166 South Carter, Genoa City, WI 53128

| | |
|---|---|
| Company: | Cambium Networks |
| Model Tested: | C024900P011A |
| Report Number: | 19734 |
| DLS Project: | 6333 |

# Code of Federal Regulations 47 Part 15 – Radio Frequency Devices

Subpart C – Intentional Radiators

Section 15.247

Operation within the bands 902 - 928 MHz,
2400 - 2483.5 MHz, 5725 - 5875 MHz,
and 24.0 - 24.25 GHz.

PART 2 - Sections B6.0 to B10.0

THE FOLLOWING **MEETS** THE ABOVE TEST SPECIFICATION

| | |
|---|---|
| Formal Name: | EPMP AP 2.4 GHz OFDM MIMO Radio |
| Kind of Equipment: | Point-to-Point or Point-to-Multipoint Digital Transmission Transceiver |
| Frequency Range: | 2412to 2462 MHz (20 MHz bandwidth)<br>2422 to 2452 MHz (40 MHz bandwidth)<br>Please see the Users' Manual for the channel specifications for use with the Dish antenna. |
| Test Configuration: | Stand-alone |
| Model Number(s): | C024900P011A, C024900A011A |
| Model(s) Tested: | C024900P011A |
| Serial Number(s): | MAC Address: 000456C1A853 |
| Date of Tests: | January 13th to February 4th, 2014 |
| Test Conducted For: | Cambium Networks<br>3800 Golf Road, Suite 360<br>Rolling Meadows, IL 60008, USA |

**NOTICE**: "This test report relates only to the items tested and must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government". Please see the "Description of Test Sample" page listed inside of this report.

SIGNATURE PAGE

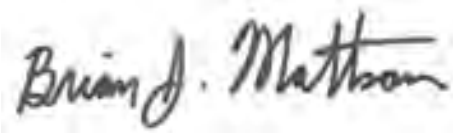
Tested By:

Craig Brandt
Senior Test Engineer

Reviewed By:

William Stumpf
OATS Manager

Approved By:



Brian Mattson
General Manager

## Table of Contents

**Appendix B – Measurement Data**

**B6.0 Maximum Unwanted Emission Levels – Conducted Band-Edge**

**Rule Section**: FCC 15.247(d) & FCC 15.205

**Test Procedure**: FCC KDB 558074 D01 DTS Meas Guidance v03r01 – *Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247*

## 11.0 Emissions in non-restricted frequency bands

**Description**:
RBW = 100 kHz
VBW ≥ 300 kHz
Span = 5-30% greater than the EBW – (Reference Level)
Span = spectrum to be examined – (Unwanted Emissions)
Detector = peak
Sweep = auto couple
Trace mode = max hold

Measurements were taken for OFDM MCS15 with 20 MHz and 40 MHz channel bandwidths at the low, middle and high channels of operation. EUT was set to transmit continuously with a 100% duty cycle.

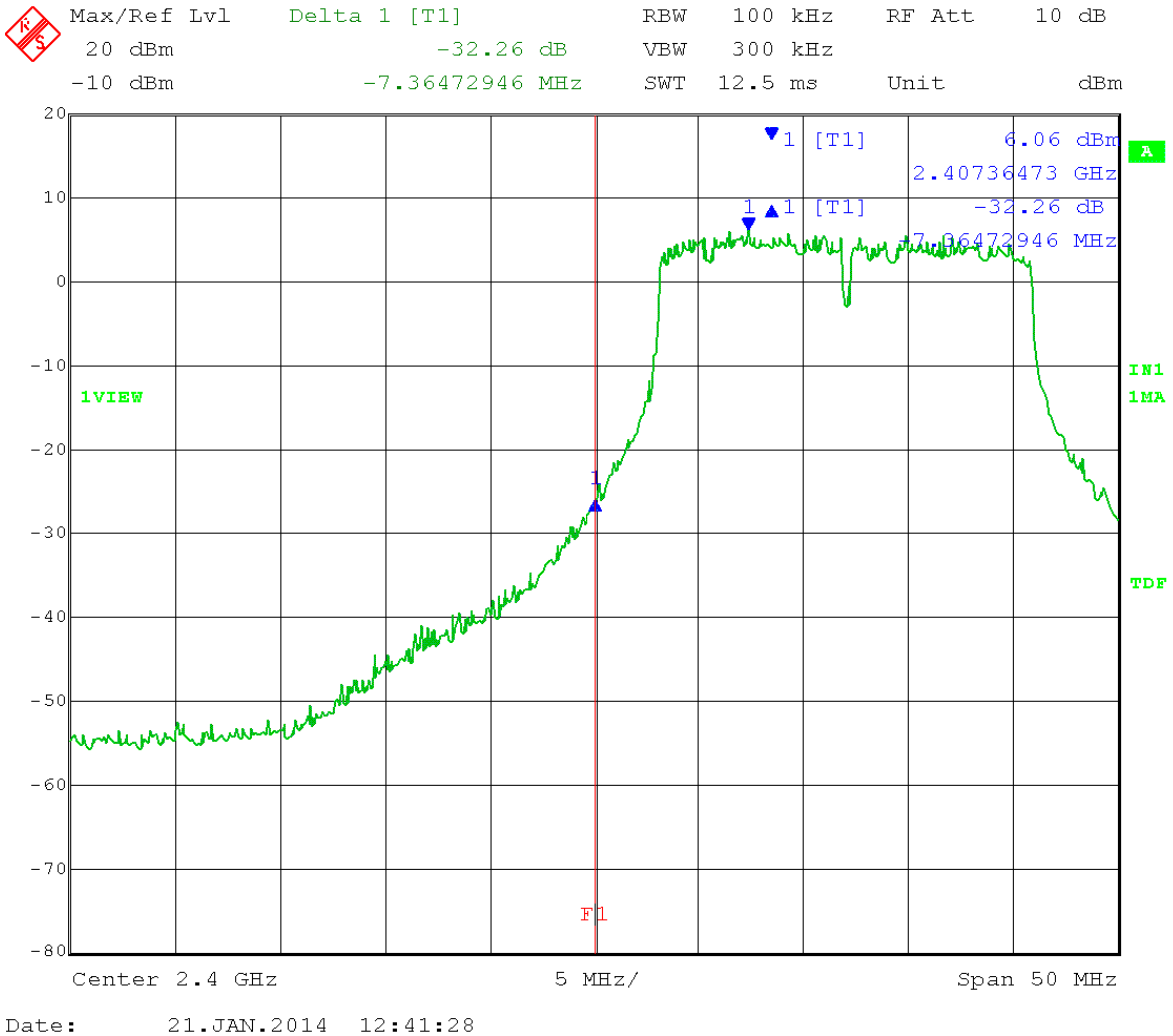
Per Cambium Networks request, measurements were only performed on output port 0.

**Limit:** 30 dB below maximum in-band average PSD level (maximum level in any 100 kHz band). Average output power procedure was used to measure the fundamental emission power.

**Results:** Passed

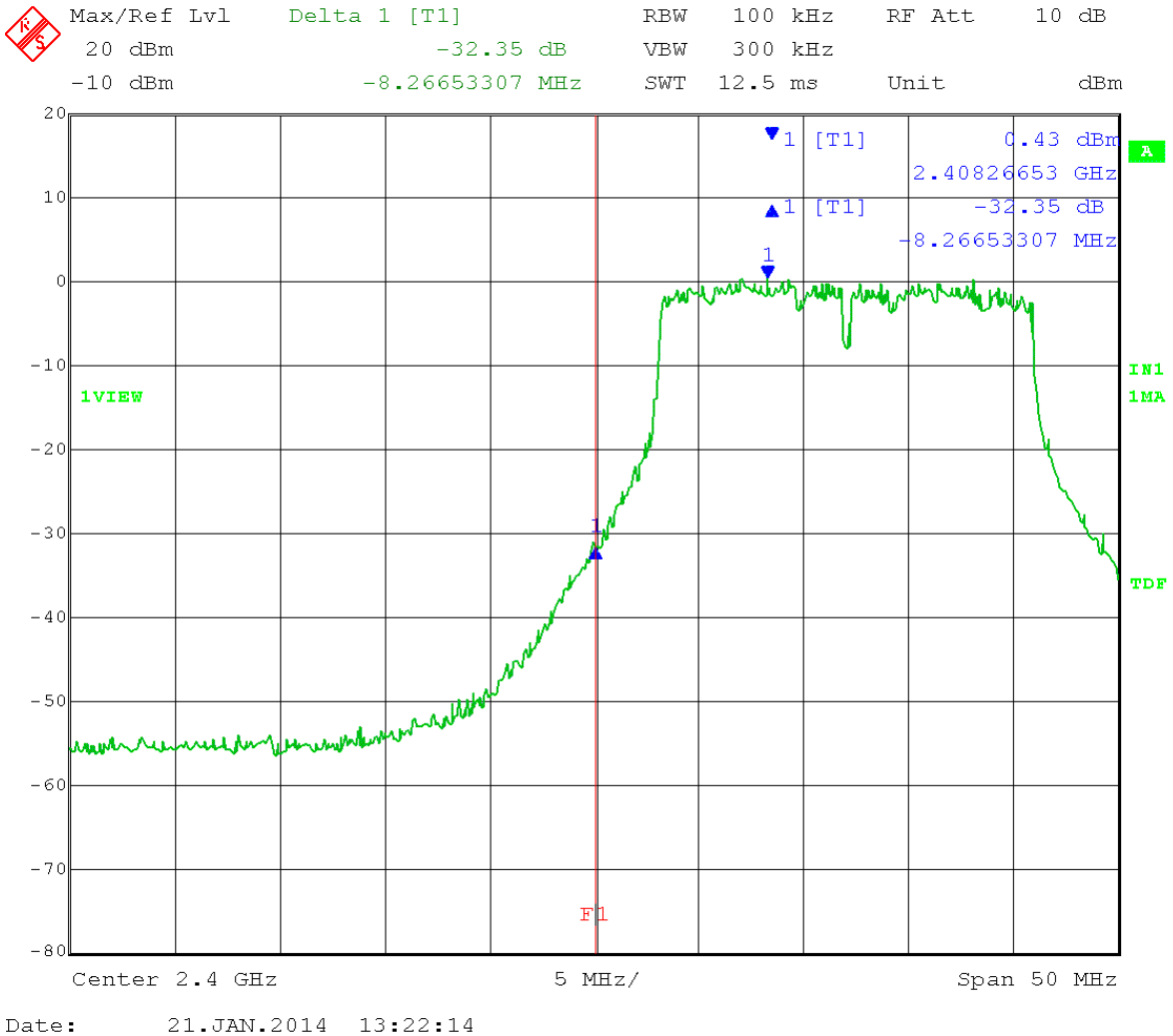
Test Date: 01-21-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Lower Band-Edge Measurements - Conducted
Operator: Craig B

Comment: RBW = 100 kHz VBW ≥ 300 kHz
Detector = Peak Sweep = auto couple
Trace = max hold
Low Channel: Transmit = 2412 MHz Output power setting: 16.5
Channel bandwidth: 20 MHz Output port: 0 Antenna gain: 8 dBi
Lower band edge frequency = 2.4 GHz
Limit: > 30 dB below Peak In-Band Emission



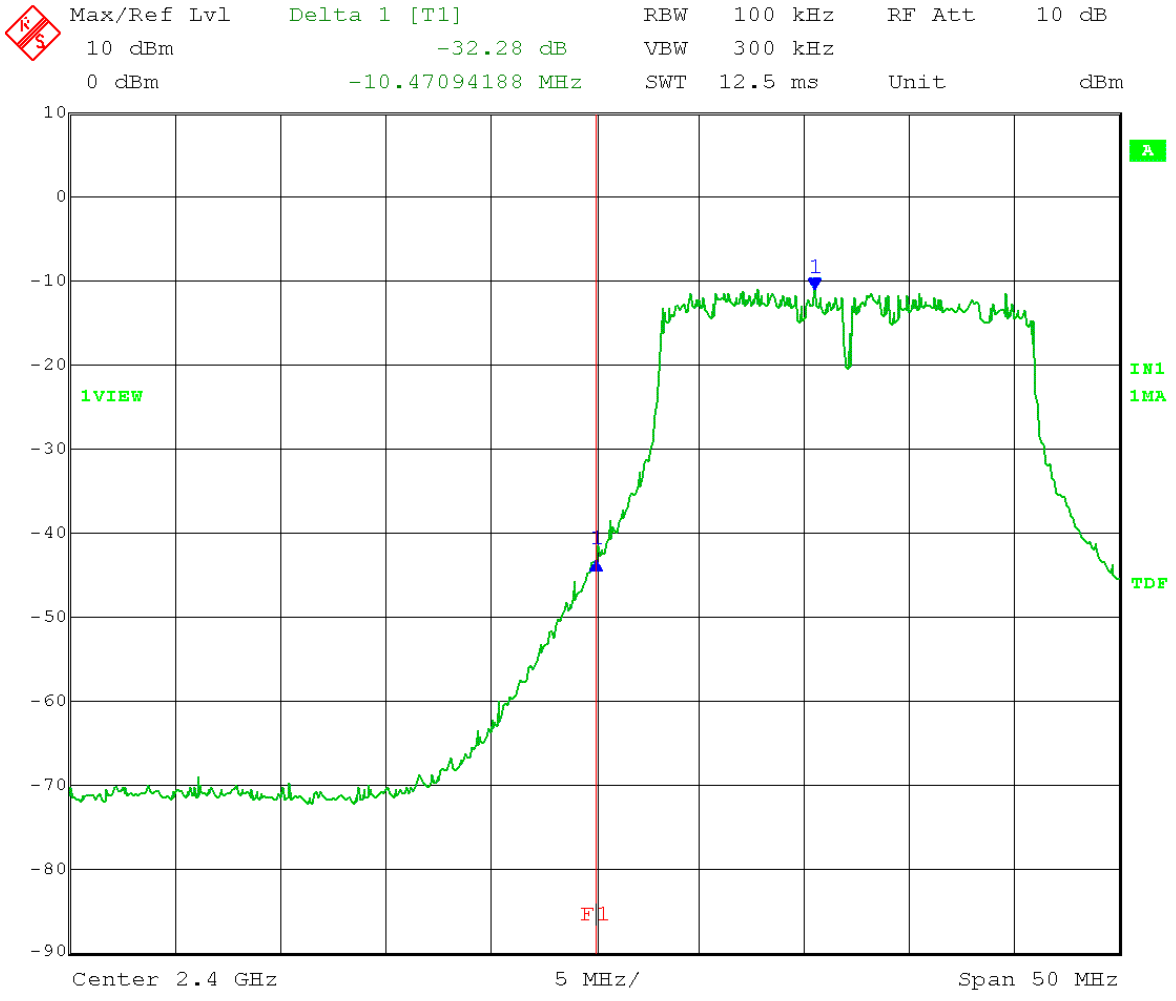
Test Date: 01-21-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Lower Band-Edge Measurements - Conducted
Operator: Craig B

Comment: RBW = 100 kHz VBW ≥ 300 kHz
Detector = Peak Sweep = auto couple
Trace = max hold
Low Channel: Transmit = 2412 MHz Output power setting: 12
Channel bandwidth: 20 MHz Output port: 0 Antenna gain: 17 dBi
Lower band edge frequency = 2.4 GHz
Limit: > 30 dB below Peak In-Band Emission



Test Date: 01-31-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Lower Band-Edge Measurements - Conducted
Operator: Craig B

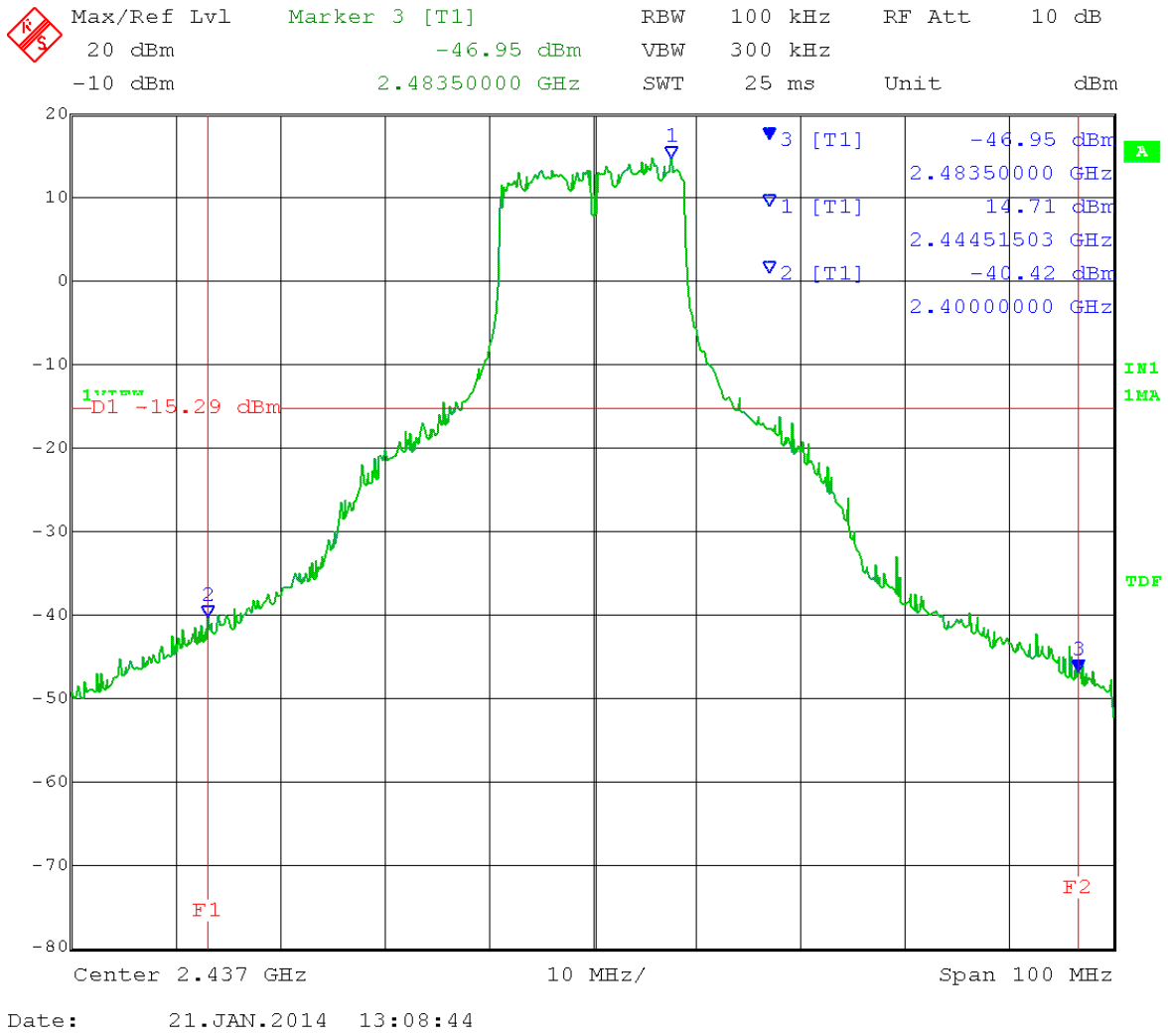
Comment: RBW = 100 kHz VBW ≥ 300 kHz
Detector = Peak Sweep = auto couple
Trace = max hold
Low Channel: Transmit = 2412 MHz Output power setting: 1
Channel bandwidth: 20 MHz Output port: 0 Antenna gain: 25 dBi
Lower band edge frequency = 2.4 GHz
Limit: > 30 dB below Peak In-Band Emission




Date: 31.JAN.2014 11:07:10

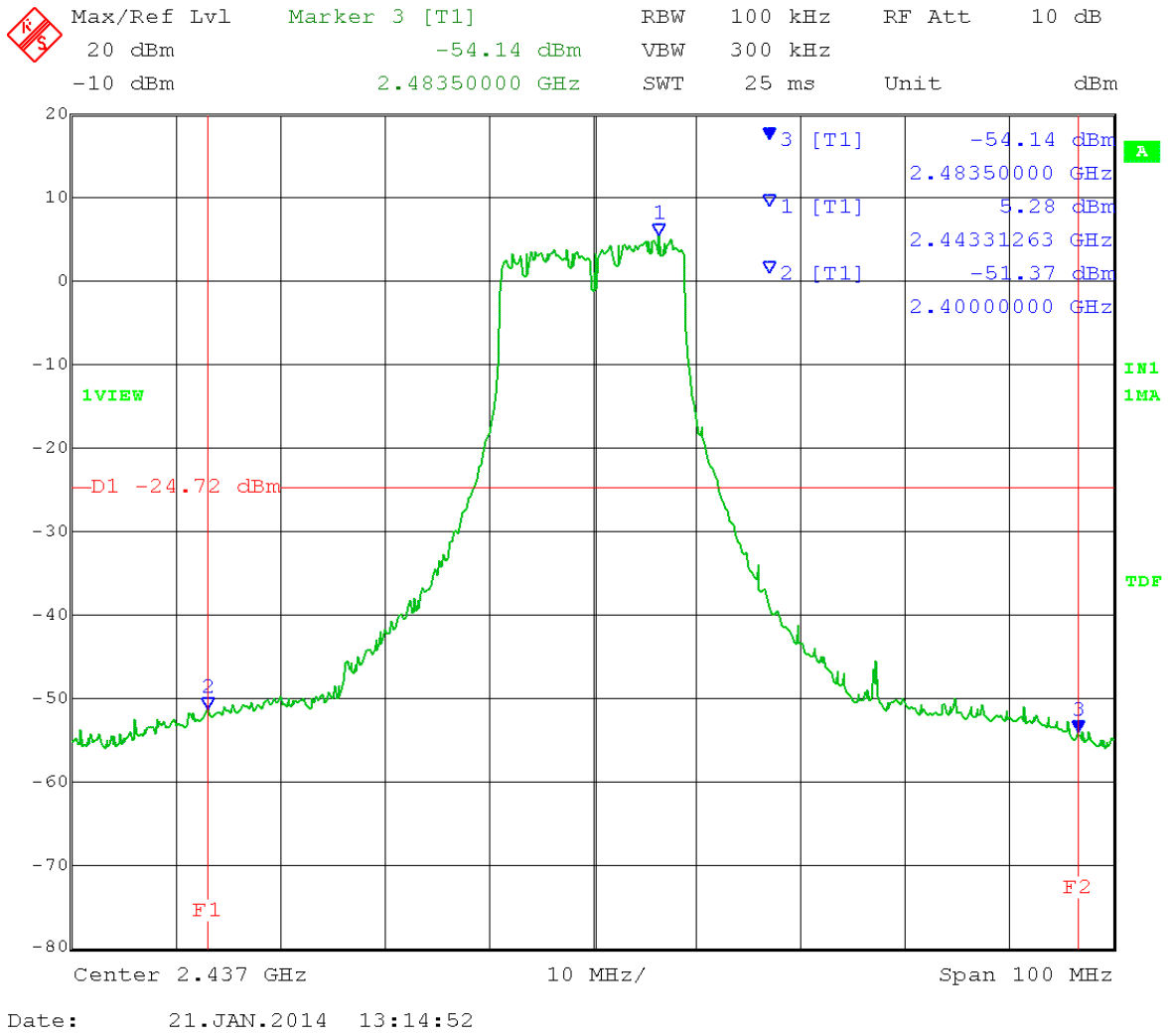
Test Date: 01-21-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements - Conducted
Operator: Craig B

Comment: RBW = 100 kHz VBW ≥ 300 kHz
Detector = Peak Sweep = auto couple
Trace = max hold
Mid Channel: Transmit = 2437 MHz Output power setting: 26
Channel bandwidth: 20 MHz Output port: 0 Antenna gain: 8 dBi
Lower band edge frequency = 2.4 GHz
Upper band edge frequency = 2.4835 GHz
Limit: > 30 dB below Peak In-Band Emission



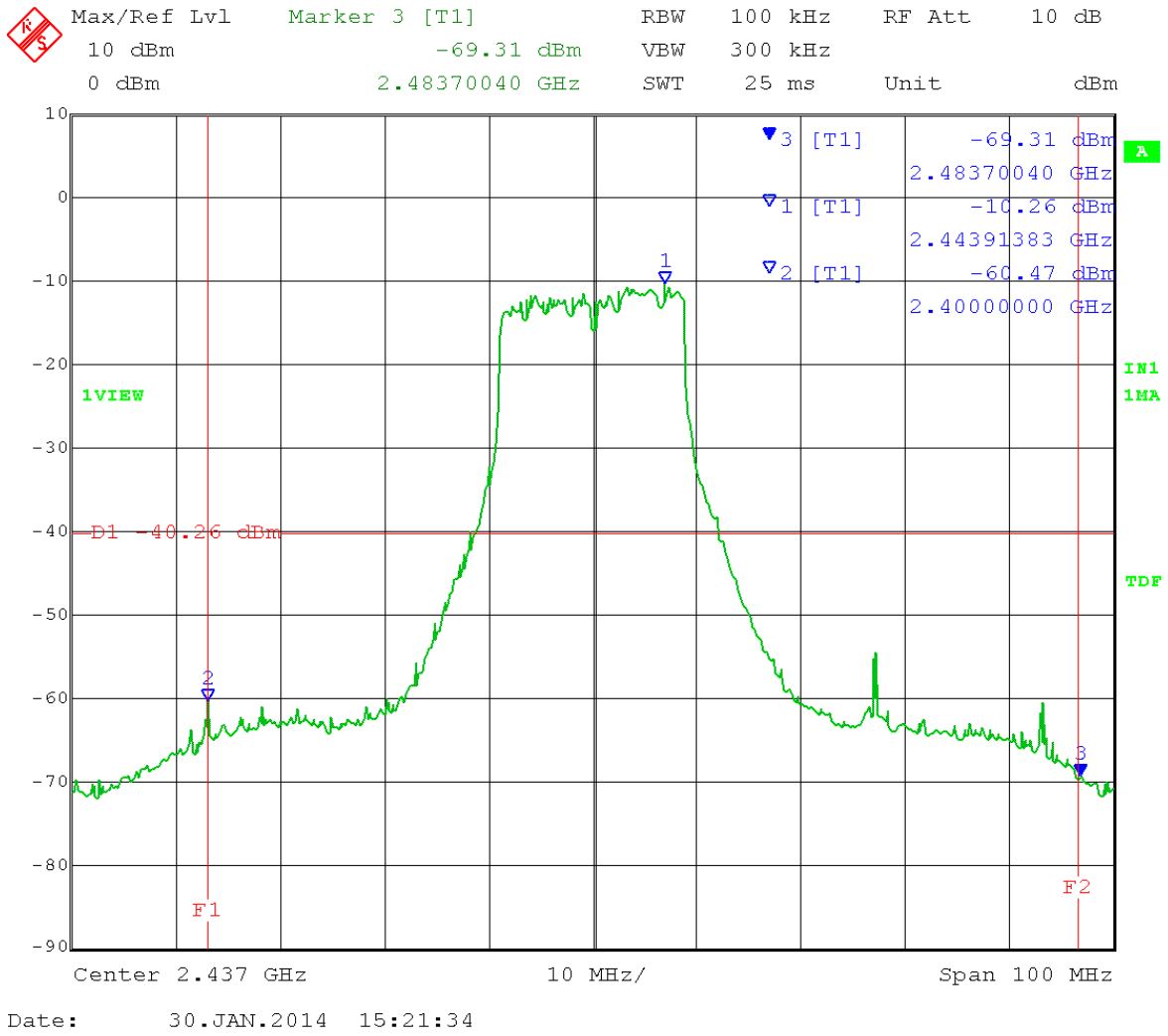
Test Date: 01-21-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Lower Band-Edge Measurements - Conducted
Operator: Craig B

Comment: RBW = 100 kHz VBW ≥ 300 kHz
Detector = Peak Sweep = auto couple
Trace = max hold
Mid Channel: Transmit = 2437 MHz Output power setting: 17
Channel bandwidth: 20 MHz Output port: 0 Antenna gain: 17 dBi
Lower band edge frequency = 2.4 GHz
Upper band edge frequency = 2.4835 GHz
Limit: > 30 dB below Peak In-Band Emission



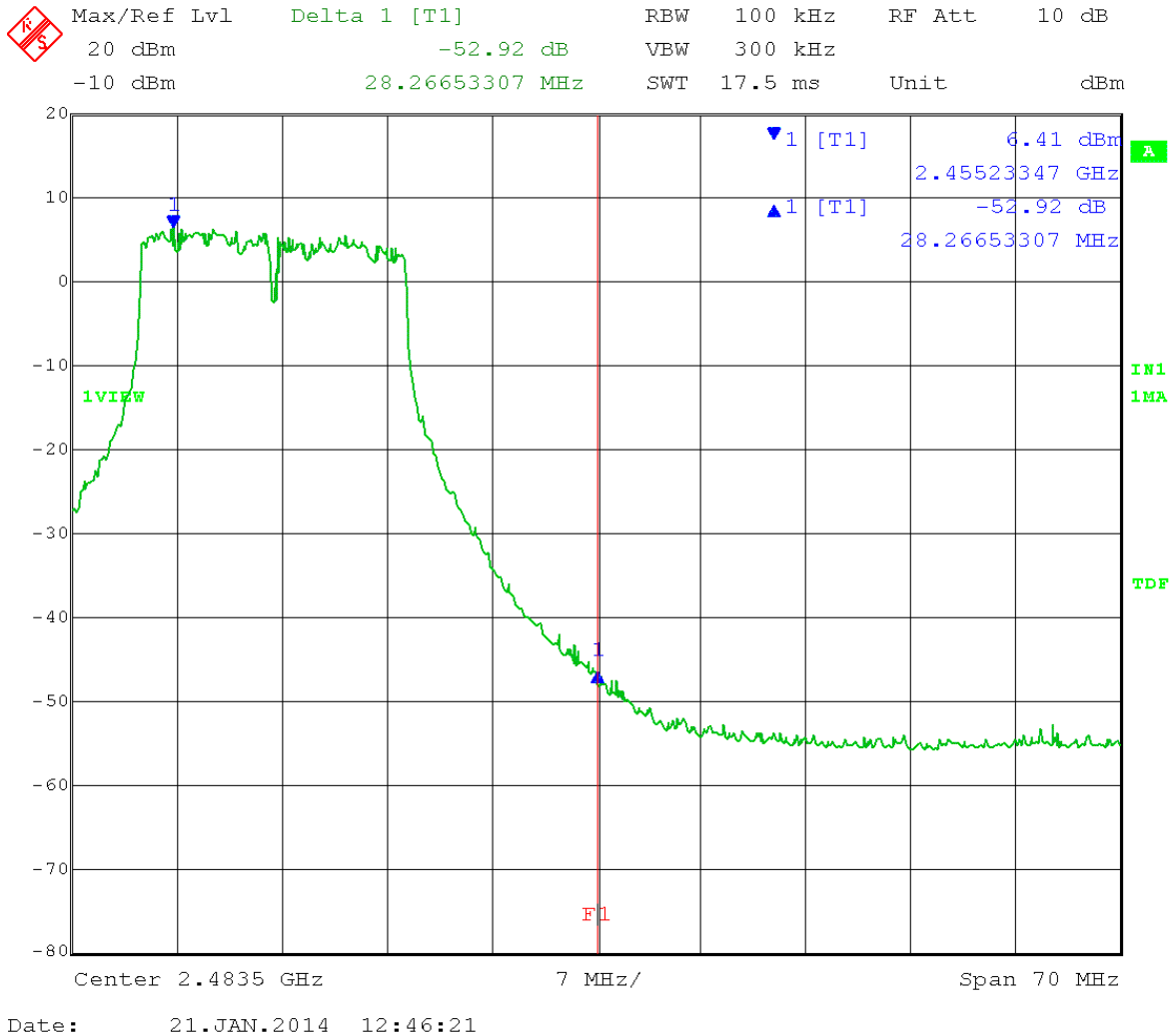
Test Date: 01-30-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements - Conducted
Operator: Craig B

Comment: RBW = 100 kHz VBW ≥ 300 kHz
Detector = Peak Sweep = auto couple
Trace = max hold
Mid Channel: Transmit = 2437 MHz Output power setting: 1.5
Channel bandwidth: 20 MHz Output port: 0 Antenna gain: 25 dBi
Lower band edge frequency = 2.4 GHz
Upper band edge frequency = 2.4835 GHz
Limit: > 30 dB below Peak In-Band Emission



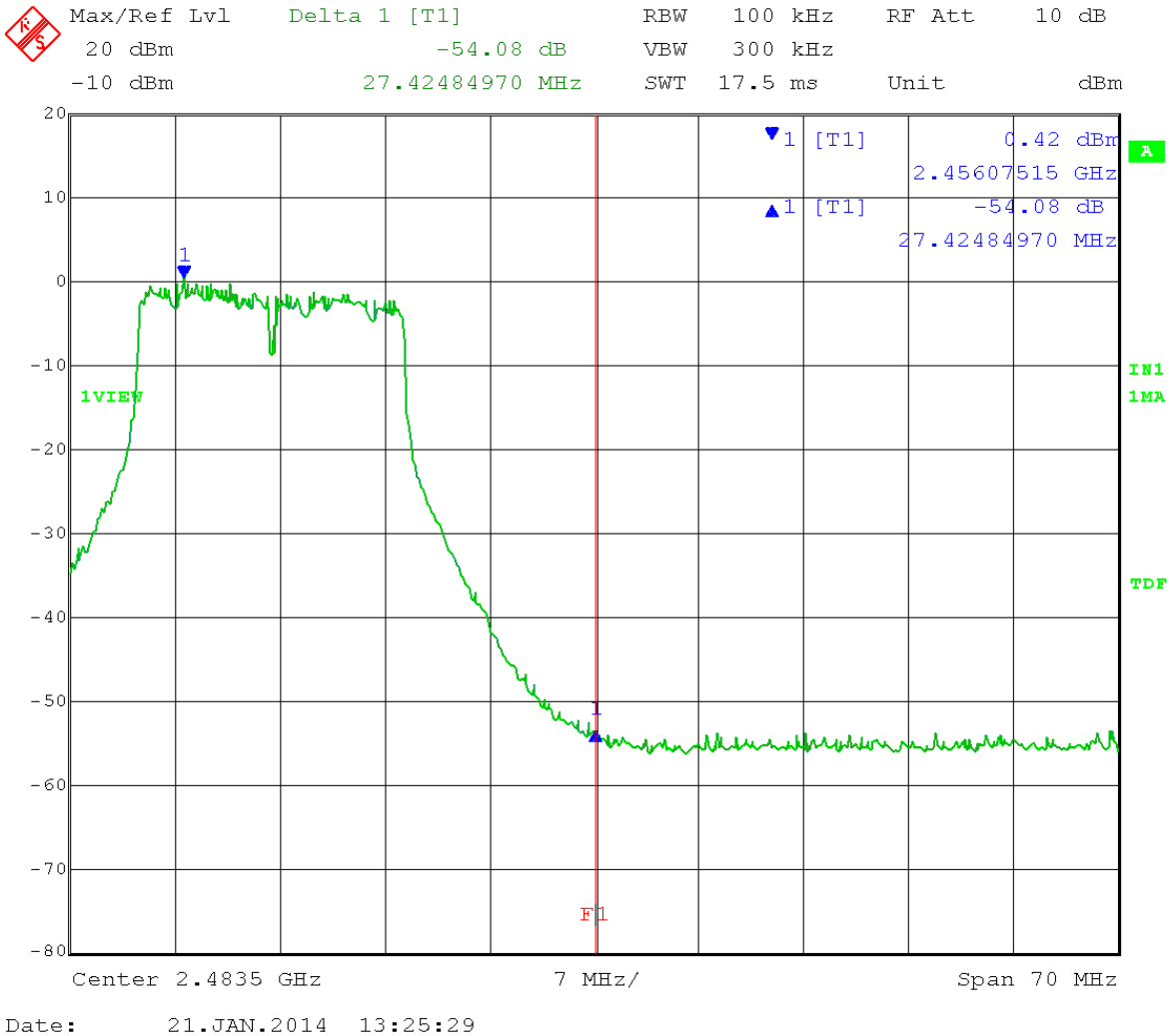
Test Date: 01-21-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Upper Band-Edge Measurements - Conducted
Operator: Craig B

Comment: RBW = 100 kHz VBW ≥ 300 kHz
Detector = Peak Sweep = auto couple
Trace = max hold
High Channel: Transmit = 2462 MHz Output power setting: 17.5
Channel bandwidth: 20 MHz Output port: 0 Antenna gain: 8 dBi
Upper band edge frequency = 2.4835 GHz
Limit: > 30 dB below Peak In-Band Emission



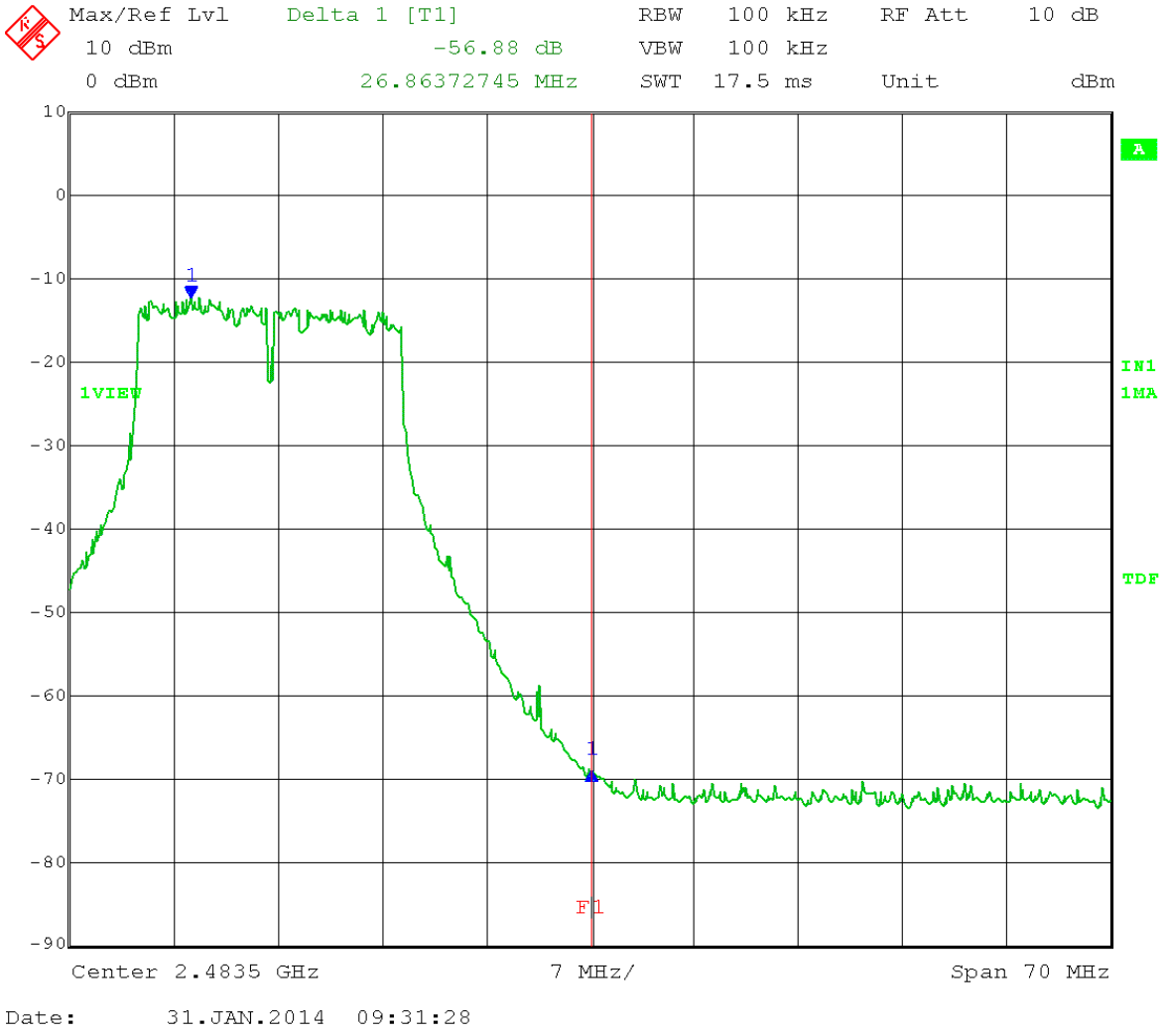
Test Date: 01-21-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Upper Band-Edge Measurements - Conducted
Operator: Craig B

Comment: RBW = 100 kHz VBW ≥ 300 kHz
Detector = Peak Sweep = auto couple
Trace = max hold
High Channel: Transmit = 2462 MHz Output power setting: 12
Channel bandwidth: 20 MHz Output port: 0 Antenna gain: 17 dBi
Upper band edge frequency = 2.4835 GHz
Limit: > 30 dB below Peak In-Band Emission



Test Date: 01-31-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Upper Band-Edge Measurements - Conducted
Operator: Craig B

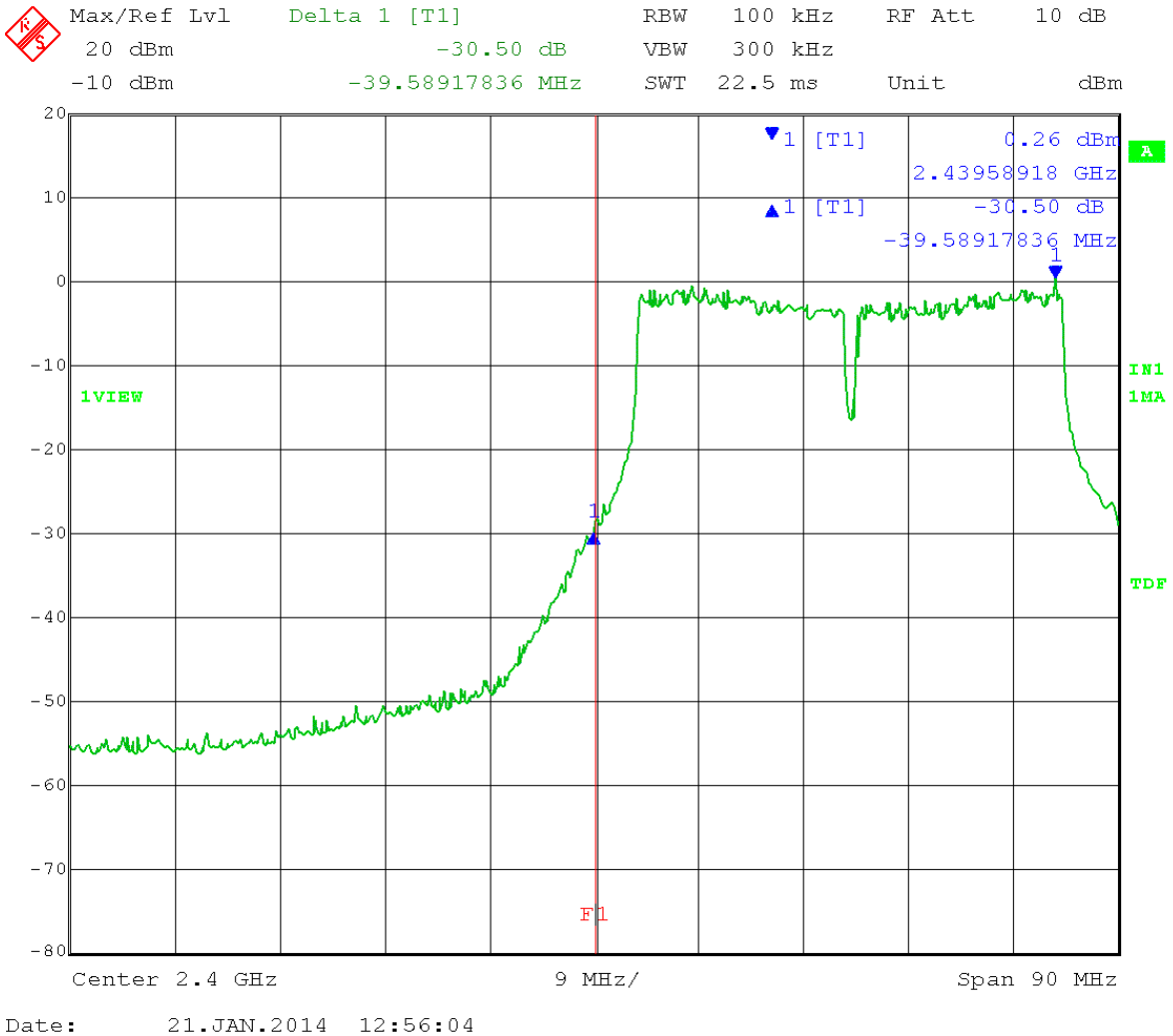
Comment: RBW = 100 kHz VBW ≥ 300 kHz
Detector = Peak Sweep = auto couple
Trace = max hold
High Channel: Transmit = 2462 MHz Output power setting: 0
Channel bandwidth: 20 MHz Output port: 0 Antenna gain: 25 dBi
Upper band edge frequency = 2.4835 GHz
Limit: > 30 dB below Peak In-Band Emission




Date: 31.JAN.2014 09:31:28

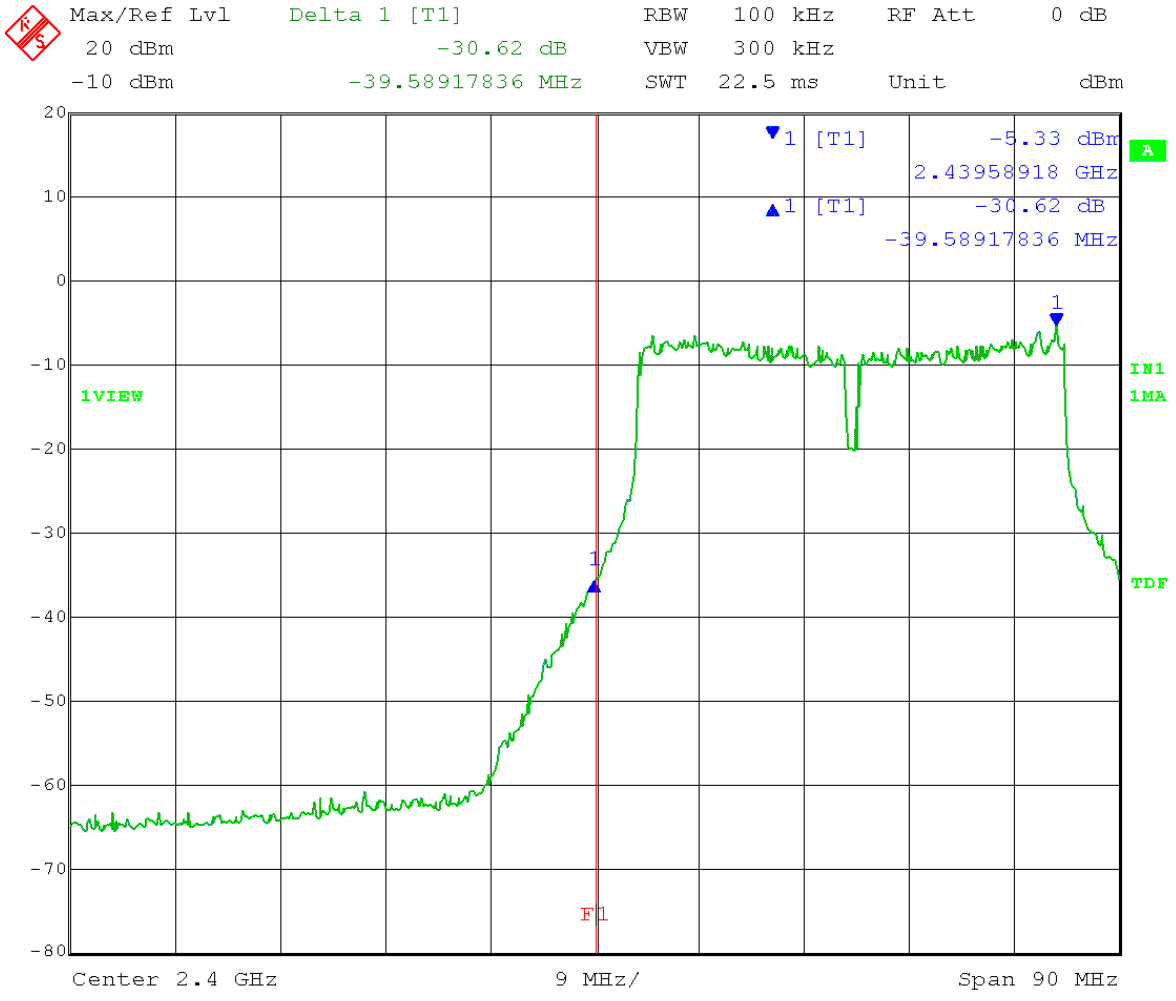
Test Date: 01-21-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Lower Band-Edge Measurements - Conducted
Operator: Craig B

Comment: RBW = 100 kHz VBW ≥ 300 kHz
Detector = Peak Sweep = auto couple
Trace = max hold
Low Channel: Transmit = 2422 MHz Output power setting: 13
Channel bandwidth: 40 MHz Output port: 0 Antenna gain: 8 dBi
Lower band edge frequency = 2.4 GHz
Limit: > 30 dB below Peak In-Band Emission



Test Date: 01-21-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Lower Band-Edge Measurements - Conducted
Operator: Craig B

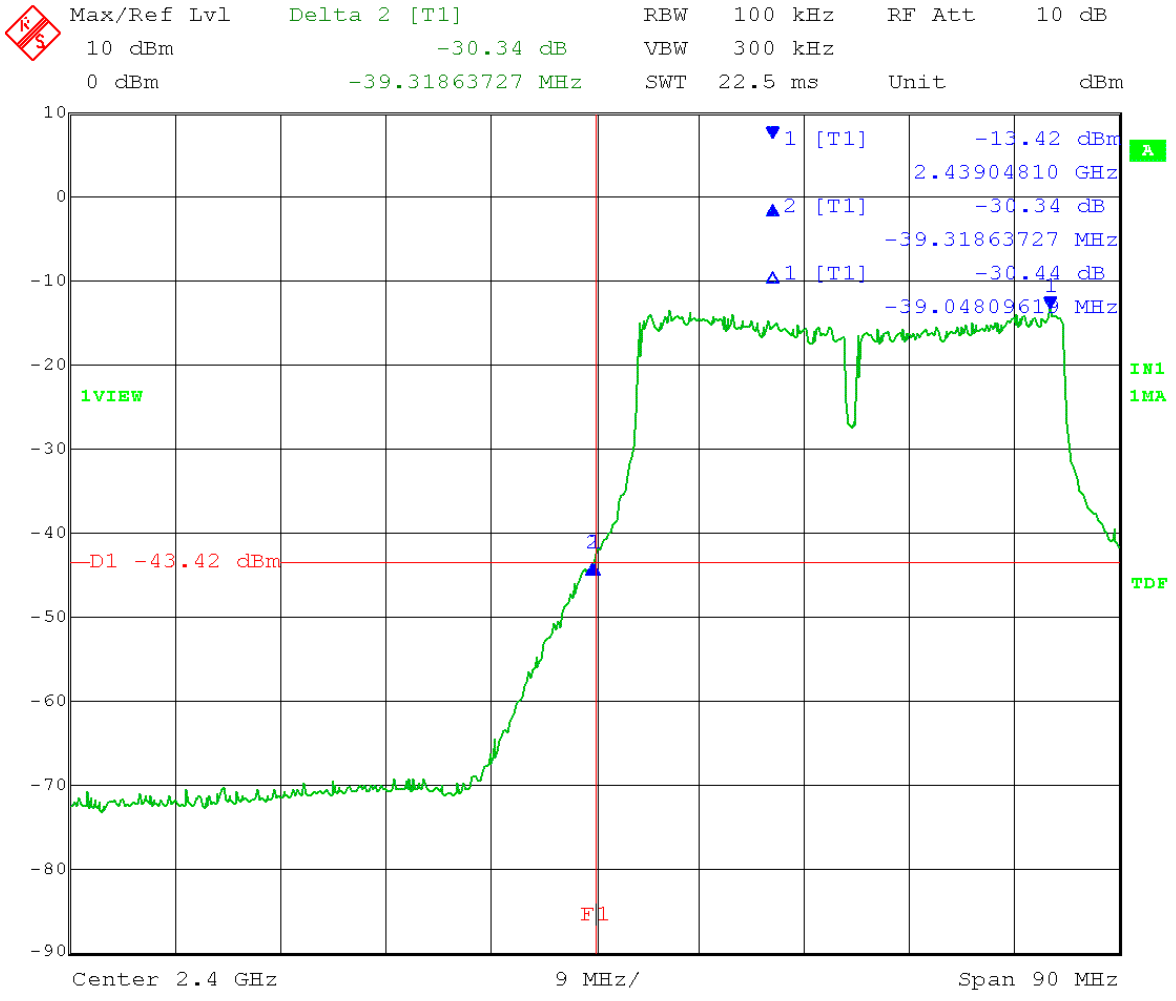
Comment: RBW = 100 kHz VBW ≥ 300 kHz
Detector = Peak Sweep = auto couple
Trace = max hold
Low Channel: Transmit = 2422 MHz Output power setting: 8
Channel bandwidth: 40 MHz Output port: 0 Antenna gain: 17 dBi
Lower band edge frequency = 2.4 GHz
Limit: > 30 dB below Peak In-Band Emission




Date: 21.JAN.2014 13:44:17

Test Date: 02-03-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Lower Band-Edge Measurements - Conducted
Operator: Craig B

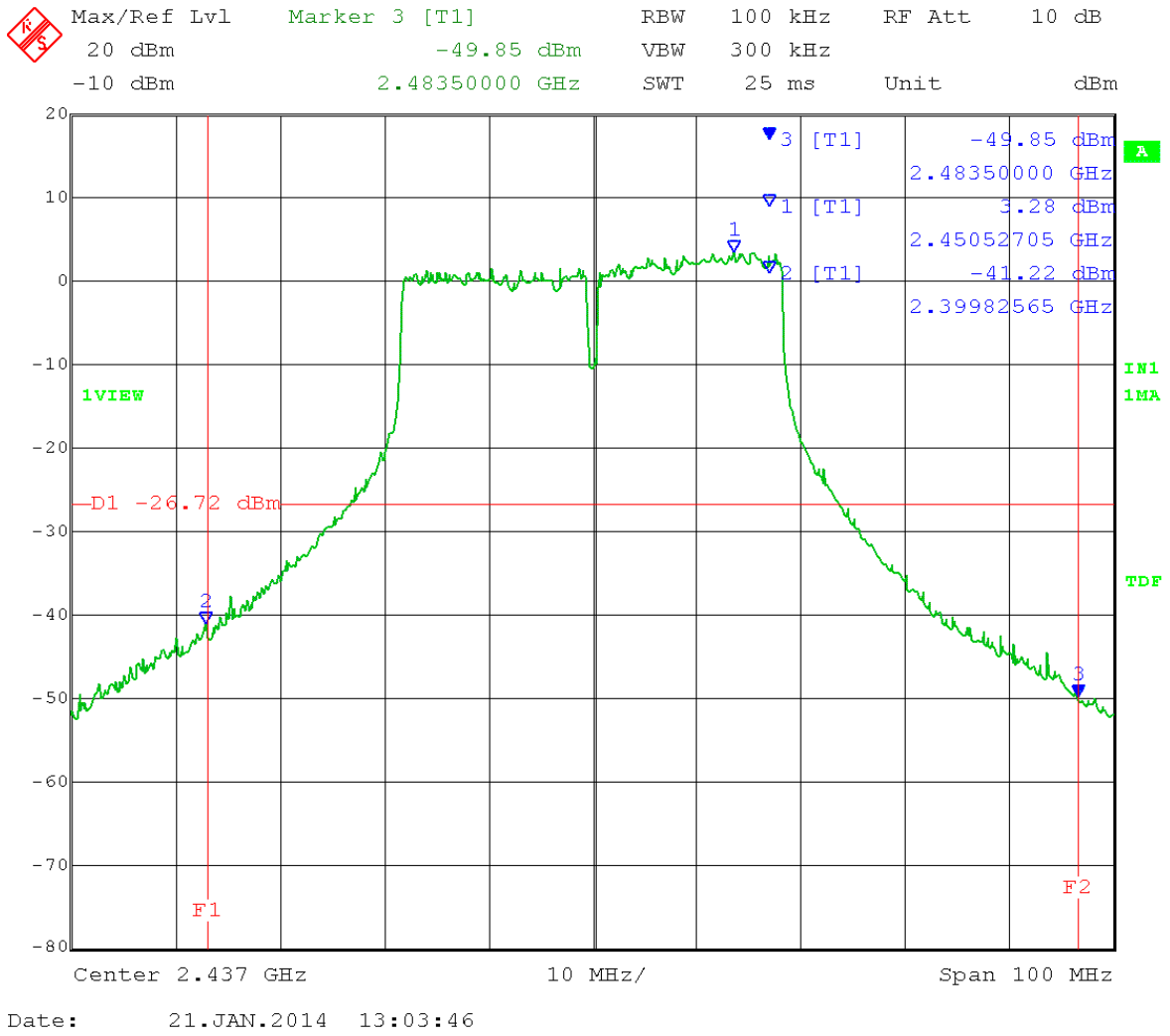
Comment: RBW = 100 kHz VBW ≥ 300 kHz
Detector = Peak Sweep = auto couple
Trace = max hold
Low Channel: Transmit = 2422 MHz Output power setting: 1
Channel bandwidth: 40 MHz Output port: 0 Antenna gain: 25 dBi
Lower band edge frequency = 2.4 GHz
Limit: > 30 dB below Peak In-Band Emission




Date: 3.FEB.2014 14:14:25

Test Date: 01-21-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements - Conducted
Operator: Craig B

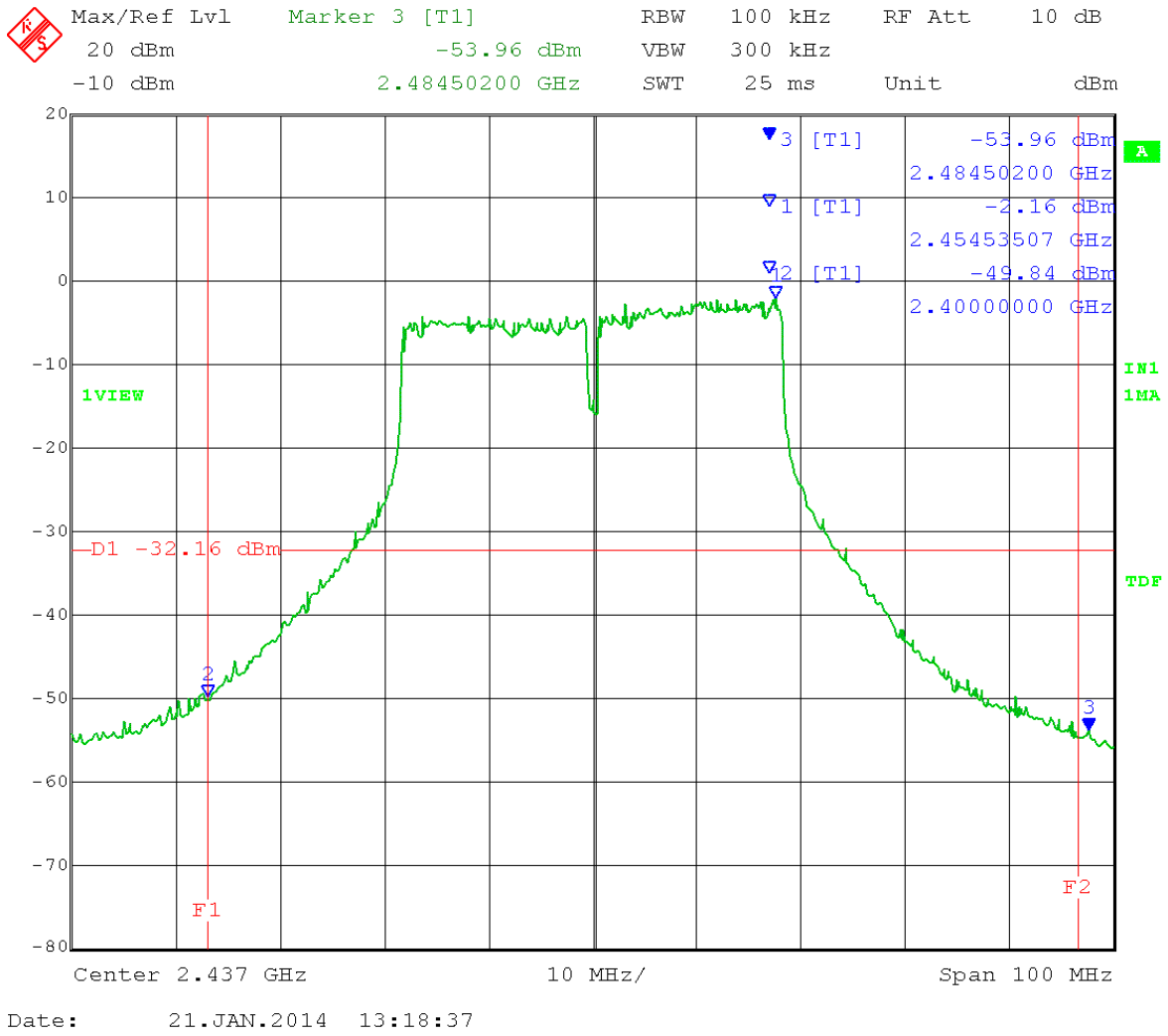
Comment: RBW = 100 kHz VBW ≥ 300 kHz
Detector = Peak Sweep = auto couple
Trace = max hold
Mid Channel: Transmit = 2437 MHz Output power setting: 17
Channel bandwidth: 40 MHz Output port: 0 Antenna gain: 8 dBi
Lower band edge frequency = 2.4 GHz
Upper band edge frequency = 2.4835 GHz
Limit: > 30 dB below Peak In-Band Emission




Date: 21.JAN.2014 13:03:46

Test Date: 01-21-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements - Conducted
Operator: Craig B

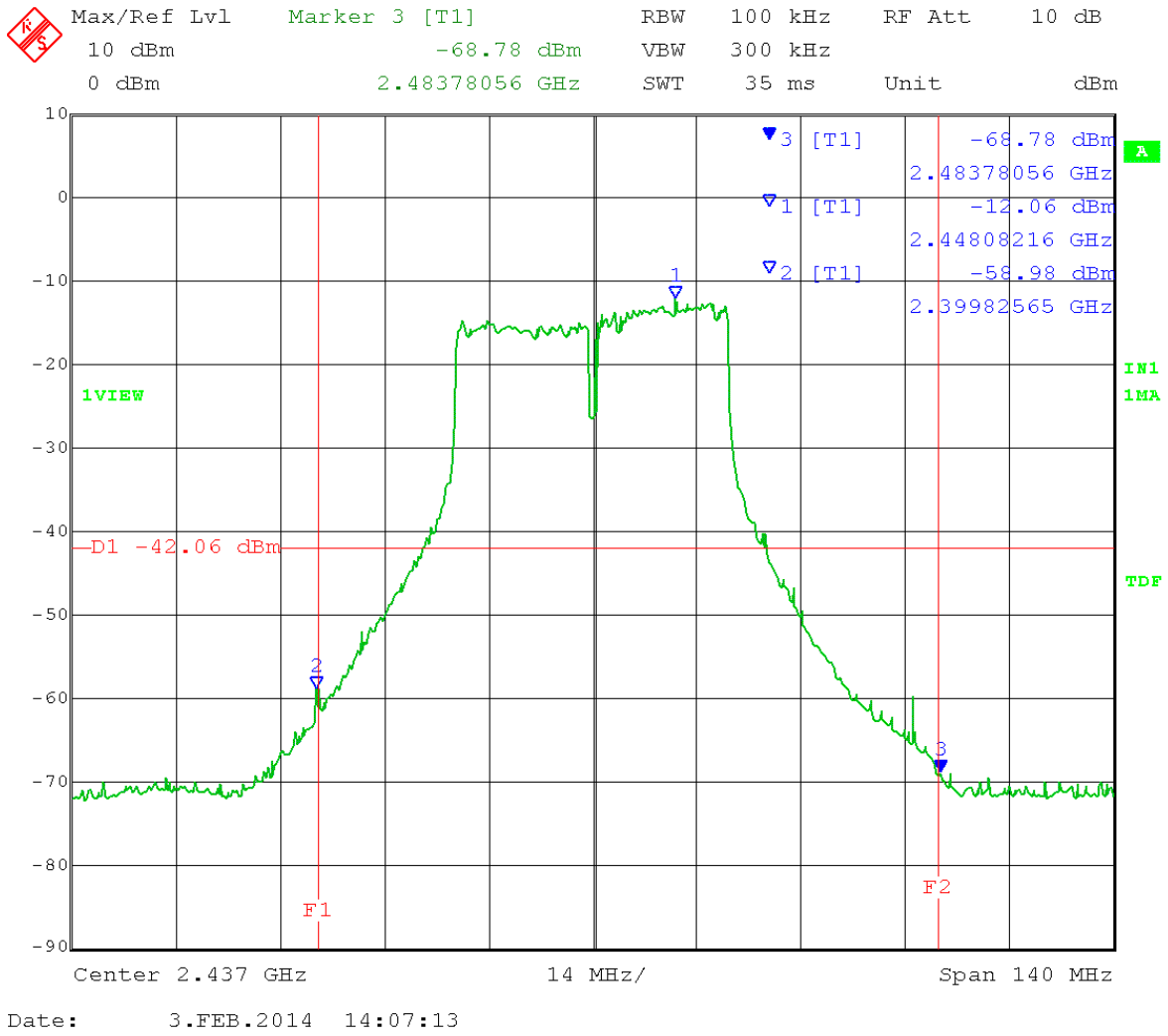
Comment: RBW = 100 kHz VBW ≥ 300 kHz
Detector = Peak Sweep = auto couple
Trace = max hold
Mid Channel: Transmit = 2437 MHz Output power setting: 12
Channel bandwidth: 40 MHz Output port: 0 Antenna gain: 17 dBi
Lower band edge frequency = 2.4 GHz
Upper band edge frequency = 2.4835 GHz
Limit: > 30 dB below Peak In-Band Emission




Date: 21.JAN.2014 13:18:37

Test Date: 02-03-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements - Conducted
Operator: Craig B

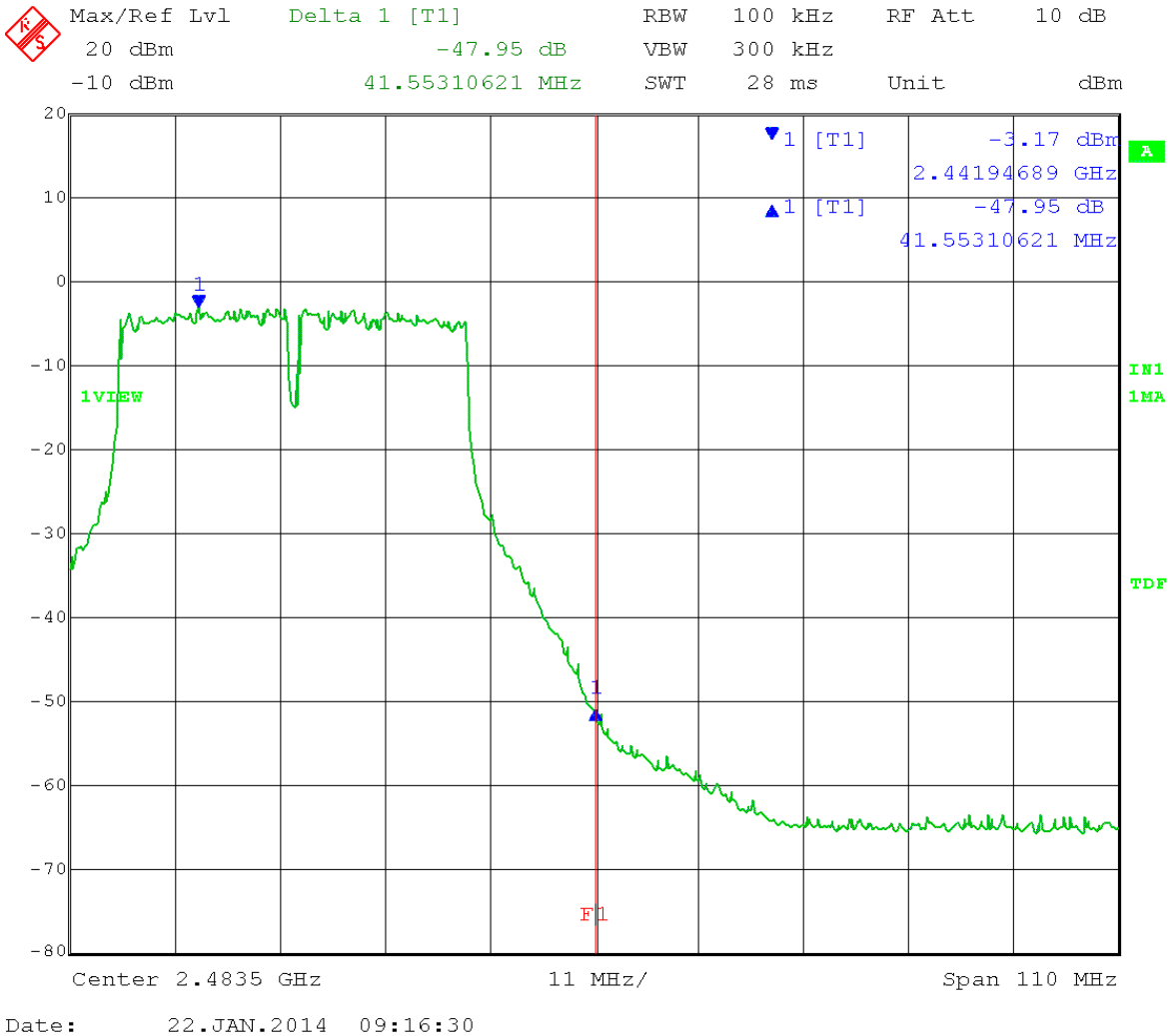
Comment: RBW = 100 kHz VBW ≥ 300 kHz
Detector = Peak Sweep = auto couple
Trace = max hold
Mid Channel: Transmit = 2437 MHz Output power setting: 1.5
Channel bandwidth: 40 MHz Output port: 0 Antenna gain: 25 dBi
Lower band edge frequency = 2.4 GHz
Upper band edge frequency = 2.4835 GHz
Limit: > 30 dB below Peak In-Band Emission




Date: 3.FEB.2014 14:07:13

Test Date: 01-22-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Upper Band-Edge Measurements - Conducted
Operator: Craig B

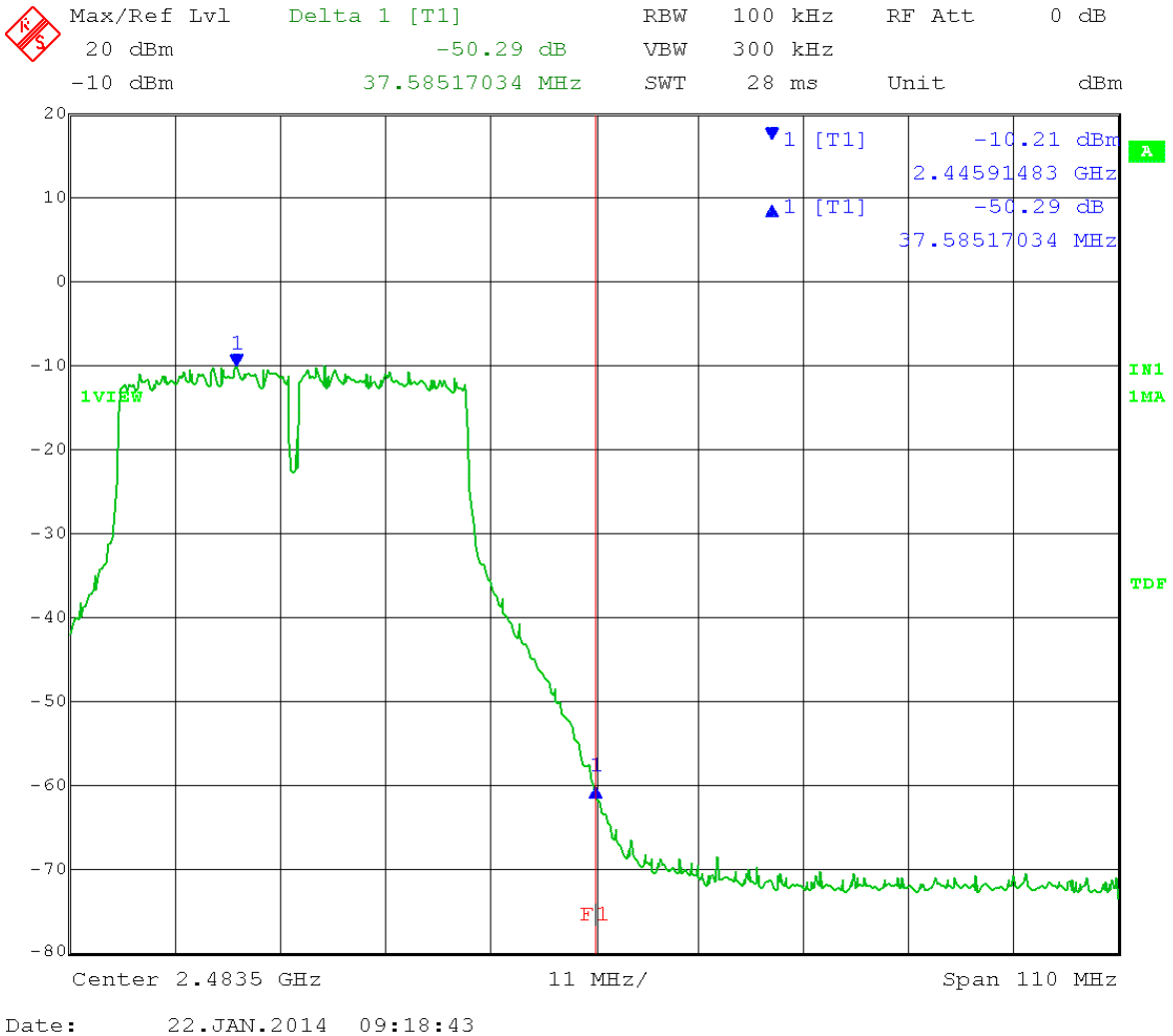
Comment: RBW = 100 kHz VBW ≥ 300 kHz
Detector = Peak Sweep = auto couple
Trace = max hold
High Channel: Transmit = 2452 MHz Output power setting: 12
Channel bandwidth: 40 MHz Output port: 0 Antenna gain: 8 dBi
Upper band edge frequency = 2.4835 GHz
Limit: > 30 dB below Peak In-Band Emission




Date: 22.JAN.2014 09:16:30

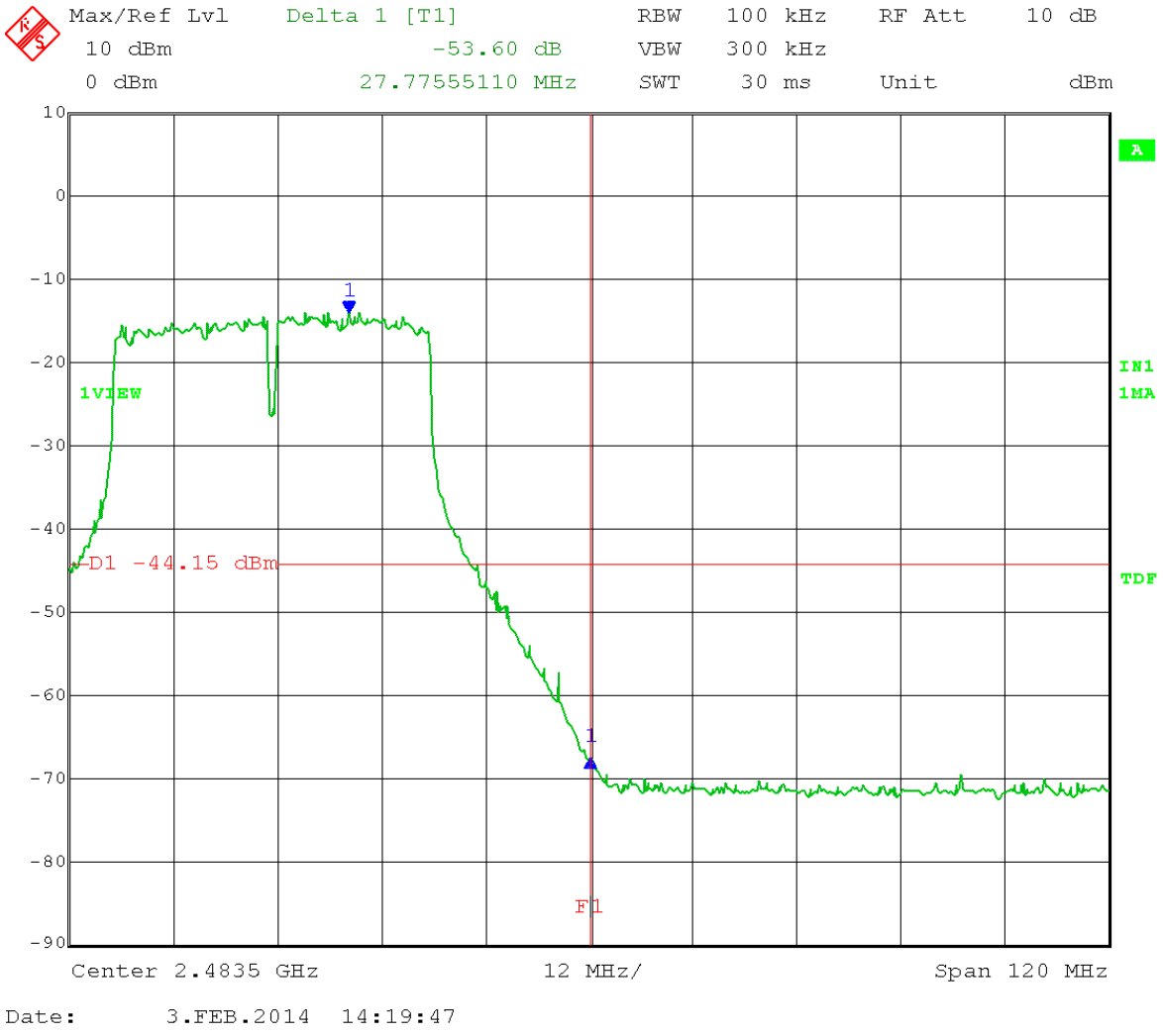
Test Date: 01-22-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Upper Band-Edge Measurements - Conducted
Operator: Craig B

Comment: RBW = 100 kHz VBW ≥ 300 kHz
Detector = Peak Sweep = auto couple
Trace = max hold
High Channel: Transmit = 2452 MHz Output power setting: 4.5
Channel bandwidth: 40 MHz Output port: 0 Antenna gain: 17 dBi
Upper band edge frequency = 2.4835 GHz
Limit: > 30 dB below Peak In-Band Emission



Test Date: 02-03-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Upper Band-Edge Measurements - Conducted
Operator: Craig B

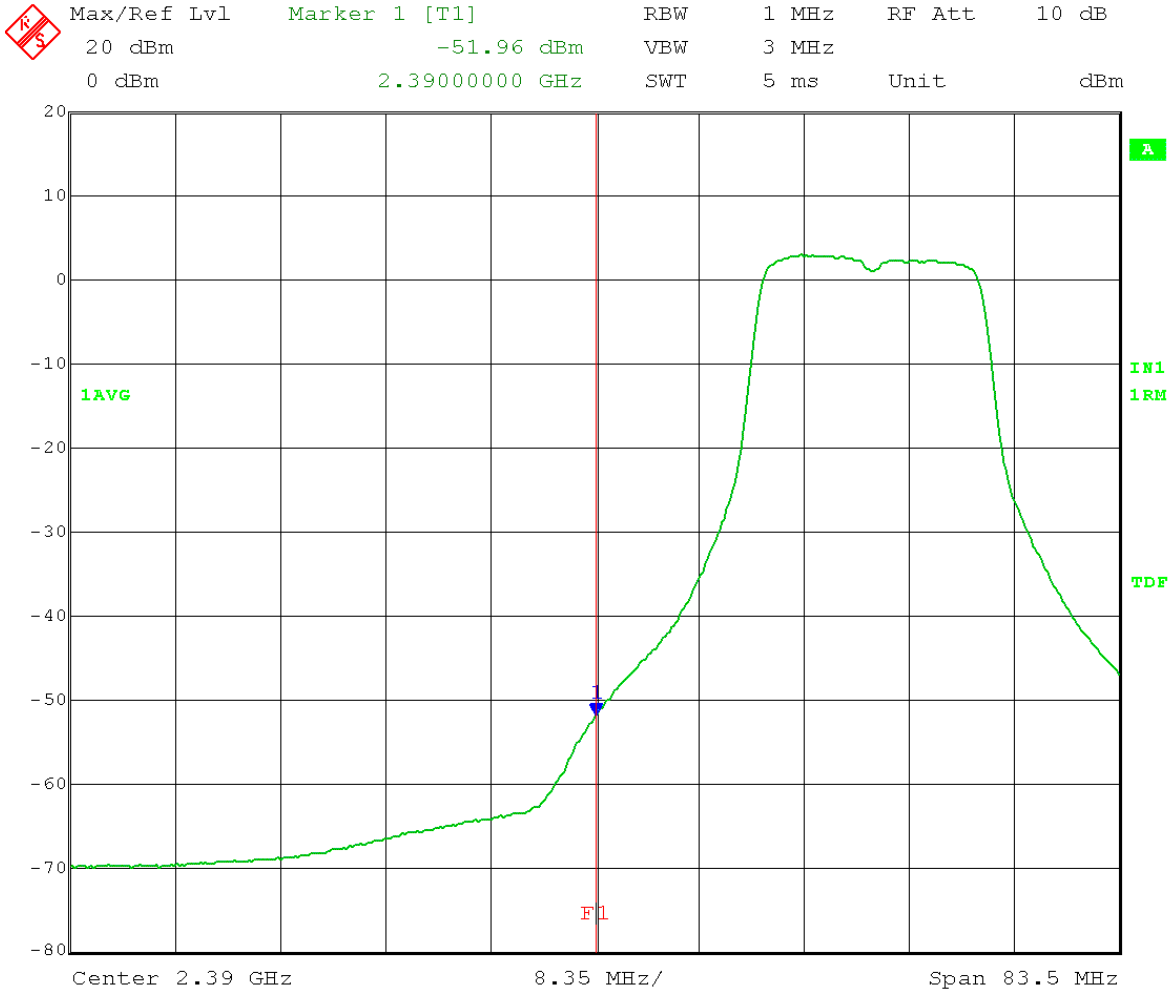
Comment: RBW = 100 kHz VBW ≥ 300 kHz
Detector = Peak Sweep = auto couple
Trace = max hold
High Channel: Transmit = 2447 MHz Output power setting: 0.5
Channel bandwidth: 40 MHz Output port: 0 Antenna gain: 25 dBi
Upper band edge frequency = 2.4835 GHz
Limit: > 30 dB below Peak In-Band Emission



Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Low Channel Transmit = 2.412 GHz
Test software setting: 16.5 (used to get 15.5 dBm output)
20 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.390 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average = -51.96 dBm for port 0

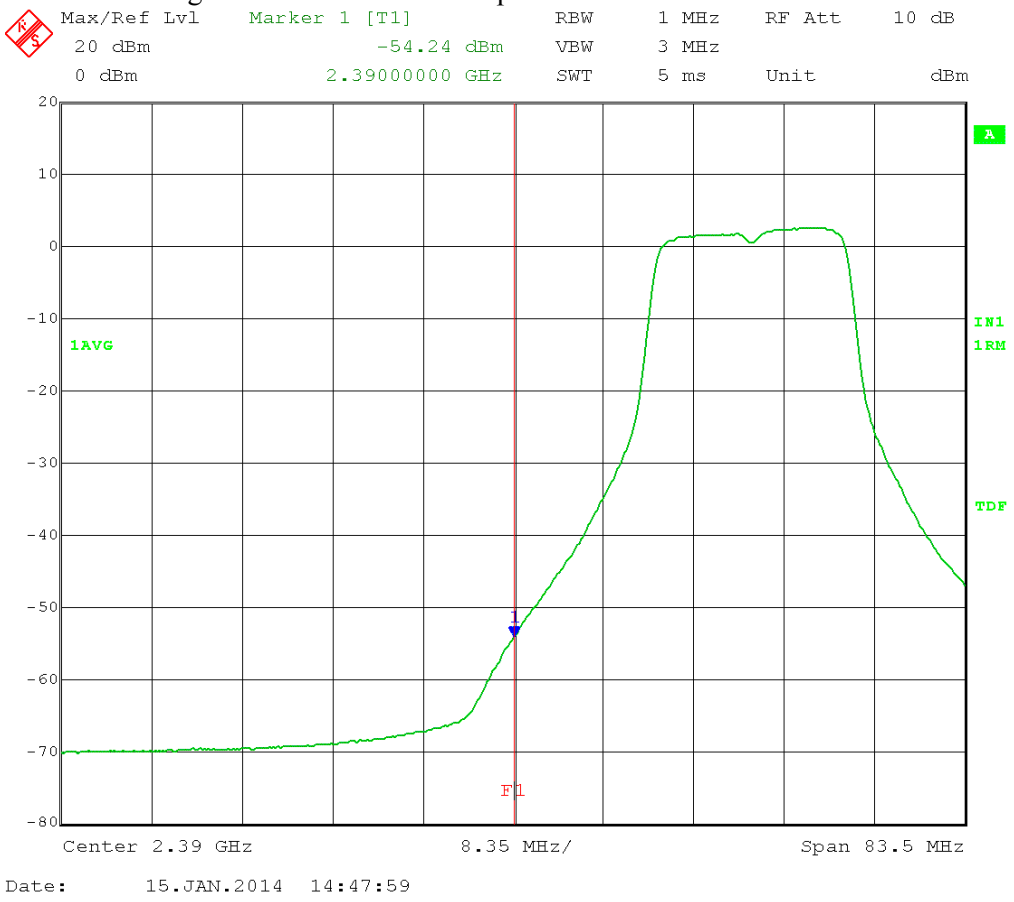



Date: 15.JAN.2014 14:41:20

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Low Channel Transmit = 2.412 GHz
Test software setting: 16.5 (used to get 15.5 dBm output)
20 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.390 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average -54.24 dBm for port 1



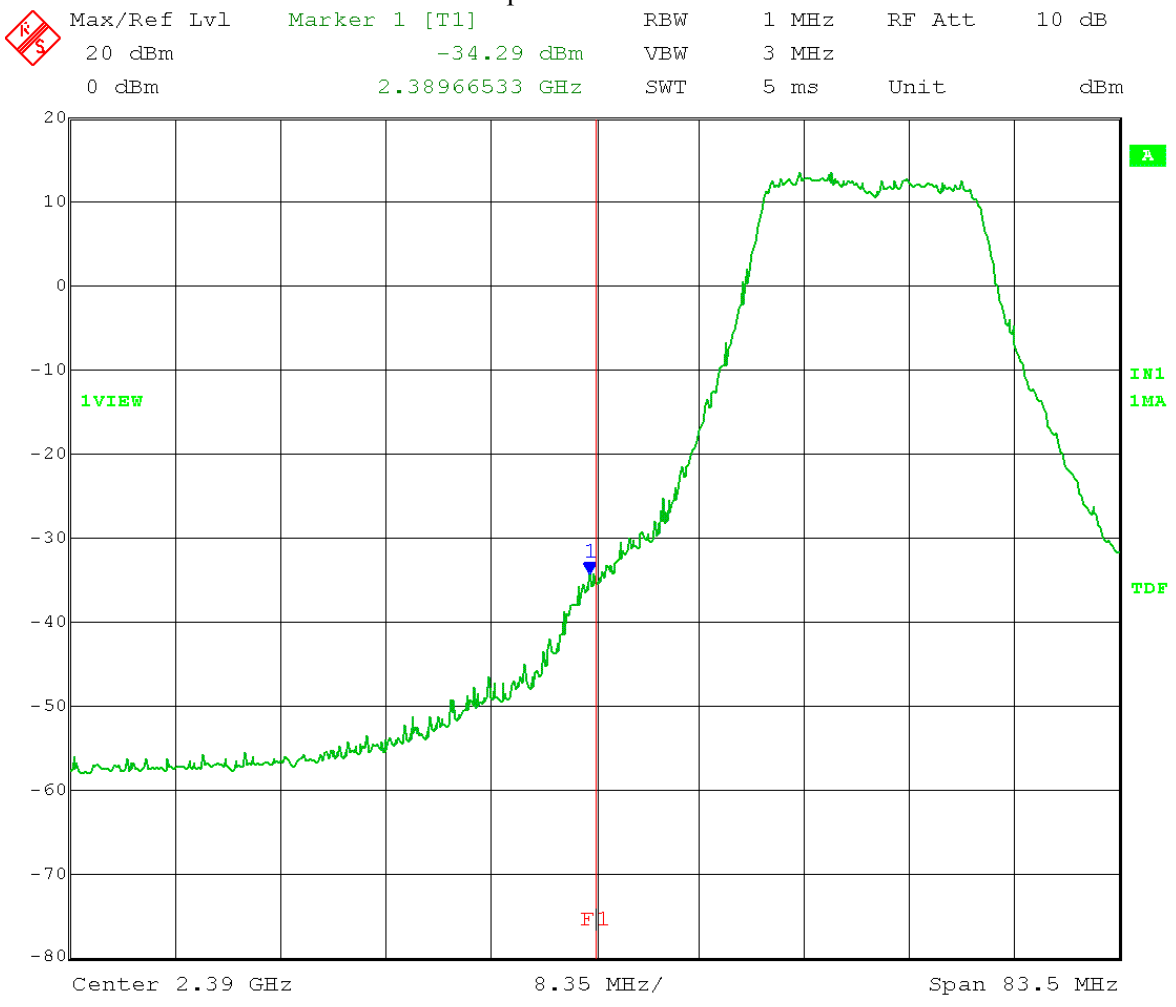

-51.96 dBm = 0.000006368 mW
-54.24 dBm = 0.000003767 mW
Total = 0.000006368 + 0.000003767 = 0.000010135 mW = -49.94 dBm

E = EIRP – 20log D + 104.8
= -49.94 dBm + 8 dBi – 20log 3 + 104.8 = 53.32 dBµV/m
**Margin = 0.68 dB** (for Average limit of 54 dBµV/m)

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Low Channel Transmit = 2.412 GHz
Test software setting: 16.5 (used to get 15.5 dBm output)
20 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.390 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak = -34.29 dBm for port 0

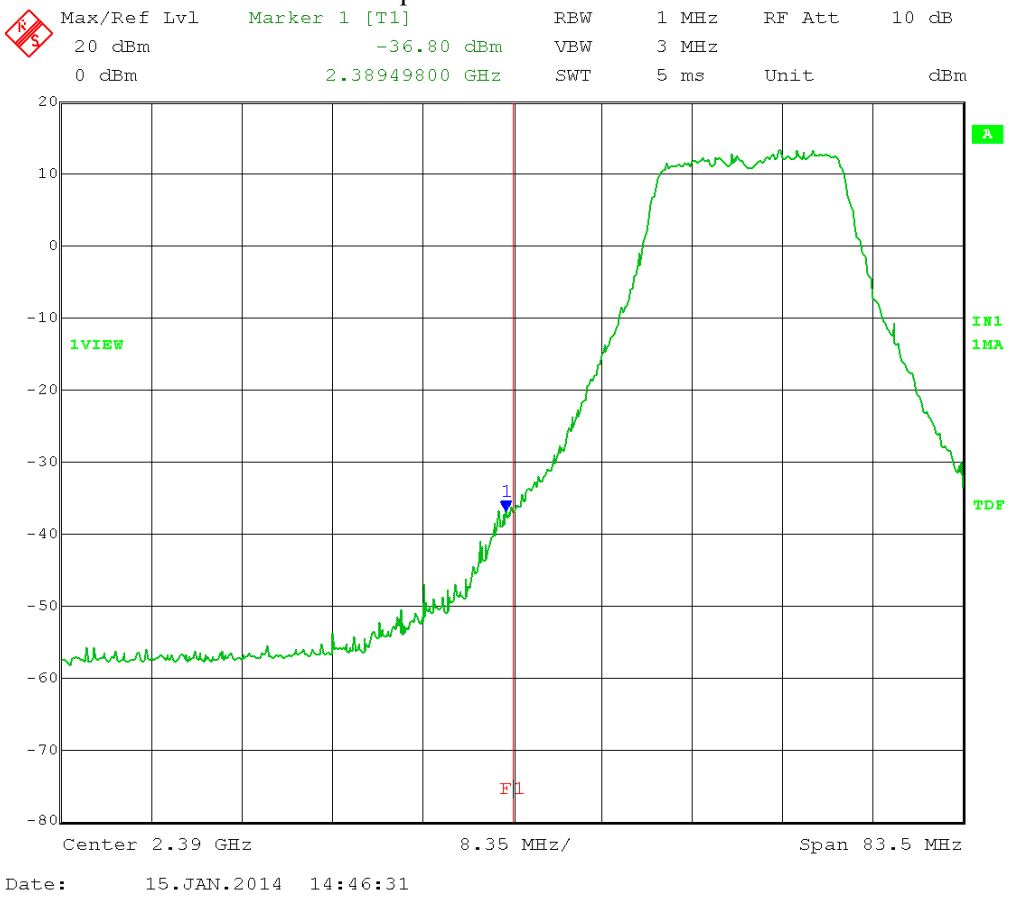



Date: 15.JAN.2014 14:43:10

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Low Channel Transmit = 2.412 GHz
Test software setting: 16.5 (used to get 15.5 dBm output)
20 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.390 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak -36.80 dBm for port 1



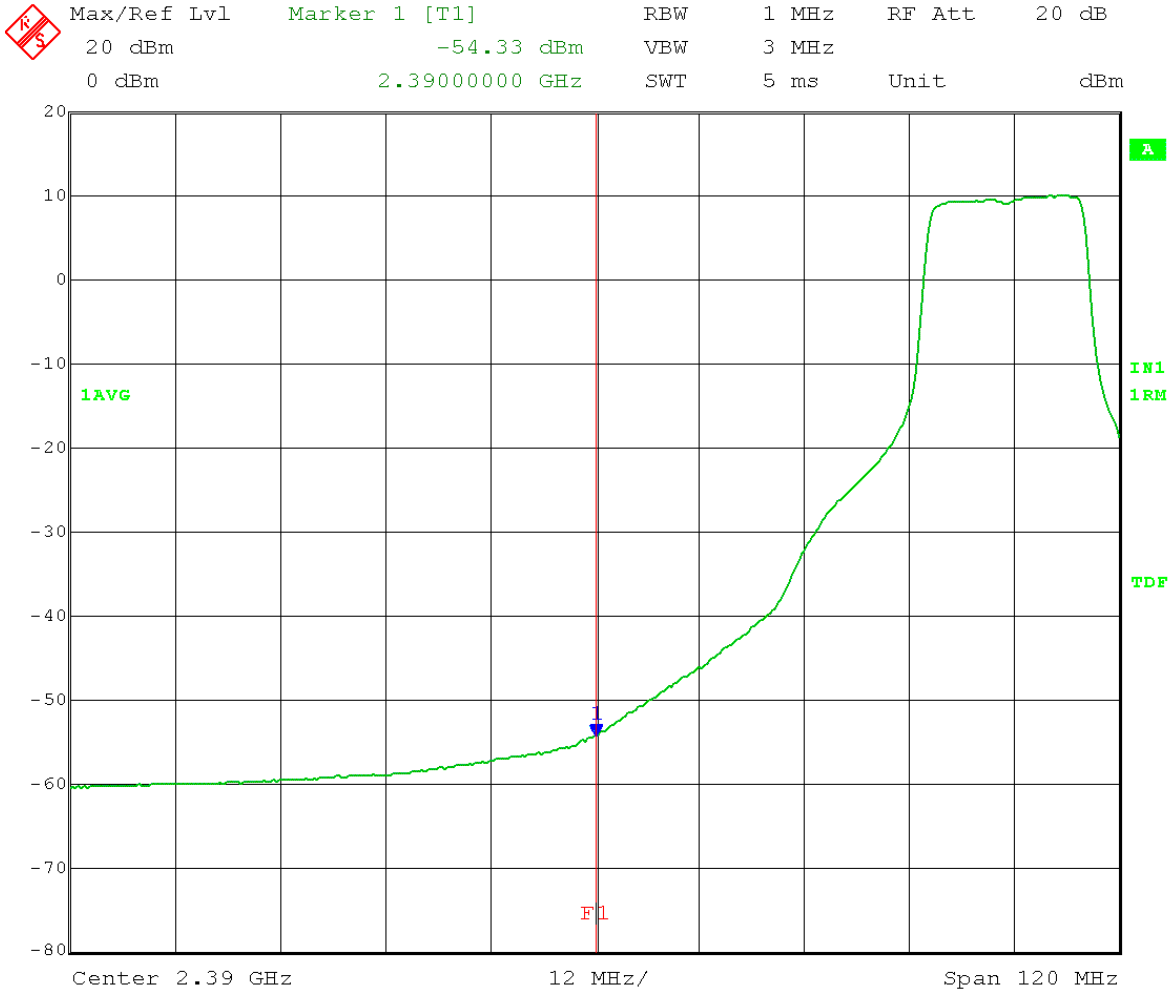

-34.29 dBm = 0.000372392 mW
-36.80 dBm = 0.000208930 mW
Total = 0.000372392 + 0.000208930 = 0.000581322 mW = -32.35 dBm

E = EIRP – 20log D + 104.8
= -32.35 dBm + 8 dBi – 20log 3 + 104.8 = 70.91 dBµV/m
**Margin = 3.09 dB** (for Peak limit of 74 dBµV/m)

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Mid Channel Transmit = 2.437 GHz
Test software setting: 26 (used to get 25 dBm output)
20 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.390 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average = -54.33 dBm for port 0

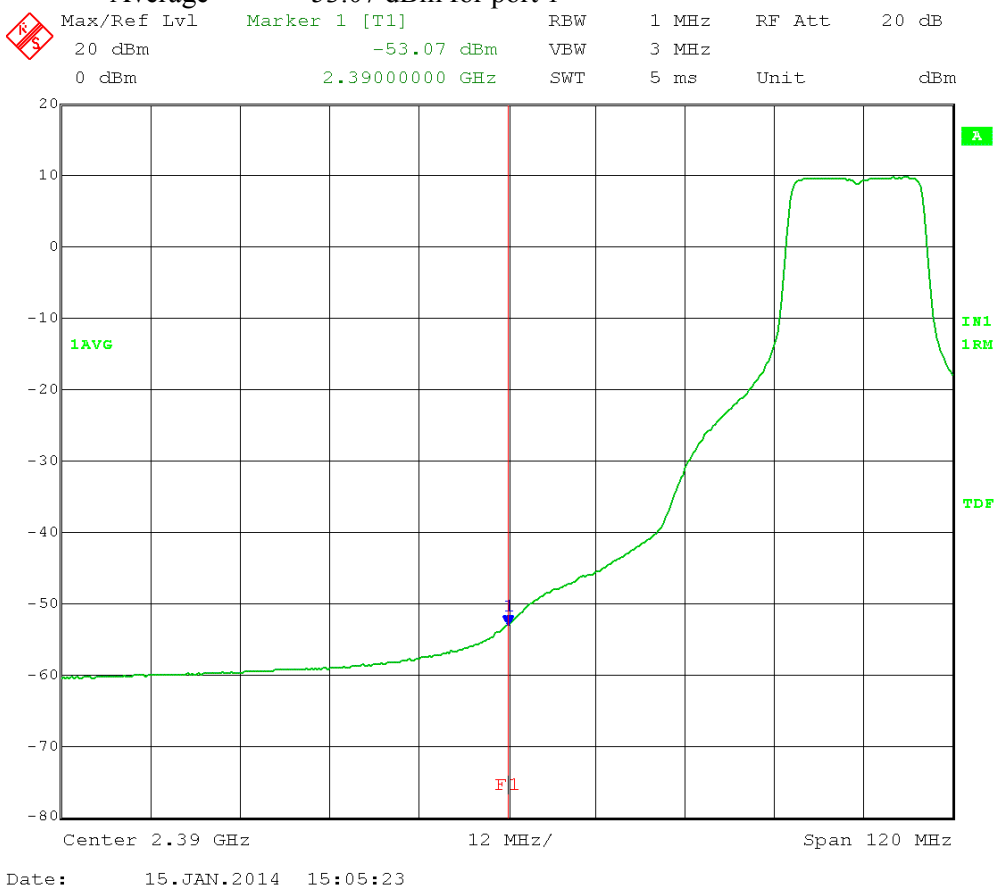



Date: 15.JAN.2014 15:11:58

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Mid Channel Transmit = 2.437 GHz
Test software setting: 26 (used to get 25 dBm output)
20 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.390 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average -53.07 dBm for port 1



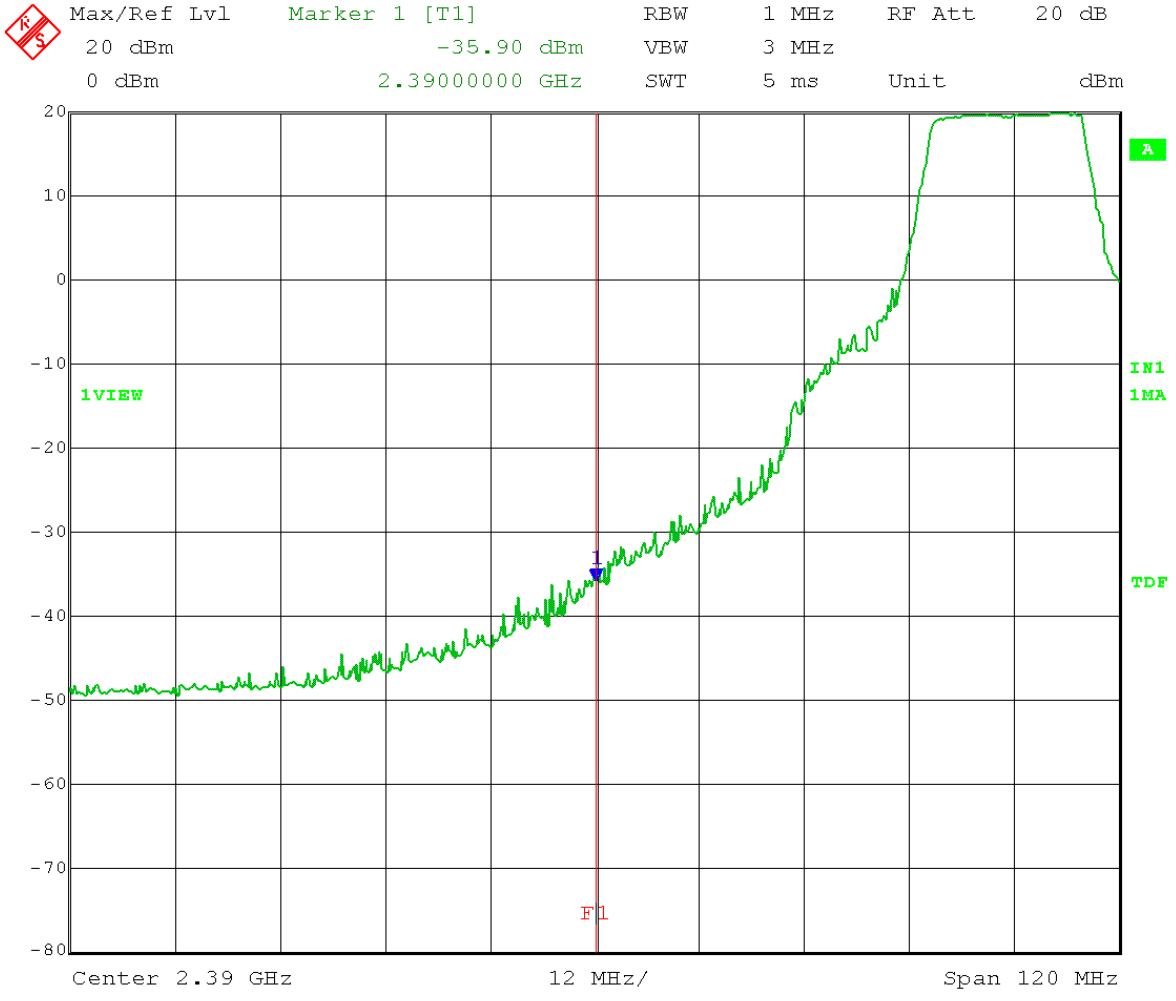

-54.33 dBm = 0.000003690 mW
-53.07 dBm = 0.000004932 mW
Total = 0.000003690 + 0.000004932 = 0.000008622 mW = -50.64 dBm

E = EIRP – 20log D + 104.8
= -50.64 dBm + 8 dBi – 20log 3 + 104.8 = 52.62 dBµV/m
**Margin = 1.38 dB** (for Average limit of 54 dBµV/m)

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Mid Channel Transmit = 2.437 GHz
Test software setting: 26 (used to get 25 dBm output)
20 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.390 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak = -35.90 dBm for port 0

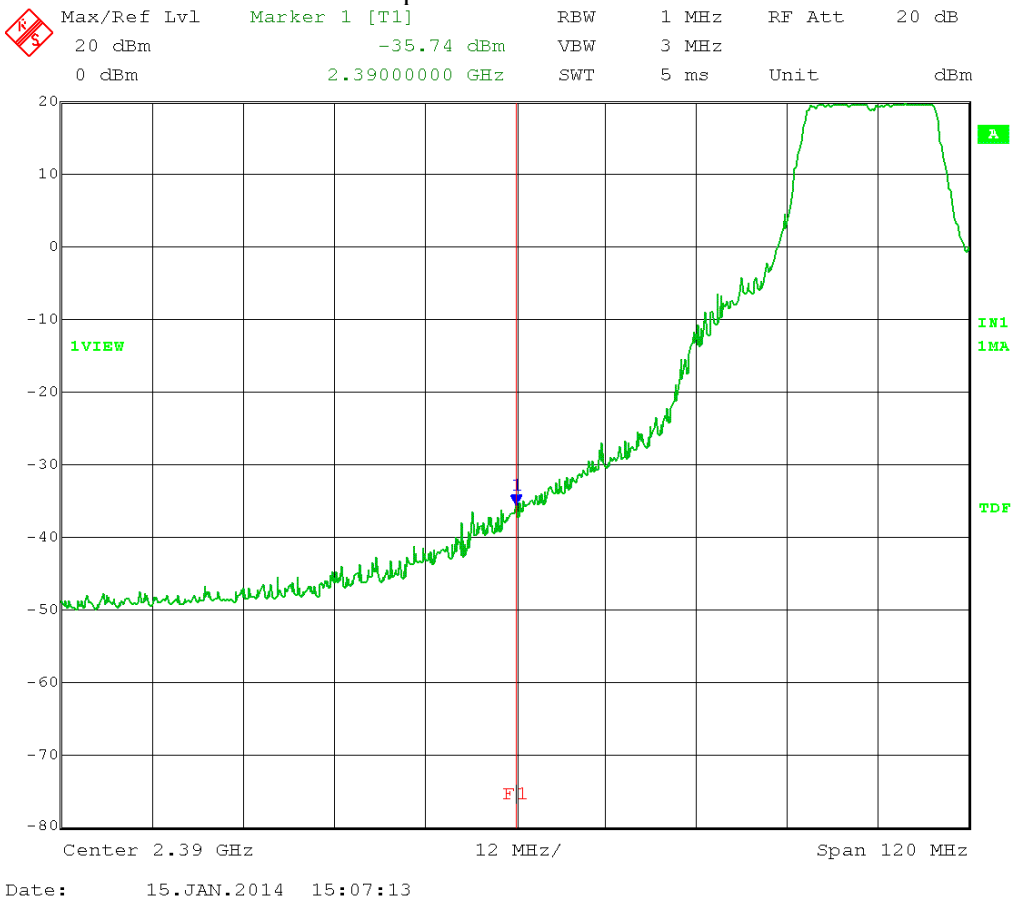



Date: 15.JAN.2014 15:10:34

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Mid Channel Transmit = 2.437 GHz
Test software setting: 26 (used to get 25 dBm output)
20 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.390 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak -35.74 dBm for port 1



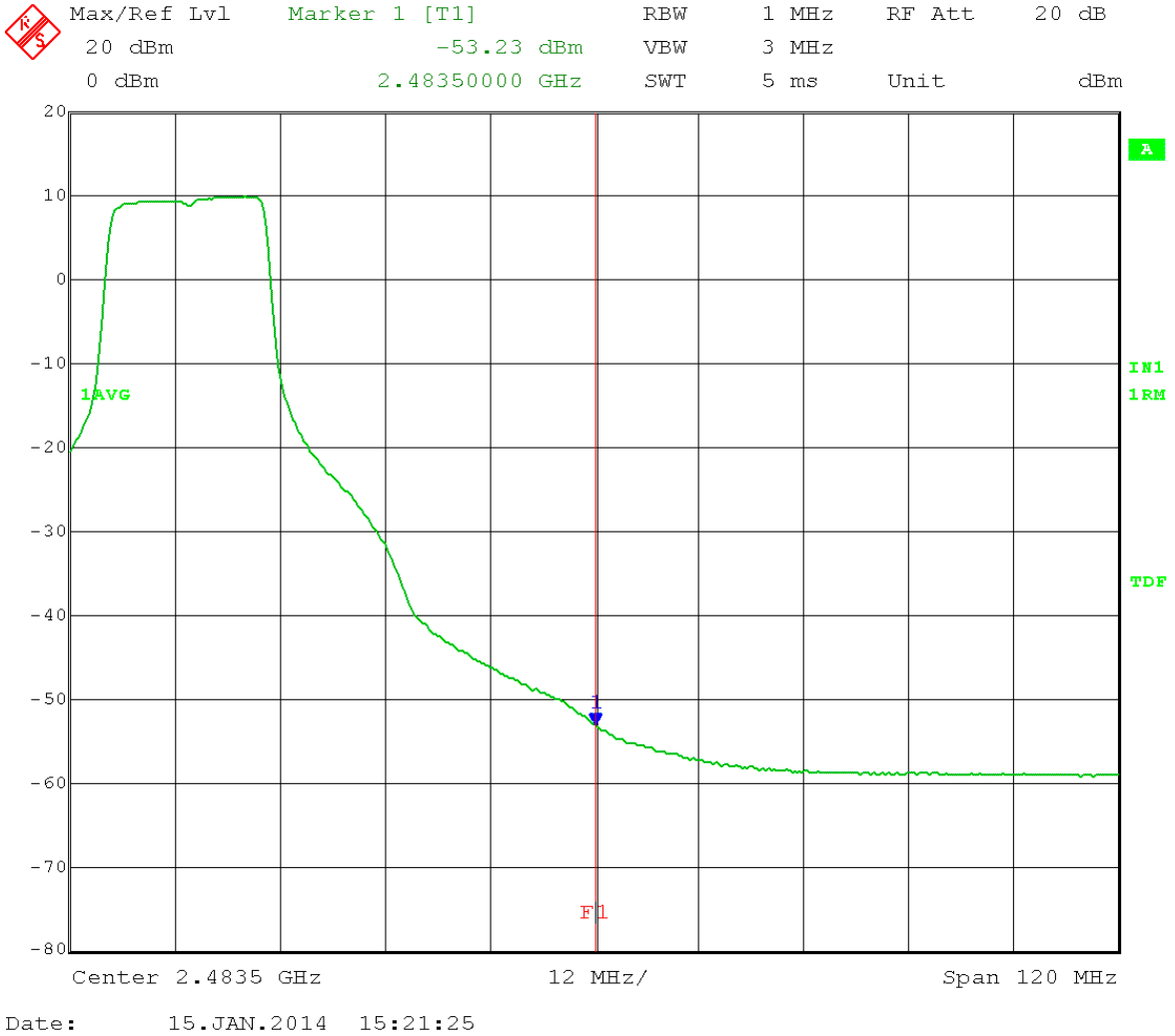

-35.90 dBm = 0.000257040 mW
-35.74 dBm = 0.000266686 mW
Total = 0.000257040 + 0.000266686 = 0.000523726 mW = -32.80 dBm

E = EIRP – 20log D + 104.8
= -32.80 dBm + 8 dBi – 20log 3 + 104.8 = 70.46 dBµV/m
**Margin = 3.54 dB** (for Peak limit of 74 dBµV/m)

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Mid Channel Transmit = 2.437 GHz
Test software setting: 26 (used to get 25 dBm output)
20 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average = -53.23 dBm for port 0

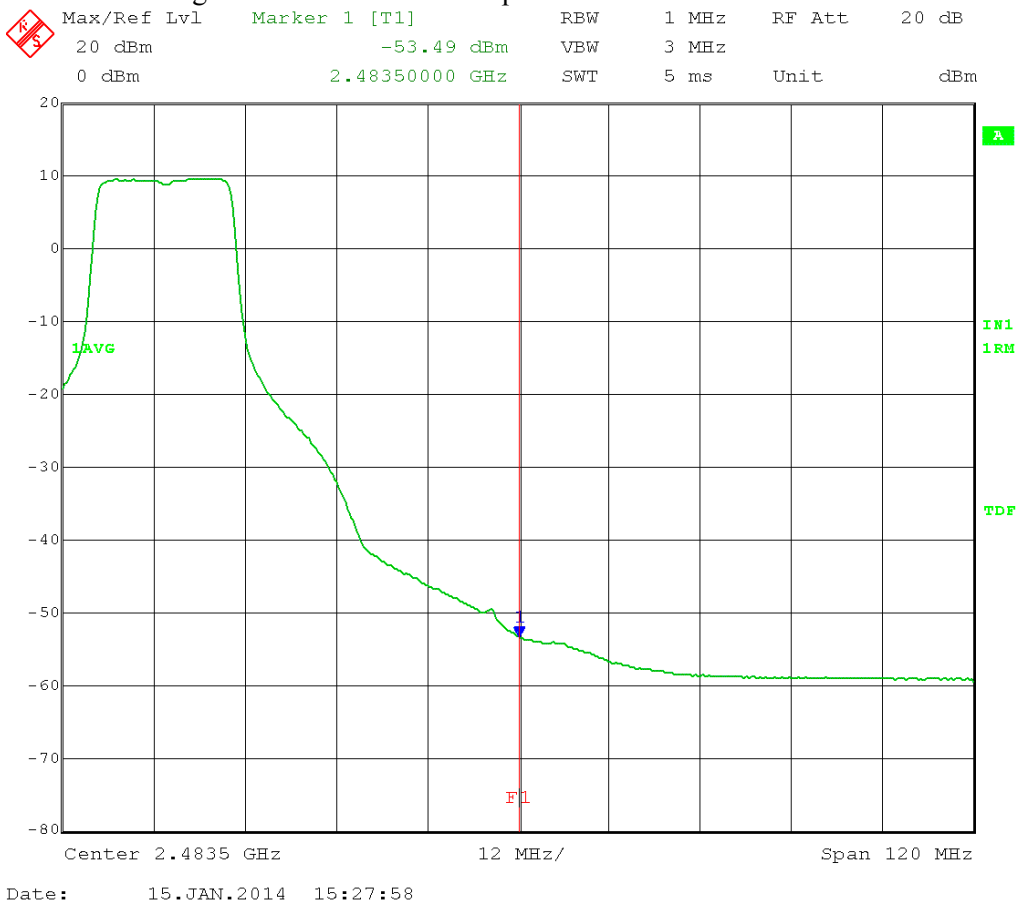



Date: 15.JAN.2014 15:21:25

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Mid Channel Transmit = 2.437 GHz
Test software setting: 26 (used to get 25 dBm output)
20 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average -53.49 dBm for port 1



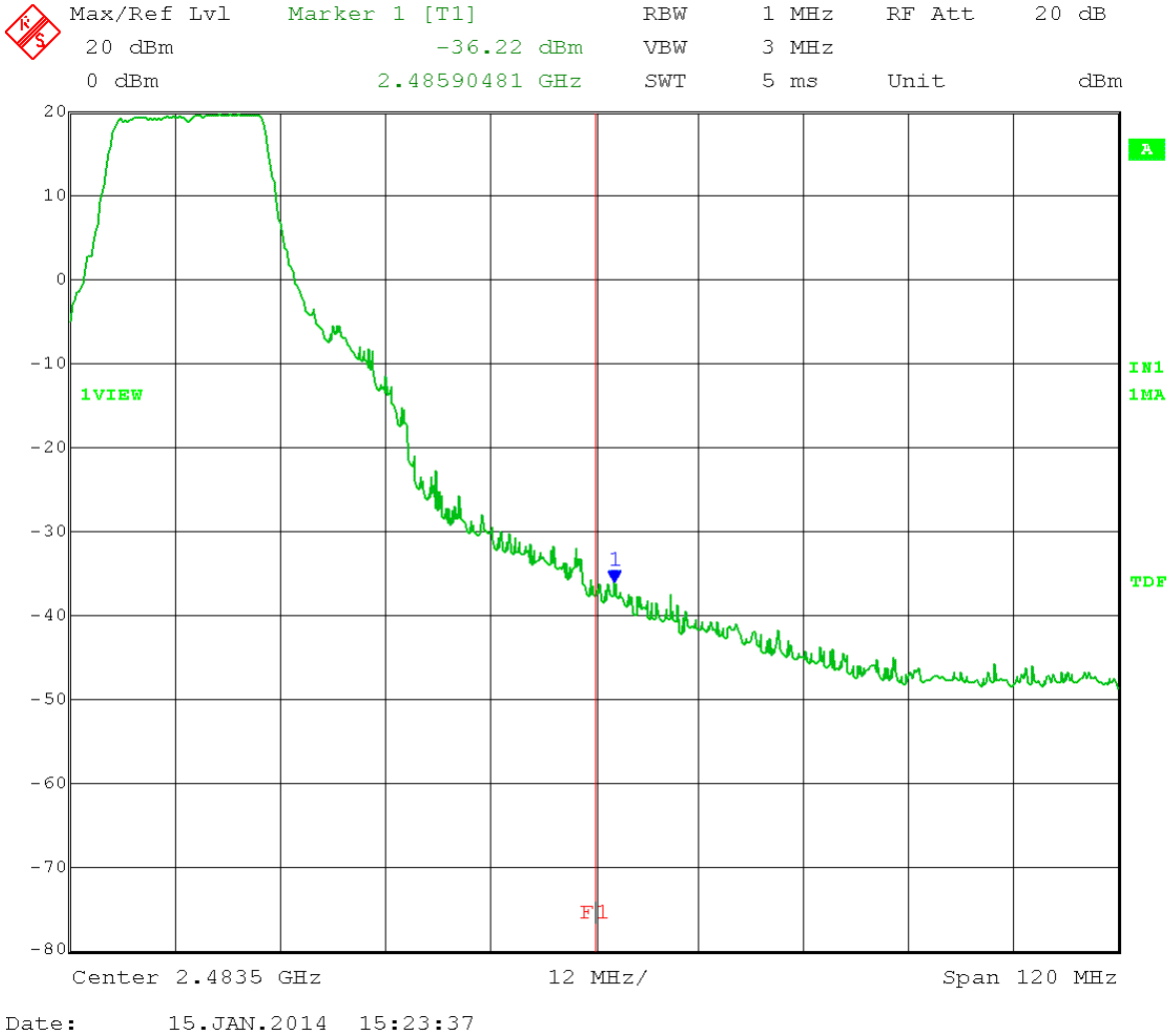

-53.23 dBm = 0.000004753 mW
-53.49 dBm = 0.000004477 mW
Total = 0.000004753 + 0.000004477 = 0.000009230 mW = -50.34 dBm

E = EIRP – 20log D + 104.8
= -50.34 dBm + 8 dBi – 20log 3 + 104.8 = 52.92 dBµV/m
**Margin = 1.08 dB** (for Average limit of 54 dBµV/m)

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Mid Channel Transmit = 2.437 GHz
Test software setting: 26 (used to get 25 dBm output)
20 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak = -36.22 dBm for port 0

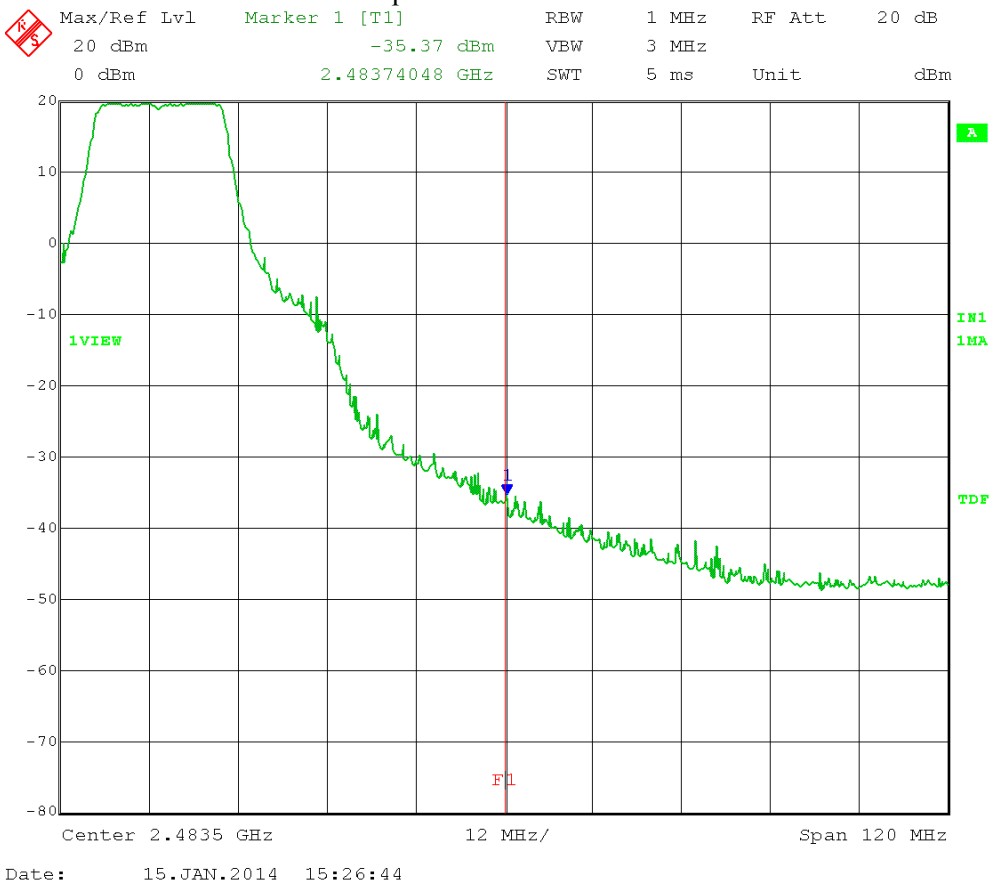



Date: 15.JAN.2014 15:23:37

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Mid Channel Transmit = 2.437 GHz
Test software setting: 26 (used to get 25 dBm output)
20 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak -35.37 dBm for port 1



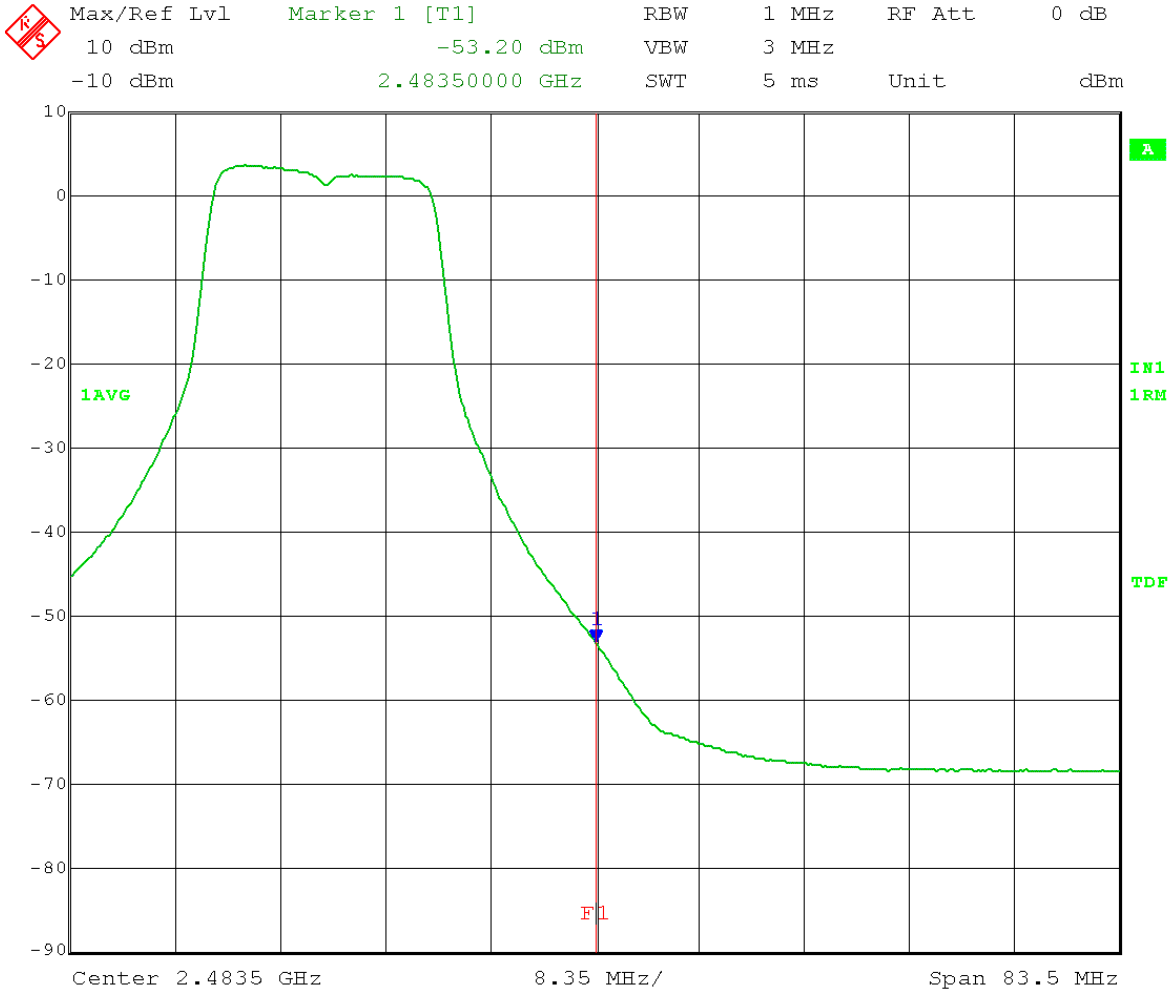

-36.22 dBm = 0.000238781 mW
-35.37 dBm = 0.000290402 mW
Total = 0.000238781 + 0.000290402 = 0.000529183 mW = -32.76 dBm

E = EIRP – 20log D + 104.8
= -32.76 dBm + 8 dBi – 20log 3 + 104.8 = 70.50 dBµV/m
**Margin = 3.50 dB** (for Peak limit of 74 dBµV/m)

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
High Channel Transmit = 2.462 GHz
Test software setting: 17.5 (used to get 16.5 dBm output)
20 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average = -53.20 dBm for port 0

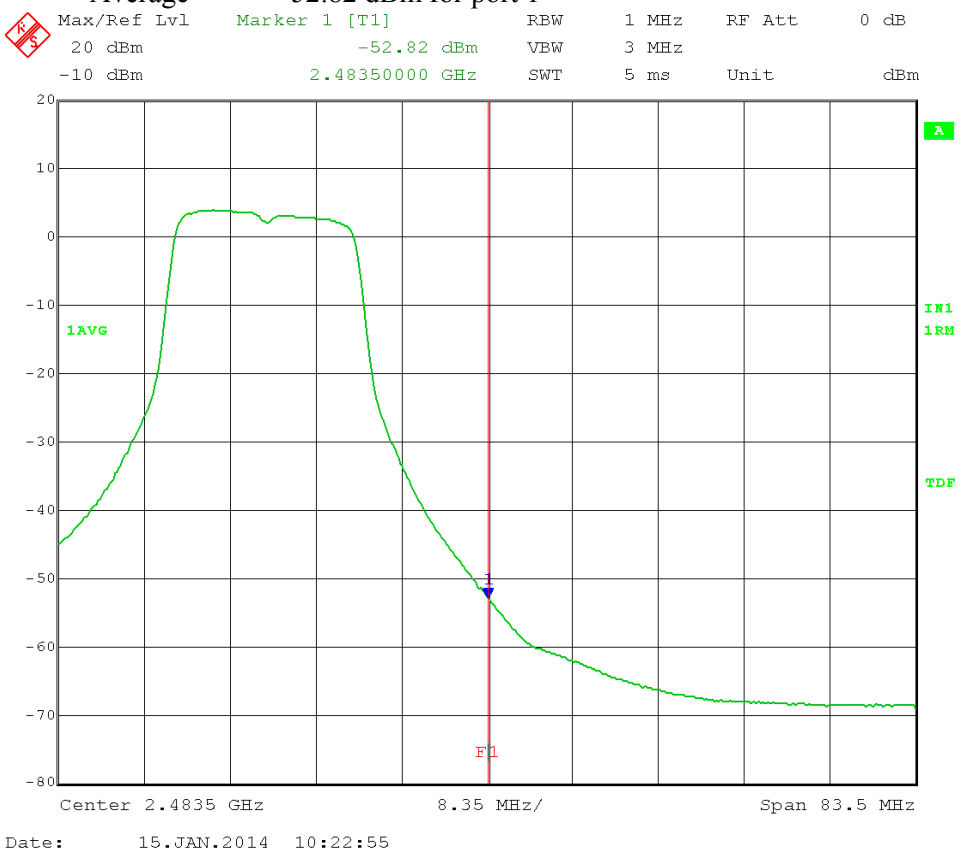



Date: 15.JAN.2014 09:58:18

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
High Channel Transmit = 2.462 GHz
Test software setting: 17.5 (used to get 16.5 dBm output)
20 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average -52.82 dBm for port 1



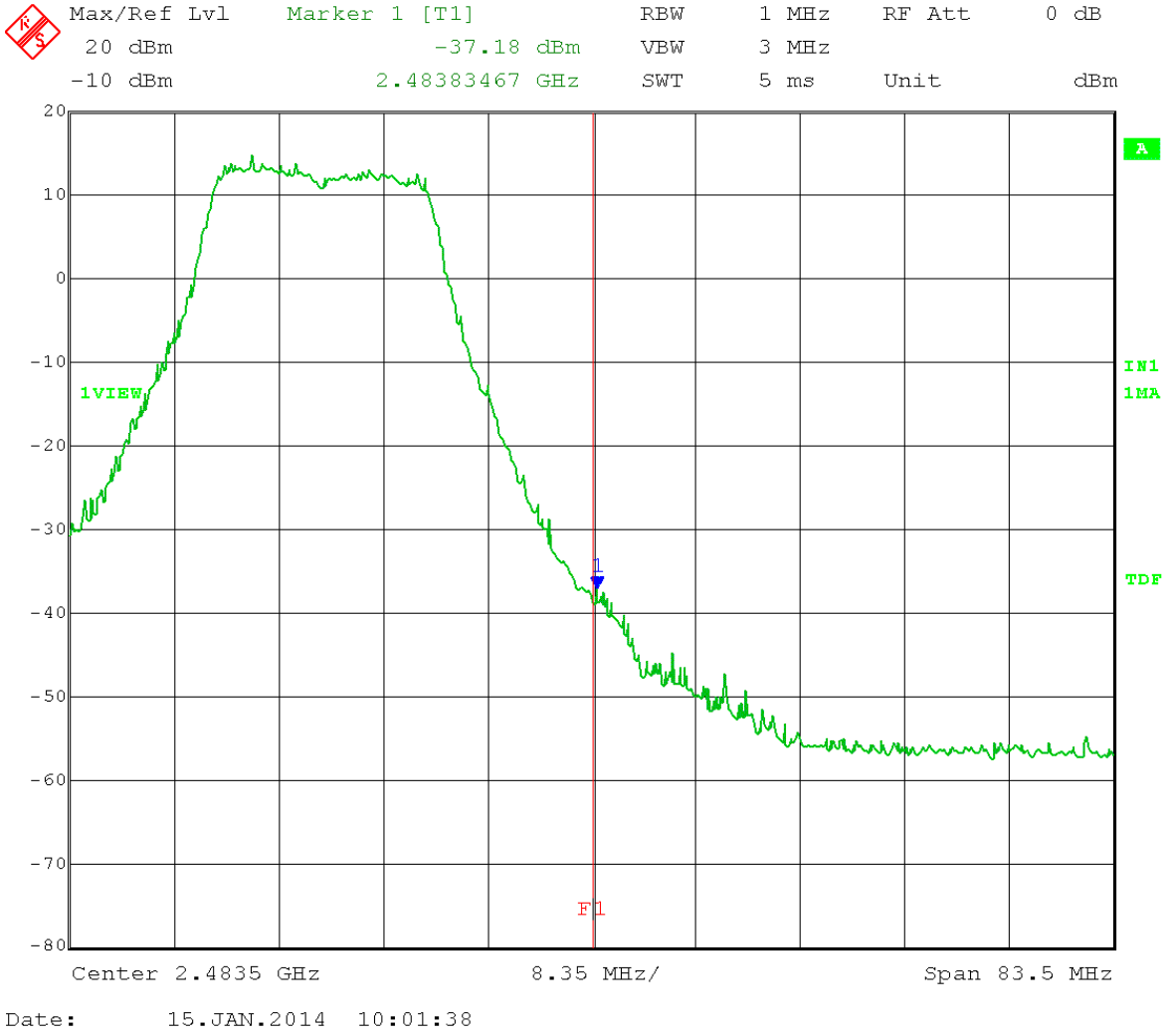

-53.20 dBm = 0.000004786 mW
-52.82 dBm = 0.000005224 mW
Total = 0.000004786 + 0.000005224 = 0.00001001 mW = -49.99 dBm

E = EIRP – 20log D + 104.8
= -49.99 dBm + 8 dBi – 20log 3 + 104.8 = 53.27 dBµV/m
**Margin = 0.73 dB** (for Average limit of 54 dBµV/m)

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
High Channel Transmit = 2.462 GHz
Test software setting: 17.5 (used to get 16.5 dBm output)
20 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

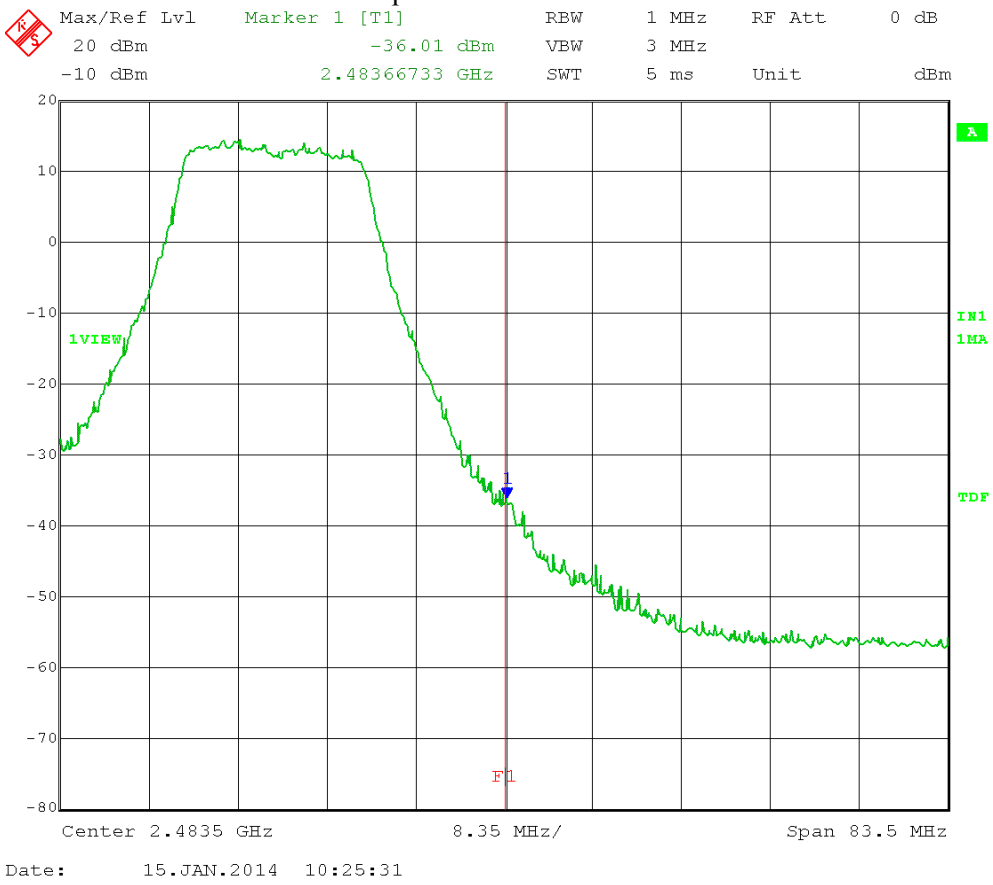
Peak = -37.18 dBm for port 0



Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
High Channel Transmit = 2.462 GHz
Test software setting: 17.5 (used to get 16.5 dBm output)
20 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak -36.01 dBm for port 1



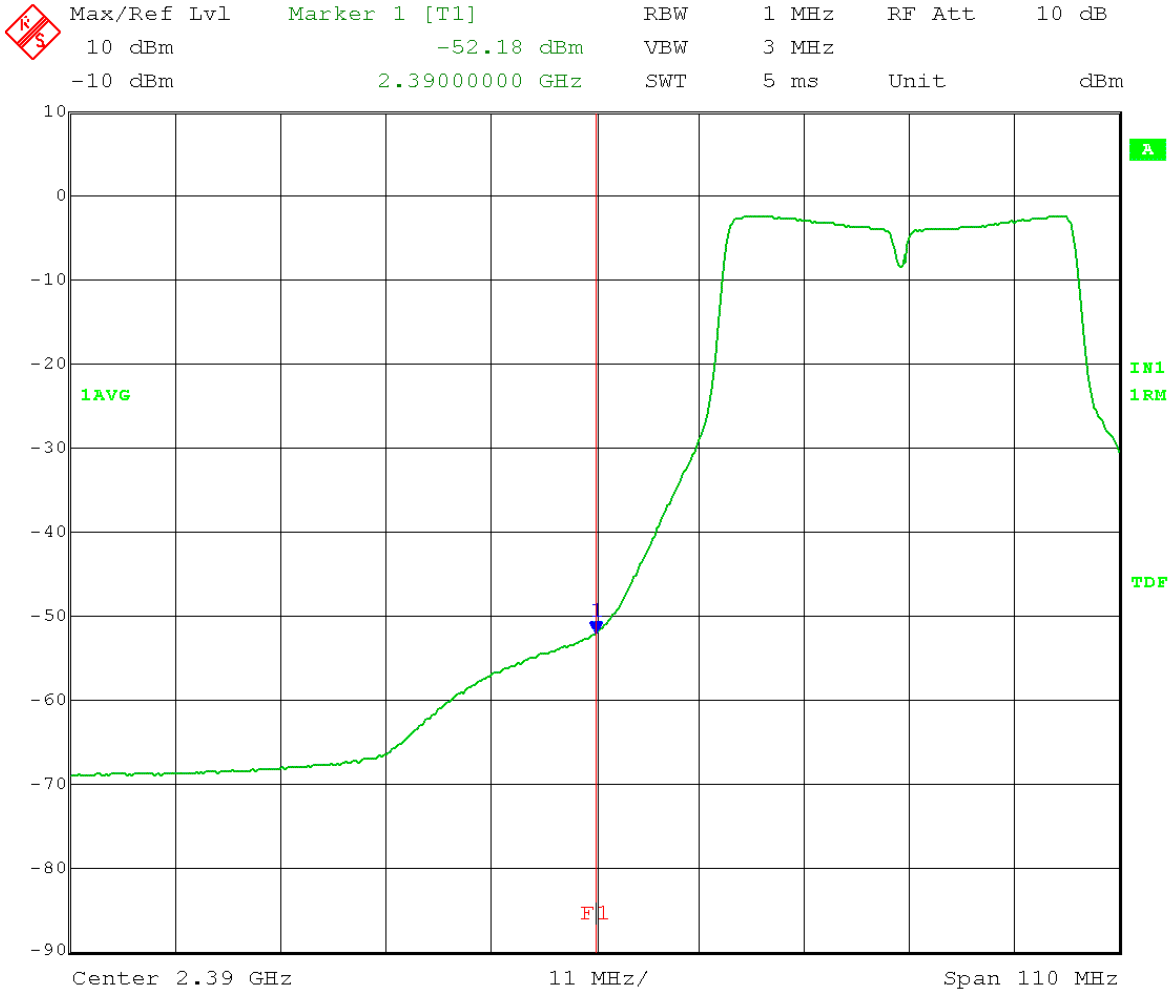

-37.18 dBm = 0.000191426 mW
-36.01 dBm = 0.000250611 mW
Total = 0.000191426 + 0.000250611 = 0.000442037 mW = -33.54 dBm

E = EIRP – 20log D + 104.8
= -33.54 dBm + 8 dBi – 20log 3 + 104.8 = 69.72 dBµV/m
**Margin = 4.28 dB** (for Peak limit of 74 dBµV/m)

Test Date: 01-17-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Low Channel Transmit = 2.422 GHz
Test software setting: 13 (used to get 12 dBm output)
40 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.390 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average = -52.18 dBm for port 0

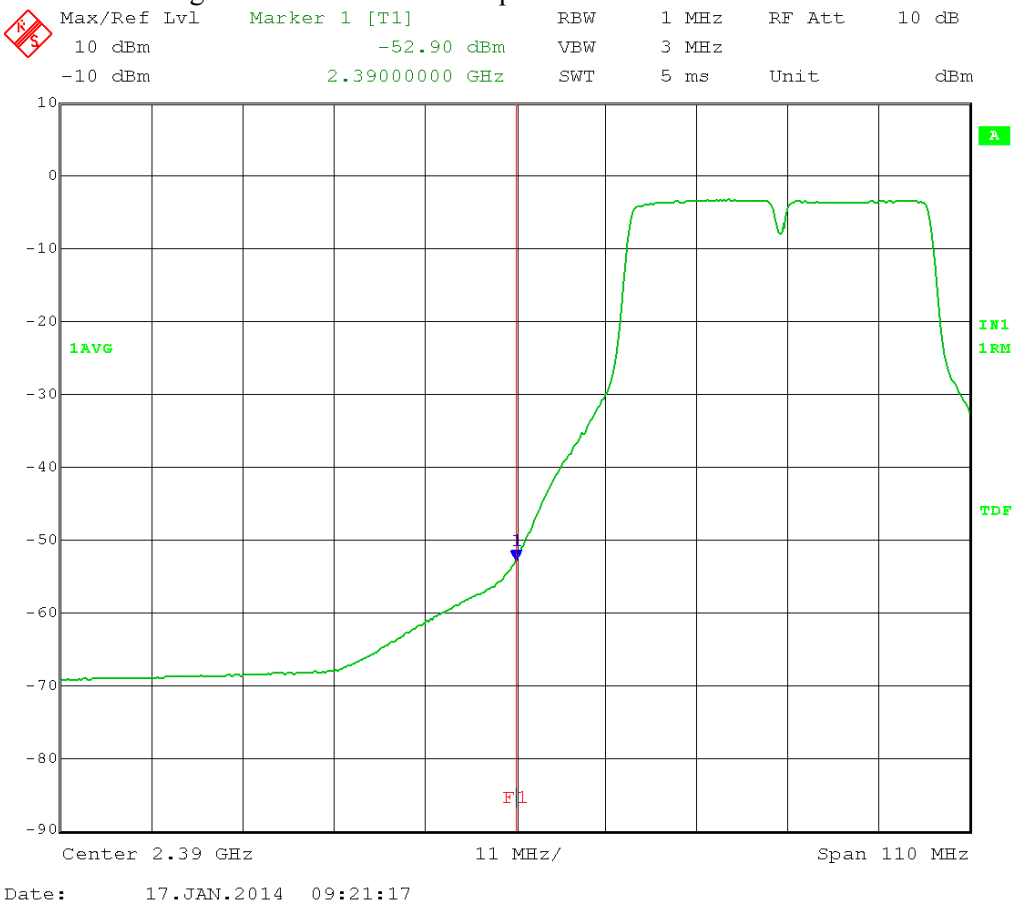



Date: 17.JAN.2014 09:14:47

Test Date: 01-17-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Low Channel Transmit = 2.422 GHz
Test software setting: 13 (used to get 12 dBm output)
40 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.390 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average -52.90 dBm for port 1



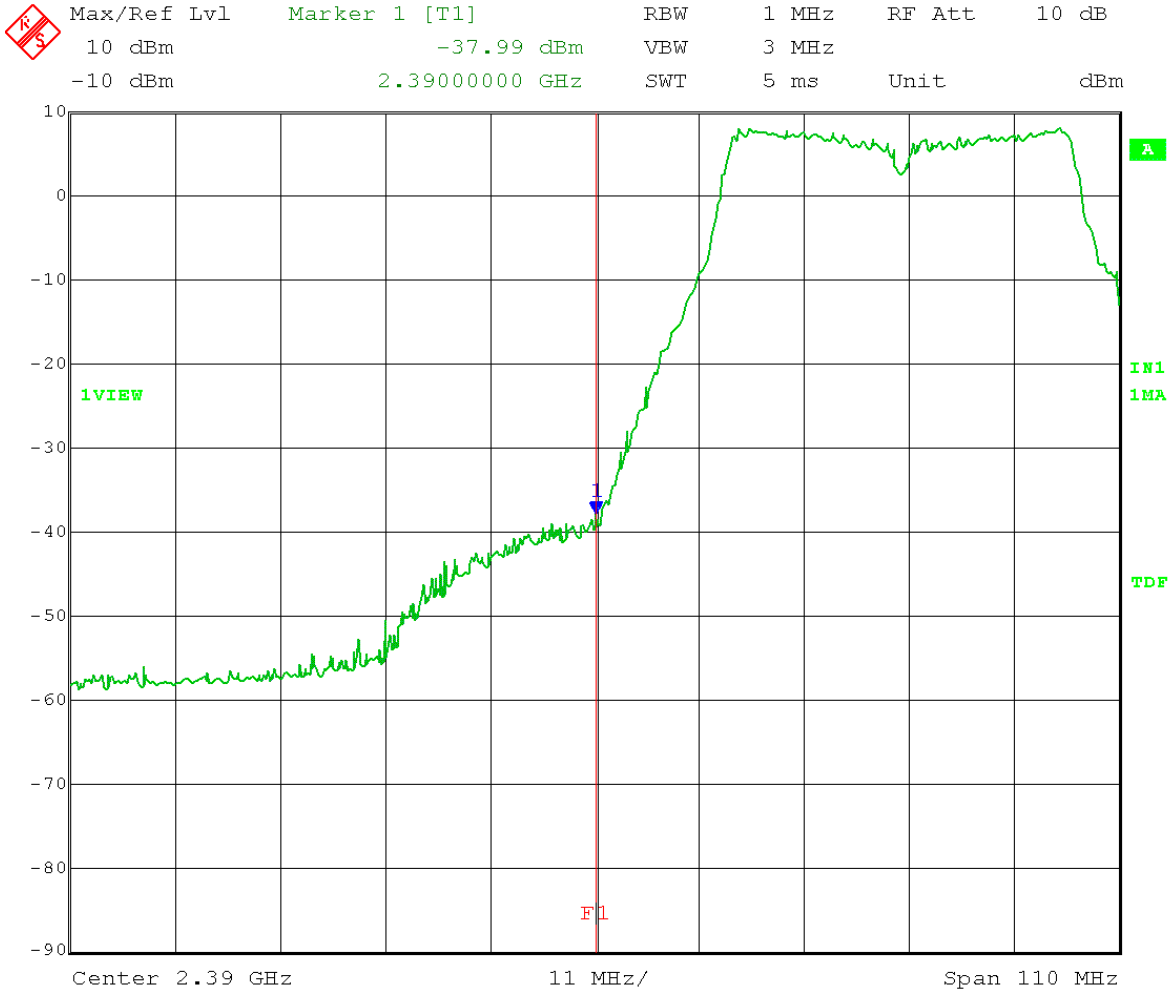

-52.18 dBm = 0.000006053 mW
-52.90 dBm = 0.000005129 mW
Total = 0.000006053 + 0.000005129 = 0.000011182 mW = -49.51 dBm

E = EIRP – 20log D + 104.8
= -49.51 dBm + 8 dBi – 20log 3 + 104.8 = 53.75 dBµV/m
**Margin = 0.25 dB** (for Average limit of 54 dBµV/m)

Test Date: 01-17-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Low Channel Transmit = 2.422 GHz
Test software setting: 13 (used to get 12 dBm output)
40 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.390 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak = -37.99 dBm for port 0

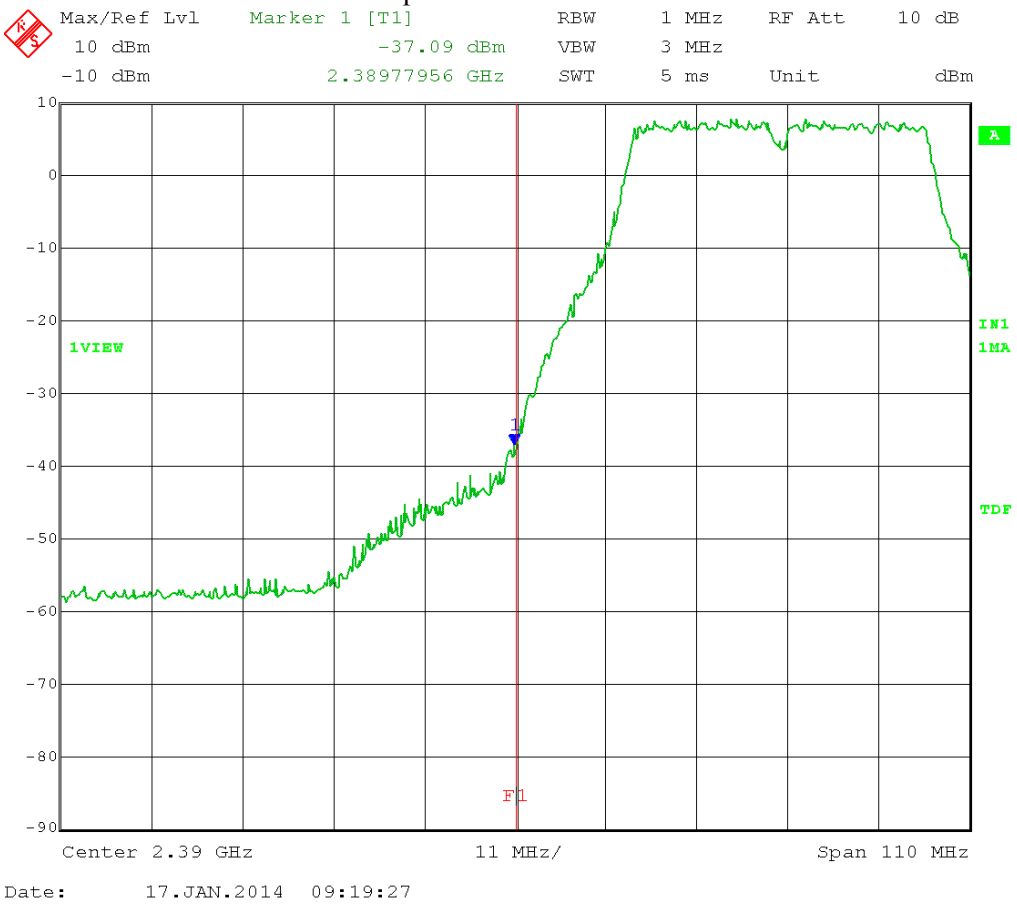



Date: 17.JAN.2014 09:16:28

Test Date: 01-17-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Low Channel Transmit = 2.422 GHz
Test software setting: 13 (used to get 12 dBm output)
40 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.390 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak -37.09 dBm for port 1



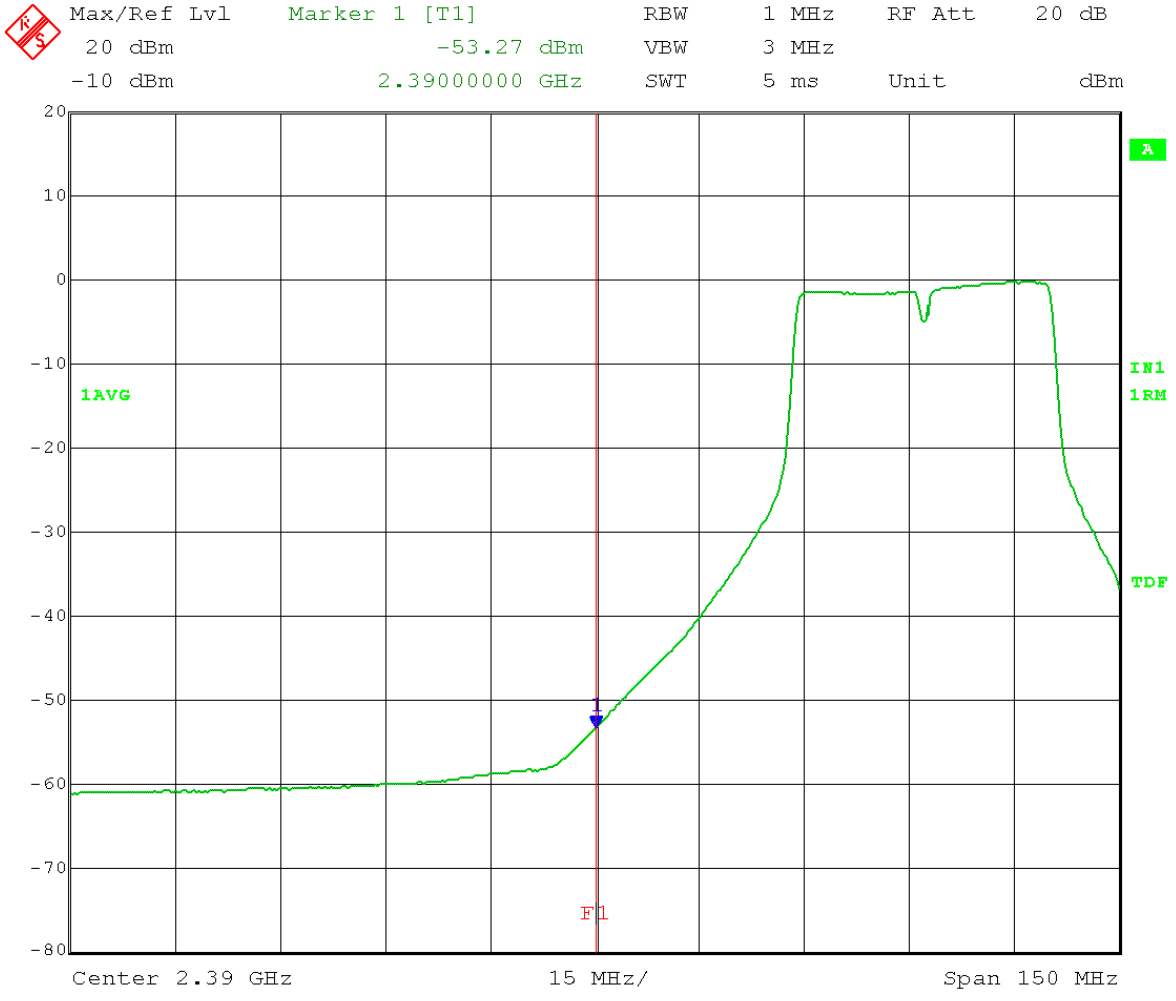

-37.99 dBm = 0.000158855 mW
-37.09 dBm = 0.000195434 mW
Total = 0.000158855 + 0.000195434 = 0.000354289 mW = -34.50 dBm

E = EIRP – 20log D + 104.8
= -34.50 dBm + 8 dBi – 20log 3 + 104.8 = 68.76 dBµV/m
**Margin = 5.24 dB** (for Peak limit of 74 dBµV/m)

Test Date: 01-17-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Mid Channel Transmit = 2.437 GHz
Test software setting: 17 (used to get 16 dBm output)
40 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.390 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average = -53.27 dBm for port 0

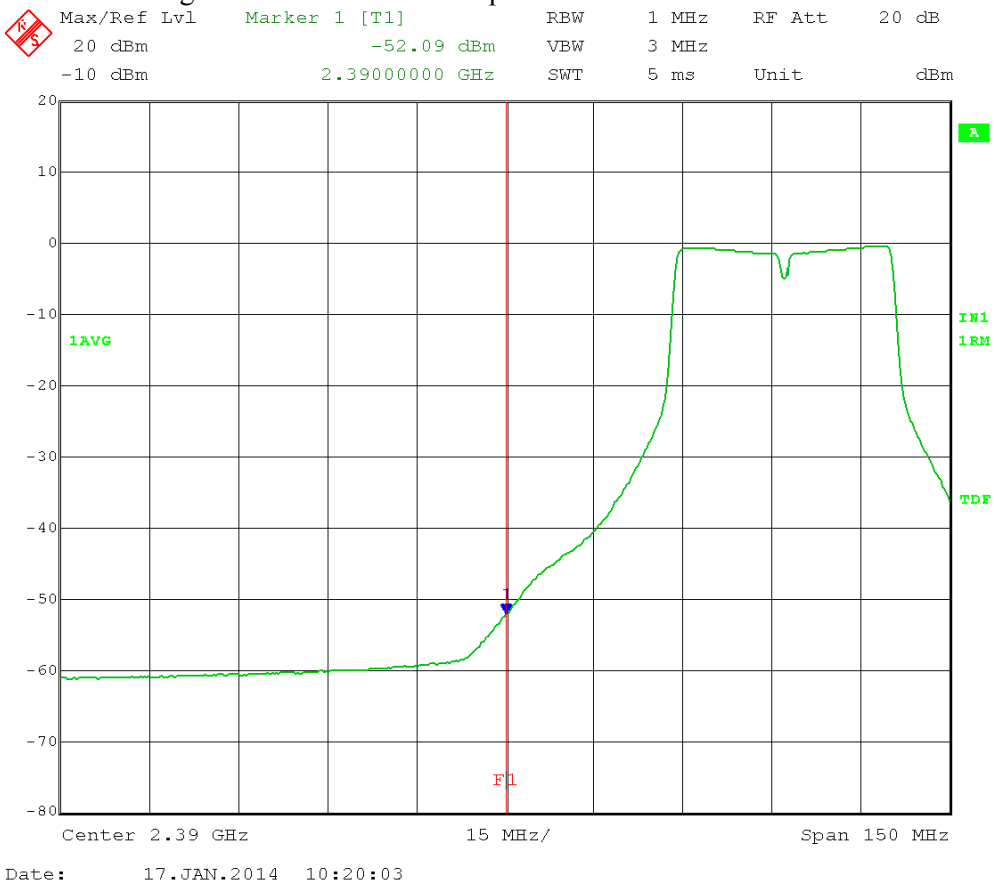



Date: 17.JAN.2014 10:26:12

Test Date: 01-17-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Mid Channel Transmit = 2.437 GHz
Test software setting: 17 (used to get 16 dBm output)
40 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.390 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average -52.09 dBm for port 1



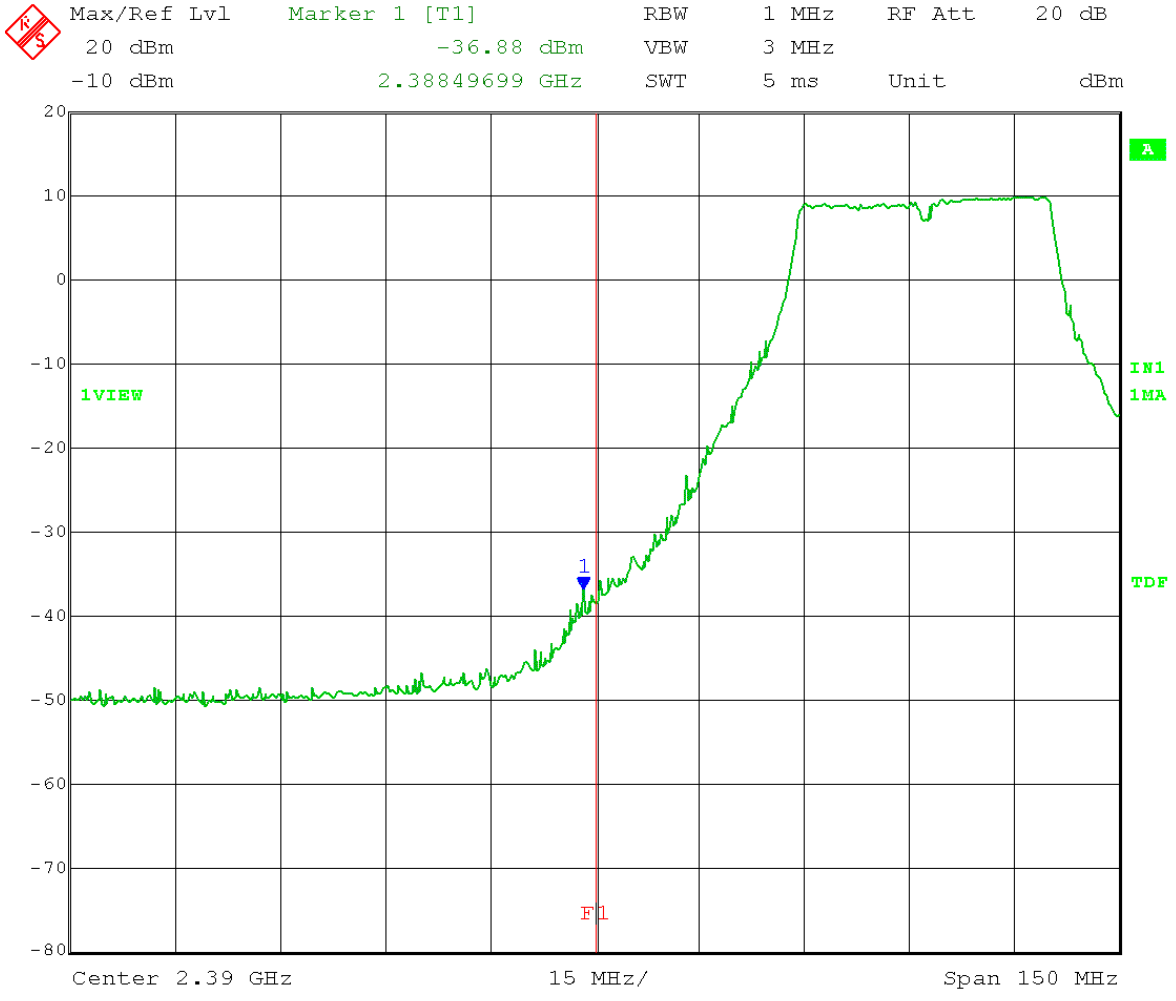

-53.27 dBm = 0.000004710 mW
-52.09 dBm = 0.000006180 mW
Total = 0.000004710 + 0.000006180 = 0.00001089 mW = -49.62 dBm

E = EIRP – 20log D + 104.8
= -49.62 dBm + 8 dBi – 20log 3 + 104.8 = 53.64 dBµV/m
**Margin = 0.36 dB** (for Average limit of 54 dBµV/m)

Test Date: 01-17-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Mid Channel Transmit = 2.437 GHz
Test software setting: 17 (used to get 16 dBm output)
40 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.390 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak = -36.88 dBm for port 0

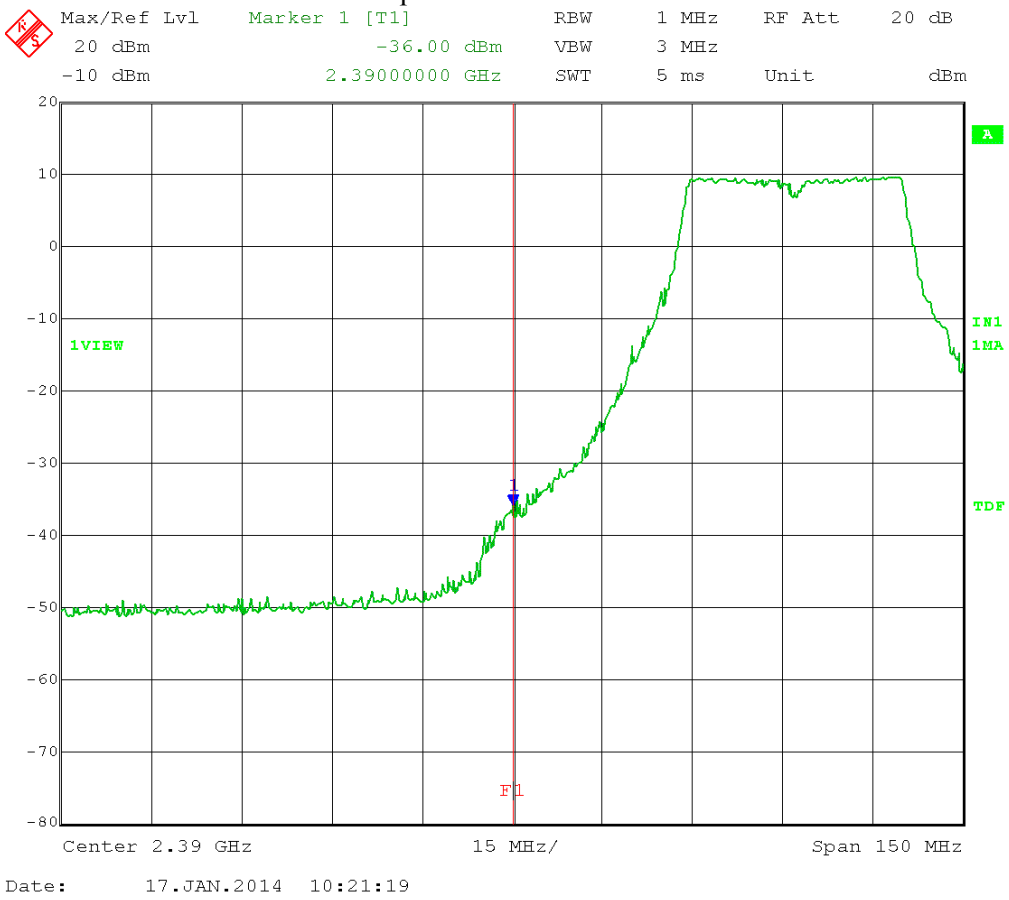



Date: 17.JAN.2014 10:25:04

Test Date: 01-17-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Mid Channel Transmit = 2.437 GHz
Test software setting: 17 (used to get 16 dBm output)
40 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.390 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak -36.00 dBm for port 1



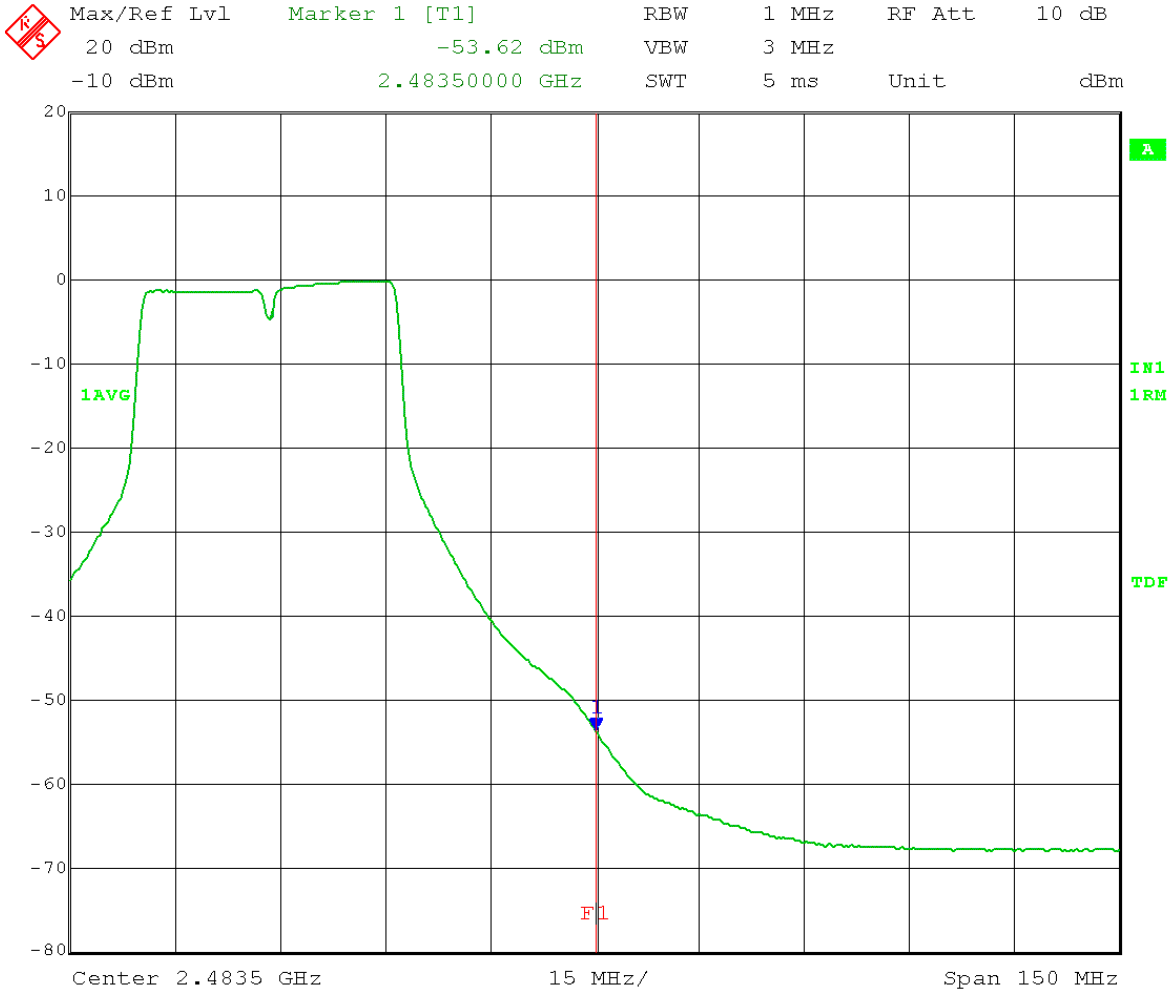

-36.88 dBm = 0.000205116 mW
-36.00 dBm = 0.000251189 mW
Total = 0.000205116 + 0.000251189 = 0.000456305 mW = -33.40 dBm

E = EIRP – 20log D + 104.8
= -33.40 dBm + 8 dBi – 20log 3 + 104.8 = 69.86 dBµV/m
**Margin = 4.14 dB** (for Peak limit of 74 dBµV/m)

Test Date: 01-17-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Mid Channel Transmit = 2.437 GHz
Test software setting: 17 (used to get 16 dBm output)
40 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average = -53.62 dBm for port 0

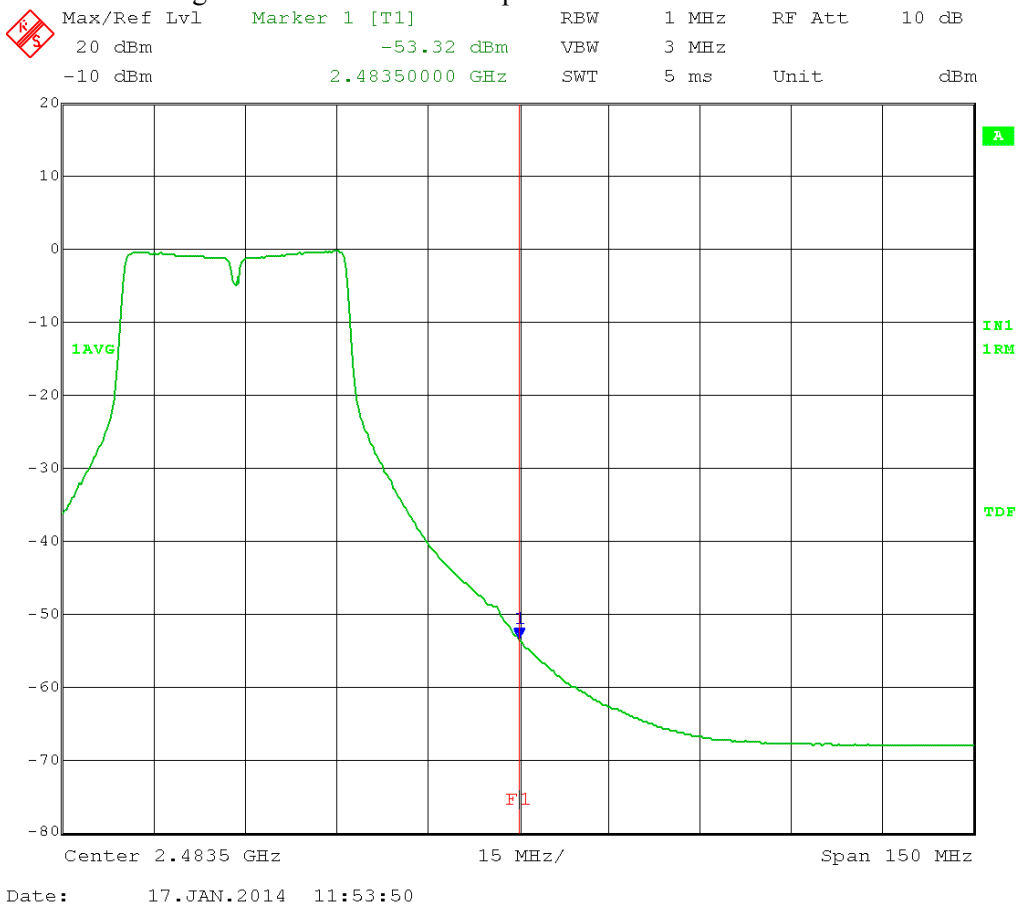



Date: 17.JAN.2014 11:46:43

Test Date: 01-17-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Mid Channel Transmit = 2.437 GHz
Test software setting: 17 (used to get 16 dBm output)
40 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average -53.32 dBm for port 1



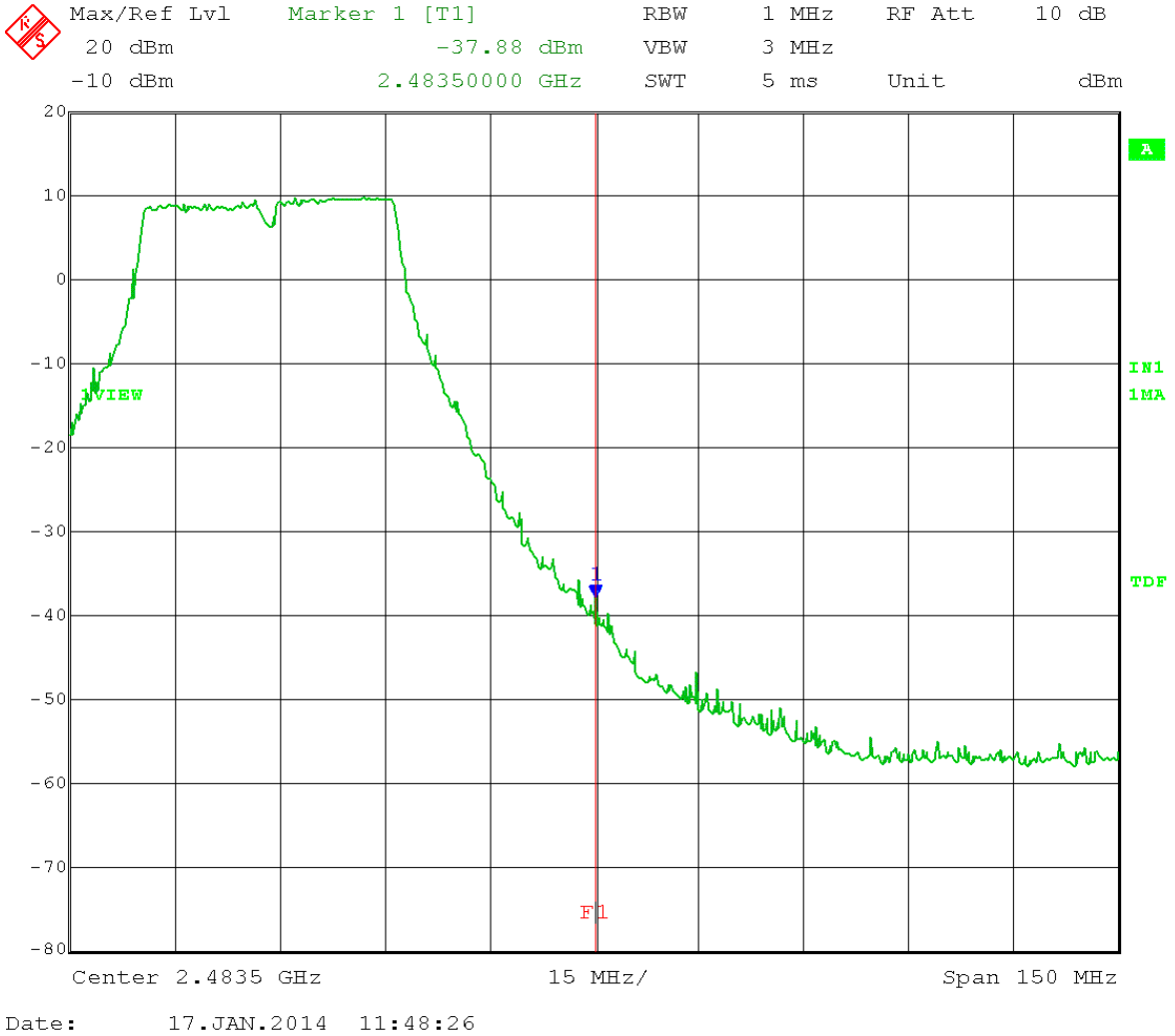

-53.62 dBm = 0.000004345 mW
-53.32 dBm = 0.000004656 mW
Total = 0.000004345 + 0.000004656 = 0.000009001 mW = -50.45 dBm

E = EIRP – 20log D + 104.8
= -50.45 dBm + 8 dBi – 20log 3 + 104.8 = 52.81 dBµV/m
**Margin = 1.19 dB** (for Average limit of 54 dBµV/m)

Test Date: 01-17-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Mid Channel Transmit = 2.437 GHz
Test software setting: 17 (used to get 16 dBm output)
40 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

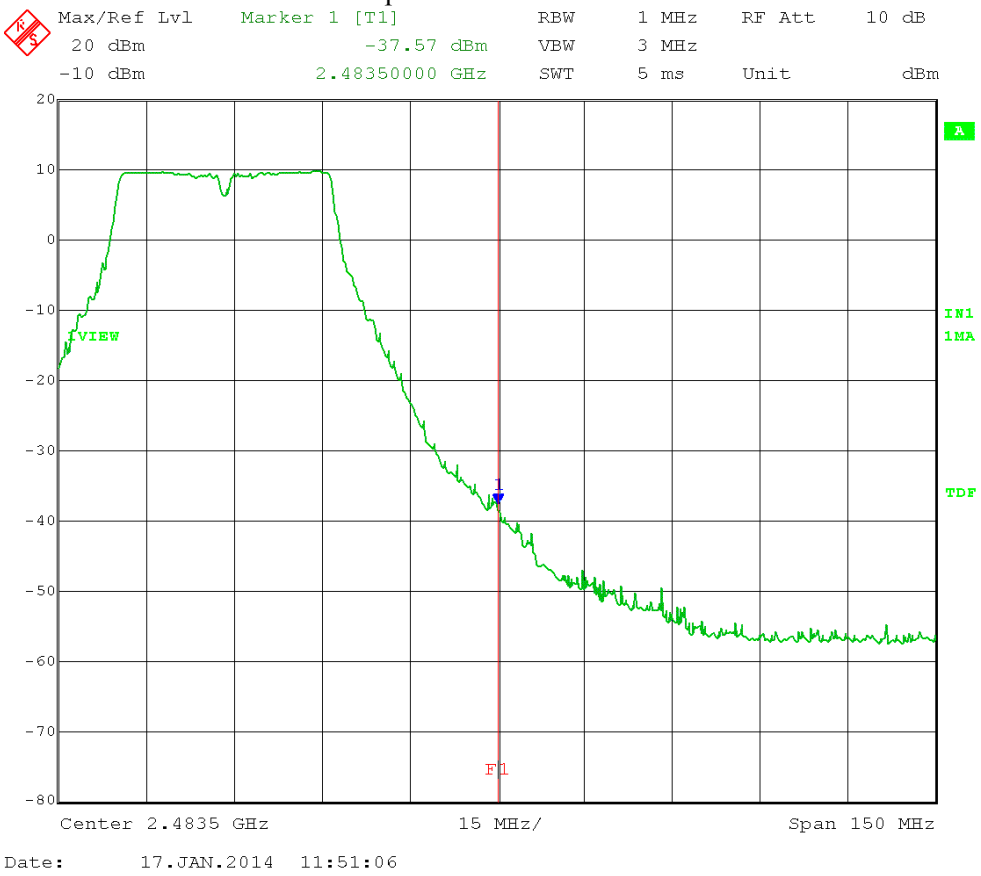
Peak = -37.88 dBm for port 0



Test Date: 01-17-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Mid Channel Transmit = 2.437 GHz
Test software setting: 17 (used to get 16 dBm output)
40 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak -37.57 dBm for port 1



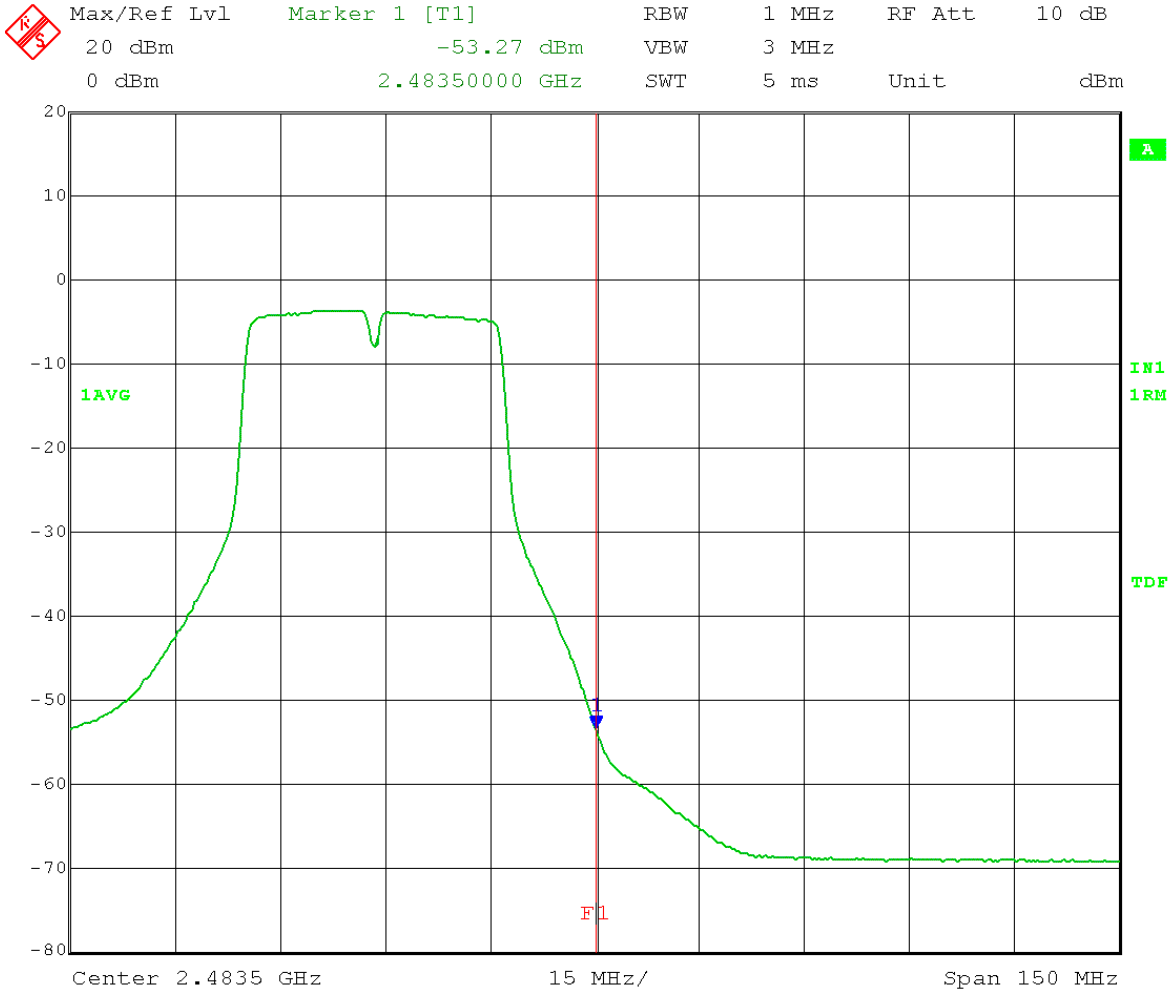

-37.88 dBm = 0.000162930 mW
-37.57 dBm = 0.000174985 mW
Total = 0.000162930 + 0.000174985 = 0.000337915 mW = -34.71 dBm

E = EIRP – 20log D + 104.8
= -34.71 dBm + 8 dBi – 20log 3 + 104.8 = 68.55 dBµV/m
**Margin = 5.45 dB** (for Peak limit of 74 dBµV/m)

Test Date: 01-21-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
High Channel Transmit = 2.452 GHz
Test software setting: 12 (used to get 11 dBm output)
40 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average = -53.27 dBm for port 0

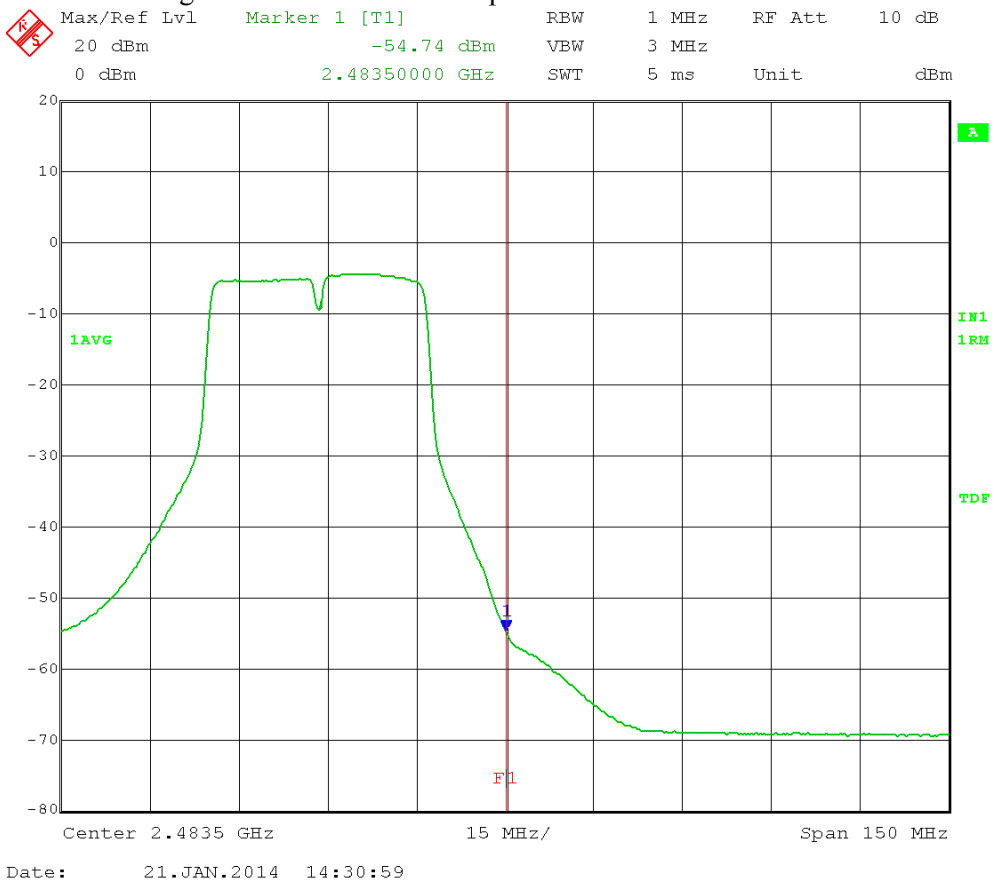



Date: 21.JAN.2014 14:23:43

Test Date: 01-21-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
High Channel Transmit = 2.452 GHz
Test software setting: 12 (used to get 11 dBm output)
40 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average -54.74 dBm for port 1



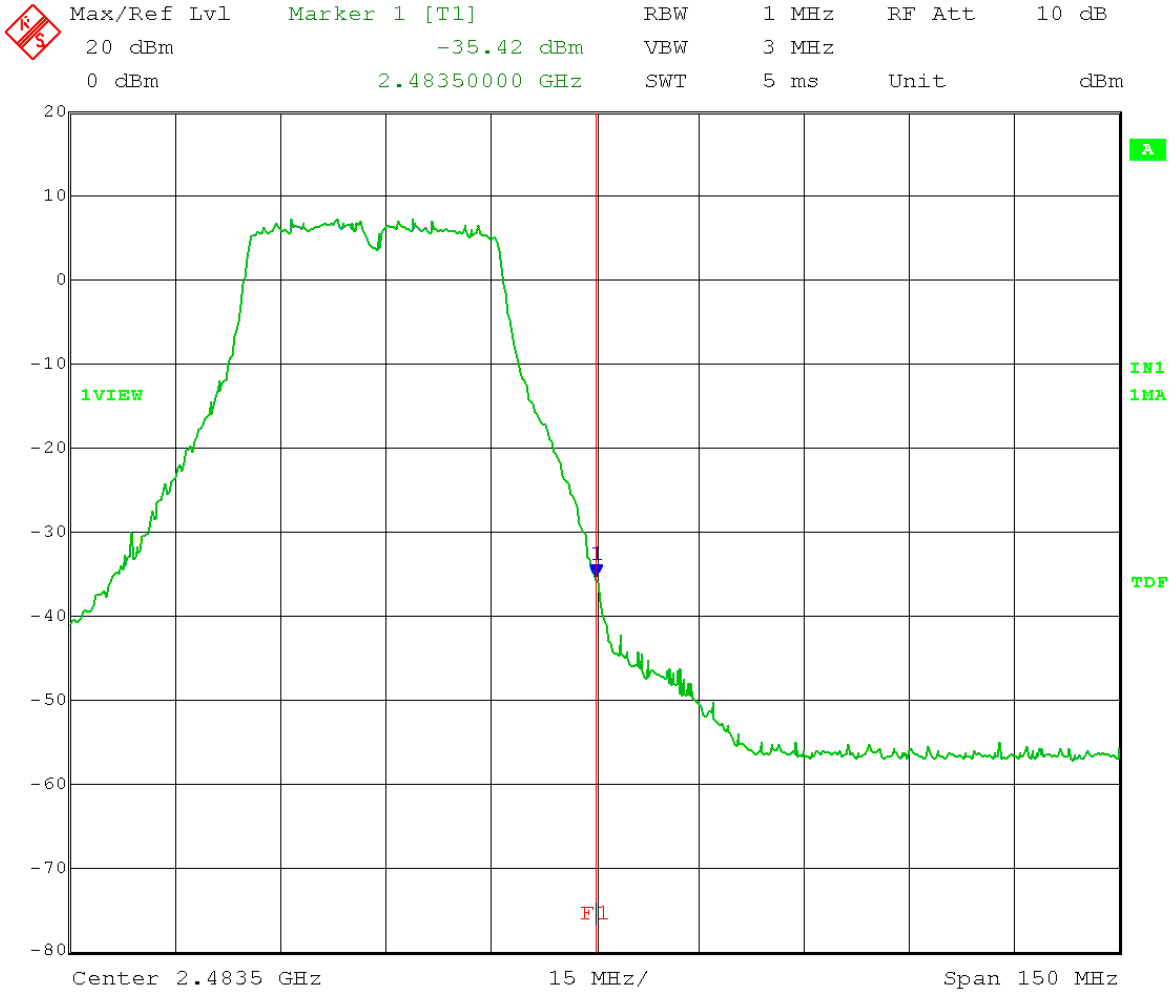

-53.27 dBm = 0.000004710 mW
-54.74 dBm = 0.000003357 mW
Total = 0.000004710 + 0.000003357 = 0.000008067 mW = -50.93 dBm

E = EIRP – 20log D + 104.8
= -50.93 dBm + 8 dBi – 20log 3 + 104.8 = 52.33 dBµV/m
**Margin = 1.6 dB** (for Average limit of 54 dBµV/m)

Test Date: 01-21-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
High Channel Transmit = 2.452 GHz
Test software setting: 12 (used to get 11 dBm output)
40 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak = -35.42 dBm for port 0

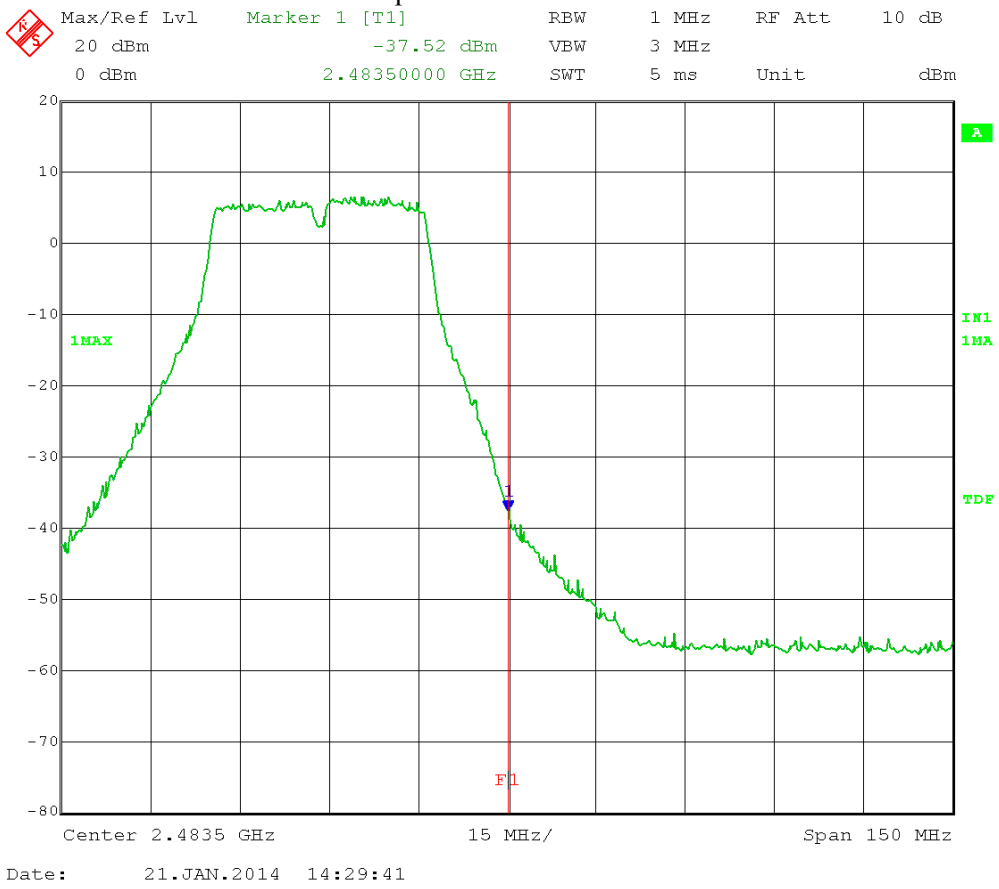



Date: 21.JAN.2014 14:26:39

Test Date: 01-21-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
High Channel Transmit = 2.452 GHz
Test software setting: 12 (used to get 11 dBm output)
40 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak -37.52 dBm for port 1



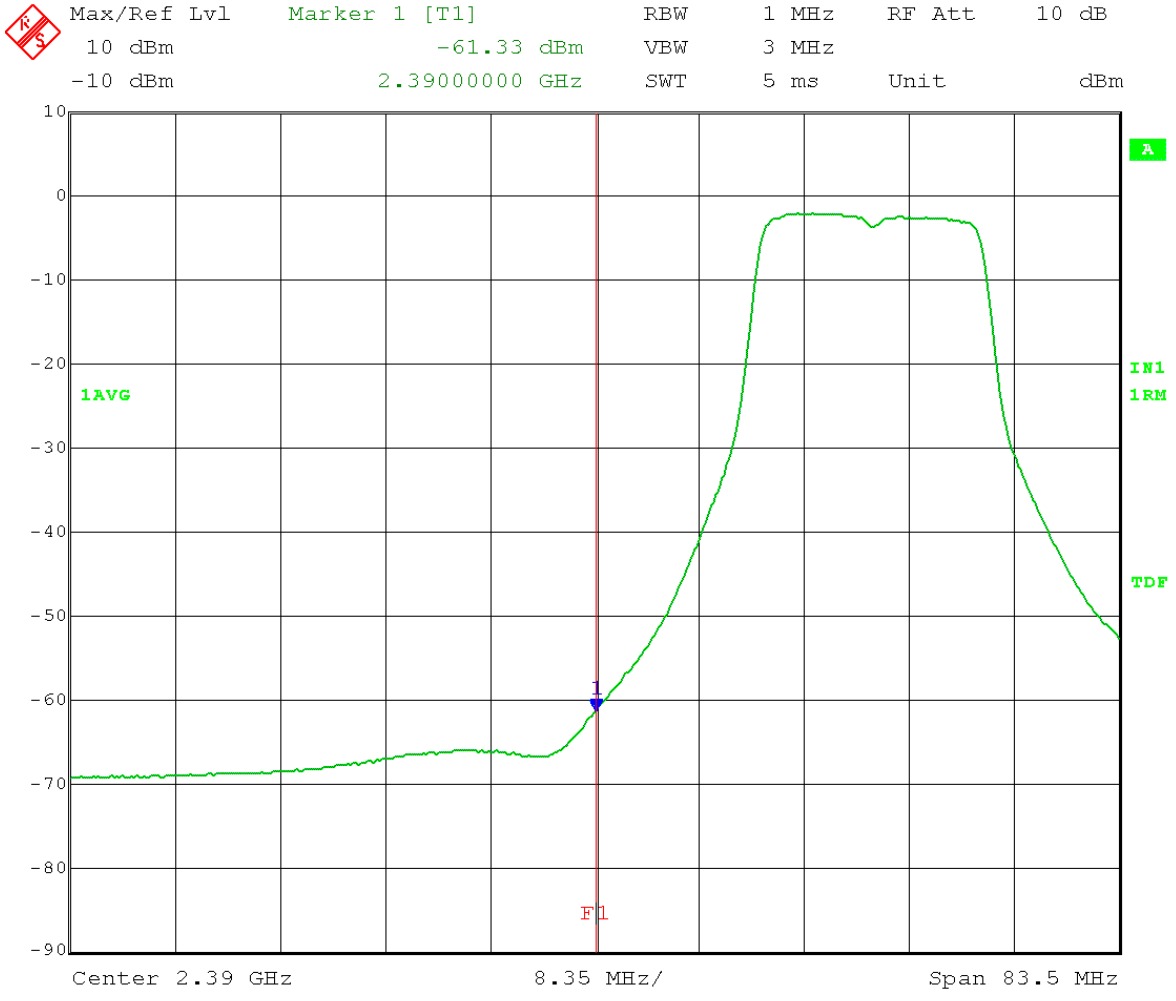

-35.42 dBm = 0.000287078 mW
-37.52 dBm = 0.000177011 mW
Total = 0.000287078 + 0.000177011 = 0.000464089 mW = -33.33 dBm

E = EIRP – 20log D + 104.8
= -33.33 dBm + 8 dBi – 20log 3 + 104.8 = 69.93 dBµV/m
**Margin = 4.07 dB** (for Peak limit of 74 dBµV/m)

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Low Channel Transmit = 2.412 GHz
Test software setting: 12 (used to get 11 dBm output)
20 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.390 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average = -61.33 dBm for port 0

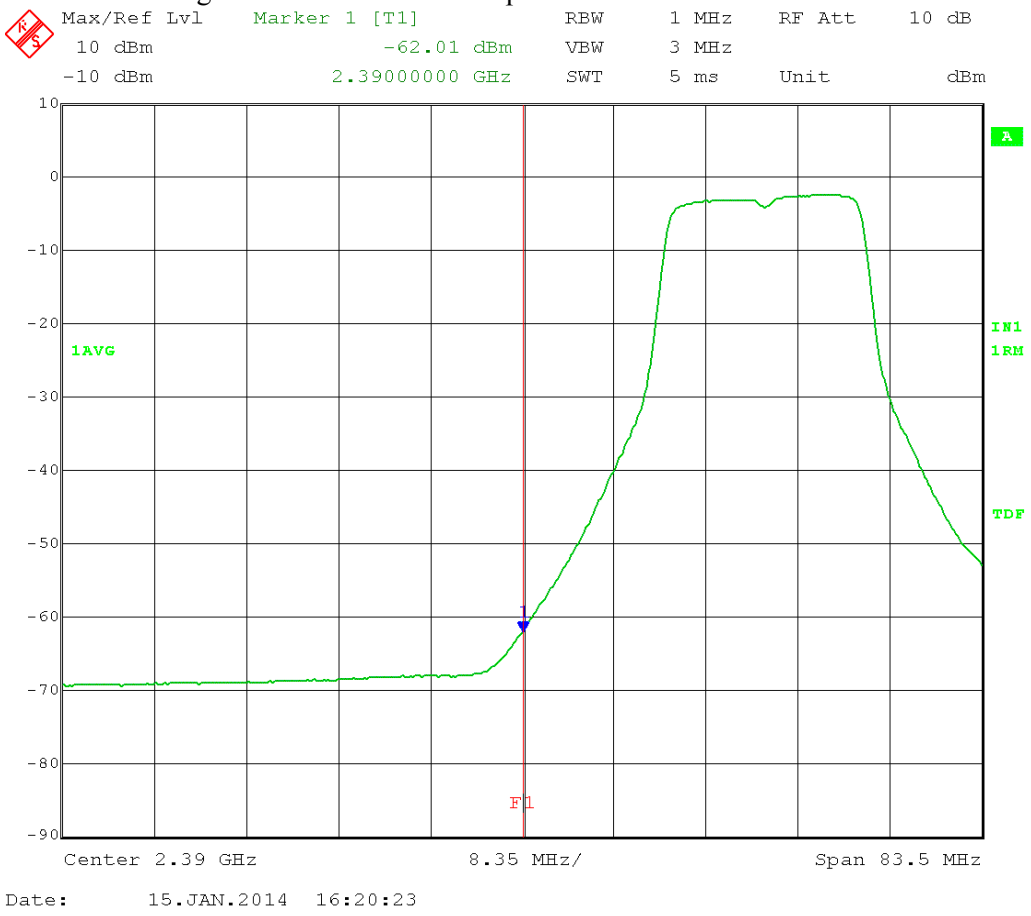



Date: 15.JAN.2014 16:12:00

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Low Channel Transmit = 2.412 GHz
Test software setting: 12 (used to get 11 dBm output)
20 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.390 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average -62.01 dBm for port 1



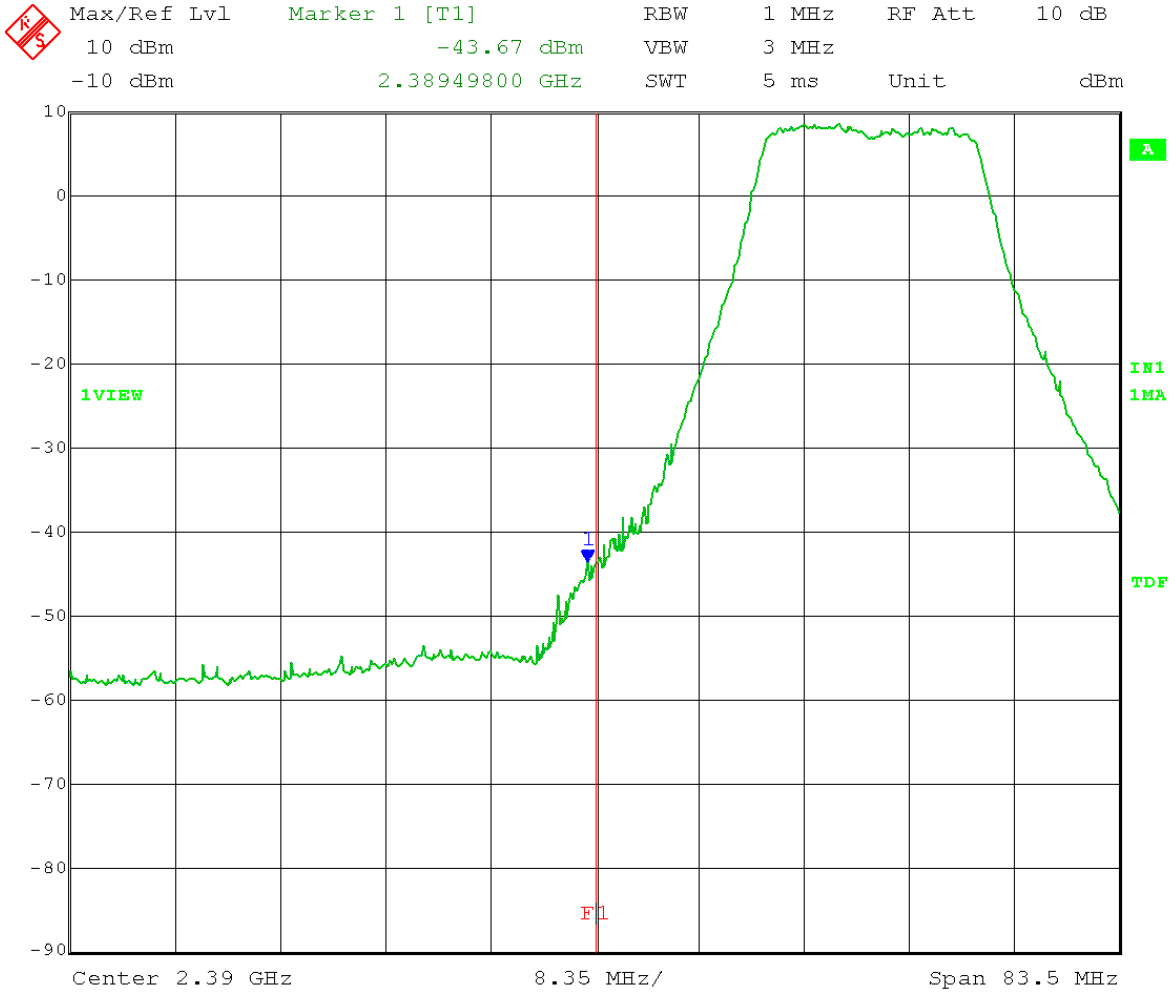

-61.33 dBm = 0.000000736 mW
-62.01 dBm = 0.000000630 mW
Total = 0.000000736 + 0.000000630 = 0.000001366 mW = -58.64 dBm

E = EIRP – 20log D + 104.8
= -58.64 dBm + 17 dBi – 20log 3 + 104.8 = 53.62 dBµV/m
**Margin = 0.38** (for Average limit of 54 dBµV/m)

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Low Channel Transmit = 2.412 GHz
Test software setting: 12 (used to get 11 dBm output)
20 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.390 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak = -43.67 dBm for port 0

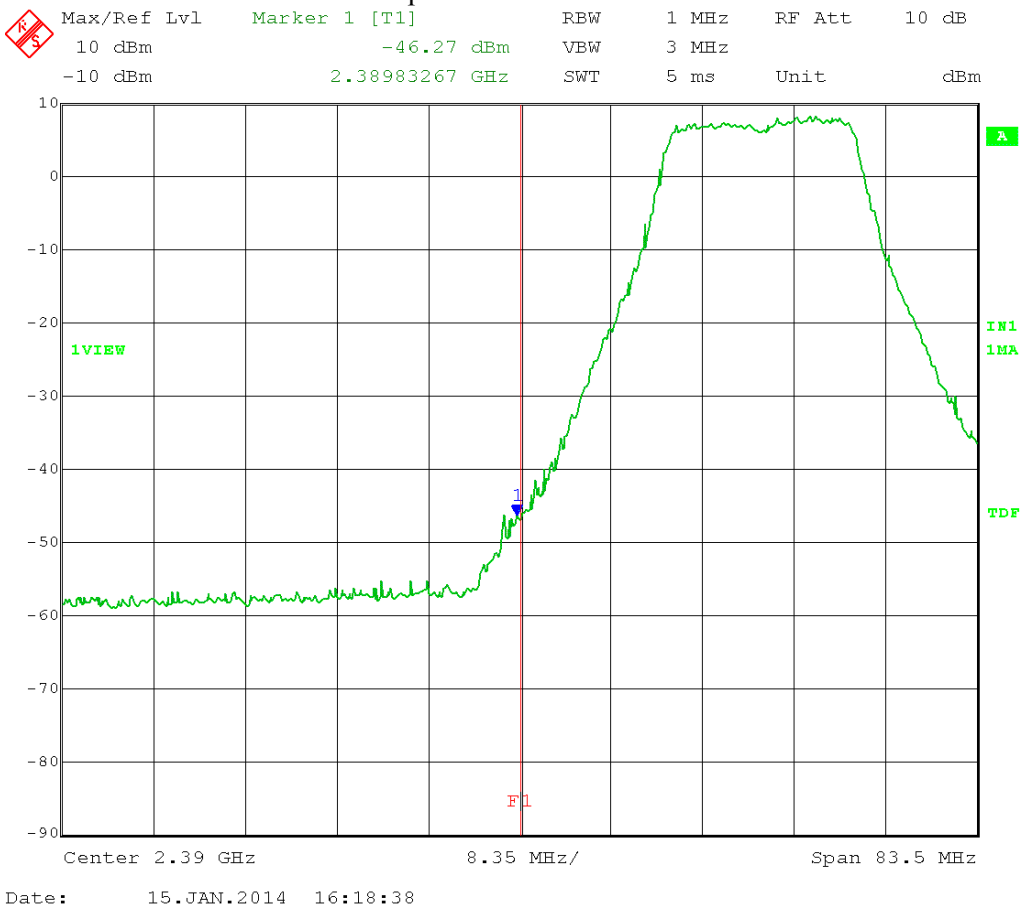



Date: 15.JAN.2014 16:15:22

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Low Channel Transmit = 2.412 GHz
Test software setting: 12 (used to get 11 dBm output)
20 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.390 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak -46.27 dBm for port 1



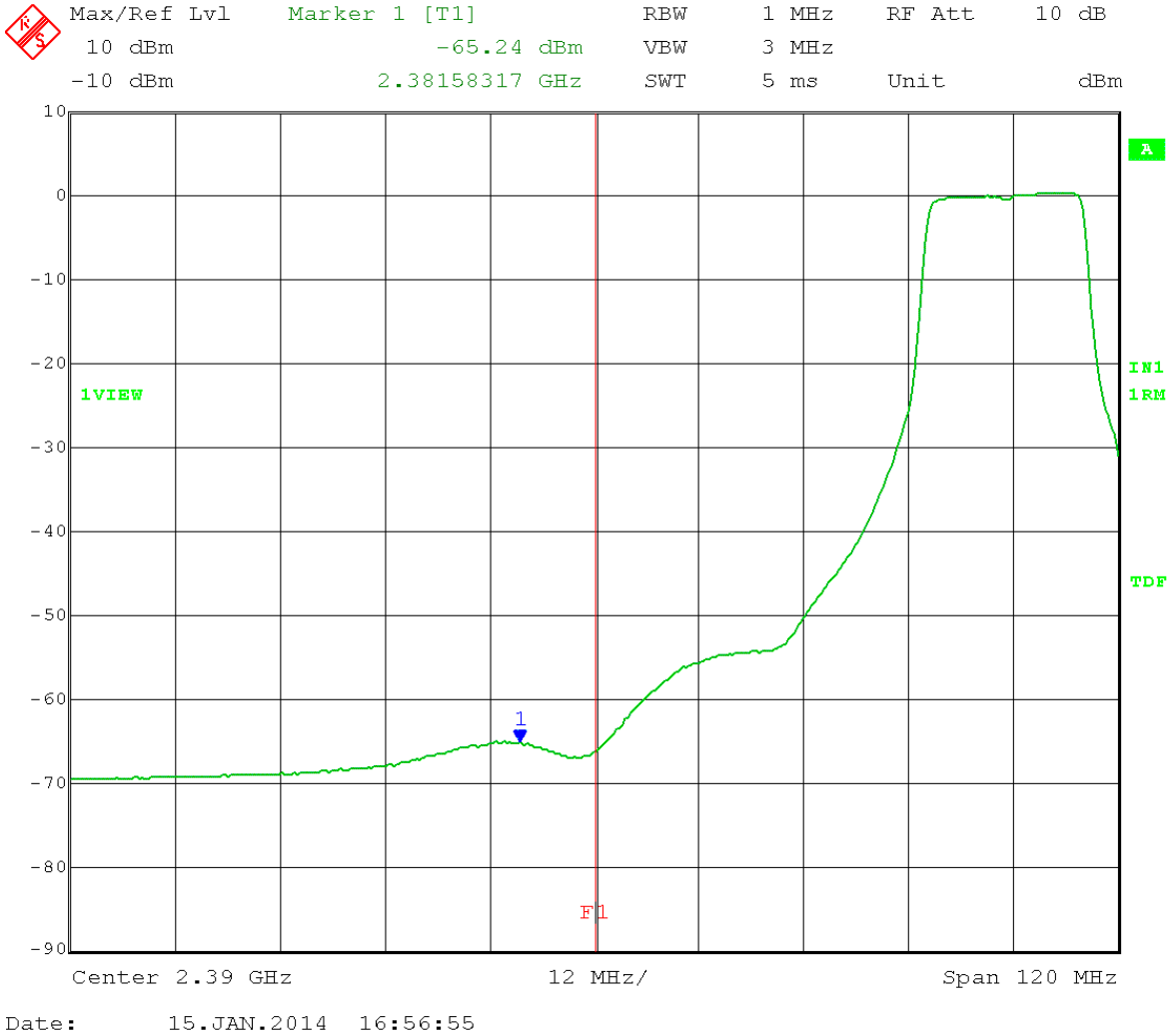

-43.67 dBm = 0.000042954 mW
-46.27 dBm = 0.000023605 mW
Total = 0.000042954 + 0.000023605 = 0.000066559 mW = -41.76 dBm

E = EIRP – 20log D + 104.8
= -41.76 dBm + 17 dBi – 20log 3 + 104.8 = 70.50 dBµV/m
**Margin = 3.50 dB** (for Peak limit of 74 dBµV/m)

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Mid Channel Transmit = 2.437 GHz
Test software setting: 17 (used to get 16 dBm output)
20 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.390 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average = -65.24 dBm for port 0

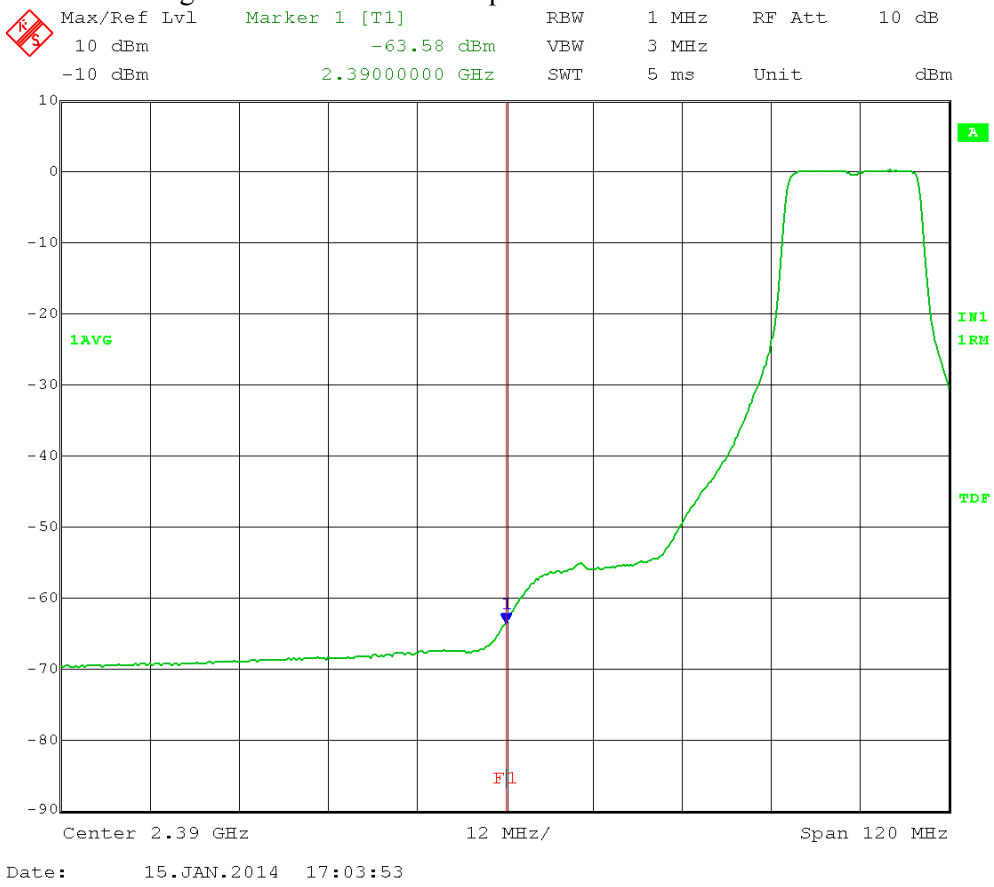



Date: 15.JAN.2014 16:56:55

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Mid Channel Transmit = 2.437 GHz
Test software setting: 17 (used to get 16 dBm output)
20 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.390 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average -63.58 dBm for port 1



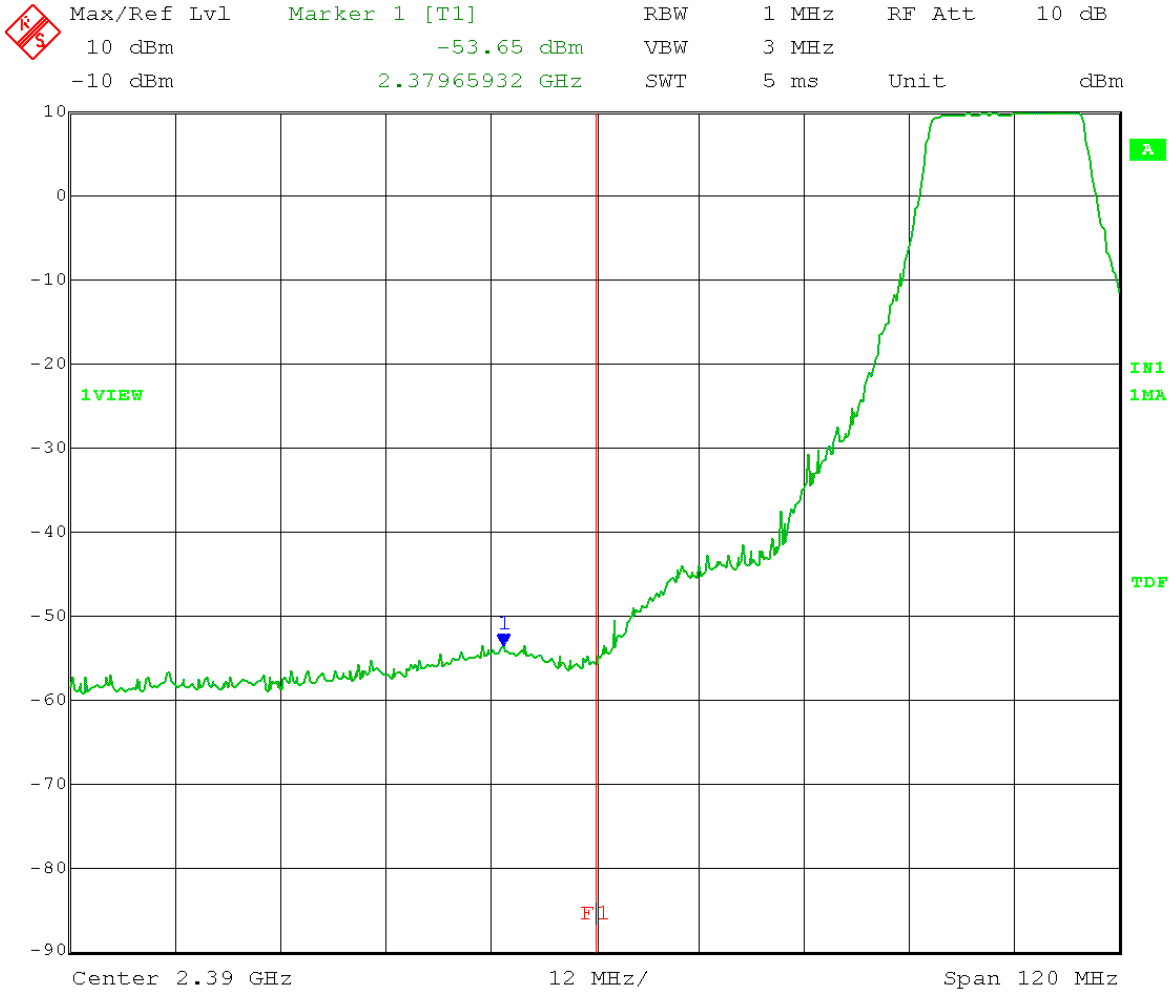

-65.24 dBm = 0.000000299 mW
-63.58 dBm = 0.000000439 mW
Total = 0.000000299 + 0.000000439 = 0.000000738 mW = -61.32 dBm

E = EIRP – 20log D + 104.8
= -61.32 dBm + 17 dBi – 20log 3 + 104.8 = 50.94 dBµV/m
**Margin = 3.06 dB** (for Average limit of 54 dBµV/m)

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Mid Channel Transmit = 2.437 GHz
Test software setting: 17 (used to get 16 dBm output)
20 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.390 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak = -53.65 dBm for port 0

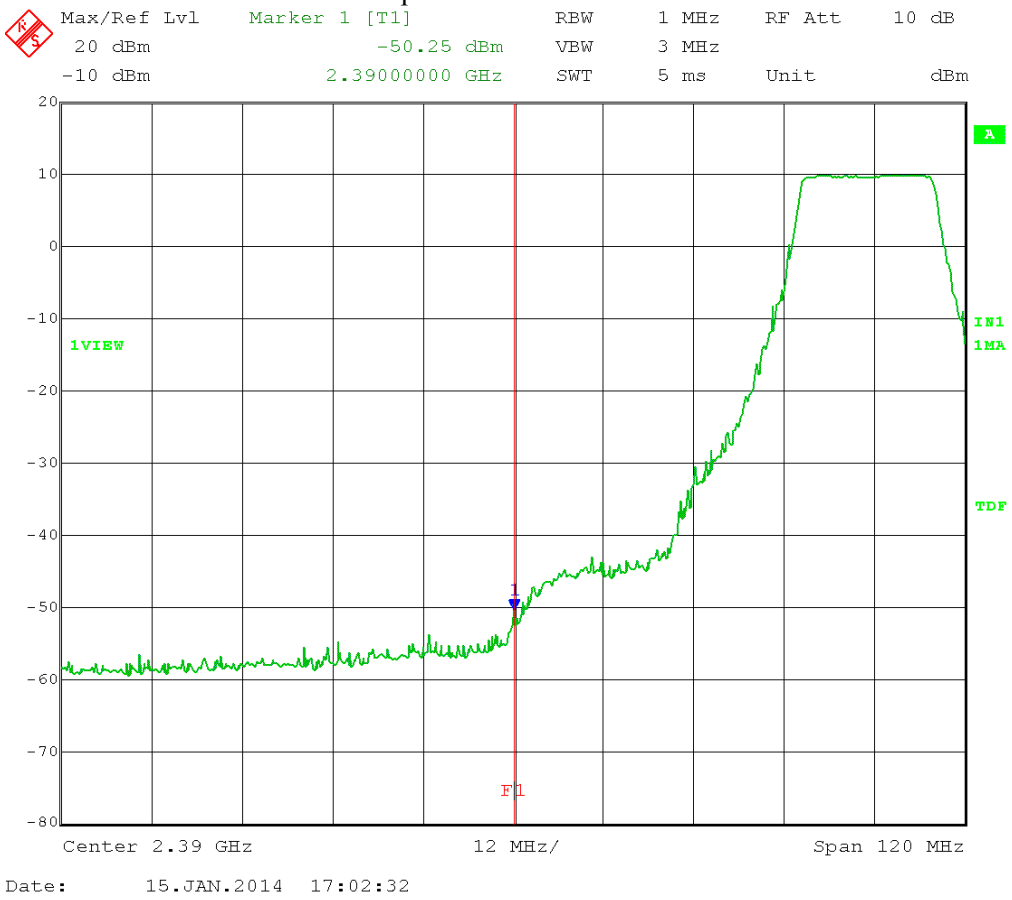



Date: 15.JAN.2014 16:58:58

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Mid Channel Transmit = 2.437 GHz
Test software setting: 17 (used to get 16 dBm output)
20 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.390 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak -50.25 dBm for port 1



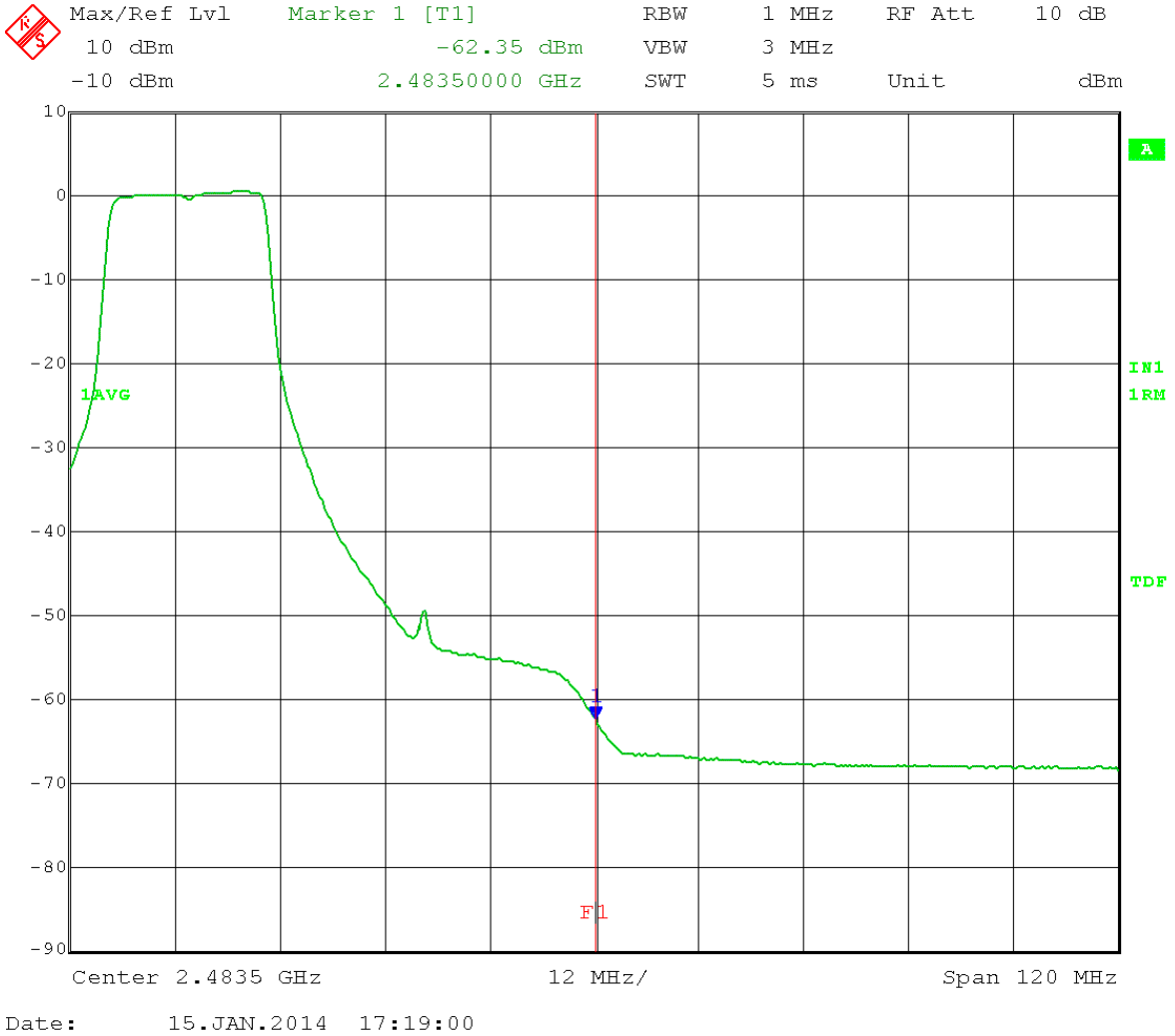

-53.65 dBm = 0.000004315 mW
-50.25 dBm = 0.000009441 mW
Total = 0.000004315 + 0.000009441 = 0.000013756 mW = -48.61 dBm

E = EIRP – 20log D + 104.8
= -48.61 dBm + 17 dBi – 20log 3 + 104.8 = 63.65 dBµV/m
**Margin = 10.35 dB** (for Peak limit of 74 dBµV/m)

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Mid Channel Transmit = 2.437 GHz
Test software setting: 17 (used to get 16 dBm output)
20 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average = -62.35 dBm for port 0

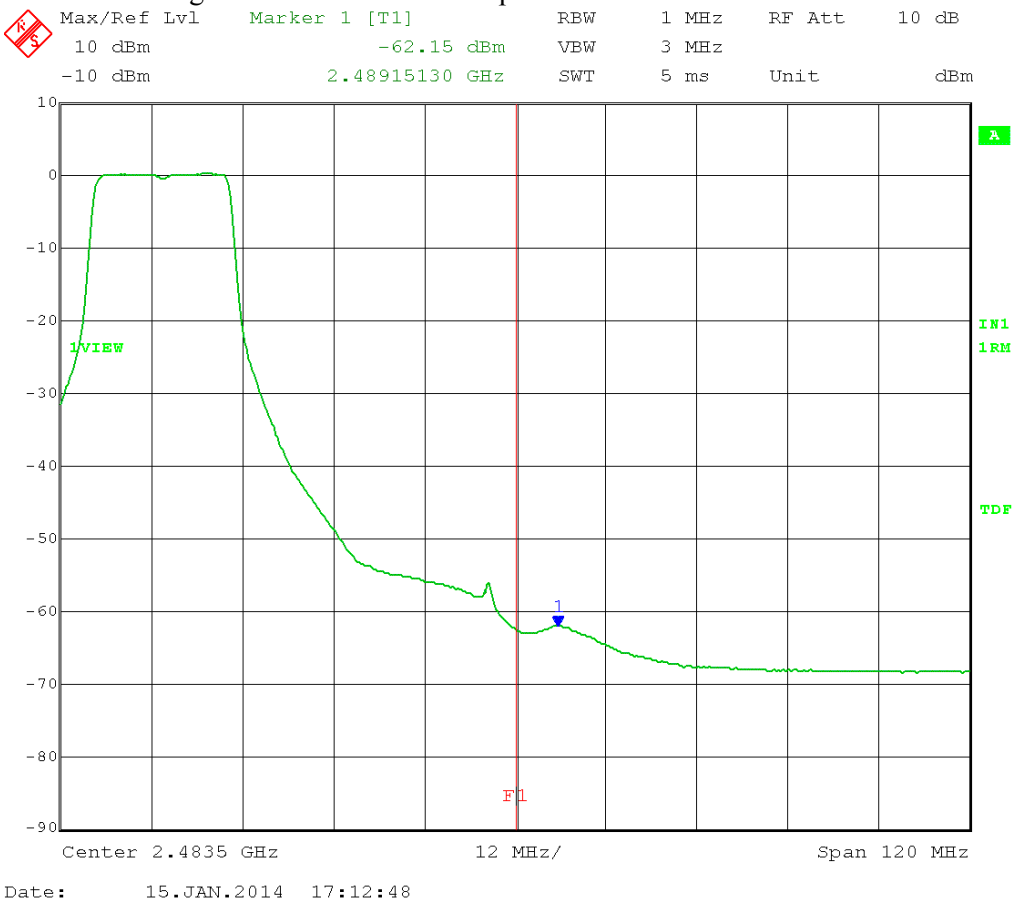



Date: 15.JAN.2014 17:19:00

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Mid Channel Transmit = 2.437 GHz
Test software setting: 17 (used to get 16 dBm output)
20 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average -62.15 dBm for port 1



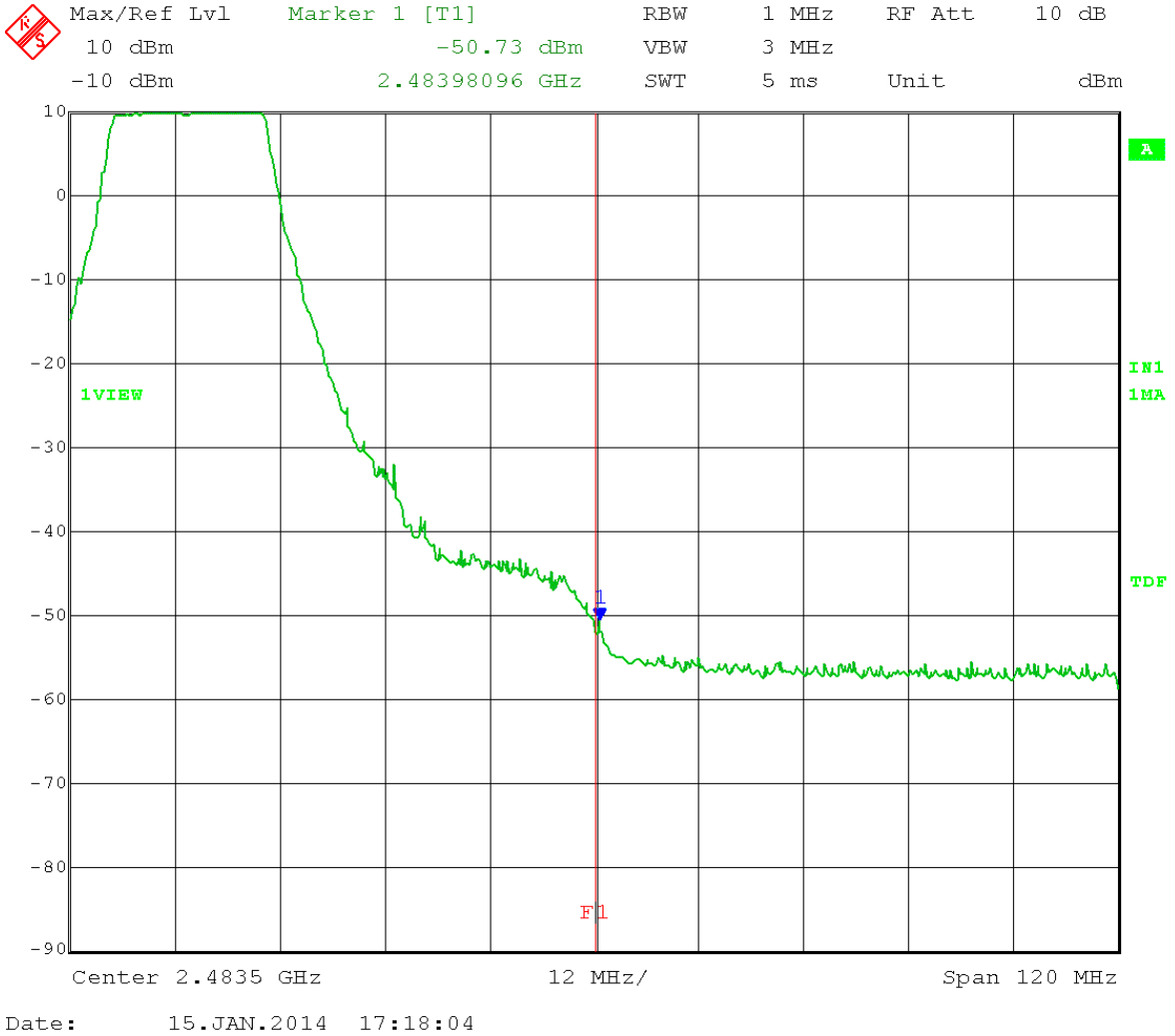

-62.35 dBm = 0.000000582 mW
-62.15 dBm = 0.000000610 mW
Total = 0.000000582 + 0.000000610 = 0.000001192 mW = -59.23 dBm

E = EIRP – 20log D + 104.8
= -59.23 dBm + 17 dBi – 20log 3 + 104.8 = 53.03 dBµV/m
**Margin = 0.97 dB** (for Average limit of 54 dBµV/m)

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Mid Channel Transmit = 2.437 GHz
Test software setting: 17 (used to get 16 dBm output)
20 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak = -50.73 dBm for port 0

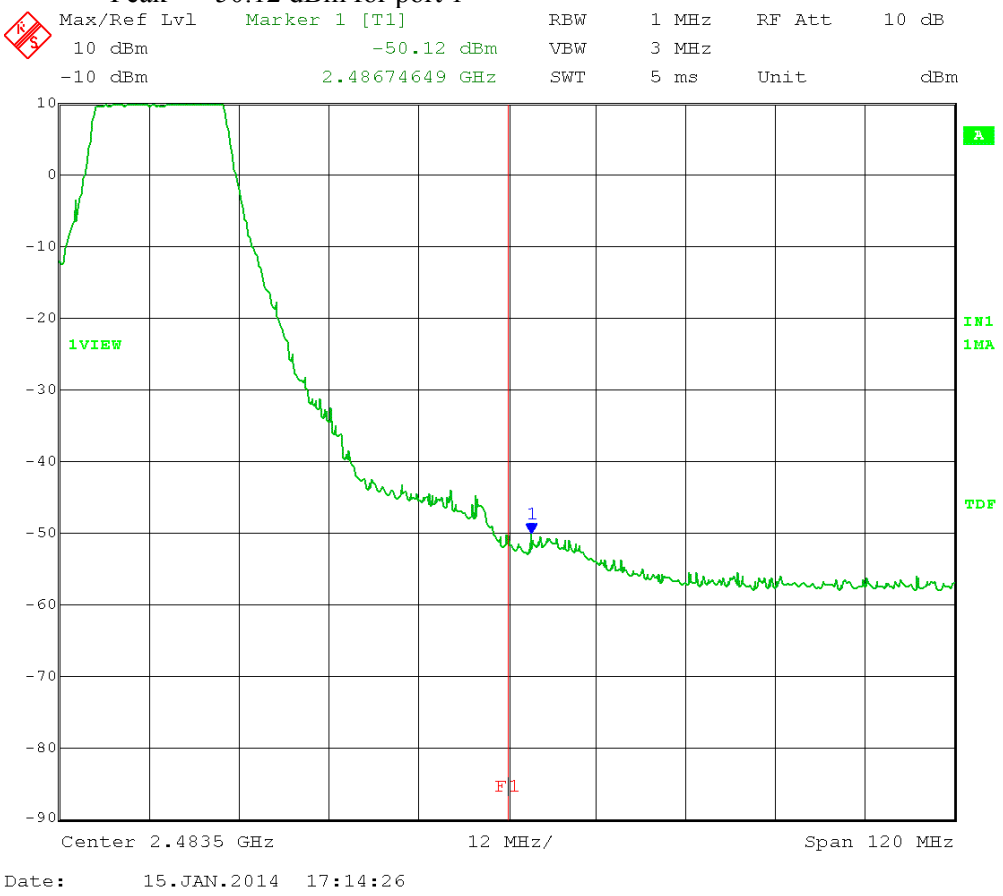



Date: 15.JAN.2014 17:18:04

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Mid Channel Transmit = 2.437 GHz
Test software setting: 17 (used to get 16 dBm output)
20 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak -50.12 dBm for port 1



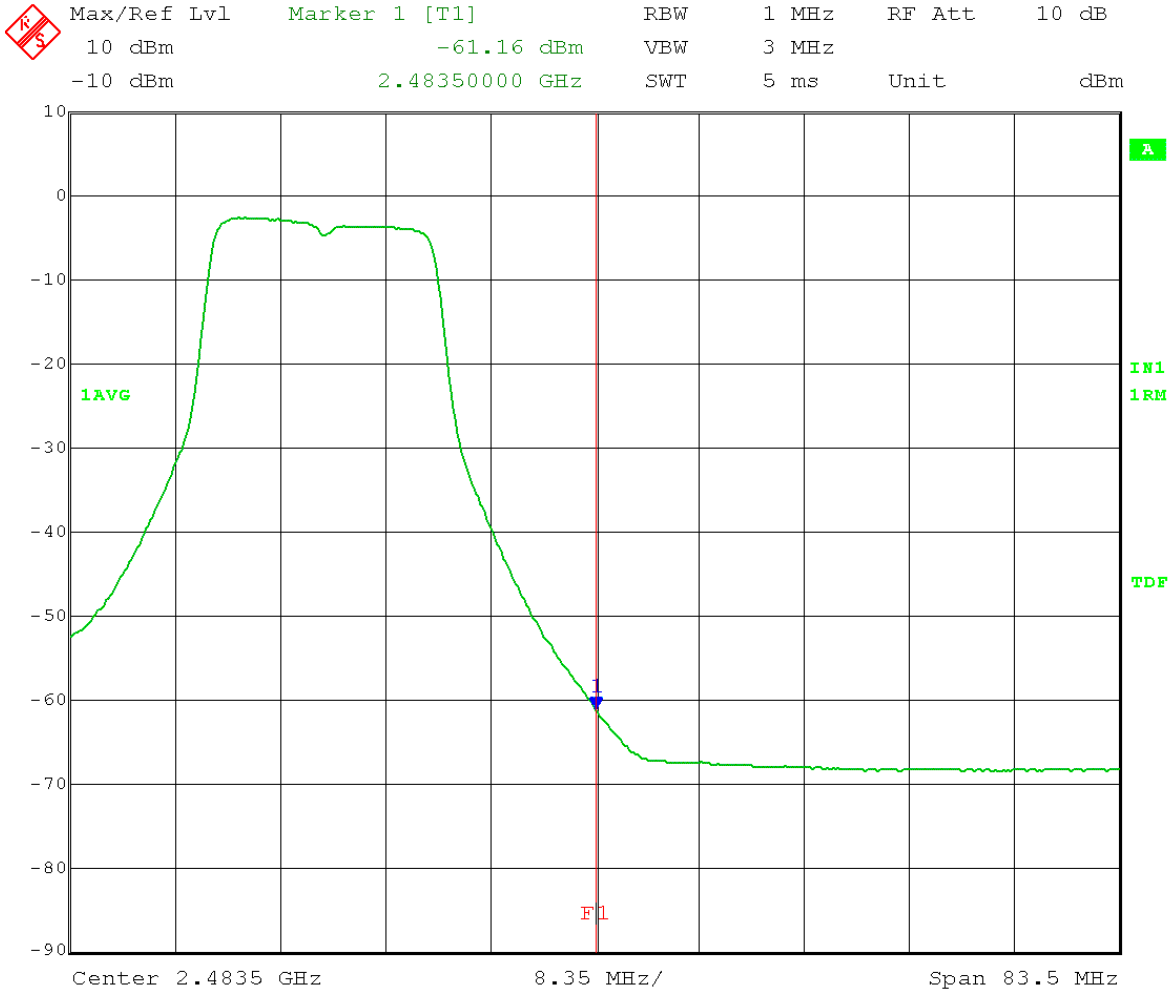

-50.73 dBm = 0.000008453 mW
-50.12 dBm = 0.000009727 mW
Total = 0.000008453 + 0.000009727 = 0.000018180 mW = -47.40dBm

E = EIRP – 20log D + 104.8
= -47.40 dBm + 17 dBi – 20log 3 + 104.8 = 64.86 dBµV/m
**Margin = 9.14 dB** (for Peak limit of 74 dBµV/m)

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
High Channel Transmit = 2.462 GHz
Test software setting: 12 (used to get 11 dBm output)
20 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average = -61.16 dBm for port 0

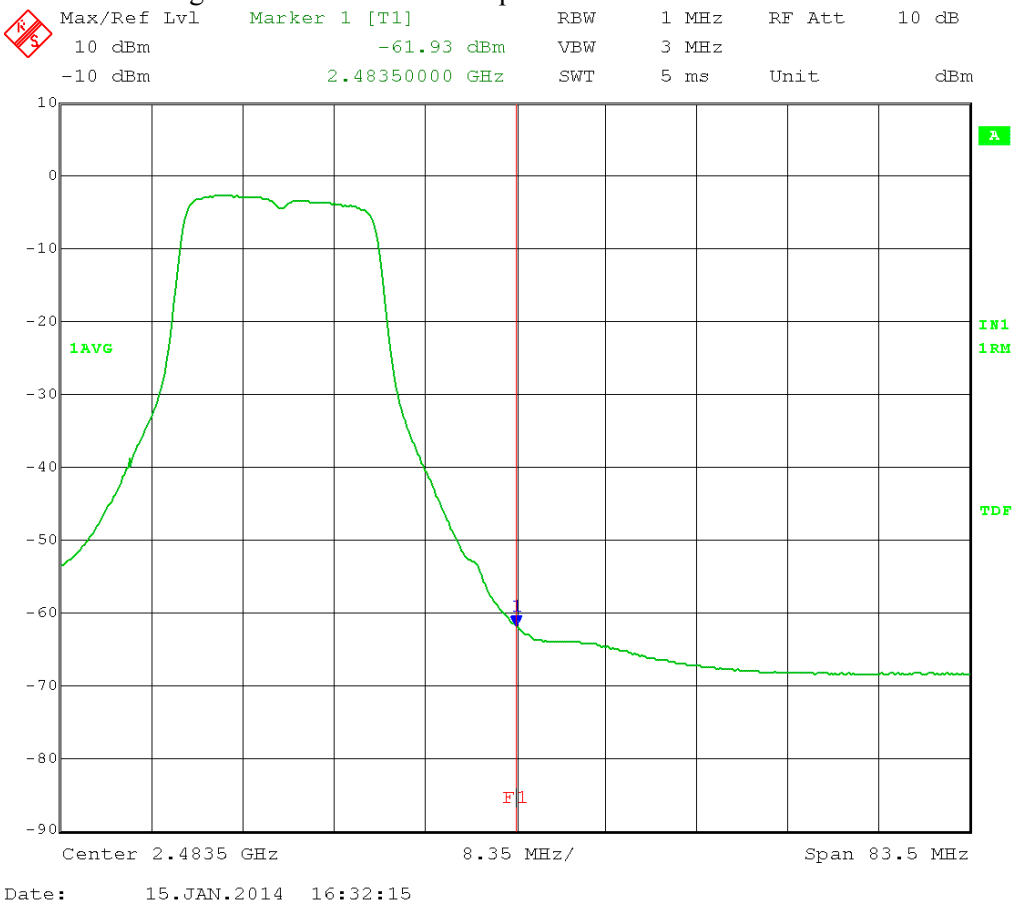



Date: 15.JAN.2014 16:39:04

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
High Channel Transmit = 2.462 GHz
Test software setting: 12 (used to get 11 dBm output)
20 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average -61.93 dBm for port 1



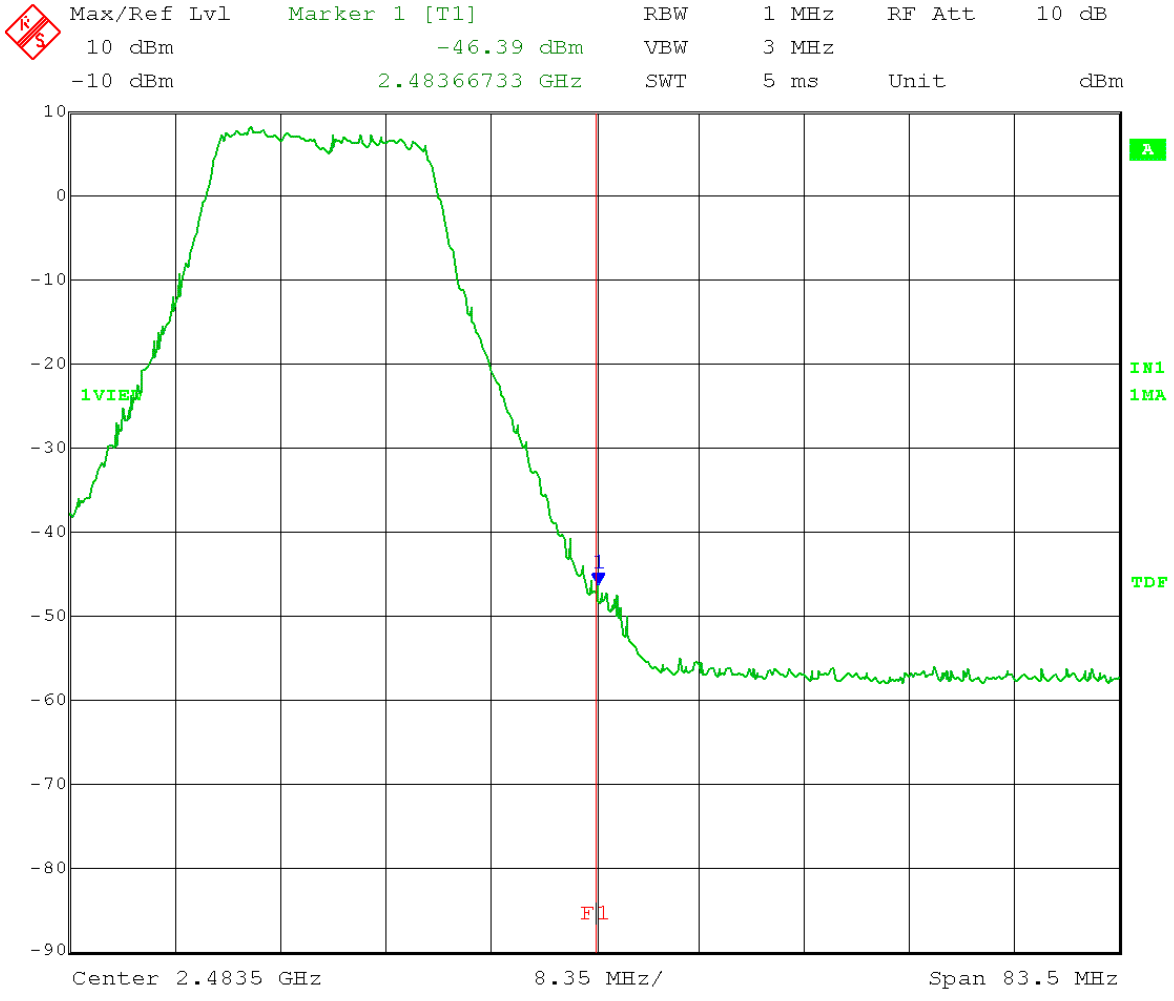

-61.16 dBm = 0.000000766 mW
-61.93 dBm = 0.000000641 mW
Total = 0.000000766 + 0.000000641 = 0.000001407 mW = -58.51 dBm

E = EIRP – 20log D + 104.8
= -58.51 dBm + 17 dBi – 20log 3 + 104.8 = 53.75 dBµV/m
**Margin = 0.25 dB** (for Average limit of 54 dBµV/m)

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
High Channel Transmit = 2.462 GHz
Test software setting: 12 (used to get 11 dBm output)
20 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak = -46.39 dBm for port 0

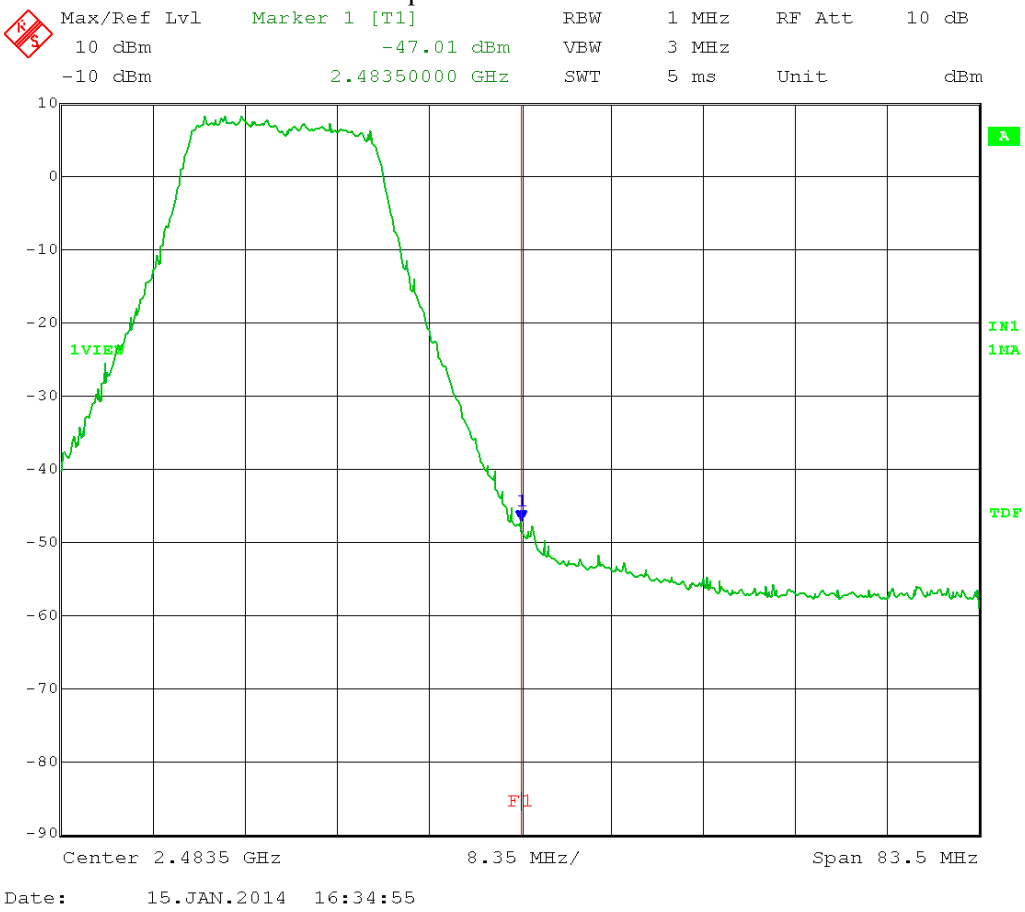



Date: 15.JAN.2014 16:37:49

Test Date: 01-15-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
High Channel Transmit = 2.462 GHz
Test software setting: 12 (used to get 11 dBm output)
20 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak -47.01 dBm for port 1



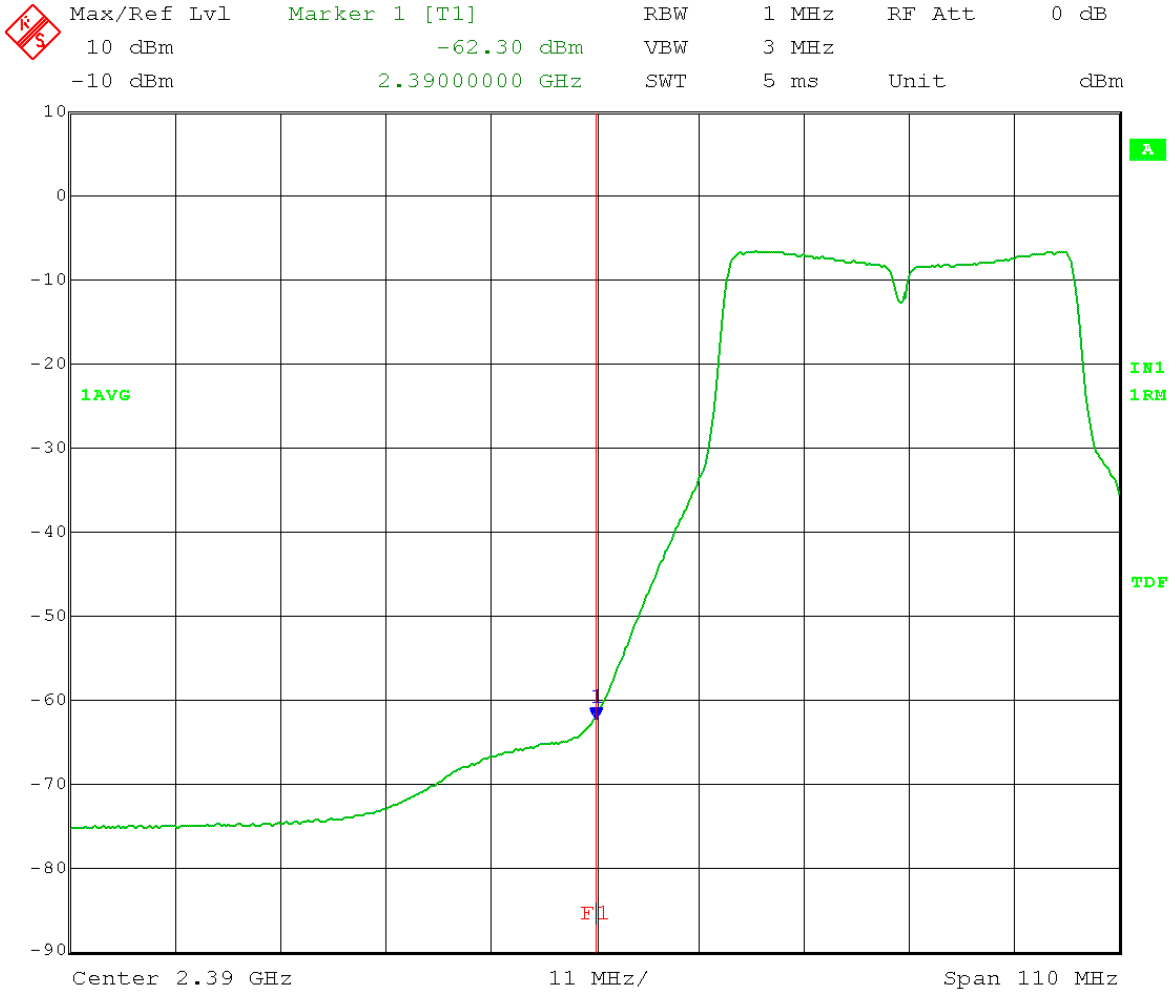

-46.39 dBm = 0.000022961 mW
-47.01 dBm = 0.000019907 mW
Total = 0.000022961 + 0.000019907 = 0.000042868 mW = -43.67 dBm

E = EIRP – 20log D + 104.8
= -43.67 dBm + 17 dBi – 20log 3 + 104.8 = 68.59 dBµV/m
**Margin = 5.41 dB** (for Peak limit of 74 dBµV/m)

Test Date: 01-17-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Low Channel Transmit = 2.422 GHz
Test software setting: 8 (used to get 7 dBm output)
40 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.390 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average = -62.30 dBm for port 0

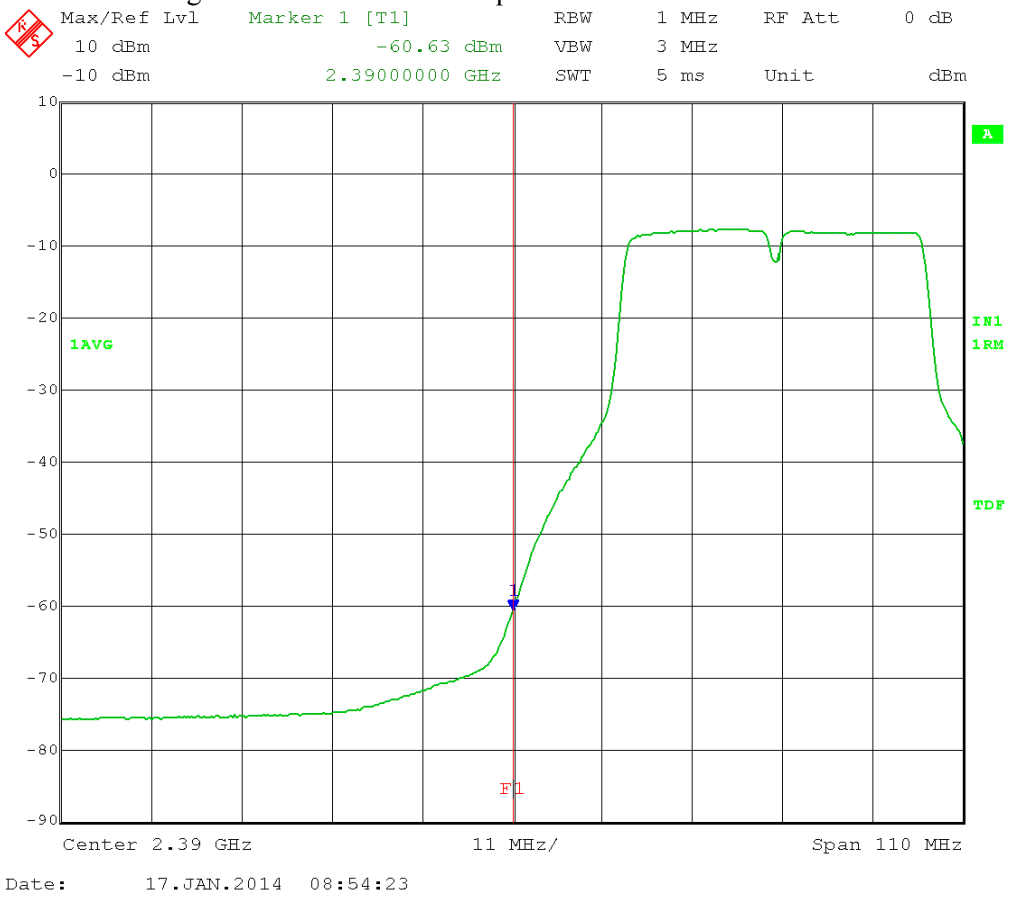



Date: 17.JAN.2014 08:50:01

Test Date: 01-17-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Low Channel Transmit = 2.422 GHz
Test software setting: 8 (used to get 7 dBm output)
40 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.390 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average -60.63 dBm for port 1



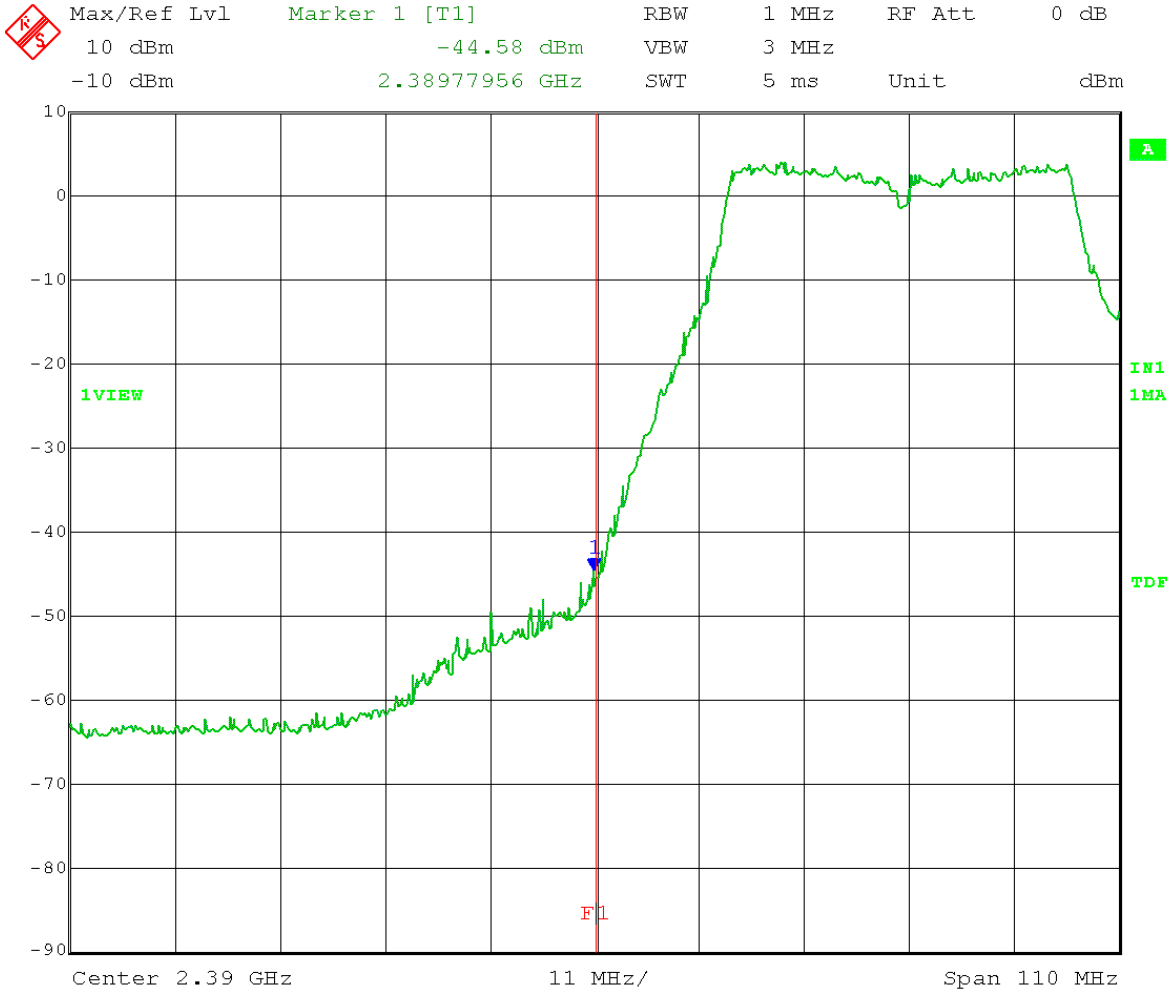

-62.30 dBm = 0.000000589 mW
-60.63 dBm = 0.000000865 mW
Total = 0.000000589 + 0.000000865 = 0.000001454 mW = -58.37 dBm

E = EIRP – 20log D + 104.8
= -58.37 dBm + 17 dBi – 20log 3 + 104.8 = 53.89 dBµV/m
**Margin = 0.11** (for Average limit of 54 dBµV/m)

Test Date: 01-17-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Low Channel Transmit = 2.422 GHz
Test software setting: 8 (used to get 7 dBm output)
40 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.390 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak = -44.58 dBm for port 0

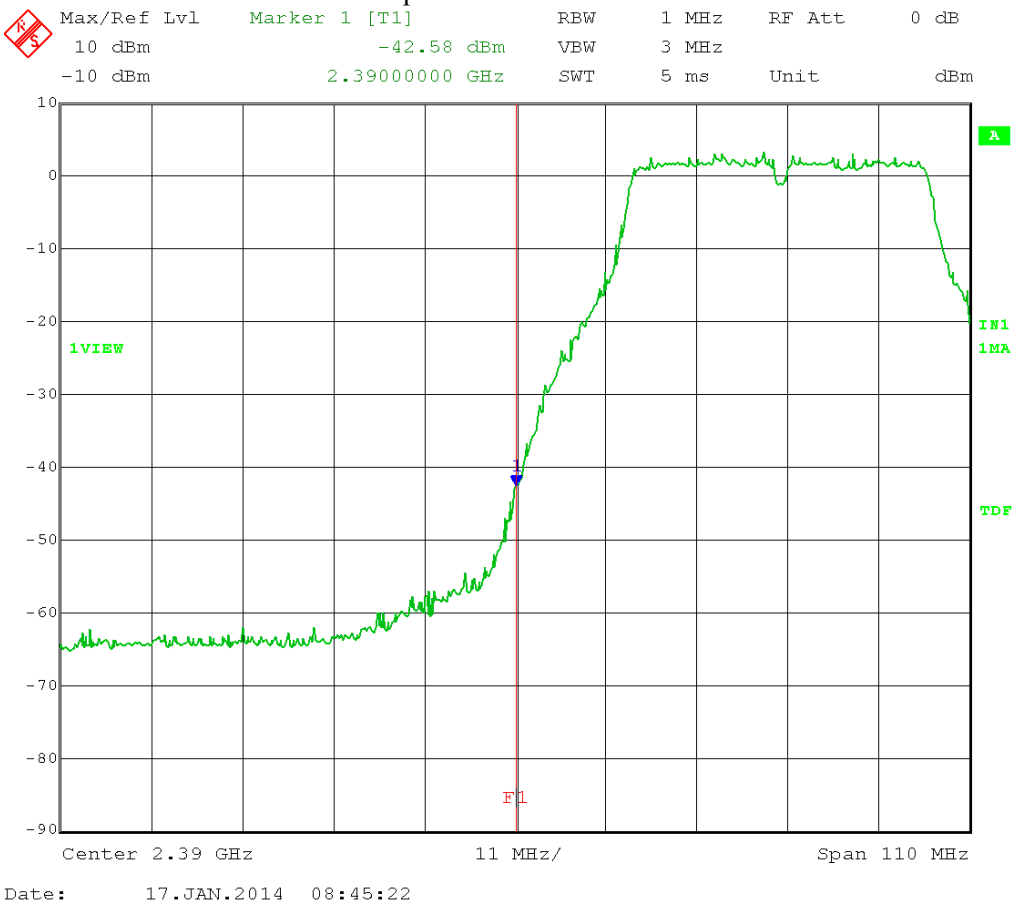



Date: 17.JAN.2014 08:48:38

Test Date: 01-17-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Low Channel Transmit = 2.422 GHz
Test software setting: 8 (used to get 7 dBm output)
40 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.390 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak -42.58 dBm for port 1



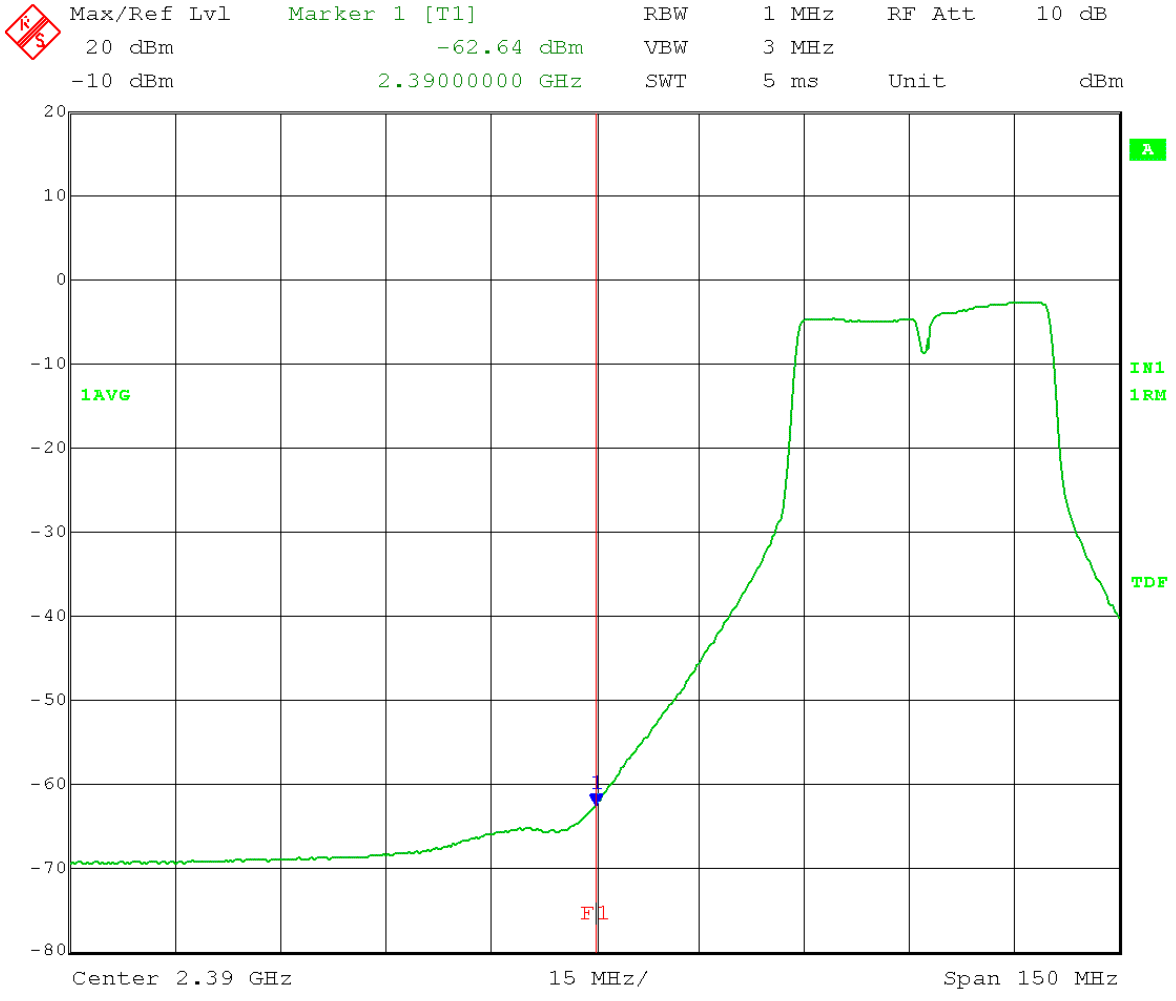

-44.58 dBm = 0.000034834 mW
-42.58 dBm = 0.000055208 mW
Total = 0.000034834 + 0.000055208 = 0.000090042 mW = -40.45 dBm

E = EIRP – 20log D + 104.8
= -40.45 dBm + 17 dBi – 20log 3 + 104.8 = 71.81 dBµV/m
**Margin = 2.19 dB** (for Peak limit of 74 dBµV/m)

Test Date: 01-17-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Mid Channel Transmit = 2.437 GHz
Test software setting: 12.5 (used to get 11.5 dBm output)
40 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.390 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average = -62.64 dBm for port 0

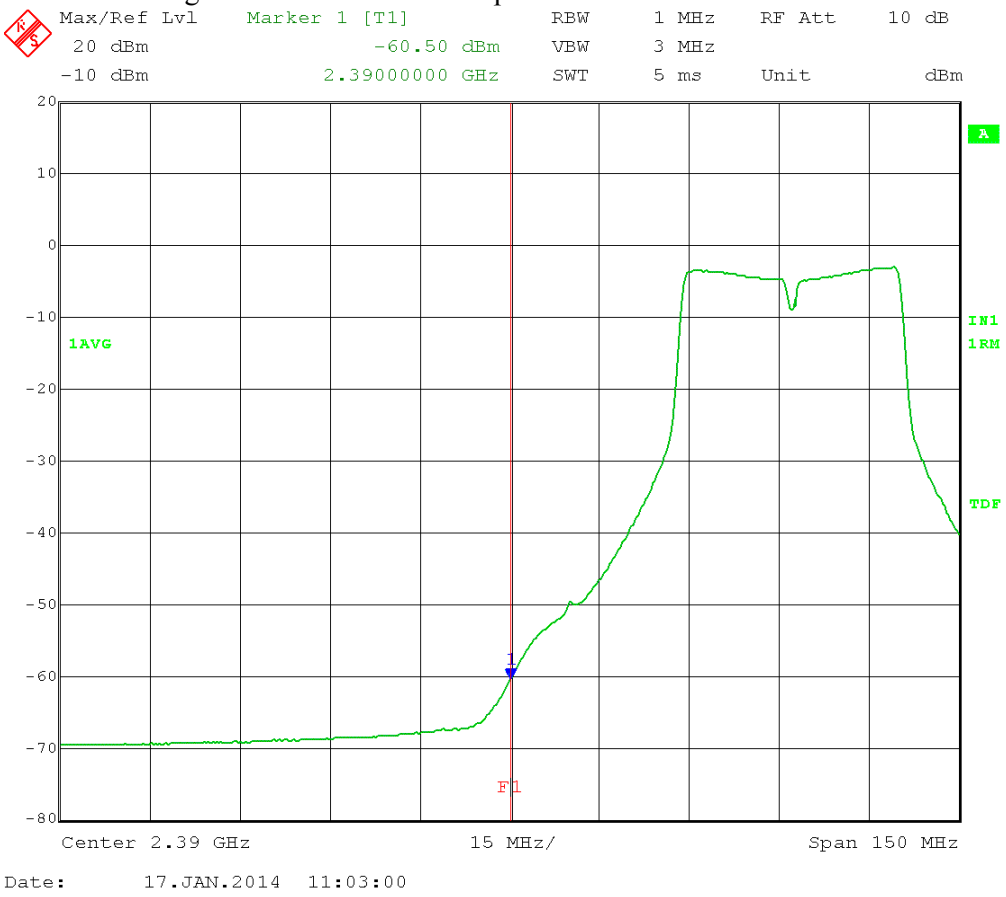



Date: 17.JAN.2014 11:09:44

Test Date: 01-17-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Mid Channel Transmit = 2.437 GHz
Test software setting: 12.5 (used to get 11.5 dBm output)
40 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.390 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average -60.50 dBm for port 1



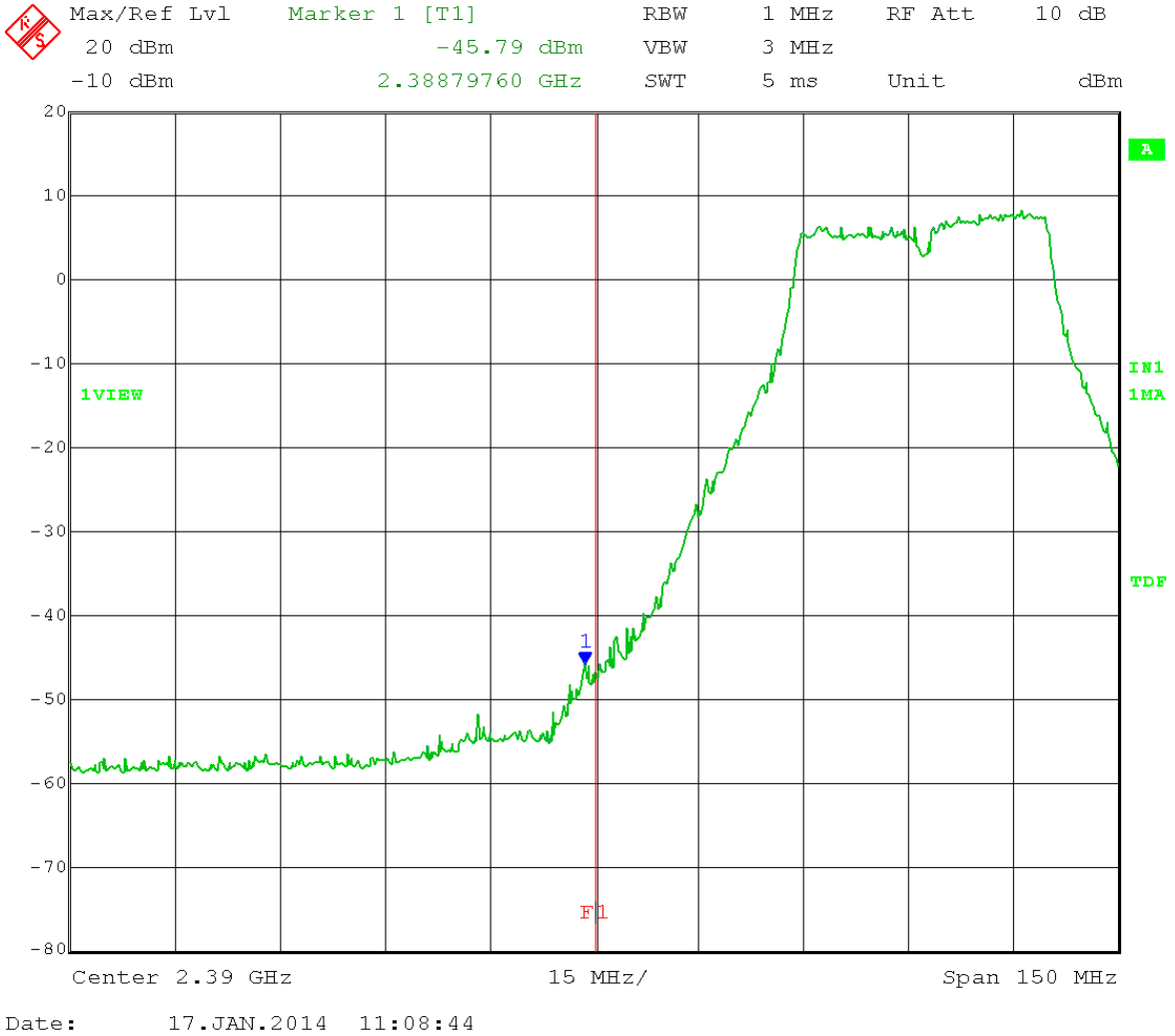

-62.64 dBm = 0.000000545 mW
-60.50 dBm = 0.000000891 mW
Total = 0.000000545 + 0.000000891 = 0.000001436 mW = -58.42 dBm

E = EIRP – 20log D + 104.8
= -58.42 dBm + 17 dBi – 20log 3 + 104.8 = 53.84 dBµV/m
**Margin = 0.16 dB** (for Average limit of 54 dBµV/m)

Test Date: 01-17-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Mid Channel Transmit = 2.437 GHz
Test software setting: 12.5 (used to get 11.5 dBm output)
40 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.390 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak = -45.79 dBm for port 0

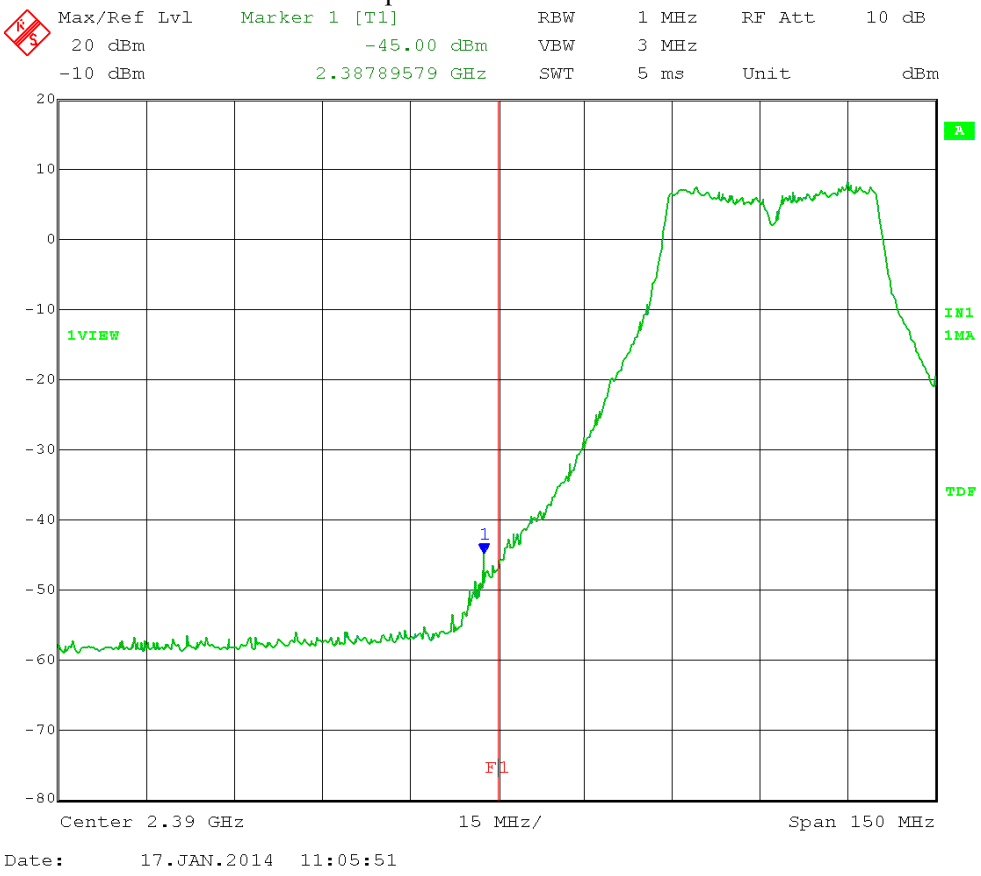



Date: 17.JAN.2014 11:08:44

Test Date: 01-17-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Mid Channel Transmit = 2.437 GHz
Test software setting: 12.5 (used to get 11.5 dBm output)
40 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.390 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak -45.00 dBm for port 1



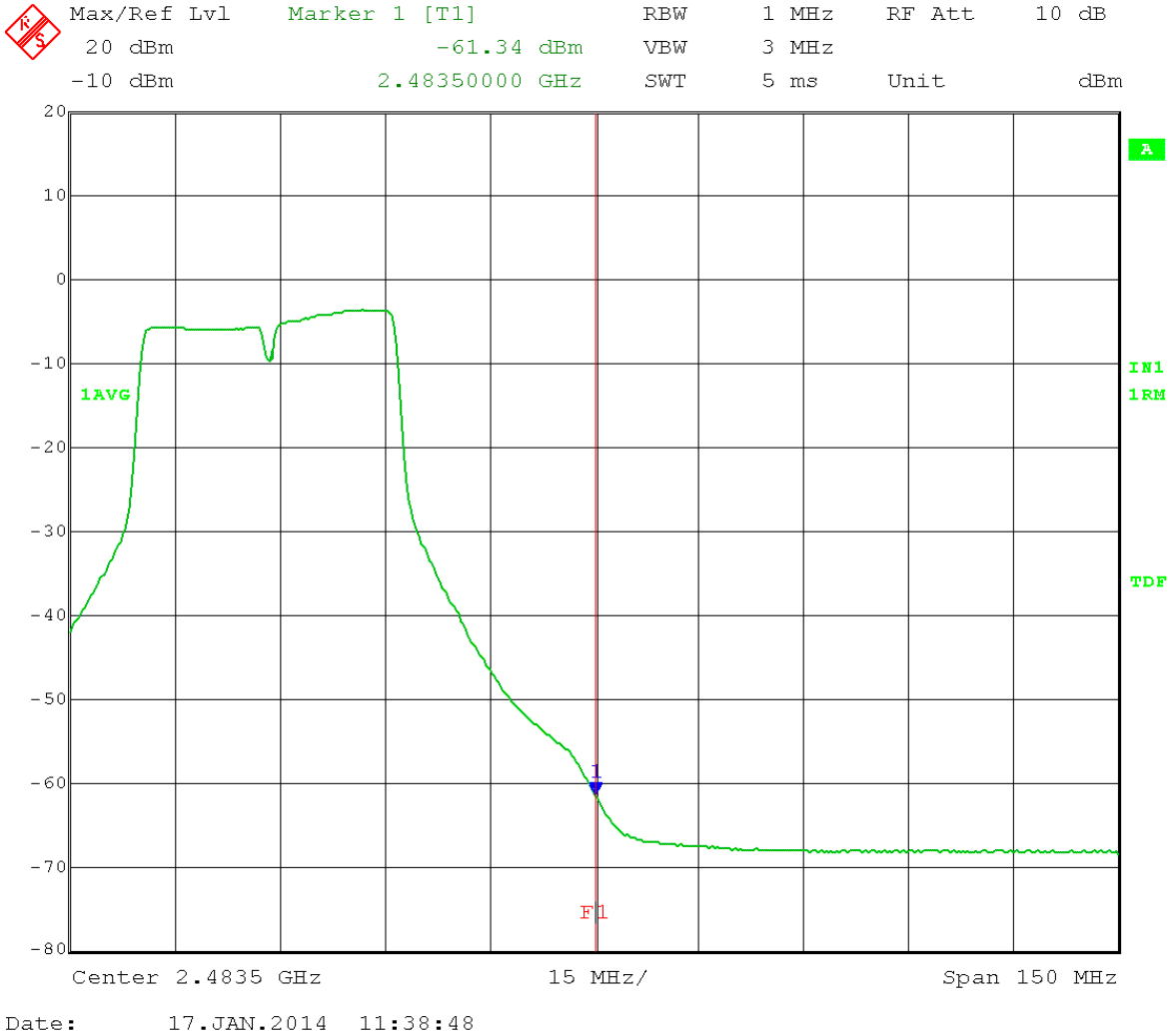

-45.79 dBm = 0.000026363 mW
-45.00 dBm = 0.000031623 mW
Total = 0.000026363 + 0.000031623 = 0.000057986 mW = -42.36 dBm

E = EIRP – 20log D + 104.8
= -42.36 dBm + 17 dBi – 20log 3 + 104.8 = 69.90 dBµV/m
**Margin = 4.10 dB** (for Peak limit of 74 dBµV/m)

Test Date: 01-17-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Mid Channel Transmit = 2.437 GHz
Test software setting: 12 (used to get 11 dBm output)
40 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average = -61.34 dBm for port 0

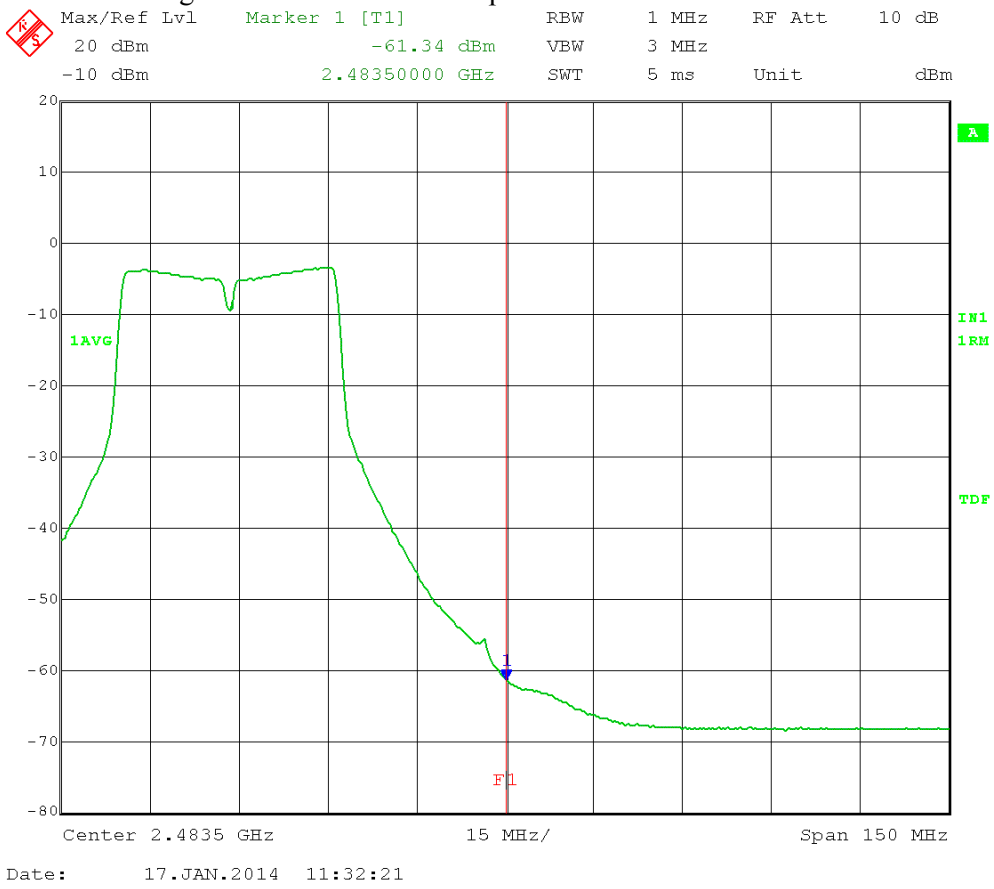



Date: 17.JAN.2014 11:38:48

Test Date: 01-17-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Mid Channel Transmit = 2.437 GHz
Test software setting: 12 (used to get 11 dBm output)
40 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average -61.34 dBm for port 1



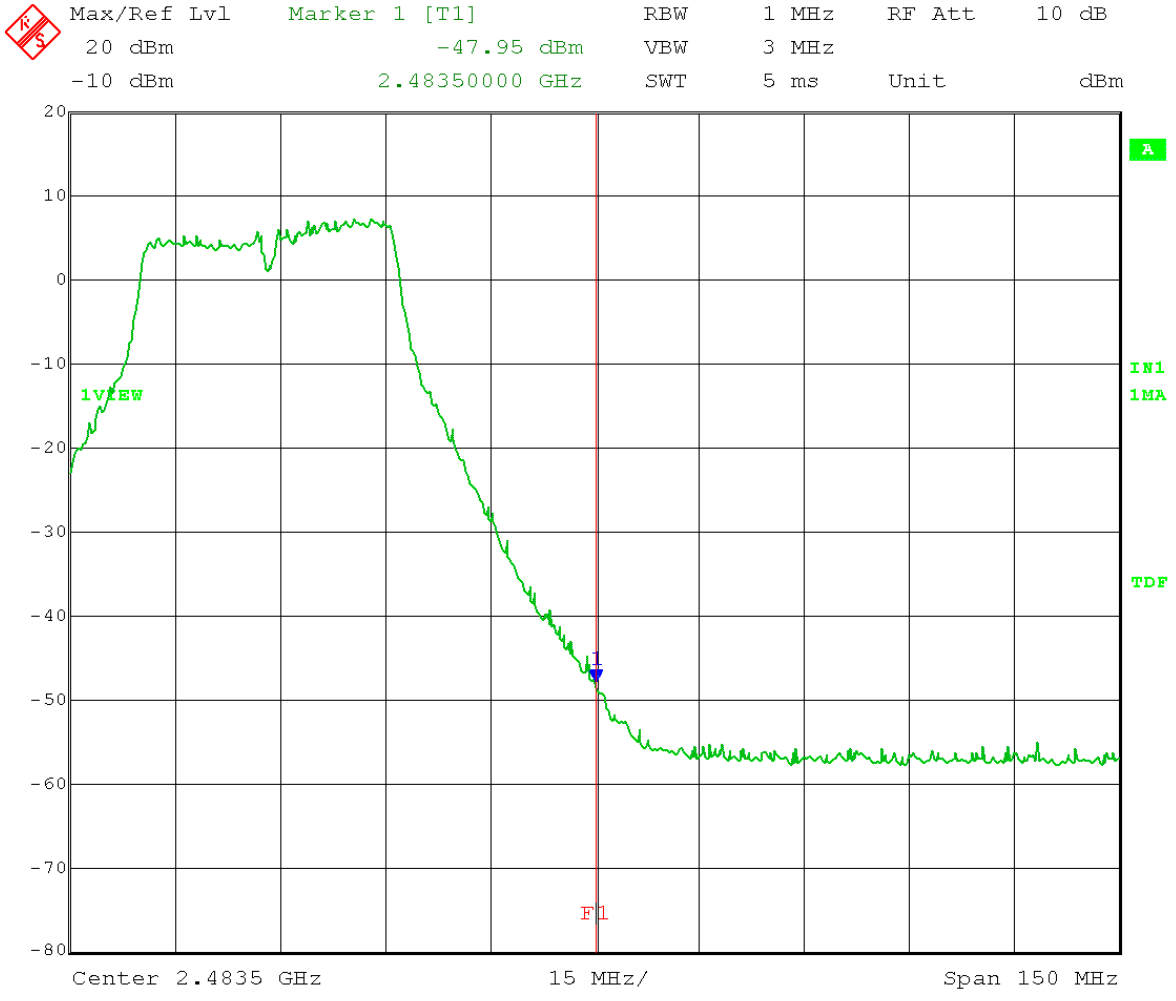

-61.34 dBm = 0.000000735 mW
-61.34 dBm = 0.000000735 mW
Total = 0.000000735 + 0.000000735 = 0.000001470 mW = -58.32 dBm

E = EIRP – 20log D + 104.8
= -58.32 dBm + 17 dBi – 20log 3 + 104.8 = 53.94 dBµV/m
**Margin = 0.06 dB** (for Average limit of 54 dBµV/m)

Test Date: 01-17-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Mid Channel Transmit = 2.437 GHz
Test software setting: 12 (used to get 11 dBm output)
40 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak = -47.95 dBm for port 0

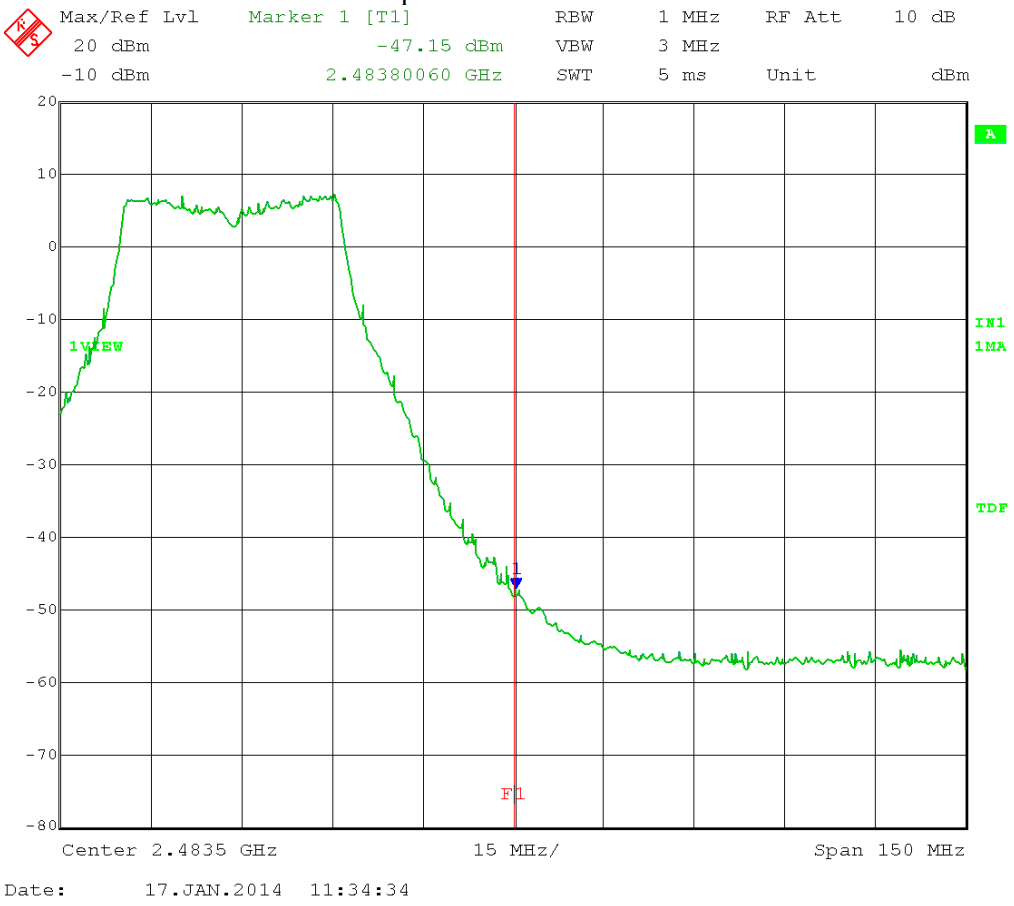



Date: 17.JAN.2014 11:37:37

Test Date: 01-17-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Mid Channel Transmit = 2.437 GHz
Test software setting: 12 (used to get 11 dBm output)
40 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak -47.15 dBm for port 1



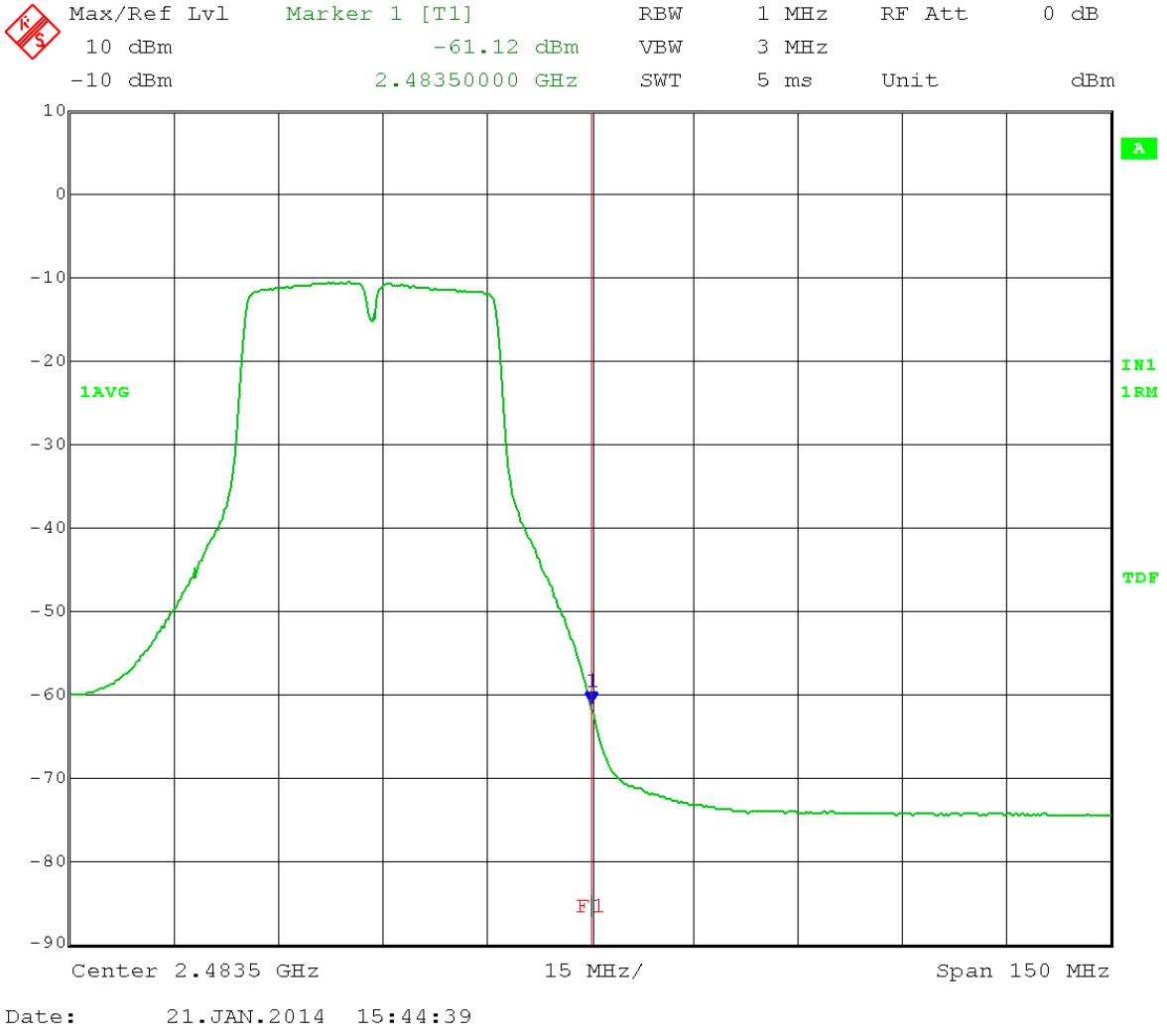

-47.95 dBm = 0.000016032 mW
-47.15 dBm = 0.000019275 mW
Total = 0.000016032 + 0.000019275 = 0.000035307 mW = -44.52 dBm

E = EIRP – 20log D + 104.8
= -44.52 dBm + 17 dBi – 20log 3 + 104.8 = 67.74 dBµV/m
**Margin = 6.26 dB** (for Peak limit of 74 dBµV/m)

Test Date: 01-21-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
High Channel Transmit = 2.452 GHz
Test software setting: 4.5 (used to get 3.5 dBm output)
40 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average = -61.12 dBm for port 0

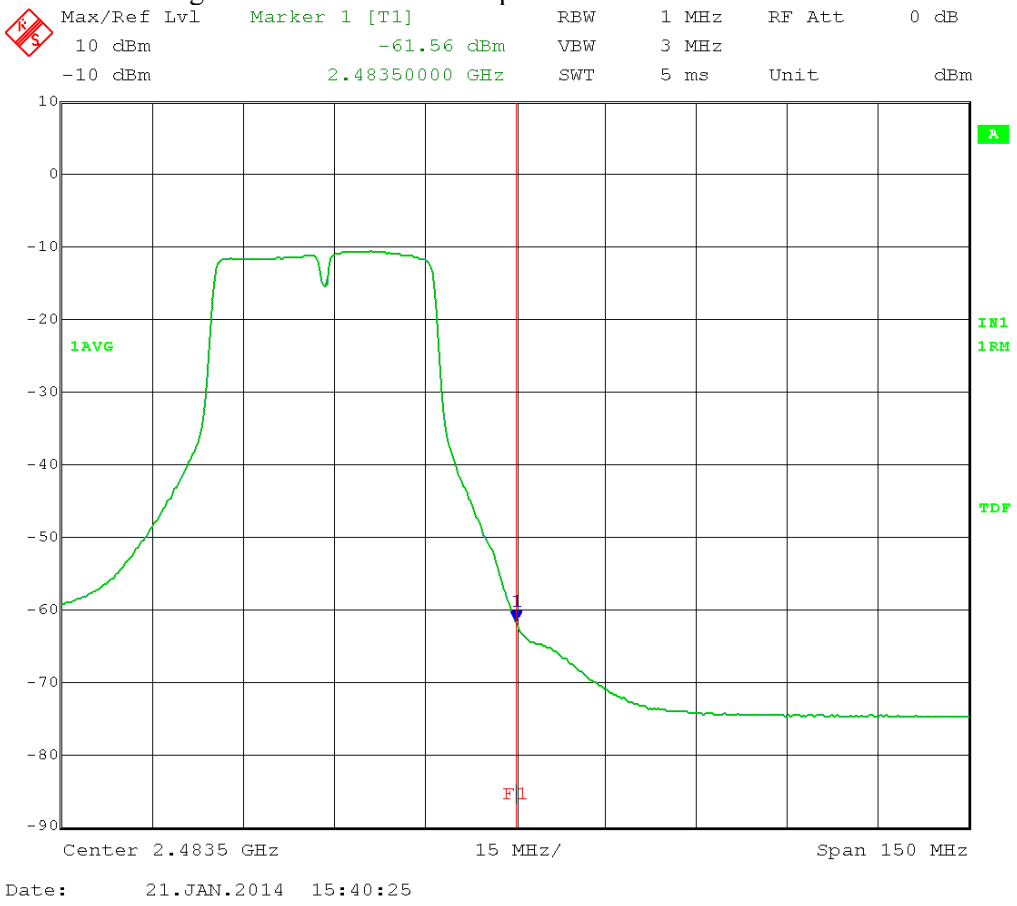



Date: 21.JAN.2014 15:44:39

Test Date: 01-21-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
High Channel Transmit = 2.452 GHz
Test software setting: 4.5 (used to get 3.5 dBm output)
40 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average -61.56 dBm for port 1



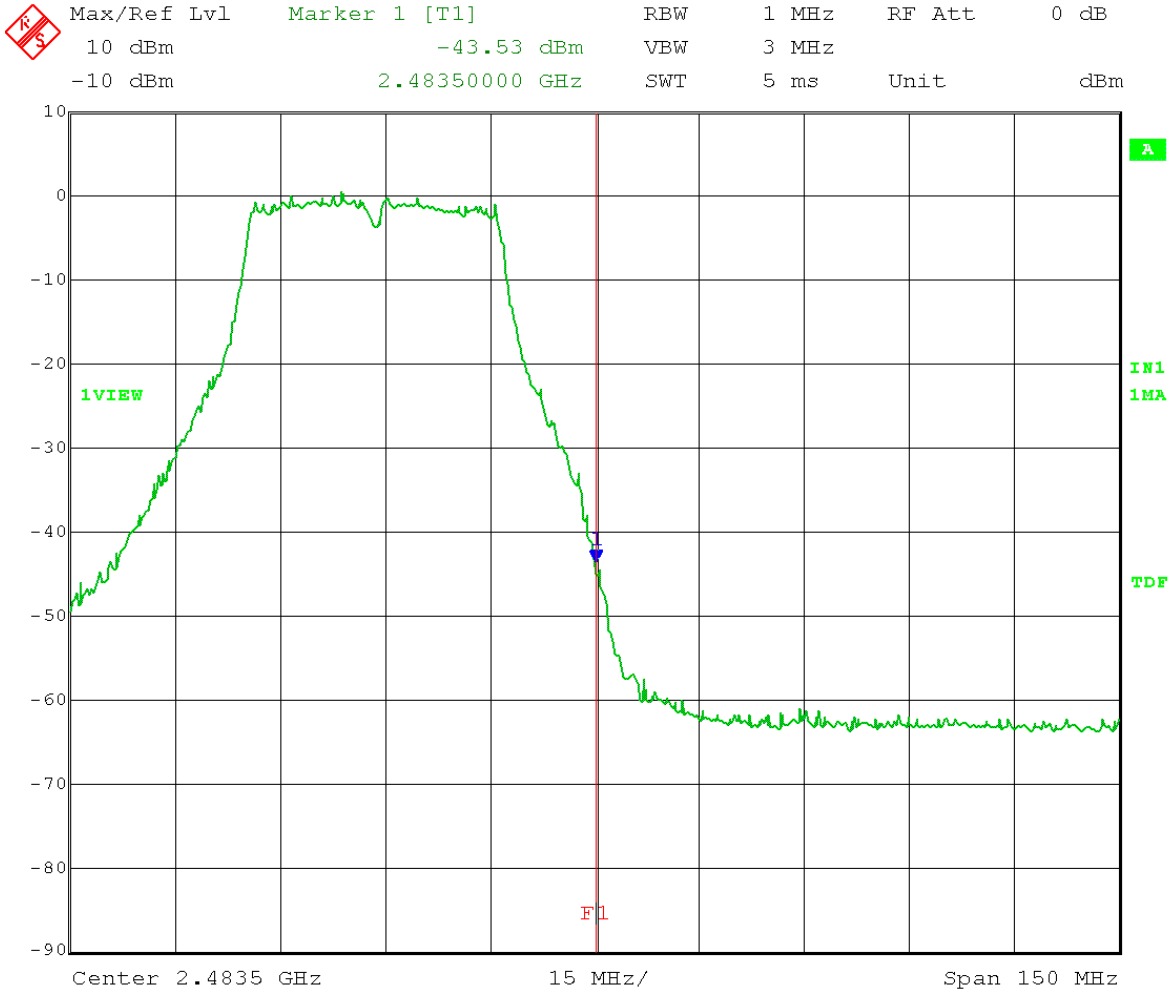

-61.12 dBm = 0.000000773 mW
-61.56 dBm = 0.000000698 mW
Total = 0.000000773 + 0.000000698 = 0.000001471 mW = -58.32 dBm

E = EIRP – 20log D + 104.8
= -58.32 dBm + 17 dBi – 20log 3 + 104.8 = 53.94 dBµV/m
**Margin = 0.06 dB** (for Average limit of 54 dBµV/m)

Test Date: 01-21-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
High Channel Transmit = 2.452 GHz
Test software setting: 4.5 (used to get 3.5 dBm output)
40 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak = -43.23 dBm for port 0

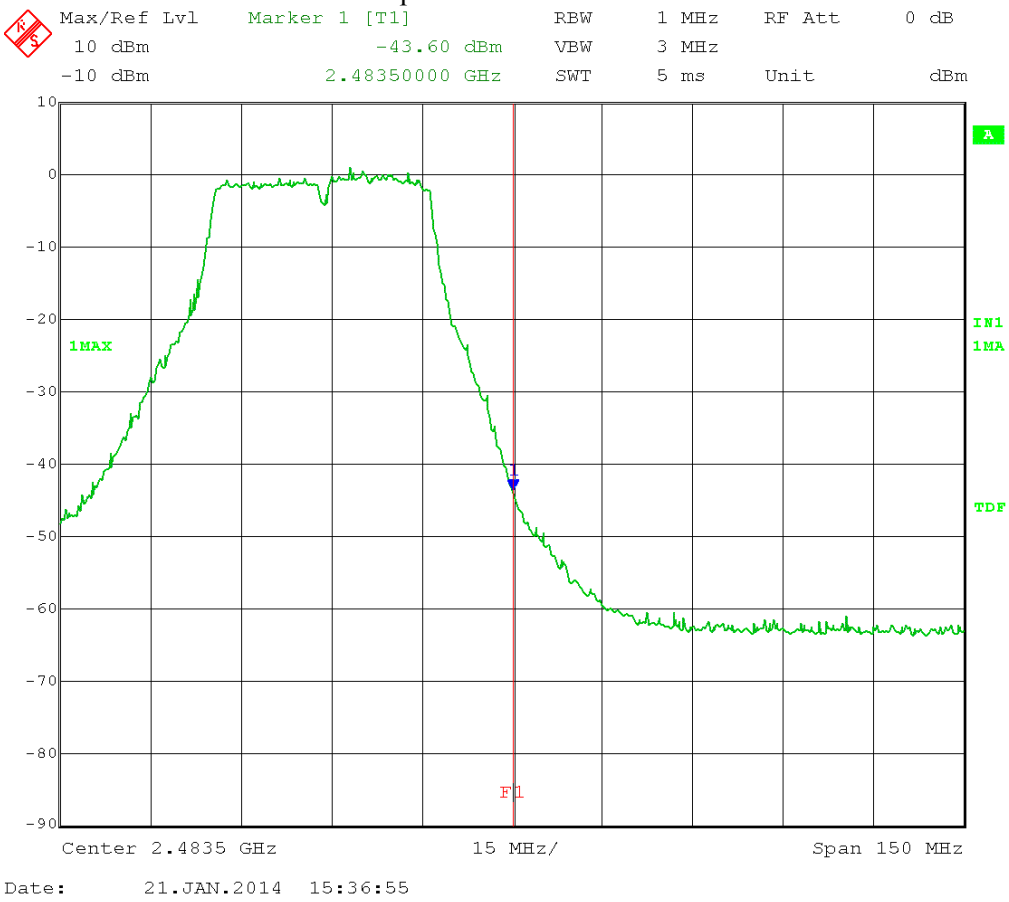



Date: 21.JAN.2014 15:34:40

Test Date: 01-21-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
High Channel Transmit = 2.452 GHz
Test software setting: 4.5 (used to get 3.5 dBm output)
40 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak -44.03 dBm for port 1



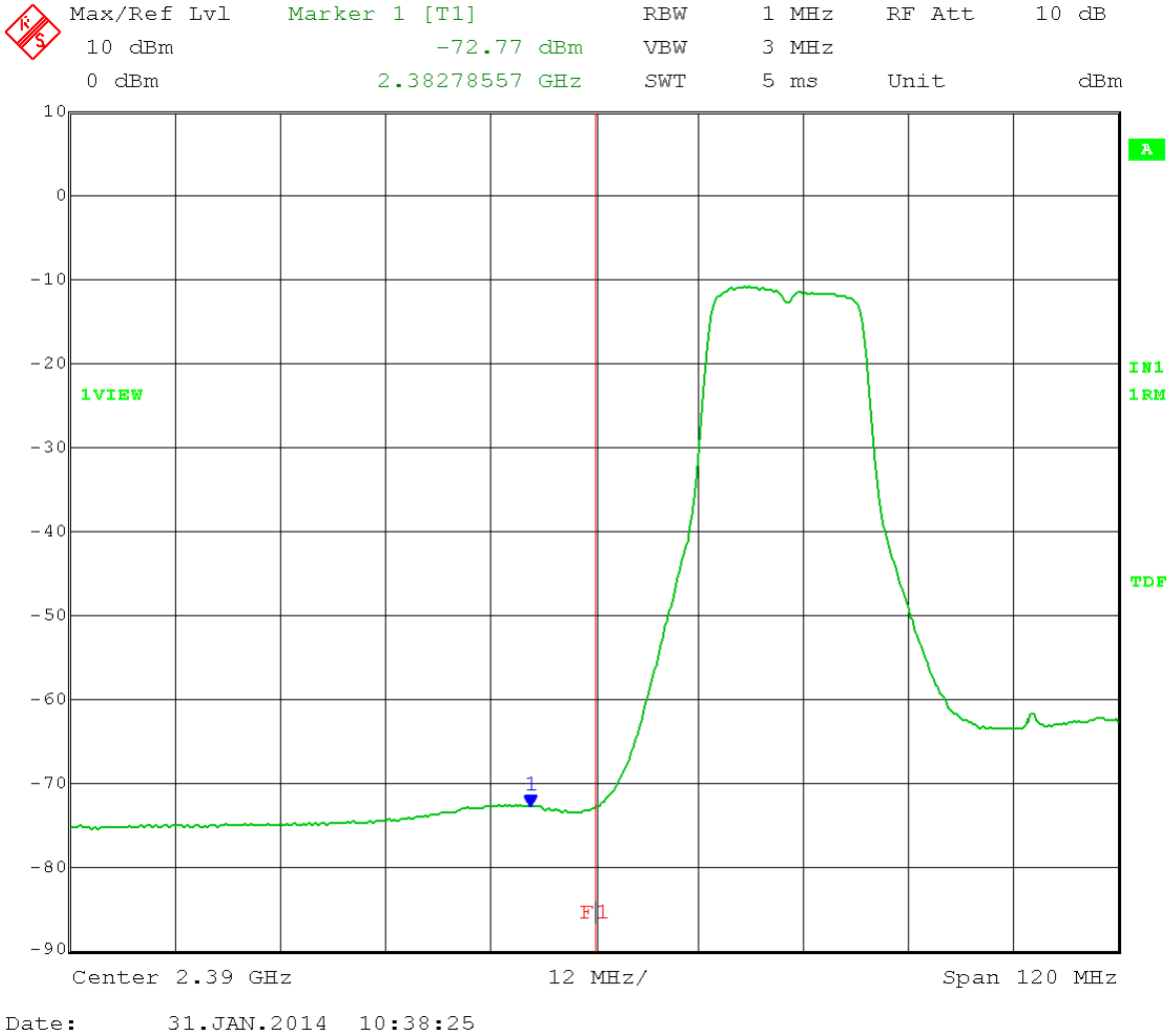

-43.23 dBm = 0.000047534 mW
-44.03 dBm = 0.000039537 mW
Total = 0.000047534 + 0.000039537 = 0.000087071 mW = -40.60 dBm

E = EIRP – 20log D + 104.8
= -40.60 dBm + 17 dBi – 20log 3 + 104.8 = 71.66 dBµV/m
**Margin = 2.34 dB** (for Peak limit of 74 dBµV/m)

Test Date: 01-31-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Low Channel Transmit = 2.412 GHz
Test software setting: 1 (used to get 0 dBm output)
20 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.390 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average = -72.77 dBm for port 0

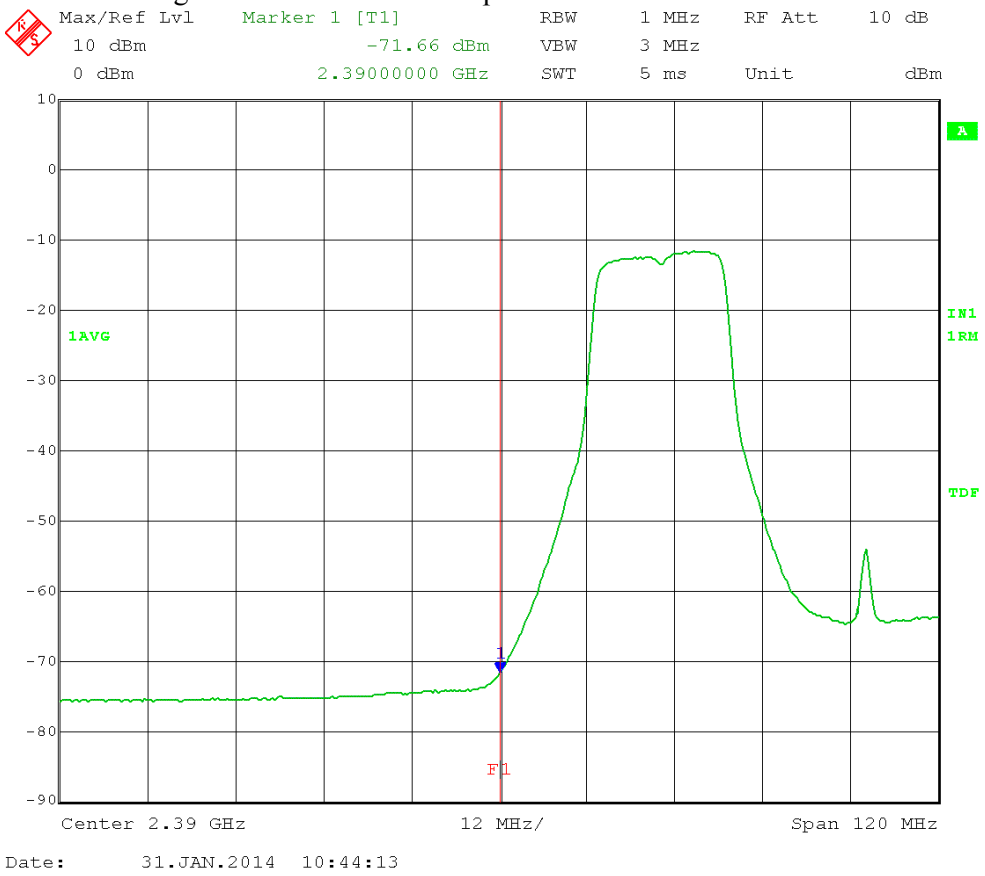



Date: 31.JAN.2014 10:38:25

Test Date: 01-31-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Low Channel Transmit = 2.412 GHz
Test software setting: 1 (used to get 0 dBm output)
20 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.390 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average -71.66 dBm for port 1



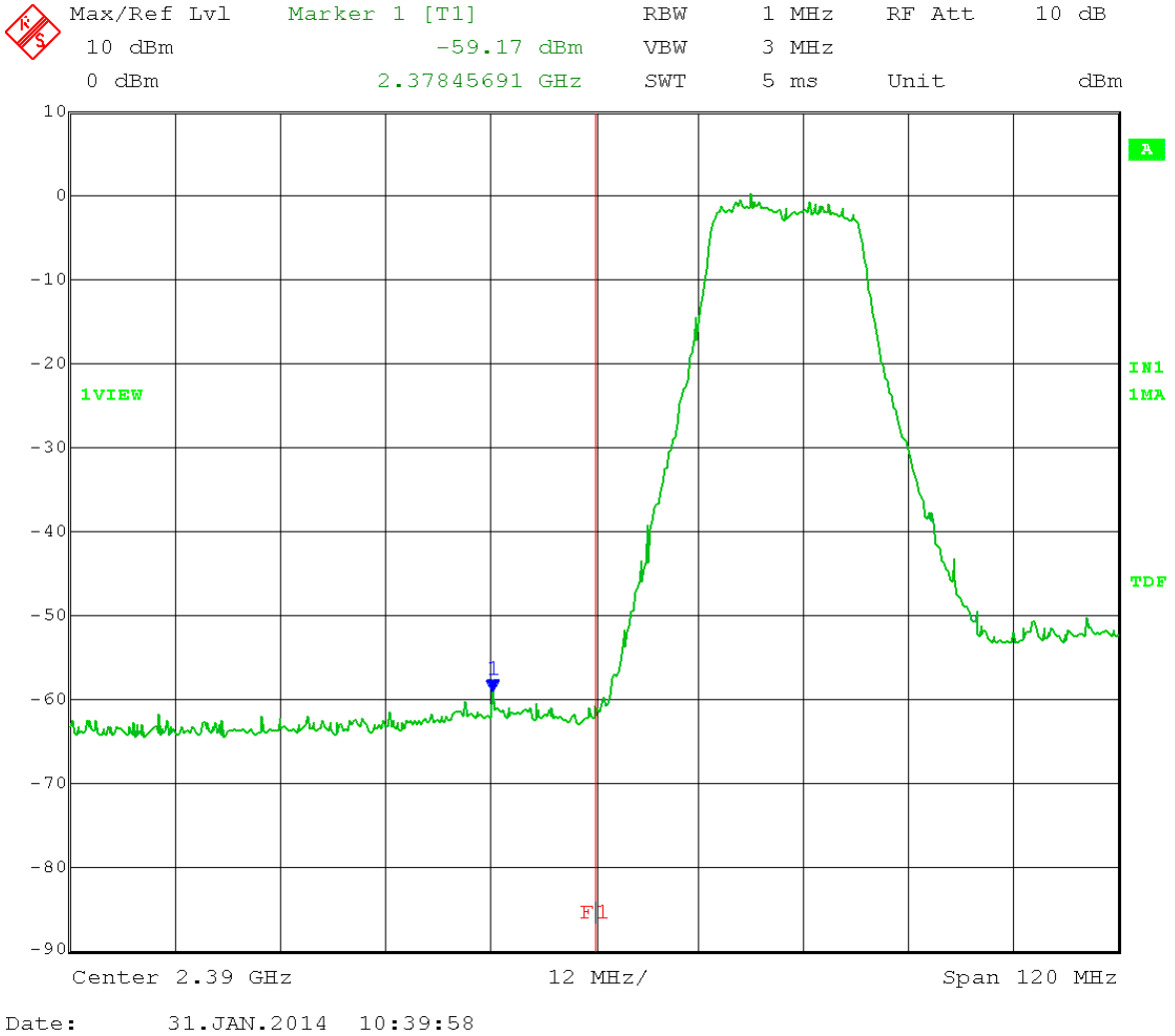

-72.77 dBm = 0.000000053 mW
-71.66 dBm = 0.000000068 mW
Total = 0.000000053 + 0.000000068 = 0.000000121 mW = -69.16 dBm

E = EIRP – 20log D + 104.8
= -69.16 dBm + 25 dBi – 20log 3 + 104.8 = 51.10 dBµV/m
**Margin = 2.90 dB** (for Average limit of 54 dBµV/m)

Test Date: 01-31-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Low Channel Transmit = 2.412 GHz
Test software setting: 1 (used to get 0 dBm output)
20 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.390 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak = -59.17 dBm for port 0

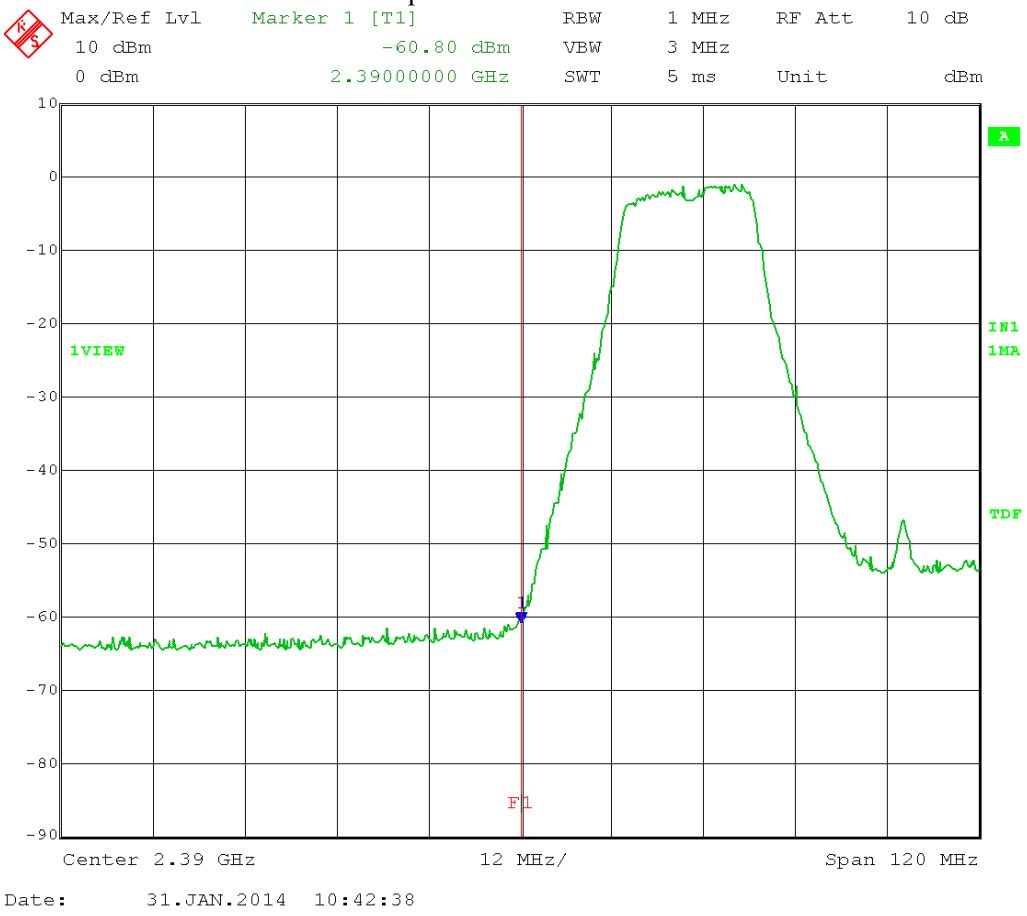



Date: 31.JAN.2014 10:39:58

Test Date: 01-31-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Low Channel Transmit = 2.412 GHz
Test software setting: 1 (used to get 0 dBm output)
20 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.390 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak -60.80 dBm for port 1



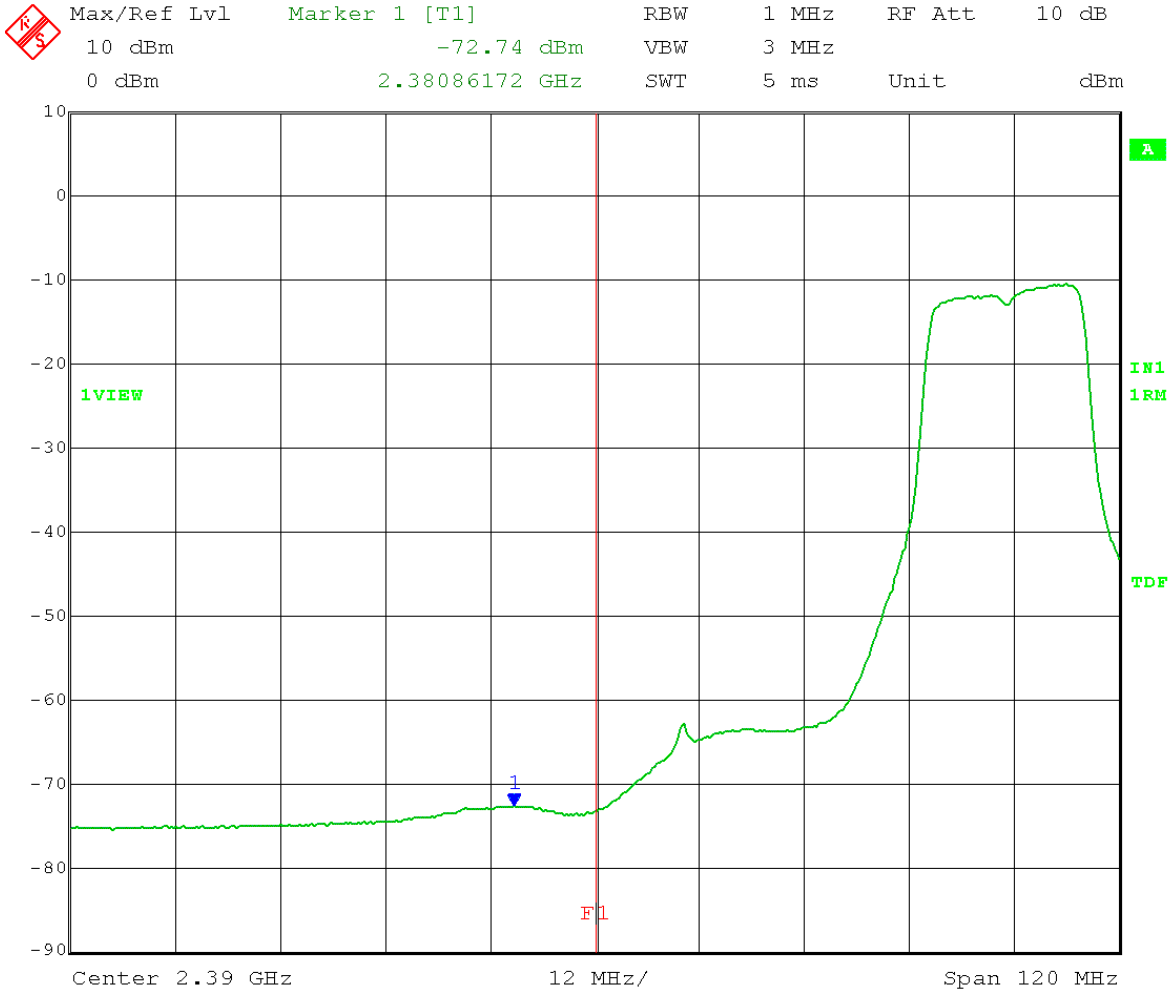

-59.17 dBm = 0.000001211 mW
-60.80 dBm = 0.000000832 mW
Total = 0.000001211 + 0.000000832 = 0.000002043 mW = -56.89 dBm

E = EIRP – 20log D + 104.8
= -56.89 dBm + 25 dBi – 20log 3 + 104.8 = 63.37 dBµV/m
**Margin = 10.63 dB** (for Peak limit of 74 dBµV/m)

Test Date: 01-30-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Mid Channel Transmit = 2.437 GHz
Test software setting: 1.5 (used to get 0.5 dBm output)
20 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.390 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average = -72.74 dBm for port 0

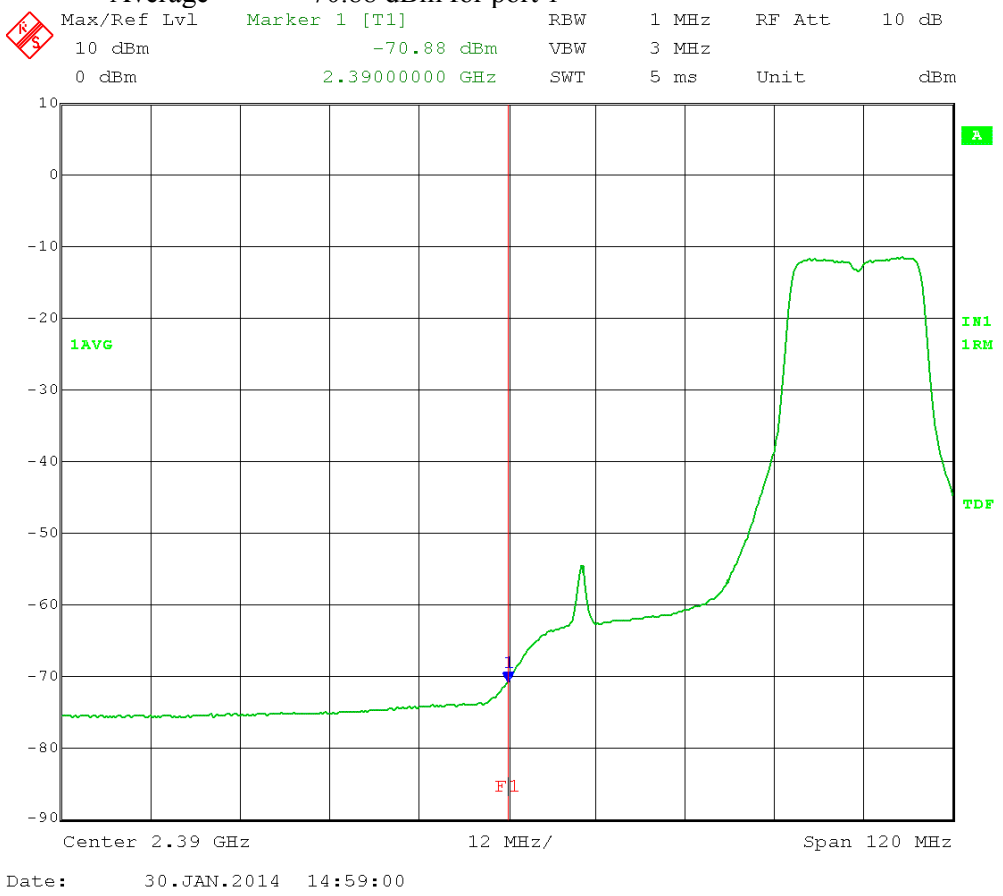



Date: 30.JAN.2014 15:01:36

Test Date: 01-30-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Mid Channel Transmit = 2.437 GHz
Test software setting: 1.5 (used to get 0.5 dBm output)
20 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.390 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average -70.88 dBm for port 1



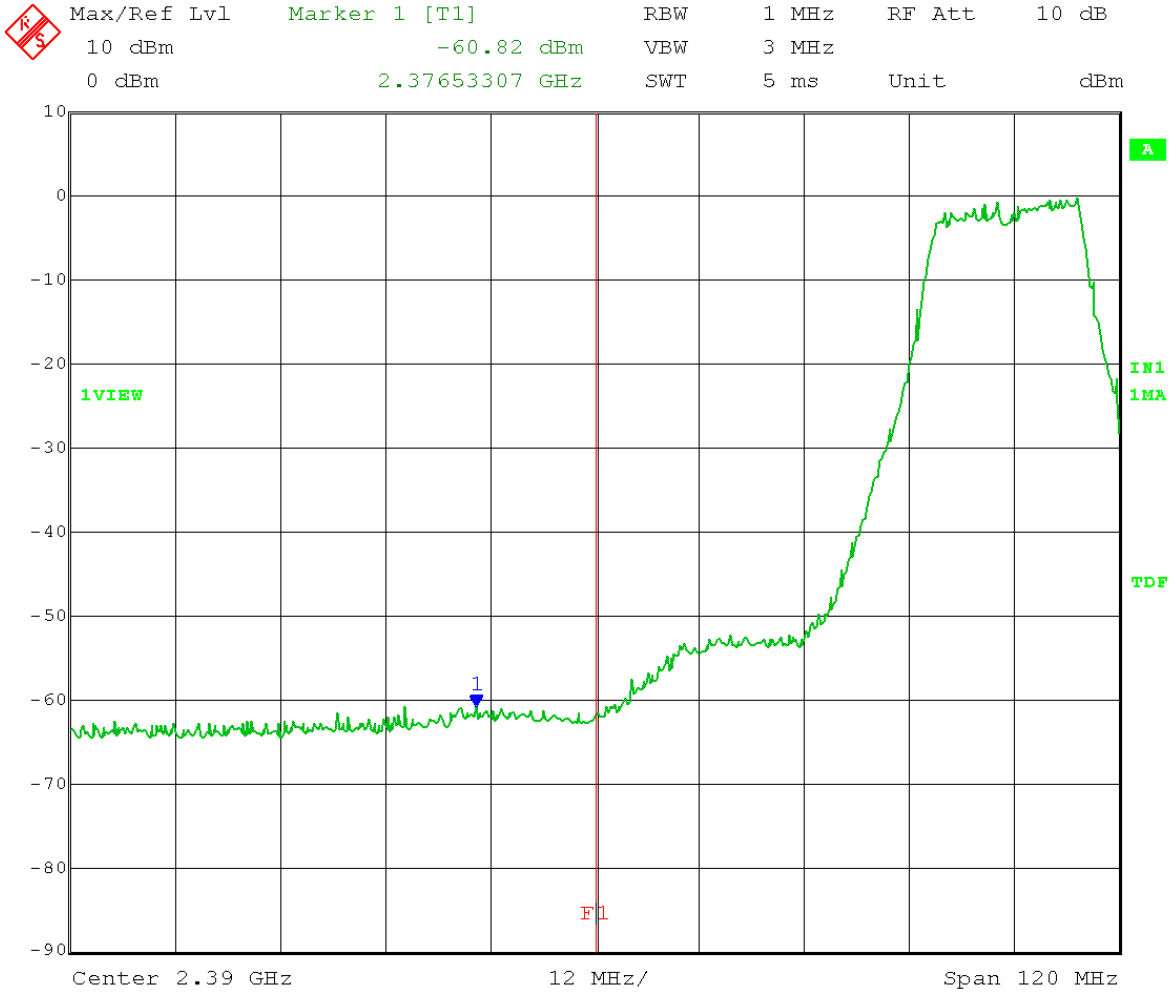

-72.74 dBm = 0.000000053 mW
-70.88 dBm = 0.000000082 mW
Total = 0.000000053 + 0.000000082 = 0.000000135 mW = -68.70 dBm

E = EIRP – 20log D + 104.8
= -68.70 dBm + 25 dBi – 20log 3 + 104.8 = 51.56 dBµV/m
**Margin = 2.44 dB** (for Average limit of 54 dBµV/m)

Test Date: 01-30-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Mid Channel Transmit = 2.437 GHz
Test software setting: 1.5 (used to get 0.5 dBm output)
20 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.390 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak = -60.82 dBm for port 0

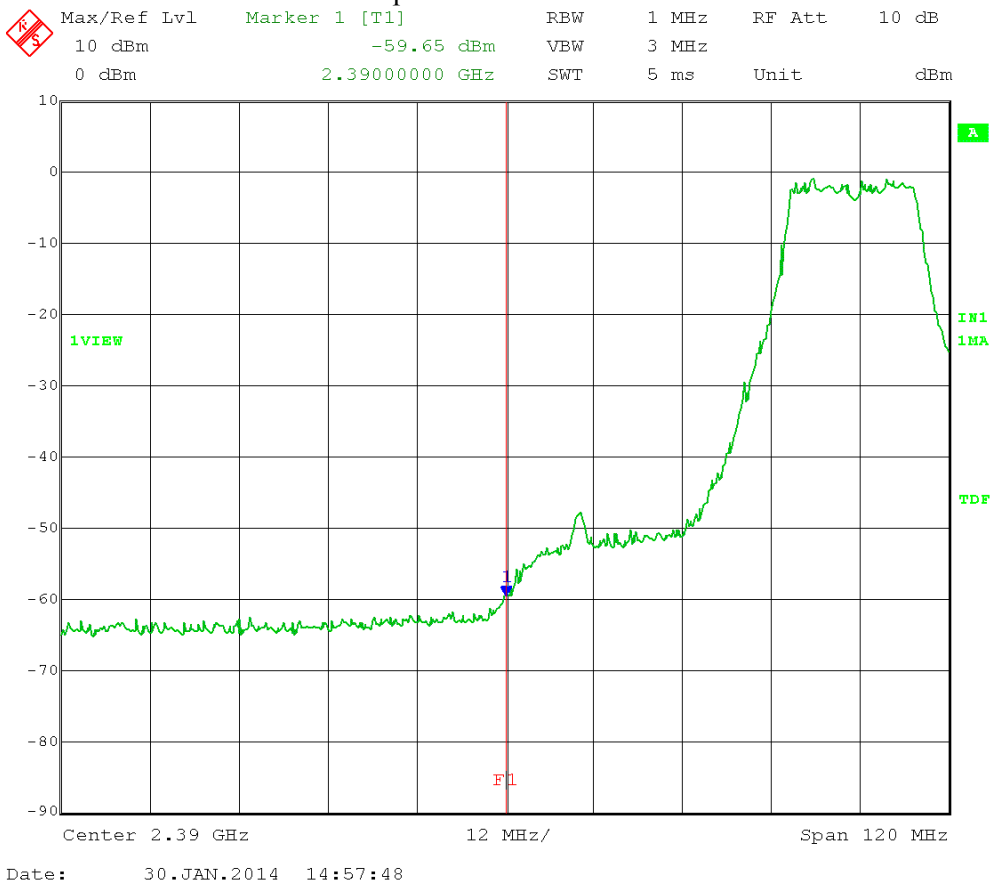



Date: 30.JAN.2014 15:03:22

Test Date: 01-30-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Mid Channel Transmit = 2.437 GHz
Test software setting: 1.5 (used to get 0.5 dBm output)
20 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.390 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak -59.65 dBm for port 1



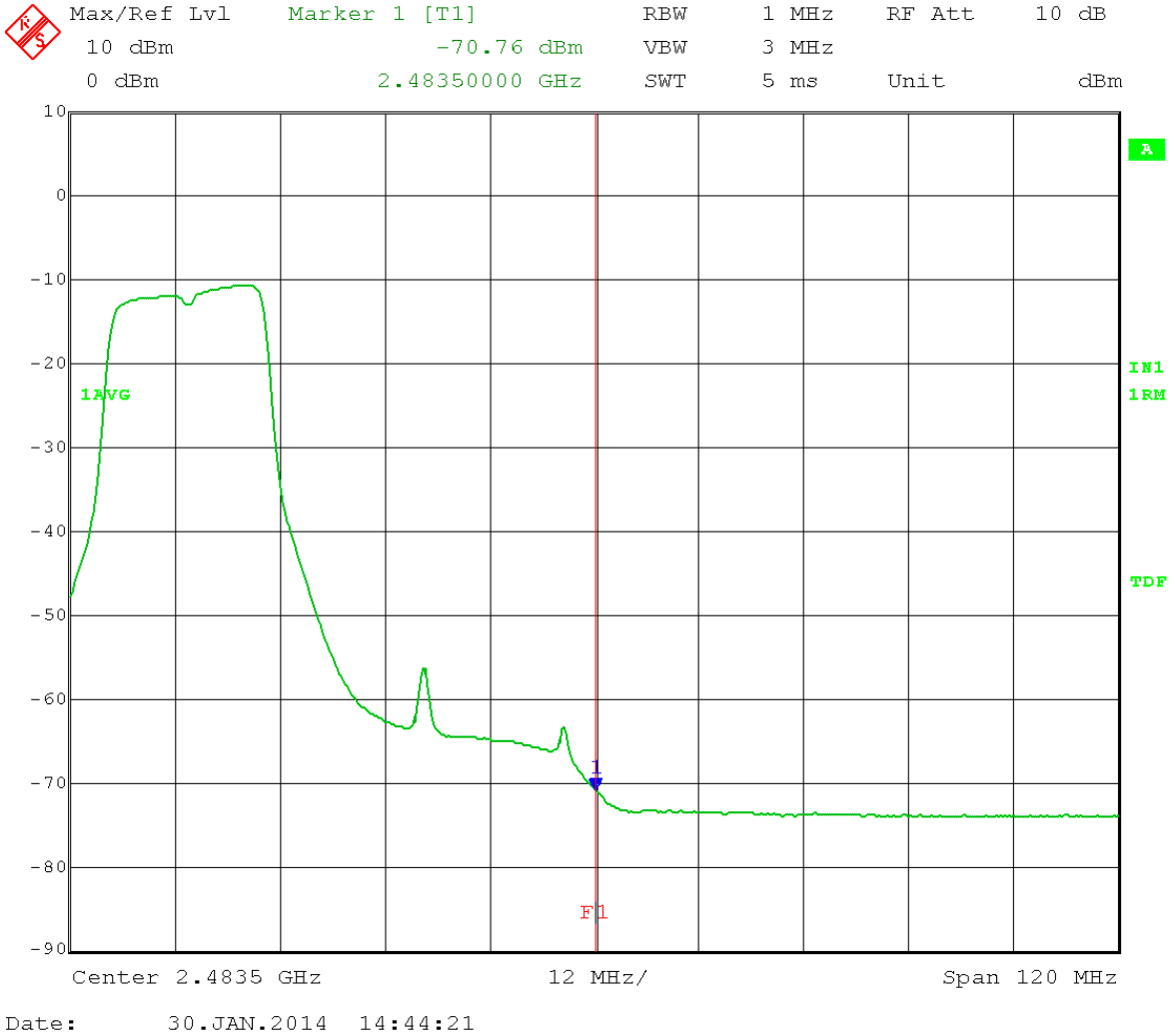

-60.82 dBm = 0.000000828 mW
-59.65 dBm = 0.000001084 mW
Total = 0.000000828 + 0.000001084 = 0.000001912 mW = -57.18 dBm

E = EIRP – 20log D + 104.8
= -57.18 dBm + 25 dBi – 20log 3 + 104.8 = 63.08 dBµV/m
**Margin = 10.92 dB** (for Peak limit of 74 dBµV/m)

Test Date: 01-30-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Mid Channel Transmit = 2.437 GHz
Test software setting: 1.5 (used to get 0.5 dBm output)
20 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average = -70.76 dBm for port 0

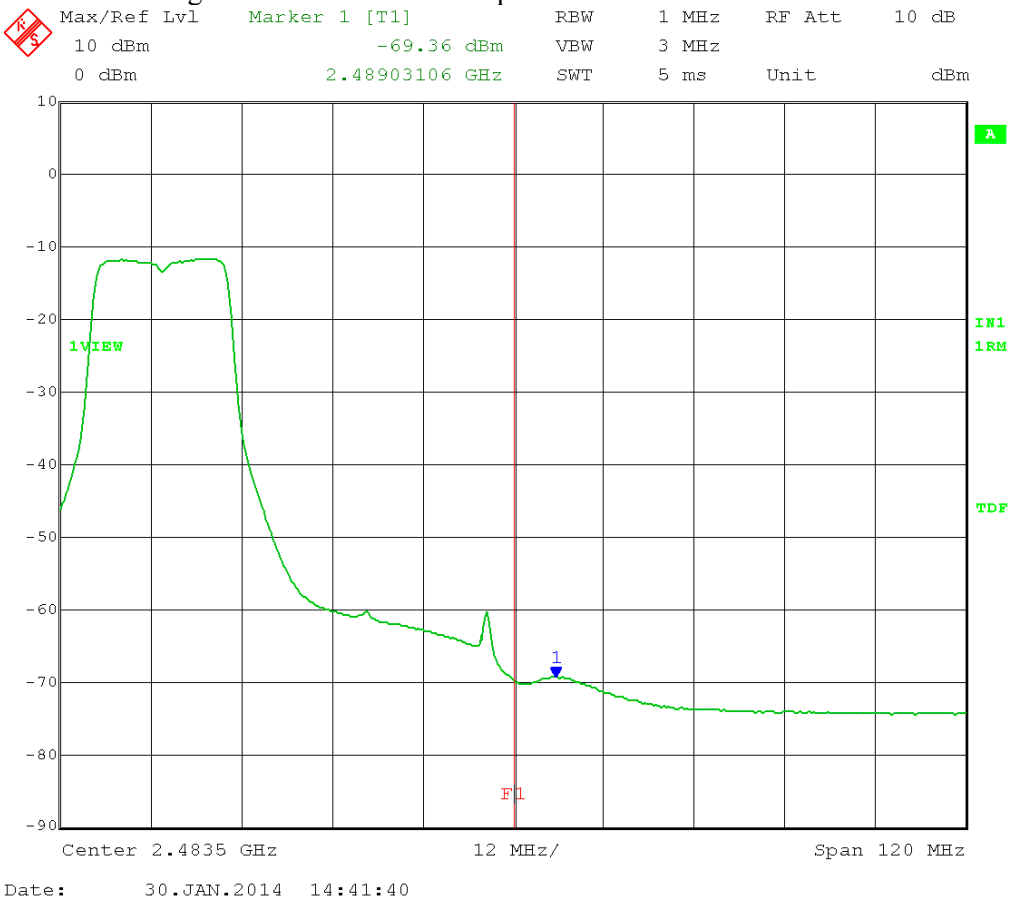



Date: 30.JAN.2014 14:44:21

Test Date: 01-30-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Mid Channel Transmit = 2.437 GHz
Test software setting: 1.5 (used to get 0.5 dBm output)
20 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average -69.36 dBm for port 1



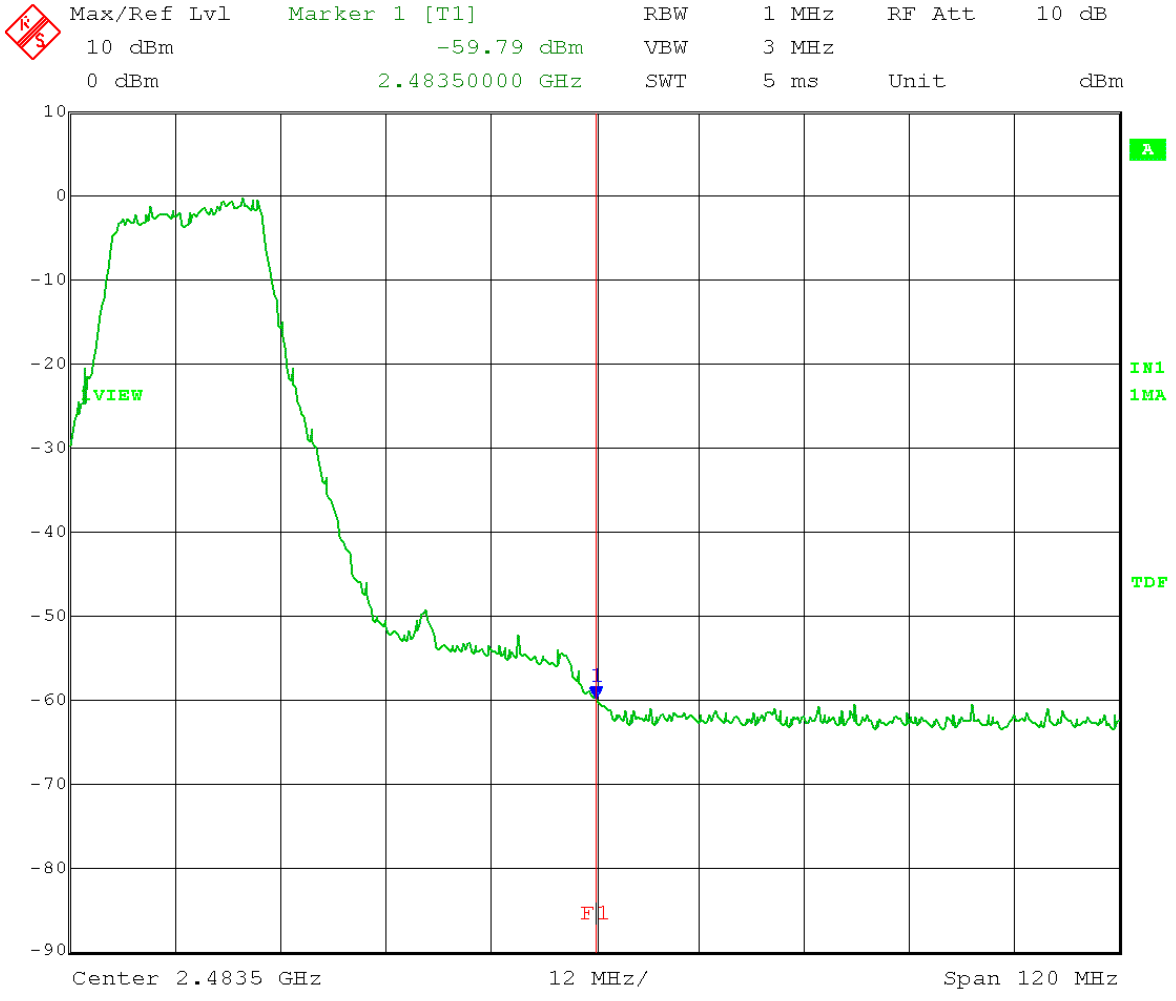

-70.76 dBm = 0.000000084 mW
-69.36 dBm = 0.000000116 mW
Total = 0.000000084 + 0.000000116 = 0.000000200 mW = -66.99 dBm

E = EIRP – 20log D + 104.8
= -66.99 dBm + 25 dBi – 20log 3 + 104.8 = 53.26 dBµV/m
**Margin = 0.74 dB** (for Average limit of 54 dBµV/m)

Test Date: 01-30-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Mid Channel Transmit = 2.437 GHz
Test software setting: 1.5 (used to get 0.5 dBm output)
20 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak = -59.79 dBm for port 0

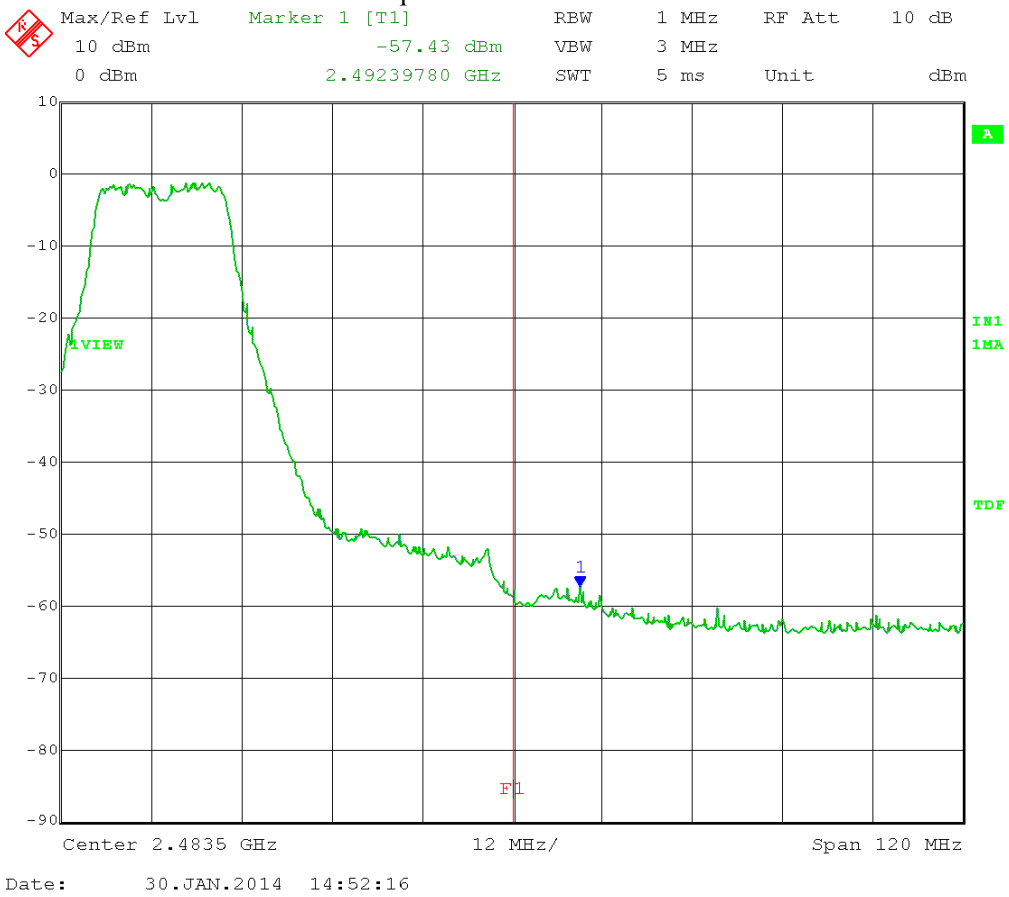



Date: 30.JAN.2014 14:50:03

Test Date: 01-30-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Mid Channel Transmit = 2.437 GHz
Test software setting: 1.5 (used to get 0.5 dBm output)
20 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak -57.43 dBm for port 1



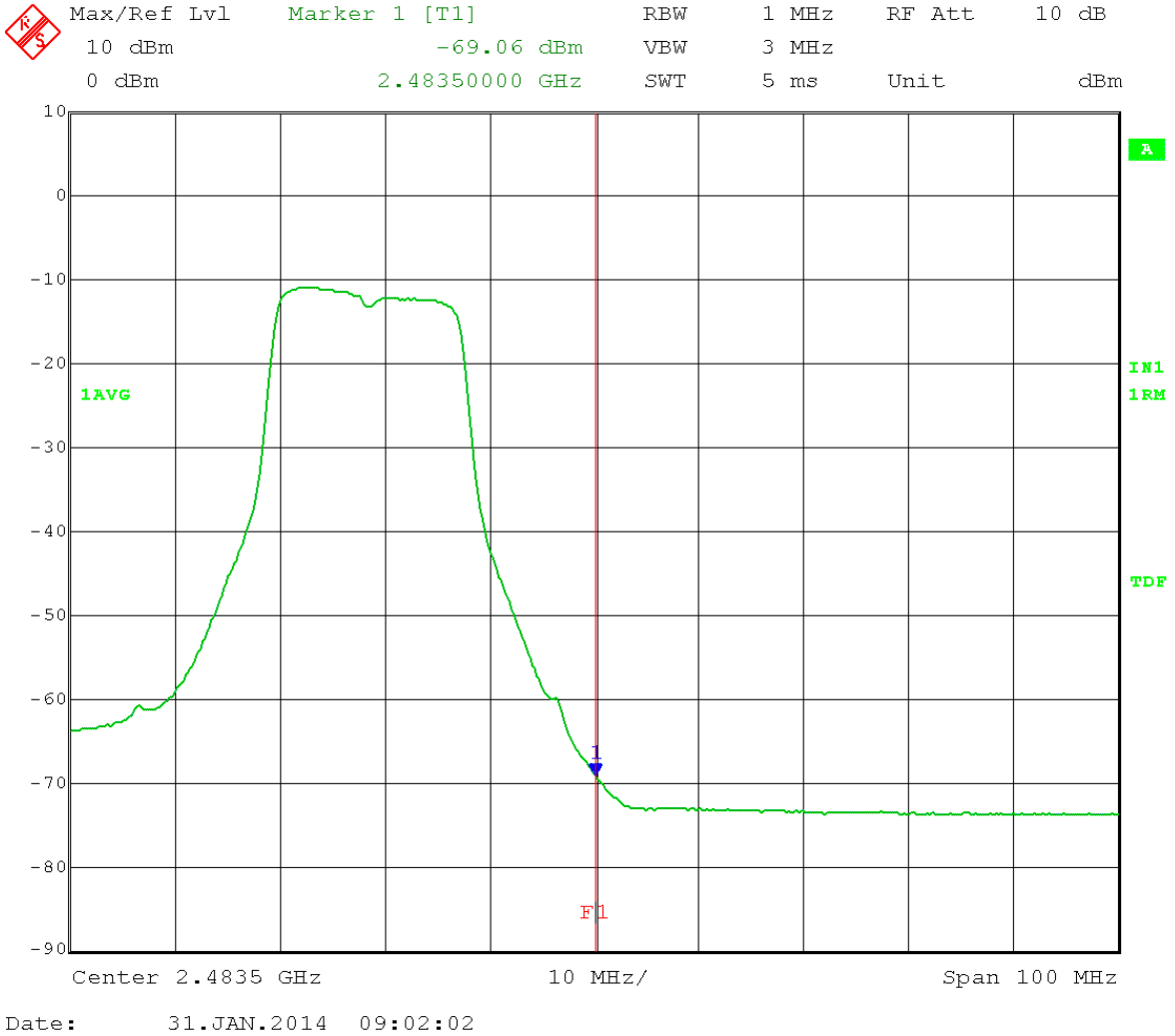

-59.79 dBm = 0.000001050 mW
-57.43 dBm = 0.000001807 mW
Total = 0.000001050 + 0.000001807 = 0.000002857 mW = -55.44 dBm

E = EIRP – 20log D + 104.8
= -55.44 dBm + 25 dBi – 20log 3 + 104.8 = 64.82 dBµV/m
**Margin = 9.18 dB** (for Peak limit of 74 dBµV/m)

Test Date: 01-31-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
High Channel Transmit = 2.462 GHz
Test software setting: 0 (used to get -1 dBm output)
20 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average = -69.06 dBm for port 0

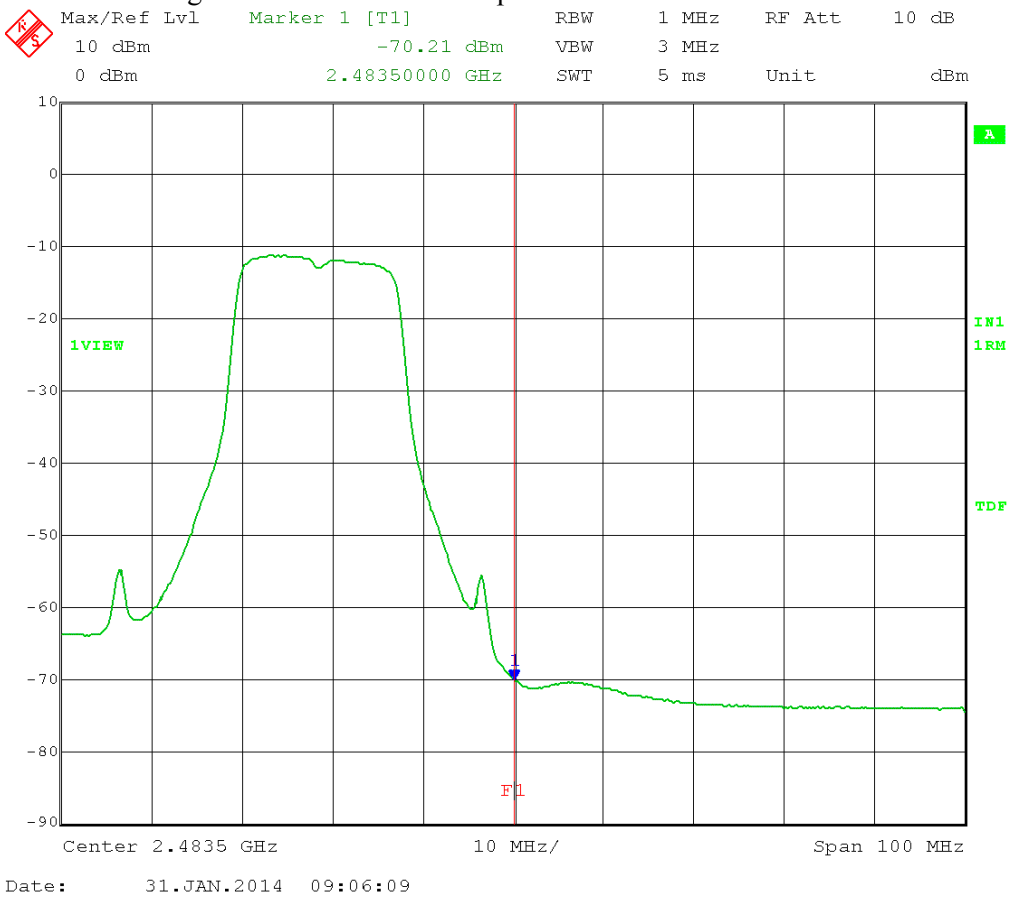



Date: 31.JAN.2014 09:02:02

Test Date: 01-31-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
High Channel Transmit = 2.462 GHz
Test software setting: 0 (used to get -1 dBm output)
20 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average -70.21 dBm for port 1



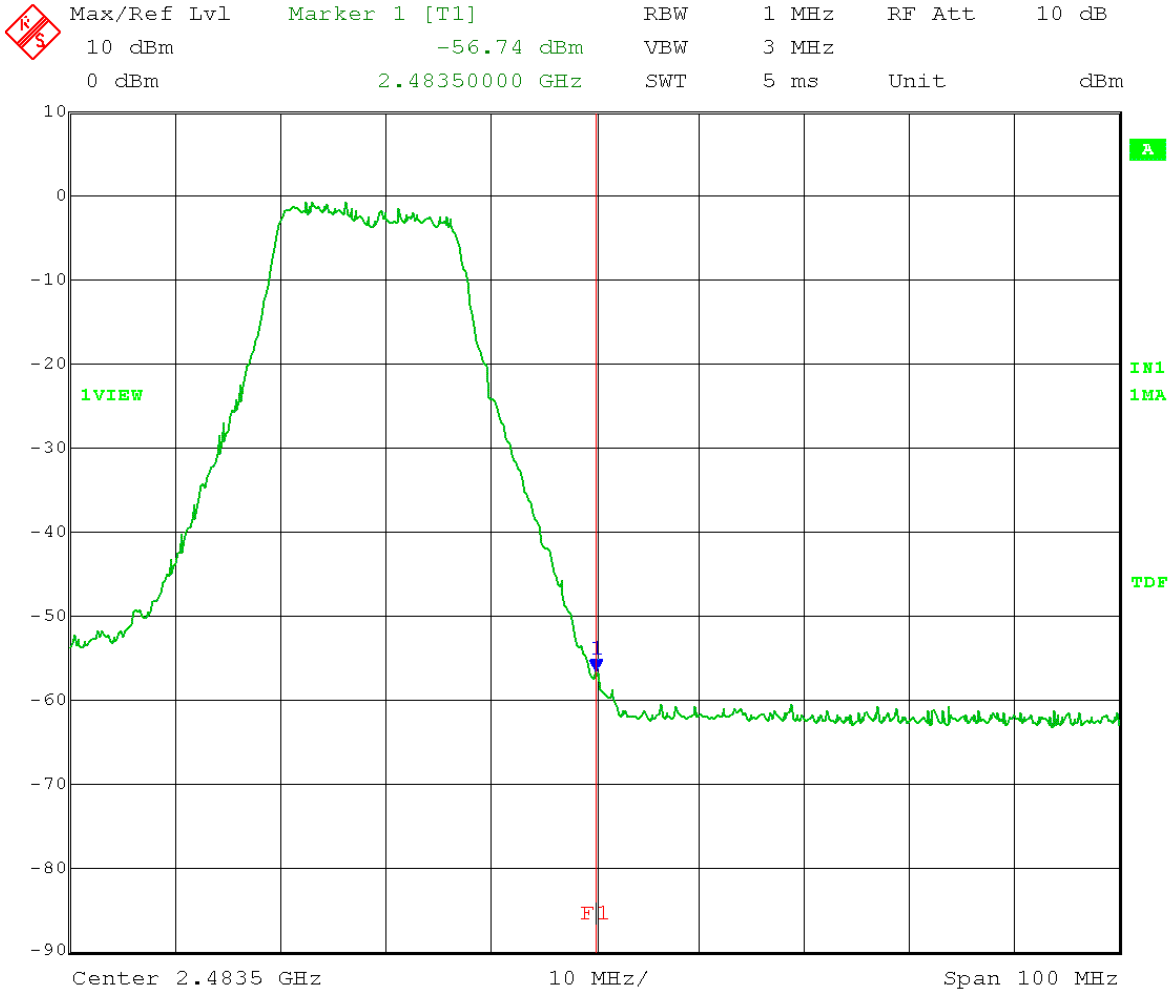

-69.06 dBm = 0.000000124 mW
-70.21 dBm = 0.000000095 mW
Total = 0.000000124 + 0.000000095 = 0.000000219 mW = -66.59 dBm

E = EIRP – 20log D + 104.8
= -66.59 dBm + 25 dBi – 20log 3 + 104.8 = 53.67 dBµV/m
**Margin = 0.33 dB** (for Average limit of 54 dBµV/m)

Test Date: 01-31-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
High Channel Transmit = 2.462 GHz
Test software setting: 0 (used to get -1 dBm output)
20 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak = -56.74 dBm for port 0

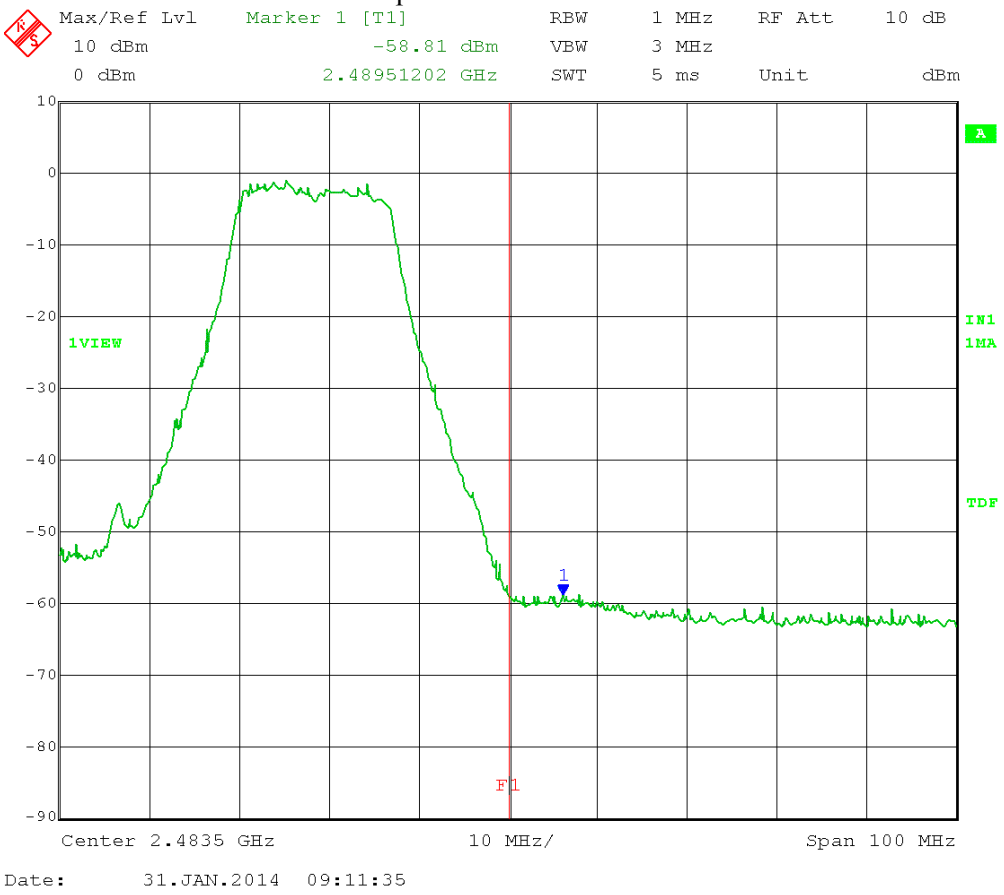



Date: 31.JAN.2014 09:13:36

Test Date: 01-31-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
High Channel Transmit = 2.462 GHz
Test software setting: 0 (used to get -1 dBm output)
20 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak -58.81 dBm for port 1



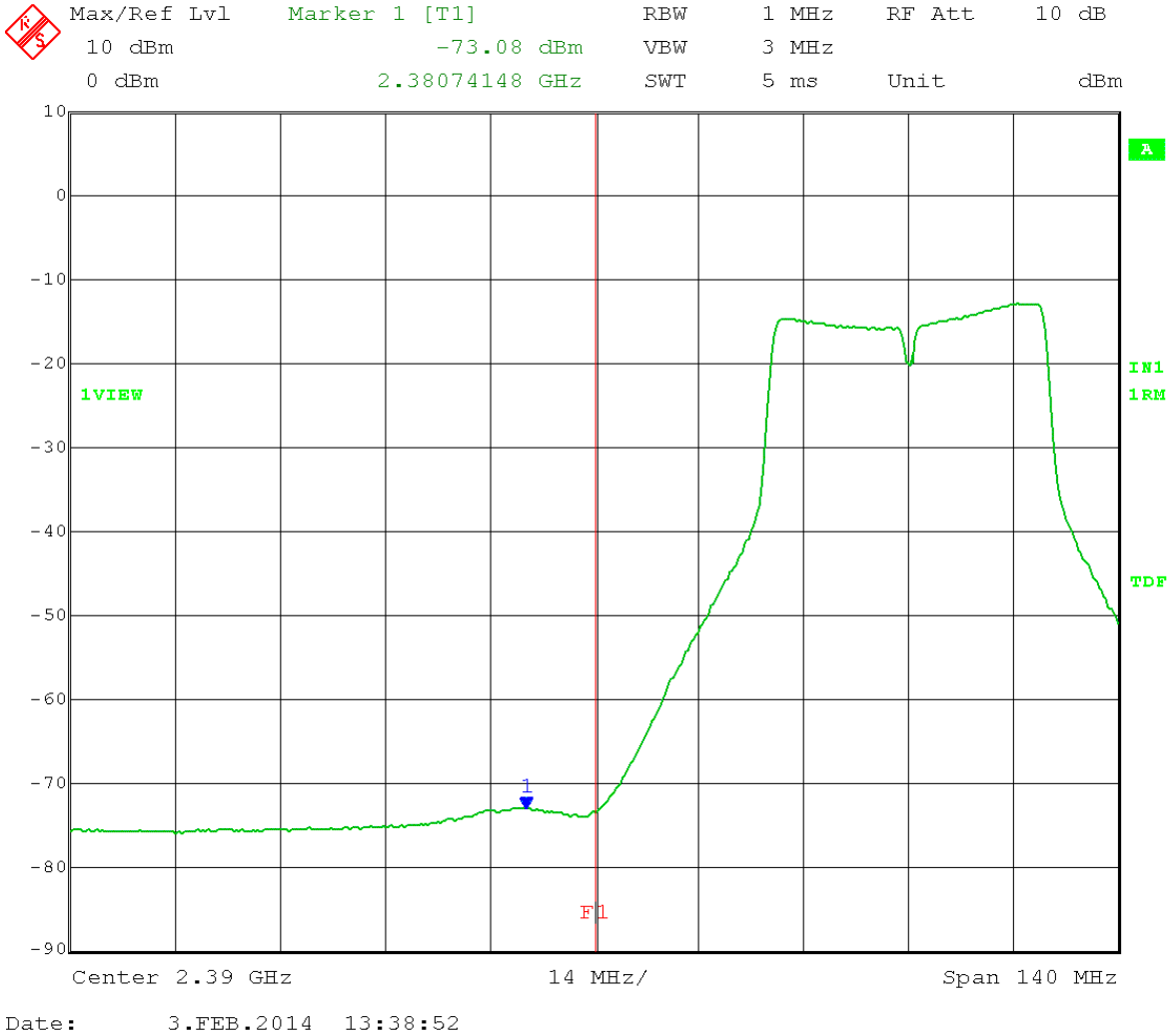

-56.74 dBm = 0.000002118 mW
-58.81 dBm = 0.000001315 mW
Total = 0.000002118 + 0.000001315 = 0.000003433 mW = -54.64 dBm

E = EIRP – 20log D + 104.8
= -54.64 dBm + 25 dBi – 20log 3 + 104.8 = 65.62 dBµV/m
**Margin = 8.38 dB** (for Peak limit of 74 dBµV/m)

Test Date: 02-03-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Low Channel Transmit = 2.422 GHz
Test software setting: 1 (used to get 0 dBm output)
40 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.390 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average = -73.08 dBm for port 0

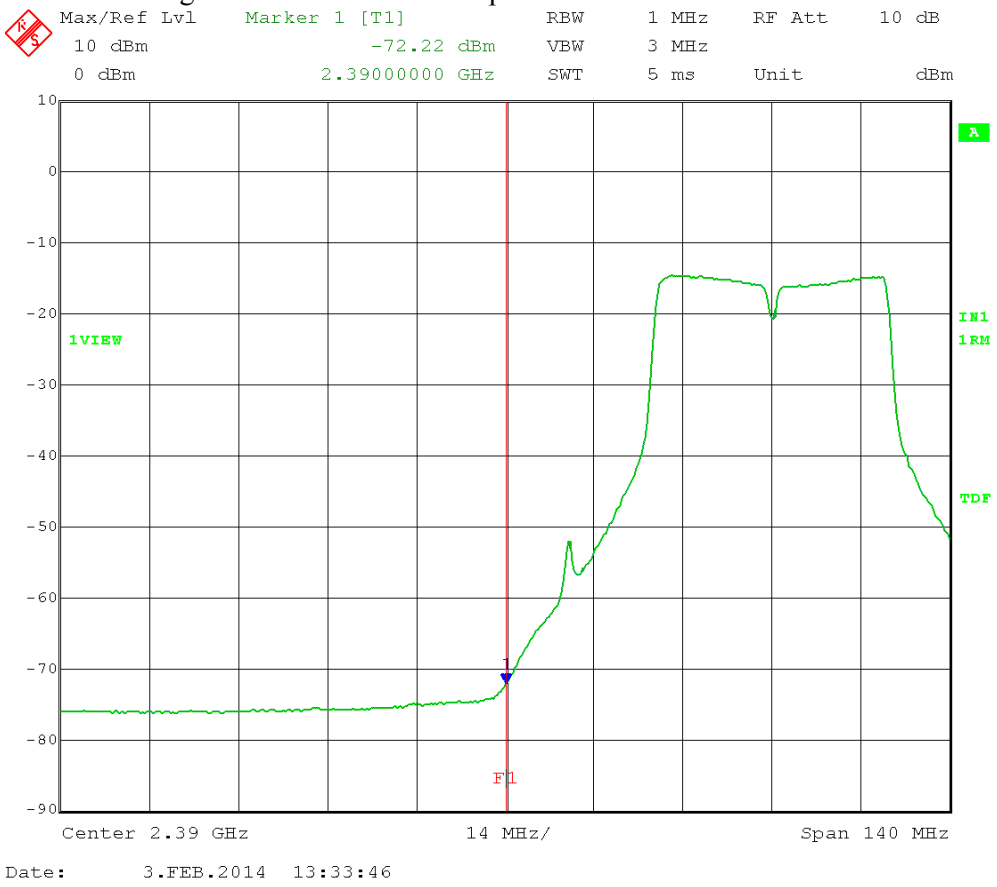



Date: 3.FEB.2014 13:38:52

Test Date: 02-03-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Low Channel Transmit = 2.422 GHz
Test software setting: 1 (used to get 0 dBm output)
40 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.390 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average -72.22 dBm for port 1



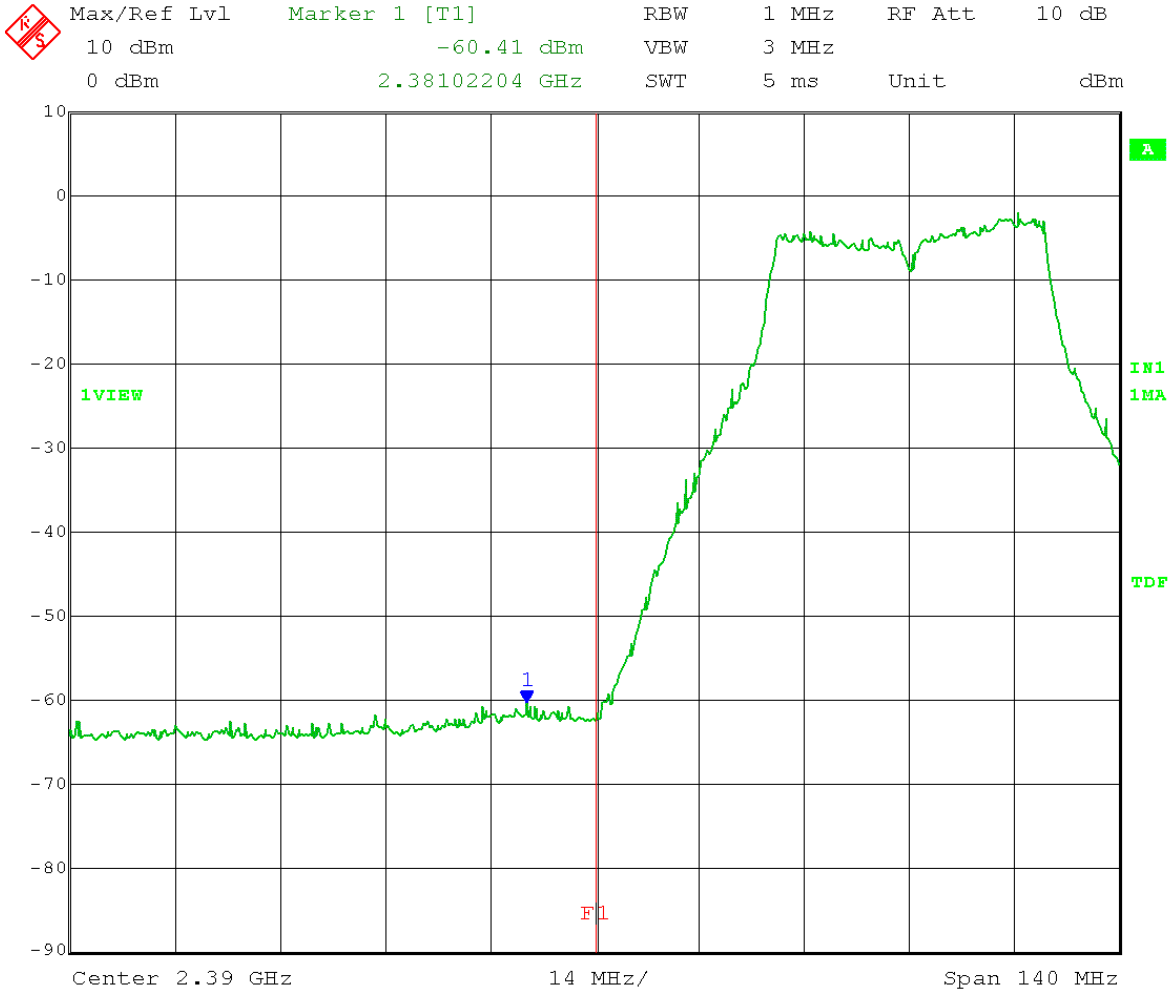

-73.08 dBm = 0.000000049 mW
-72.22 dBm = 0.000000060 mW
Total = 0.000000049 + 0.000000060 = 0.000000109 mW = -69.62 dBm

E = EIRP – 20log D + 104.8
= -69.62 dBm + 25 dBi – 20log 3 + 104.8 = 50.64 dBµV/m
**Margin = 3.36 dB** (for Average limit of 54 dBµV/m)

Test Date: 02-03-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Low Channel Transmit = 2.422 GHz
Test software setting: 1 (used to get 0 dBm output)
40 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.390 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak = -60.41 dBm for port 0

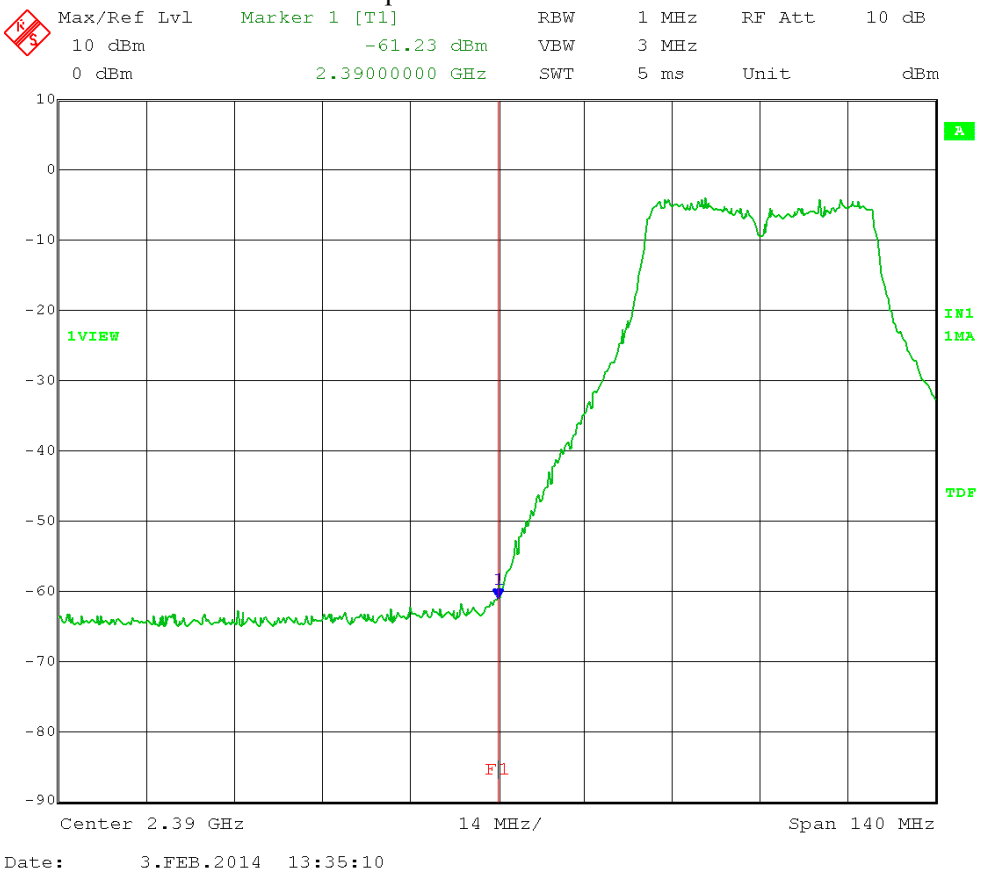



Date: 3.FEB.2014 13:37:25

Test Date: 02-03-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Low Channel Transmit = 2.422 GHz
Test software setting: 1 (used to get 0 dBm output)
40 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.390 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak -61.23 dBm for port 1



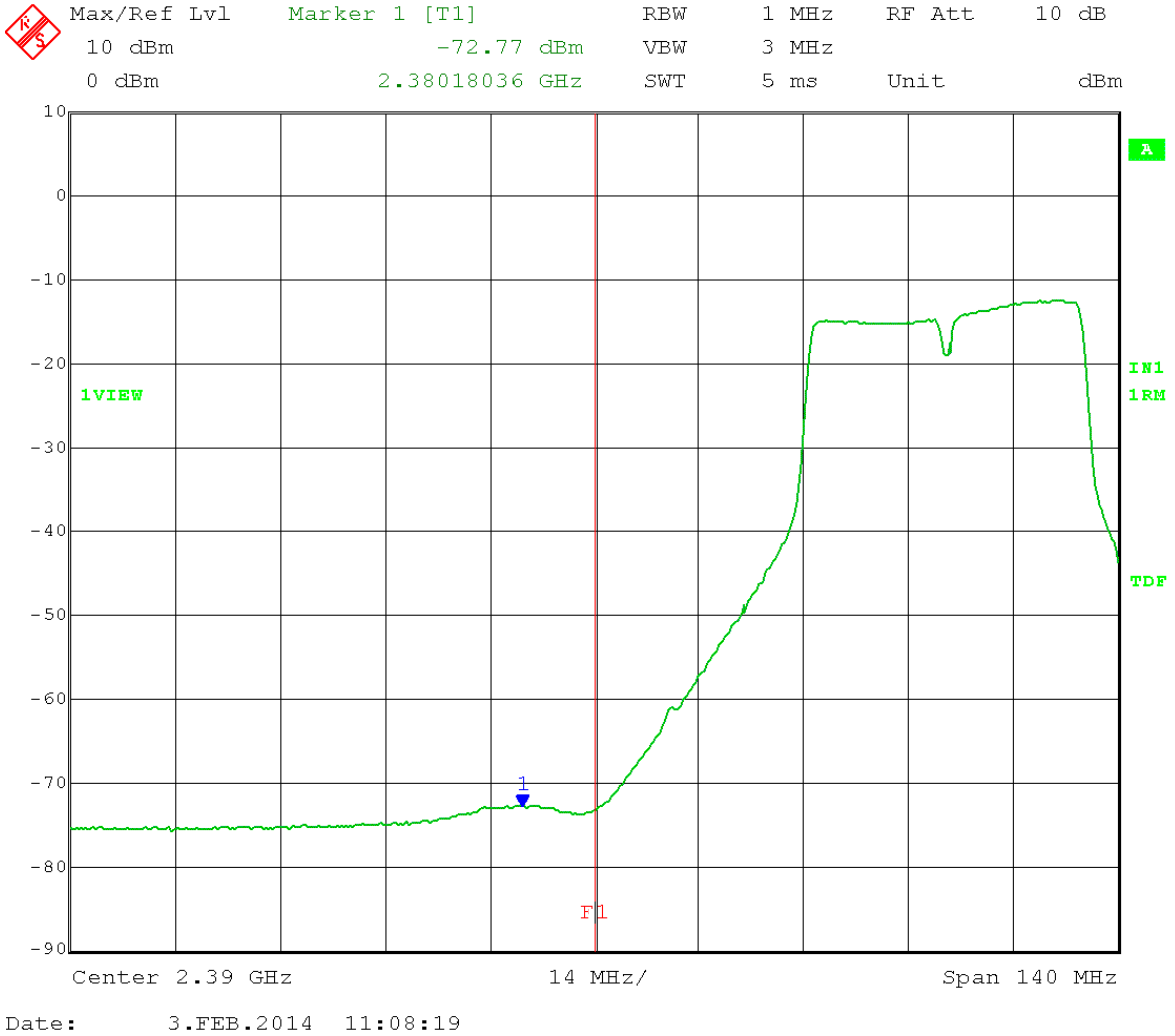

-60.41 dBm = 0.000000910 mW
-61.23 dBm = 0.000000573 mW
Total = 0.000000910 + 0.000000753 = 0.000001663 mW = -57.79 dBm

E = EIRP – 20log D + 104.8
= -52.03 dBm + 25 dBi – 20log 3 + 104.8 = 62.47 dBµV/m
**Margin = -11.53 dB** (for Peak limit of 74 dBµV/m)

Test Date: 02-03-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Mid Channel Transmit = 2.437 GHz
Test software setting: 1.5 (used to get 0.5 dBm output)
40 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.390 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average = -72.77 dBm for port 0

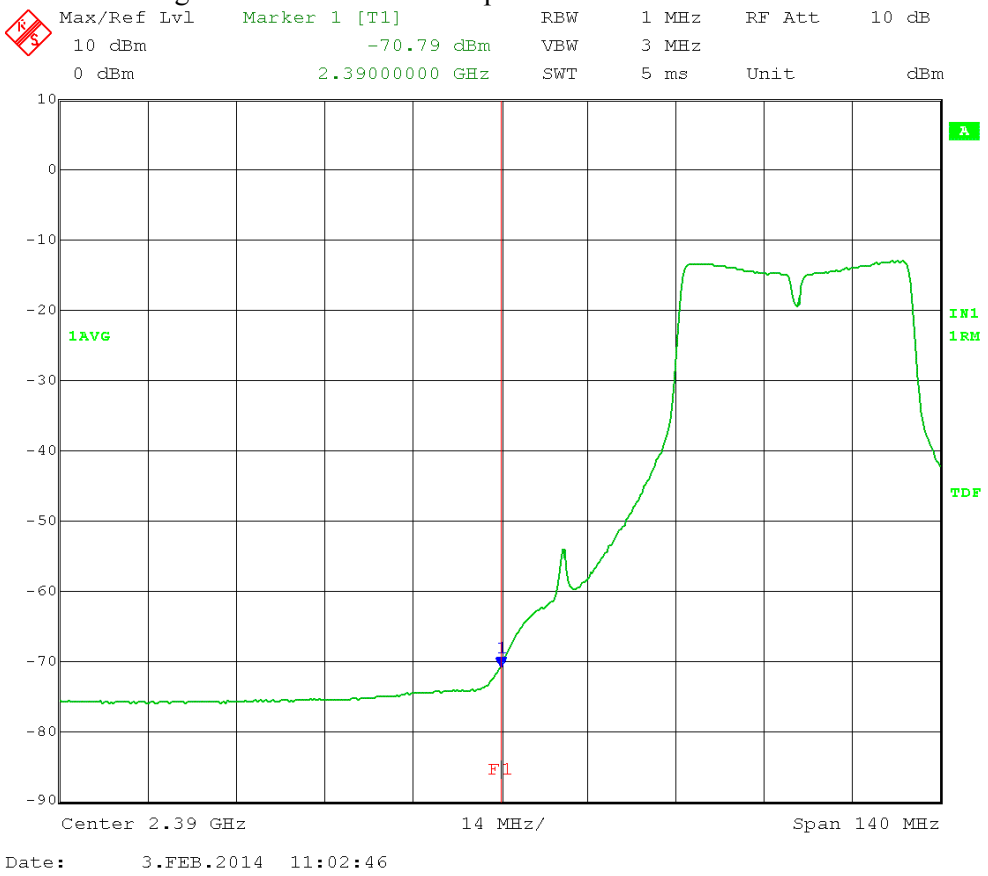



Date: 3.FEB.2014 11:08:19

Test Date: 02-03-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Mid Channel Transmit = 2.437 GHz
Test software setting: 1.5 (used to get 0.5 dBm output)
40 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.390 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average -70.79 dBm for port 1



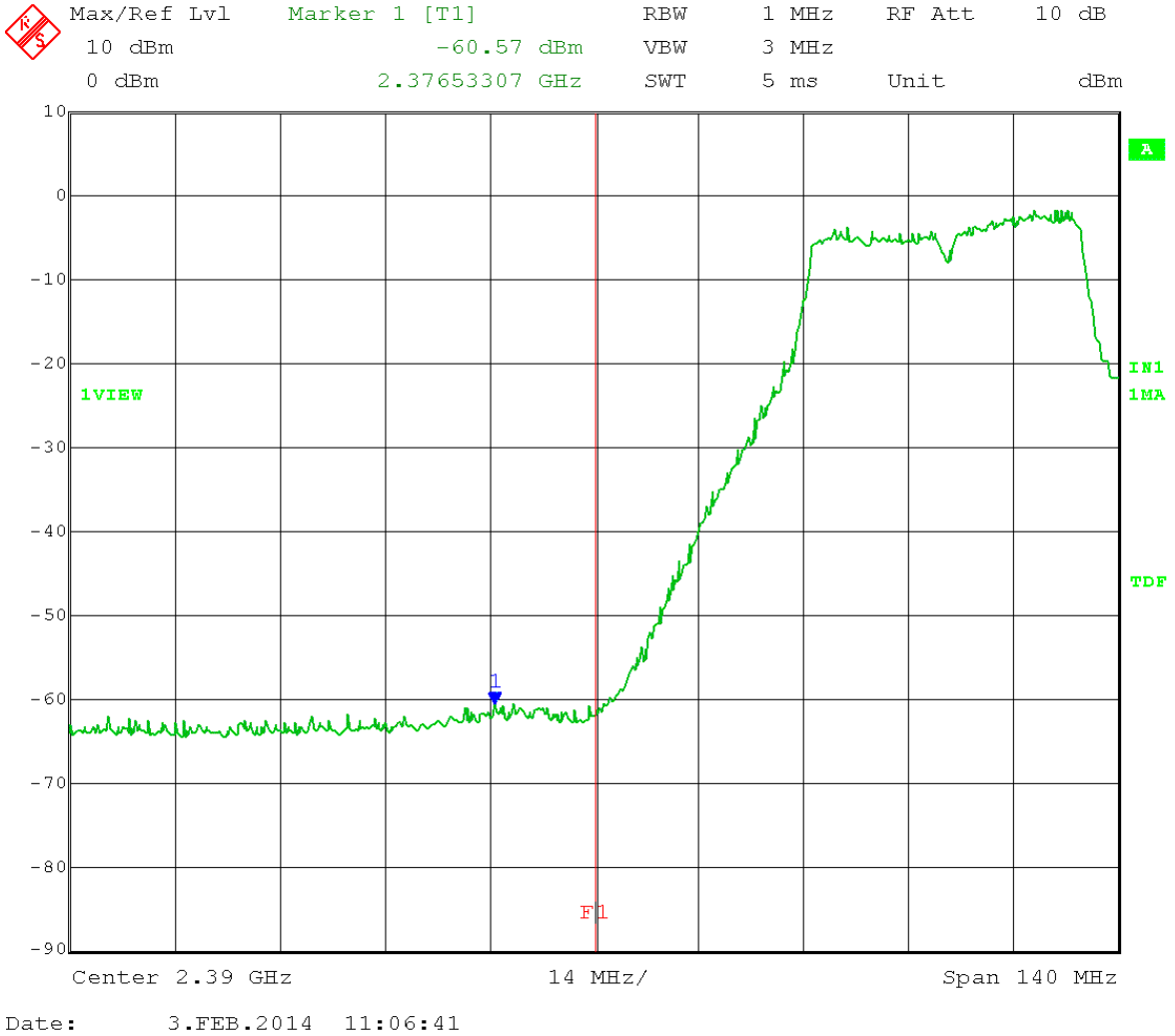

-72.77 dBm = 0.000000053 mW
-70.79 dBm = 0.000000083 mW
Total = 0.000000053 + 0.000000083 = 0.000000136 mW = -68.65 dBm

E = EIRP – 20log D + 104.8
= -68.65 dBm + 25 dBi – 20log 3 + 104.8 = 51.61 dBµV/m
**Margin = 2.39 dB** (for Average limit of 54 dBµV/m)

Test Date: 02-03-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Mid Channel Transmit = 2.437 GHz
Test software setting: 1.5 (used to get 0.5 dBm output)
40 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.390 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak = -60.57 dBm for port 0

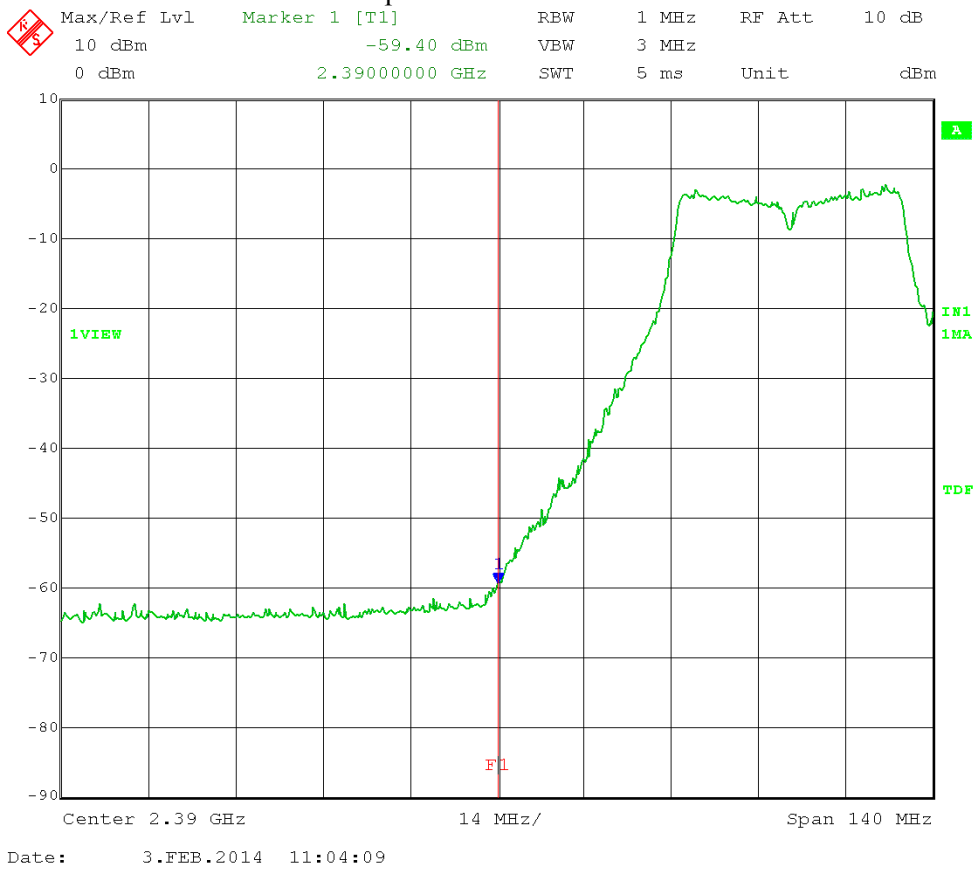



Date: 3.FEB.2014 11:06:41

Test Date: 02-03-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Mid Channel Transmit = 2.437 GHz
Test software setting: 1.5 (used to get 0.5 dBm output)
40 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.390 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak -59.40 dBm for port 1



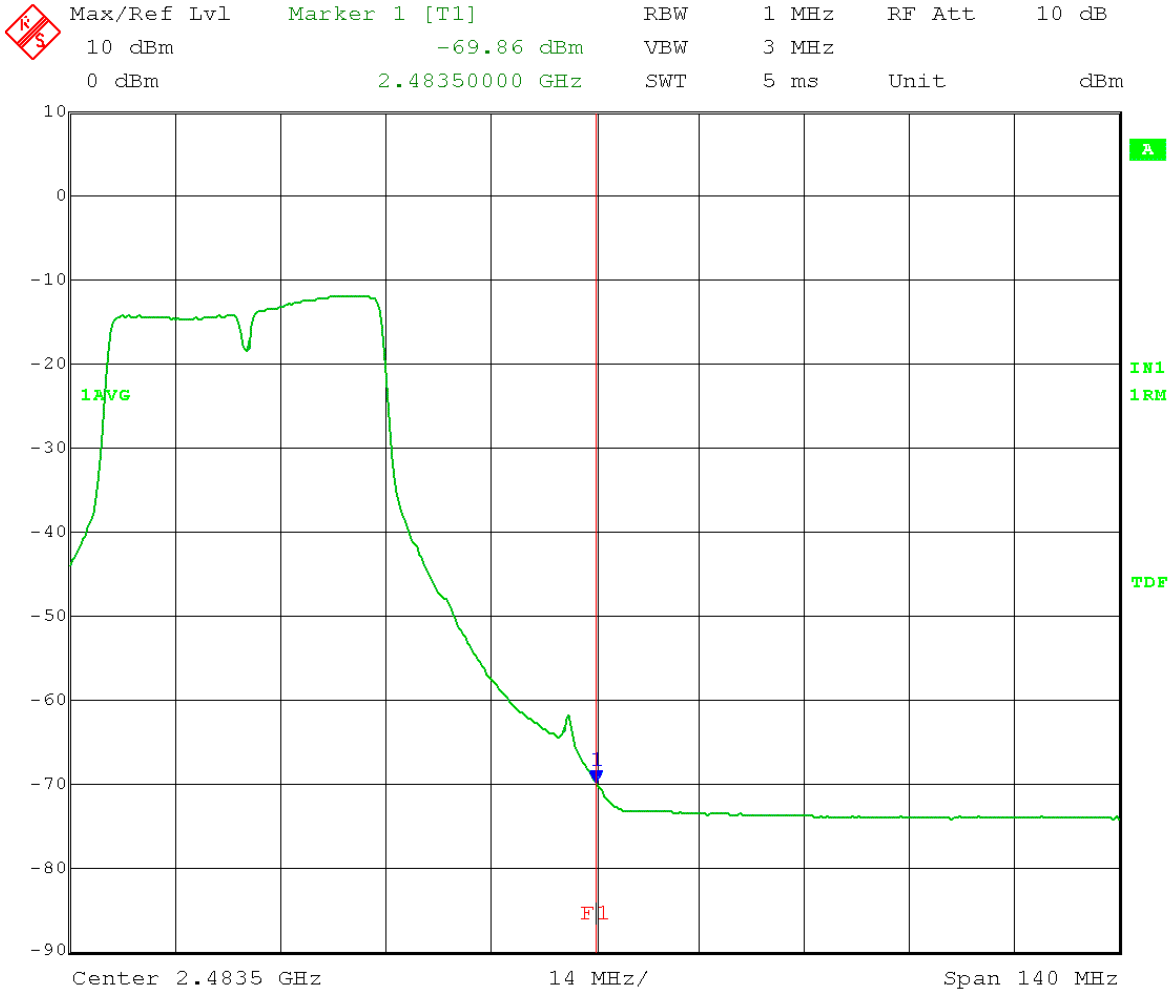

-60.57 dBm = 0.000000877 mW
-59.40 dBm = 0.000001148 mW
Total = 0.000000877 + 0.000001148 = 0.000002025 mW = -56.93 dBm

E = EIRP – 20log D + 104.8
= -56.93 dBm + 25 dBi – 20log 3 + 104.8 = 63.33 dBµV/m
**Margin = 10.67 dB** (for Peak limit of 74 dBµV/m)

Test Date: 02-03-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Mid Channel Transmit = 2.437 GHz
Test software setting: 1.5 (used to get 0.5 dBm output)
40 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average = -69.86 dBm for port 0

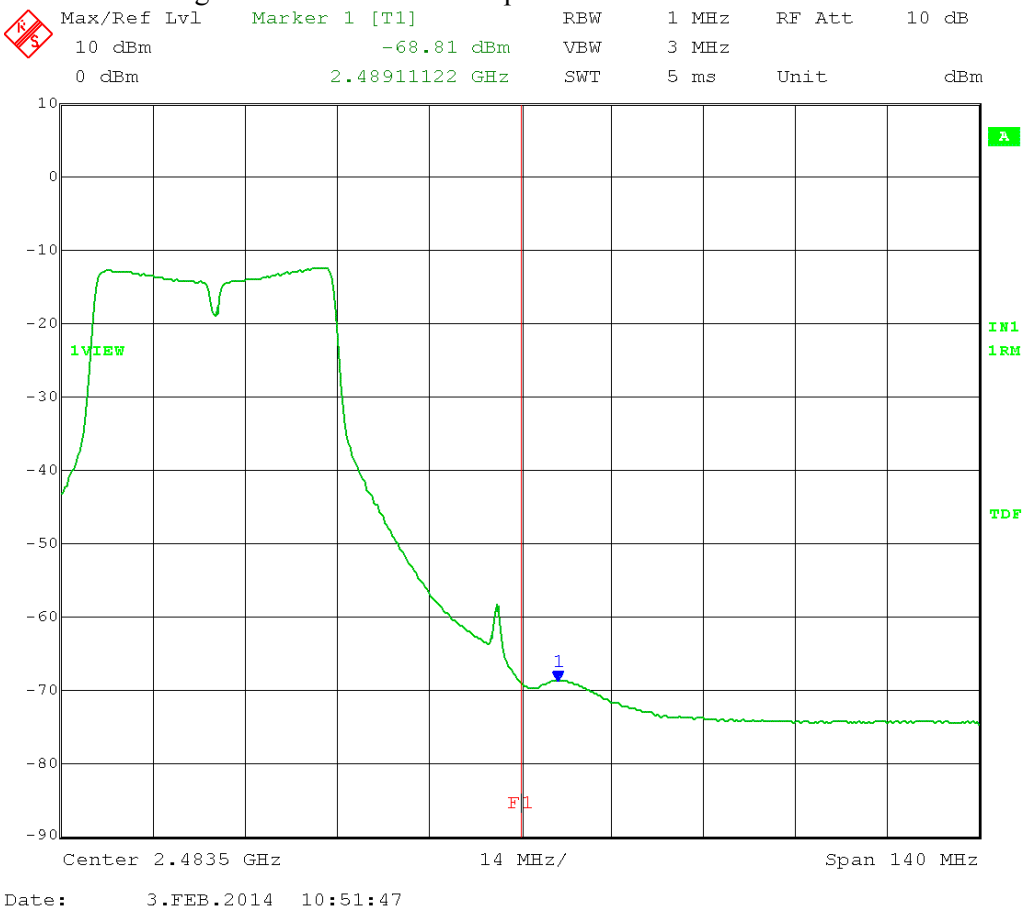



Date: 3.FEB.2014 10:45:20

Test Date: 02-03-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
Mid Channel Transmit = 2.437 GHz
Test software setting: 1.5 (used to get 0.5 dBm output)
40 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average -68.81 dBm for port 1



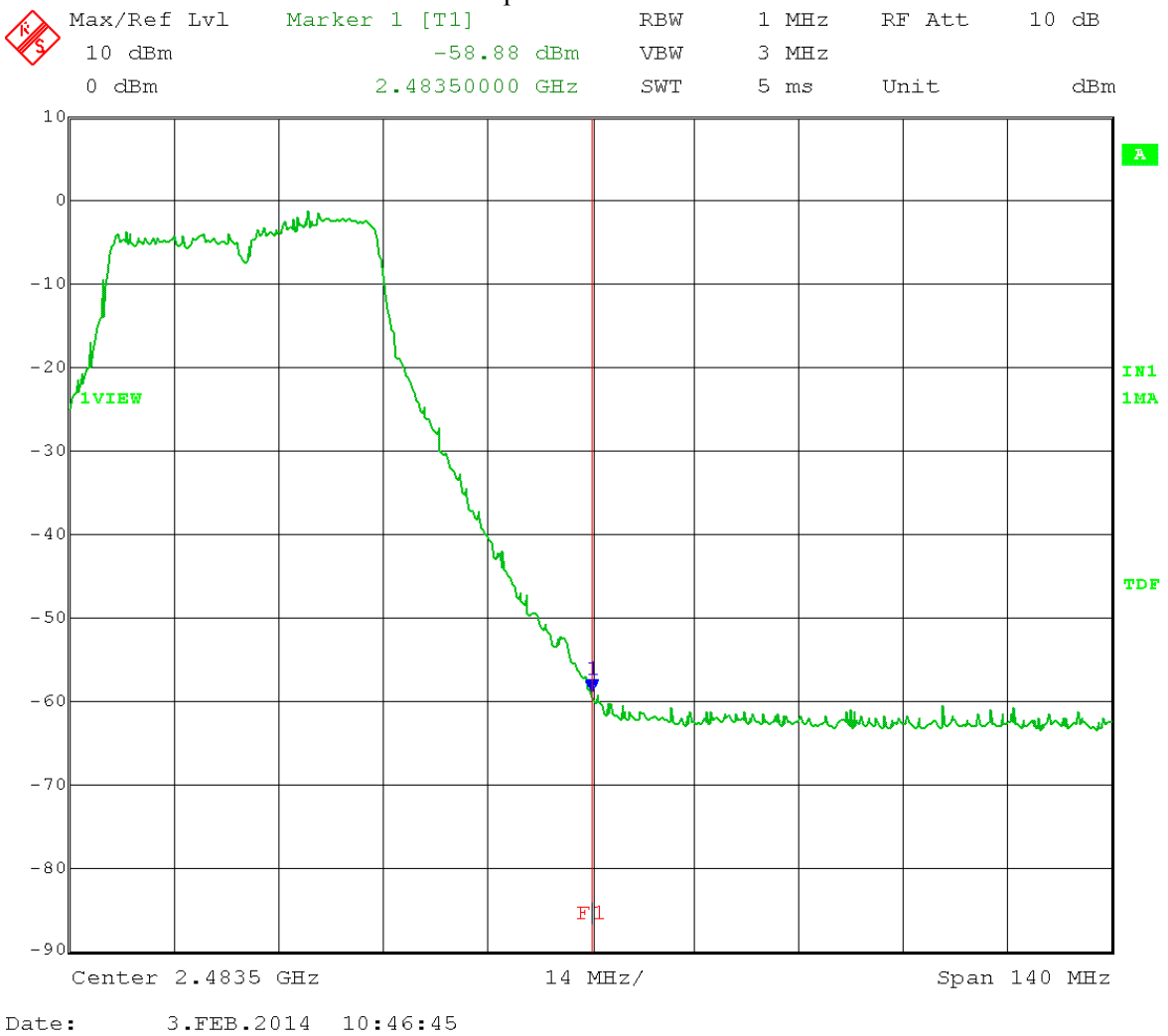

-69.86 dBm = 0.000000103 mW
-68.81 dBm = 0.000000132 mW
Total = 0.000000103 + 0.000000132 = 0.000000235 mW = -66.29 dBm

E = EIRP – 20log D + 104.8
= -66.29 dBm + 25 dBi – 20log 3 + 104.8 = 53.97 dBµV/m
**Margin = 0.03 dB** (for Average limit of 54 dBµV/m)

Test Date: 02-03-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Mid Channel Transmit = 2.437 GHz
Test software setting: 1.5 (used to get 0.5 dBm output)
40 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak = -58.88 dBm for port 0

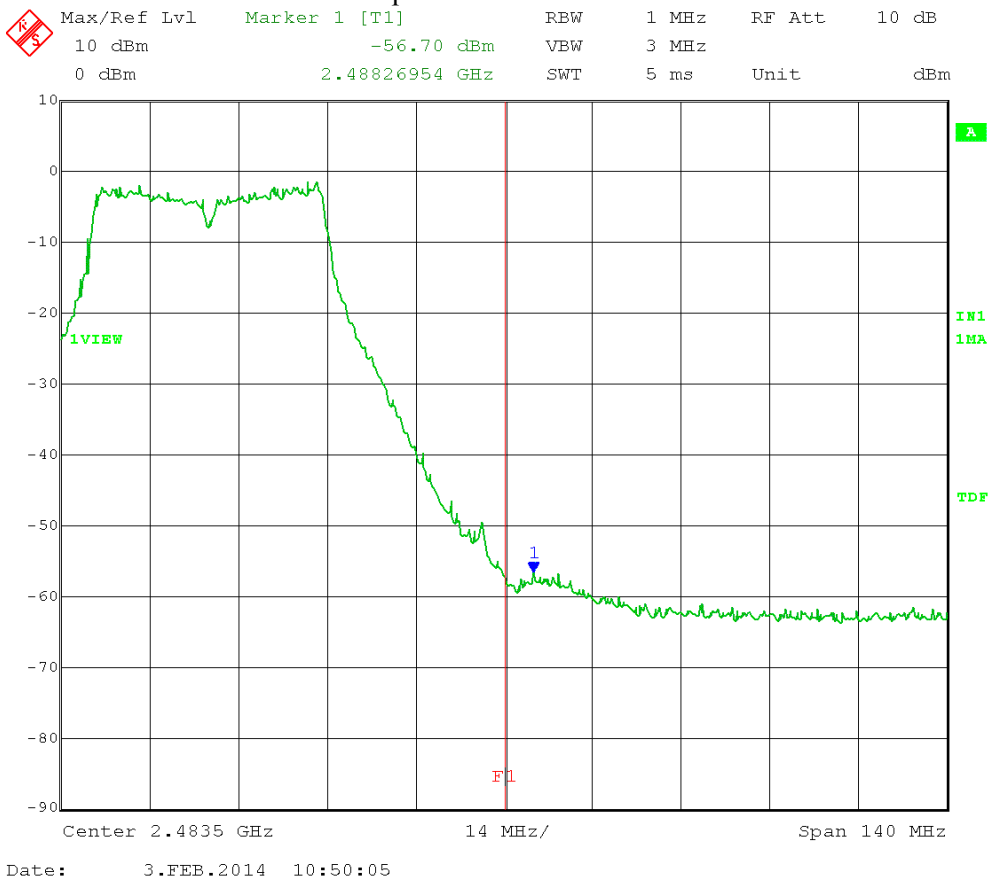



Date: 3.FEB.2014 10:46:45

Test Date: 02-03-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
Mid Channel Transmit = 2.437 GHz
Test software setting: 1.5 (used to get 0.5 dBm output)
40 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak -56.70 dBm for port 1



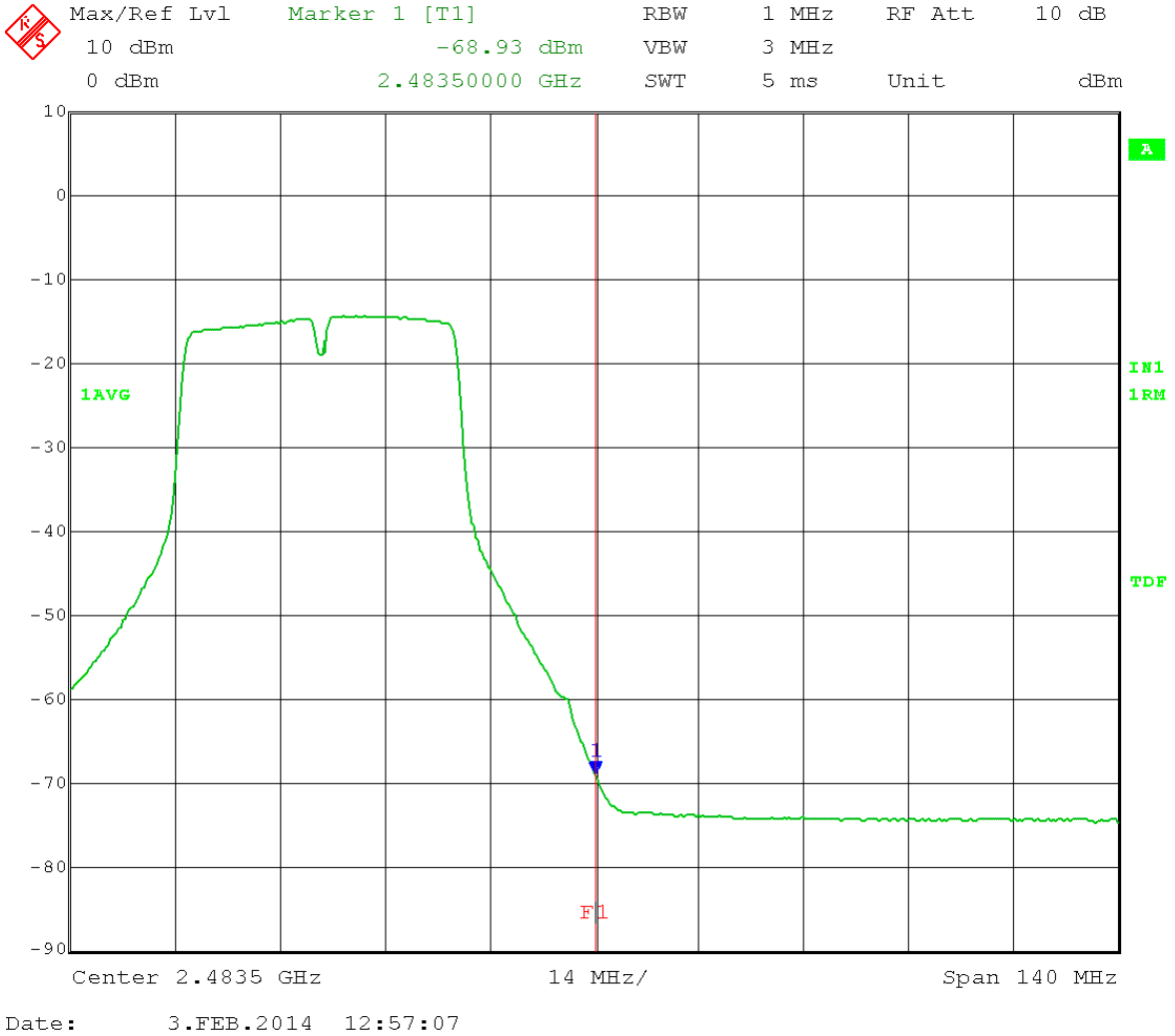

-58.88 dBm = 0.000001294 mW
-56.70 dBm = 0.000002138 mW
Total = 0.000001294 + 0.000002138 = 0.000003432 mW = -54.64 dBm

E = EIRP – 20log D + 104.8
= -54.64 dBm + 25 dBi – 20log 3 + 104.8 = 65.62 dBµV/m
**Margin = 8.38 dB** (for Peak limit of 74 dBµV/m)

Test Date: 02-03-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
High Channel Transmit = 2.447 GHz
Test software setting: 0.5 (used to get -0.5 dBm output)
40 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average = -68.93 dBm for port 0

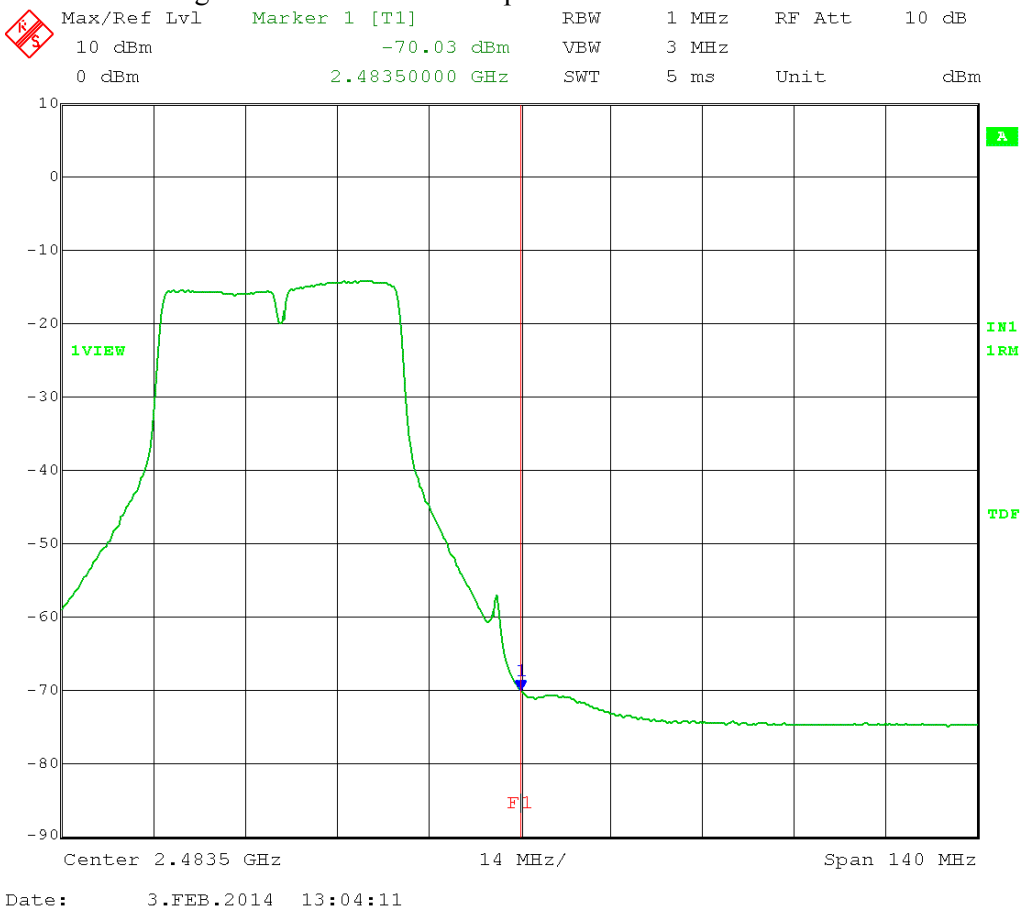



Date: 3.FEB.2014 12:57:07

Test Date: 02-03-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = RMS
Trace mode = Average 200 traces
High Channel Transmit = 2.447 GHz
Test software setting: 0.5 (used to get -0.5 dBm output)
40 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15

Average -70.03 dBm for port 1



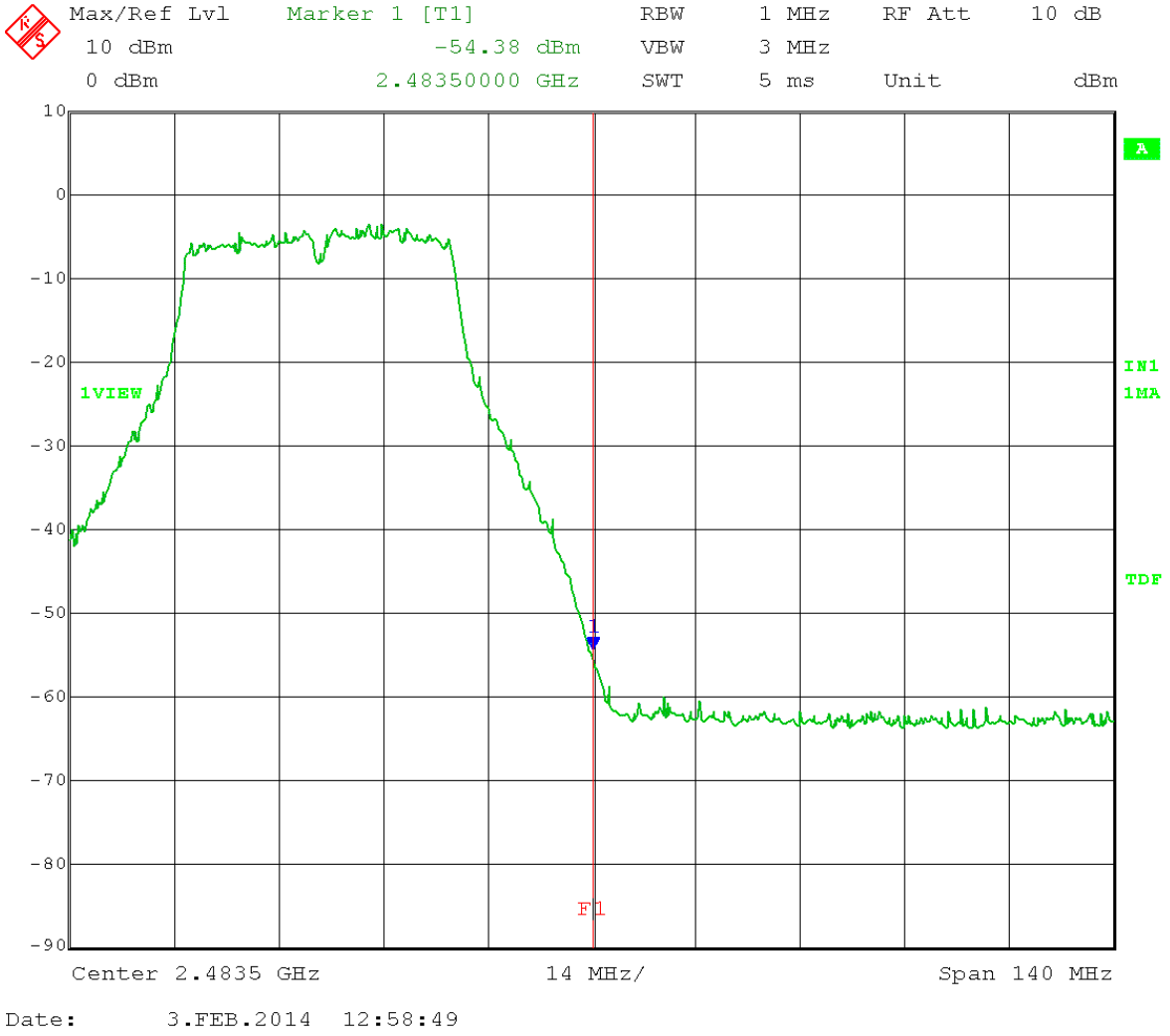

-68.93 dBm = 0.000000128 mW
-70.03 dBm = 0.000000099 mW
Total = 0.000000128 + 0.000000099 = 0.000000551 mW = -66.43 dBm

E = EIRP – 20log D + 104.8
= -66.43 dBm + 25 dBi – 20log 3 + 104.8 = 53.83 dBµV/m
**Margin = 0.17 dB** (for Average limit of 54 dBµV/m)

Test Date: 02-03-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
High Channel Transmit = 2.447 GHz
Test software setting: 0.5 (used to get -0.5 dBm output)
40 MHz CH BW Output port: 0
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak = -54.38 dBm for port 0

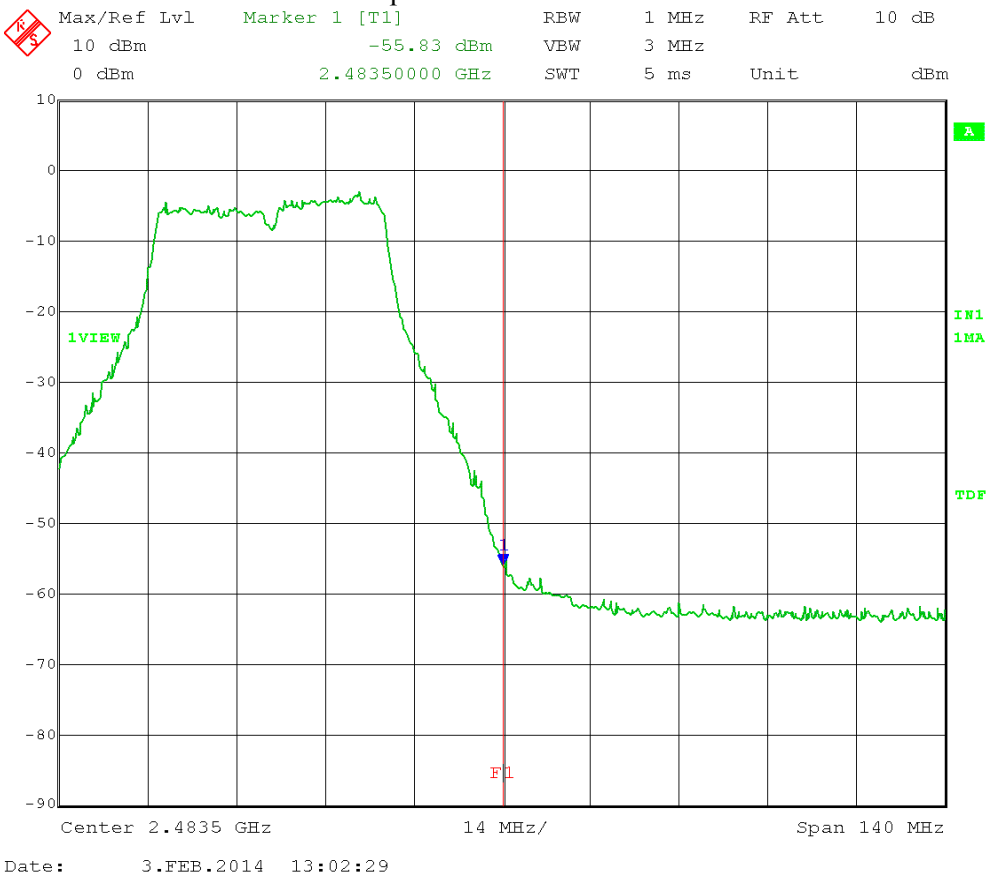



Date: 3.FEB.2014 12:58:49

Test Date: 02-03-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Band-Edge Measurements – RF Conducted
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Peak
Trace = Max Hold
High Channel Transmit = 2.447 GHz
Test software setting: 0.5 (used to get -0.5 dBm output)
40 MHz CH BW Output port: 1
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15

Peak -55.83 dBm for port 1




-54.38 dBm = 0.000003648 mW
-55.83 dBm = 0.000002612 mW
Total = 0.000003648 + 0.000002612 = 0.000006260 mW = -52.03 dBm

E = EIRP – 20log D + 104.8
= -52.03 dBm + 25 dBi – 20log 3 + 104.8 = 68.23 dBµV/m
**Margin = 5.77 dB** (for Peak limit of 74 dBµV/m)

**Appendix B – Measurement Data**

## B7.0 Maximum Unwanted Emission Levels into Restricted Frequency Bands - Radiated

**Rule Section**: FCC 15.247(d) & FCC 15.205

**Test Procedure**: FCC KDB 558074 D01 DTS Meas Guidance v03r01 – *Guidance for Performing Gompliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247*

**12.0 Emissions in restricted frequency bands**
**12.1 Radiated emission measurements**

**Description**: This test applies to harmonics/spurs that fall in the restricted bands listed in Section 15.205.

Measurements were taken for OFDM MCS15 with 20 MHz and 40 MHz channel bandwidths at the low, middle and high channels of operation. EUT was set to transmit continuously with a 100% duty cycle. The test software power setting was 26 (used to get 25 dBm output) while tested with an 8 dBi Omni antenna. Both transmit chains were active at maximum power during this test. The test software power setting was 20 (used to get 19 dBm output) while tested with a 17 dBi antenna. Both transmit chains were active at maximum power during this test.

**Limit:** FCC Part 15.209

**Results:** Passed

**Note:** The Ethernet cable was unplugged from the remote computer in order to pass radiated emissions below 1 GHz.

## *FCC Part 15  Class B*

## *Electric Field Strength*

EUT: EPMP 2.4GHz AP MIMO Radio (DTS)
Manufacturer: Cambium Networks
Operating Condition: 70 deg. F; 21% R.H.
Test Site: DLS O.F. Site 3
Operator: John S
Test Specification: 120V 60Hz
Comment: Unit transmitting at 2437MHz OMNI Antenna
Date: 1-27-2014

## *TEXT: "Horz 3 meters"*

Short Description: Test Set-up

Test Set-up: EUT Measured at 3 Meters with HORIZONTAL Antenna Polarization

Equations: Total Level(dBµV/m) = Level(dBµV) + System Loss(dB) + Antenna Factor(dBµV/m)

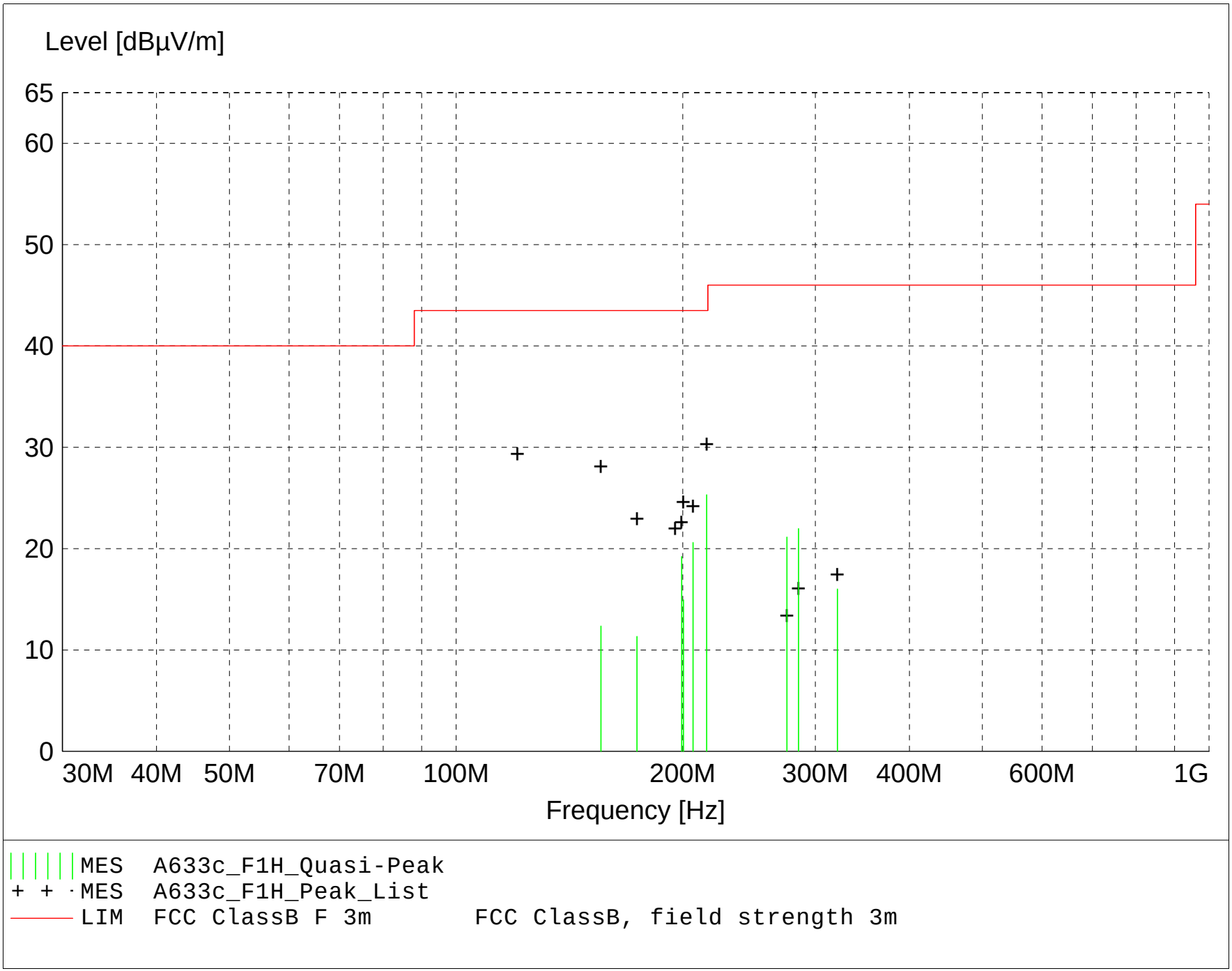
Margin(dB) = Limit(dBµV/m) - Total Level(dBµV/m)

Graph Markers: + Frequency marker (Level of marker not related to final level)

| Final maximized level using Quasi-Peak detector

X Final maximized level using Average dector

# Final maximized level using Peak detector


Level [dBµV/m]
65
60
50
40
30
20
10
0
30M
40M
50M
70M
100M
200M
300M
400M
600M
1G
Frequency [Hz]
MES A633c_F1H_Quasi-Peak
MES A633c_F1H_Peak_List
LIM FCC ClassB F 3m
FCC ClassB, field strength 3m

***MEASUREMENT RESULT: "A633c_F1H_Final"***

1/27/2014 12:37PM

| Frequency | Level | Antenna Factor | System Loss | Total Level | Limit | Margin | Height Ant. | EuT Angle | Final Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|---|
| MHz | dBµV | dBµV/m | dB | dBµV/m | dBµV/m | dB | m | deg | | |
| 215.180000 | 35.68 | 11.60 | -22.0 | 25.3 | 43.5 | 18.2 | 2.00 | 10 | QUASI-PEAK | None |
| 206.360000 | 30.81 | 11.95 | -22.2 | 20.6 | 43.5 | 22.9 | 2.00 | 0 | QUASI-PEAK | None |
| 284.960000 | 29.91 | 13.70 | -21.6 | 22.0 | 46.0 | 24.0 | 1.00 | 330 | QUASI-PEAK | None |
| 199.320000 | 24.03 | 17.43 | -22.2 | 19.2 | 43.5 | 24.3 | 1.00 | 180 | QUASI-PEAK | None |
| 275.000000 | 29.36 | 13.40 | -21.6 | 21.1 | 46.0 | 24.9 | 1.00 | 330 | QUASI-PEAK | None |
| 200.420000 | 24.92 | 12.27 | -22.2 | 14.9 | 43.5 | 28.6 | 2.00 | 180 | QUASI-PEAK | None |
| 320.900000 | 22.45 | 14.86 | -21.3 | 16.0 | 46.0 | 30.0 | 2.00 | 180 | QUASI-PEAK | None |
| 155.700000 | 22.32 | 12.67 | -22.6 | 12.4 | 43.5 | 31.1 | 1.00 | 110 | QUASI-PEAK | None |
| 173.880000 | 18.17 | 15.48 | -22.3 | 11.3 | 43.5 | 32.2 | 1.00 | 60 | QUASI-PEAK | None |

## *FCC Part 15  Class B*

## *Electric Field Strength*

EUT: EPMP 2.4GHz AP MIMO Radio (DTS)
Manufacturer: Cambium Networks
Operating Condition: 70 deg. F; 21% R.H.
Test Site: DLS O.F. Site 3
Operator: John S
Test Specification: 120V 60Hz
Comment: Unit transmitting at 2437MHz OMNI Antenna
Date: 1-27-2014

## *TEXT: "Vert 3 meters"*

Short Description: Test Set-up

Test Set-up: EUT Measured at 3 Meters with VERTICAL Antenna Polarization

Sample Equations: Total Level(dBµV/m) = Level(dBµV) + System Loss(dB) + Antenna Factor(dBµV/m)
24.6 = 35.51 + (-22.1) + 11.20

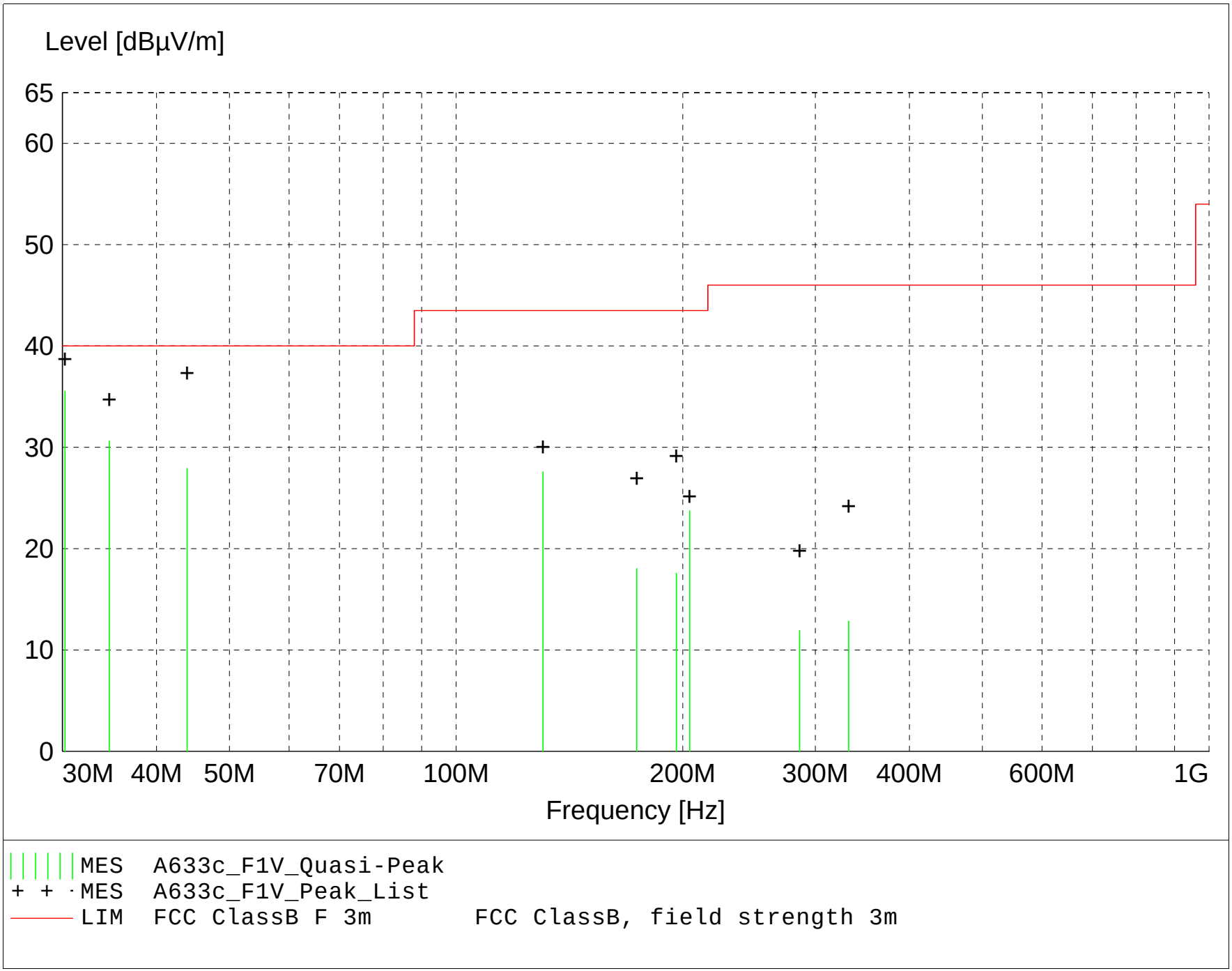
Margin(dB) = Limit(dBµV/m) - Total Level(dBµV/m)
15.4 = 40 - 24.6

Graph Markers: + Frequency marker (Level of marker not related to final level)

| Final maximized level using Quasi-Peak detector

X Final maximized level using Average dector

# Final maximized level using Peak detector


Level [dBµV/m]
65
60
50
40
30
20
10
0
30M
40M
50M
70M
100M
200M
300M
400M
600M
1G
Frequency [Hz]
MES A633c_F1V_Quasi-Peak
MES A633c_F1V_Peak_List
LIM FCC ClassB F 3m
FCC ClassB, field strength 3m

***MEASUREMENT RESULT: "A633c_F1V_Final"***

1/27/2014 11:42AM

| Frequency | Level | Antenna Factor | System Loss | Total Level | Limit | Margin | Height Ant. | EuT Angle | Final Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|---|
| MHz | dBµV | dBµV/m | dB | dBµV/m | dBµV/m | dB | m | deg | | |
| 30.240000 | 47.93 | 12.13 | -24.5 | 35.5 | 40.0 | 4.5 | 1.00 | 30 | QUASI-PEAK | None |
| 34.620000 | 43.27 | 11.64 | -24.3 | 30.6 | 40.0 | 9.4 | 1.00 | 200 | QUASI-PEAK | None |
| 43.920000 | 39.87 | 12.10 | -24.0 | 27.9 | 40.0 | 12.1 | 1.00 | 200 | QUASI-PEAK | None |
| 130.440000 | 37.58 | 12.86 | -22.9 | 27.6 | 43.5 | 15.9 | 2.00 | 0 | QUASI-PEAK | None |
| 204.260000 | 33.91 | 12.04 | -22.2 | 23.7 | 43.5 | 19.8 | 1.00 | 180 | QUASI-PEAK | None |
| 173.760000 | 24.87 | 15.45 | -22.3 | 18.0 | 43.5 | 25.5 | 1.00 | 0 | QUASI-PEAK | None |
| 196.080000 | 22.29 | 17.50 | -22.2 | 17.6 | 43.5 | 25.9 | 2.00 | 120 | QUASI-PEAK | None |
| 332.120000 | 19.38 | 14.68 | -21.2 | 12.9 | 46.0 | 33.1 | 1.00 | 150 | QUASI-PEAK | None |
| 285.860000 | 19.79 | 13.75 | -21.6 | 11.9 | 46.0 | 34.1 | 1.00 | 80 | QUASI-PEAK | None |

# Maximum Unwanted Emission Levels into Restricted Frequency Bands - Radiated

# with 8 dBi antenna

# No measurable emissions were detected from the EUT from 1 to 25 GHz.

# Software power setting 26

***FCC Part 15  Class B***

***Electric Field Strength***

EUT: EPMP 2.4GHz AP MIMO Radio (DTS)
Manufacturer: Cambium Networks
Operating Condition: 70 deg. F; 21% R.H.
Test Site: DLS O.F. Site 3
Operator: John S
Test Specification: 120V 60Hz
Comment: Unit transmitting at 2437MHz Sector Antenna
Date: 1-24-2014

***TEXT: "Horz 3 meters"***

Short Description: Test Set-up

Test Set-up: EUT Measured at 3 Meters with HORIZONTAL Antenna Polarization

Equations: Total Level(dBµV/m) = Level(dBµV) + System Loss(dB) + Antenna Factor(dBµV/m)

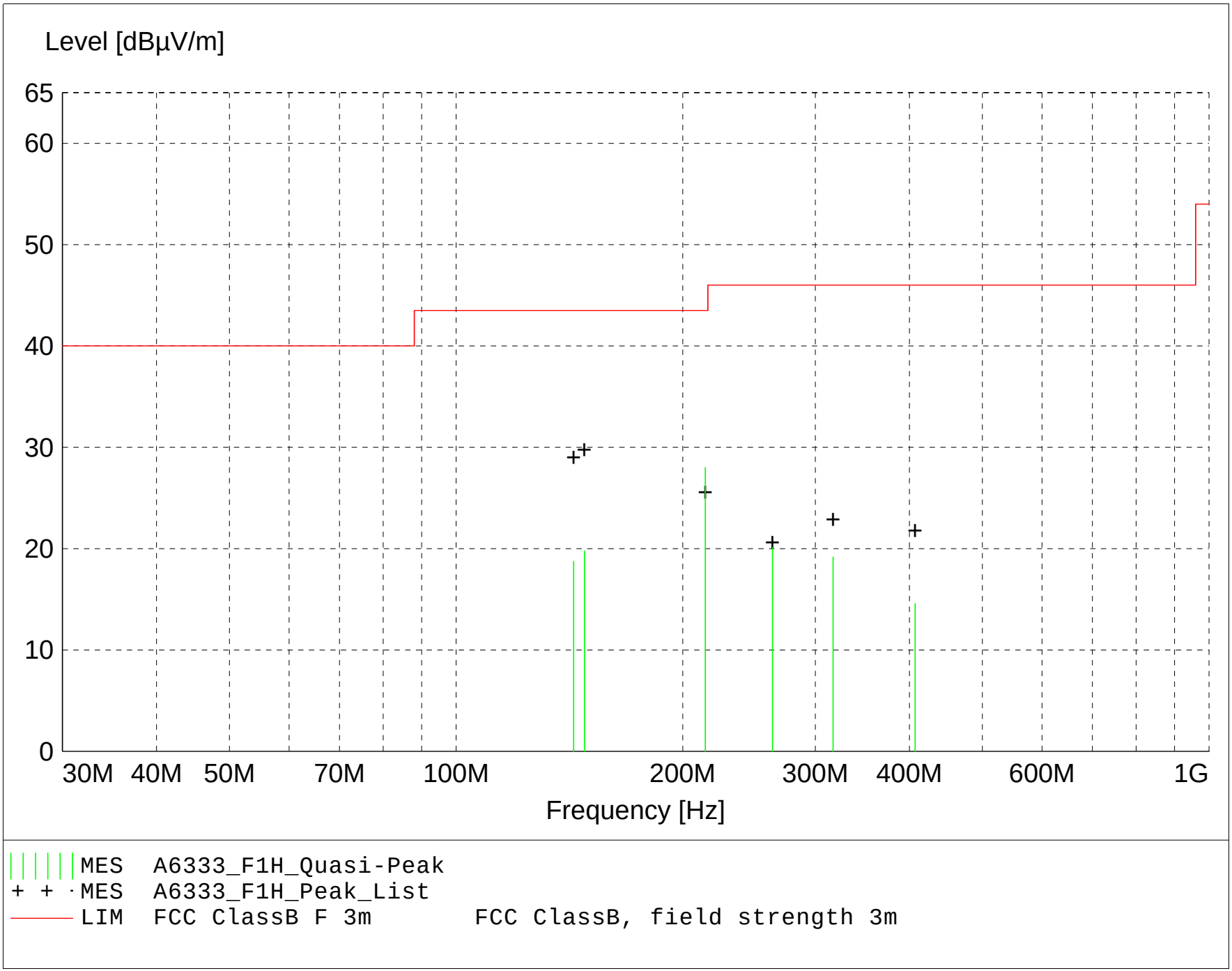
Margin(dB) = Limit(dBµV/m) - Total Level(dBµV/m)

Graph Markers: + Frequency marker (Level of marker not related to final level)

| Final maximized level using Quasi-Peak detector

X Final maximized level using Average dector

# Final maximized level using Peak detector


Level [dBµV/m]
65
60
50
40
30
20
10
0
30M
40M
50M
70M
100M
200M
300M
400M
600M
1G
Frequency [Hz]
MES A6333_F1H_Quasi-Peak
MES A6333_F1H_Peak_List
LIM FCC ClassB F 3m
FCC ClassB, field strength 3m

***MEASUREMENT RESULT: "A6333_F1H_Final"***

1/24/2014 11:17AM

| Frequency | Level | Antenna Factor | System Loss | Total Level | Limit | Margin | Height Ant. | EuT Angle | Final Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|---|
| MHz | dBµV | dBµV/m | dB | dBµV/m | dBµV/m | dB | m | deg | | |
| 214.280000 | 38.36 | 11.63 | -22.0 | 28.0 | 43.5 | 15.5 | 1.00 | 120 | QUASI-PEAK | None |
| 148.080000 | 30.23 | 12.21 | -22.7 | 19.8 | 43.5 | 23.7 | 2.00 | 210 | QUASI-PEAK | None |
| 143.280000 | 29.18 | 12.27 | -22.7 | 18.7 | 43.5 | 24.8 | 2.00 | 270 | QUASI-PEAK | None |
| 263.180000 | 28.69 | 13.13 | -21.7 | 20.1 | 46.0 | 25.9 | 1.00 | 180 | QUASI-PEAK | None |
| 316.700000 | 25.41 | 15.16 | -21.4 | 19.2 | 46.0 | 26.8 | 2.00 | 20 | QUASI-PEAK | None |
| 406.940000 | 19.52 | 16.00 | -20.9 | 14.6 | 46.0 | 31.4 | 1.00 | 70 | QUASI-PEAK | None |

## *FCC Part 15  Class B*

## *Electric Field Strength*

EUT: EPMP 2.4GHz AP MIMO Radio (DTS)
Manufacturer: Cambium Networks
Operating Condition: 70 deg. F; 21% R.H.
Test Site: DLS O.F. Site 3
Operator: John S
Test Specification: 120v 60Hz
Comment: Unit transmitting at 2437MHZ Sector Antenna
Date: 1-24-2014

## *TEXT: "Vert 3 meters"*

Short Description: Test Set-up

Test Set-up: EUT Measured at 3 Meters with VERTICAL Antenna Polarization

Sample Equations: Total Level(dBµV/m) = Level(dBµV) + System Loss(dB) + Antenna Factor(dBµV/m)
24.6 = 35.51 + (-22.1) + 11.20

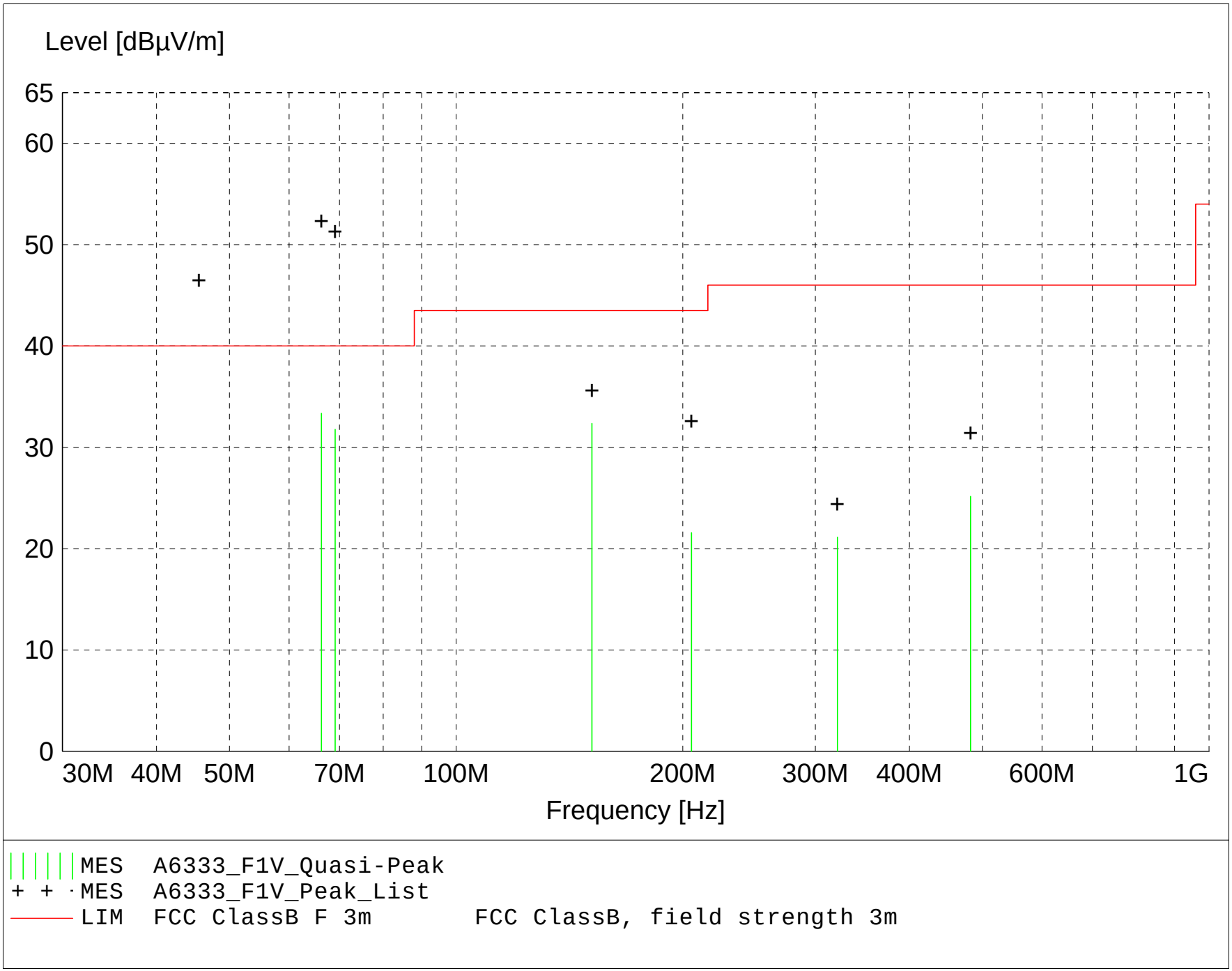
Margin(dB) = Limit(dBµV/m) - Total Level(dBµV/m)
15.4 = 40 - 24.6

Graph Markers: + Frequency marker (Level of marker not related to final level)

| Final maximized level using Quasi-Peak detector

X Final maximized level using Average dector

# Final maximized level using Peak detector


Level [dBµV/m]
65
60
50
40
30
20
10
0
30M
40M
50M
70M
100M
200M
300M
400M
600M
1G
Frequency [Hz]
MES A6333_F1V_Quasi-Peak
MES A6333_F1V_Peak_List
LIM FCC ClassB F 3m
FCC ClassB, field strength 3m

***MEASUREMENT RESULT: "A6333_F1V_Final"***

1/24/2014 11:12AM

| Frequency | Level | Antenna Factor | System Loss | Total Level | Limit | Margin | Height Ant. | EuT Angle | Final Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|---|
| MHz | dBµV | dBµV/m | dB | dBµV/m | dBµV/m | dB | m | deg | | |
| 66.240000 | 48.63 | 8.45 | -23.7 | 33.4 | 40.0 | 6.6 | 1.00 | 10 | QUASI-PEAK | None |
| 69.060000 | 47.68 | 7.78 | -23.7 | 31.8 | 40.0 | 8.2 | 1.00 | 10 | QUASI-PEAK | None |
| 151.500000 | 42.70 | 12.30 | -22.6 | 32.4 | 43.5 | 11.1 | 1.00 | 300 | QUASI-PEAK | None |
| 482.300000 | 28.51 | 17.40 | -20.8 | 25.2 | 46.0 | 20.8 | 1.00 | 200 | QUASI-PEAK | None |
| 205.400000 | 31.79 | 11.98 | -22.2 | 21.6 | 43.5 | 21.9 | 3.00 | 250 | QUASI-PEAK | None |
| 320.900000 | 27.58 | 14.86 | -21.3 | 21.1 | 46.0 | 24.9 | 3.00 | 270 | QUASI-PEAK | None |

# Maximum Unwanted Emission Levels into Restricted Frequency Bands - Radiated

# with 17 dBi antenna

# No measurable emissions were detected from the EUT from 1 to 25 GHz.

# Software power setting 20

**Appendix B – Measurement Data**

## B8.0 Maximum Unwanted Emission Levels – Radiated Band-Edge from Cabinet

**Rule Section**: FCC 15.247(d) & FCC 15.205

**Test Procedure**: FCC KDB 558074 D01 DTS Meas Guidance v03r01 – *Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247*

**Description**:
RBW = 1MHz
VBW ≥ 3MHz
Span = spectrum to be examined – (Unwanted Emissions)
Detector = peak (for peak measurements)
Detector = average (for average measurements)
Sweep = auto couple
Trace mode = max hold

Measurements were taken for OFDM MCS15 with 20 MHz and 40 MHz channel bandwidths at the low, middle and high channels of operation. EUT was set to transmit continuously with a 100% duty cycle. The EUT was set to maximum power (test software set to 26 (used to get 25 dBm output) on both output chains. Both ports were 50-Ohm terminated.

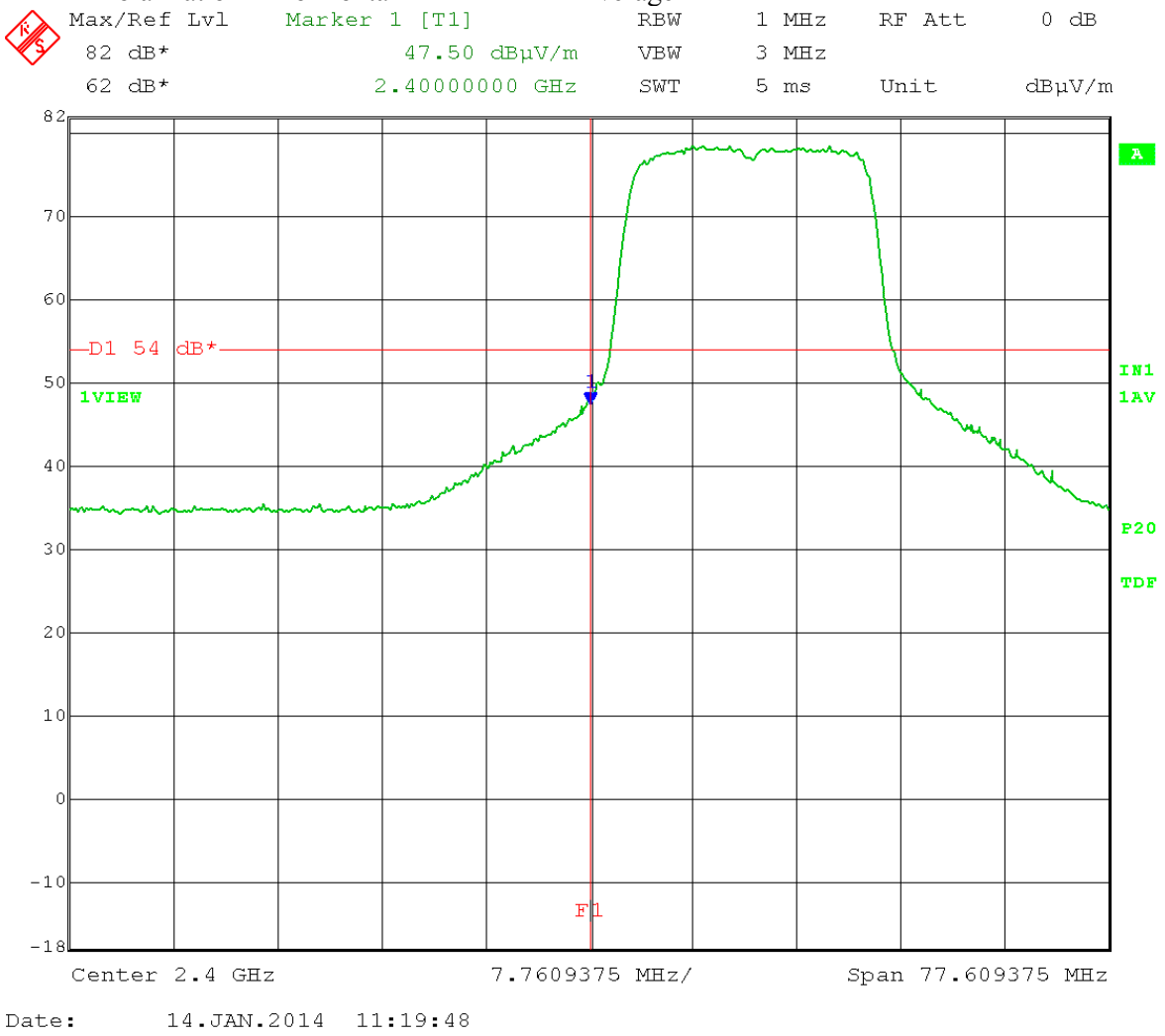
**Limit:**
Part 15.205/15.209 restricted band limits were used.
Peak detector limit: 74 dBµV/m at 3 meters
Average detector limit: 54 dBµV/m at 3 meters

**Results:** Passed

Test Date: 01-14-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz OFDM MAC: 000456C1A853
Test: Band-Edge Measurements – Radiated from cabinet
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Average
Trace = Max Hold
Low Channel Transmit = 2.412 GHz
Test software setting: 26 (used to get 25 dBm output)
20 MHz CH BW Both chains 0 and 1 active
Band-Edge Frequency = 2.400 GHz (using restricted band limits)
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15
Both ports 50-Ohm terminated

Polarization = Horizontal Average

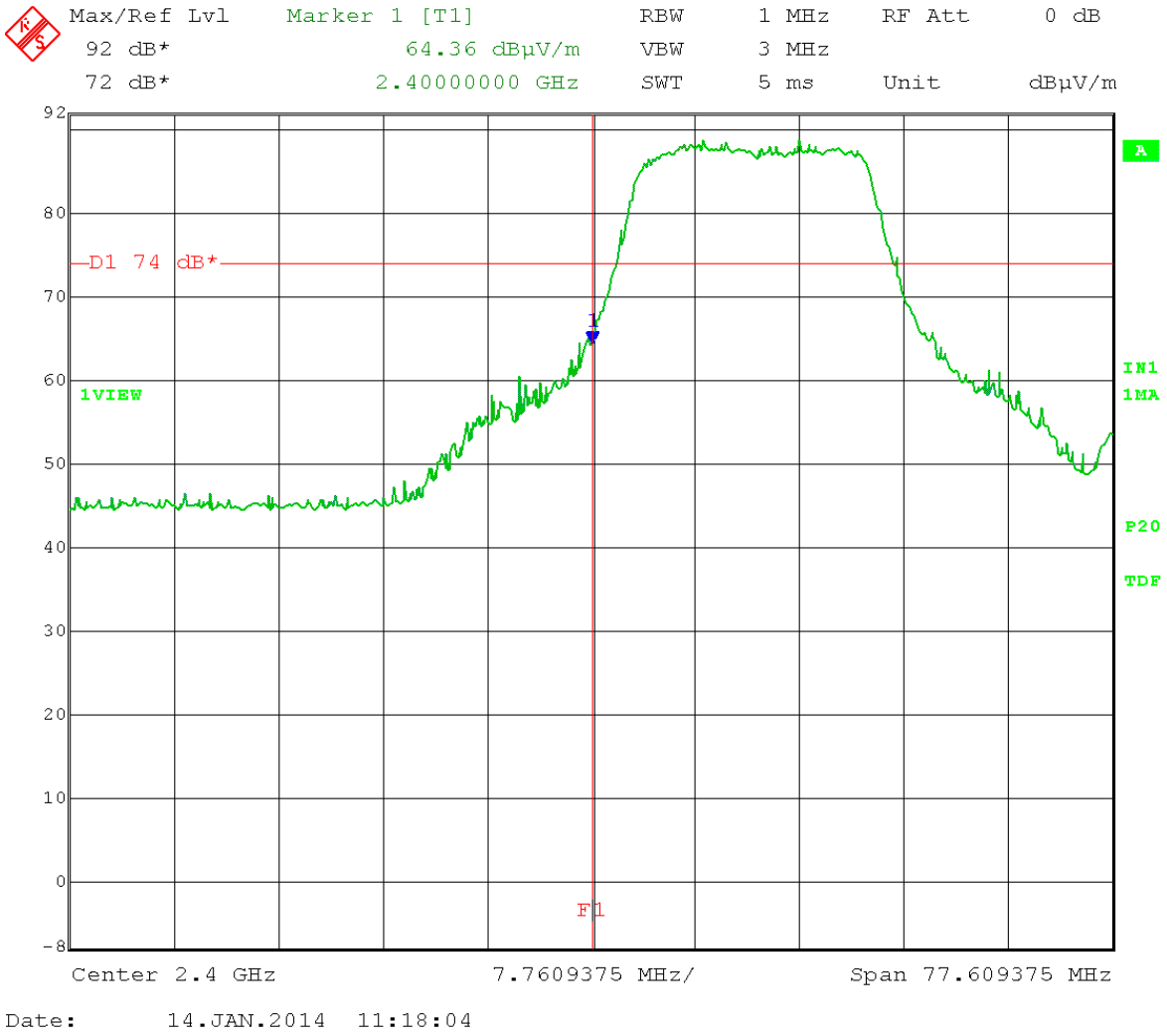



Date: 14.JAN.2014 11:19:48

Test Date: 01-14-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz OFDM MAC: 000456C1A853
Test: Band-Edge Measurements – Radiated from cabinet
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Average
Trace = Max Hold
Low Channel Transmit = 2.412 GHz
Test software setting: 26 (used to get 25 dBm output)
20 MHz CH BW Both chains 0 and 1 active
Band-Edge Frequency = 2.400 GHz (using restricted band limits)
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15
Both ports 50-Ohm terminated

Polarization = Horizontal Peak

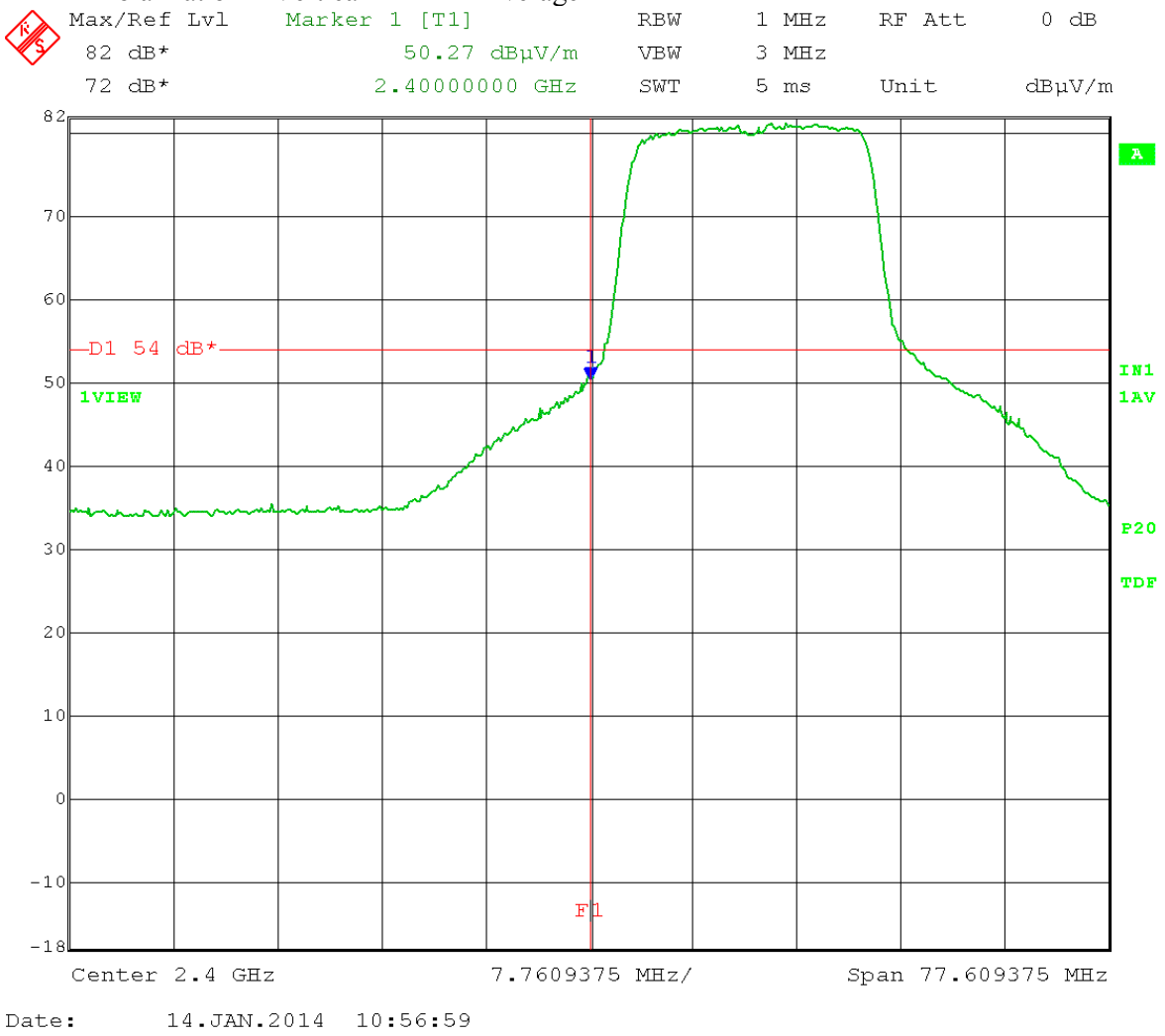



Date: 14.JAN.2014 11:18:04

Test Date: 01-14-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz OFDM MAC: 000456C1A853
Test: Band-Edge Measurements – Radiated from cabinet
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Average
Trace = Max Hold
Low Channel Transmit = 2.412 GHz
Test software setting: 26 (used to get 25 dBm output)
20 MHz CH BW Both chains 0 and 1 active
Band-Edge Frequency = 2.400 GHz (using restricted band limits)
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15
Both ports 50-Ohm terminated

Polarization = Vertical Average

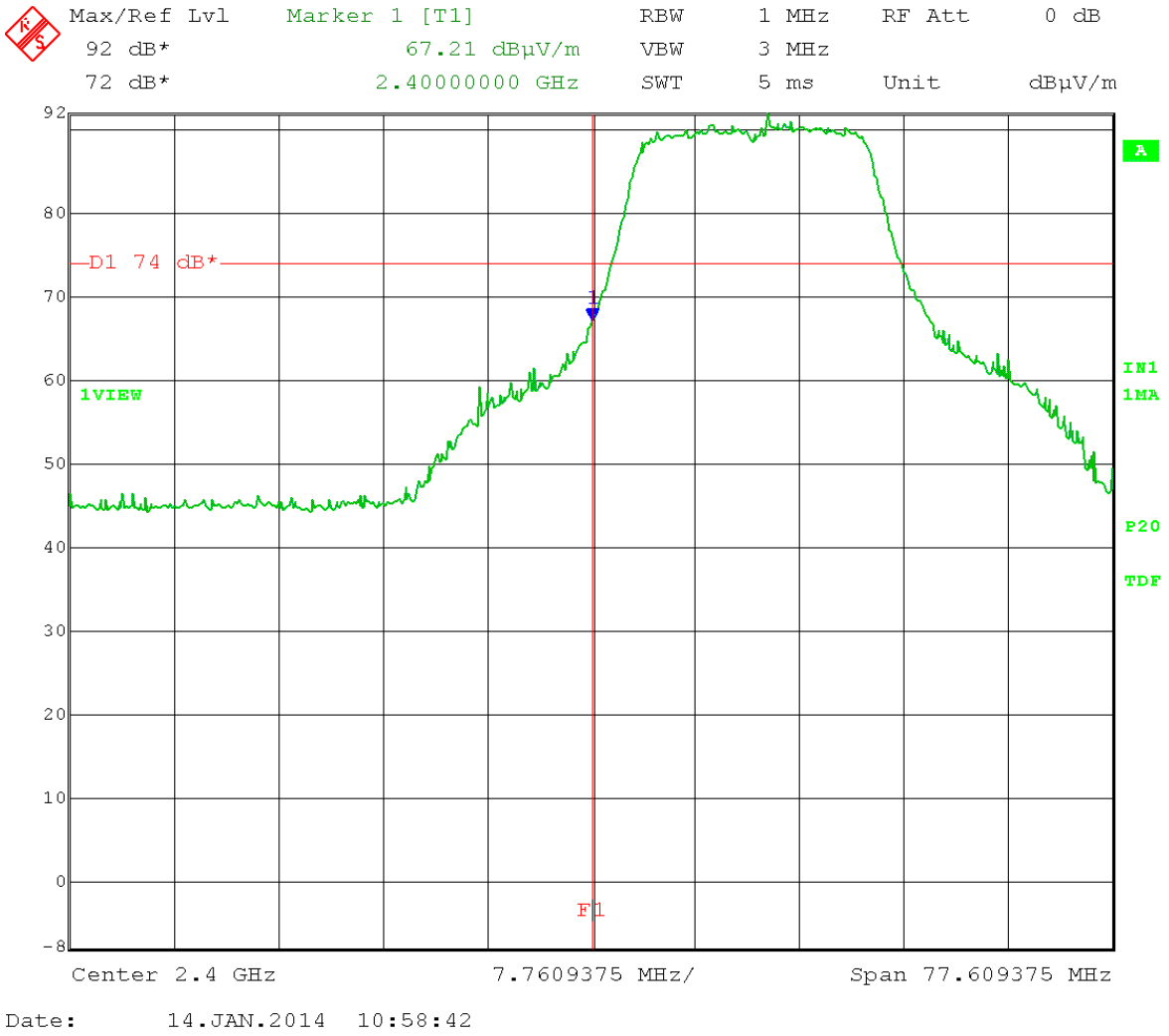



Date: 14.JAN.2014 10:56:59

Test Date: 01-14-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz OFDM MAC: 000456C1A853
Test: Band-Edge Measurements – Radiated from cabinet
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Average
Trace = Max Hold
Low Channel Transmit = 2.412 GHz
Test software setting: 26 (used to get 25 dBm output)
20 MHz CH BW Both chains 0 and 1 active
Band-Edge Frequency = 2.400 GHz (using restricted band limits)
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15
Both ports 50-Ohm terminated

Polarization = Vertical Peak

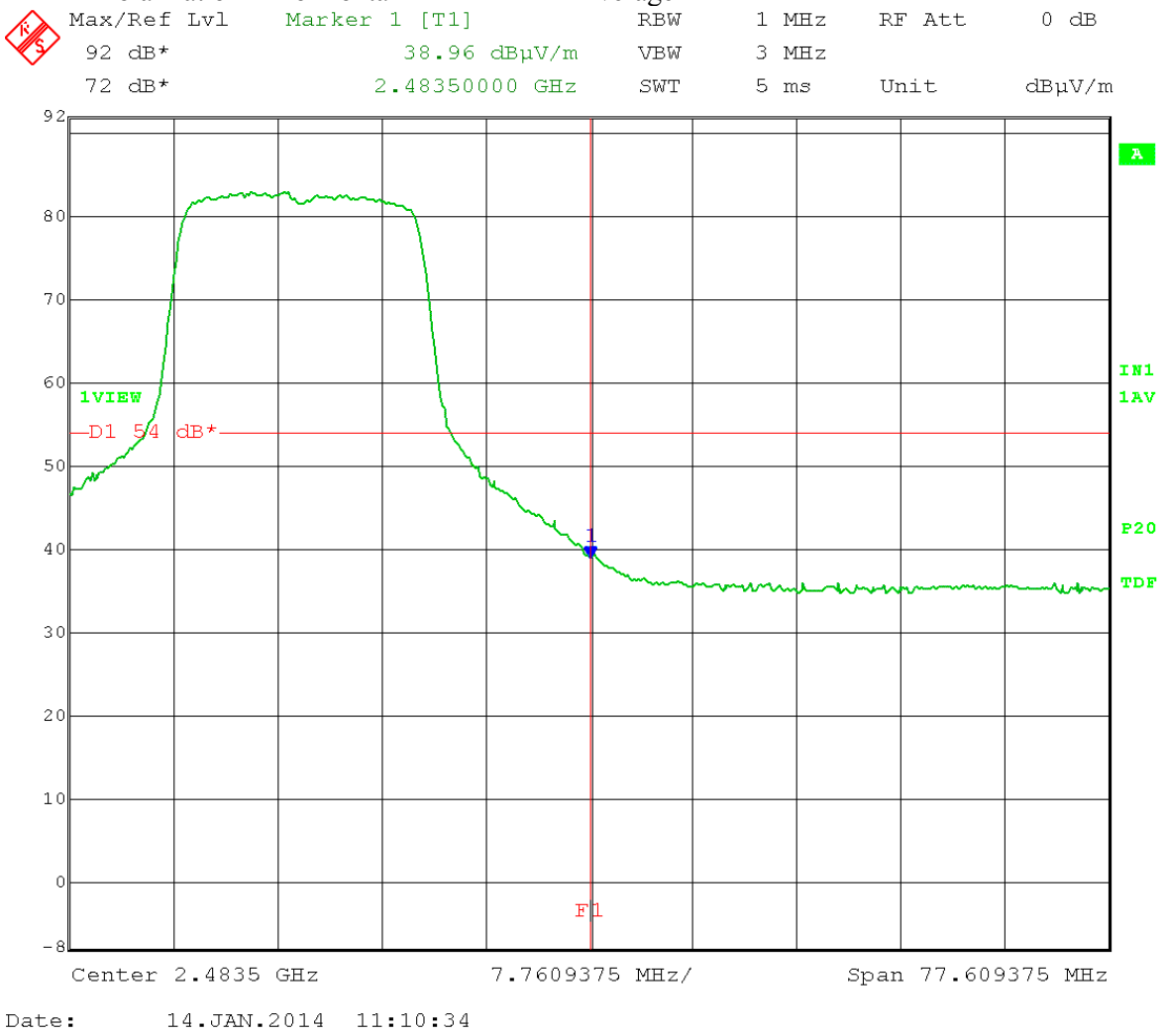



Date: 14.JAN.2014 10:58:42

Test Date: 01-14-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz OFDM MAC: 000456C1A853
Test: Band-Edge Measurements – Radiated from cabinet
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Average
Trace = Max Hold
High Channel Transmit = 2.462 GHz
Test software setting: 26 (used to get 25 dBm output)
20 MHz CH BW Both chains 0 and 1 active
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15
Both ports 50-Ohm terminated

Polarization = Horizontal Average

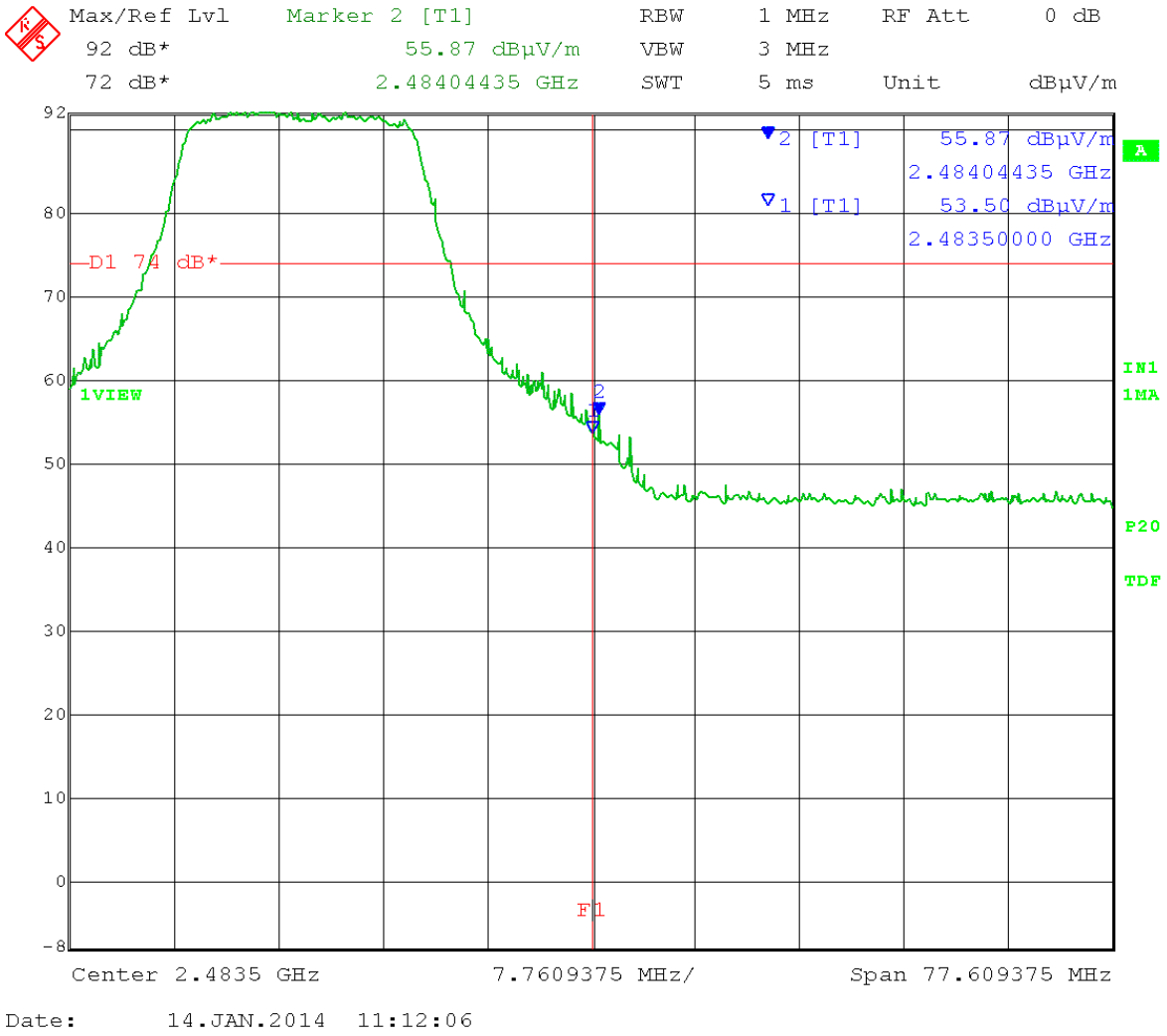



Date: 14.JAN.2014 11:10:34

Test Date: 01-14-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz OFDM MAC: 000456C1A853
Test: Band-Edge Measurements – Radiated from cabinet
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Average
Trace = Max Hold
High Channel Transmit = 2.462 GHz
Test software setting: 26 (used to get 25 dBm output)
20 MHz CH BW Both chains 0 and 1 active
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15
Both ports 50-Ohm terminated

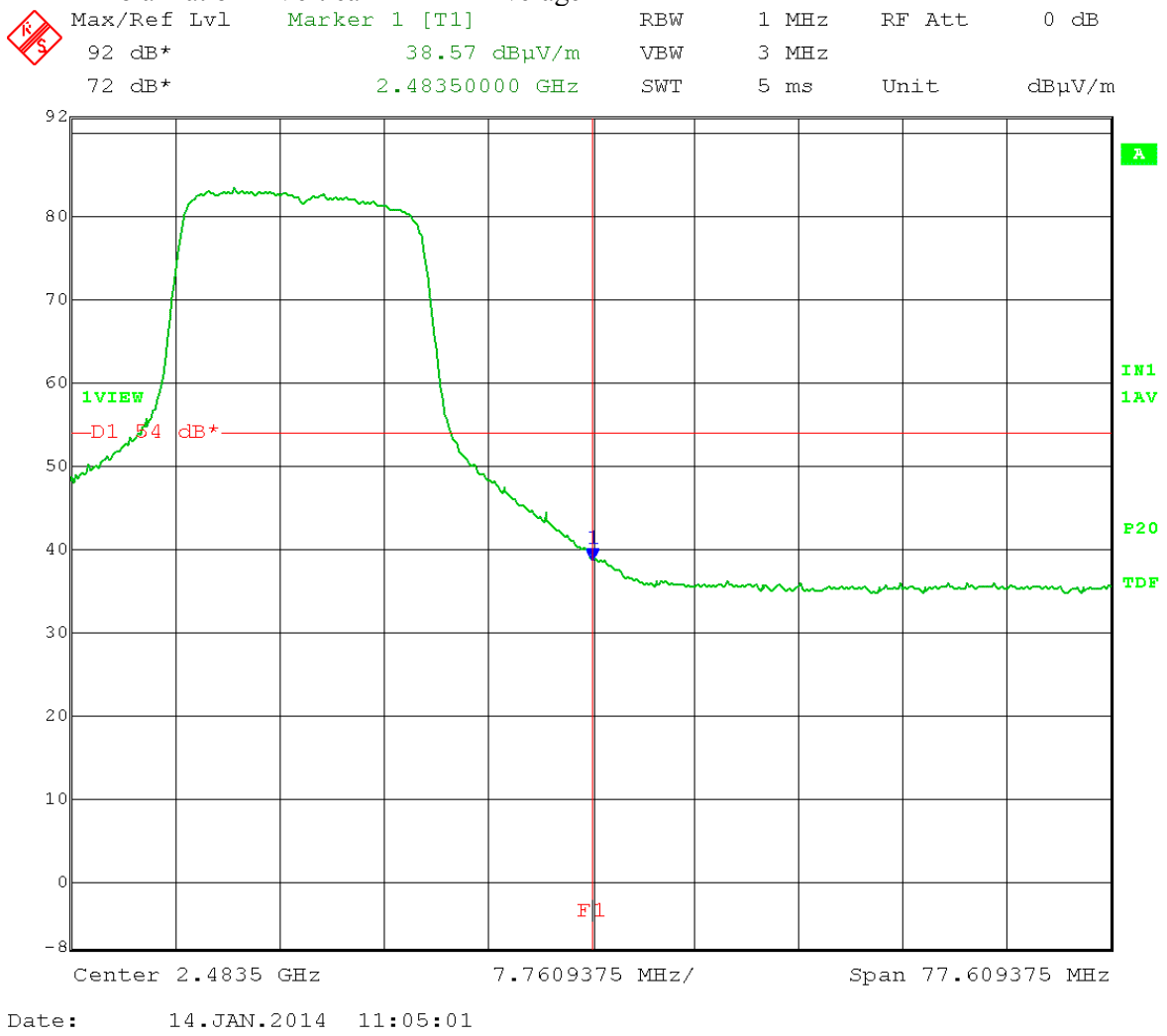
Polarization = Horizontal Peak



Test Date: 01-14-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz OFDM MAC: 000456C1A853
Test: Band-Edge Measurements – Radiated from cabinet
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Average
Trace = Max Hold
High Channel Transmit = 2.462 GHz
Test software setting: 26 (used to get 25 dBm output)
20 MHz CH BW Both chains 0 and 1 active
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15
Both ports 50-Ohm terminated

Polarization = Vertical Average

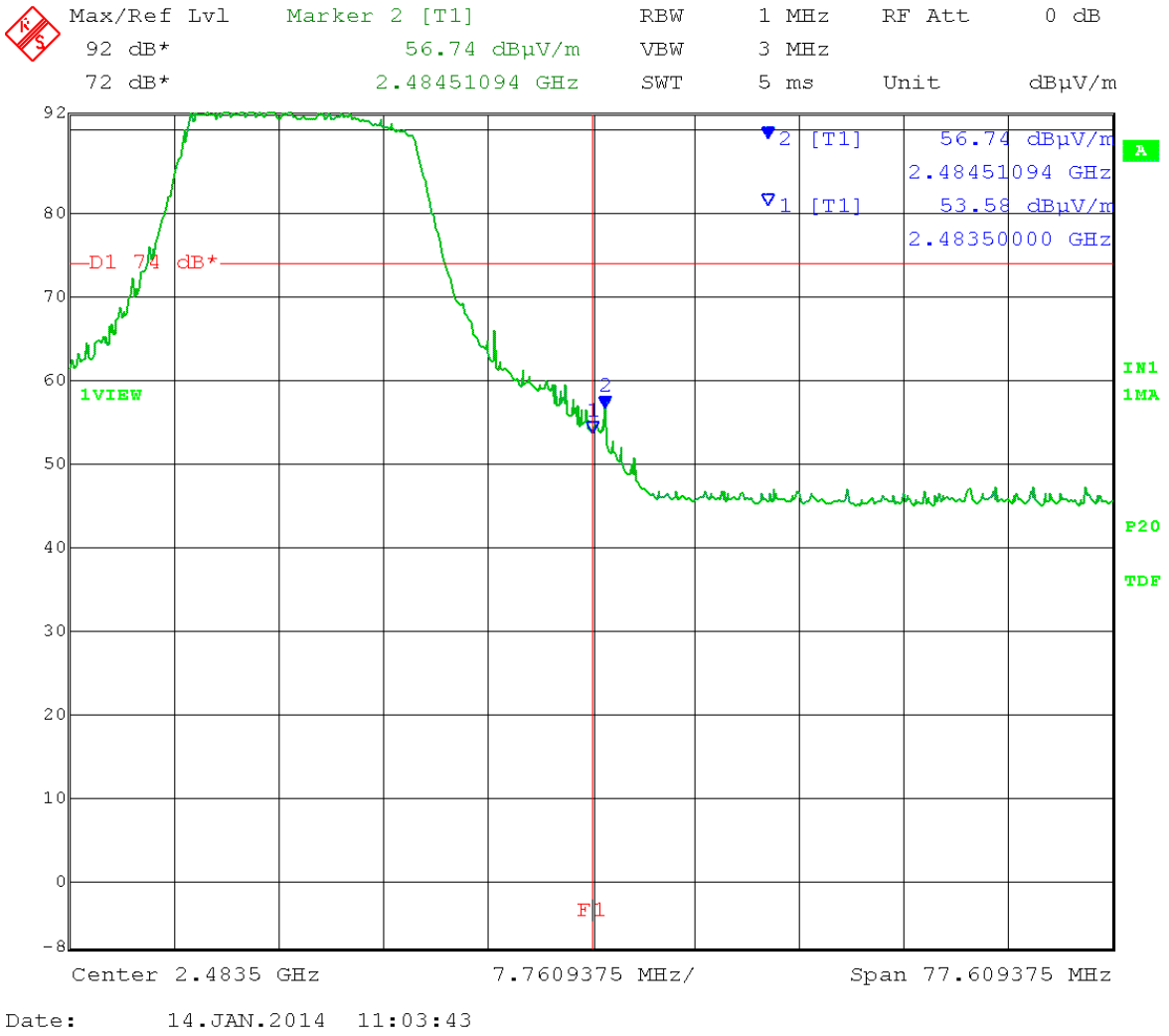



Date: 14.JAN.2014 11:05:01

Test Date: 01-14-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz OFDM MAC: 000456C1A853
Test: Band-Edge Measurements – Radiated from cabinet
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Average
Trace = Max Hold
High Channel Transmit = 2.462 GHz
Test software setting: 26 (used to get 25 dBm output)
20 MHz CH BW Both chains 0 and 1 active
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15
Both ports 50-Ohm terminated

Polarization = Vertical Peak

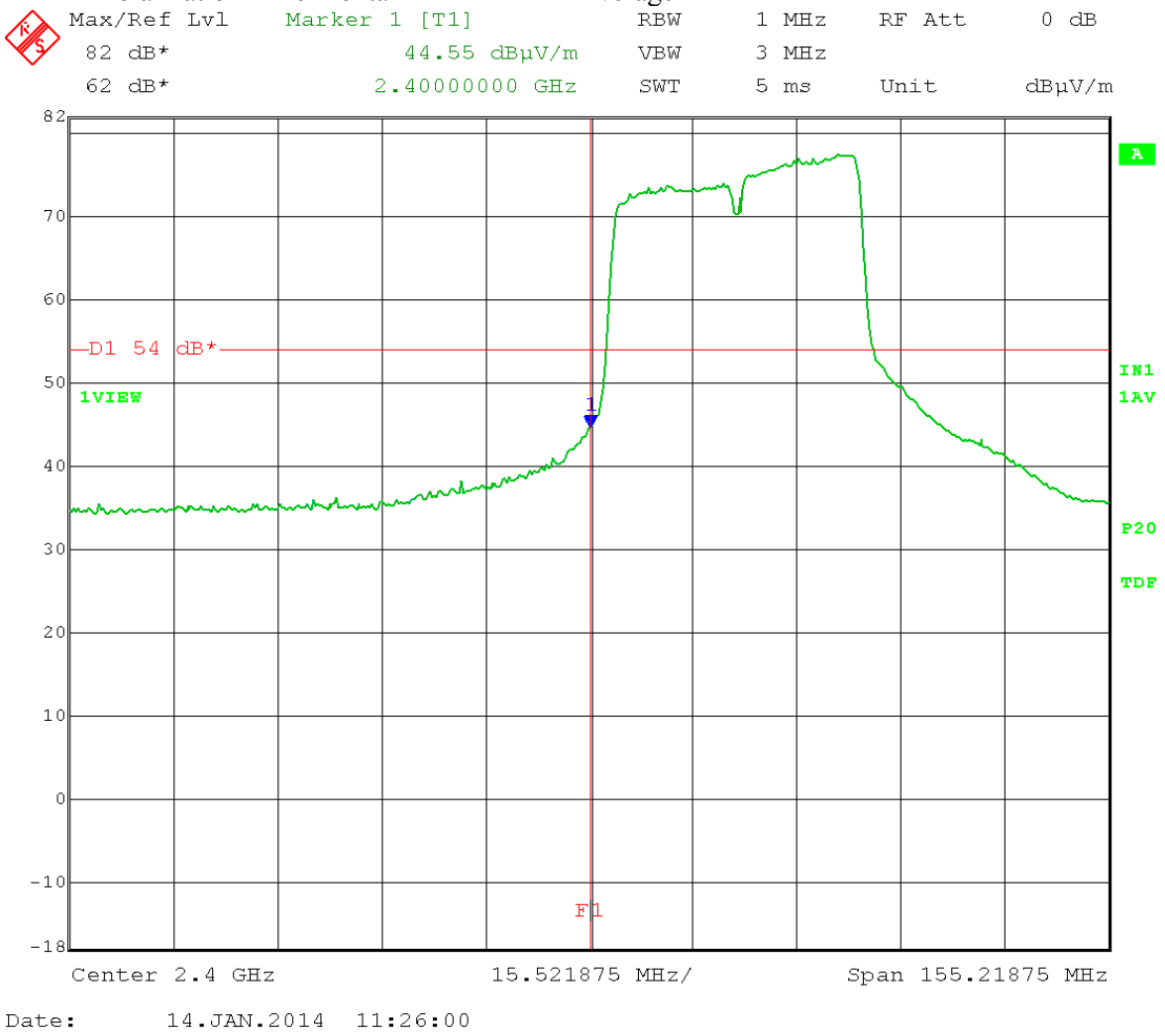



Date: 14.JAN.2014 11:03:43

Test Date: 01-14-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz OFDM MAC: 000456C1A853
Test: Band-Edge Measurements – Radiated from cabinet
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Average
Trace = Max Hold
Low Channel Transmit = 2.422 GHz
Test software setting: 26 (used to get 25 dBm output)
40 MHz CH BW Both chains 0 and 1 active
Band-Edge Frequency = 2.400 GHz (using restricted band limits)
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15
Both ports 50-Ohm terminated

Polarization = Horizontal Average

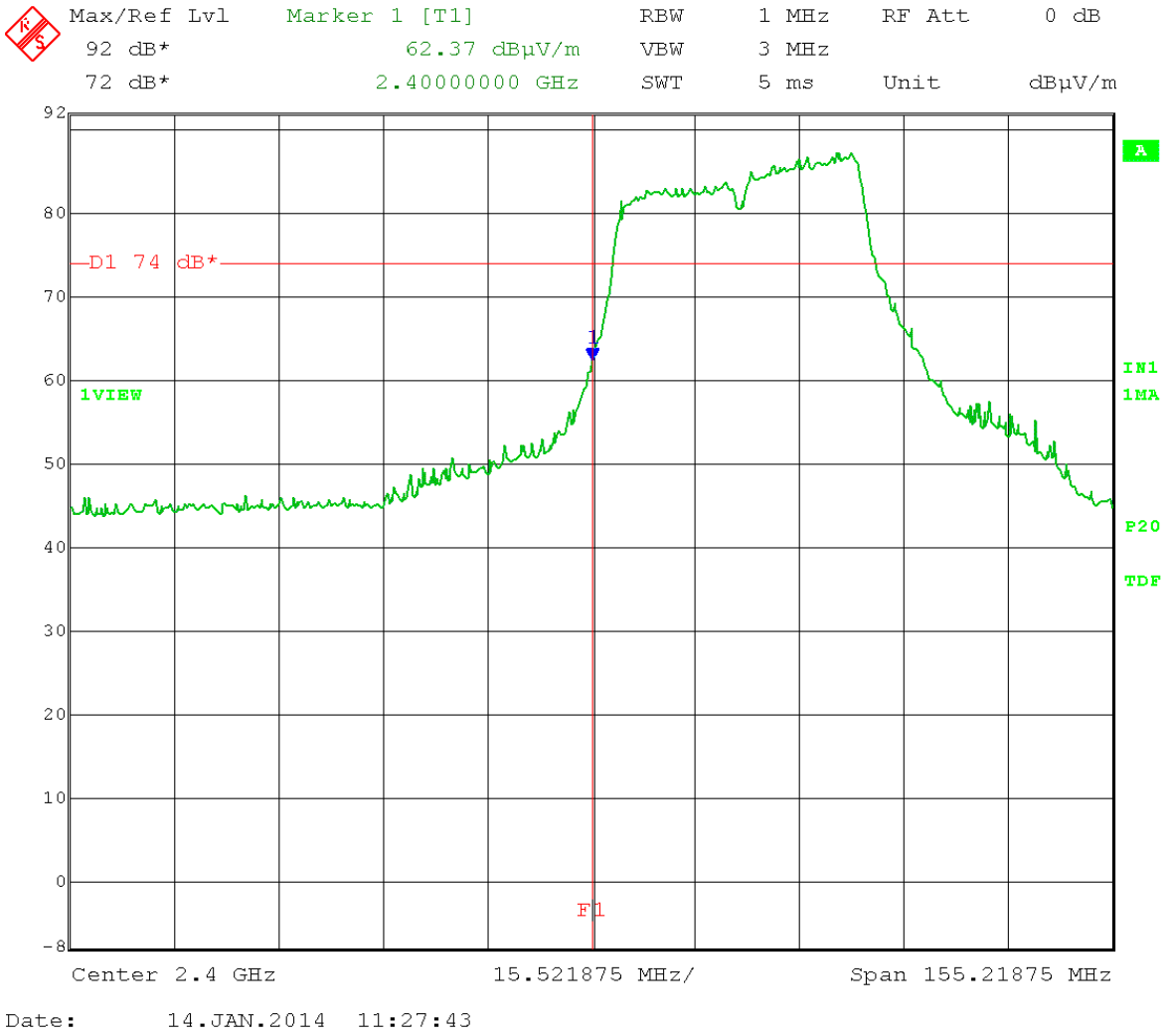



Date: 14.JAN.2014 11:26:00

Test Date: 01-14-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz OFDM MAC: 000456C1A853
Test: Band-Edge Measurements – Radiated from cabinet
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Average
Trace = Max Hold
Low Channel Transmit = 2.422 GHz
Test software setting: 26 (used to get 25 dBm output)
40 MHz CH BW Both chains 0 and 1 active
Band-Edge Frequency = 2.400 GHz (using restricted band limits)
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15
Both ports 50-Ohm terminated

Polarization = Horizontal Peak

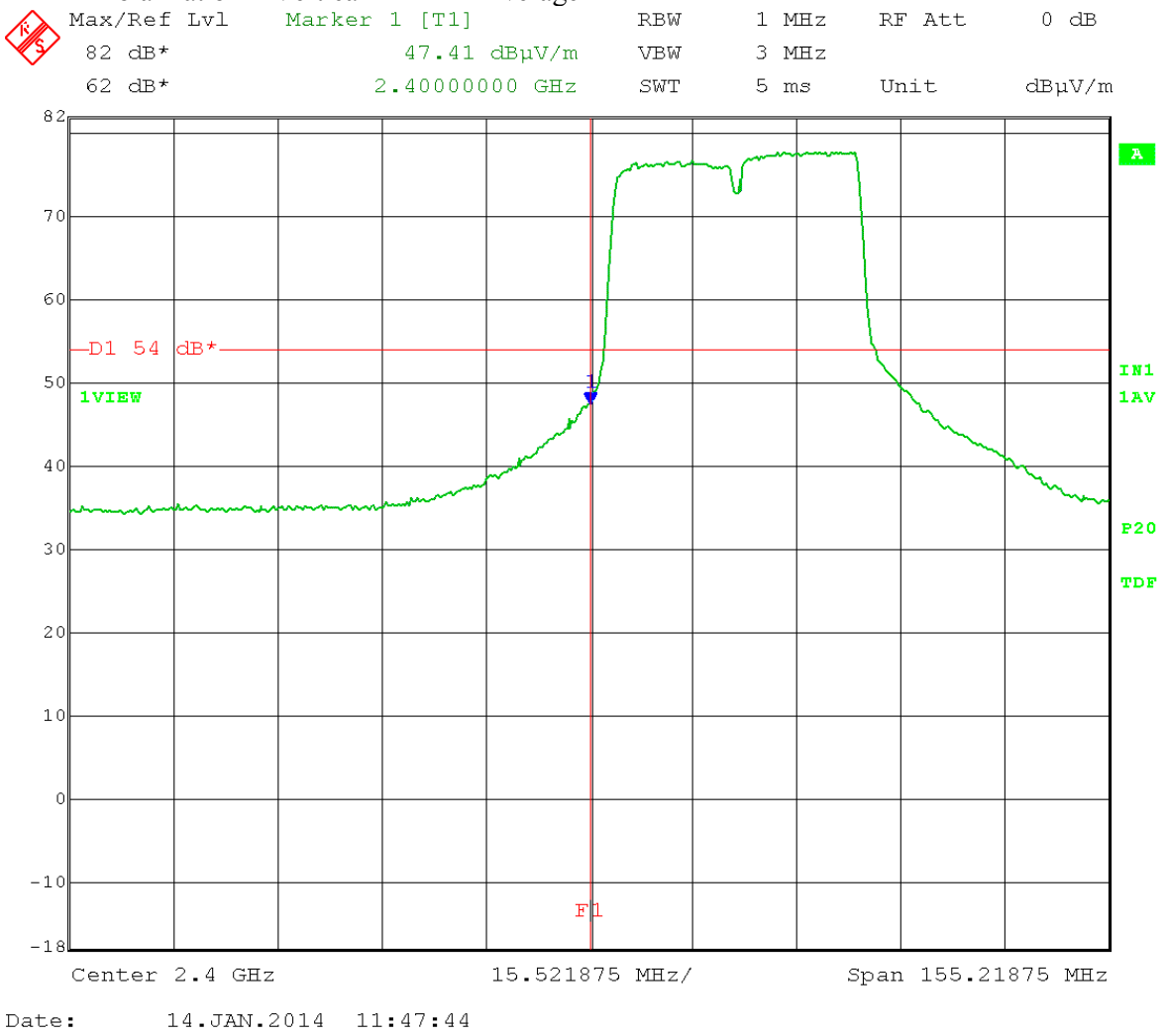



Date: 14.JAN.2014 11:27:43

Test Date: 01-14-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz OFDM MAC: 000456C1A853
Test: Band-Edge Measurements – Radiated from cabinet
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Average
Trace = Max Hold
Low Channel Transmit = 2.422 GHz
Test software setting: 26 (used to get 25 dBm output)
40 MHz CH BW Both chains 0 and 1 active
Band-Edge Frequency = 2.400 GHz (using restricted band limits)
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15
Both ports 50-Ohm terminated

Polarization = Vertical Average

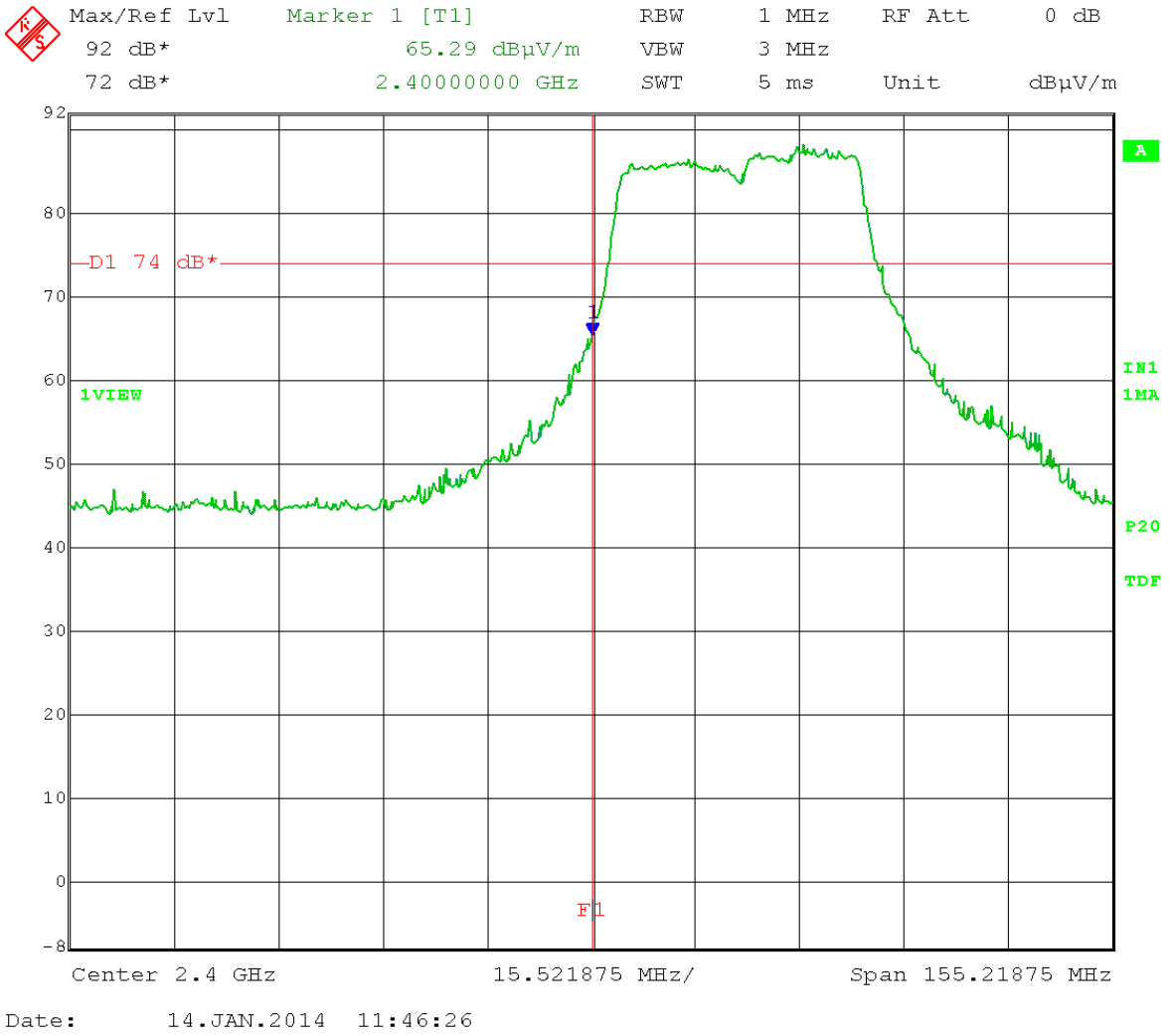



Date: 14.JAN.2014 11:47:44

Test Date: 01-14-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz OFDM MAC: 000456C1A853
Test: Band-Edge Measurements – Radiated from cabinet
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Average
Trace = Max Hold
Low Channel Transmit = 2.422 GHz
Test software setting: 26 (used to get 25 dBm output)
40 MHz CH BW Both chains 0 and 1 active
Band-Edge Frequency = 2.400 GHz (using restricted band limits)
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15
Both ports 50-Ohm terminated

Polarization = Vertical Peak

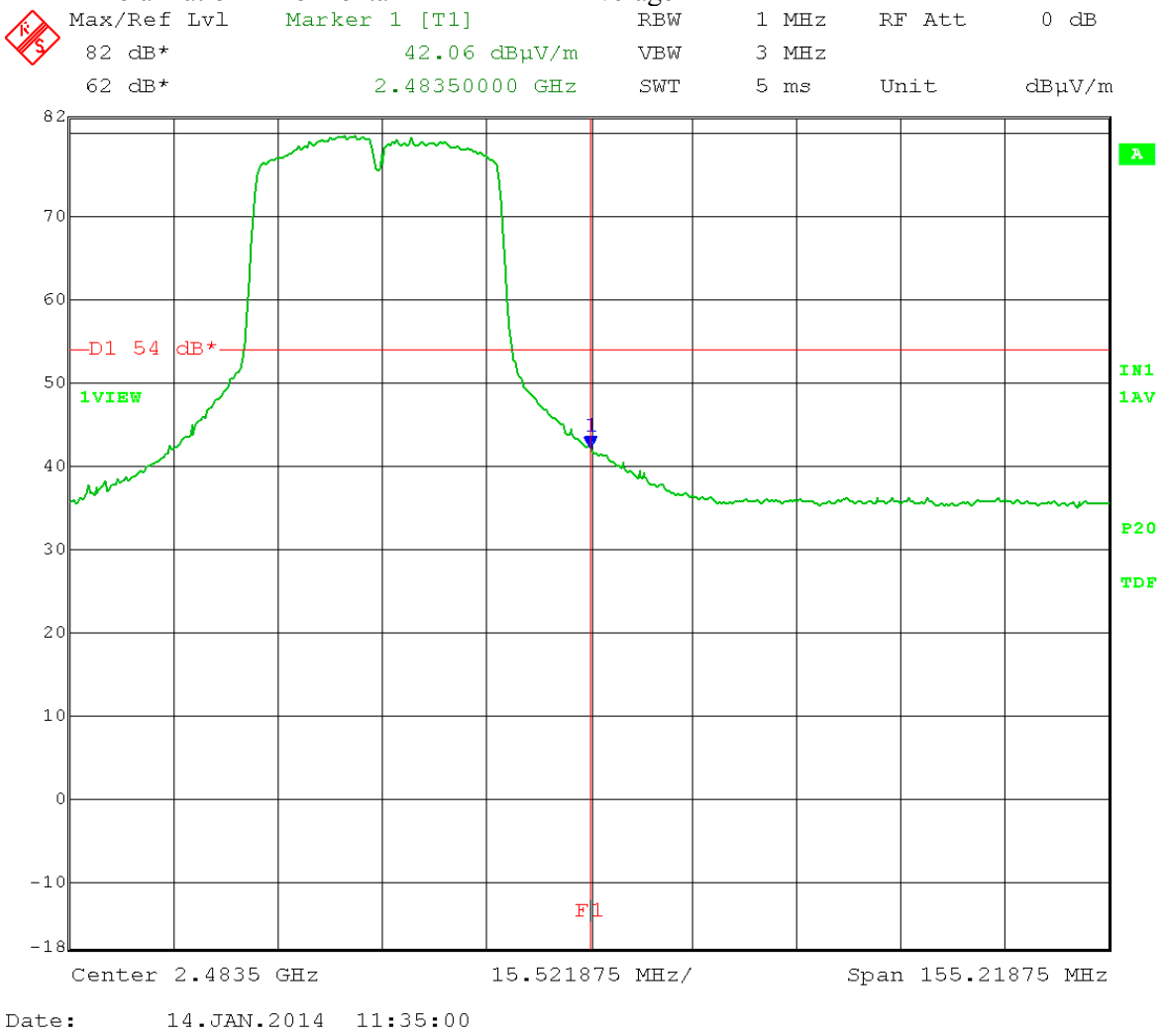



Date: 14.JAN.2014 11:46:26

Test Date: 01-14-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz OFDM MAC: 000456C1A853
Test: Band-Edge Measurements – Radiated from cabinet
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Average
Trace = Max Hold
High Channel Transmit = 2.452 GHz
Test software setting: 26 (used to get 25 dBm output)
40 MHz CH BW Both chains 0 and 1 active
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15
Both ports 50-Ohm terminated

Polarization = Horizontal Average

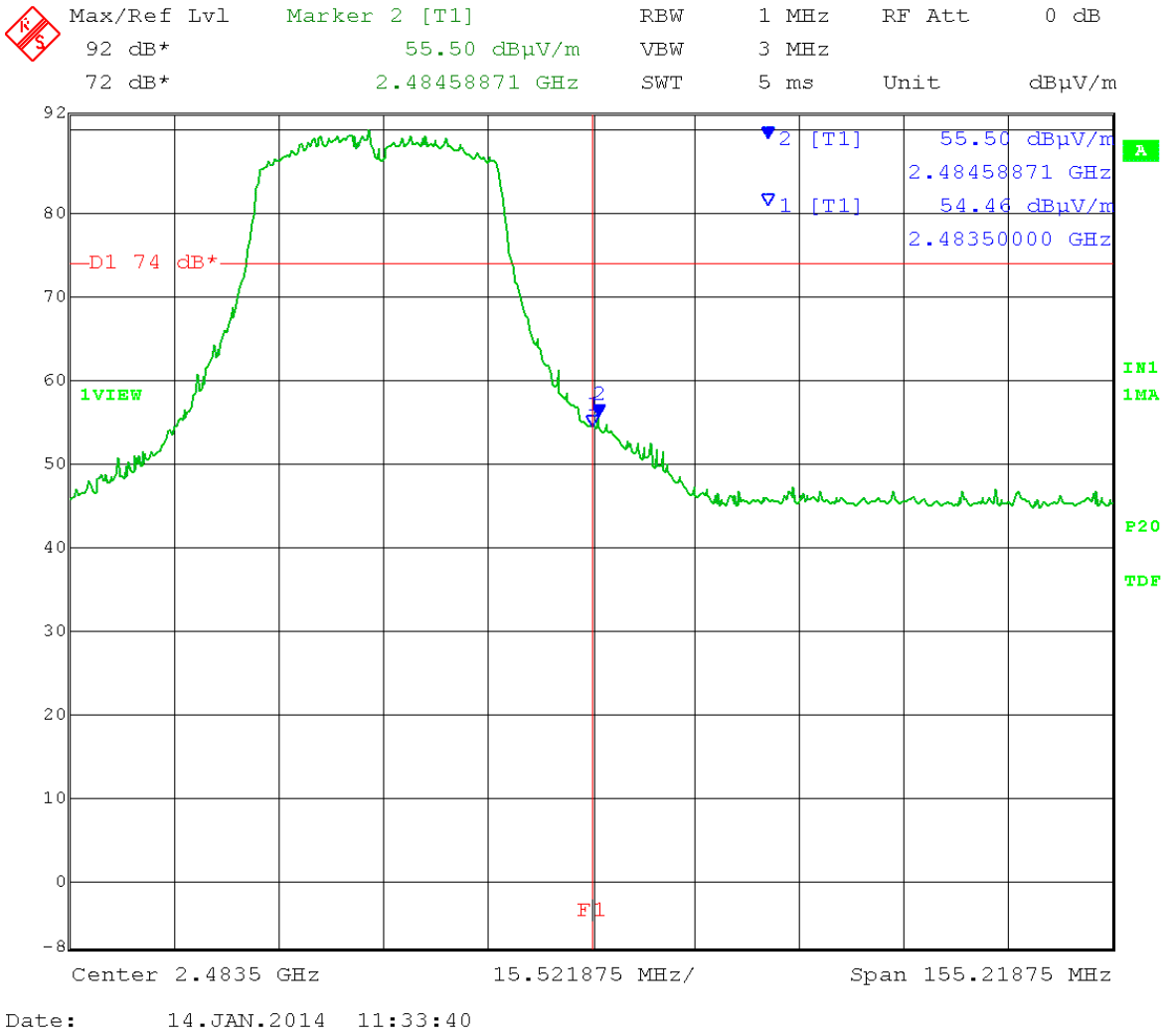



Date: 14.JAN.2014 11:35:00

Test Date: 01-14-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz OFDM MAC: 000456C1A853
Test: Band-Edge Measurements – Radiated from cabinet
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Average
Trace = Max Hold
High Channel Transmit = 2.452 GHz
Test software setting: 26 (used to get 25 dBm output)
40 MHz CH BW Both chains 0 and 1 active
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15
Both ports 50-Ohm terminated

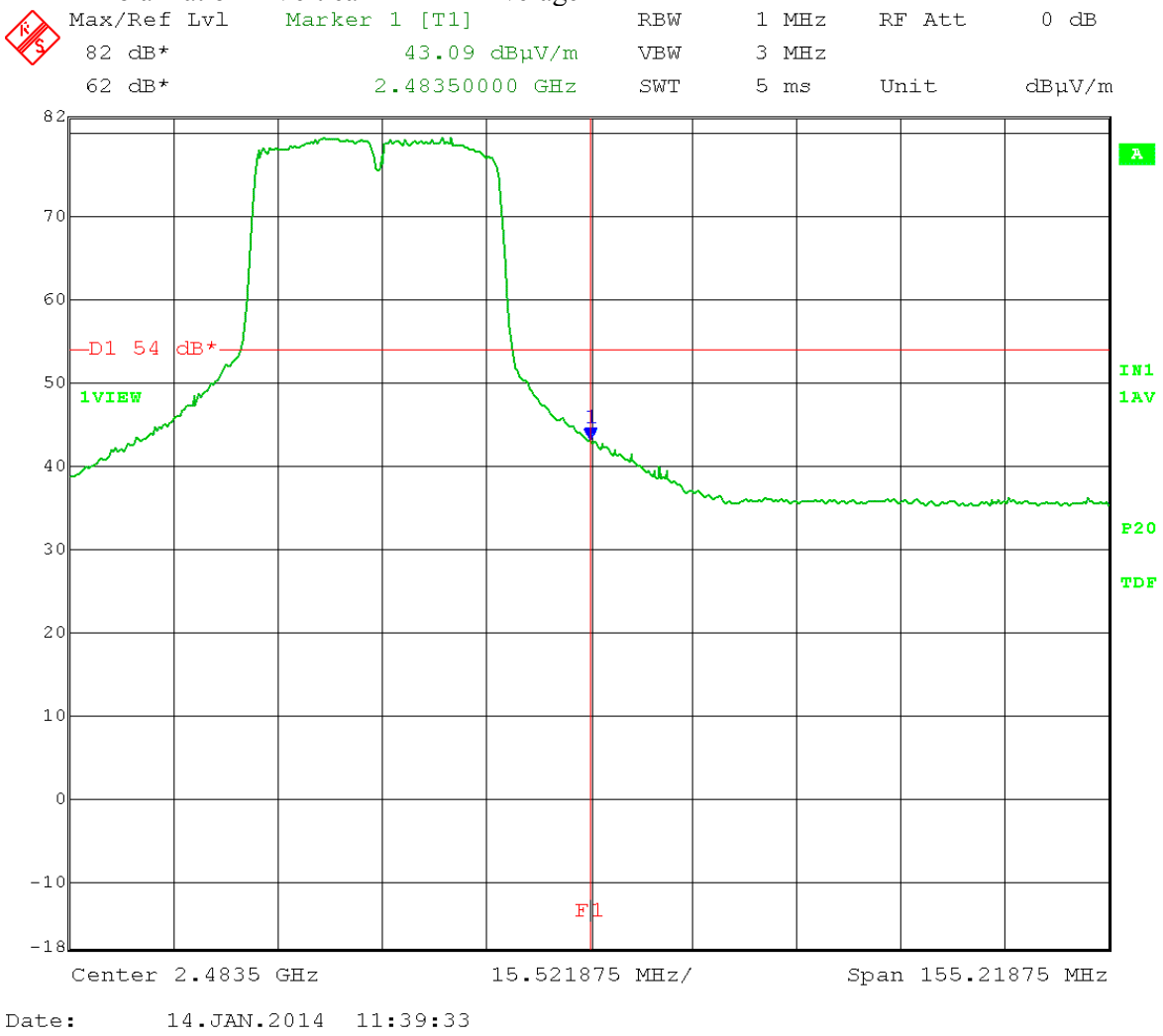
Polarization = Horizontal Peak



Test Date: 01-14-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz OFDM MAC: 000456C1A853
Test: Band-Edge Measurements – Radiated from cabinet
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Average
Trace = Max Hold
High Channel Transmit = 2.452 GHz
Test software setting: 26 (used to get 25 dBm output)
40 MHz CH BW Both chains 0 and 1 active
Restricted Band-Edge Frequency = 2.4835 GHz
Average Limit = 54 dBuV/m
Modulation Type: OFDM MCS15
Both ports 50-Ohm terminated

Polarization = Vertical Average

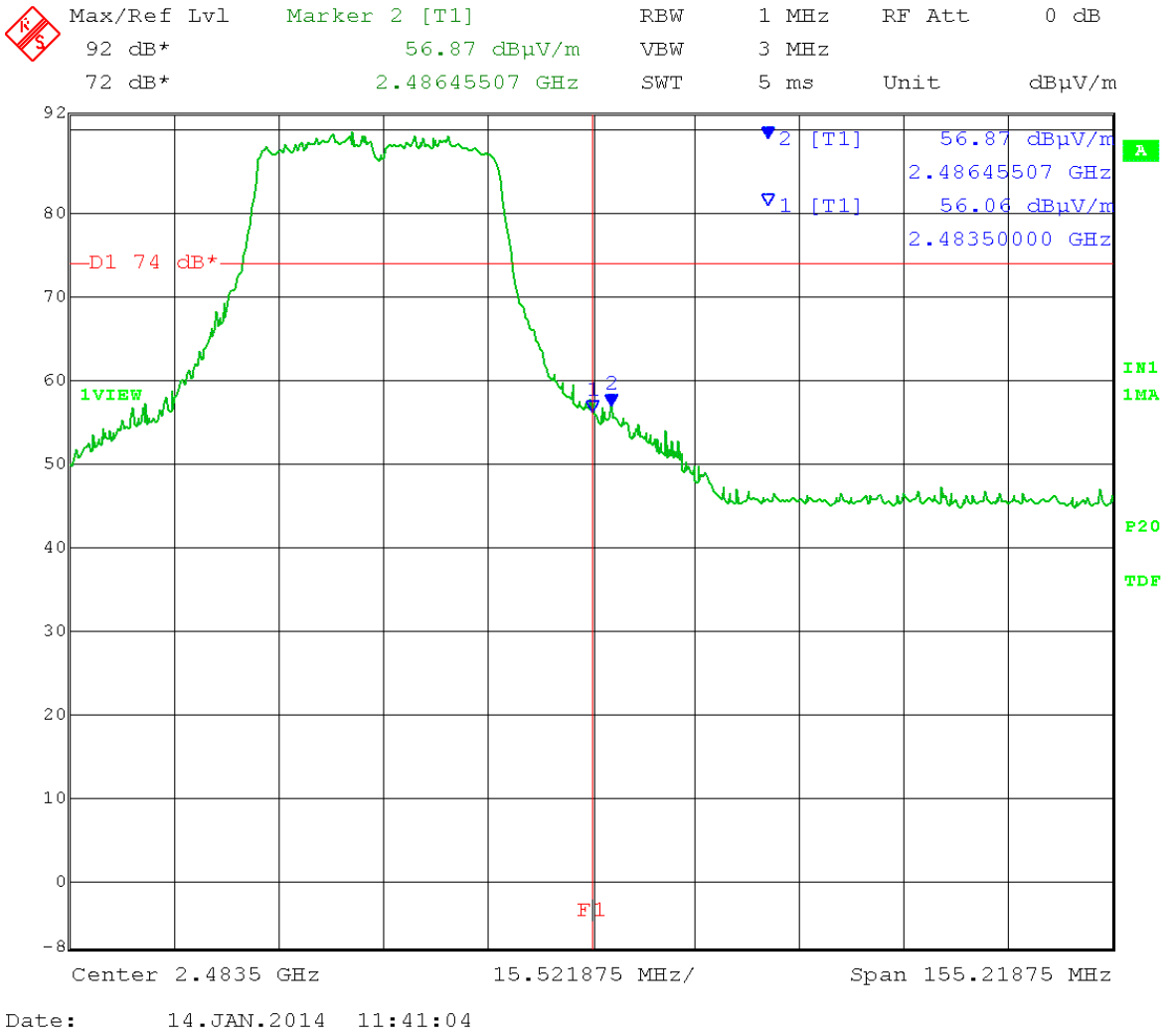



Date: 14.JAN.2014 11:39:33

Test Date: 01-14-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz OFDM MAC: 000456C1A853
Test: Band-Edge Measurements – Radiated from cabinet
Operator: Craig B

Comment: RBW = 1MHz
VBW ≥ 3MHz
Detector = Average
Trace = Max Hold
High Channel Transmit = 2.452 GHz
Test software setting: 26 (used to get 25 dBm output)
40 MHz CH BW Both chains 0 and 1 active
Restricted Band-Edge Frequency = 2.4835 GHz
Peak Limit = 74 dBuV/m
Modulation Type: OFDM MCS15
Both ports 50-Ohm terminated

Polarization = Vertical Peak




Date: 14.JAN.2014 11:41:04

## Appendix B – Measurement Data

### B9.0 Duty Cycle of Test Unit

**Rule Part:** FCC Section 15.35(c)

**Test Procedure:** ANSI C63.10-2009 Section 7.5

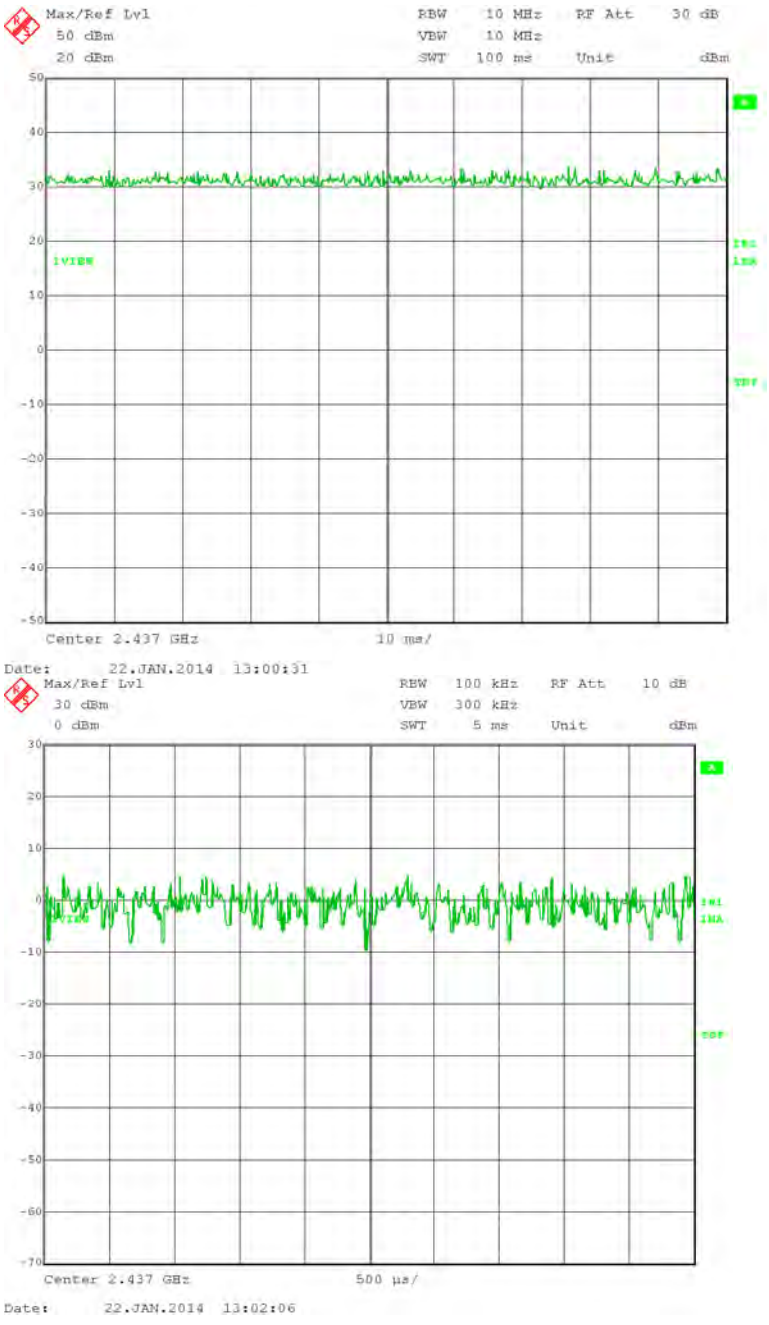
**Limits:** Informative

**Results:** EUT is continuously transmitting (duty cycle = 100%).

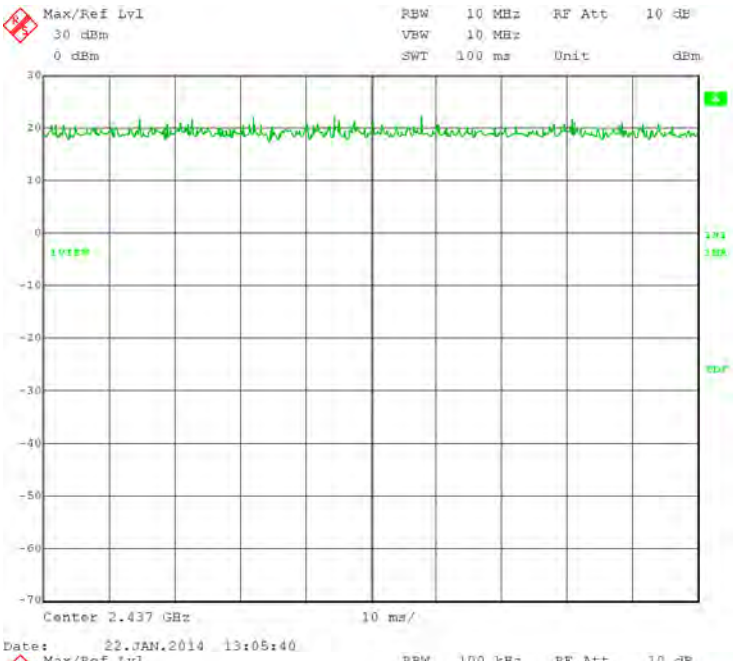
**Sample Equations:** None

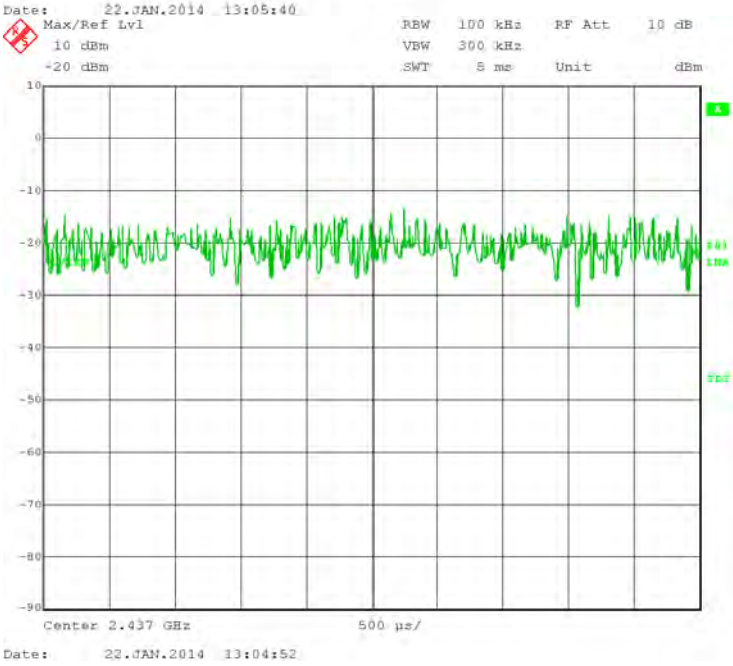
**Notes:** No duty cycle correction factor was applied to measurements for this device.

Test Date: 01-22-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Duty Cycle during testing
Operator: Craig B
20 MHz channel bandwidth; OFDM MCS15
Comment: Duty cycle = 100%



Test Date: 01-22-2014
Company: Cambium Networks
EUT: EPMP 2.4 GHz AP MAC: 000456C1A853
Test: Duty Cycle during testing
Operator: Craig B
40 MHz channel bandwidth; OFDM MCS15
Comment: Duty cycle = 100%



## Appendix B – Measurement Data

### B10.0 AC Line Conducted Emissions

**Rule Part:** FCC Part 15.207

**Test Procedure:** ANSI C63.10-2009
Section 6.2

**Limit:** FCC Part 15.207(a)

**Results:** Compliant

**Notes:** This was an AC Conducted emissions measurement.
The EUT was powered from a representative AC Adapter with an input of 120 VAC 60 Hz.

## *FCC Part 15.207  Class B*

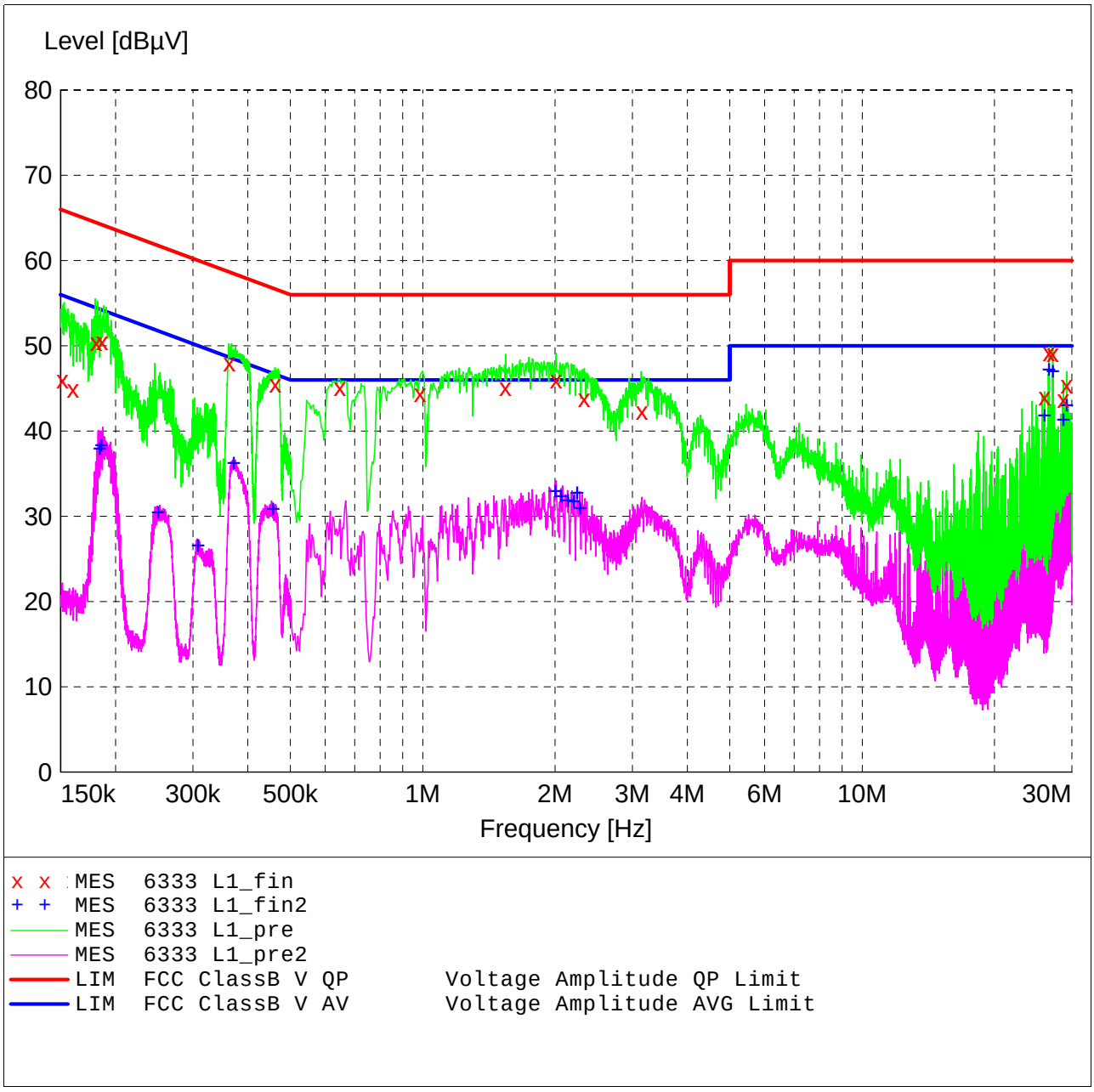
## *Voltage Mains Test*

EUT: EPMP 2.4GHz AP MIMO Radio (DTS)
Manufacturer: Cambium Networks
Operating Condition: 72 deg. F,  21%  R.H.
Test Site: DLS O.F. Screen Room
Operator: John S
Test Specification: 120 V  60 Hz, L1
Comment:
Date: 01-23-2014

## *SCAN TABLE: "Line Cond SR Final"*

Short Description: Line Conducted Emissions

| Start Frequency | Stop Frequency | Step Width | Detector | Meas. Time | IF Bandw. | Transducer |
|---|---|---|---|---|---|---|
| 150.0 kHz | 30.0 MHz | 4.0 kHz | QuasiPeak CISPR AV | 3.0 s | 9 kHz | LISN DLS#128 |



***MEASUREMENT RESULT: "6333 L1_fin"***

1/23/2014 10:10AM

| Frequency MHz | Level dBµV | Transd dB | Limit dBµV | Margin dB | Detector |
|---|---|---|---|---|---|
| 0.151400 | 46.00 | 13.8 | 66 | 19.9 | QP |
| 0.160000 | 44.90 | 13.5 | 66 | 20.6 | QP |
| 0.180800 | 50.40 | 13.1 | 64 | 14.0 | QP |
| 0.186600 | 50.50 | 13.0 | 64 | 13.7 | QP |
| 0.363600 | 48.00 | 11.6 | 59 | 10.6 | QP |
| 0.462400 | 45.50 | 11.3 | 57 | 11.1 | QP |
| 0.648000 | 45.10 | 10.9 | 56 | 10.9 | QP |
| 0.988000 | 44.40 | 10.7 | 56 | 11.6 | QP |
| 1.544000 | 45.10 | 10.6 | 56 | 10.9 | QP |
| 2.012000 | 46.00 | 10.6 | 56 | 10.0 | QP |
| 2.332000 | 43.80 | 10.6 | 56 | 12.2 | QP |
| 3.156000 | 42.40 | 10.7 | 56 | 13.6 | QP |
| 25.997000 | 44.00 | 11.6 | 60 | 16.0 | QP |
| 26.609000 | 49.20 | 11.6 | 60 | 10.8 | QP |
| 27.158000 | 49.10 | 11.6 | 60 | 10.9 | QP |
| 28.688000 | 43.70 | 11.6 | 60 | 16.3 | QP |
| 29.237000 | 45.40 | 11.6 | 60 | 14.6 | QP |

***MEASUREMENT RESULT: "6333 L1_fin2"***

1/23/2014 10:10AM

| Frequency MHz | Level dBµV | Transd dB | Limit dBµV | Margin dB | Detector |
|---|---|---|---|---|---|
| 0.184400 | 38.00 | 13.0 | 54 | 16.3 | CAV |
| 0.186000 | 38.30 | 13.0 | 54 | 15.9 | CAV |
| 0.250200 | 30.50 | 12.2 | 52 | 21.3 | CAV |
| 0.308400 | 26.60 | 11.9 | 50 | 23.4 | CAV |
| 0.371400 | 36.30 | 11.6 | 49 | 12.2 | CAV |
| 0.456800 | 30.90 | 11.3 | 47 | 15.9 | CAV |
| 2.004000 | 33.00 | 10.6 | 46 | 13.0 | CAV |
| 2.064000 | 32.40 | 10.6 | 46 | 13.6 | CAV |
| 2.144000 | 31.90 | 10.6 | 46 | 14.1 | CAV |
| 2.212000 | 31.80 | 10.6 | 46 | 14.2 | CAV |
| 2.248000 | 32.80 | 10.6 | 46 | 13.2 | CAV |
| 2.280000 | 31.00 | 10.7 | 46 | 15.0 | CAV |
| 25.997000 | 41.80 | 11.6 | 50 | 8.2 | CAV |
| 26.609000 | 47.20 | 11.6 | 50 | 2.8 | CAV |
| 27.158000 | 47.00 | 11.6 | 50 | 3.0 | CAV |
| 28.688000 | 41.30 | 11.6 | 50 | 8.7 | CAV |
| 29.237000 | 43.00 | 11.6 | 50 | 7.0 | CAV |

## *FCC Part 15.207  Class B*

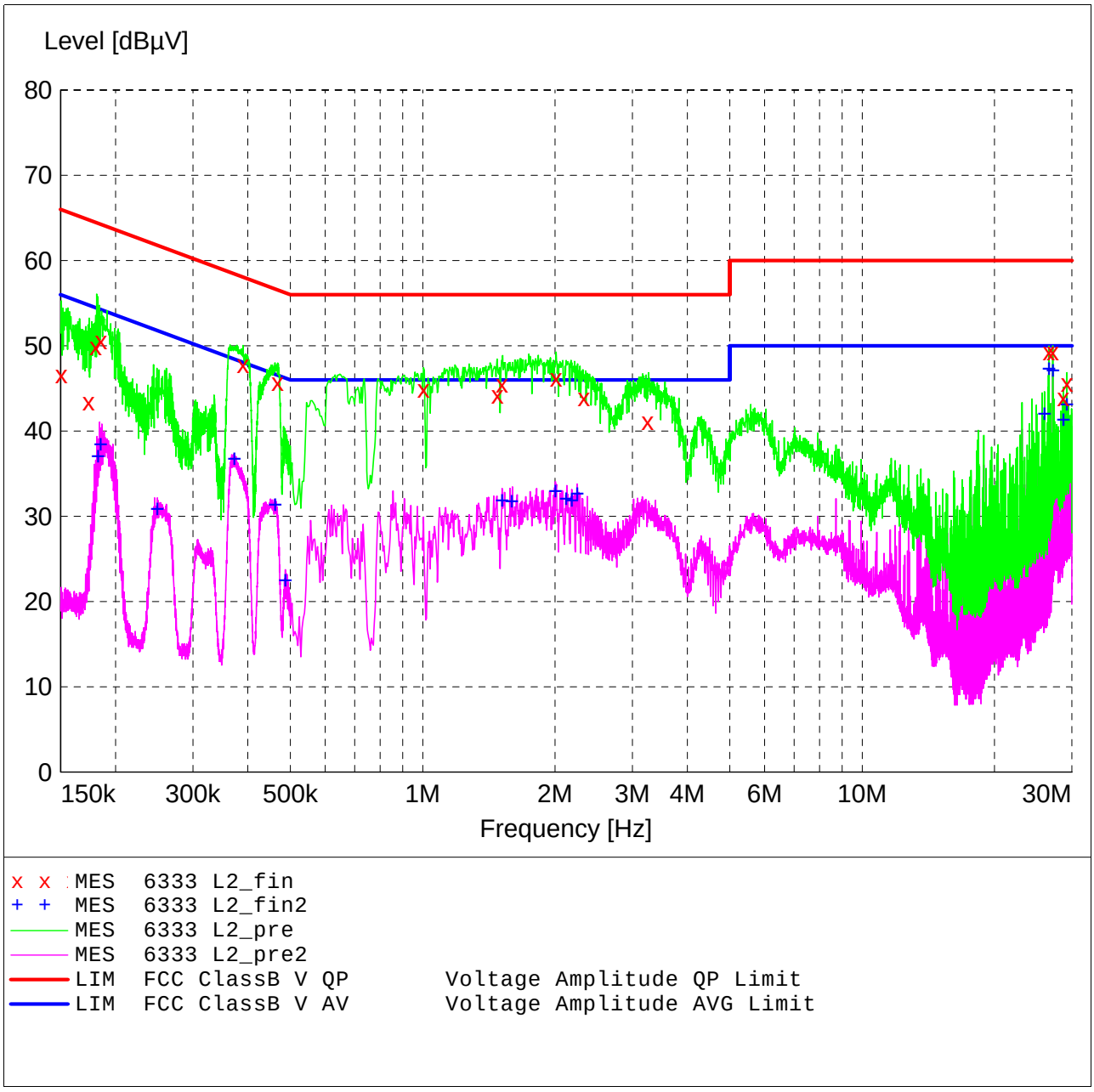
## *Voltage Mains Test*

| | |
|---|---|
| EUT: | EPMP 2.4GHz AP MIMO Radio (DTS) |
| Manufacturer: | Cambium Networks |
| Operating Condition: | 72 deg. F,  21%  R.H. |
| Test Site: | DLS O.F. Screen Room |
| Operator: | John S |
| Test Specification: | 120 V  60 Hz, L2 |
| Comment: | |
| | Date: 01-23-2014 |

### *SCAN TABLE: "Line Cond SR Final"*

Short Description: Line Conducted Emissions

| Start Frequency | Stop Frequency | Step Width | Detector | Meas. Time | IF Bandw. | Transducer |
|---|---|---|---|---|---|---|
| 150.0 kHz | 30.0 MHz | 4.0 kHz | QuasiPeak CISPR AV | 3.0 s | 9 kHz | LISN DLS#128 |



***MEASUREMENT RESULT: "6333 L2_fin"***

1/23/2014 10:16AM

| Frequency MHz | Level dBµV | Transd dB | Limit dBµV | Margin dB | Detector |
|---|---|---|---|---|---|
| 0.150600 | 46.60 | 13.8 | 66 | 19.4 | QP |
| 0.173800 | 43.40 | 13.2 | 65 | 21.4 | QP |
| 0.180200 | 49.90 | 13.1 | 65 | 14.6 | QP |
| 0.185600 | 50.60 | 13.0 | 64 | 13.6 | QP |
| 0.390000 | 47.80 | 11.5 | 58 | 10.3 | QP |
| 0.467800 | 45.70 | 11.3 | 57 | 10.9 | QP |
| 1.004000 | 44.90 | 10.7 | 56 | 11.1 | QP |
| 1.480000 | 44.20 | 10.6 | 56 | 11.8 | QP |
| 1.516000 | 45.50 | 10.6 | 56 | 10.5 | QP |
| 2.012000 | 46.20 | 10.6 | 56 | 9.8 | QP |
| 2.328000 | 43.90 | 10.6 | 56 | 12.1 | QP |
| 3.248000 | 41.10 | 10.7 | 56 | 14.9 | QP |
| 26.609000 | 49.30 | 11.6 | 60 | 10.7 | QP |
| 27.158000 | 49.30 | 11.6 | 60 | 10.7 | QP |
| 28.688000 | 43.90 | 11.6 | 60 | 16.1 | QP |
| 29.237000 | 45.60 | 11.6 | 60 | 14.4 | QP |

***MEASUREMENT RESULT: "6333 L2_fin2"***

1/23/2014 10:16AM

| Frequency MHz | Level dBµV | Transd dB | Limit dBµV | Margin dB | Detector |
|---|---|---|---|---|---|
| 0.182400 | 37.10 | 13.0 | 54 | 17.3 | CAV |
| 0.185000 | 38.50 | 13.0 | 54 | 15.8 | CAV |
| 0.248800 | 30.90 | 12.3 | 52 | 20.9 | CAV |
| 0.372800 | 36.80 | 11.6 | 48 | 11.6 | CAV |
| 0.461600 | 31.40 | 11.3 | 47 | 15.3 | CAV |
| 0.487200 | 22.50 | 11.2 | 46 | 23.7 | CAV |
| 1.516000 | 31.90 | 10.6 | 46 | 14.1 | CAV |
| 1.596000 | 31.80 | 10.7 | 46 | 14.2 | CAV |
| 2.004000 | 33.00 | 10.6 | 46 | 13.0 | CAV |
| 2.120000 | 32.10 | 10.6 | 46 | 13.9 | CAV |
| 2.184000 | 31.90 | 10.6 | 46 | 14.1 | CAV |
| 2.248000 | 32.70 | 10.6 | 46 | 13.3 | CAV |
| 25.997000 | 42.00 | 11.6 | 50 | 8.0 | CAV |
| 26.609000 | 47.30 | 11.6 | 50 | 2.7 | CAV |
| 27.158000 | 47.10 | 11.6 | 50 | 2.9 | CAV |
| 28.688000 | 41.30 | 11.6 | 50 | 8.7 | CAV |
| 29.237000 | 43.10 | 11.6 | 50 | 6.9 | CAV |

# END OF REPORT

| Revision # | Date | Comments | By |
|---|---|---|---|
| 1.0 | 02-12-2014 | Preliminary Release | JS |
| 1.1 | 03-11-2014 | Add pg 25 note & edit title pg 145 (& 6) | JS |
| | | | |
| | | | |
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