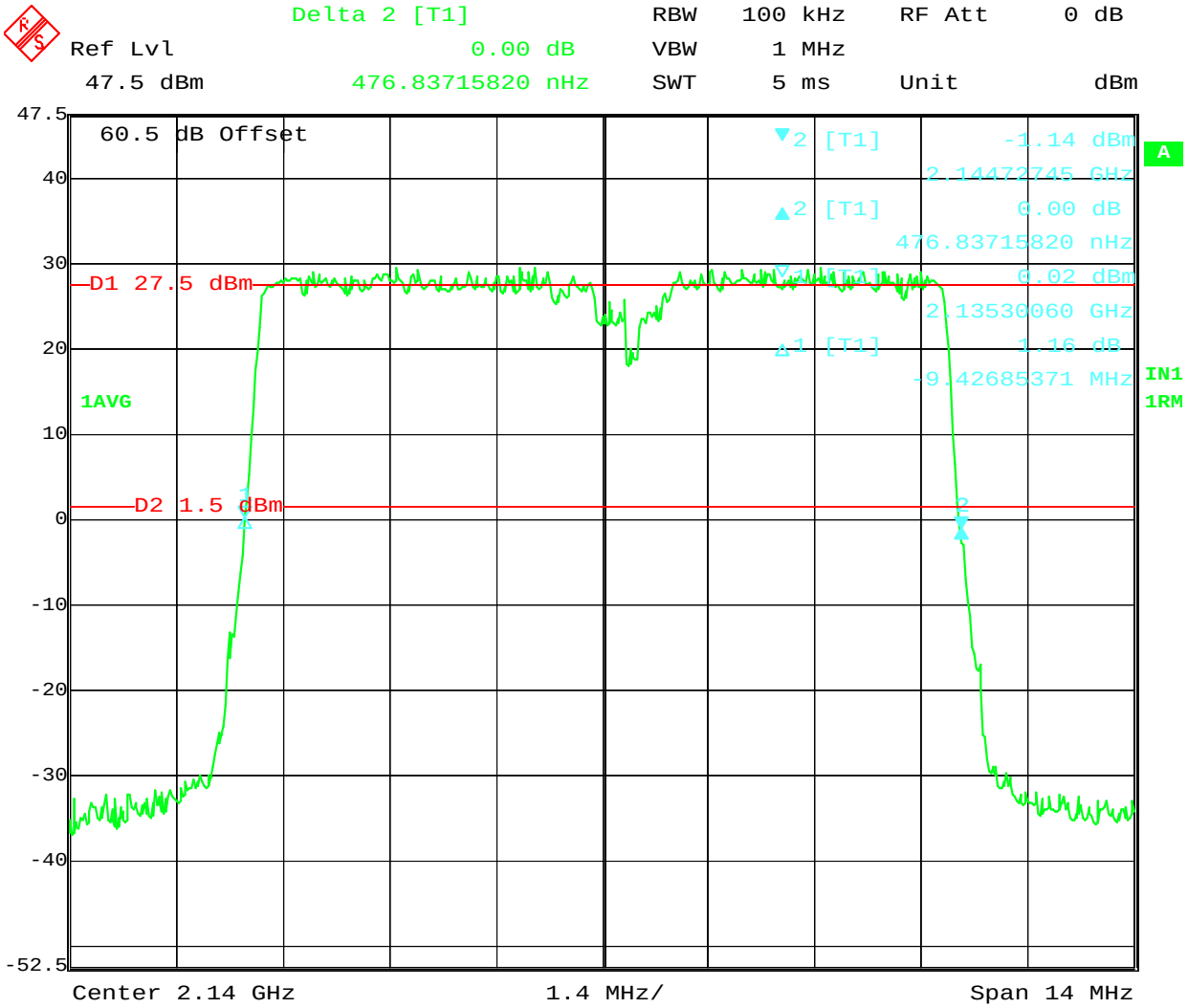


Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK D+E; 2140MHz; 10MHz BW; PWR:60W; QPSK
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 26.AUG.2013 08:21:35



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK D+E; 2140MHz; 10MHz BW; PWR:60W; 16QAM
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 26.AUG.2013 08:59:29

APPLICANT: **Alcatel-Lucent** FCC ID: **AS5BBTRX-13**



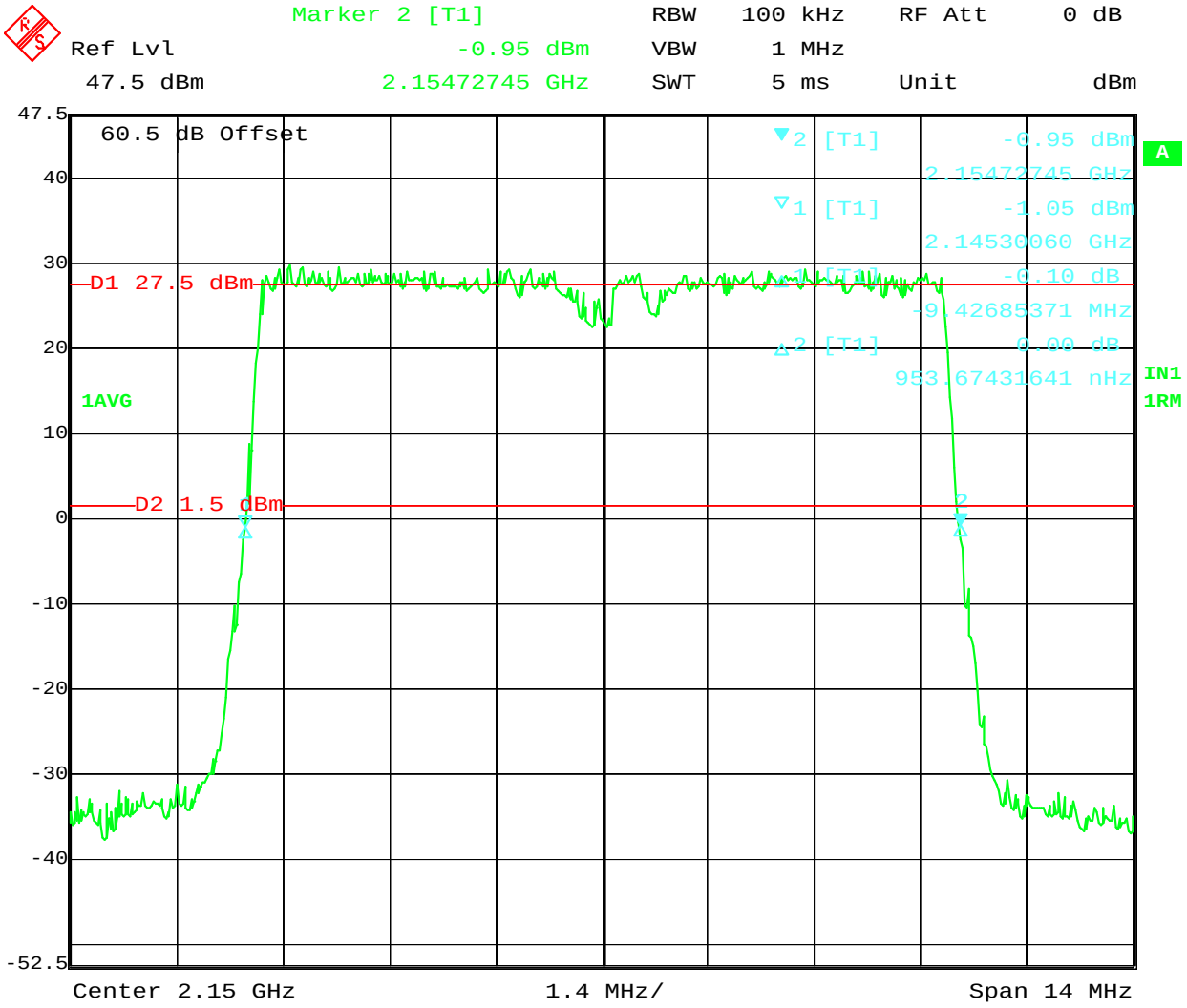
Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK D+E; 2140MHz; 10MHz BW; PWR:60W; 64QAM
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 26.AUG.2013 09:22:28

Block: F

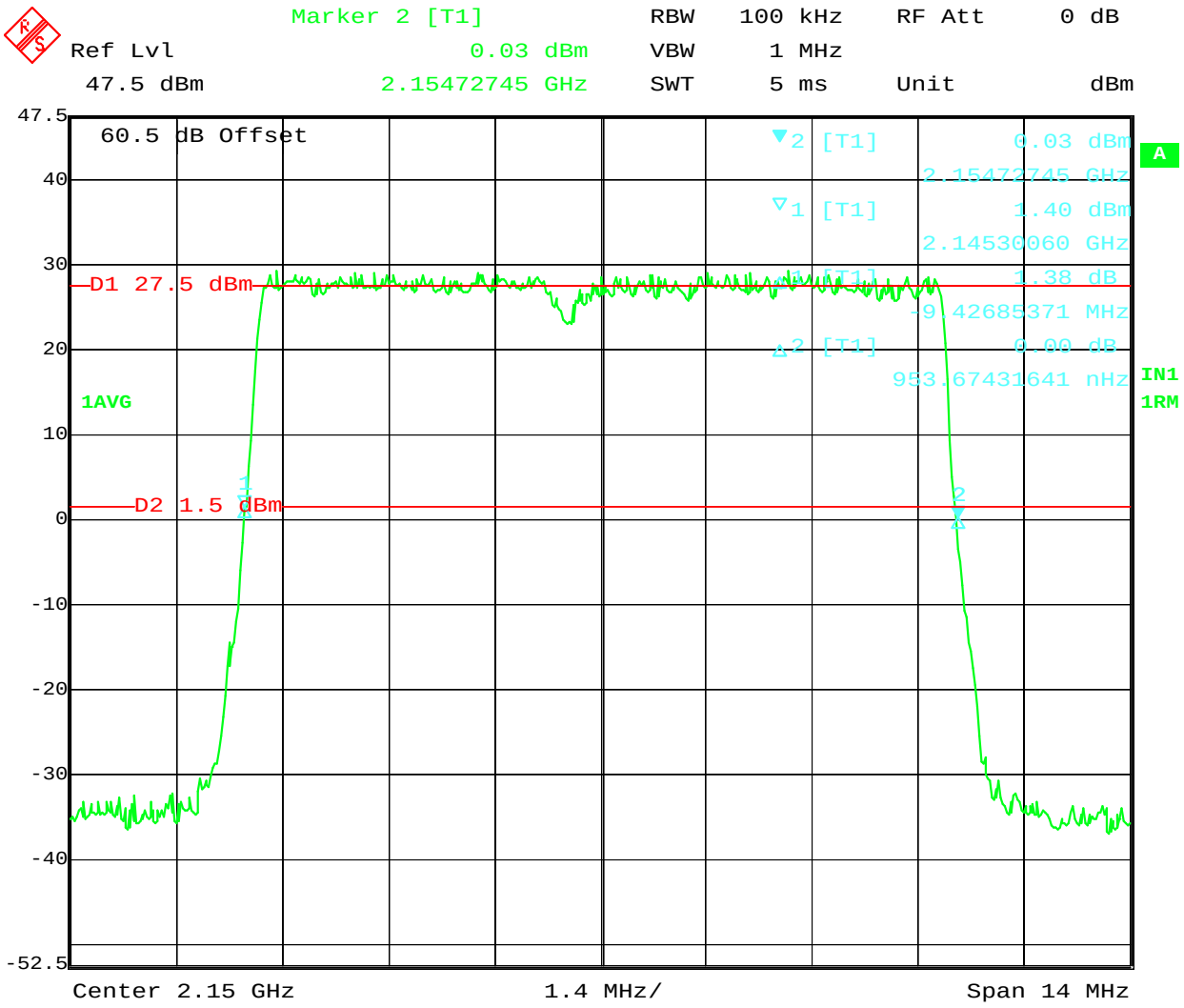
10 MHz Bandwidth (2145-2155 MHz)

2x60 watts (MIMO)

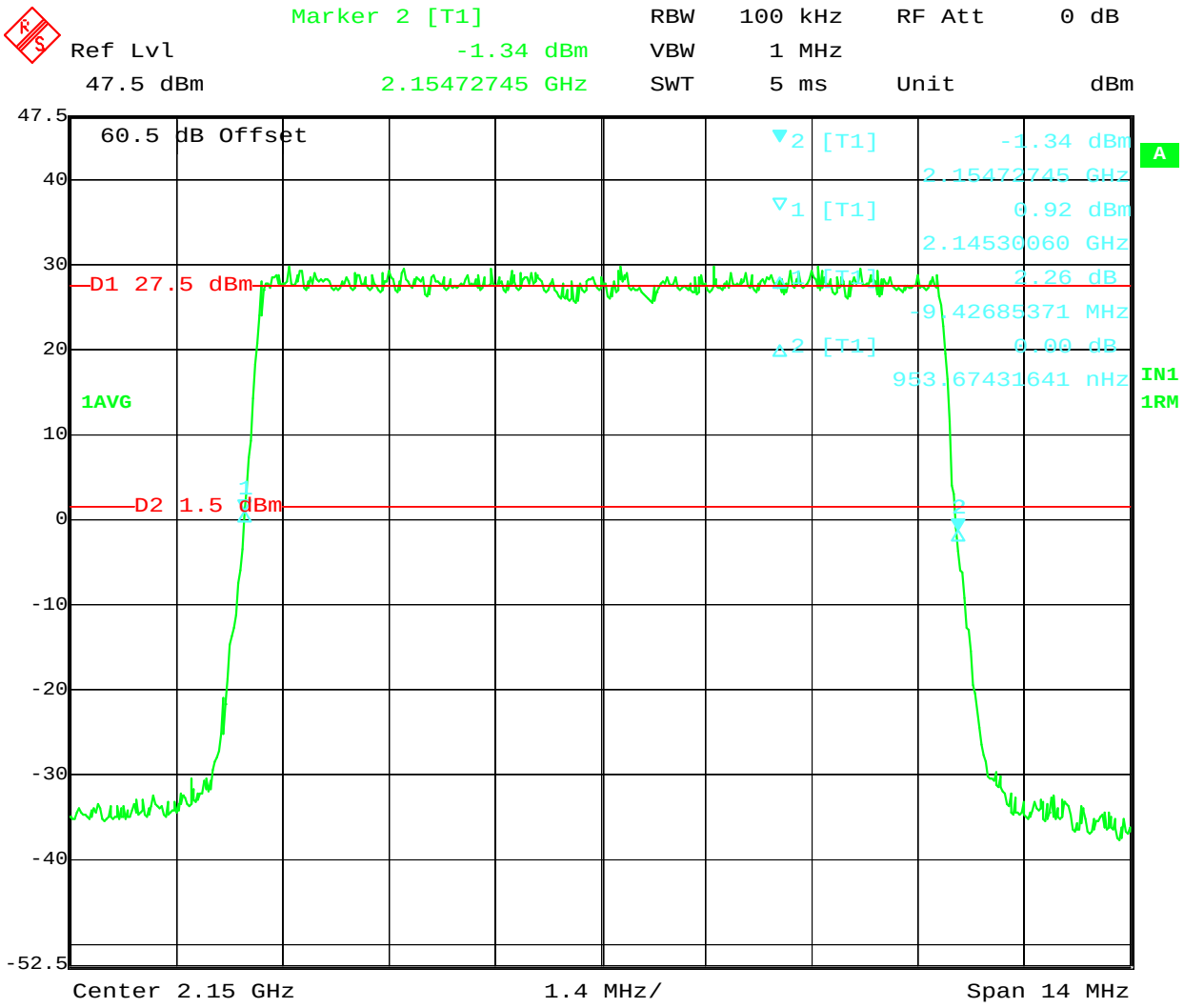
(26dB Bandwidth)



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK F; 2150MHz; 10MHz BW; PWR:60W; QPSK
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 22.AUG.2013 04:02:20



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK F; 2150MHz; 10MHz BW; PWR:60W; 16QAM
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 22.AUG.2013 06:42:10



Title: 26dB Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK F; 2150MHz; 10MHz BW; PWR:60W; 64QAM
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 22.AUG.2013 04:07:05

MEASUREMENT OF SPECTRUM MASK/OCCUPIED BANDWIDTH (1MHz ADJACENT TO CHANNEL EDGE)

Section 27.53 (H)

MEASUREMENT OF SPECTRUM MASK
OCCUPIED BANDWIDTH

The Spectrum mask close to the center of the carrier frequency (Occupied bandwidth) of the Long Term Evolution (LTE) was measured using a Rohde & Schwarz ESI Spectrum Analyzer/Receiver. The RF power level was measured using RF power meter as shown in the test setup in Figure A. The RF output from the LTE External Antenna Connector (EAC) port to spectrum analyzer was reduced (to an amplitude usable by the spectrum analyzer) by using a calibrated attenuator. This attenuation was offset on the display and the signal for single carrier was adjusted to the corrected RF power level for a 200 kHz resolution bandwidth for 15MHz wide transmit signal. While adjusting the corrected RF power level in the spectrum analyzer, the attenuator and resolution BW of spectrum analyzer were considered.

The measurements were made on a "LTE AWS TRDU 2X120W" in 9712 Cabinet.

The reference line on the spectrum analyzer display corresponds to level measured by the RF power meter. Occupied Bandwidth plots were made at antenna terminals for an output of 120W (50.8dBm)/antenna port and 60 Watts (47.8dBm)/carrier.

The frequencies and blocks used were tabulated on the bottom of each plot. The output signals at RF filter were plotted at each frequency/block. The LTE AWS TRDUs are capable of operating in the band of 2110 MHz to 2155 MHz (Block A, B, C, D, E and F). The Base station presently tested was configured to operate at Bands listed are listed in Tables below. Blocks and bands listed in Table are provided for a single carrier and two non-contiguous carriers. These frequencies were chosen to show the occupied bandwidth in the blocks in the frequency band in which this radio can be operated. All tests were performed for QPSK, 16QAM and 64QAM modulations.

Block edge requirements:

FCC Section 27.53(h)(1): Based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. Pursuant to FCC OET RULES 662911 D01 and D02 for two antenna MIMO mode of operations, the FCC limit of -13dBm shall be 3dB more stringent, therefore all channel edge and out of band spurious emissions shall be -16dBm. For all bands a resolution BW of 1% of BW is used. However, for 15MHz BW, the one percent of emissions BW is 150 kHz. Since 200kHz resolution BW is used. The limit of -16dBm is reduced to -14.75dBm using 10 log (200/150)

Table 1

Table for (10MHz +10 MHz), (10 MHz +5 MHz) 120W Non-Contiguous BWs

Left Frequency Range (MHz) & Block	Left Frequency BW (MHz)	Left Center Frequency (MHz)	Left Frequency Power (Watts)	Right Frequency Range (MHz) & Block	Right Frequency BW (MHz)	Right Center Frequency (MHz)	Right Frequency Power (MHz)	Total BW (MHz)	Total Power (Watts)
2110-2120 (A)	10	2115	60	2145-2155 (F)	10	2150	60	20	120
2120-2130 (B)	10	2125	60	2135-2140 2140-2145 (D+E)	5+5	2140	60	20	120
2130-2135 2135-2140 (C+D)	5+5	2135	60	2145-2155 (F)	10	2150	60	20	120
2120-2130	10	2125	60	2145-2155	10	2150	60	20	120
2110-2120 (A)	10	2115	60	2135-2140 (D)	5	2137.5	60	15	120
2120-2130 (B)	10	2125	60	2140-2145 (E)	5	2142.5	60	15	120
2135-2140 (D)	5	2137.5	60	2145-2155 (F)	10	2150	60	15	120
2130-2135 (C)	5	2132.5	60	2145-2155 (F)	10	2150	60	15	120

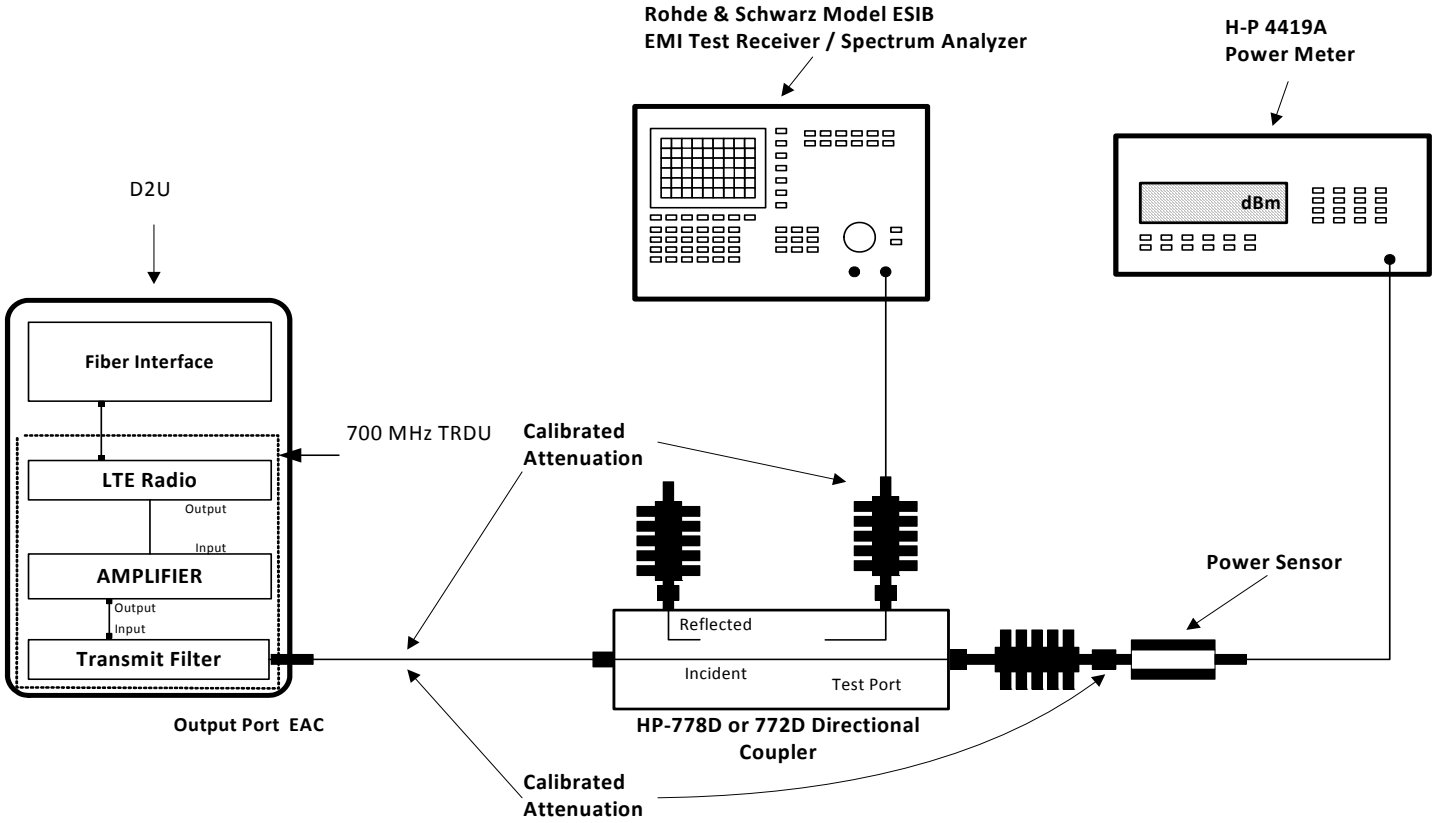
Table 2

Table for 10MHz, 15 MHz and 20 MHz for 60W all Contiguous Bands

Frequency Range (MHz) & Block	Bandwidth (MHz)	Center Frequency (MHz)	Power (Watts)
2110-2130 (A+B)	20	2120	60
2125-2145 (B2+C+D+E)	20	2135	60
2135-2155 (D+E+F)	20	2145	60
2110-2025 (A+B1)	15	2117.5	60
2120-2035 (B+C)	15	2127.5	60
2130-2145 (C+D+E)	15	2137.5	60
2140-2155 (E+F)	15	2147.5	60
2110-2120 (A)	10	2115	60
2120-2130 (B)	10	2125	60
2130-2140 (C+D)	10	2135	60
2135-2145 (D+E)	10	2140	60
2145-2155 (F)	10	2150	60

Measurement uncertainty:
Frequency: 100 Hz
Amplitude: 0.5 dB

Figure A. TEST CONFIGURATION FOR SPECTRUM MASK (OCCUPIED BANDWIDTH)



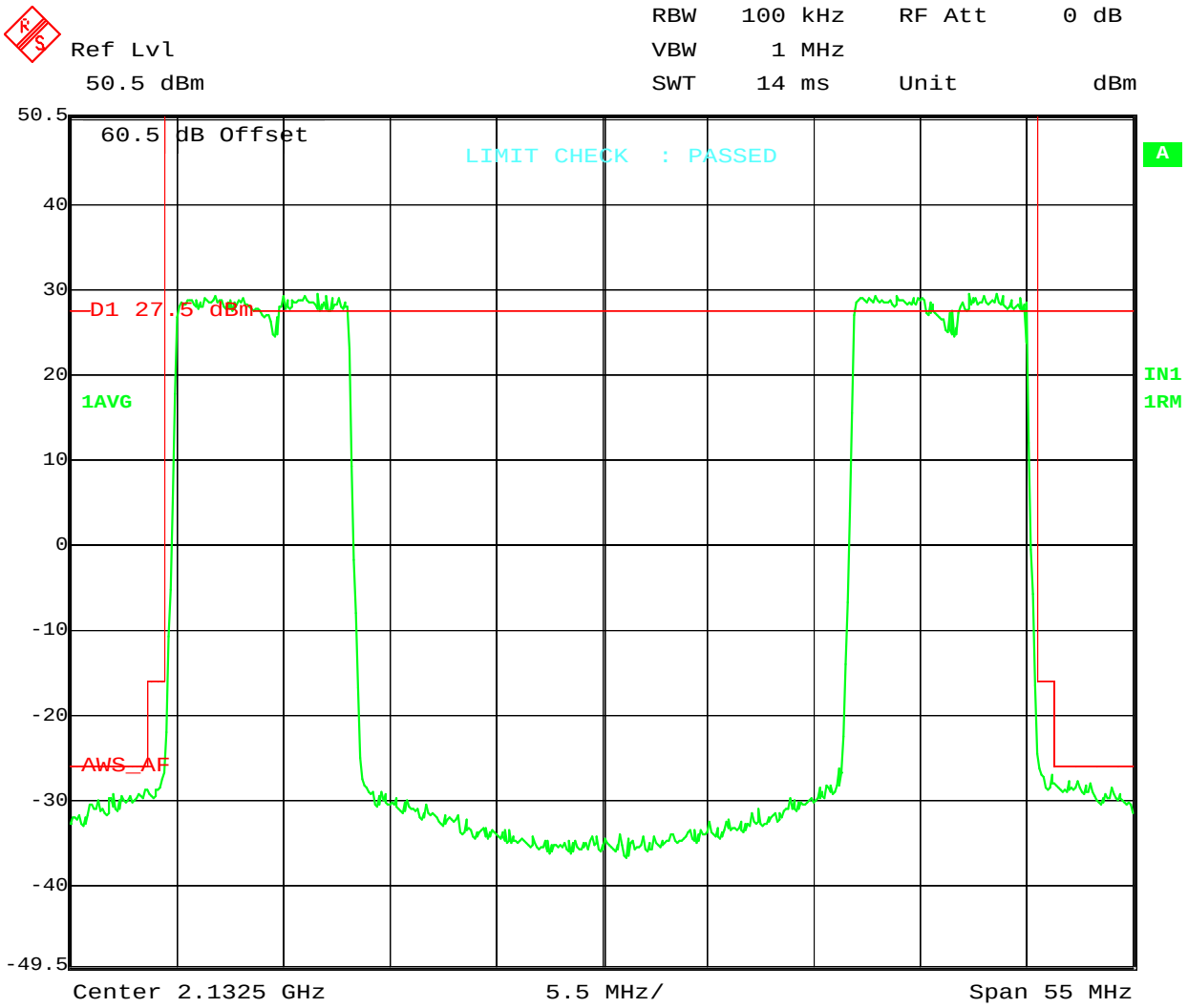
All components are calibrated over the frequency range of interest

Block: A+F

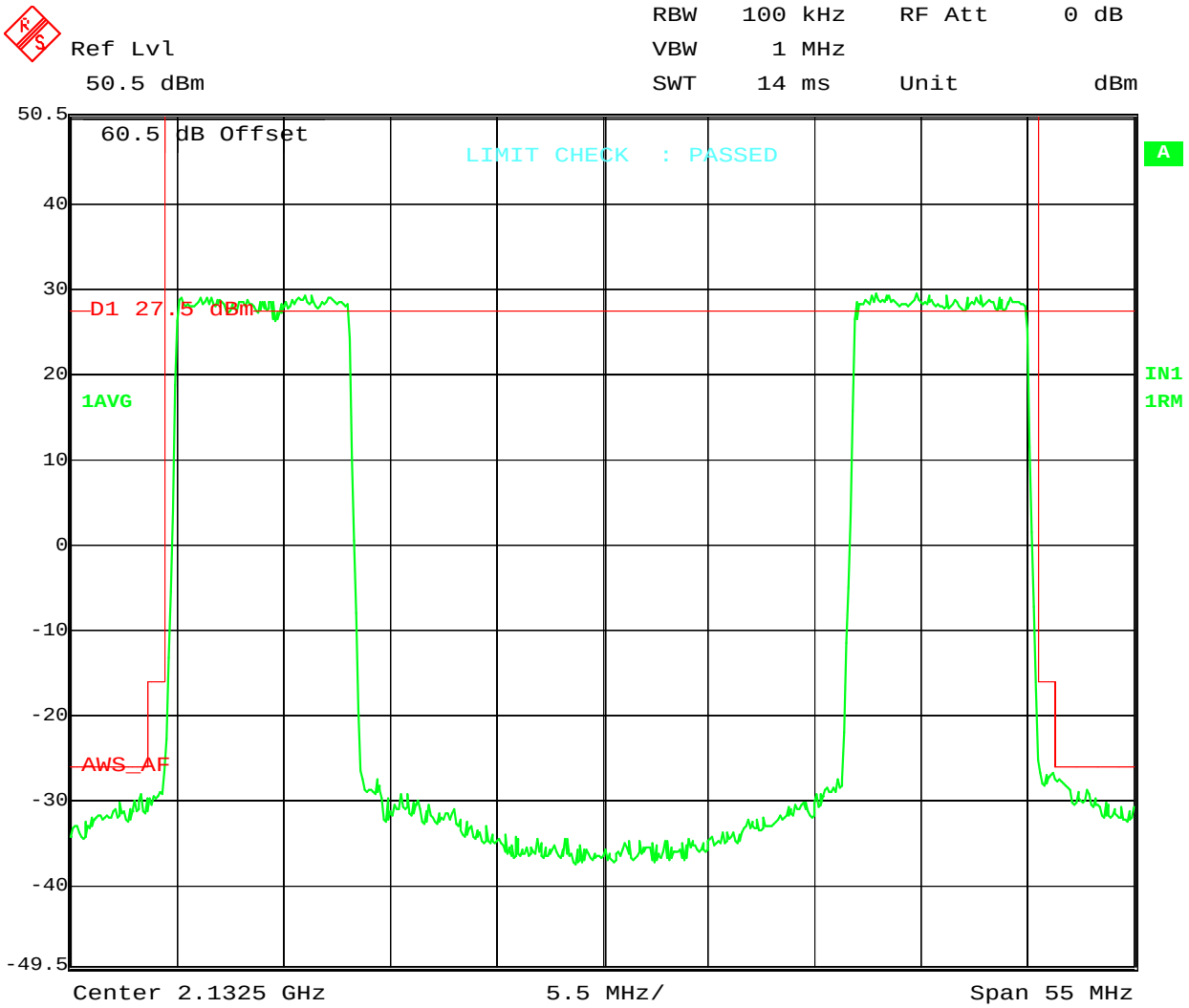
10+10 MHz Bandwidth (2110 – 2120 MHz + 2145-2155 MHz)

2x120watts (MIMO)

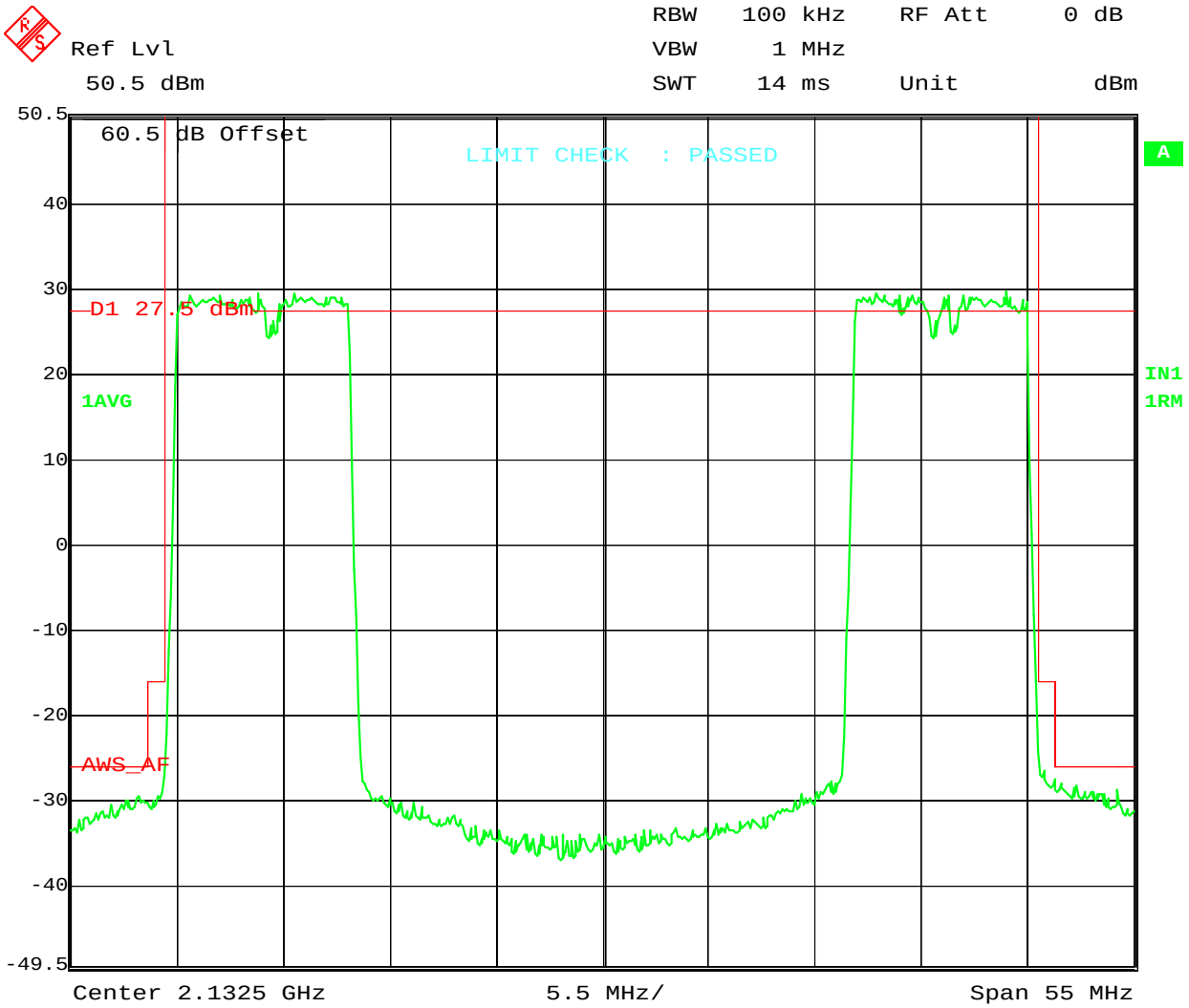
SPECTRUM MASK/OCCUPIED BANDWIDTH



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK A&F; 2115MHz & 2150MHz; 10MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 20.AUG.2013 12:50:31



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK A&F; 2115MHz & 2150MHz; 10MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 20.AUG.2013 12:16:34



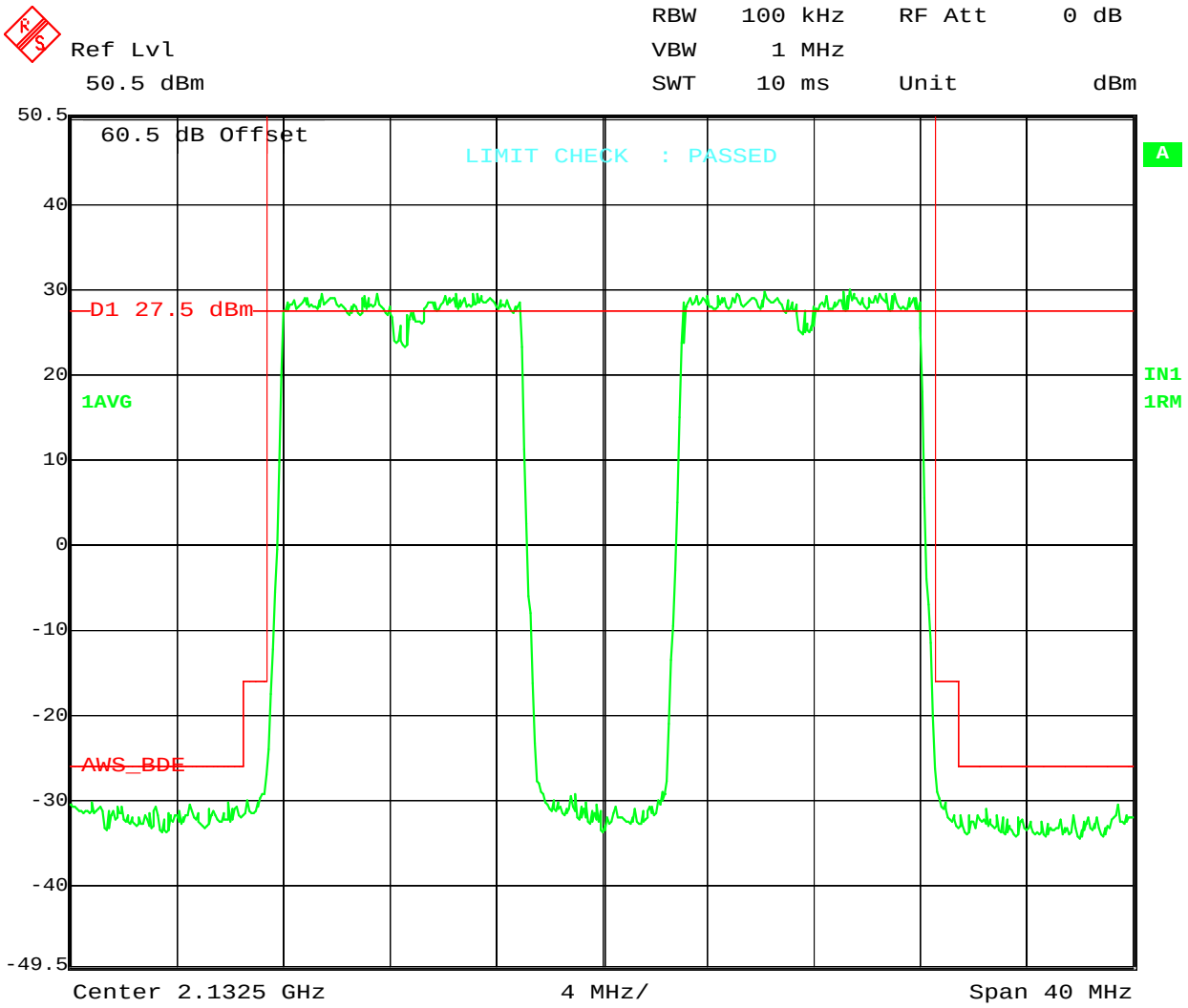
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK A&F; 2115MHz & 2150MHz; 10MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 20.AUG.2013 13:12:17

Block: B+D+E

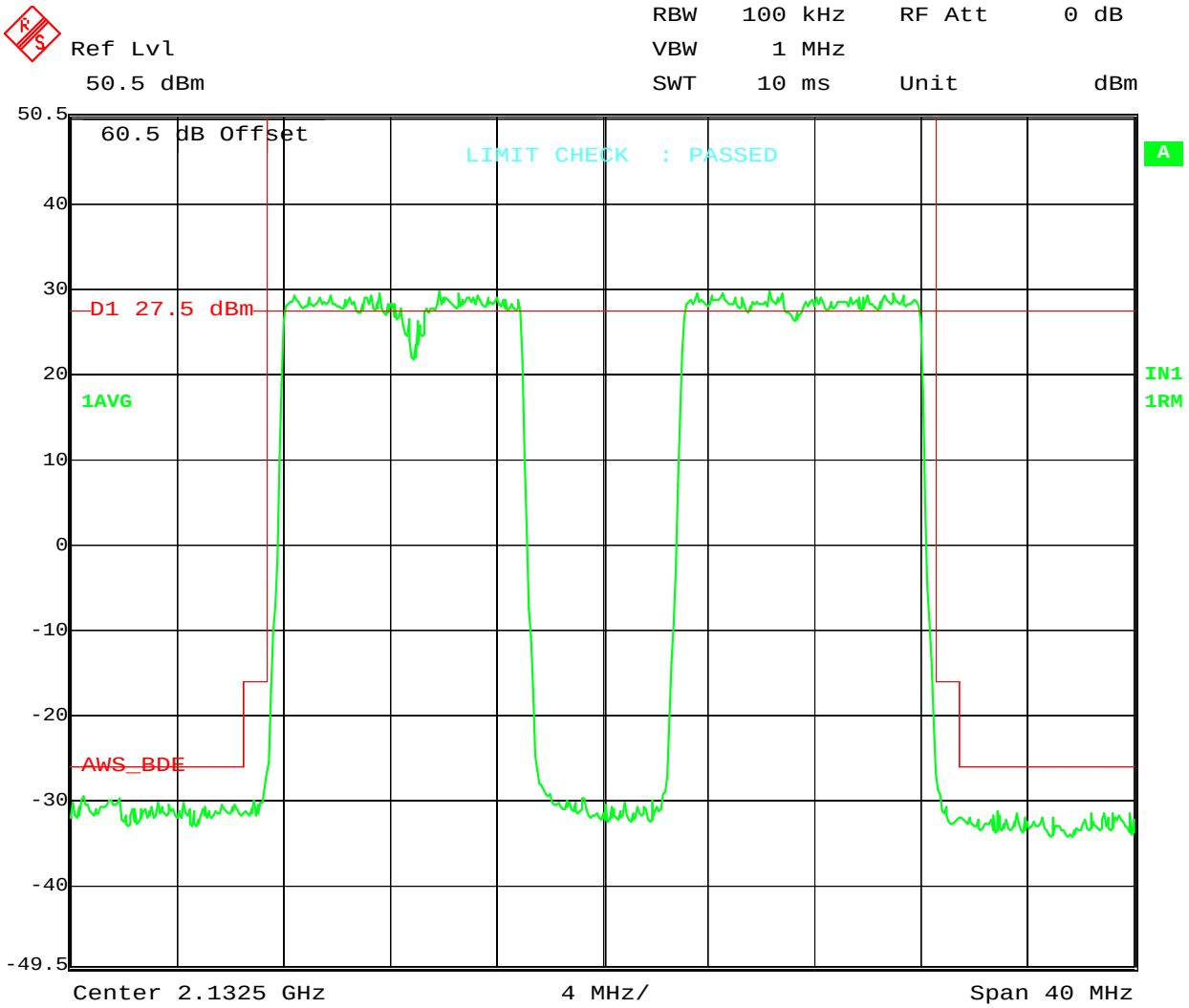
10+10 MHz Bandwidth (2120-2130 MHz + 2135-2145 MHz)

2x120watts (MIMO)

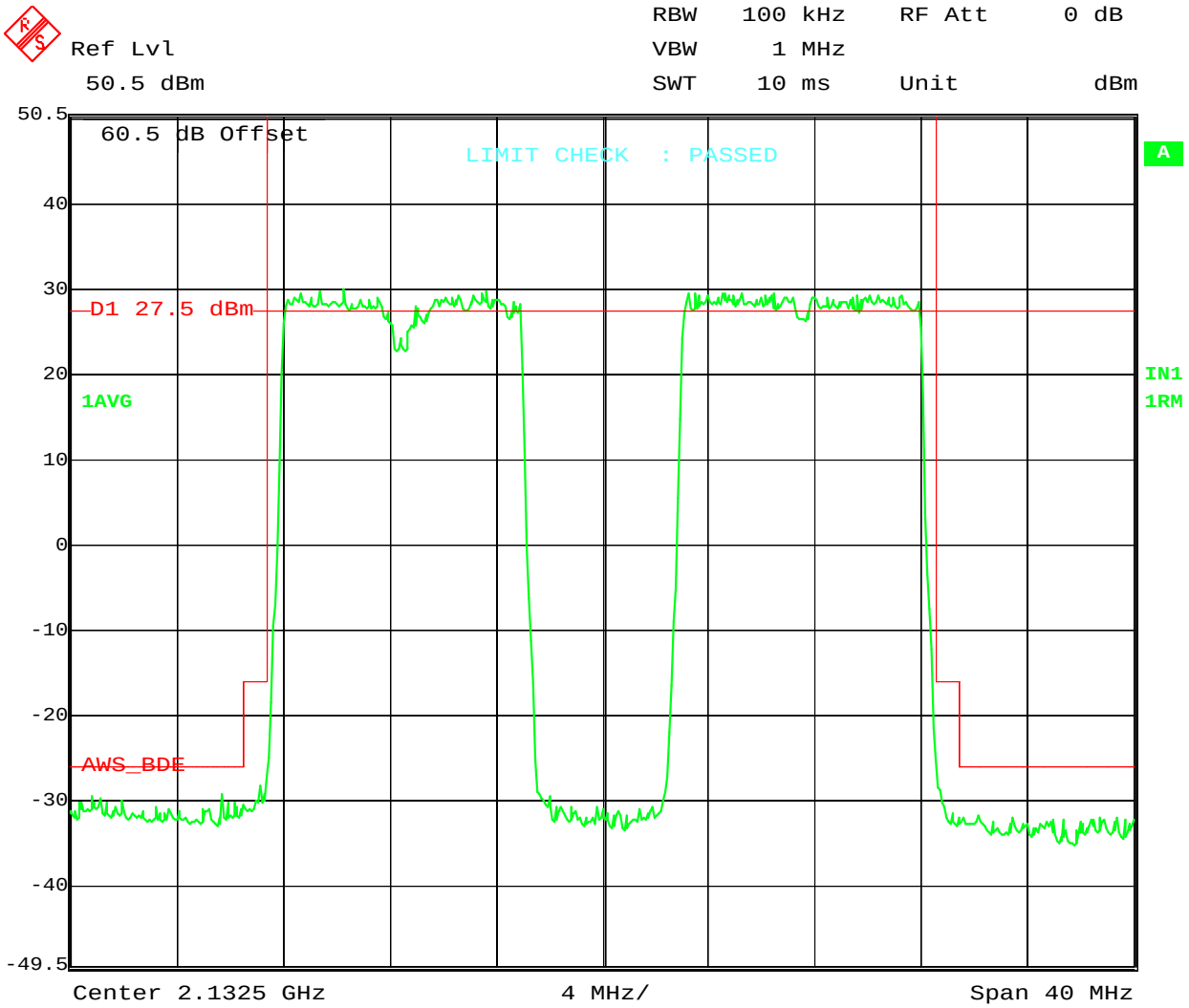
SPECTRUM MASK/OCCUPIED BANDWIDTH



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B,D&E; 2125MHz & 2140MHz; 10MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 20.AUG.2013 14:10:24



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B,D&E; 2125MHz & 2140MHz; 10MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 20.AUG.2013 14:23:53



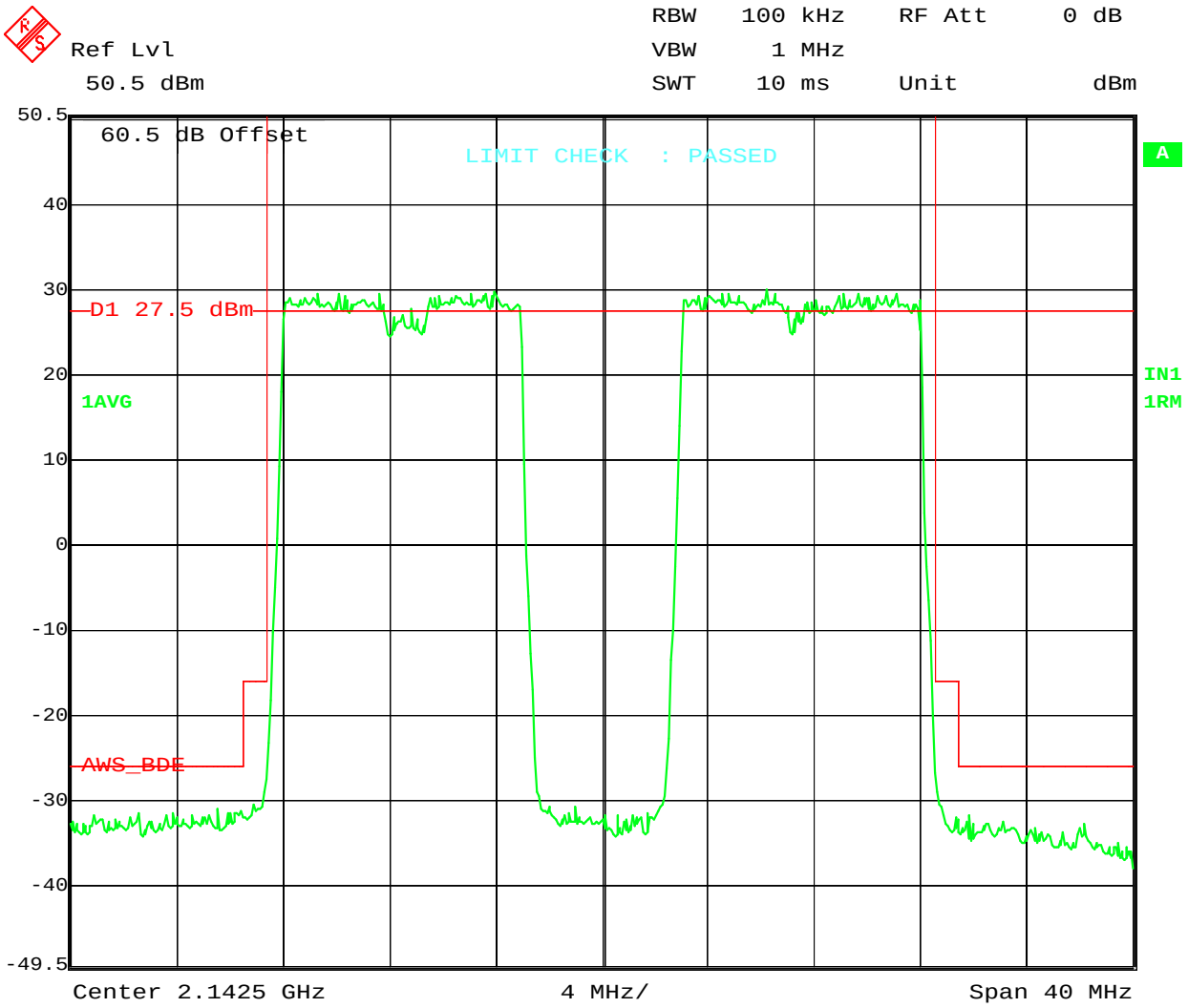
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B,D&E; 2125MHz & 2140MHz; 10MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 20.AUG.2013 14:16:20

Block: C+D+F

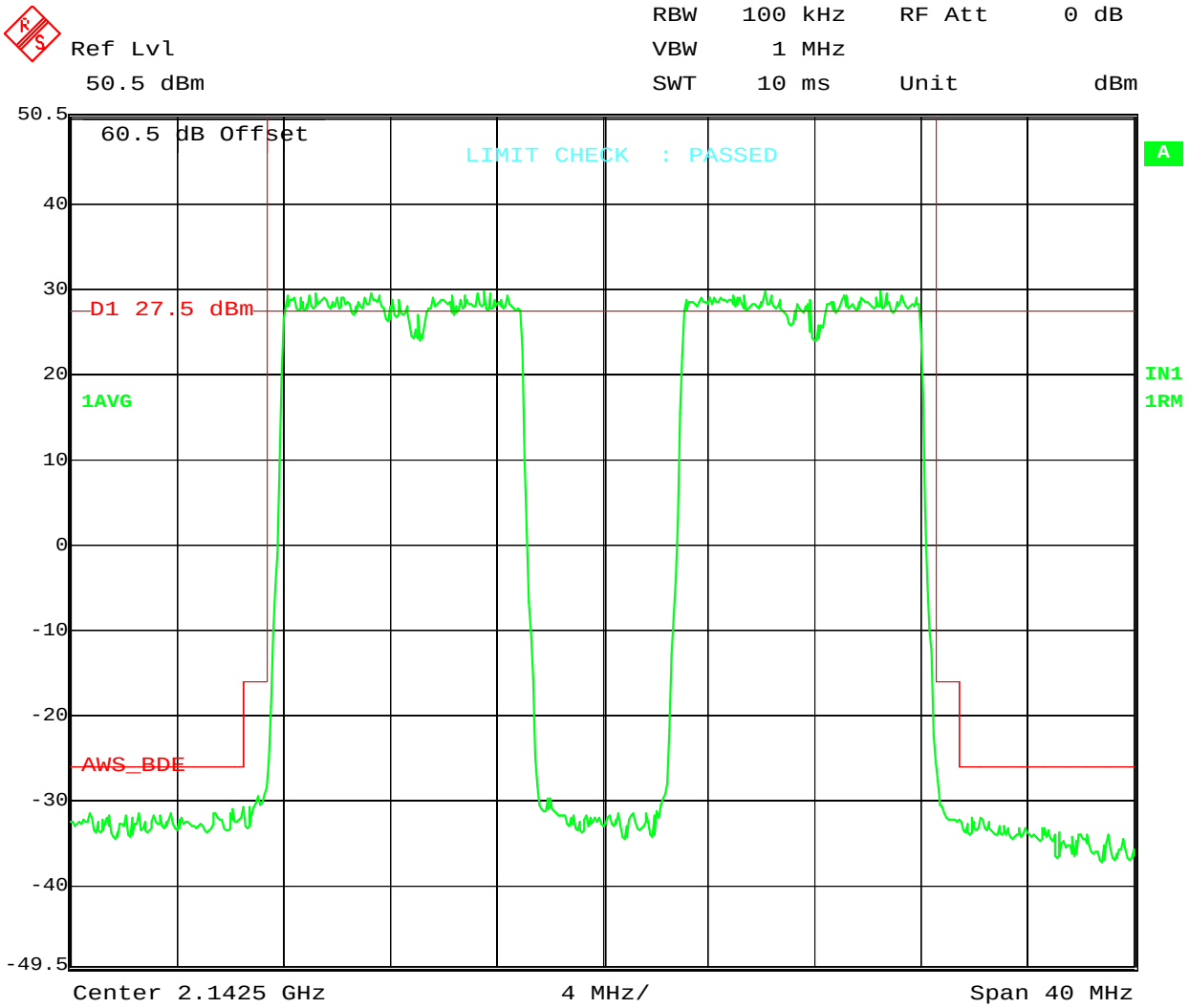
10+10 MHz Bandwidth (2130-2140 MHz + 2145-2155 MHz)

2x120 watts (MIMO)

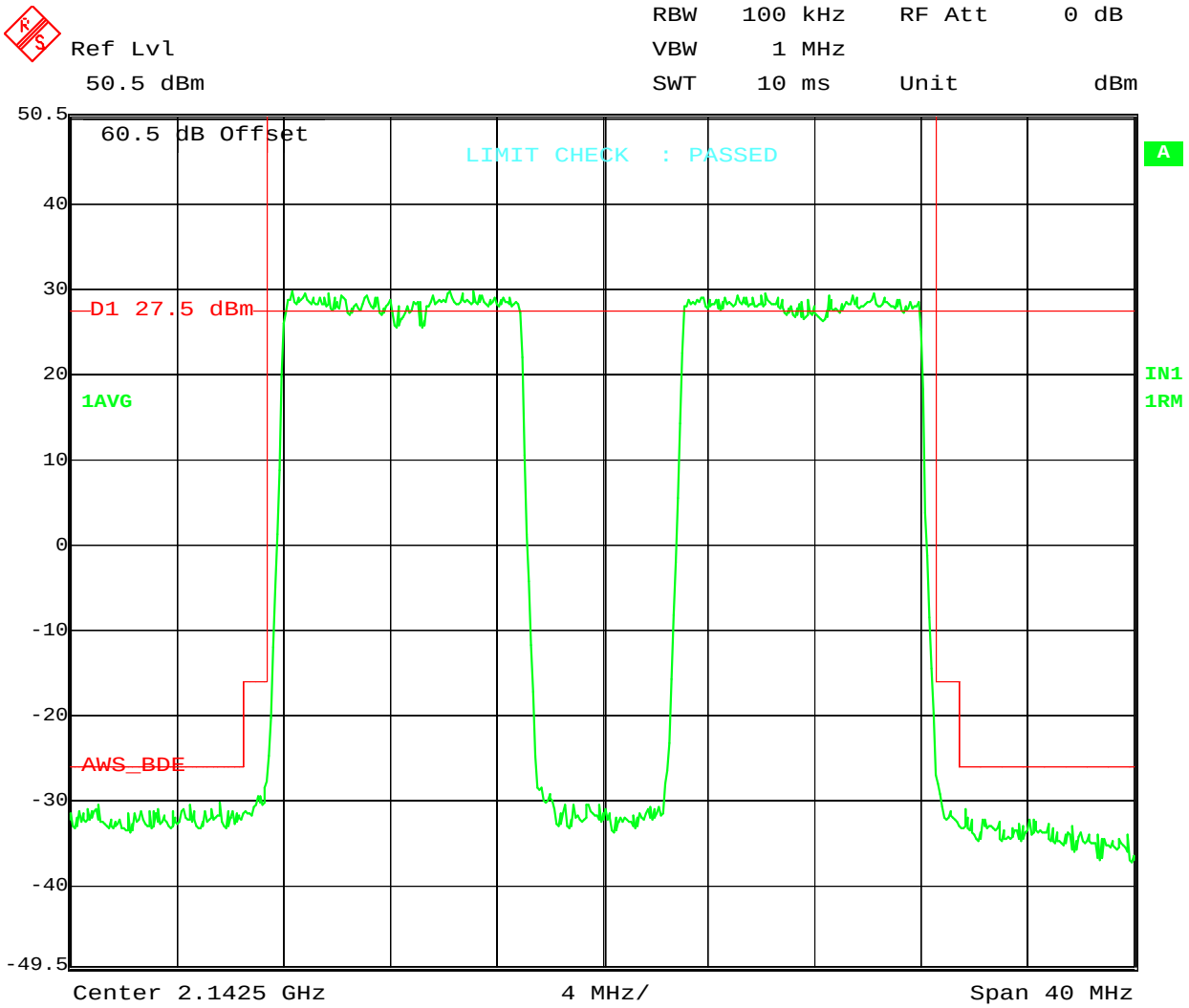
SPECTRUM MASK/OCCUPIED BANDWIDTH



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK C,D&F; 2135MHz & 2150MHz; 10MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 21.AUG.2013 07:16:37



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK C,D&F; 2135MHz & 2150MHz; 10MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 21.AUG.2013 06:55:36



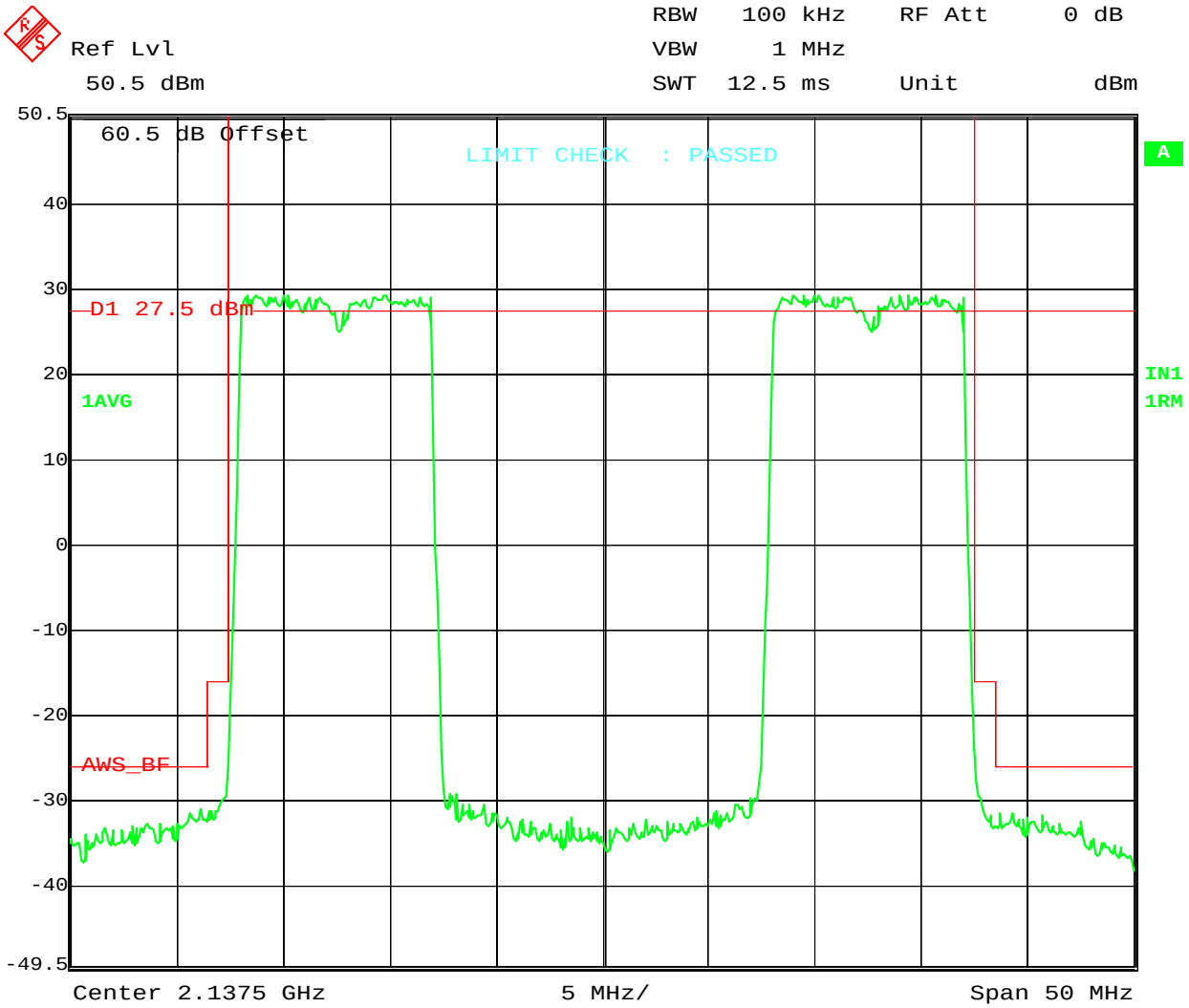
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK C,D&F; 2135MHz & 2150MHz; 10MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 21.AUG.2013 04:21:37

Block: B+F

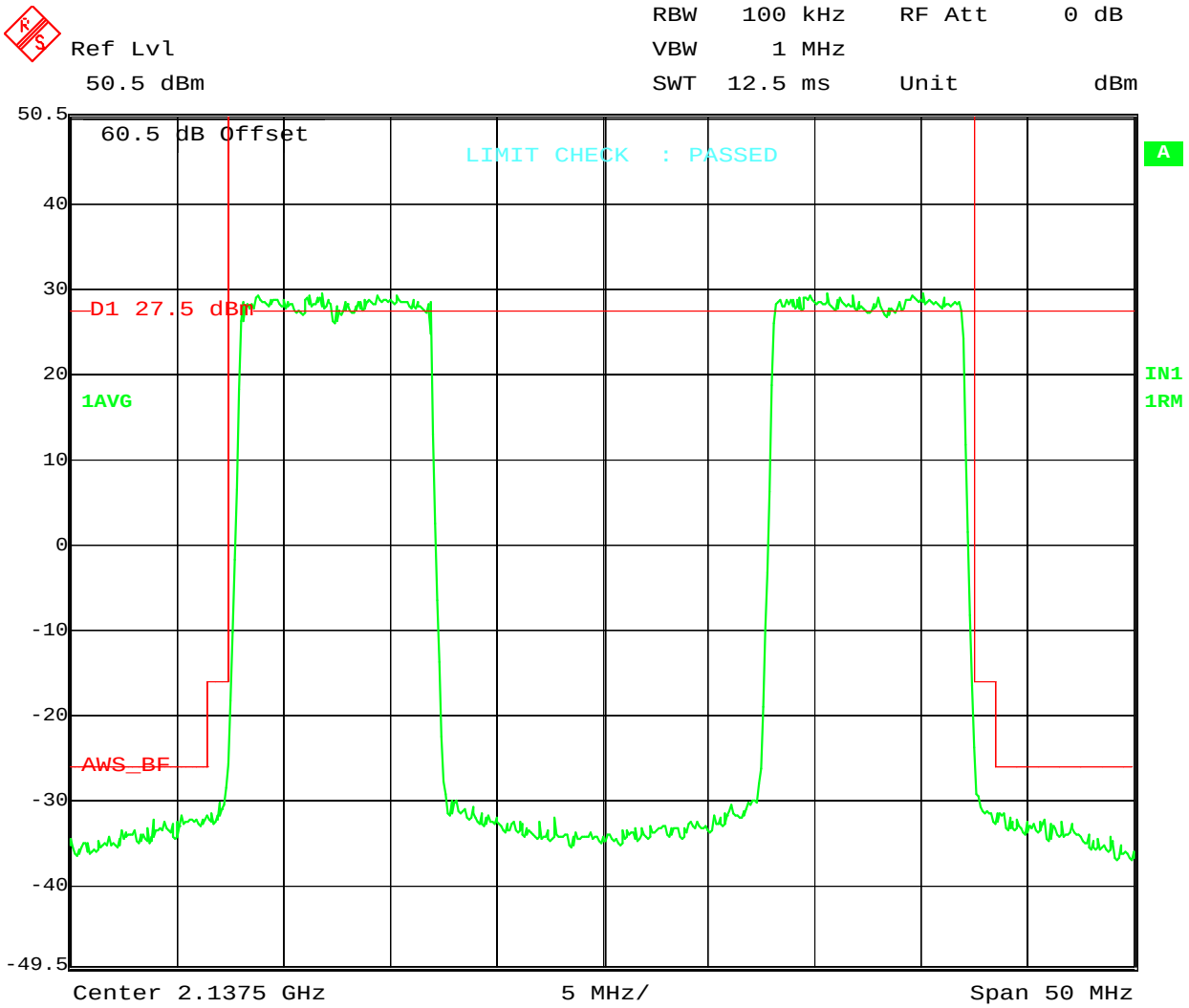
10+10 MHz Bandwidth (2120-2130 MHz + 2145-2155 MHz)

2x120 watts (MIMO)

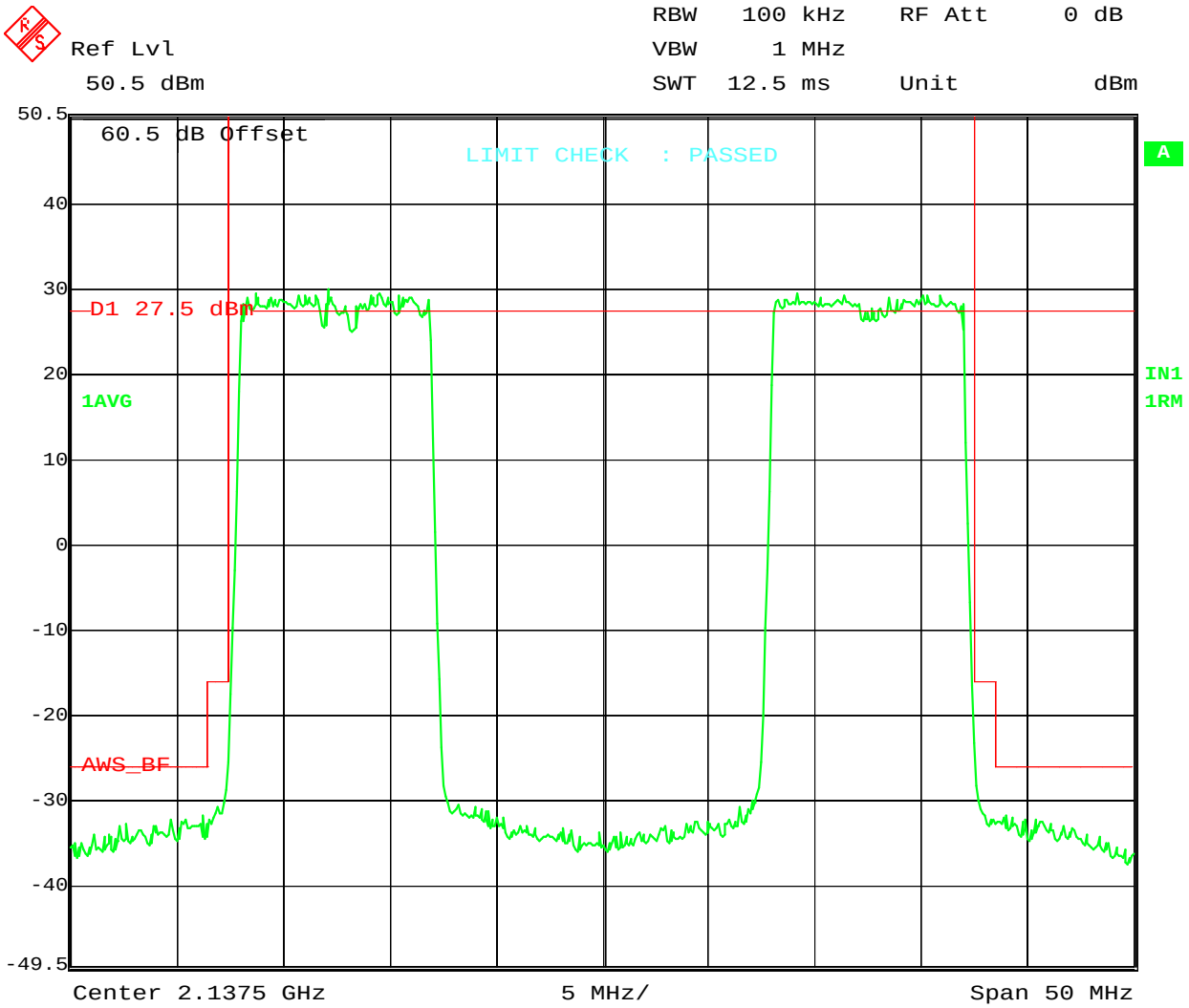
SPECTRUM MASK/OCCUPIED BANDWIDTH



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B&F; 2125MHz & 2150MHz; 10MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 21.AUG.2013 08:46:59



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B&F; 2125MHz & 2150MHz; 10MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 21.AUG.2013 09:52:24



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B&F; 2125MHz & 2150MHz; 10MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 21.AUG.2013 10:50:58

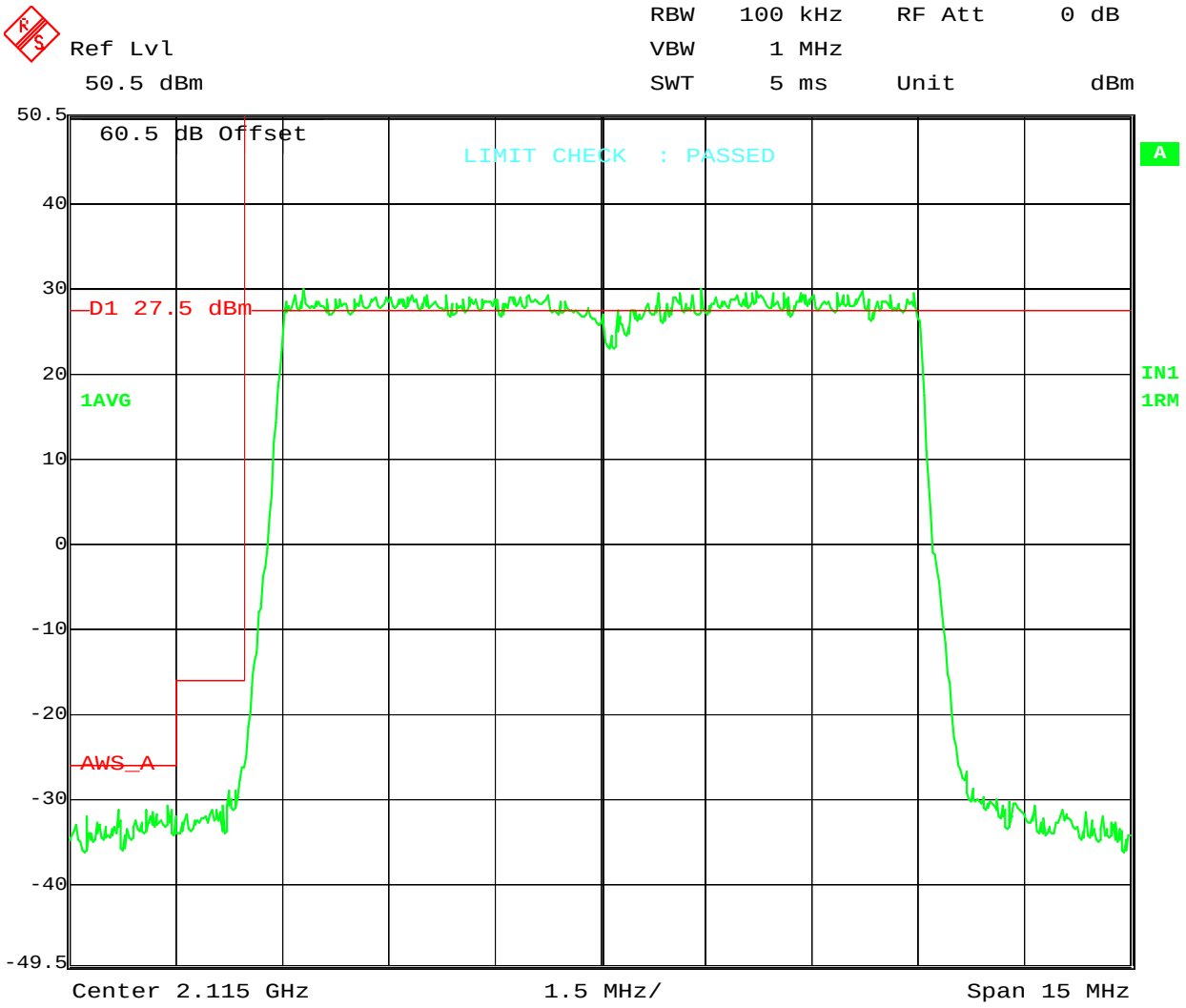
Block: A+D

10+5 MHz Bandwidth (2110-2120 MHz + 2135-2140 MHz)

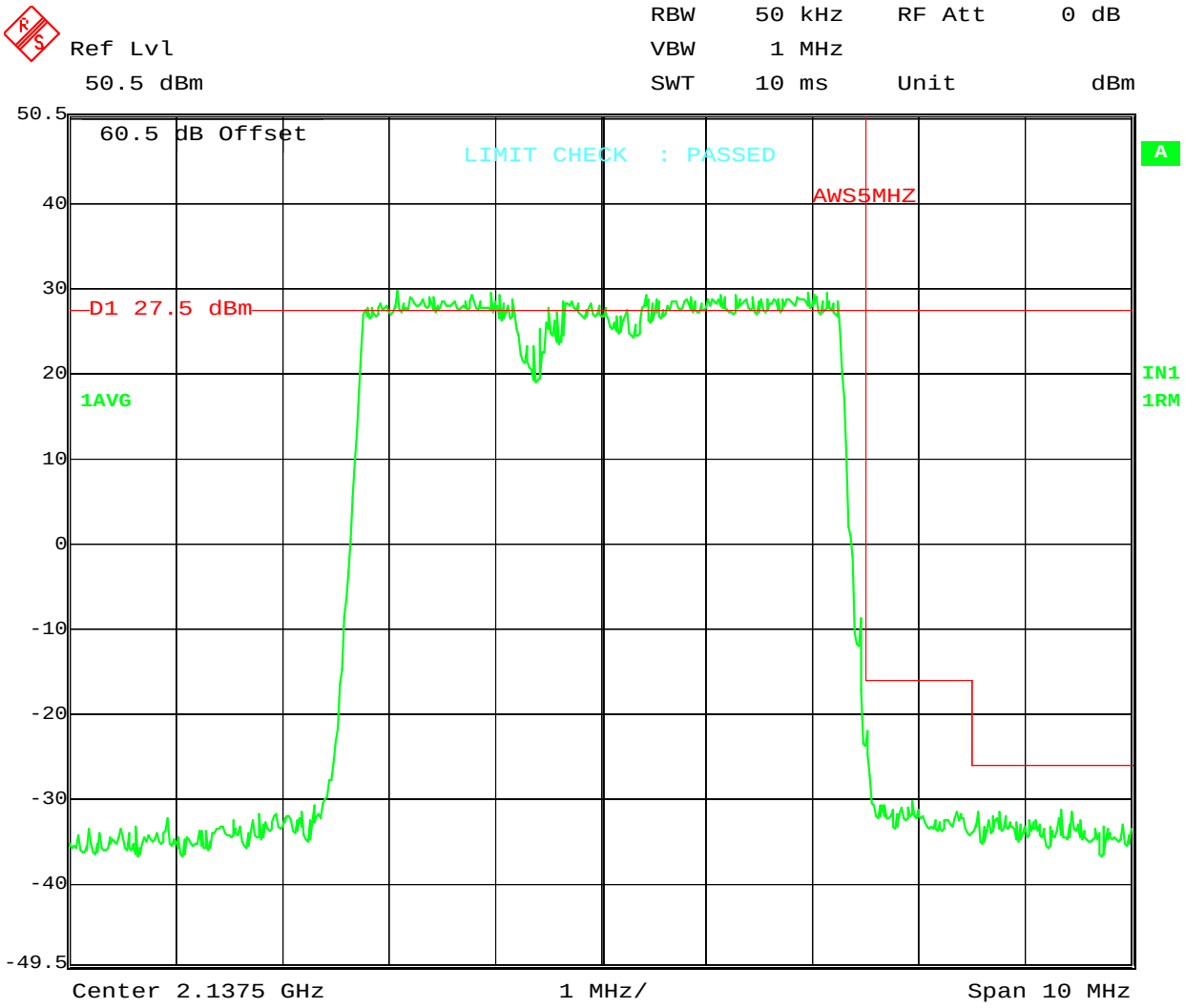
2x120 watts (MIMO)

(Left and Right Side Carriers are shown in separate Plots)

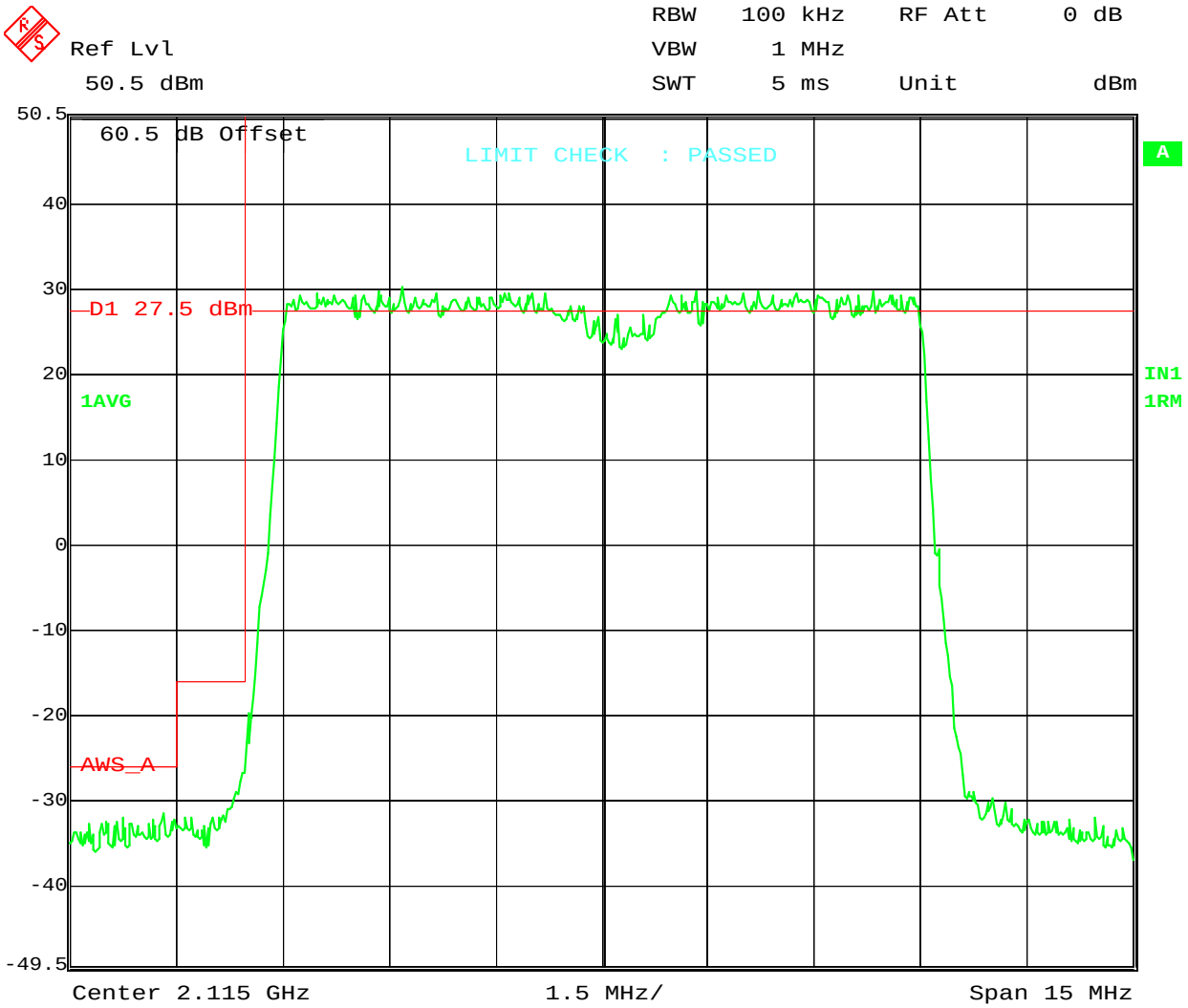
SPECTRUM MASK/OCCUPIED BANDWIDTH



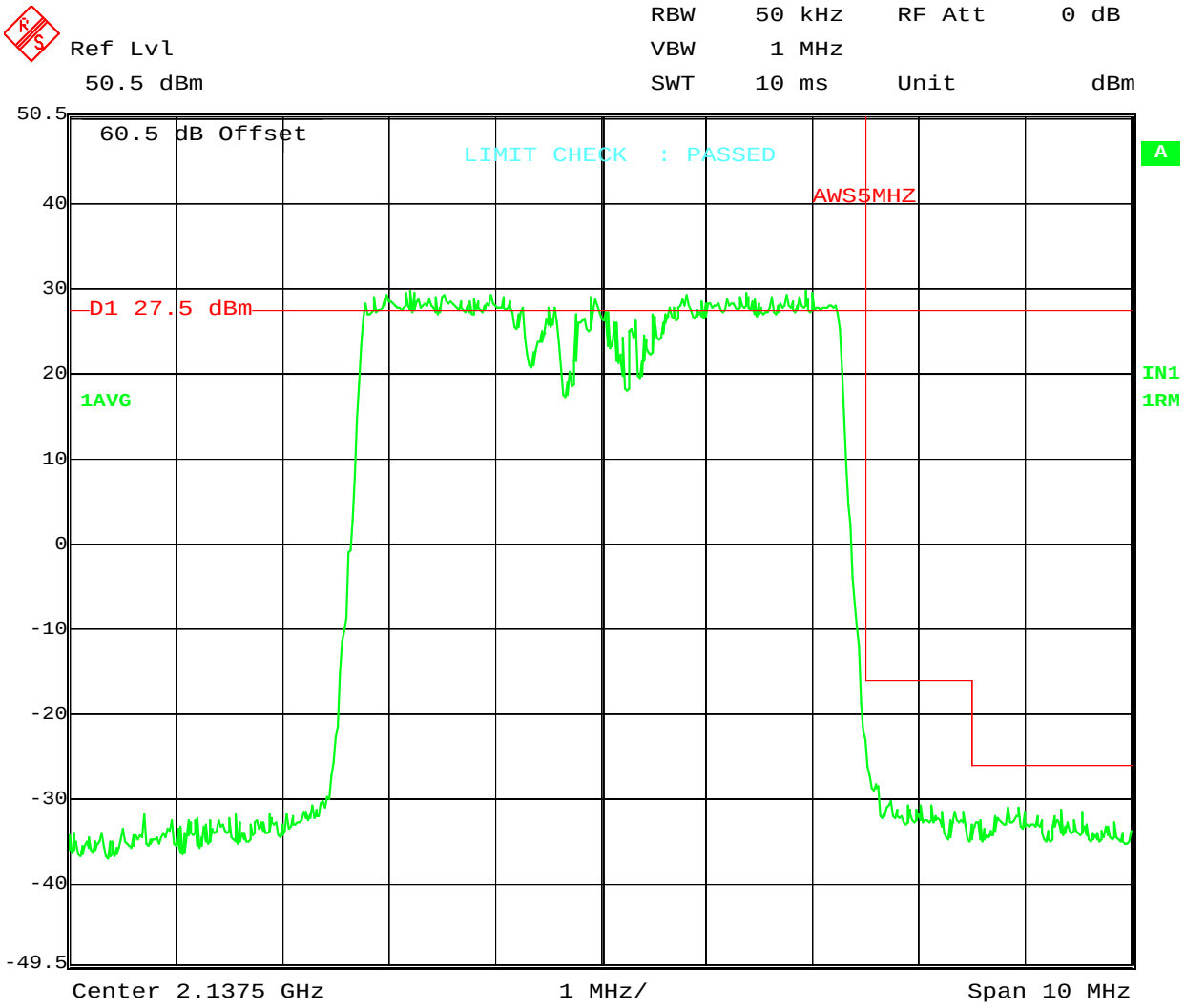
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK A+D; 2115MHz; 10MHz+5MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 5.SEP.2013 07:15:16



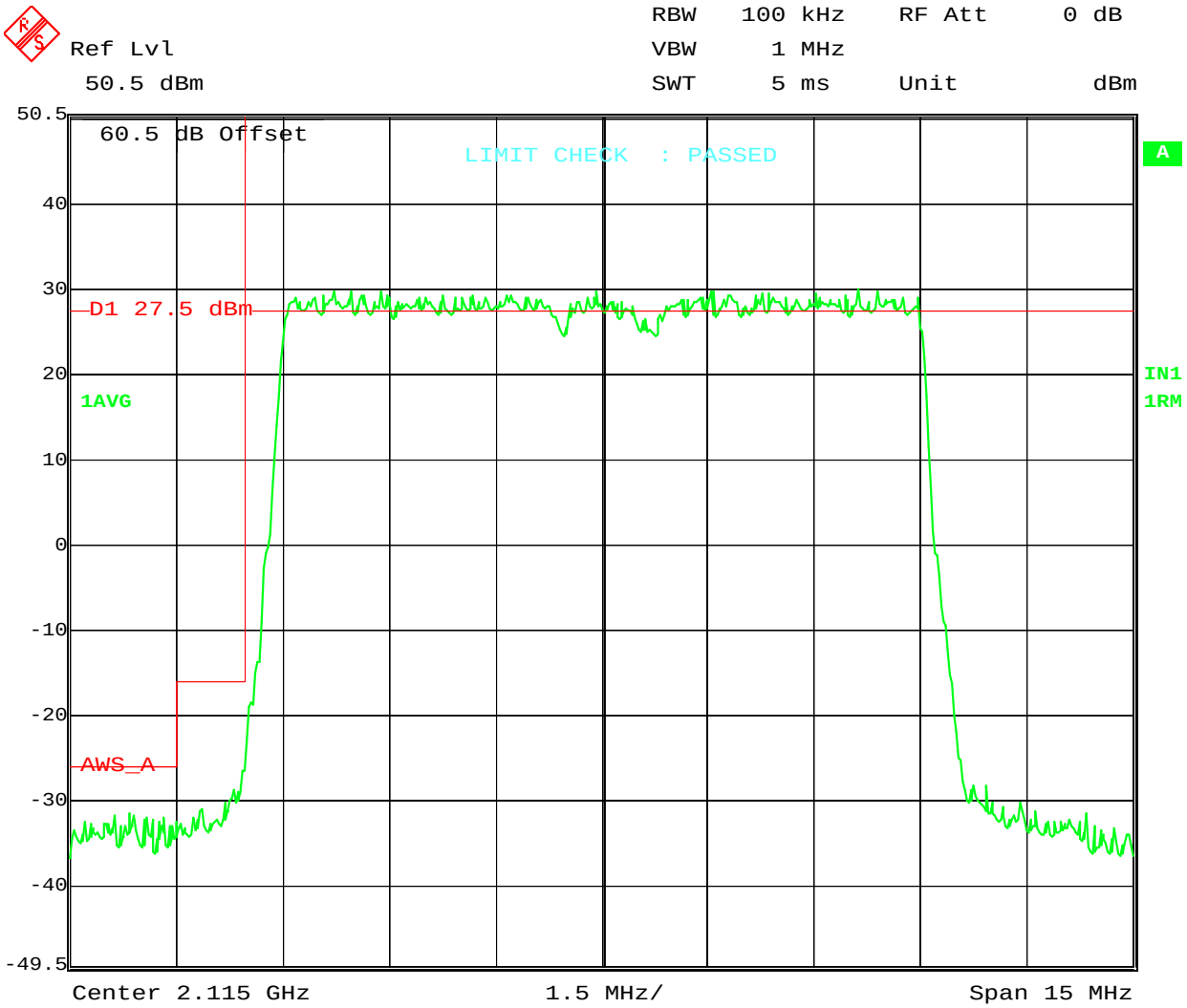
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK A+D; 2137.5MHz; 10Hz+5MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 5.SEP.2013 07:15:59



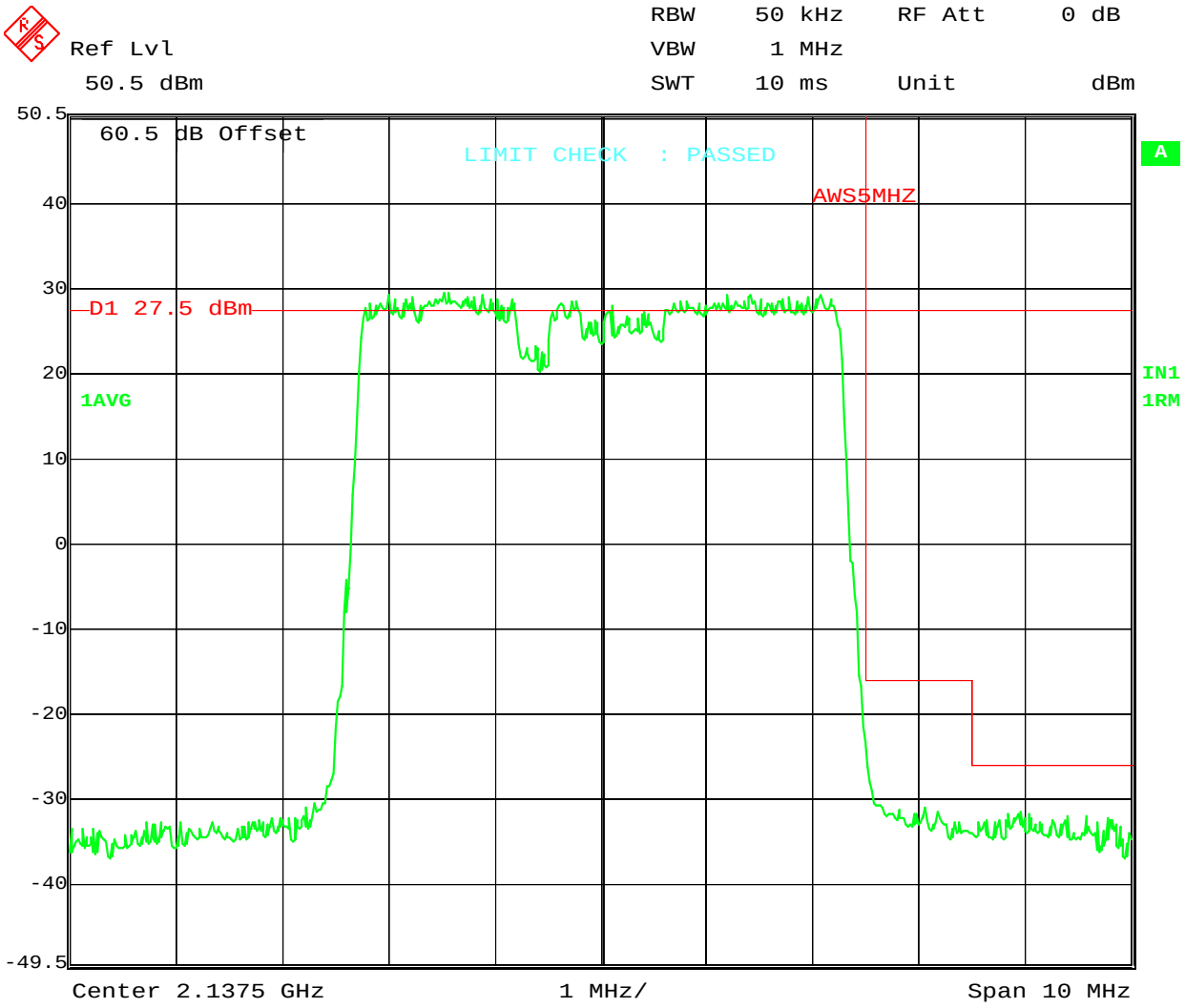
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK A+D; 2115MHz; 10MHz+5MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 5.SEP.2013 06:44:54



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK A+D; 2137.5MHz; 10Hz+5MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 5.SEP.2013 06:45:33



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK A+D; 2115MHz; 10MHz+5MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 4.SEP.2013 10:34:40



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK A+D; 2137.5MHz; 10Hz+5MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 4.SEP.2013 10:35:25

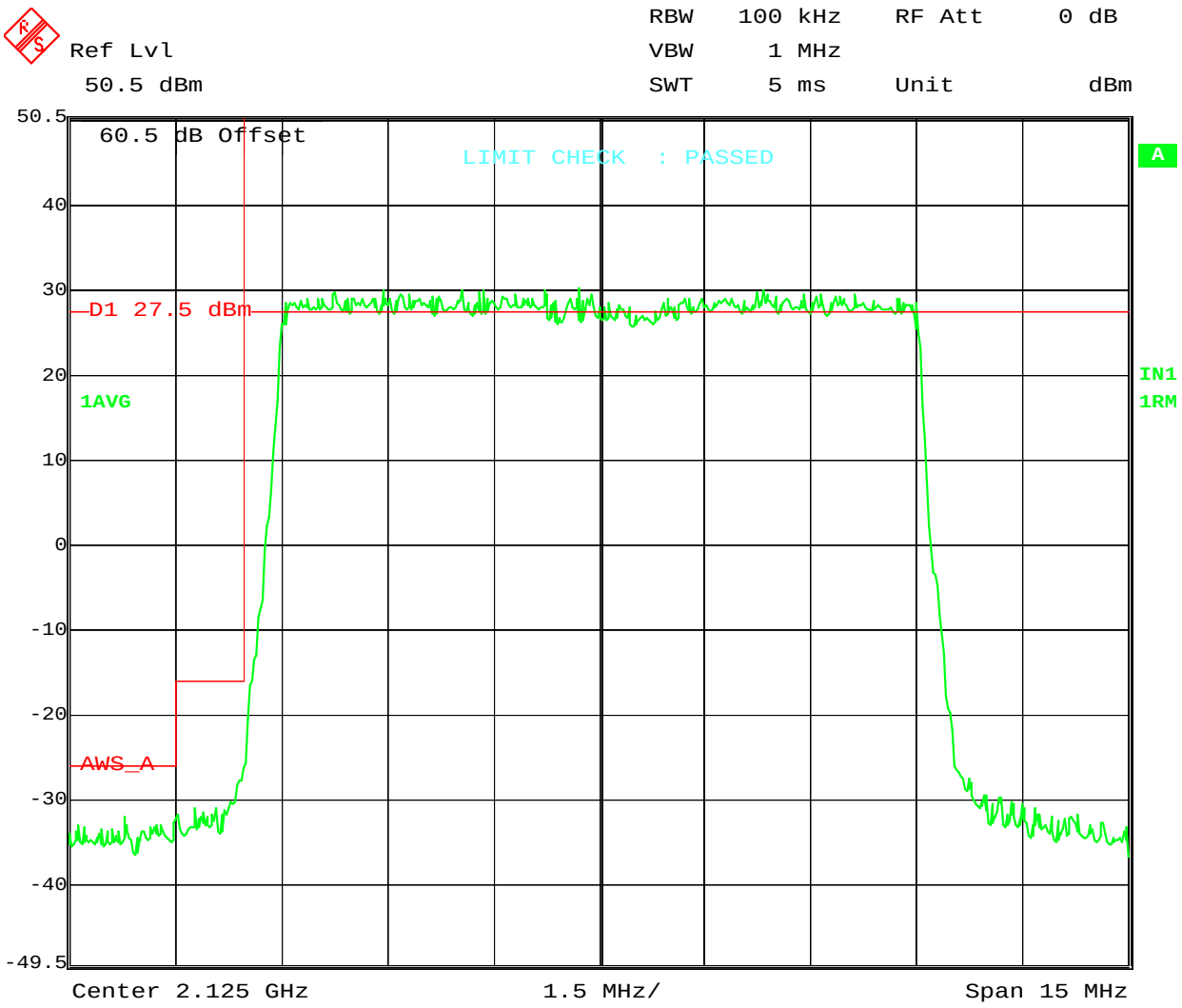
Block: B+E

10+5 MHz Bandwidth (2120-2130 MHz + 2140-2145 MHz)

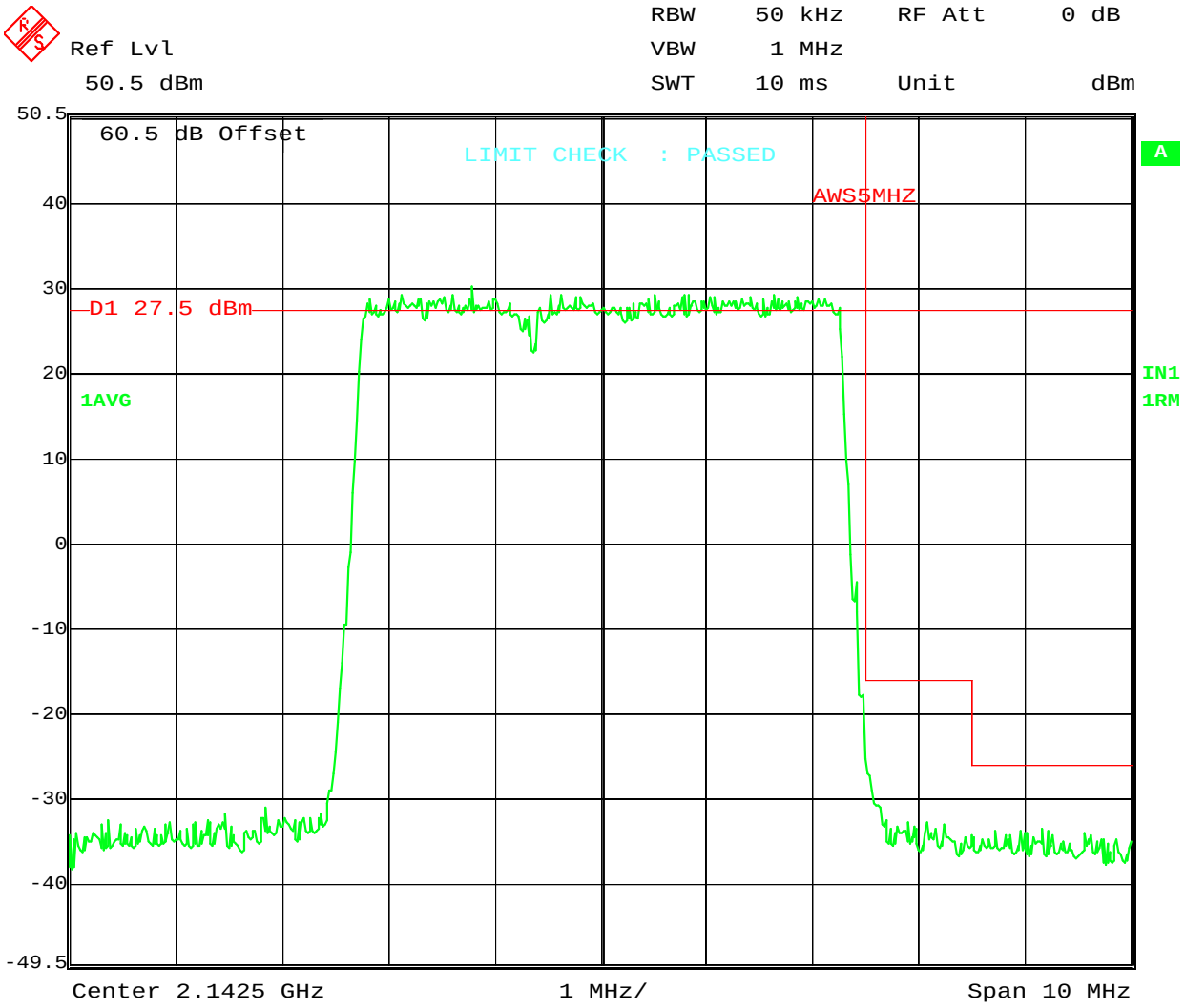
2x120 watts (MIMO)

(Left and Right Side Carriers are shown in separate Plots)

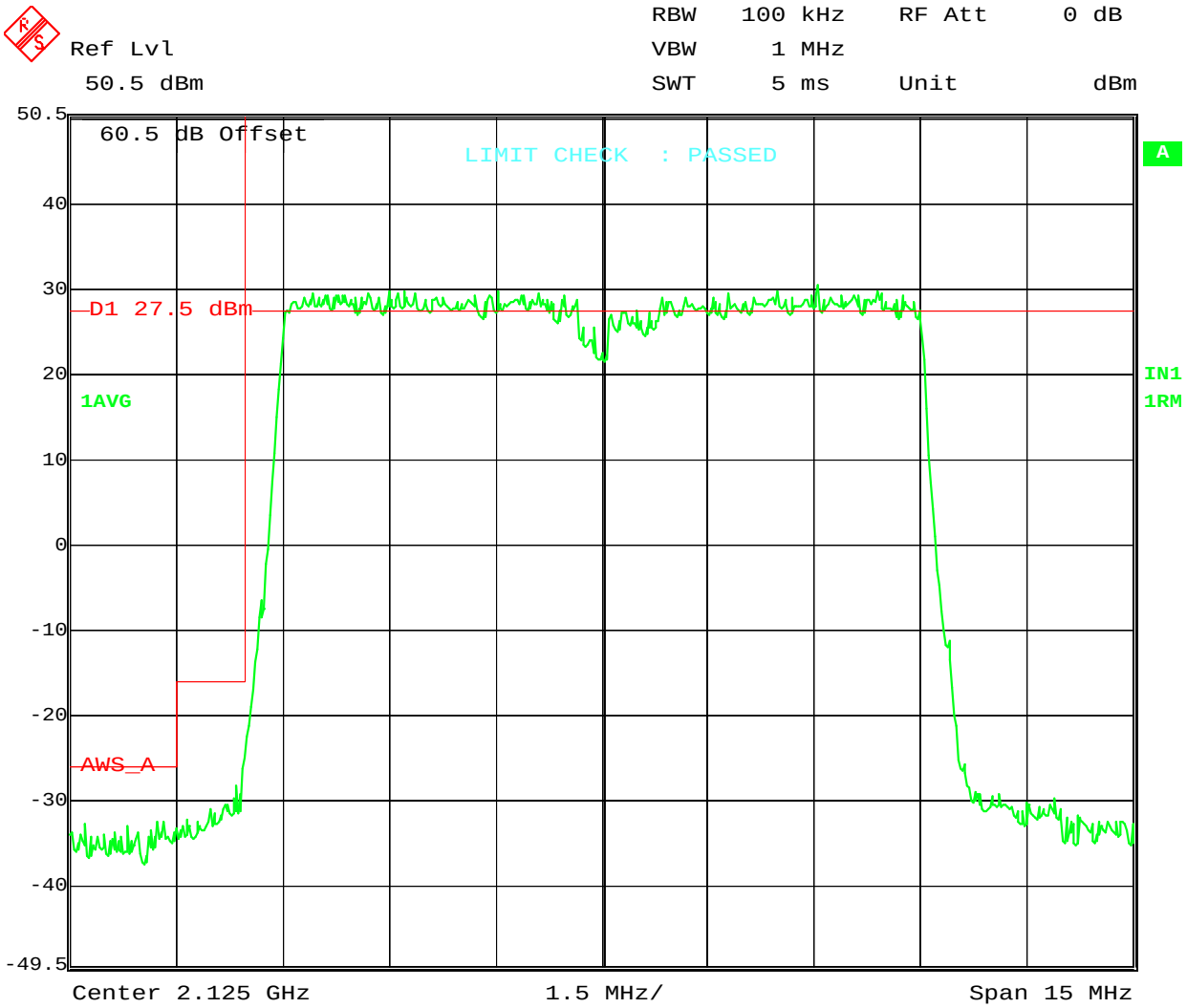
SPECTRUM MASK/OCCUPIED BANDWIDTH



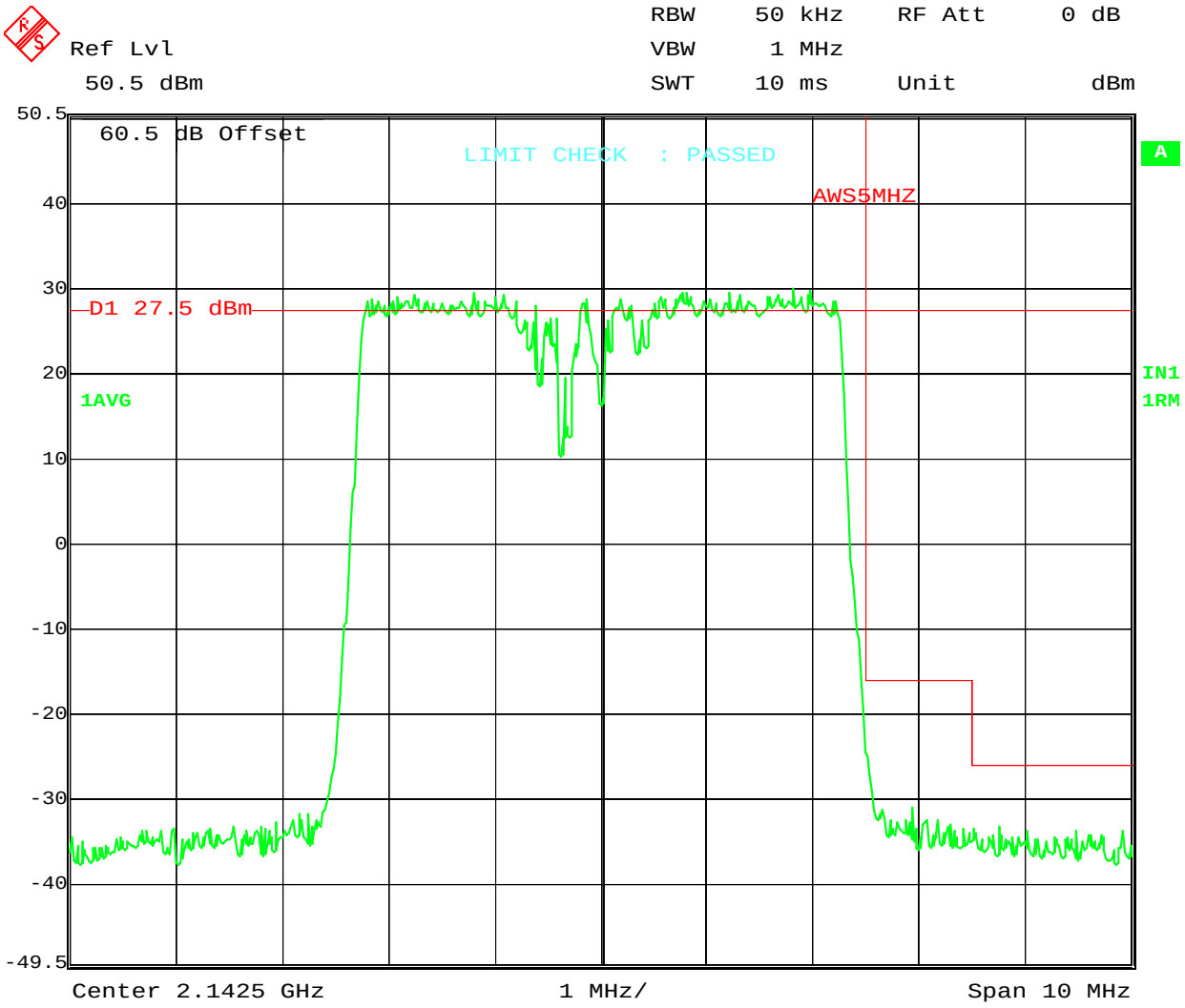
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B+E; 2125MHz; 10MHz+5MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 5.SEP.2013 07:56:00



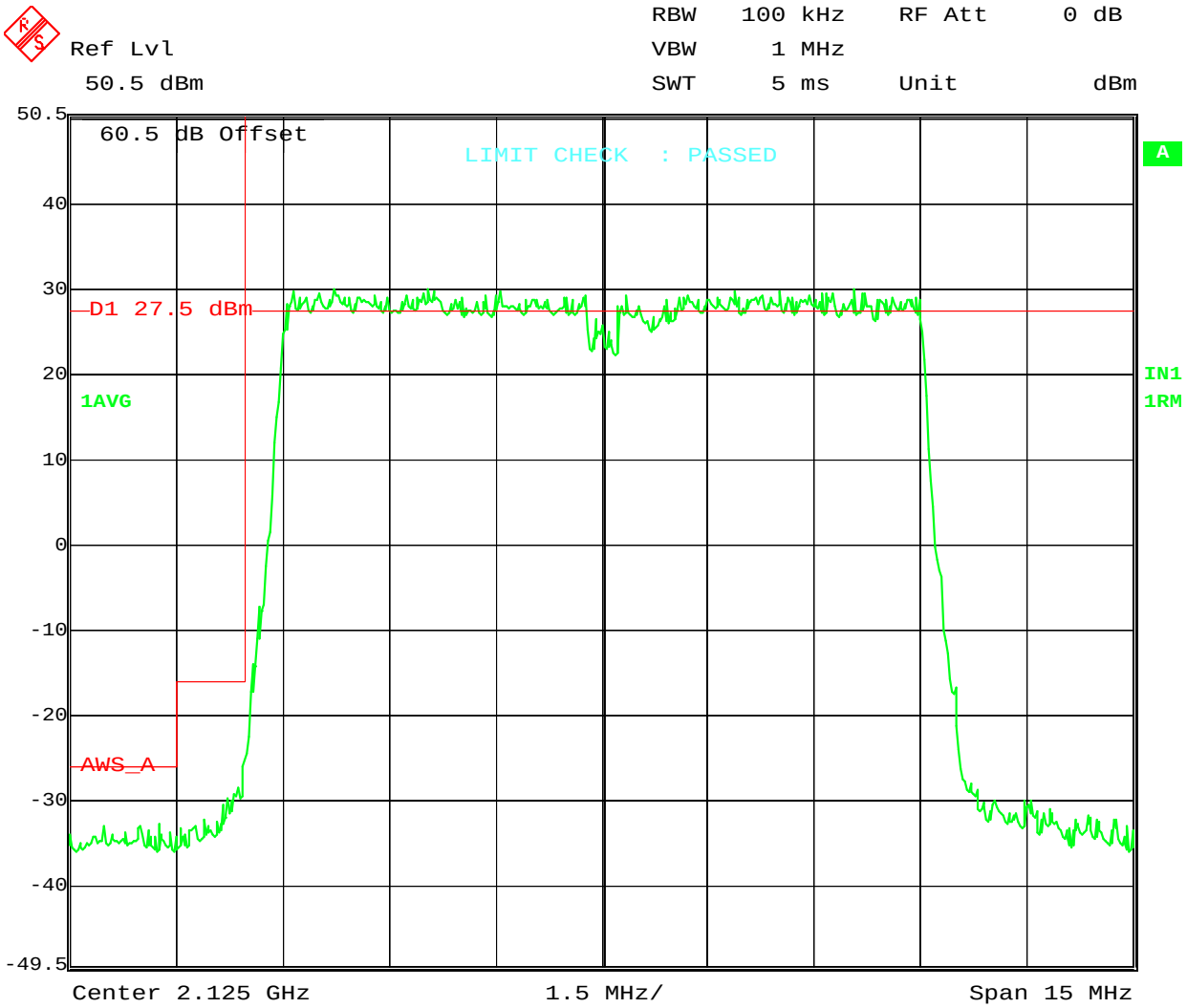
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B+E; 2142.5MHz; 10Hz+5MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 5.SEP.2013 07:58:55



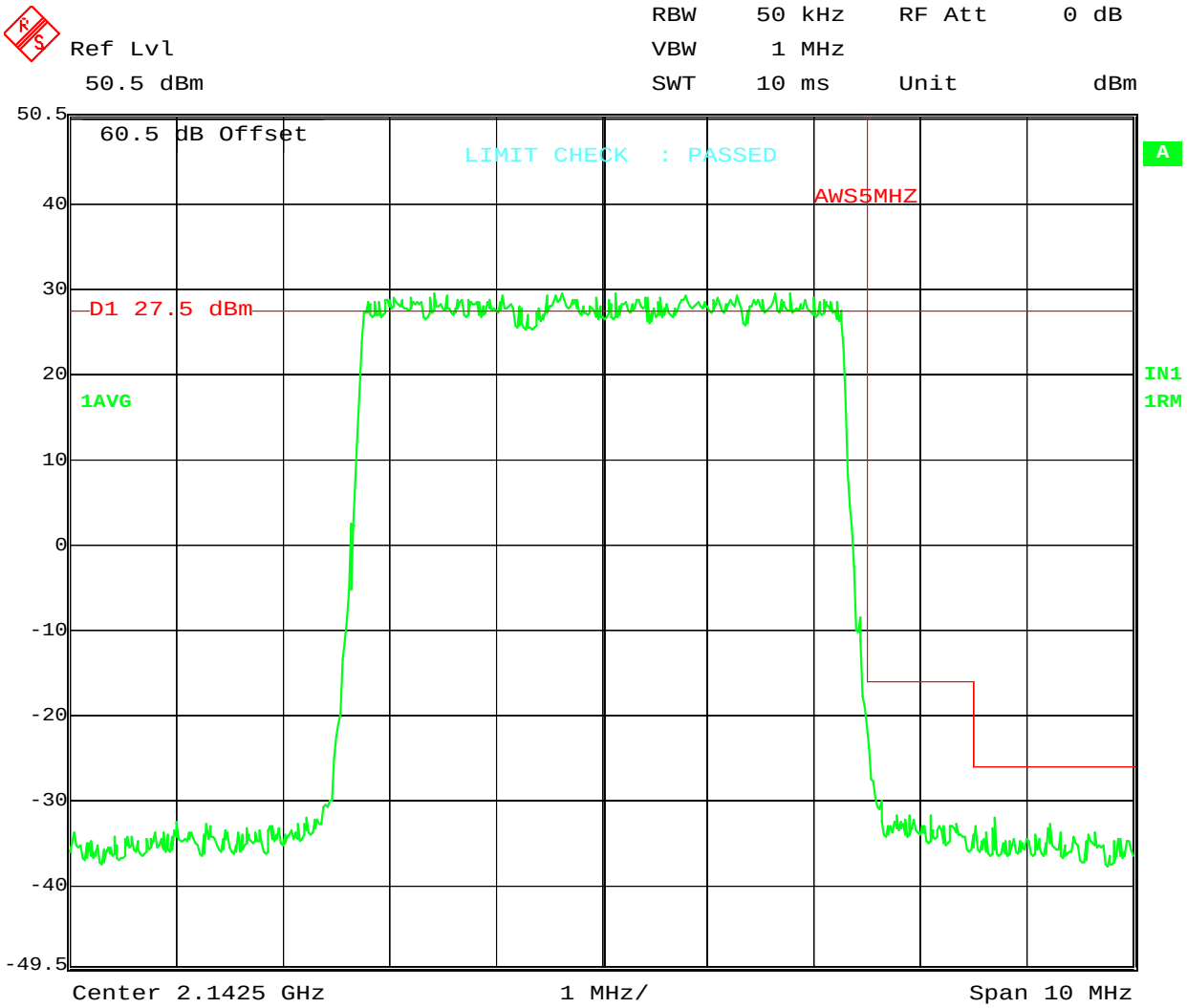
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B+E; 2125MHz; 10MHz+5MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 5.SEP.2013 09:54:35



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B+E; 2142.5MHz; 10Hz+5MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 5.SEP.2013 09:55:09



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B+E; 2125MHz; 10MHz+5MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 5.SEP.2013 10:14:09



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK B+E; 2142.5MHz; 10Hz+5MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 5.SEP.2013 10:14:45

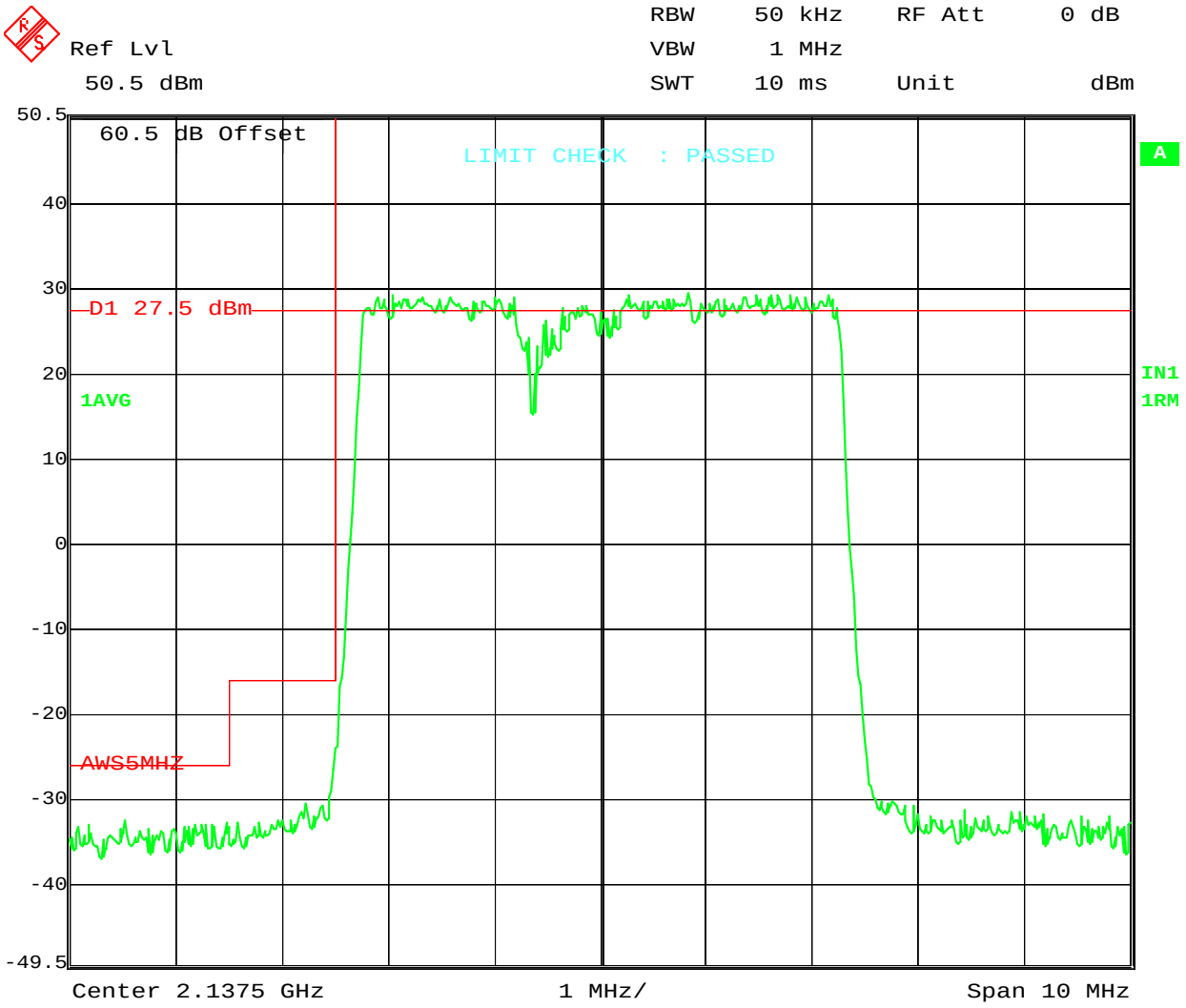
Block: D+F

5+10 MHz Bandwidth (2135-2140 MHz + 2145-2155 MHz)

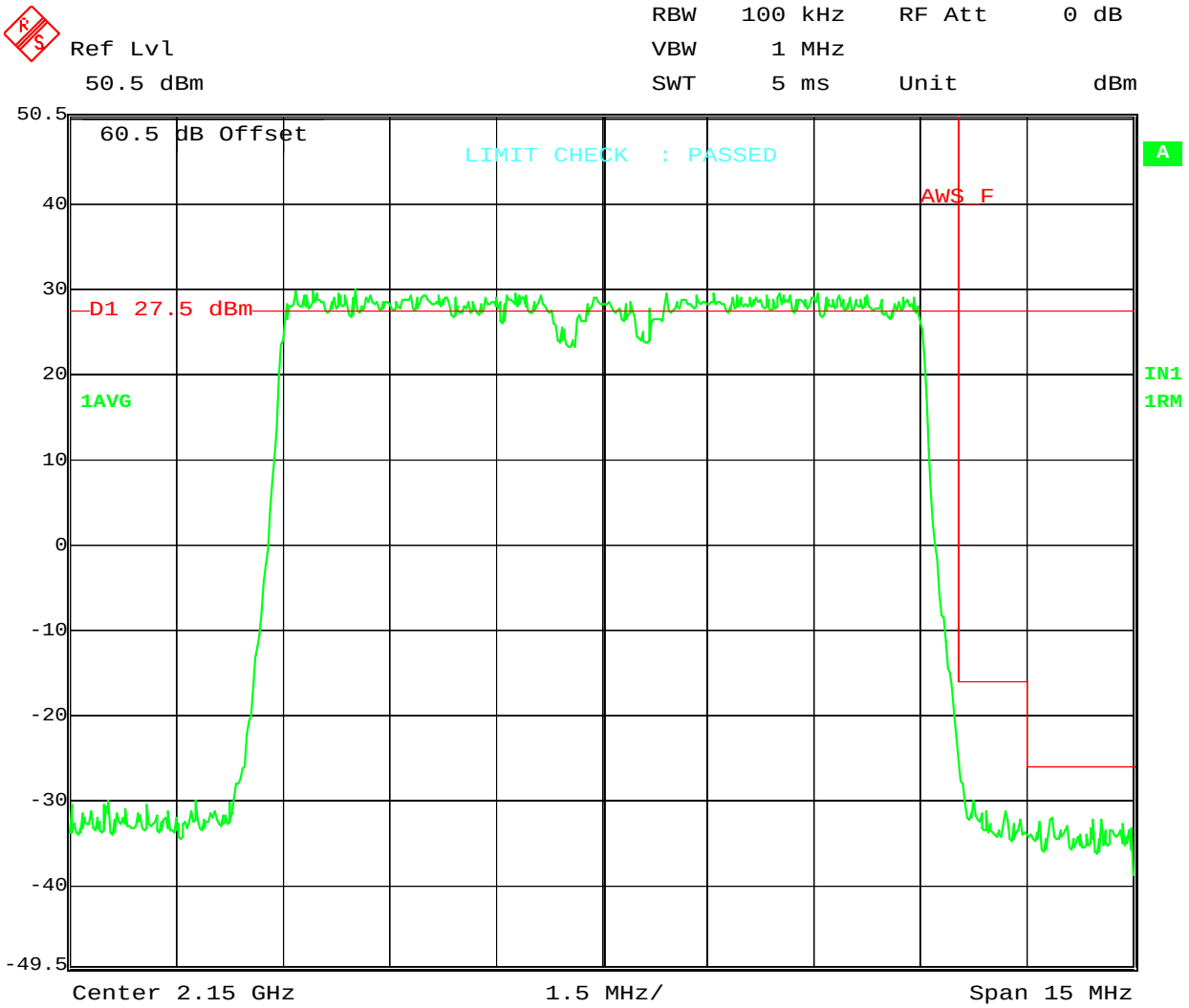
2x120 watts (MIMO)

(Left and Right Side Carriers are shown in separate Plots)

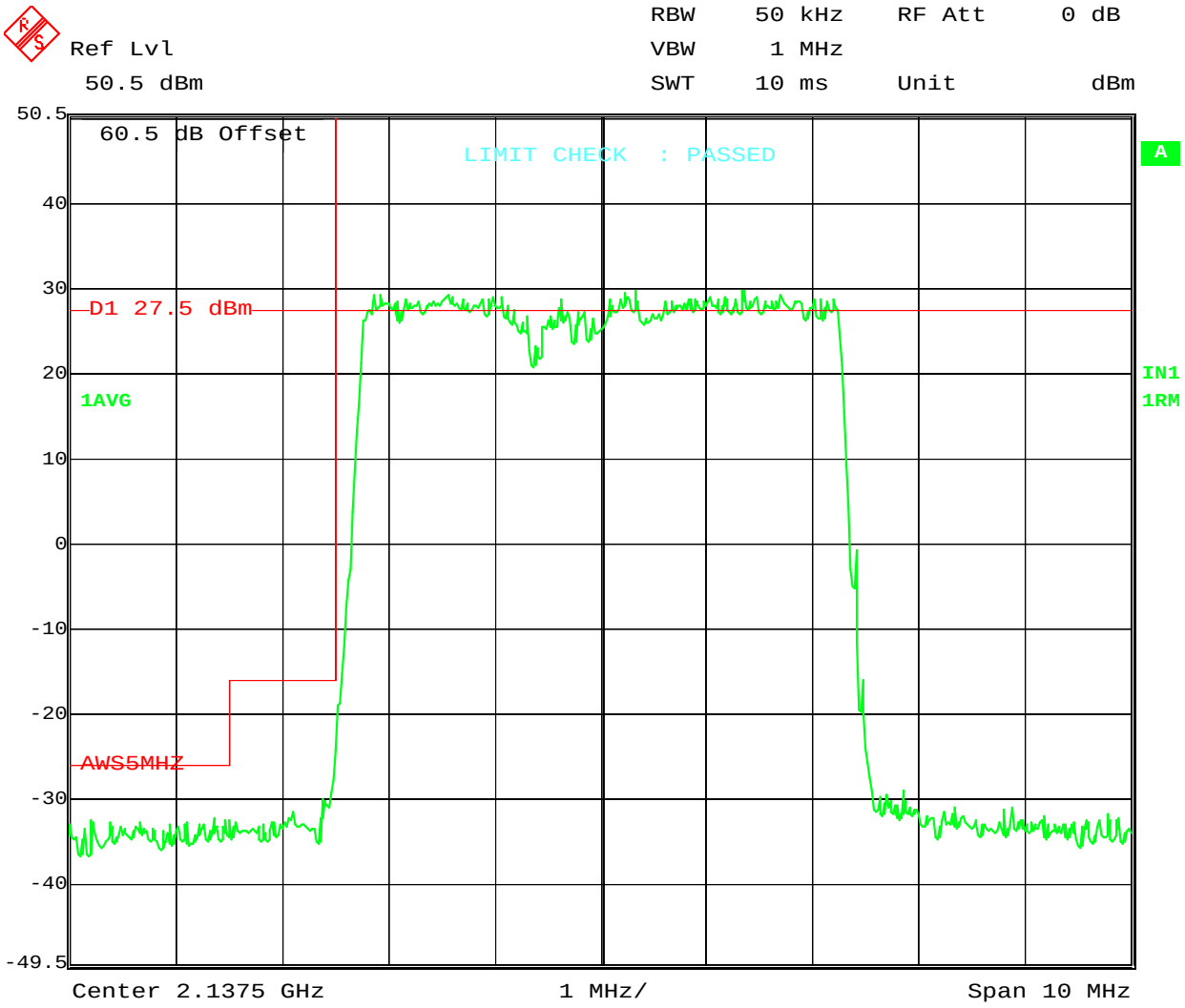
SPECTRUM MASK/OCCUPIED BANDWIDTH



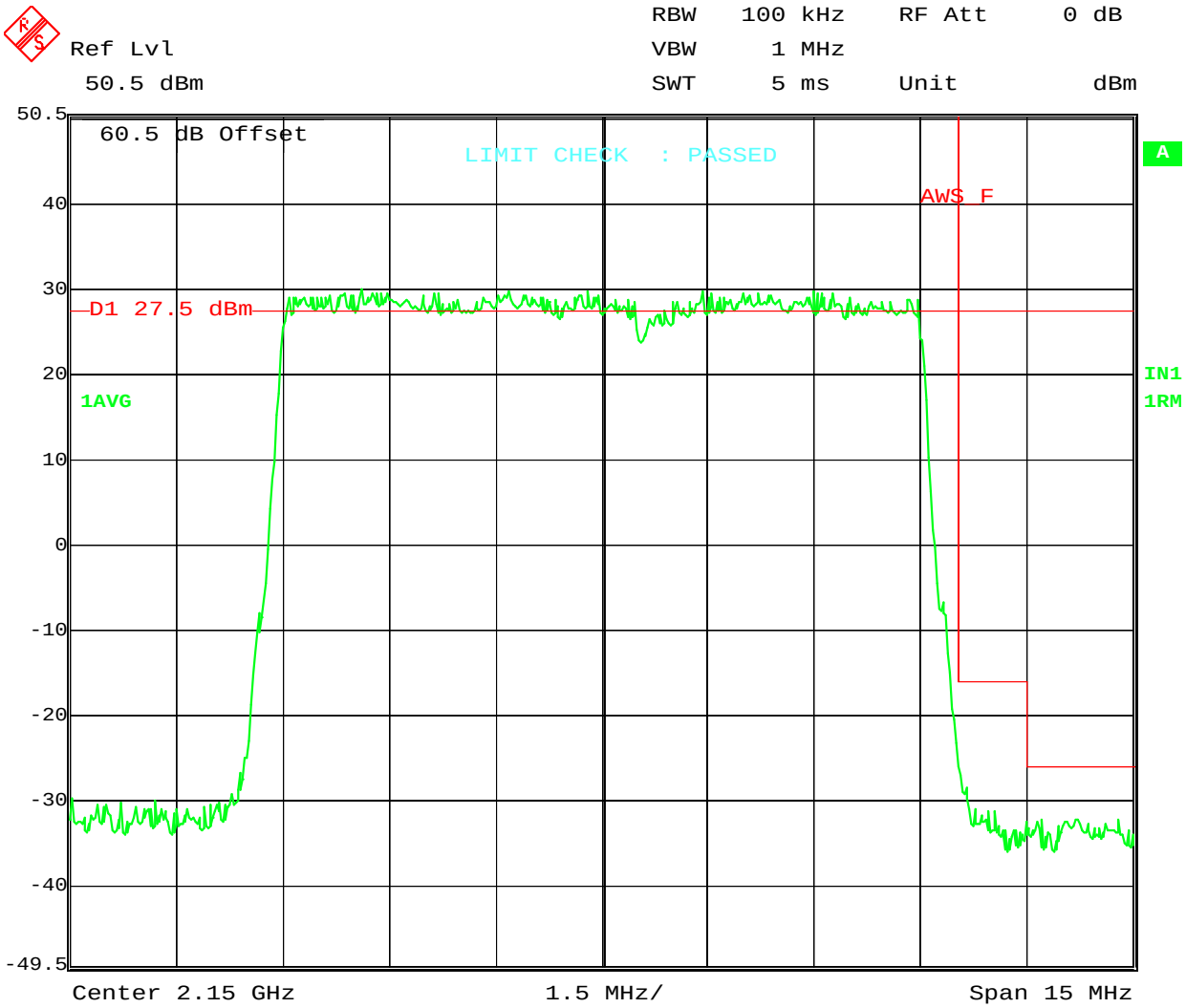
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK D+F; 2137.5MHz; 5MHz+10MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 29.AUG.2013 11:35:01



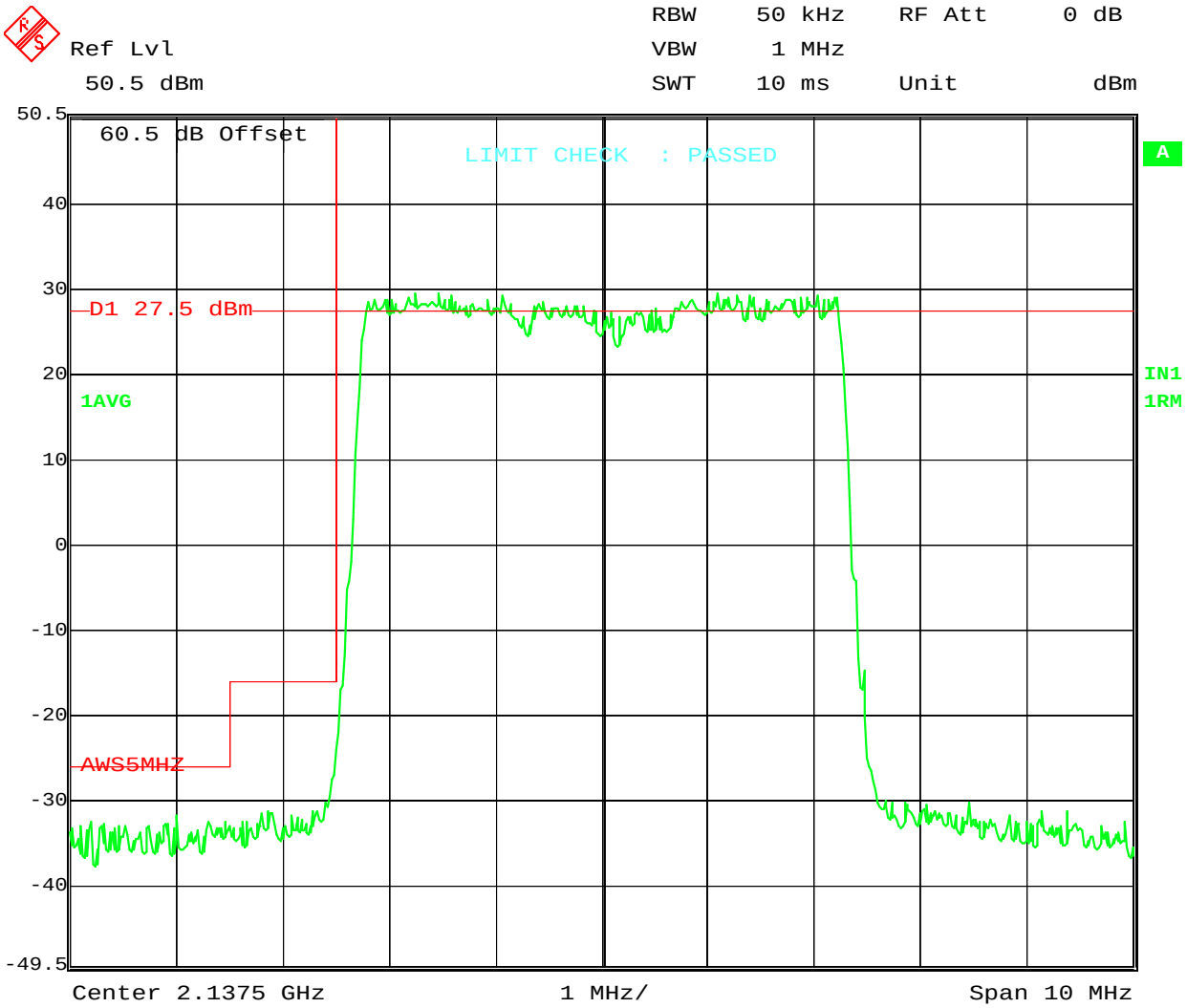
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK D+F; 2150MHz; 5MHz+10MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 29.AUG.2013 11:33:54



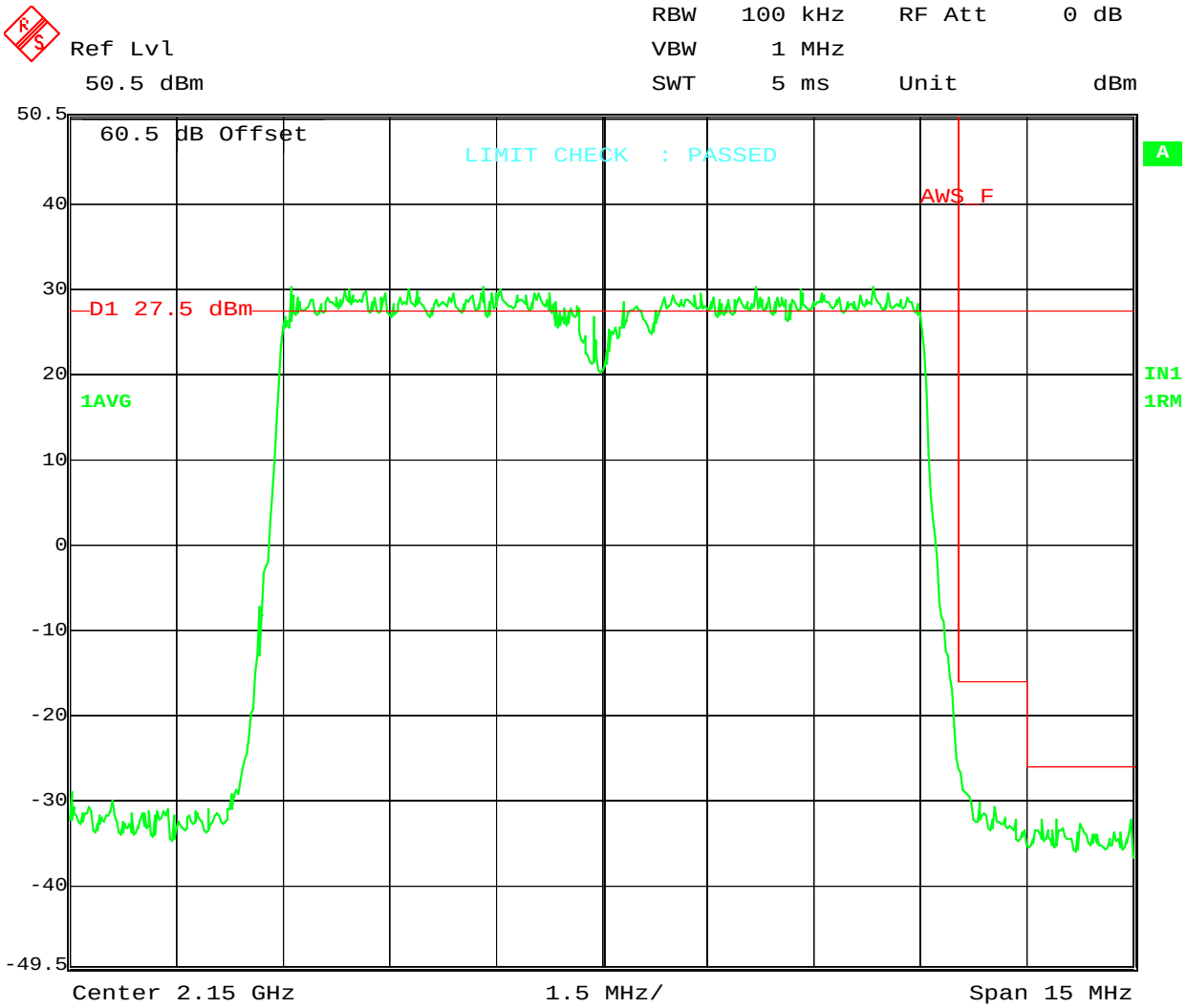
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK D+F; 2137.5MHz; 5MHz+10MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 29.AUG.2013 10:26:50



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK D+F; 2150MHz; 5MHz+10MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 29.AUG.2013 10:28:28



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK D+F; 2137.5MHz; 5MHz+10MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 29.AUG.2013 08:10:12



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK D+F; 2150MHz; 5MHz+10MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 29.AUG.2013 08:23:38

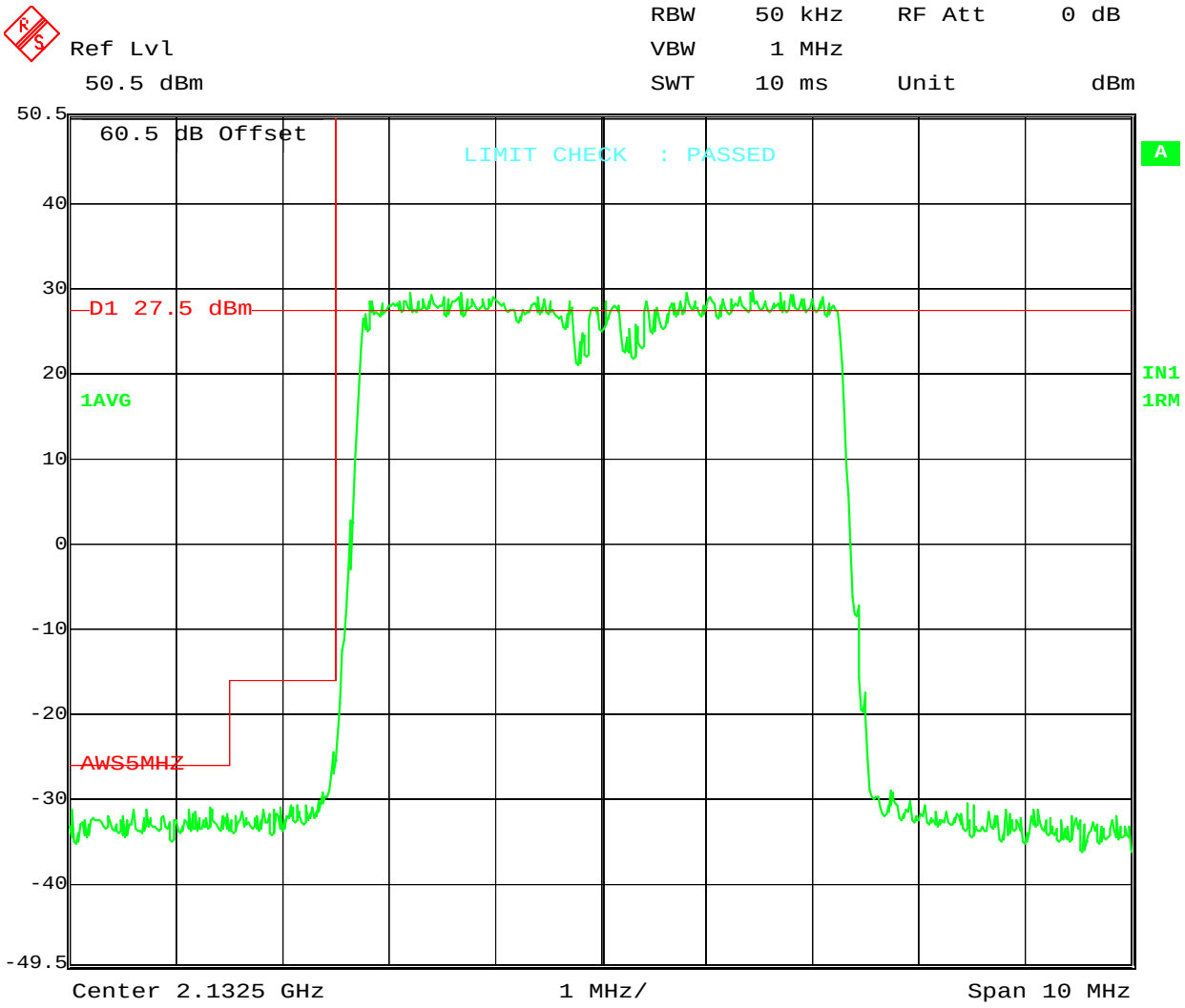
Block: C+F

5+10 MHz Bandwidth (2130-2135 MHz + 2145-2155 MHz)

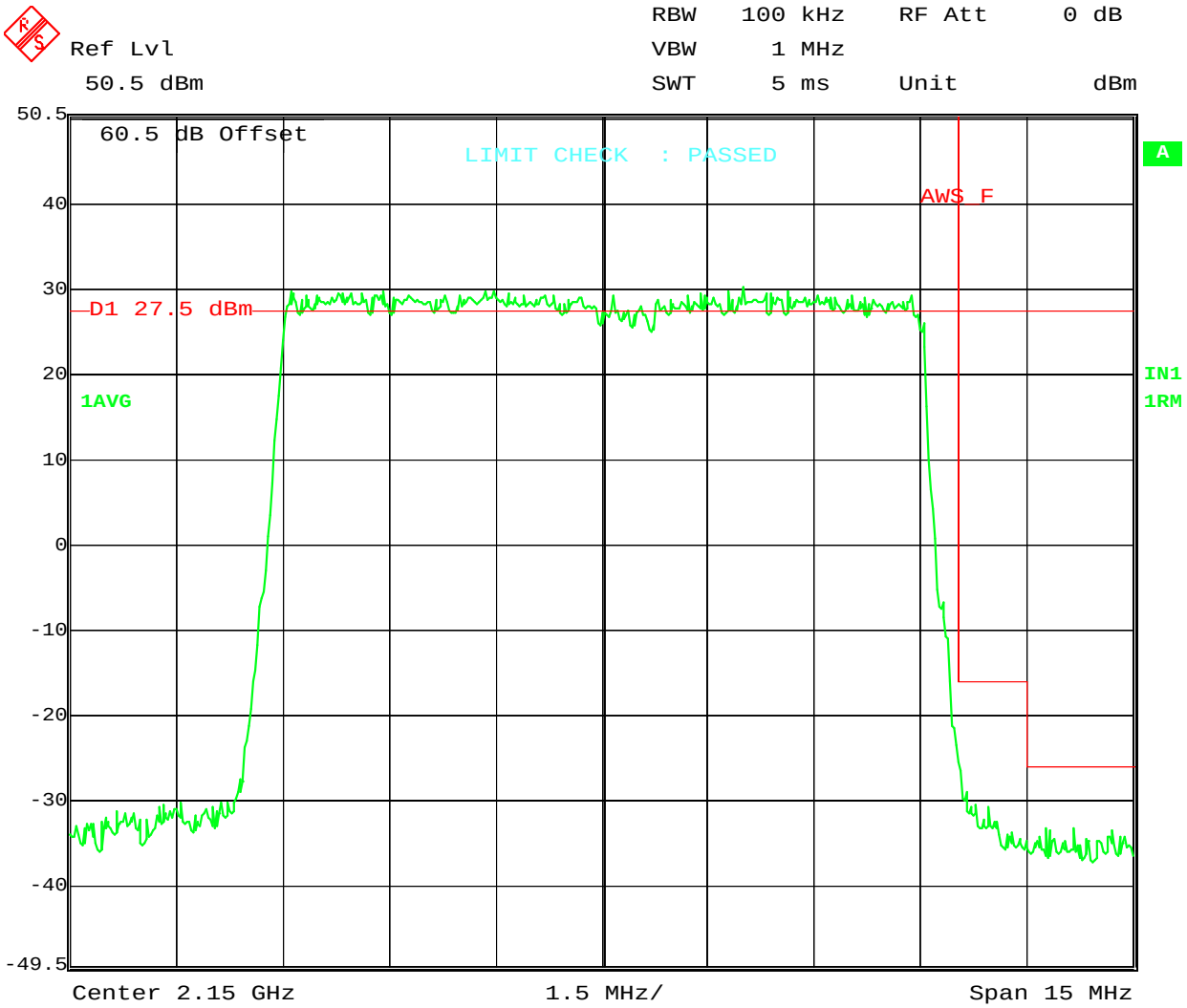
2x120 watts (MIMO)

(Left and Right Side Carriers are shown in separate Plots)

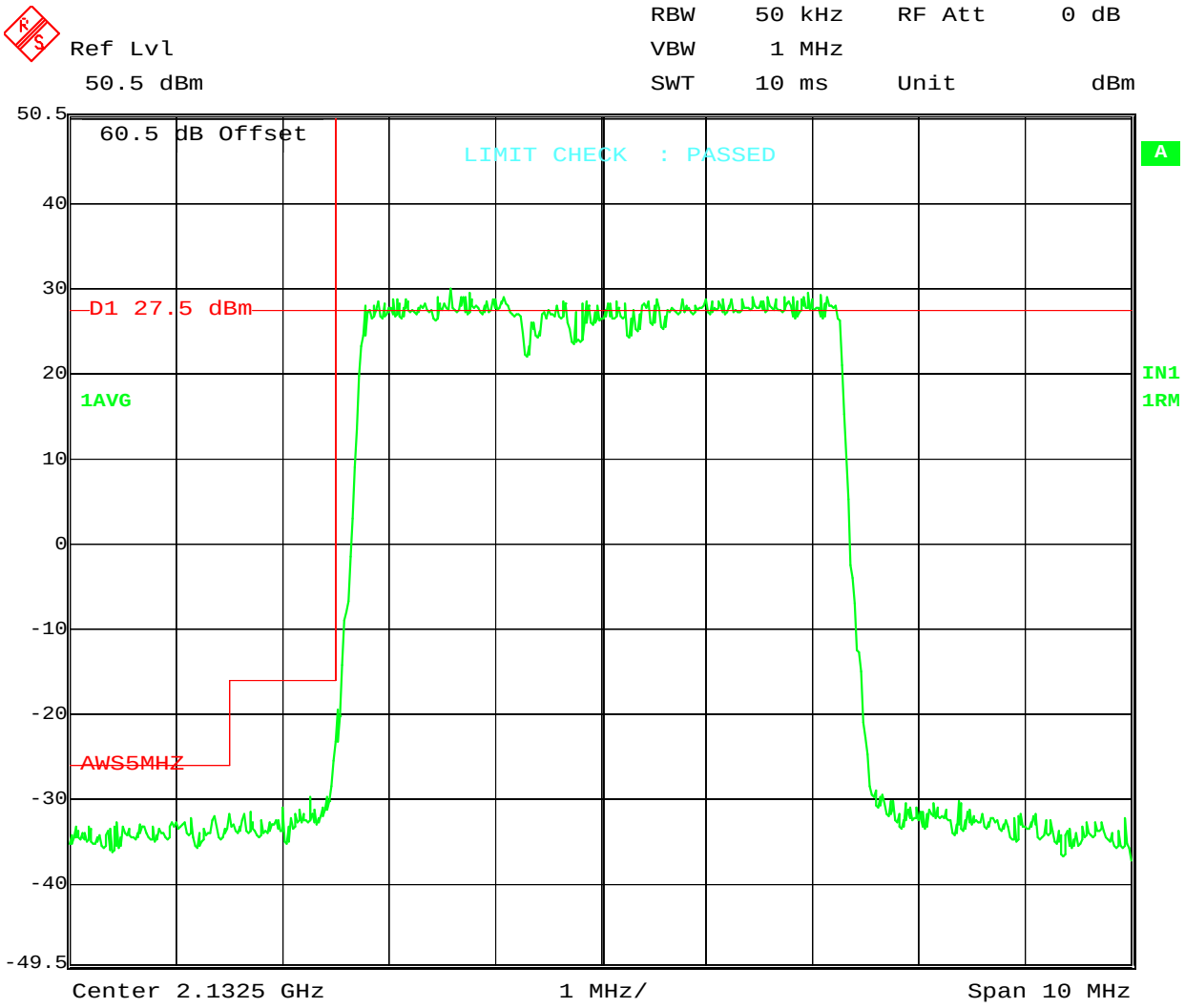
SPECTRUM MASK/OCCUPIED BANDWIDTH



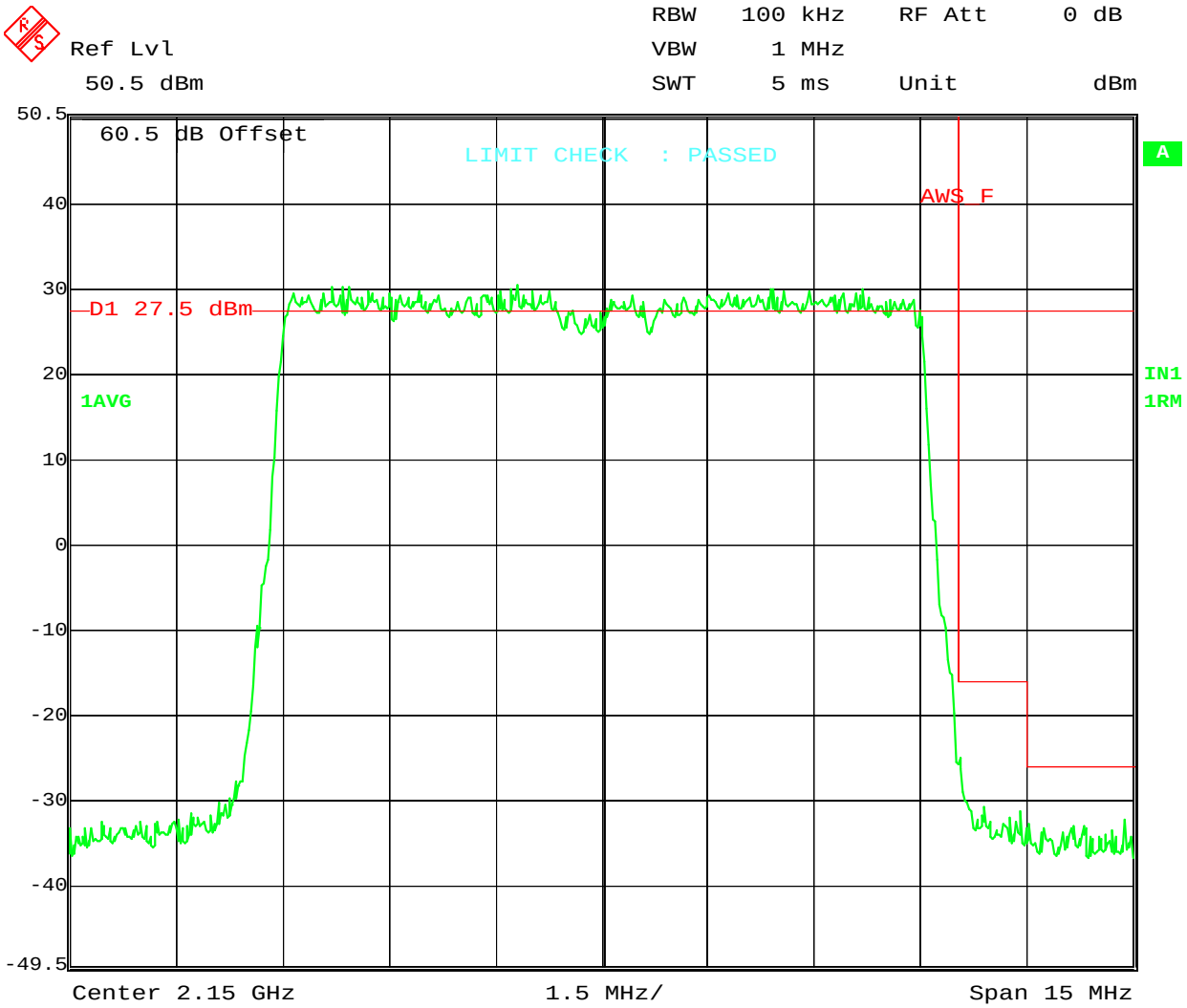
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK C+F; 2132.5MHz; 5MHz+10MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 29.AUG.2013 12:25:02



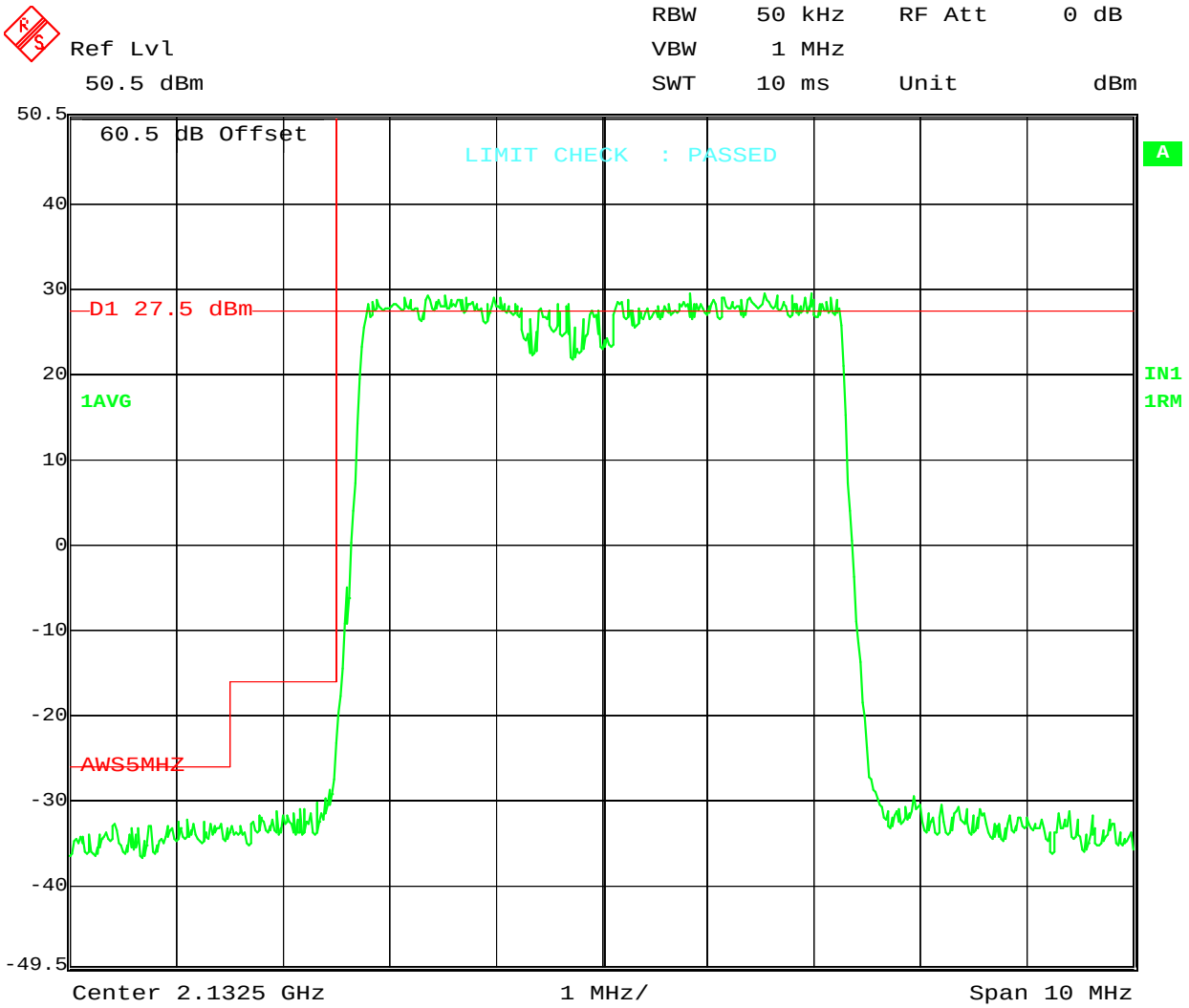
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK C+F; 2150MHz; 5MHz+10MHz BW; PWR:120W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 29.AUG.2013 12:44:21



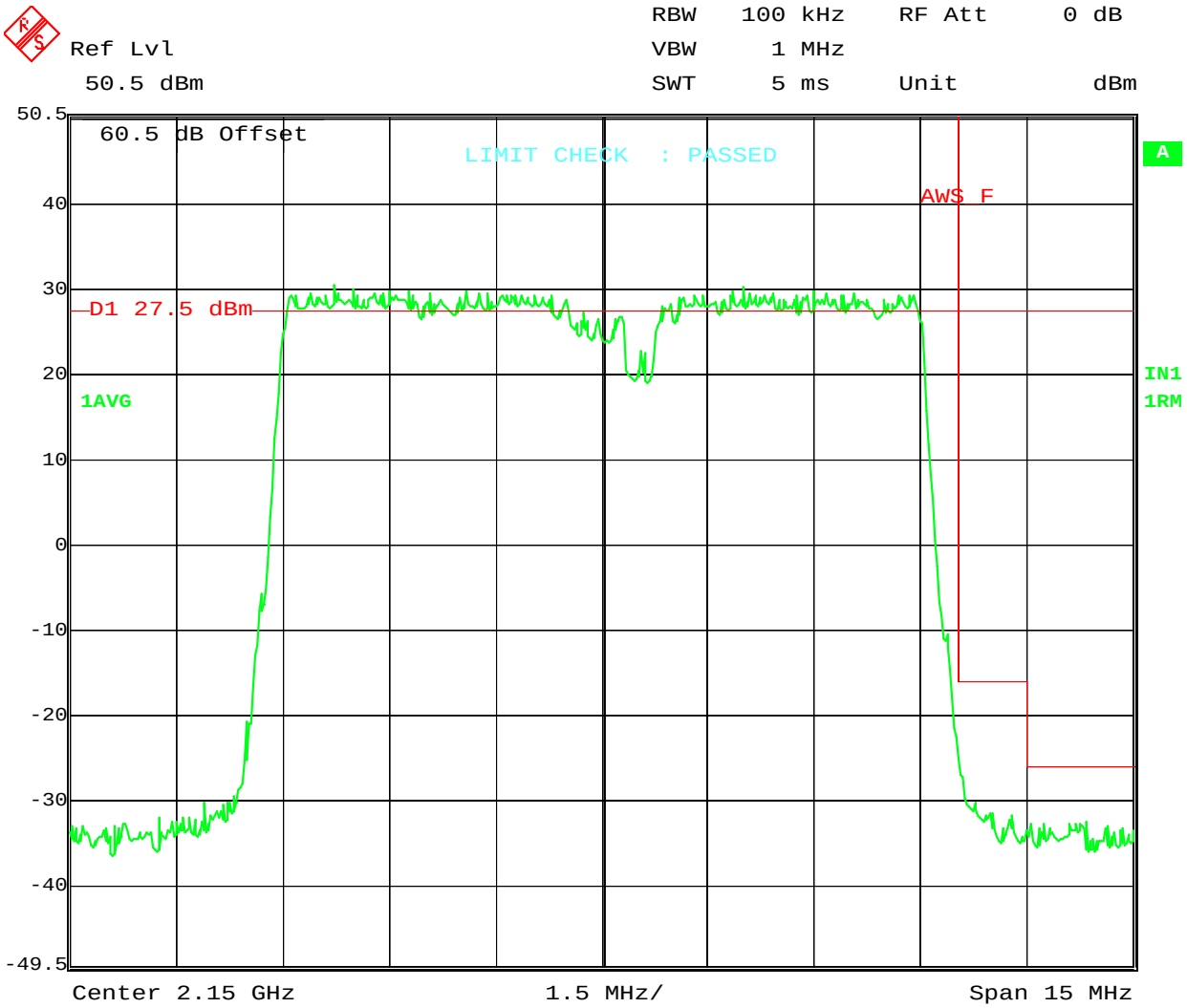
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK C+F; 2132.5MHz; 5MHz+10MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 4.SEP.2013 07:01:20



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK C+F; 2150MHz; 5MHz+10MHz BW; PWR:120W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 4.SEP.2013 07:00:41



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK C+F; 2132.5MHz; 5MHz+10MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 4.SEP.2013 07:56:44



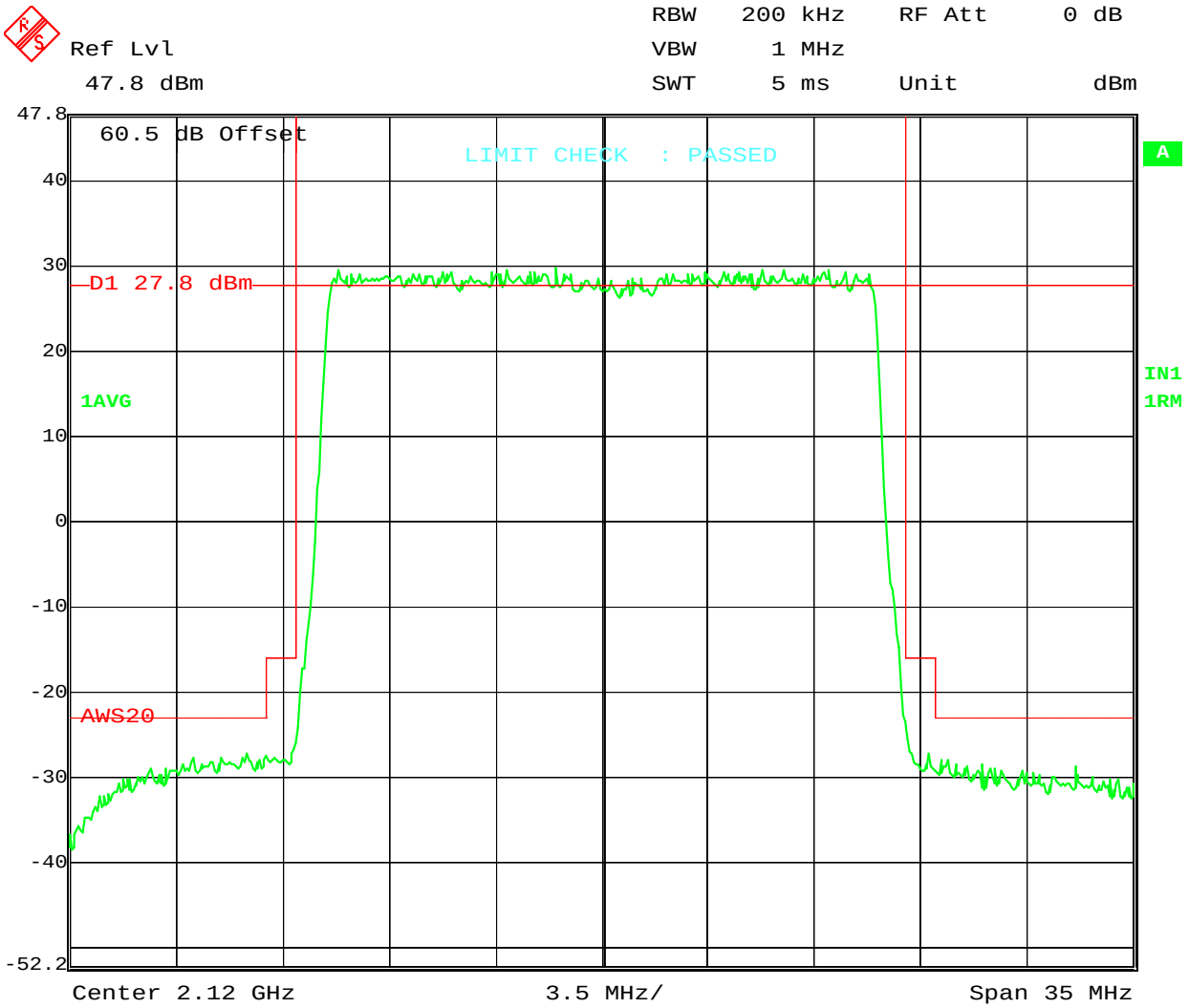
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 2C; BLK C+F; 2150MHz; 5MHz+10MHz BW; PWR:120W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 4.SEP.2013 07:57:31

Block: A+B

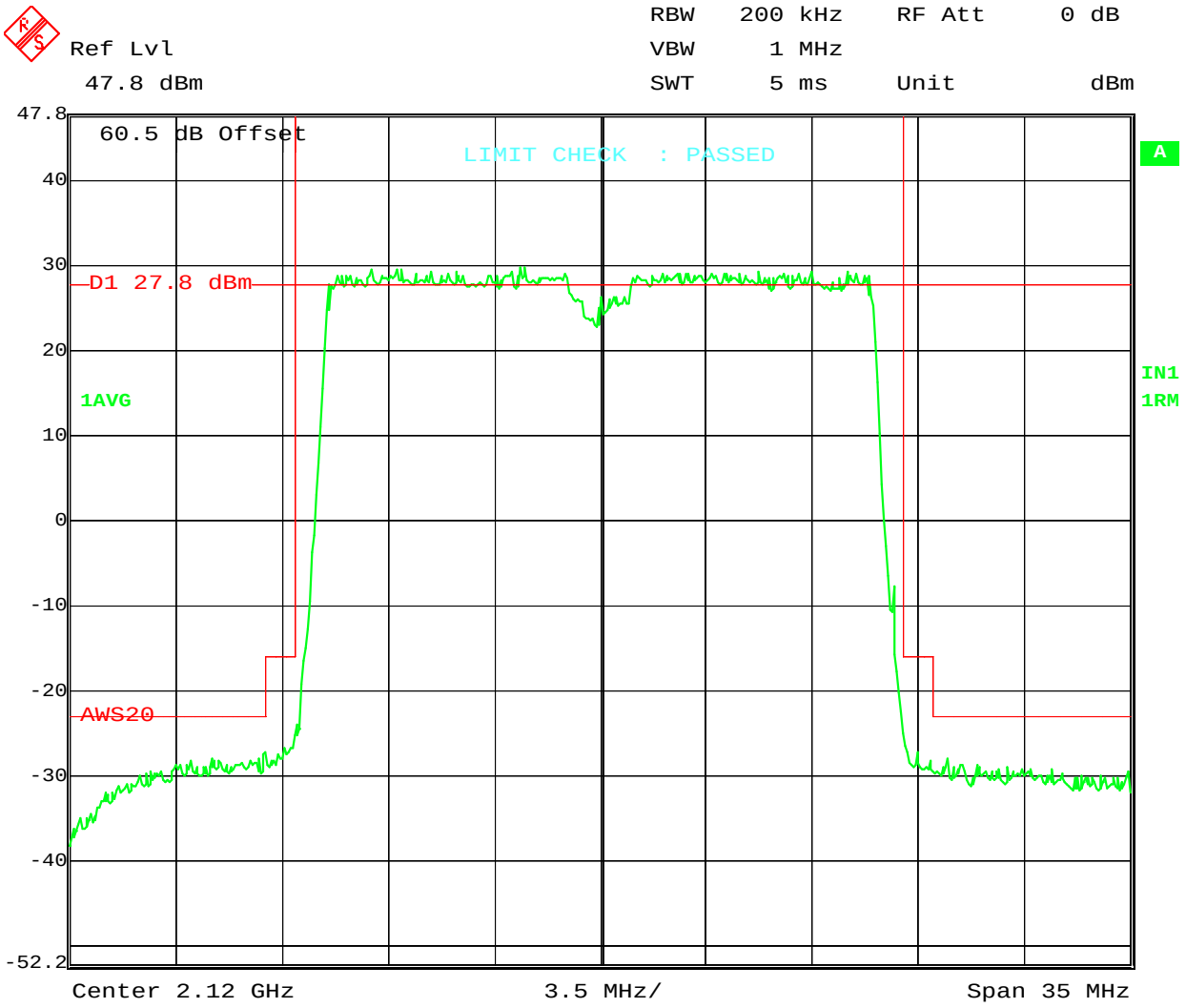
20 MHz Bandwidth (2110 – 2130 MHz)

2x60watts (MIMO)

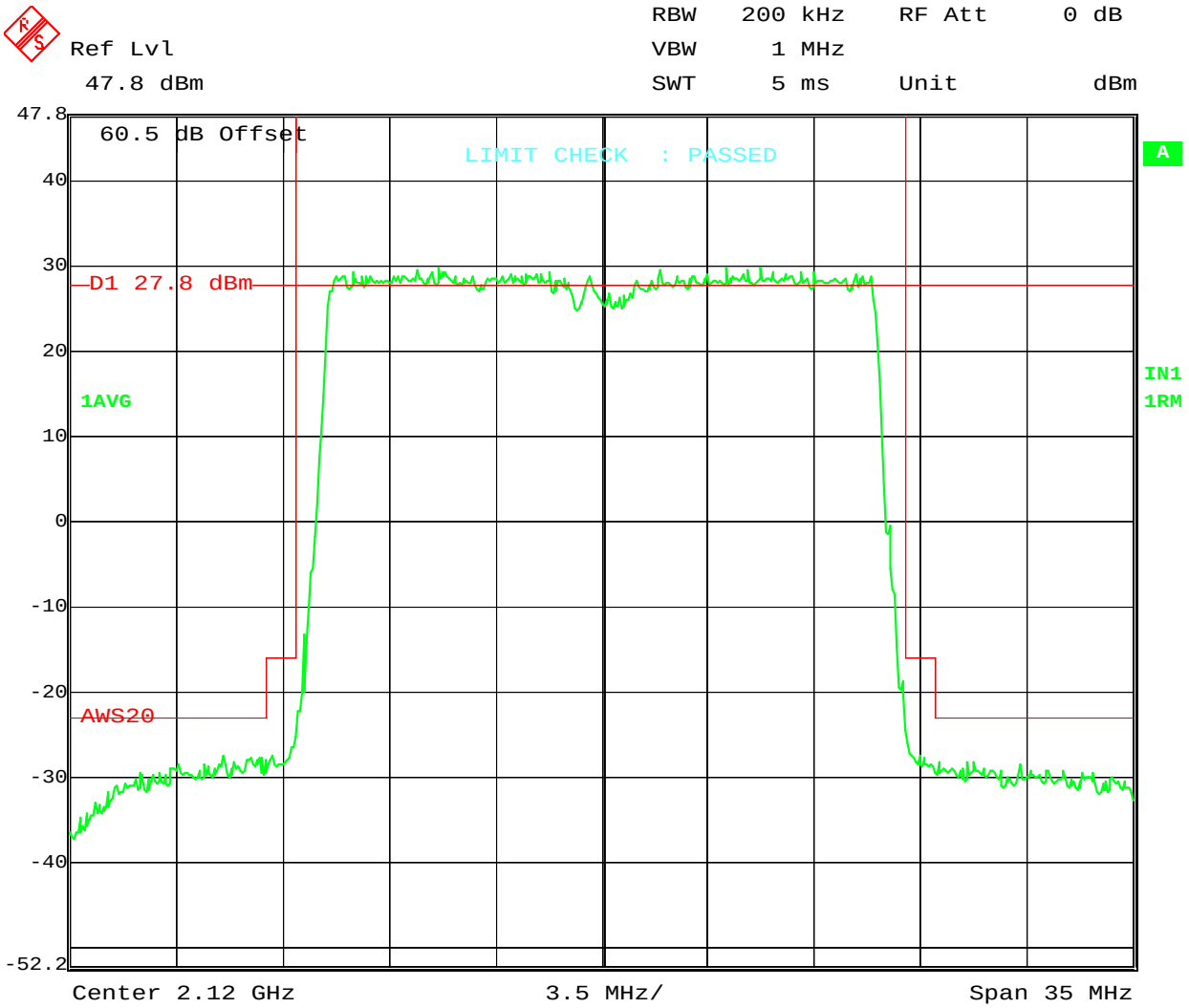
SPECTRUM MASK/OCCUPIED BANDWIDTH



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK A+B; 2120MHz; 20MHz BW; PWR:60W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 13.SEP.2013 11:36:30



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK A+B; 2120MHz; 20MHz BW; PWR:60W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 13.SEP.2013 11:17:08



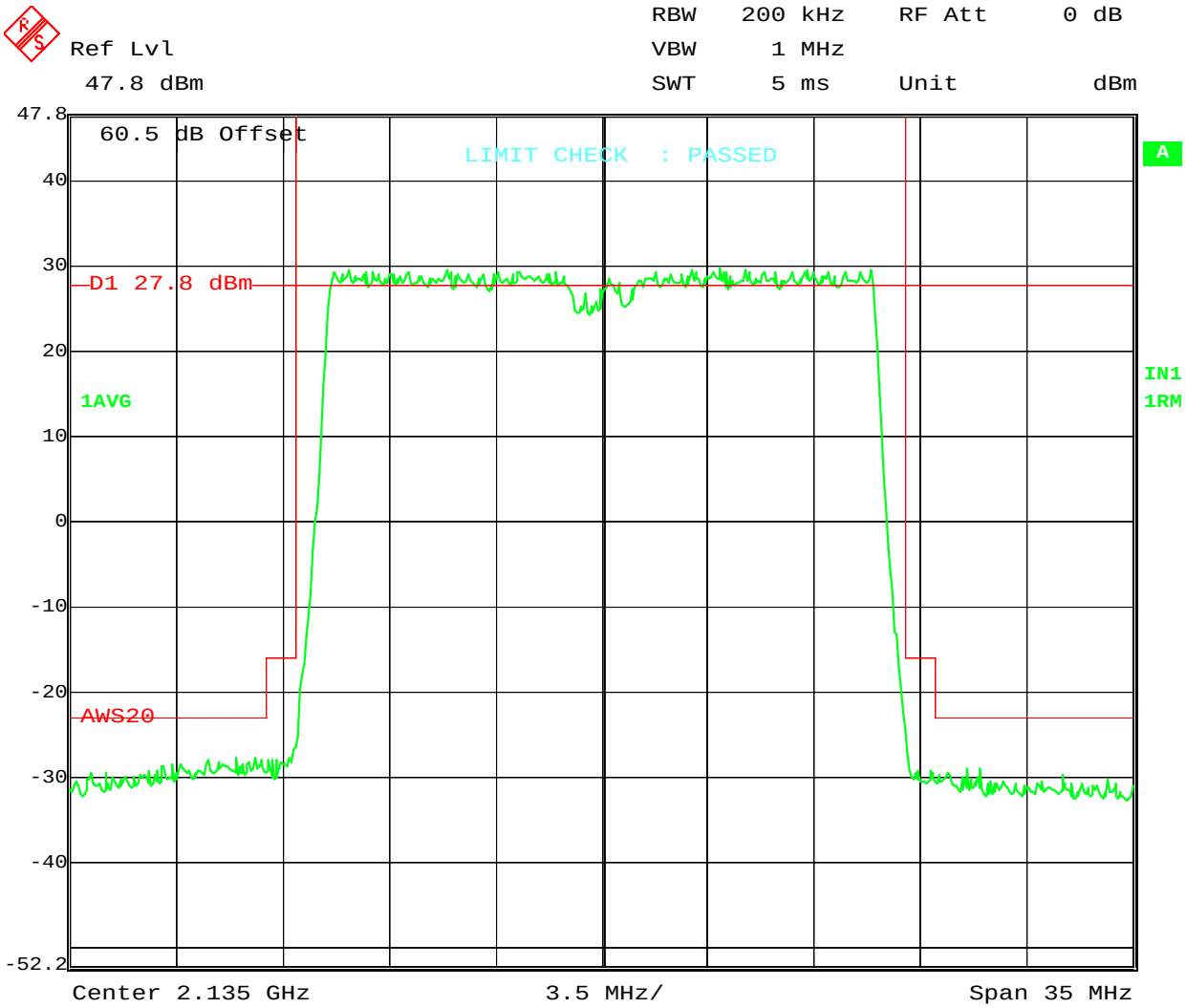
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK A+B; 2120MHz; 20MHz BW; PWR:60W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 13.SEP.2013 10:47:40

Block: B2+C+D+E

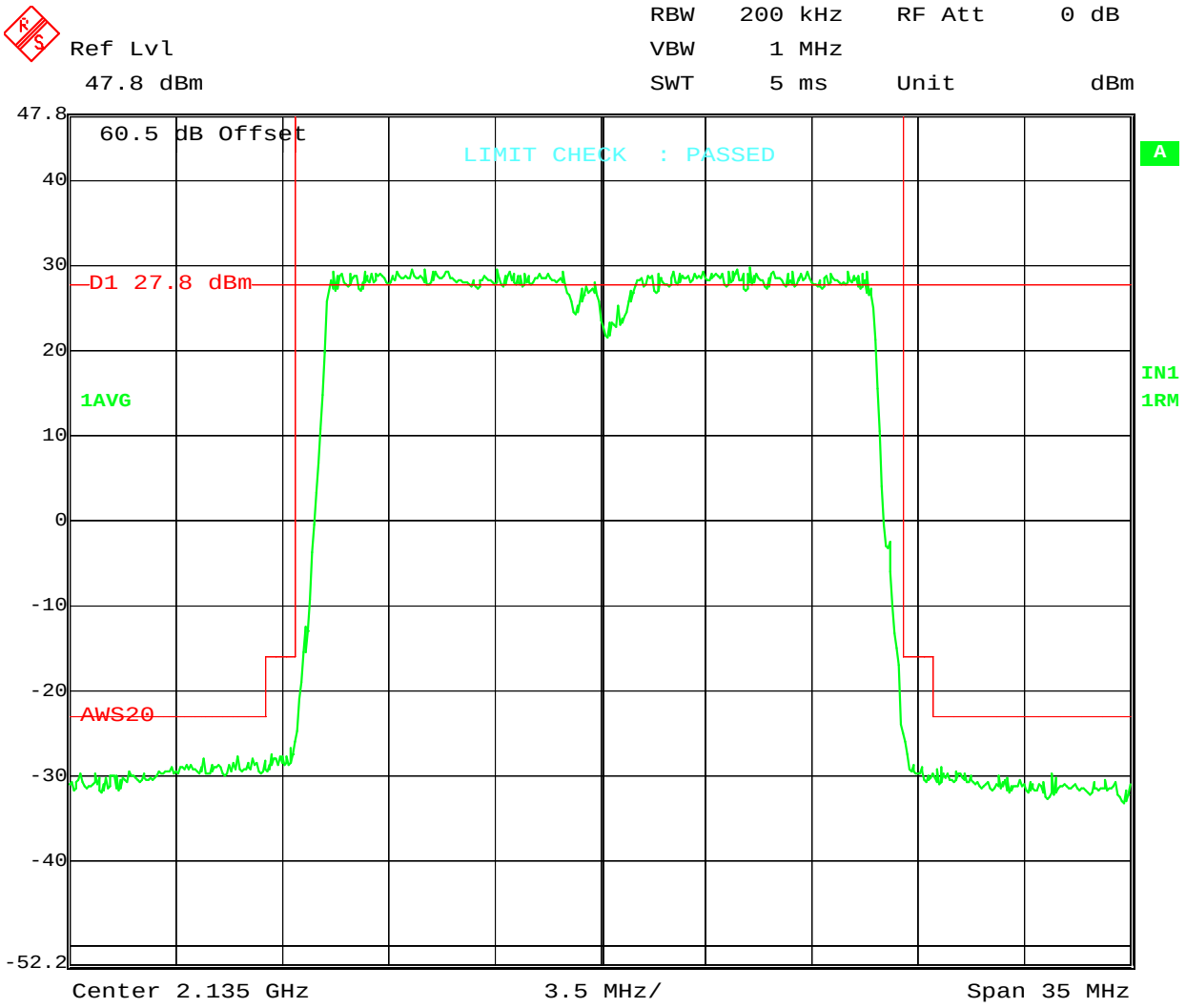
20 MHz Bandwidth (2125 – 2145 MHz)

2x60 watts (MIMO)

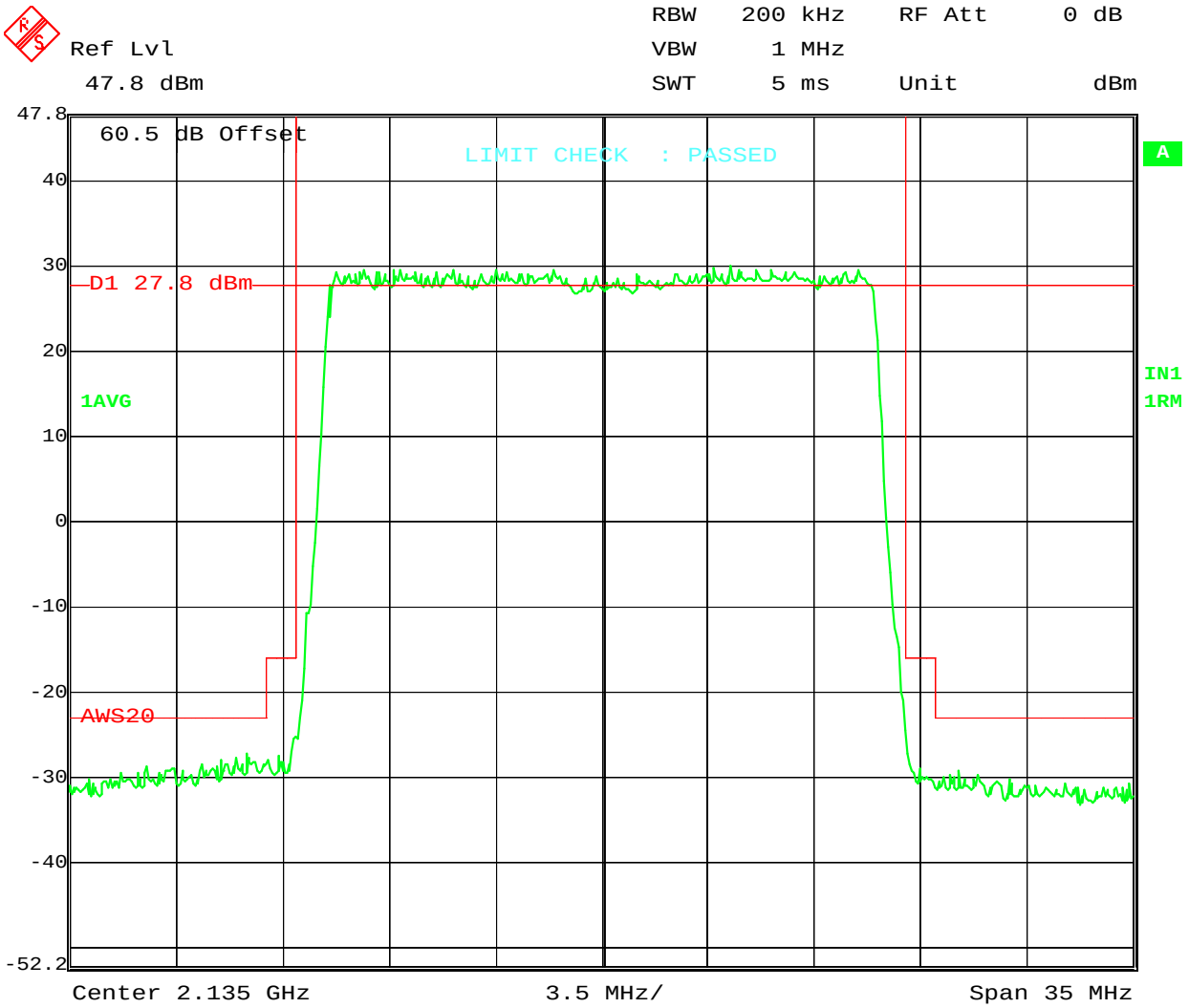
SPECTRUM MASK/OCCUPIED BANDWIDTH



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK B2+C+D+E; 2135MHz; 20MHz BW; PWR:60W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 16.SEP.2013 03:41:11



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK B2+C+D+E; 2135MHz; 20MHz BW; PWR:60W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 16.SEP.2013 06:19:01



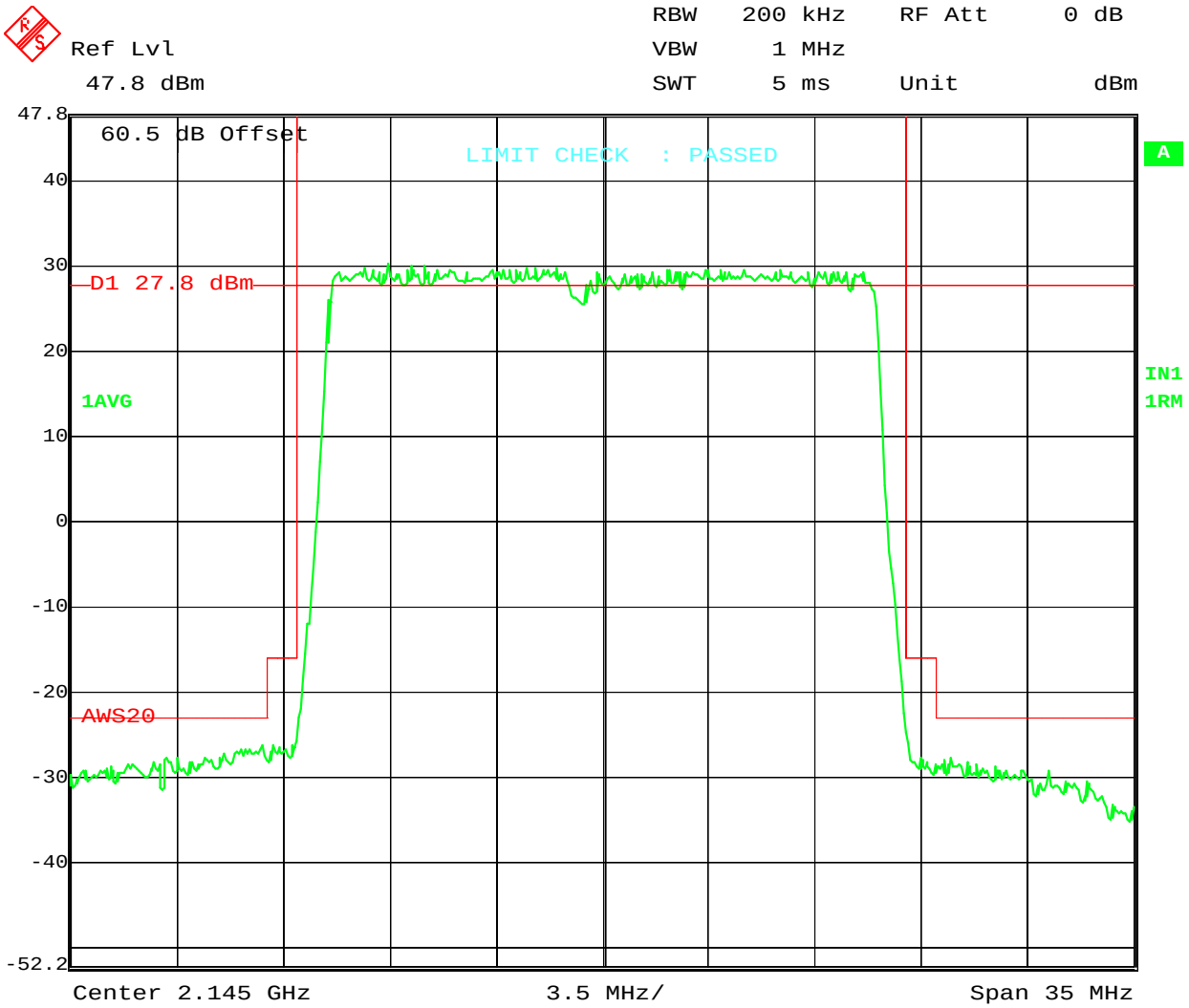
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK B2+C+D+E; 2135MHz; 20MHz BW; PWR:60W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 16.SEP.2013 06:33:48

Block: D+E+F

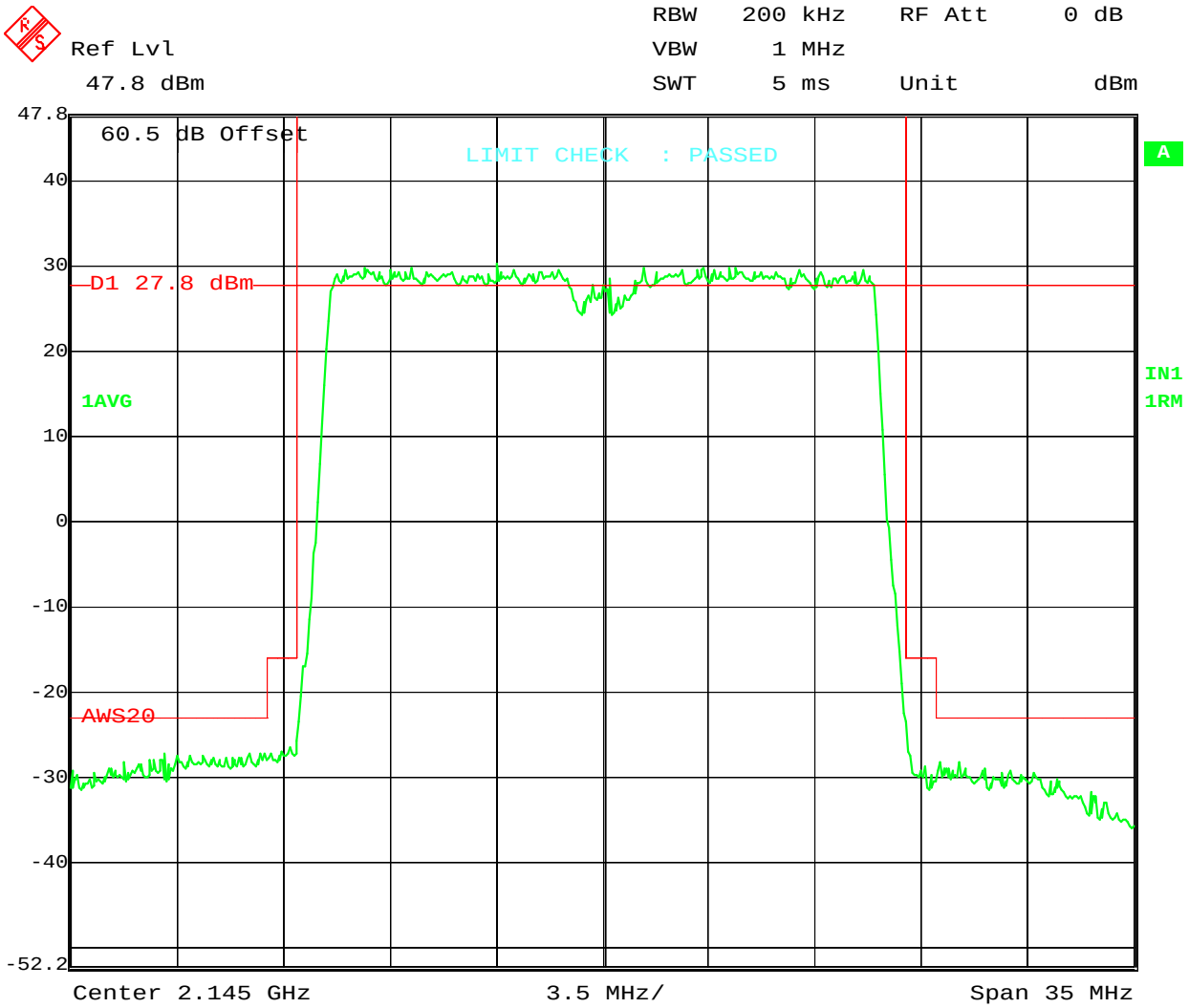
20 MHz Bandwidth (2135 – 2155 MHz)

2x60 watts (MIMO)

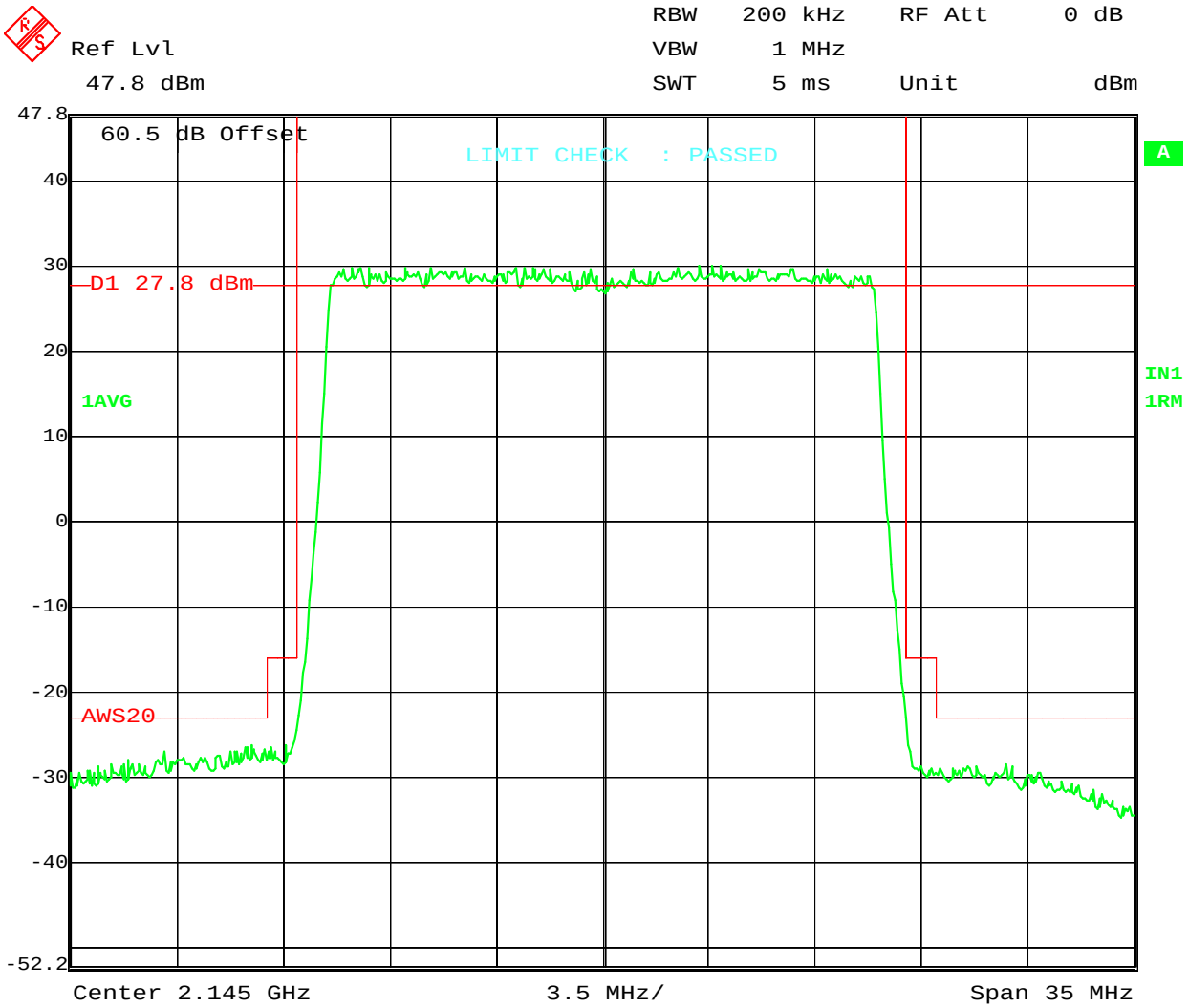
SPECTRUM MASK/OCCUPIED BANDWIDTH



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK D+E+F; 2145MHz; 20MHz BW; PWR:60W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 16.SEP.2013 07:45:08



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK D+E+F; 2145MHz; 20MHz BW; PWR:60W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 16.SEP.2013 07:15:17



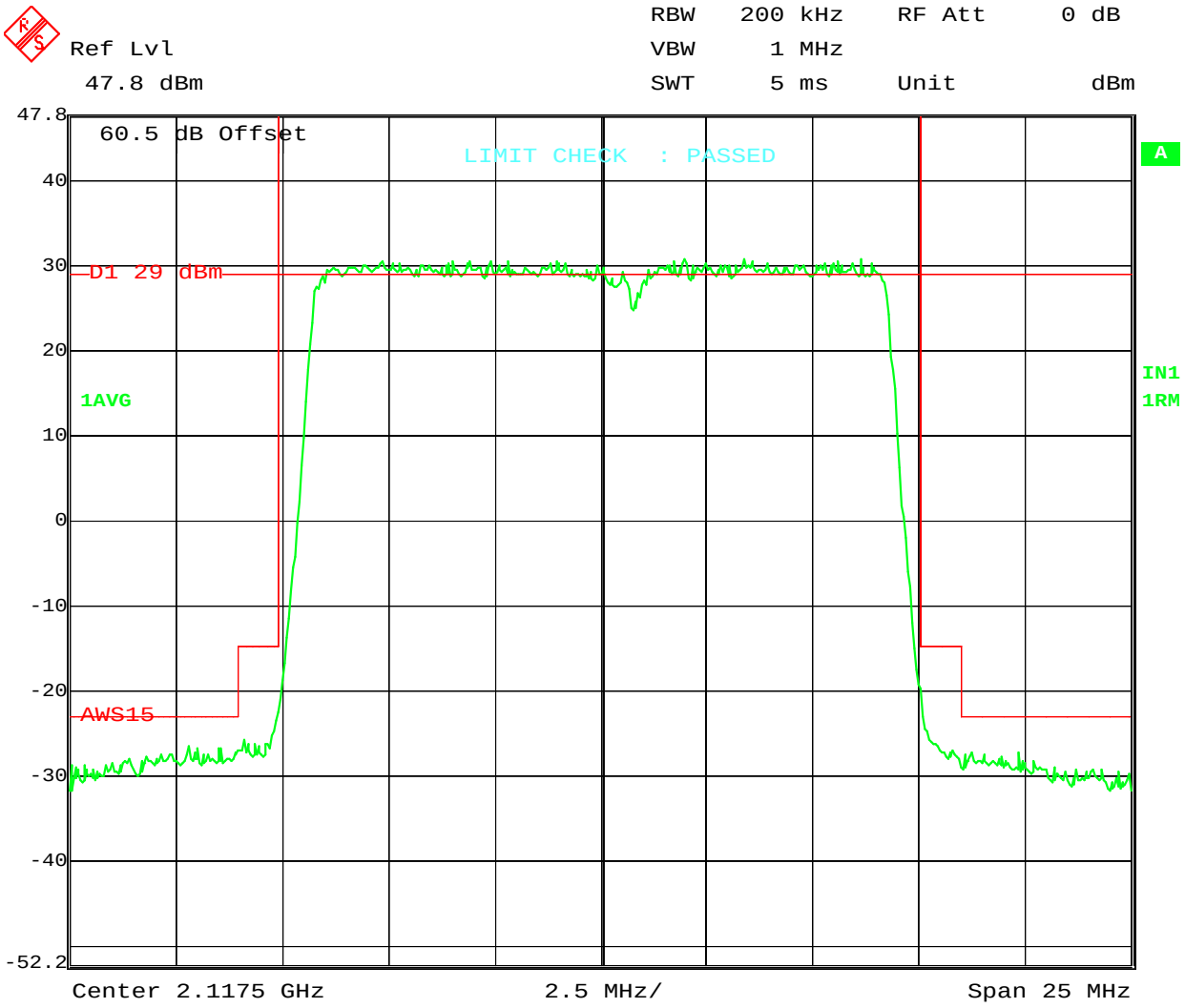
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK D+E+F; 2145MHz; 20MHz BW; PWR:60W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 16.SEP.2013 06:49:55

Block: A+B1

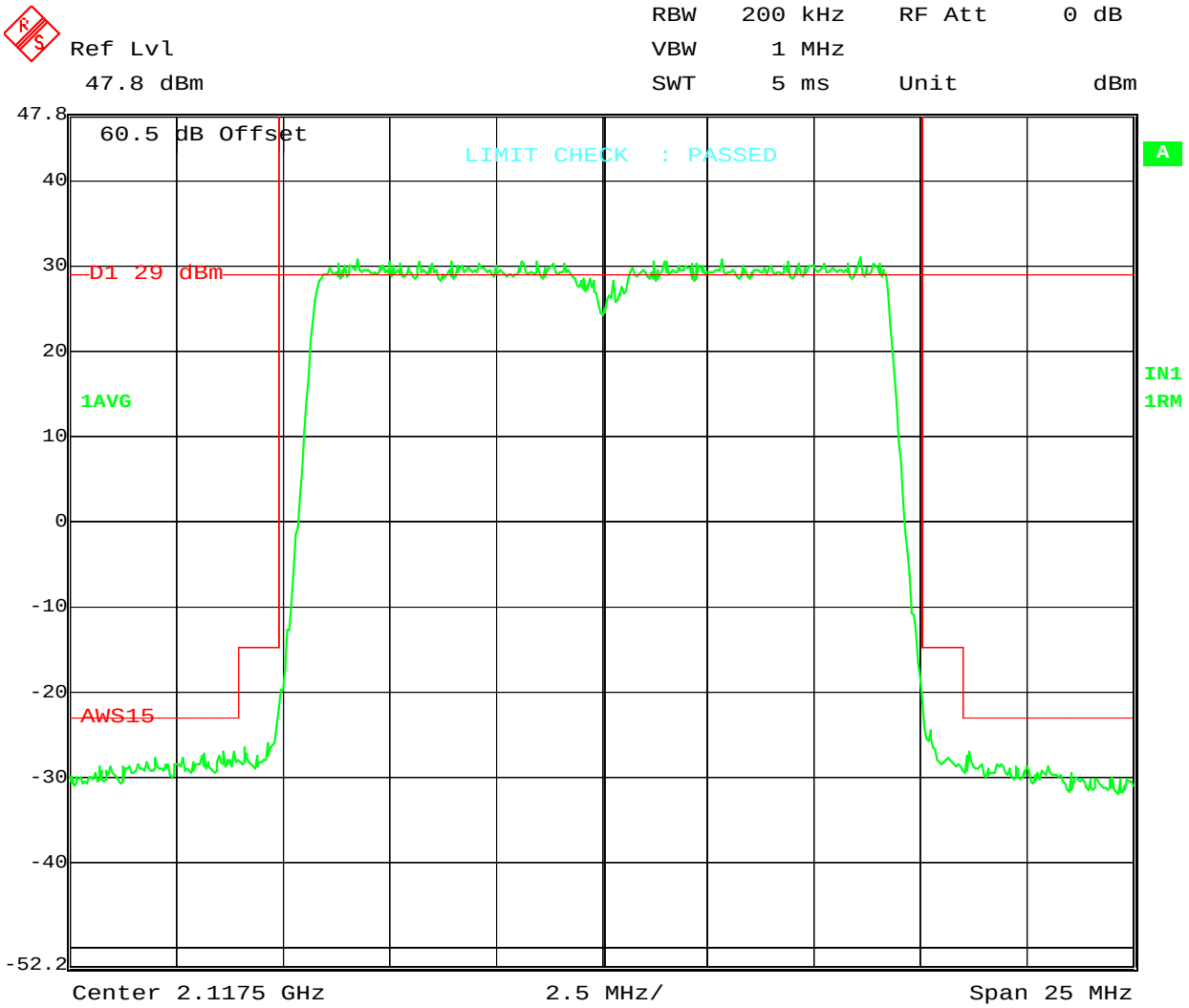
15 MHz Bandwidth (2110 – 2125 MHz)

2x60watts (MIMO)

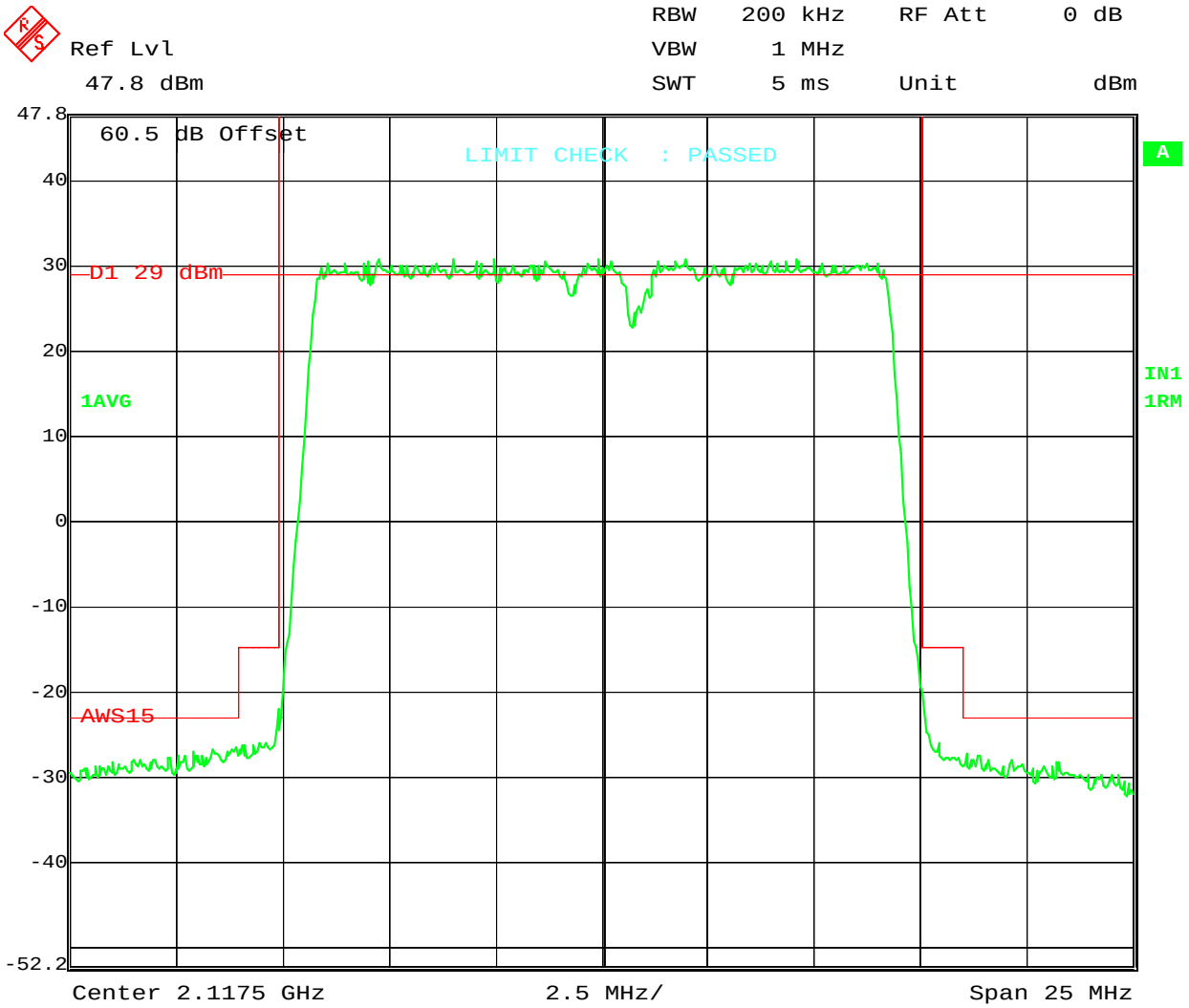
SPECTRUM MASK/OCCUPIED BANDWIDTH



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK A+B1; 2117.5MHz; 15MHZ BW; PWR:60W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 12.SEP.2013 07:26:09



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK A+B1; 2117.5MHz; 15MHZ BW; PWR:60W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 12.SEP.2013 07:41:52



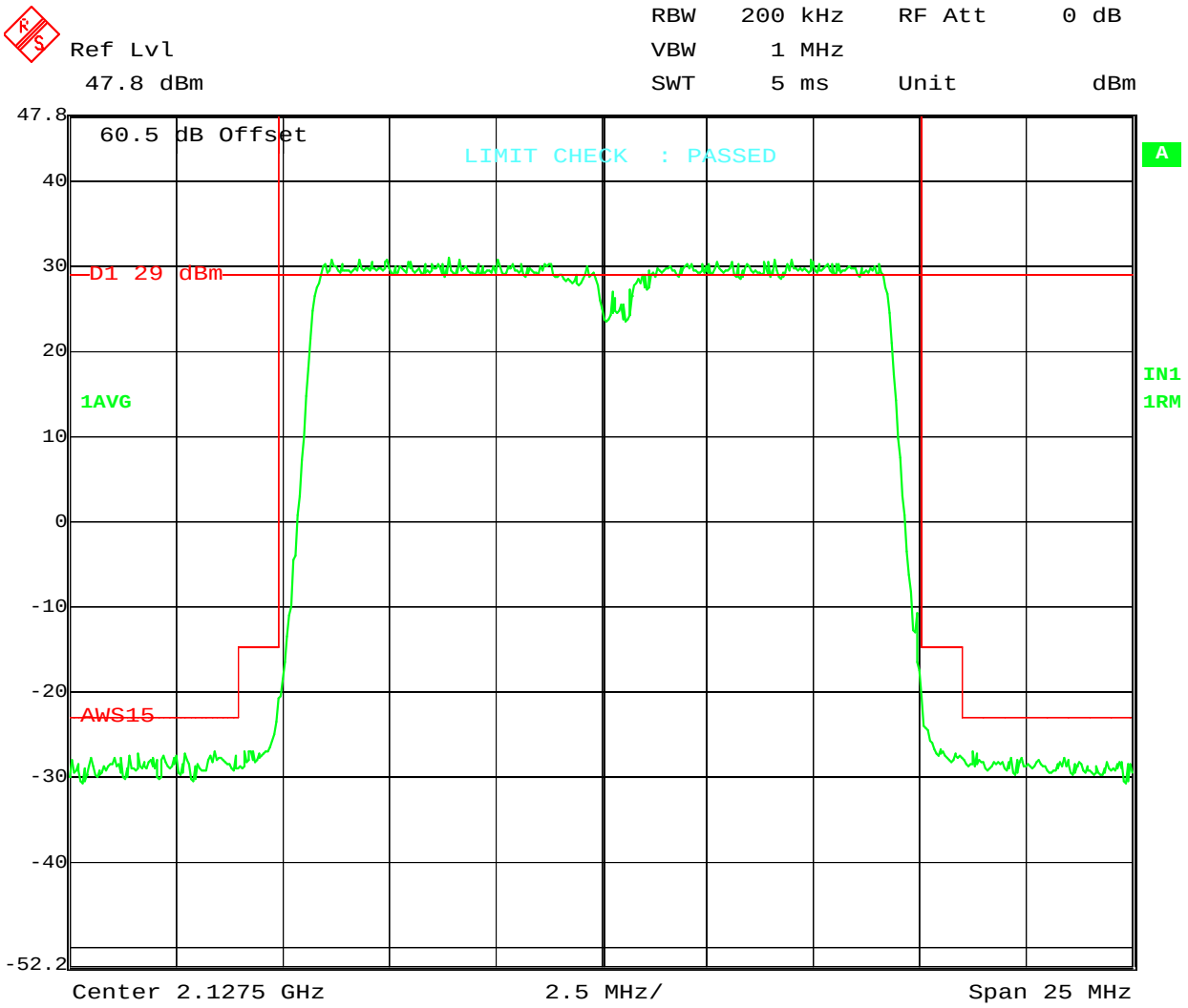
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK A+B1; 2117.5MHz; 15MHZ BW; PWR:60W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 12.SEP.2013 08:07:57

Block: B+C

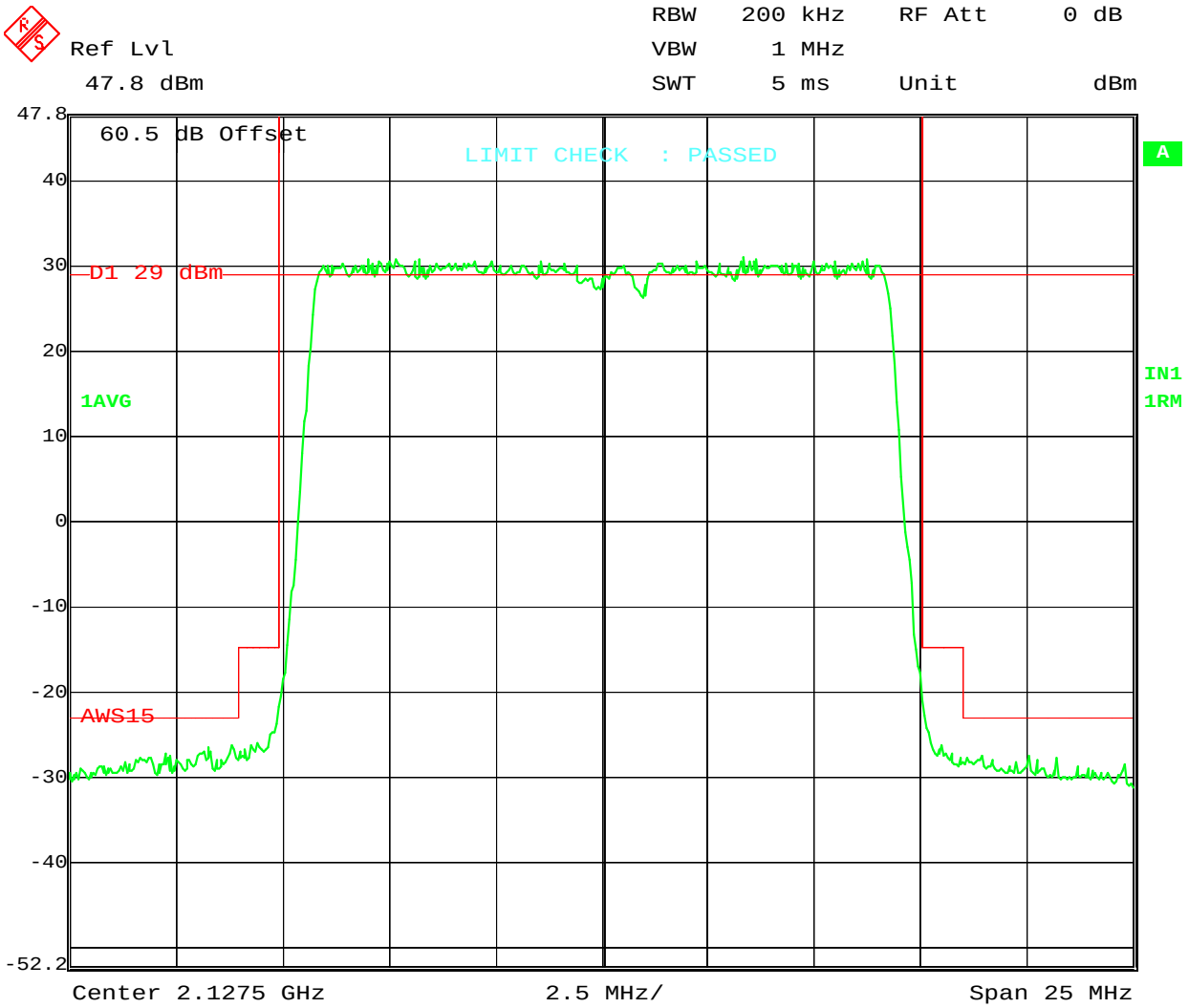
15 MHz Bandwidth (2120 – 2135 MHz)

2x60 watts (MIMO)

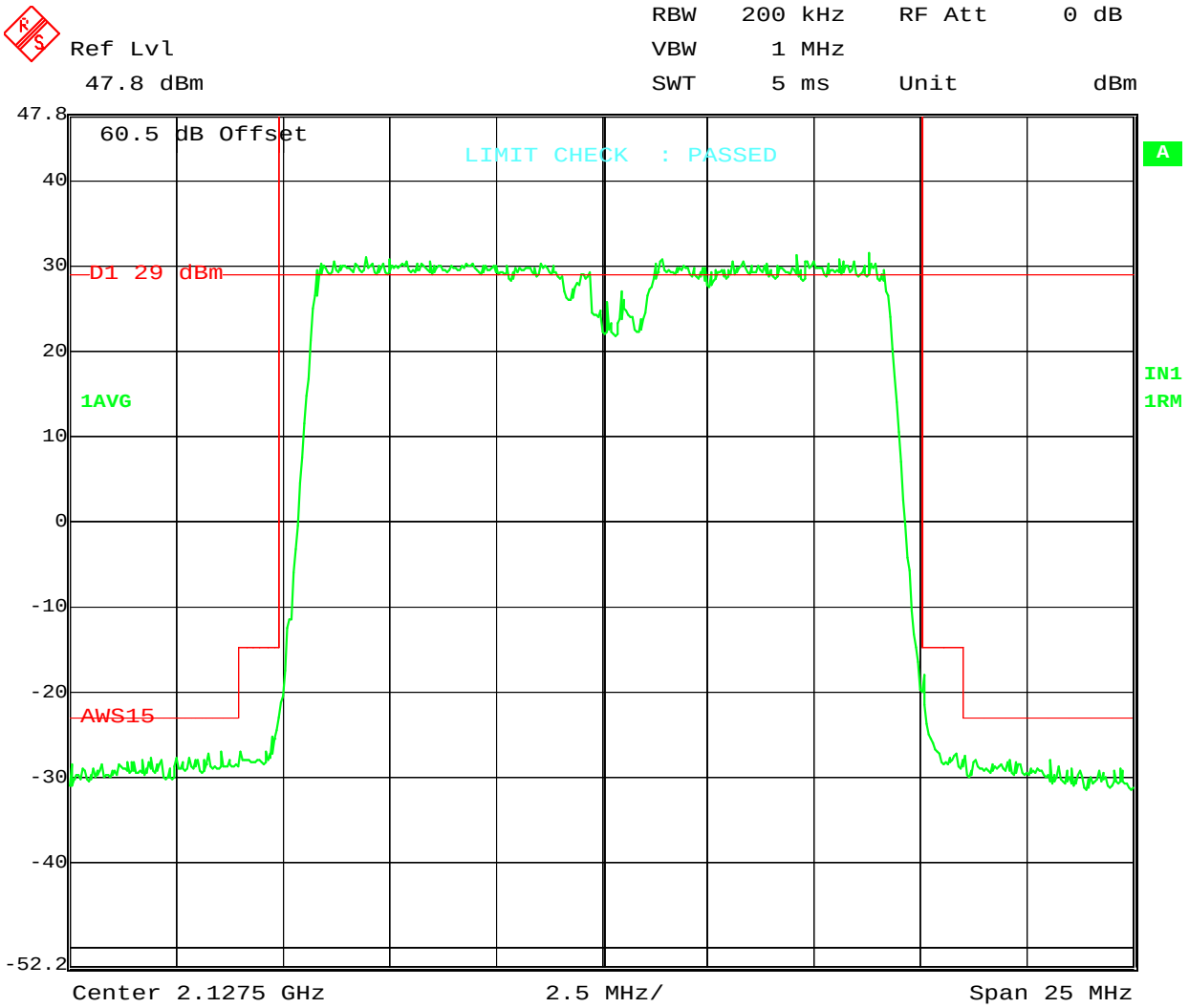
SPECTRUM MASK/OCCUPIED BANDWIDTH



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK B+C; 2127.5MHz; 15MHZ BW; PWR:60W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 13.SEP.2013 08:41:33



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK B+C; 2127.5MHz; 15MHZ BW; PWR:60W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 12.SEP.2013 10:25:54



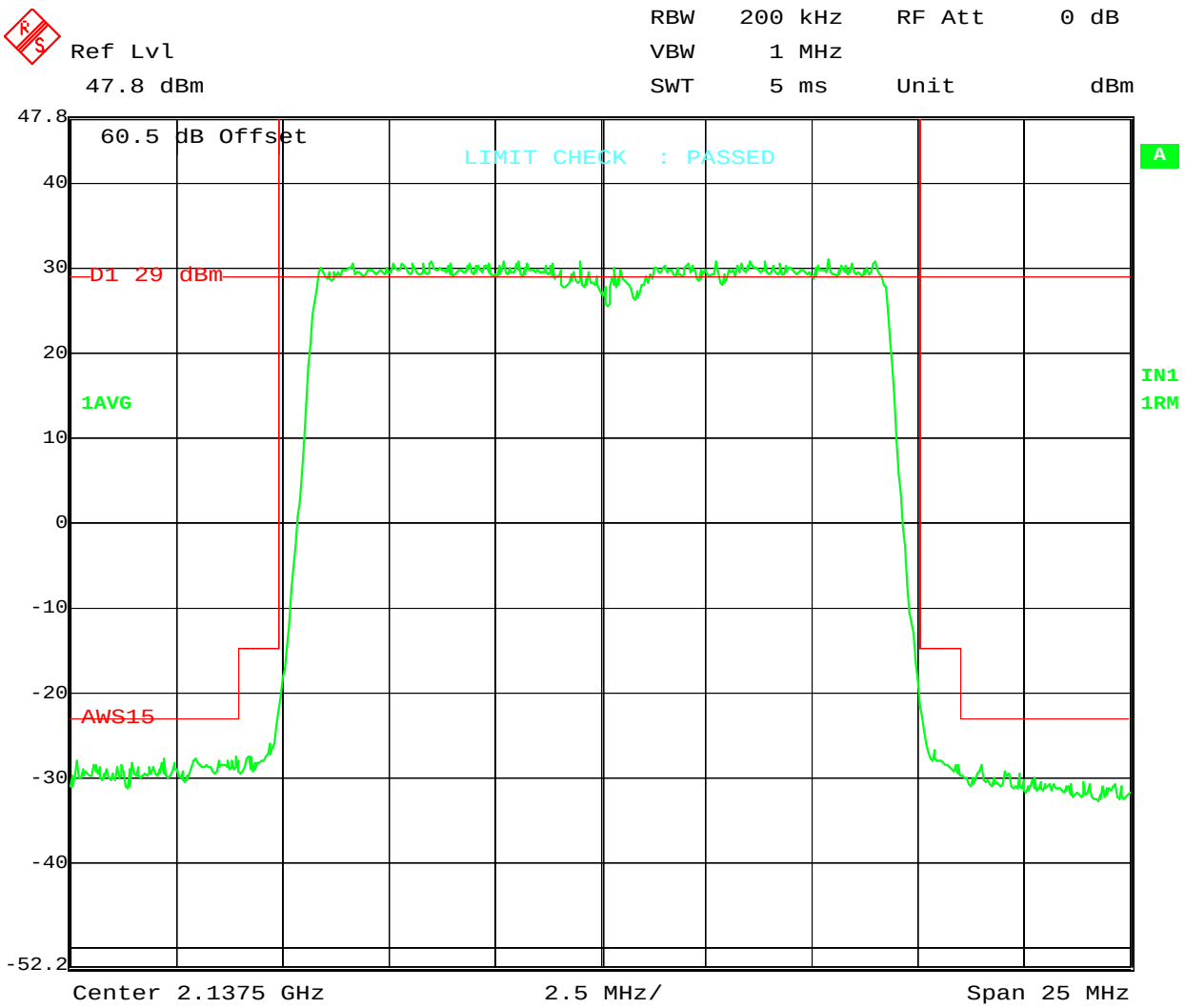
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK B+C; 2127.5MHz; 15MHZ BW; PWR:60W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 12.SEP.2013 09:59:53

Block: C+D+E

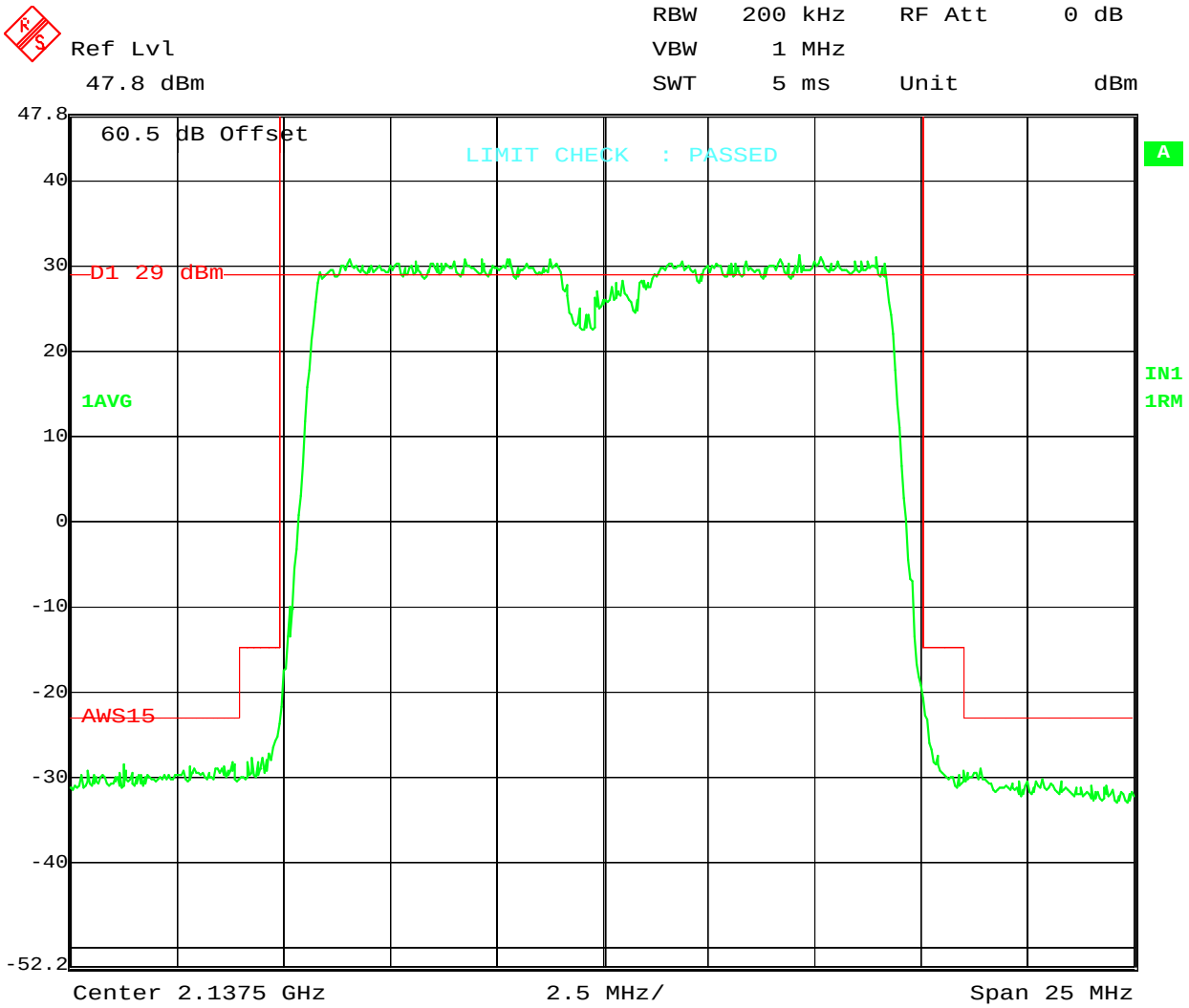
15 MHz Bandwidth (2130 – 2145 MHz)

2x60 watts (MIMO)

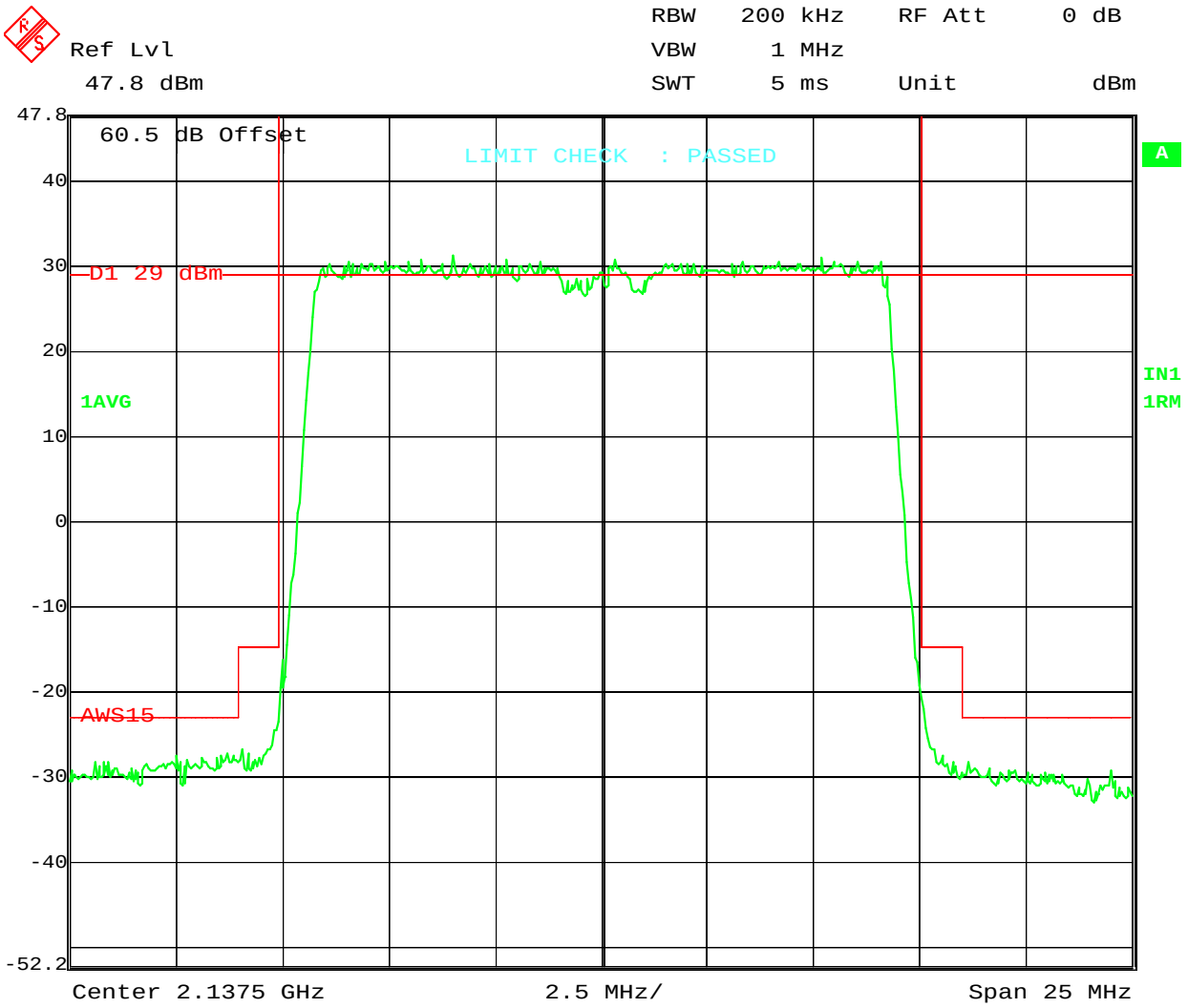
SPECTRUM MASK/OCCUPIED BANDWIDTH



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK C+D+E; 2137.5MHz; 15MHZ BW; PWR:60W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 12.SEP.2013 11:33:02



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK C+D+E; 2137.5MHz; 15MHZ BW; PWR:60W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 12.SEP.2013 11:47:41



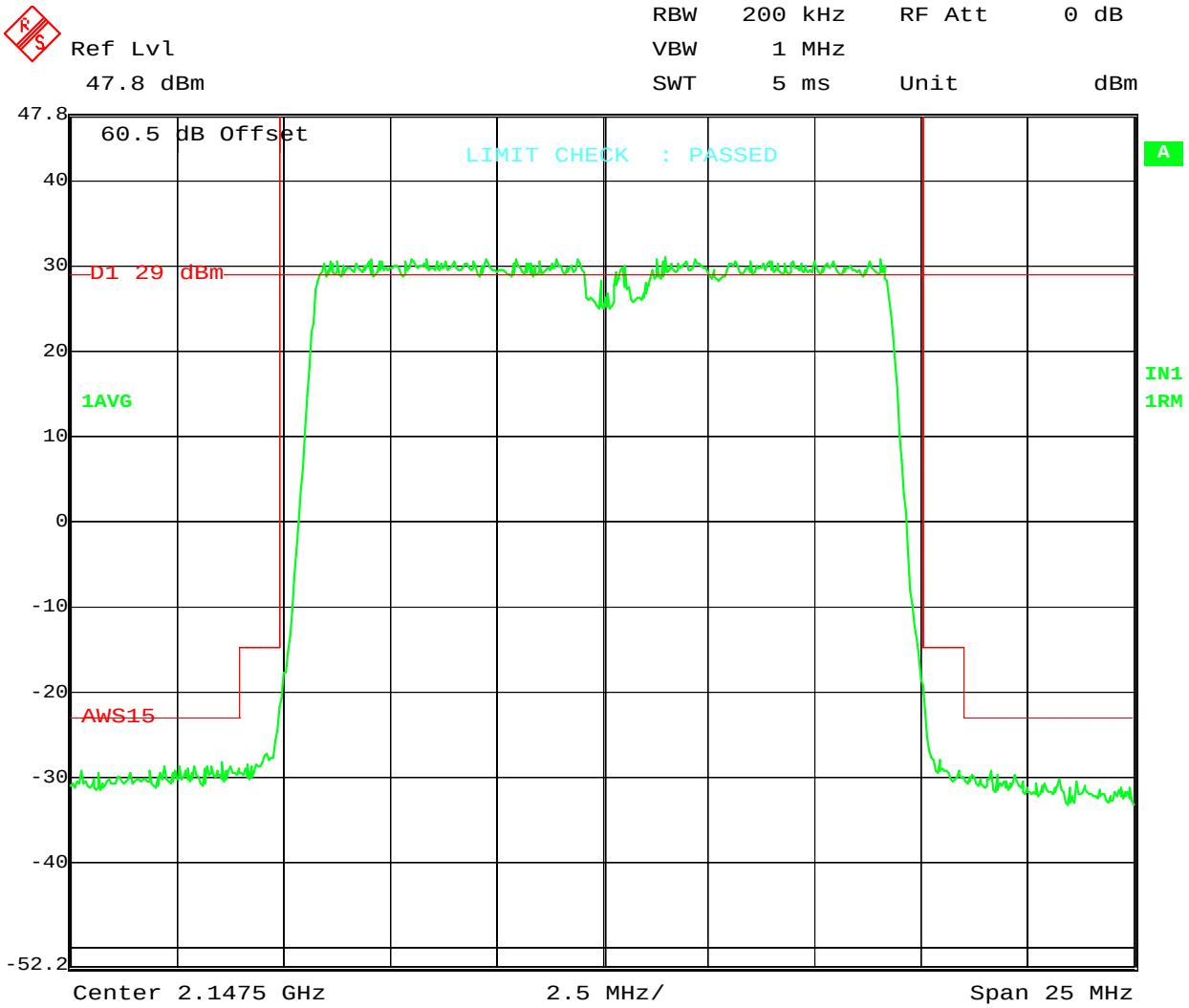
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK C+D+E; 2137.5MHz; 15MHZ BW; PWR:60W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 13.SEP.2013 04:15:33

Block: E+F

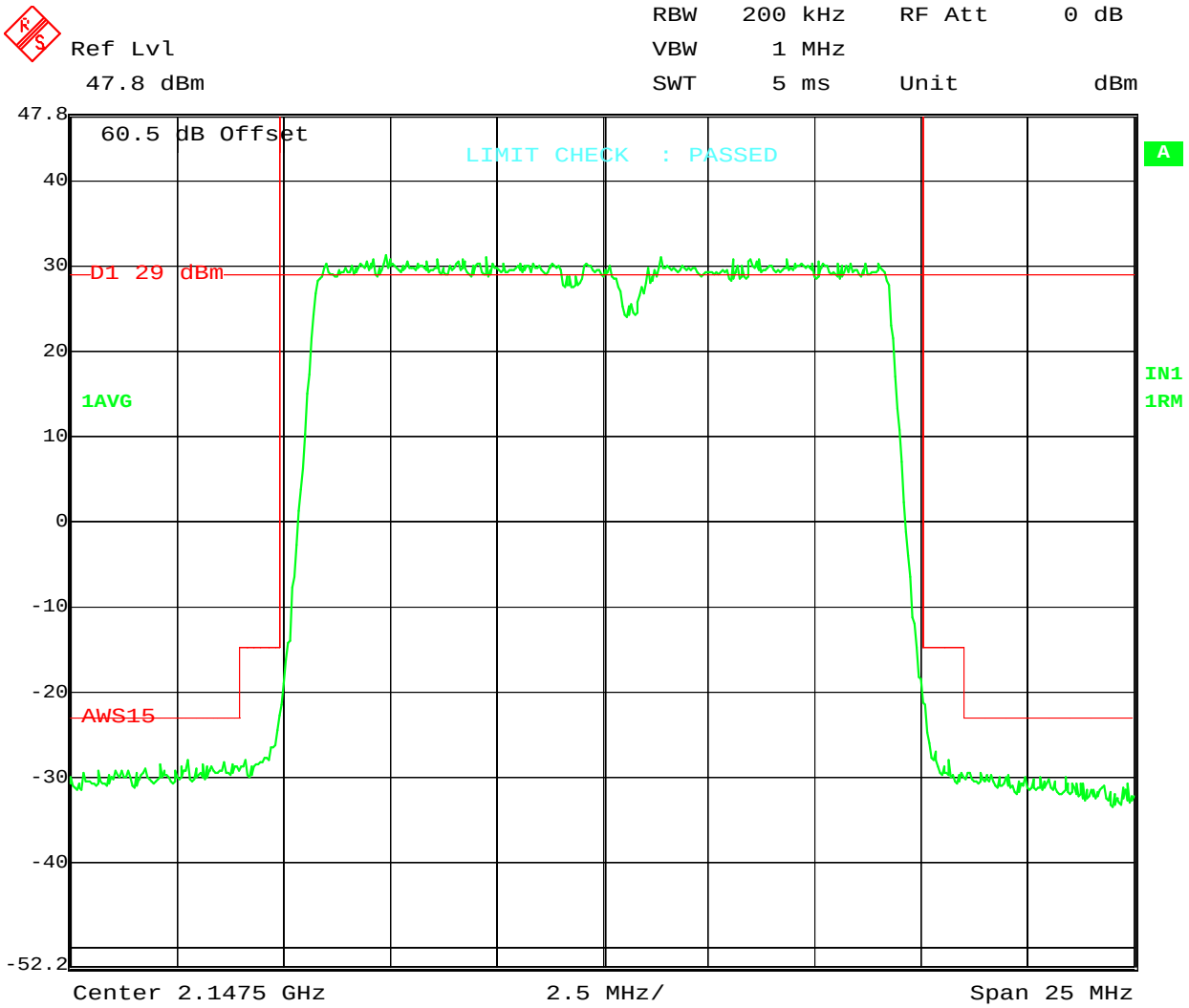
15 MHz Bandwidth (2140 – 2155 MHz)

2x60 watts (MIMO)

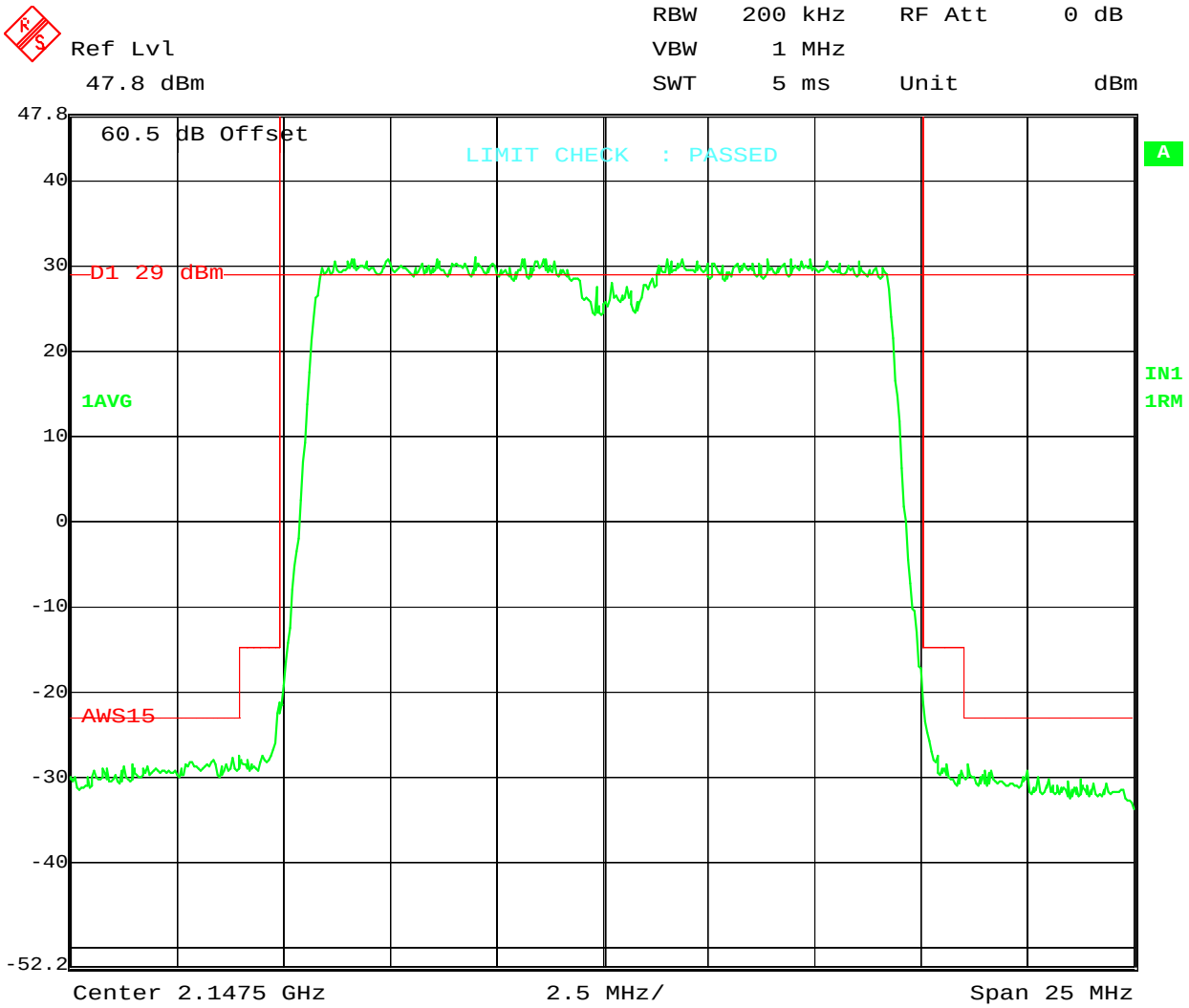
SPECTRUM MASK/OCCUPIED BANDWIDTH



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK E+F; 2147.5MHz; 15MHZ BW; PWR:60W
QPSK; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 13.SEP.2013 08:12:03



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK E+F; 2147.5MHz; 15MHZ BW; PWR:60W
16QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 13.SEP.2013 07:10:59



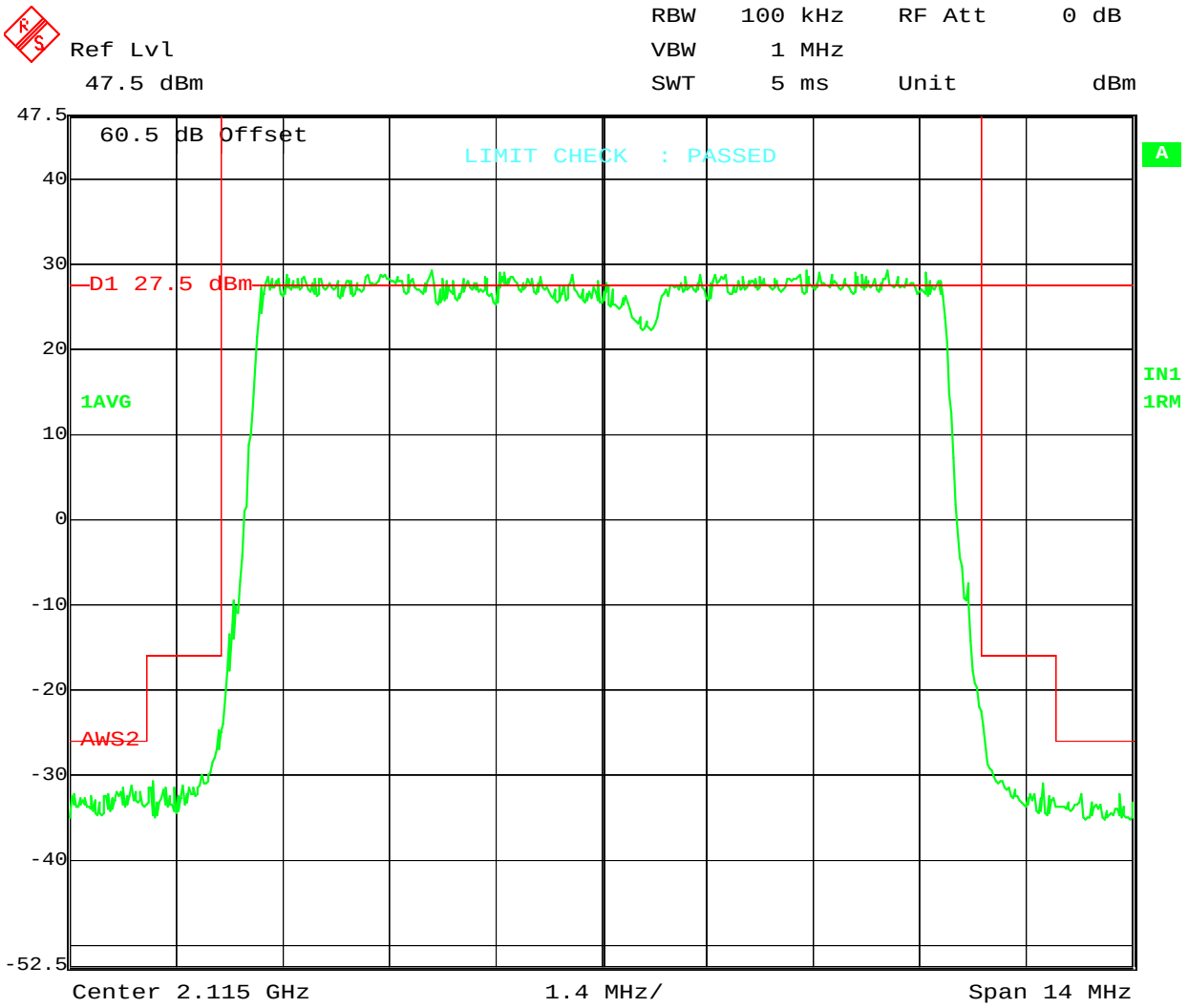
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK E+F; 2147.5MHz; 15MHZ BW; PWR:60W
64QAM; FCC PRT 27; FCCID:AS5BBTRX-13
Date: 13.SEP.2013 06:52:38

Block: A

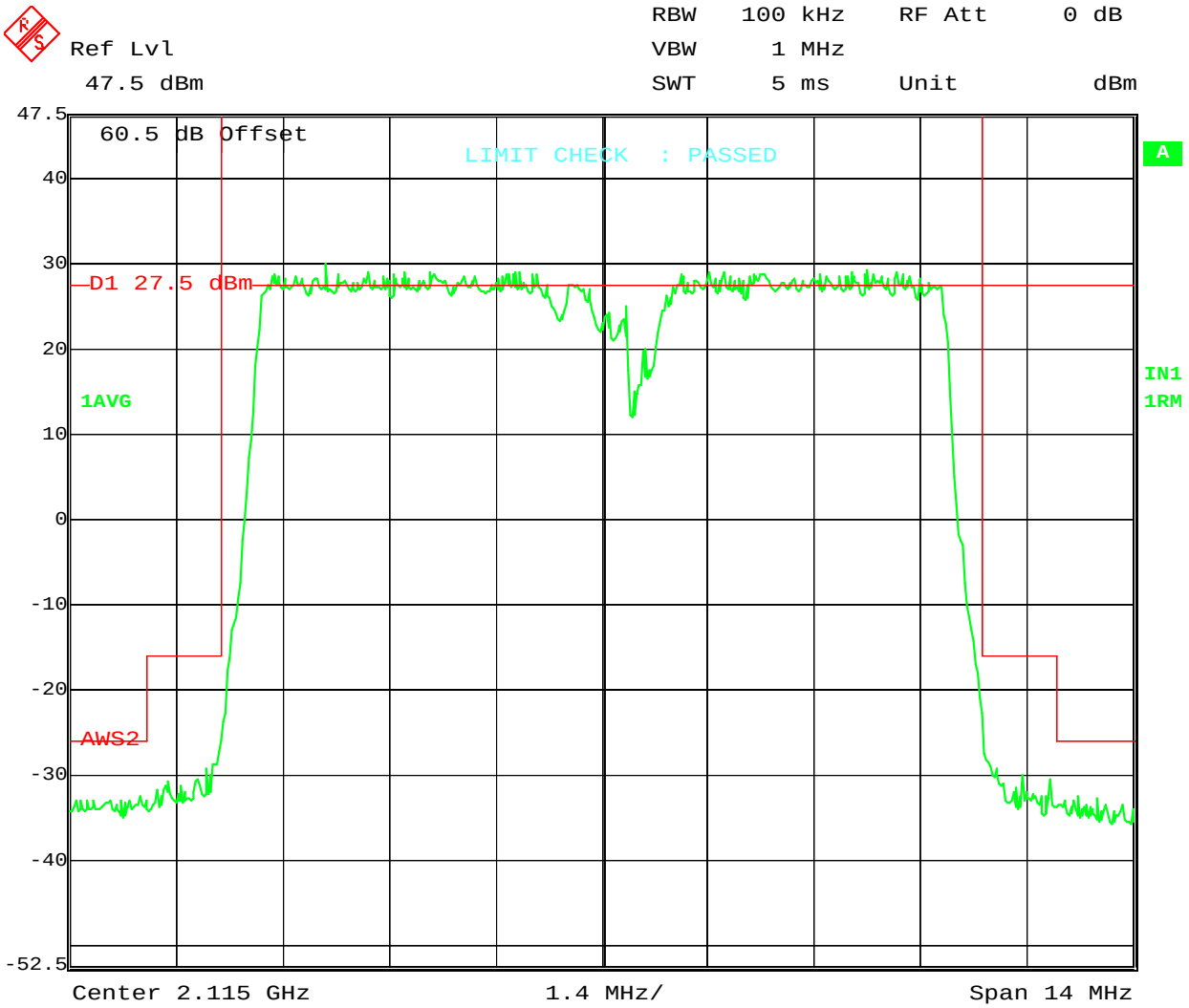
10 MHz Bandwidth (2110-2120 MHz)

2x60 watts (MIMO)

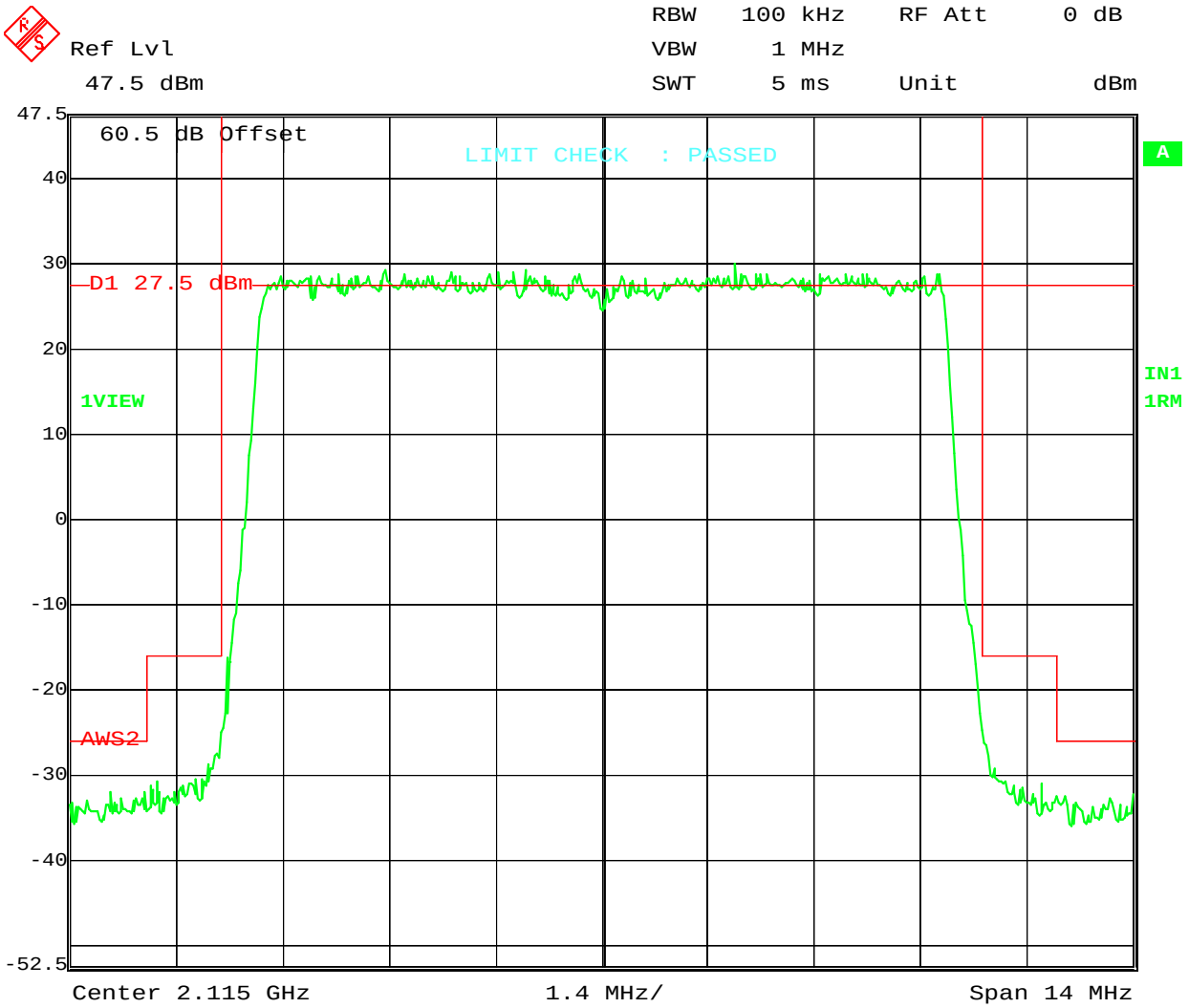
SPECTRUM MASK/OCCUPIED BANDWIDTH



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK A; 2115MHz; 10MHz BW; PWR:60W; QPSK
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 22.AUG.2013 08:23:39



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK A; 2115MHz; 10MHz BW; PWR:60W; 16QAM
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 22.AUG.2013 08:50:17



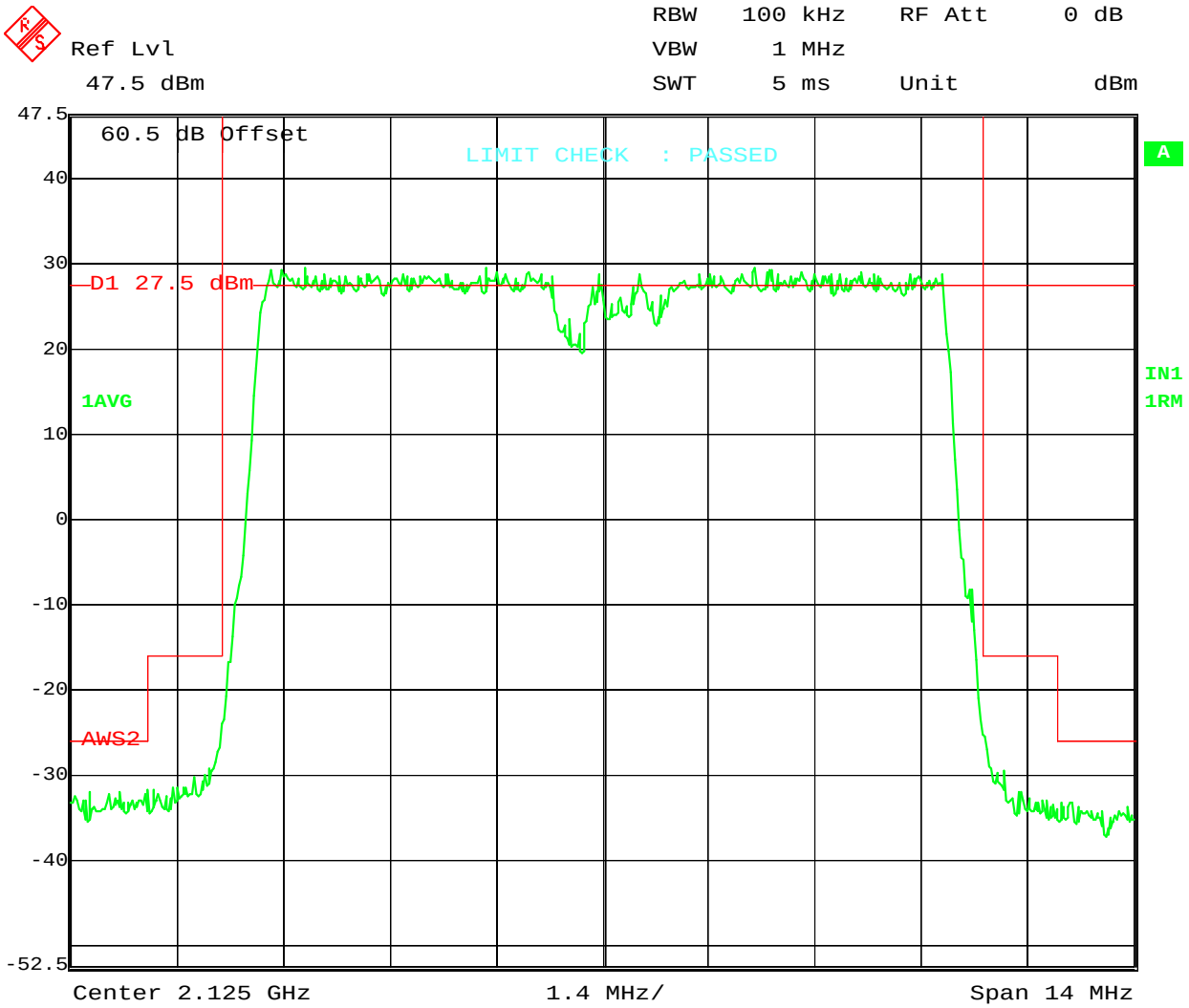
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK A; 2115MHz; 10MHz BW; PWR:60W; 64QAM
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 22.AUG.2013 10:02:19

Block: B

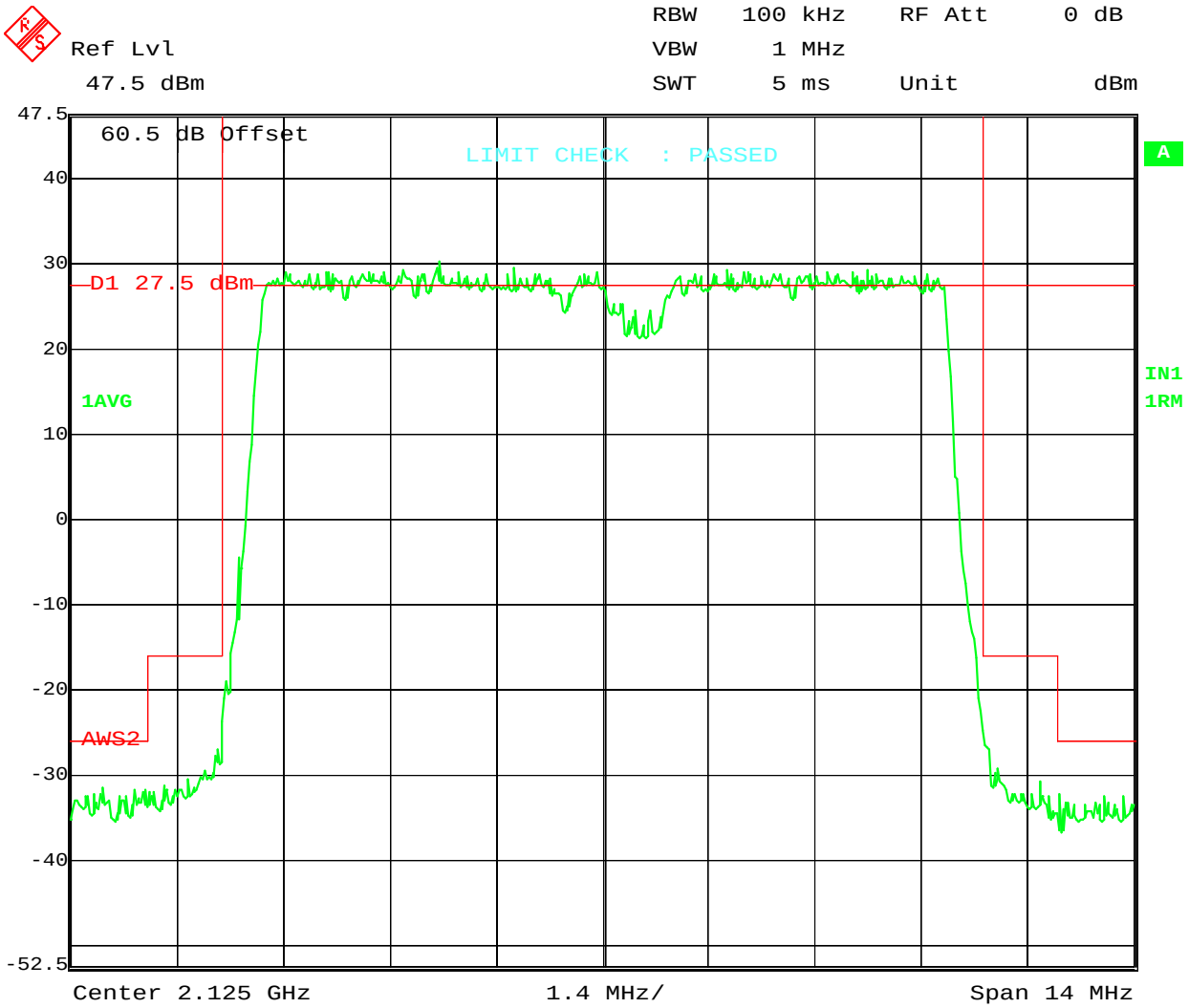
10 MHz Bandwidth (2120-2130 MHz)

2x60 watts (MIMO)

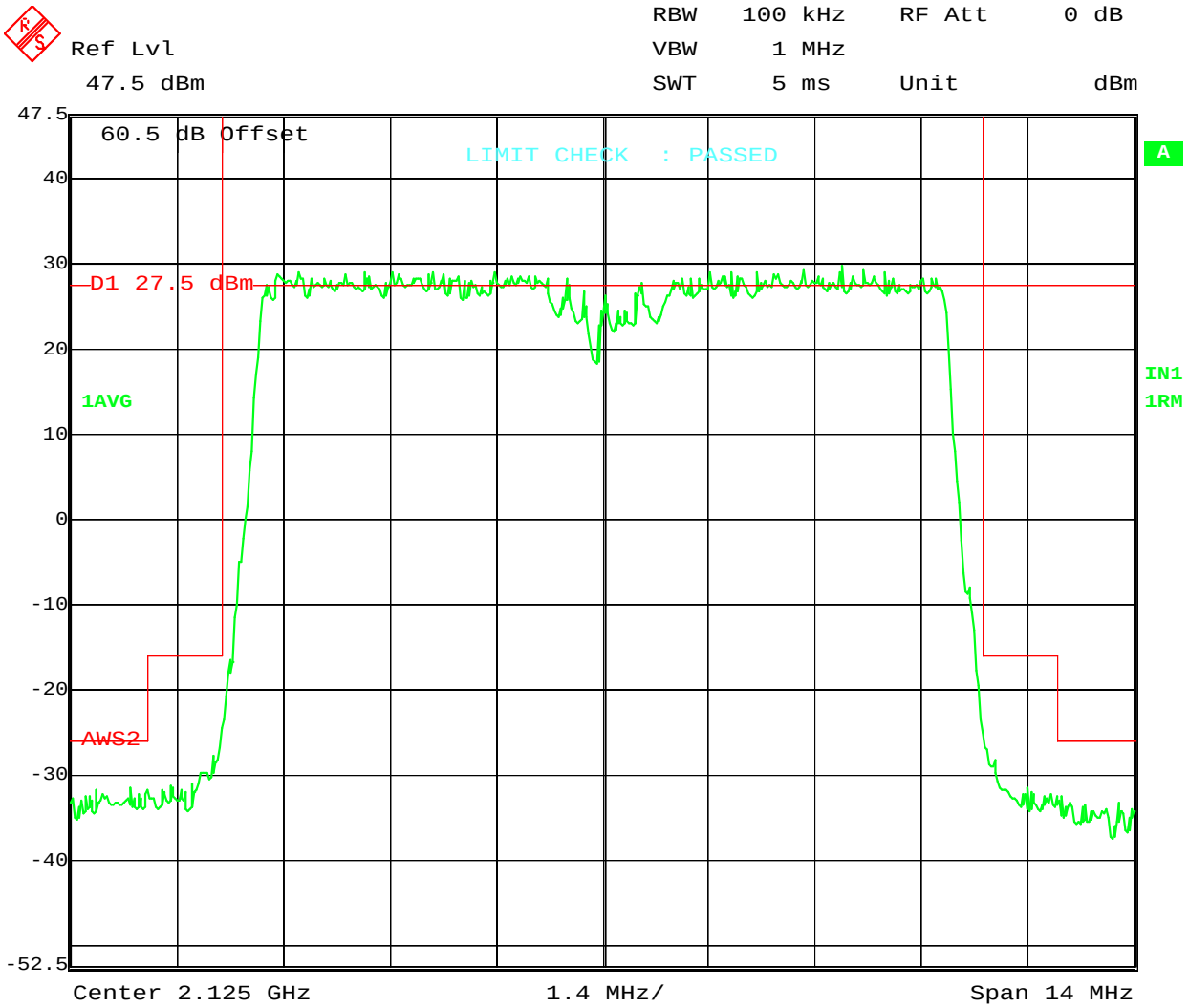
SPECTRUM MASK/OCCUPIED BANDWIDTH



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK B; 2125MHz; 10MHz BW; PWR:60W; QPSK
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 22.AUG.2013 07:51:29



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK B; 2125MHz; 10MHz BW; PWR:60W; 16QAM
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 22.AUG.2013 07:08:23



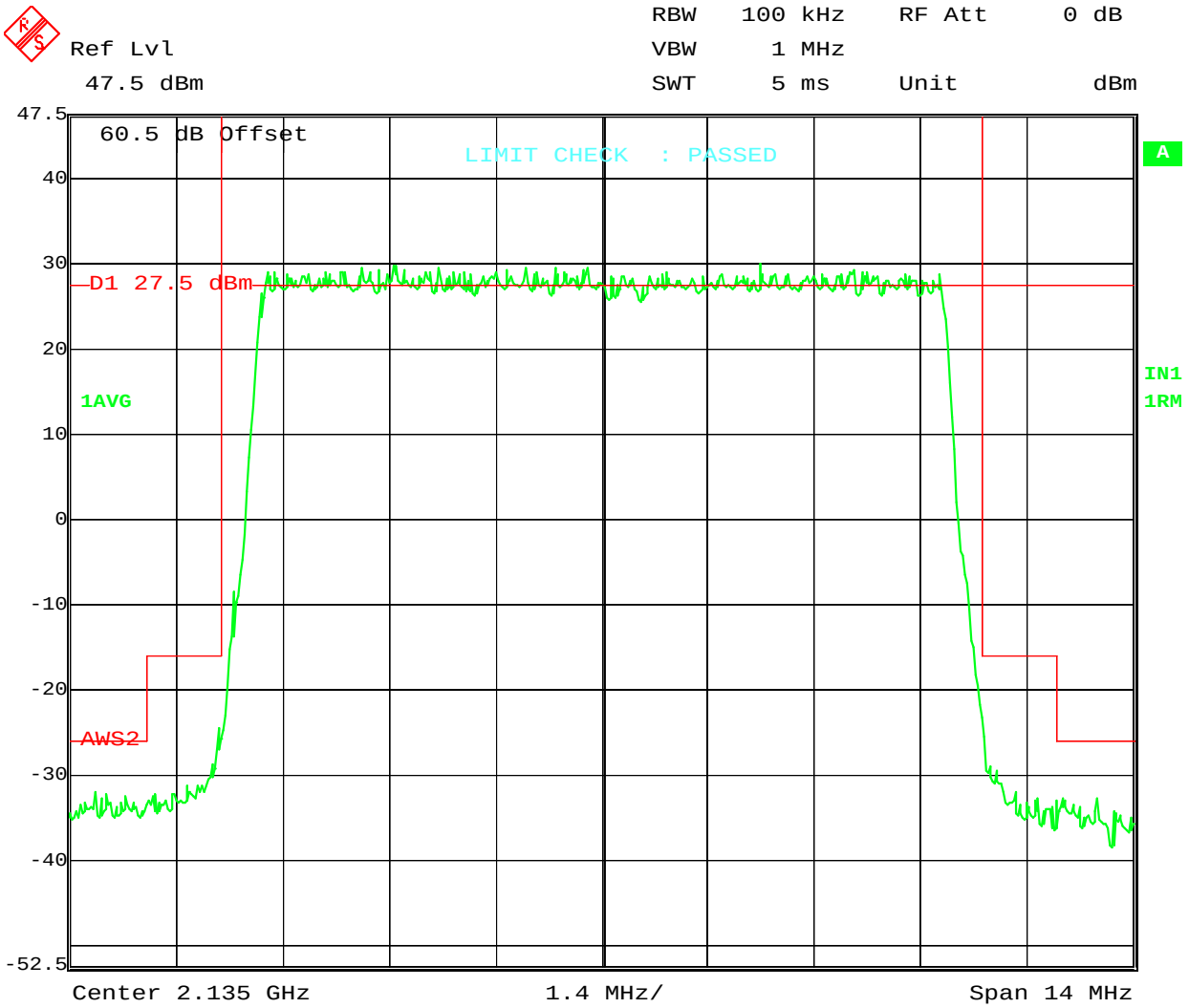
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK B; 2125MHz; 10MHz BW; PWR:60W; 64QAM
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 22.AUG.2013 07:36:30

Block: C+D

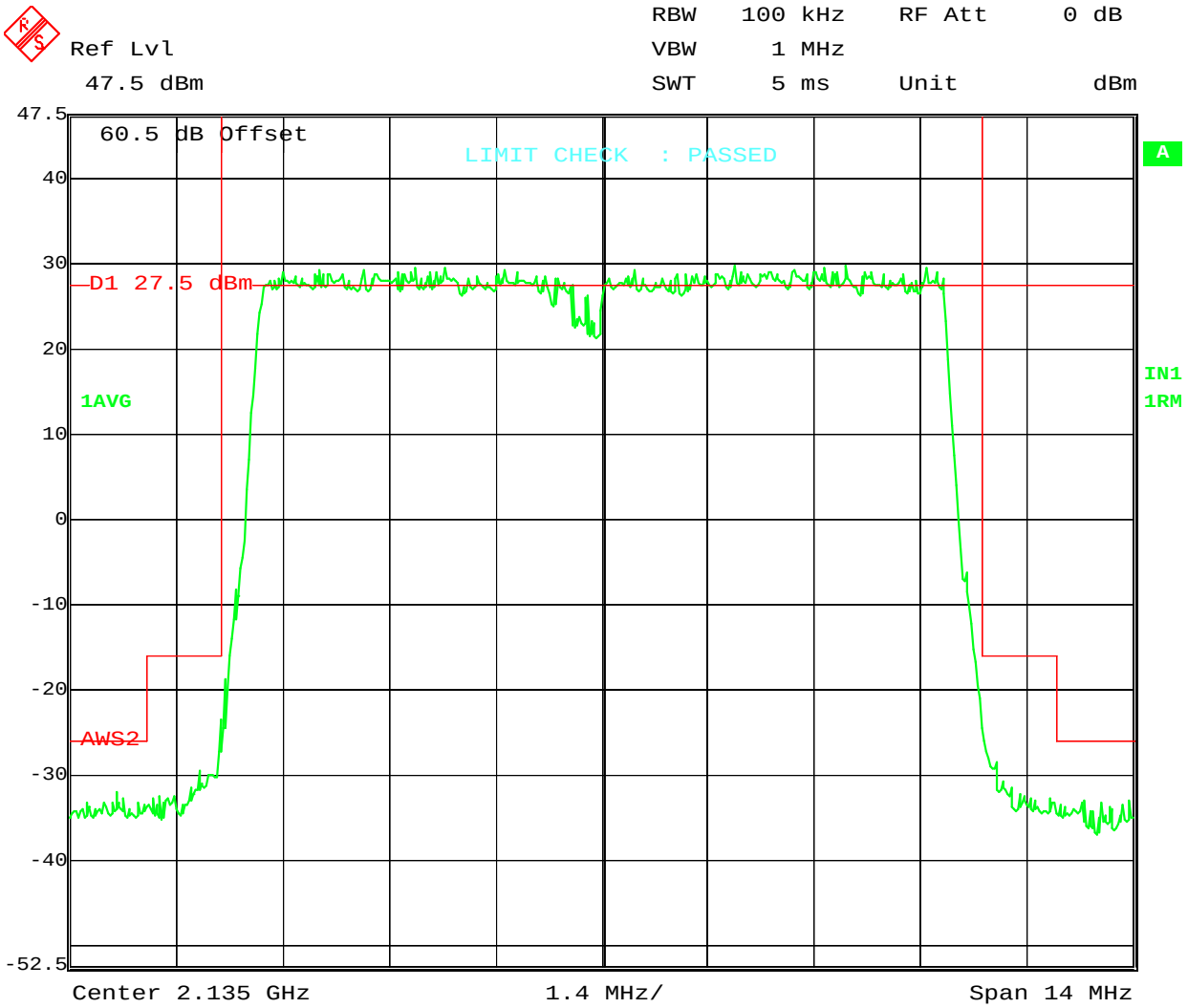
10 MHz Bandwidth (2130-2135+2135-2140 MHz)

2x60 watts (MIMO)

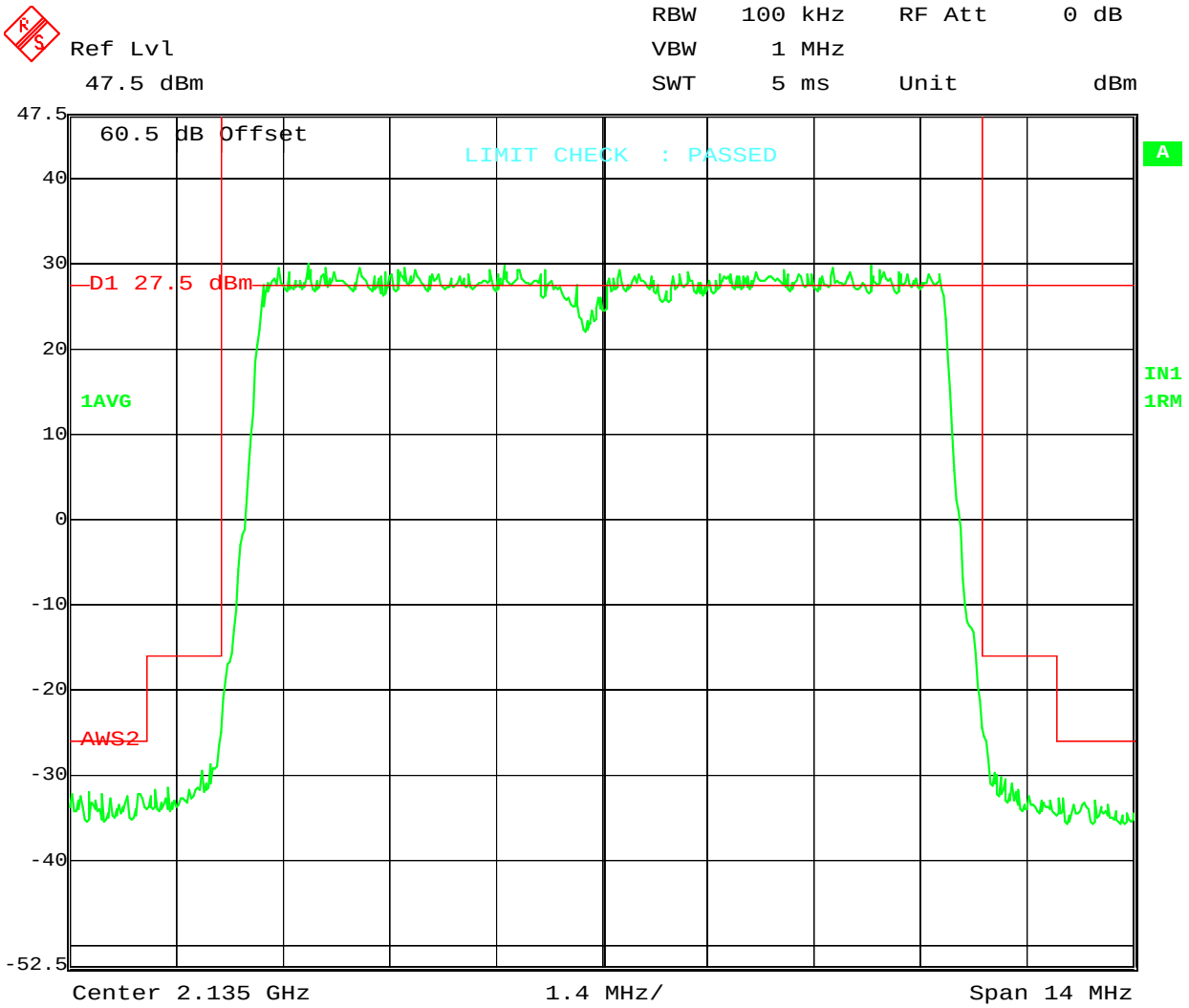
SPECTRUM MASK/OCCUPIED BANDWIDTH



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK C+D; 2135MHz; 10MHz BW; PWR:60W; QPSK
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 26.AUG.2013 05:00:52



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK C+D; 2135MHz; 10MHz BW; PWR:60W; 16QAM
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 22.AUG.2013 12:19:17



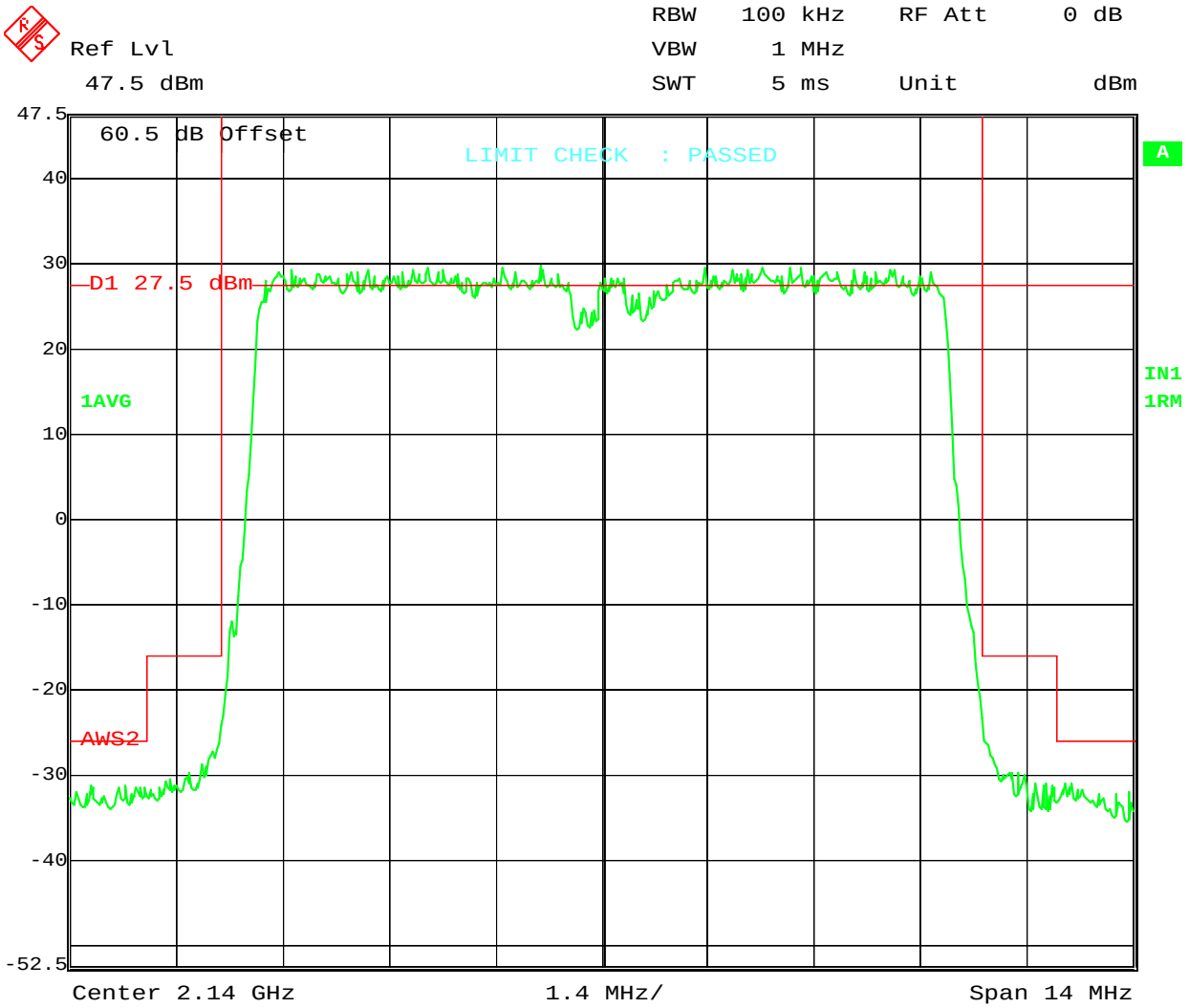
Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK C+D; 2135MHz; 10MHz BW; PWR:60W; 64QAM
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 22.AUG.2013 11:04:15

Block: D+E

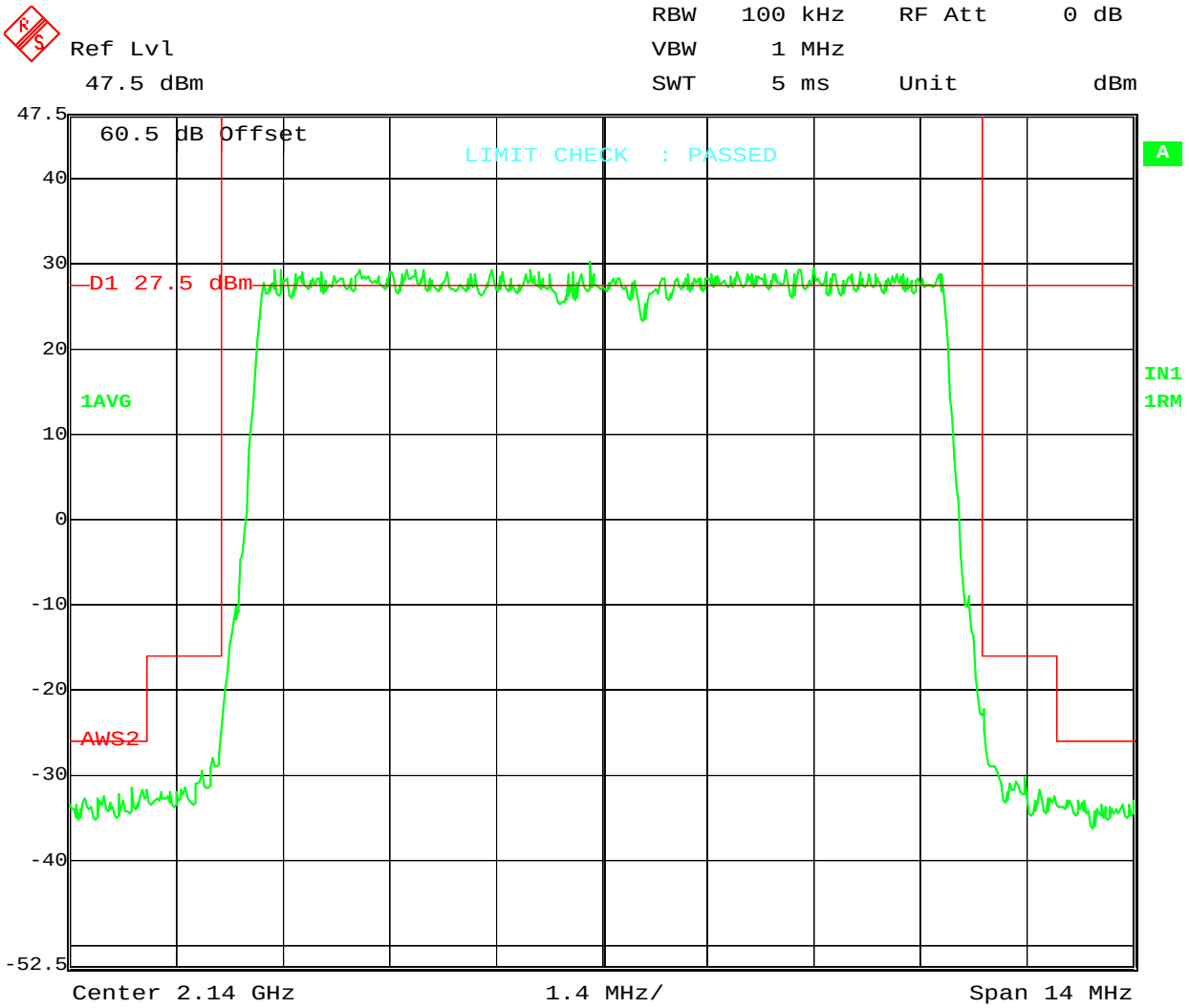
10 MHz Bandwidth (2135-2140+2140-2145 MHz)

2x60 watts (MIMO)

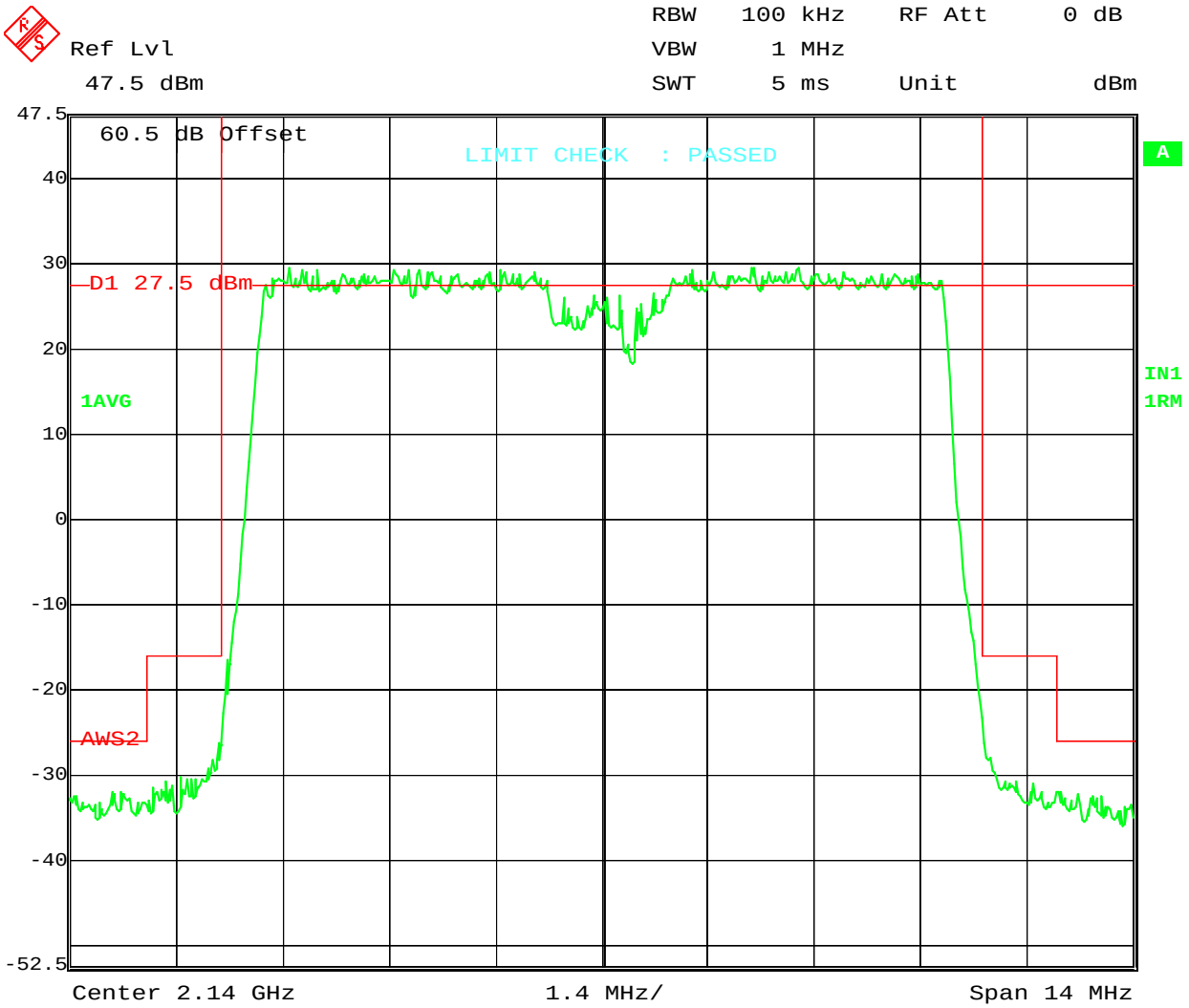
SPECTRUM MASK/OCCUPIED BANDWIDTH



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK D+E; 2140MHz; 10MHz BW; PWR:60W; QPSK
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 26.AUG.2013 08:04:34



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK D+E; 2140MHz; 10MHz BW; PWR:60W; 16QAM
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 26.AUG.2013 08:58:29



Title: Occupied Bandwidth; TRDU2X60-AWS Light Radio; ENG: JY
Comment A: -48VDC; 1C; BLK D+E; 2140MHz; 10MHz BW; PWR:60W; 64QAM
FCC PRT 27; FCCID:AS5BBTRX-13
Date: 26.AUG.2013 09:23:16

Block: F

10 MHz Bandwidth (2145-2155 MHz)

2x60 watts (MIMO)

SPECTRUM MASK/OCCUPIED BANDWIDTH