

REPORT NUMBER 2251

June 2005

Class II Permissive Change to TARF 1834

On the TBAH0 Base Station Transceiver

FCC ID: CASTBA-H0

In accordance with

FCC 47 CFR Parts 22 and 90

PREPARED BY: Marcus Ludwig _____
Test Technician

CHECKED & APPROVED BY: Hamish Newton _____
Senior Technician



All tests reported herein have been performed in accordance with the laboratory's scope of accreditation

This document must not be reproduced except in full, without the written permission of the Compliance Laboratory Manager.

INTRODUCTION :

This is a Class II Permissive Change to TARF 1834 dated June 2003 and confirms performance of the Paging capability of the TBAH0 base Station Transceiver, in accordance with:

FCC CFR 47 Parts 22 & 90

FCC ID: CASTBA-H0

PREPARED FOR :

Tait Electronics Ltd
PO Box 1645
558 Wairakei Rd
Christchurch
New Zealand

DISTRIBUTION :

TELTest Laboratory	Mr S Crompton	Copy No 1
Tait Electronics Ltd	Mr. Des Fox	Copy No 2
Tait Electronics Ltd	Mr. Ian MacKay	Copy No 3

APPROVED :

Hamish Newton

Senior Technician

Date :

Copy No:

TABLE OF CONTENTS

TEST CONDITIONS	4
NECESSARY BANDWIDTH AND EMISSION DESIGNATORS	4
DESCRIPTION OF TEST SAMPLE	5
TEST RESULTS.....	6
OCCUPIED BANDWIDTH	6
PAGING (POCSAG)	7
TEST EQUIPMENT USED.....	55
APPENDIX A	56
TEST SETUP DETAILS.....	56

Test Conditions

All testing was performed at the following conditions.

Ambient Temperature	15°C to 30°C
Relative Humidity	20% to 75%
Standard Test Voltage	120 Vac

Necessary Bandwidth and Emission Designators

SPECIFICATION: FCC 47 CFR 2.202

The Necessary Bandwidth is the minimum value of the occupied bandwidth sufficient to ensure the transmission of information at the rate and with the quality required for the system employed.

This is calculated using the following formula.

$B_n = 2M + 2DK$ Where: B_n = Necessary Bandwidth
 M = Maximum modulation frequency
 For Data transmission
 $M = B/2$
 Where: B = Modulation rate in Baud
 D = Peak deviation
 K = Constant
 For Analogue transmission this is 1
 For Data transmission this is typically 1.2

1. Paging (POCSAG)

12.5kHz Bandwidth	Necessary bandwidth	Emission Designator
512 Baud	$M = 512$ $D = 2.25 \text{ kHz}$ $B_n = 512 + 4500 \times 1.2$ $= 5.9\text{kHz}$	5K90F1D F1D represents a FM data transmission without the use of a modulating sub carrier
1200 Baud	$M = 1200$ $D = 2.25 \text{ kHz}$ $B_n = 1200 + 4500 \times 1.2$ $= 6.6 \text{ kHz}$	6K60F1D F1D represents a FM data transmission without the use of a modulating sub carrier
2400 Baud	$M = 2400$ $D = 2.25 \text{ kHz}$ $B_n = 2400 + 4500 \times 1.2$ $= 7.8 \text{ kHz}$	7K80F1D F1D represents a FM data transmission without the use of a modulating sub carrier
25kHz Bandwidth	Necessary bandwidth	Emission Designator
512 Baud	$M = 512$ $D = 4.5 \text{ kHz}$ $B_n = 512 + 9000 \times 1.2$ $= 11.3 \text{ kHz}$	11K3F1D F1D represents a FM data transmission without the use of a modulating sub carrier
1200 Baud	$M = 1200$ $D = 4.5 \text{ kHz}$ $B_n = 1200 + 9000 \times 1.2$ $= 12 \text{ kHz}$	12K0F1D F1D represents a FM data transmission without the use of a modulating sub carrier

Necessary Bandwidth and Emission Designators

25kHz Bandwidth 2400 Baud	Necessary bandwidth	Emission Designator
	M = 2400	13K2F1D
	D = 4.5 kHz	F1D represents a FM data
	Bn = 2400 + 9000 x 1.2	transmission without the use of a
	= 13.2 kHz	modulating sub carrier

Description of Test Sample

Type Code: TBAH0

Description: Base Station Transceiver

Manufacturer: Tait Electronics Limited
PO Box 1645
558 Wairakei Road
Christchurch
New Zealand

Module Details:

Reciter	Frequency Range	Serial Number	Software Revisions
TBA40H1-0T10	400 – 440MHz	18004456	HW: 00.03 FW: 02.05
TBA40H2-0A00	440 – 480MHz	18006348	HW: 00.03 FW: 02.05
TBA40H3-0B01	470 – 520MHz	18002251	HW: 00.03 FW: 02.05

Power Amplifier	Range	Serial Number	Software Revisions
TBA90H0-0000	400 – 520MHz, 10 – 100 W	18003158	HW: 00.00 FW: 02.05
TBA70H0-0000	400 – 520MHz, 1 – 5 W	18003215	HW: 00.00 FW: 02.05

Power Management Unit	Subrack	Serial Number	Software Revisions
TBA30A0-0000	100 W	18004653	HW: 00.03 FW: 02.05
TBA30A0-0000	5 W	18004354	HW: 00.03 FW: 02.05

Test Results

OCCUPIED BANDWIDTH

SPECIFICATION: FCC 47 CFR 2.1049 (c)

GUIDE: TIA/EIA-603B 2.2.11

MEASUREMENT PROCEDURE:

1. Refer Appendix A for Equipment Set up.
2. The EUT was modulated with an externally generated bit sequence at the appropriate Baud rates.
3. The Occupied Bandwidth was measured on the Spectrum Analyser, with bandwidth settings as follows.

Emission Mask G, – Resolution bandwidth = 300Hz, Video Bandwidth = 3 kHz

MEASUREMENT RESULTS:

See the plots on the following pages for 12.5 kHz & 25.0 kHz channel spacings.

LIMIT CLAUSE: FCC 47 CFR 90.210
FCC 47 CFR 22.359

EMISSION MASKS

Emission Mask G	12.5 kHz Channel Spacing	Paging (POCSAG)
Emission Mask G	25.0 kHz Channel Spacing	Paging (POCSAG)

DATA SPEED

Paging (POCSAG)	512 Baud	12.5 kHz, and 25 kHz Channel Spacing
	1200 Baud	12.5 kHz, and 25 kHz Channel Spacing
	2400 Baud	12.5 kHz, and 25 kHz Channel Spacing

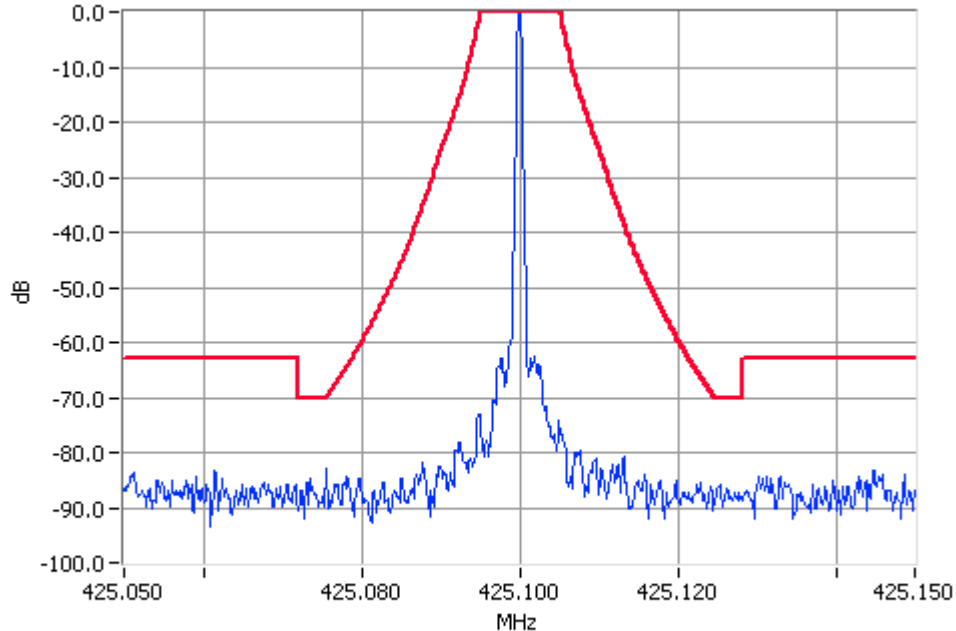
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

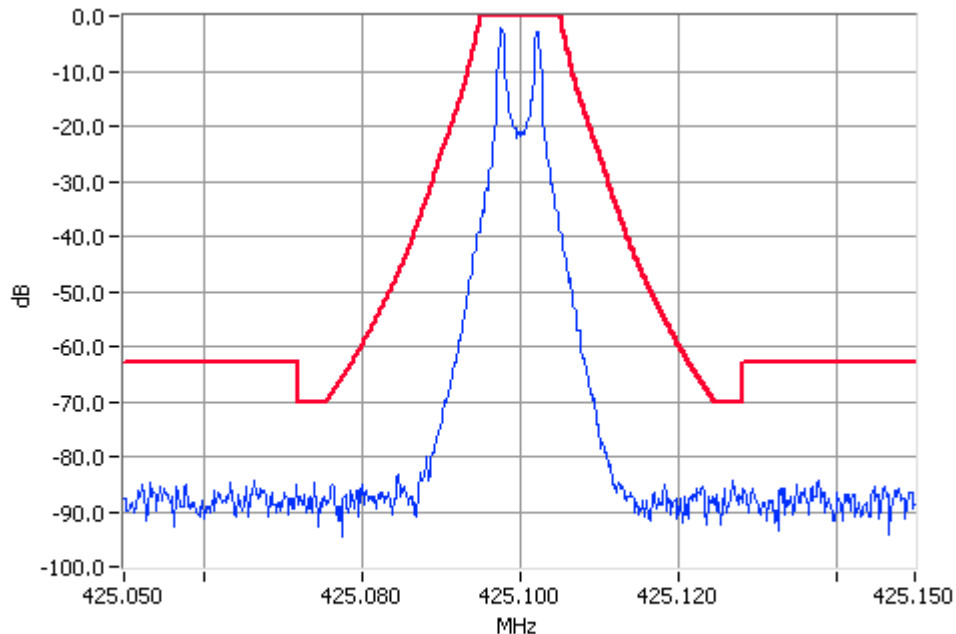
Tx FREQUENCY: 425.1MHz 100W 12.5 kHz Channel Spacing

Unmodulated:



Unmodulated 425.1000MHz Mask G 100W Pass
RBW=300Hz VBW=3000Hz

512 Baud:



Paging Modulation 425.1000MHz Mask G 100W Pass
RBW=300Hz VBW=3000Hz

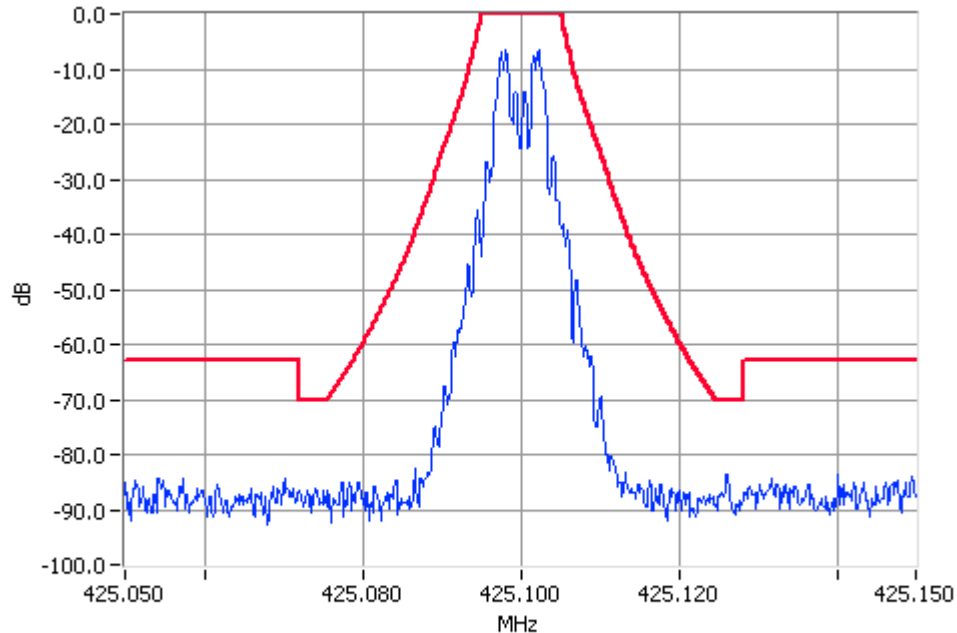
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

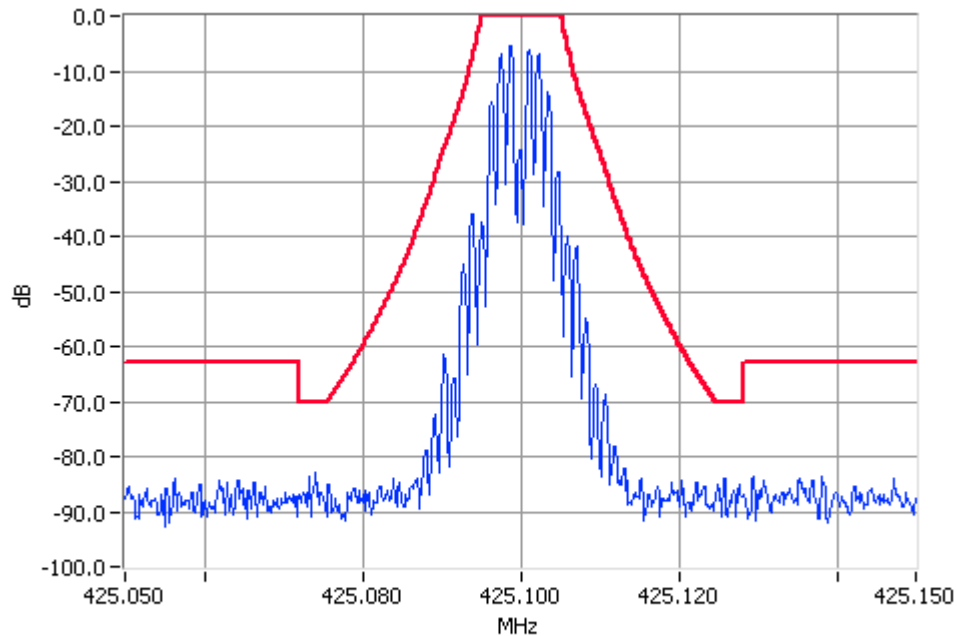
Tx FREQUENCY: 425.1MHz 100W 12.5 kHz Channel Spacing

1200 Baud:



Paging Modulation 425.1000MHz Mask G 100W Pass
RBW=300Hz VBW=3000Hz

2400 Baud:



Paging Modulation 425.1000MHz Mask G 100W Pass
RBW=300Hz VBW=3000Hz

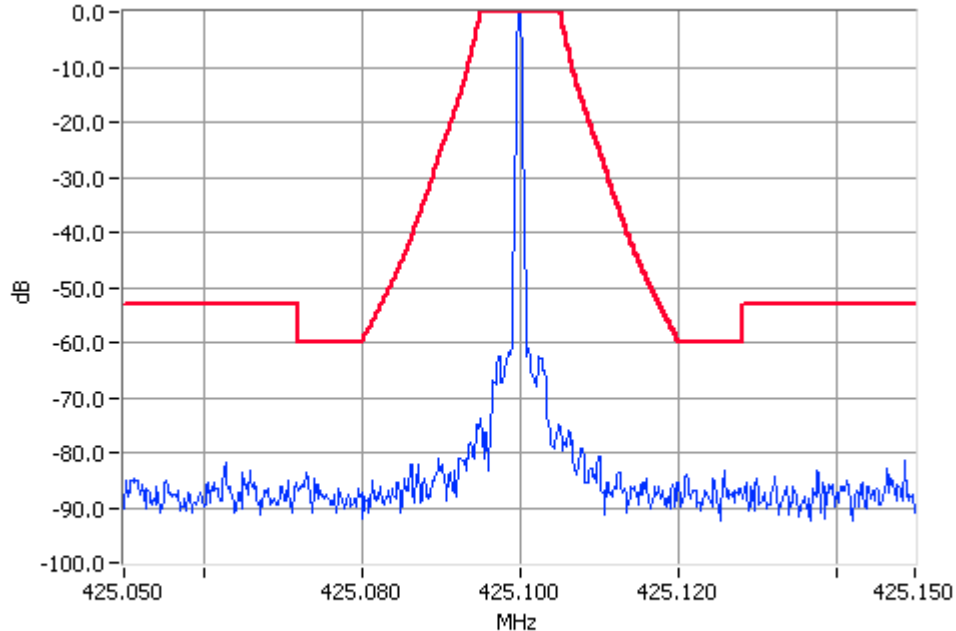
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

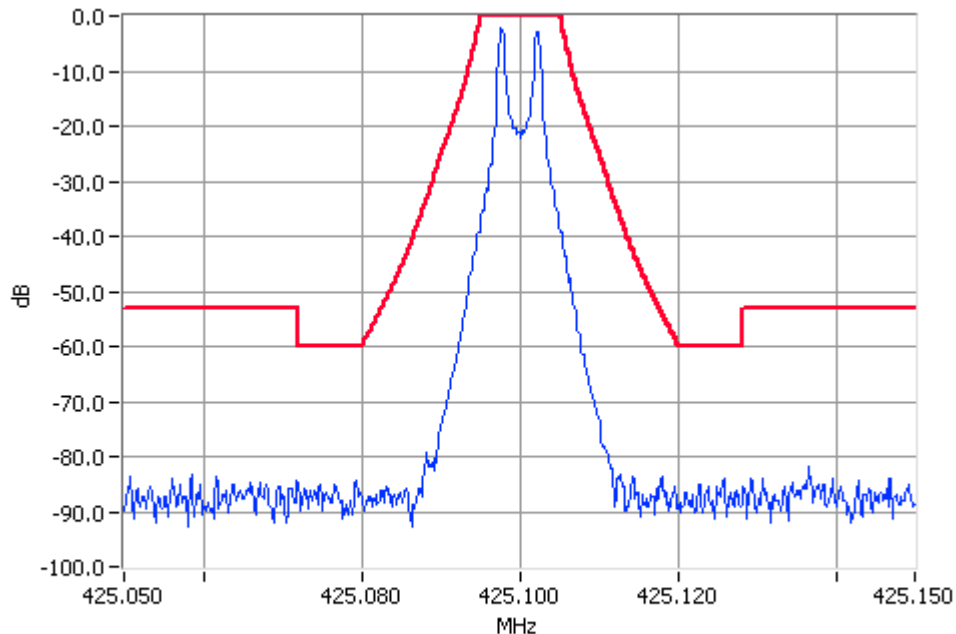
Tx FREQUENCY: 425.1MHz 10W 12.5 kHz Channel Spacing

Unmodulated:



Unmodulated 425.1000MHz Mask G 10W Pass
RBW=300Hz VBW=3000Hz

512 Baud:



Paging Modulation 425.1000MHz Mask G 10W Pass
RBW=300Hz VBW=3000Hz

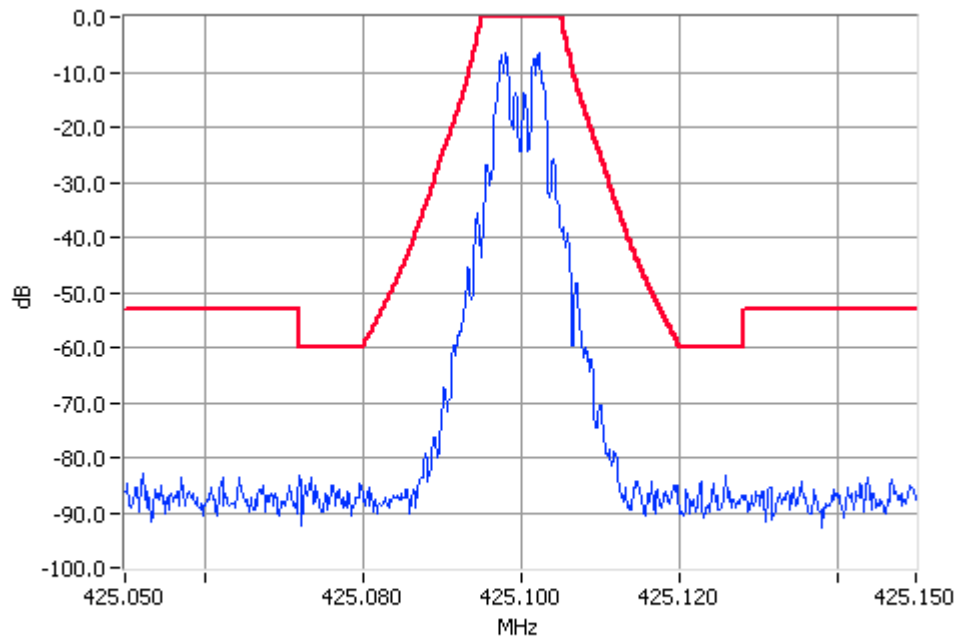
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

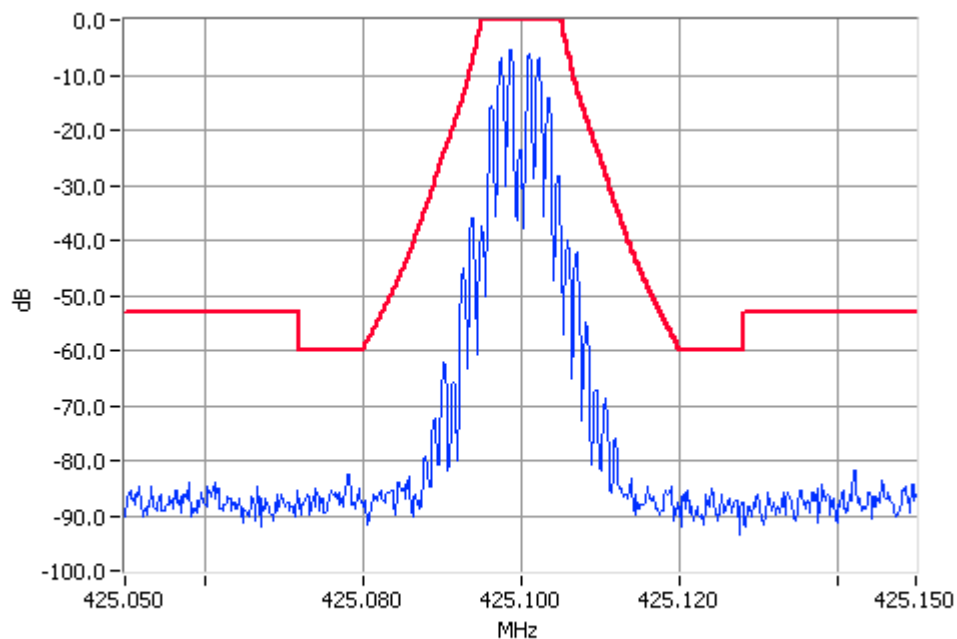
Tx FREQUENCY: 425.1MHz 10W 12.5 kHz Channel Spacing

1200 Baud:



Paging Modulation 425.1000MHz Mask G 10W Pass
RBW=300Hz VBW=3000Hz

2400 Baud:



Paging Modulation 425.1000MHz Mask G 10W Pass
RBW=300Hz VBW=3000Hz

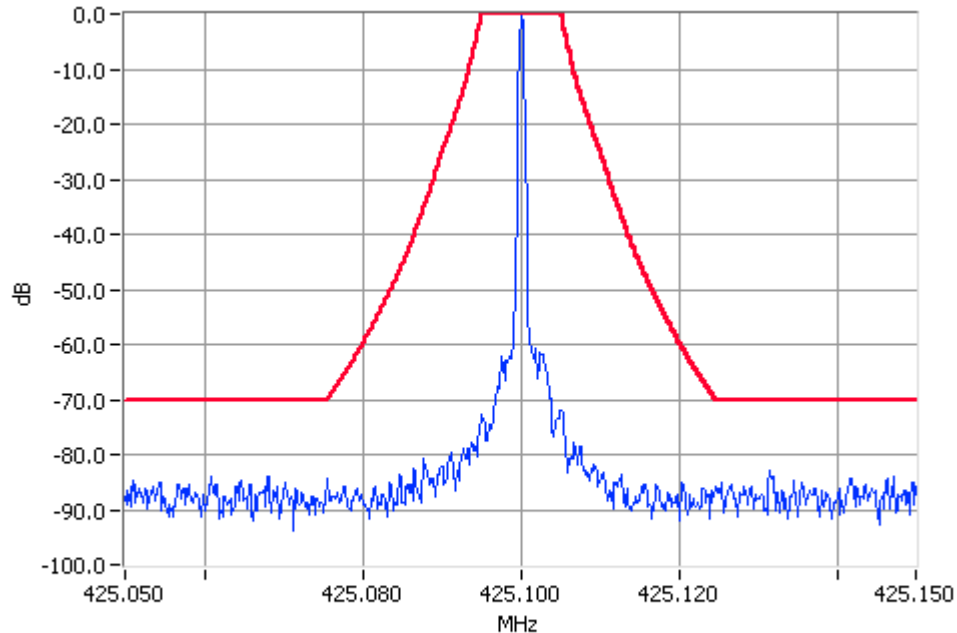
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

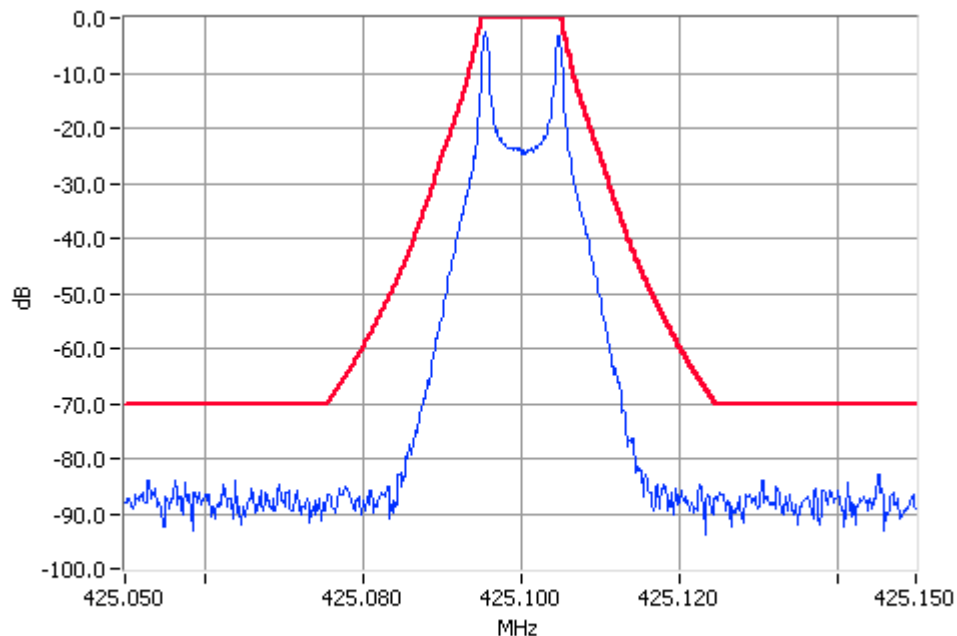
Tx FREQUENCY: 425.1MHz 100W 25 kHz Channel Spacing

Unmodulated:



Unmodulated 425.1000MHz Mask G 100W Pass
RBW=300Hz VBW=3000Hz

512 Baud:



Paging Modulation 425.1000MHz Mask G 100W Pass
RBW=300Hz VBW=3000Hz

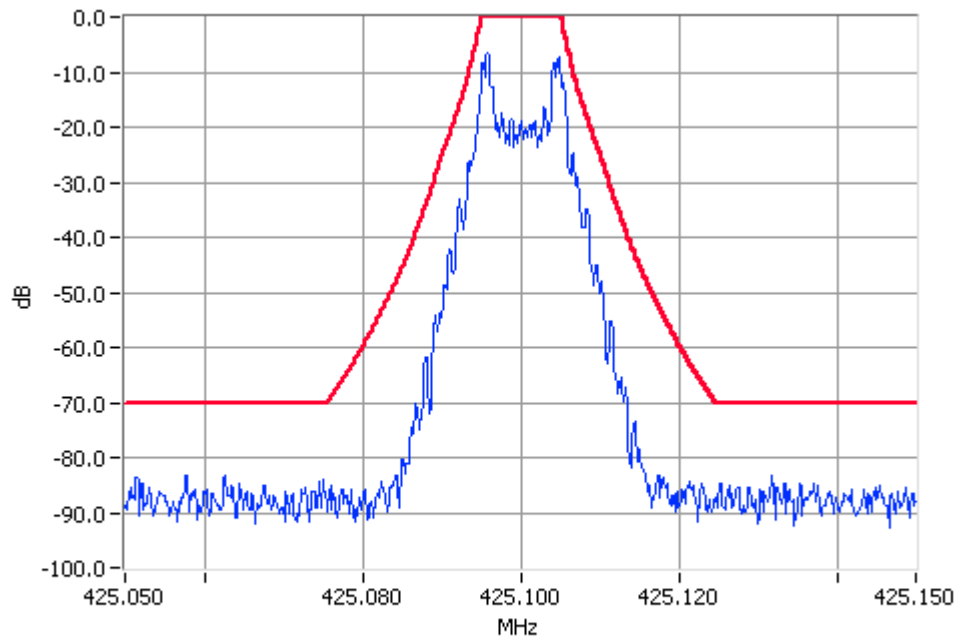
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

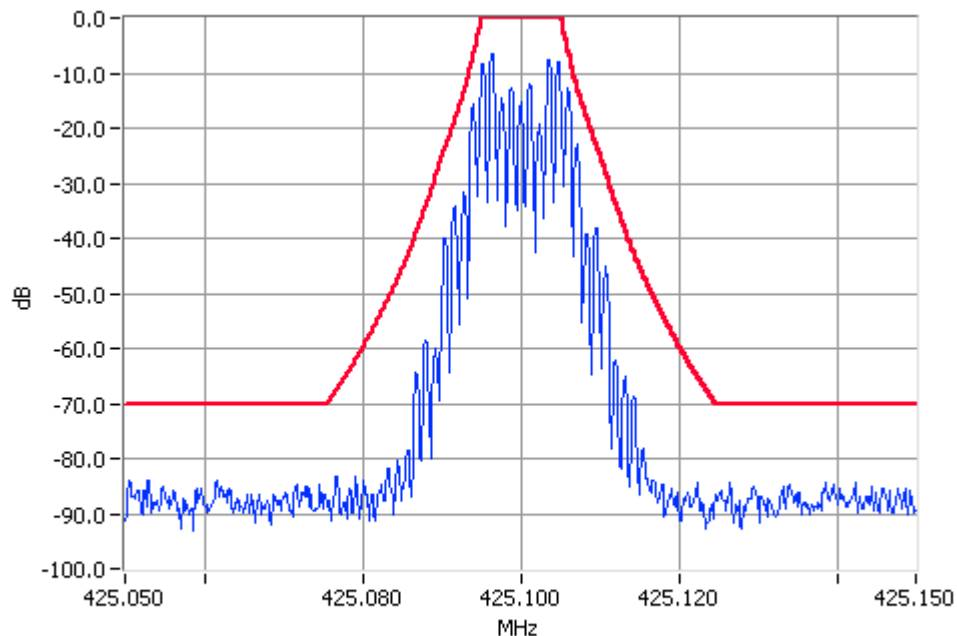
Tx FREQUENCY: 425.1MHz 100W 25 kHz Channel Spacing

1200 Baud:



Paging Modulation 425.1000MHz Mask G 100W Pass
RBW=300Hz VBW=3000Hz

2400 Baud:



Paging Modulation 425.1000MHz Mask G 100W Pass
RBW=300Hz VBW=3000Hz

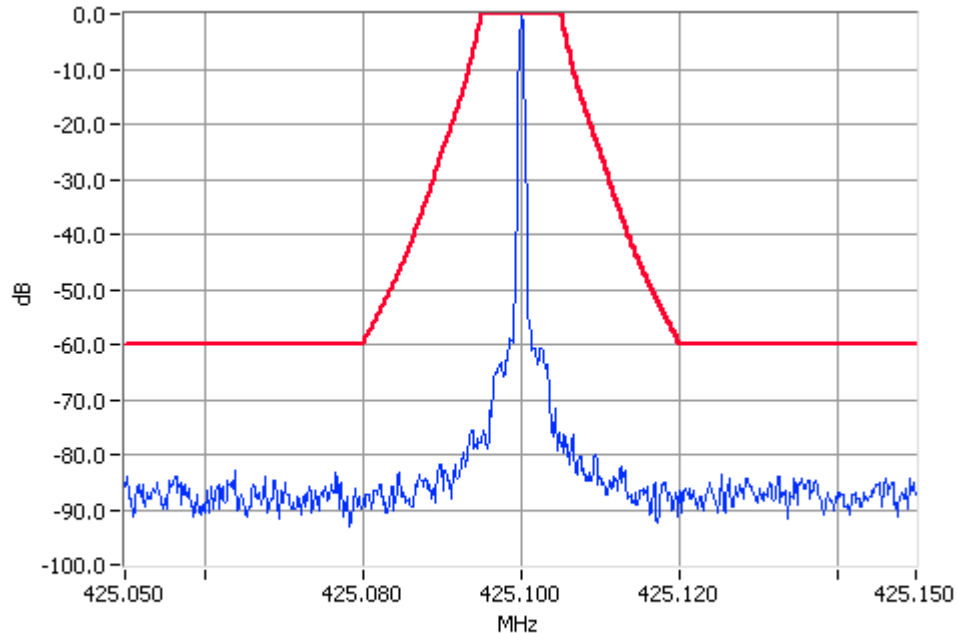
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

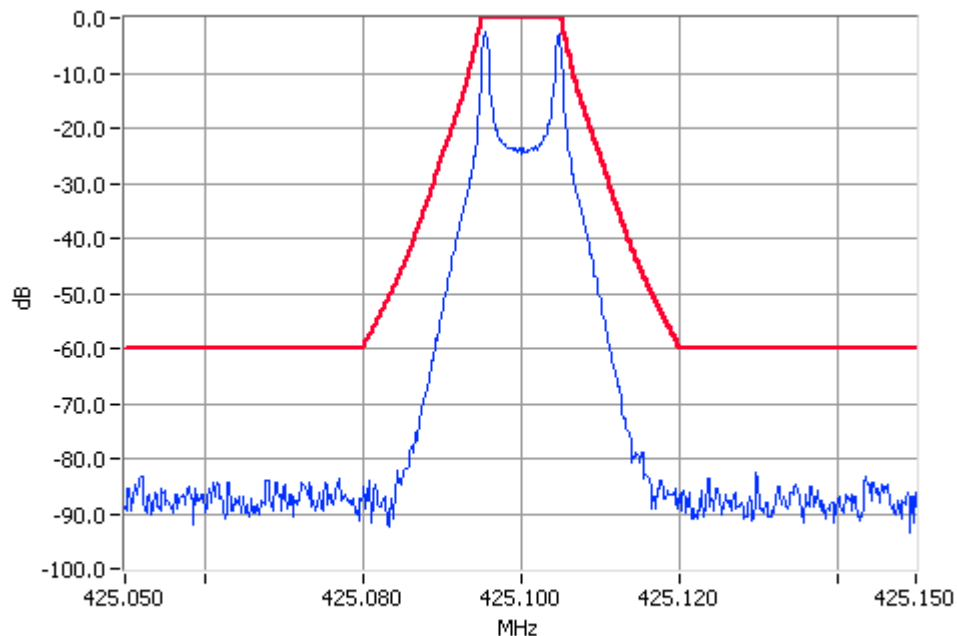
Tx FREQUENCY: 425.1MHz 10W 25 kHz Channel Spacing

Unmodulated:



Unmodulated 425.1000MHz Mask G 10W Pass
RBW=300Hz VBW=3000Hz

512 Baud:



Paging Modulation 425.1000MHz Mask G 10W Pass
RBW=300Hz VBW=3000Hz

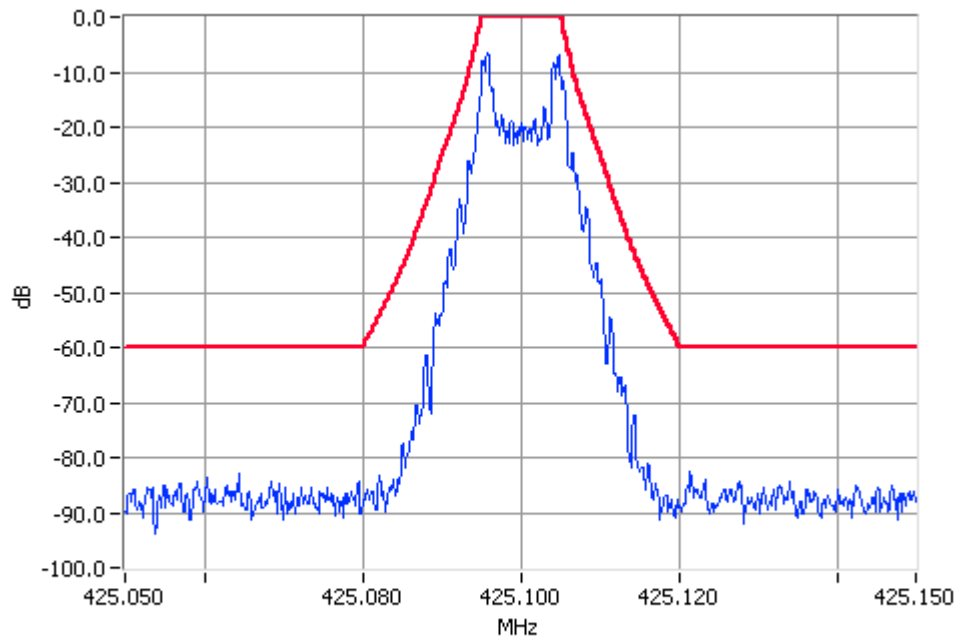
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

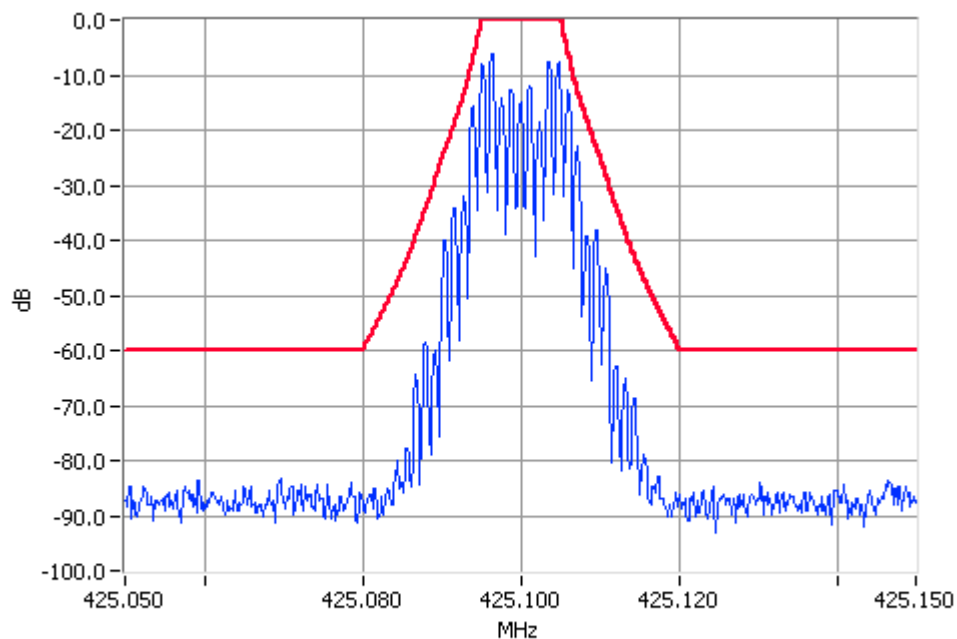
Tx FREQUENCY: 425.1MHz 10W 25 kHz Channel Spacing

1200 Baud:



Paging Modulation 425.1000MHz Mask G 10W Pass
RBW=300Hz VBW=3000Hz

2400 Baud:



Paging Modulation 425.1000MHz Mask G 10W Pass
RBW=300Hz VBW=3000Hz

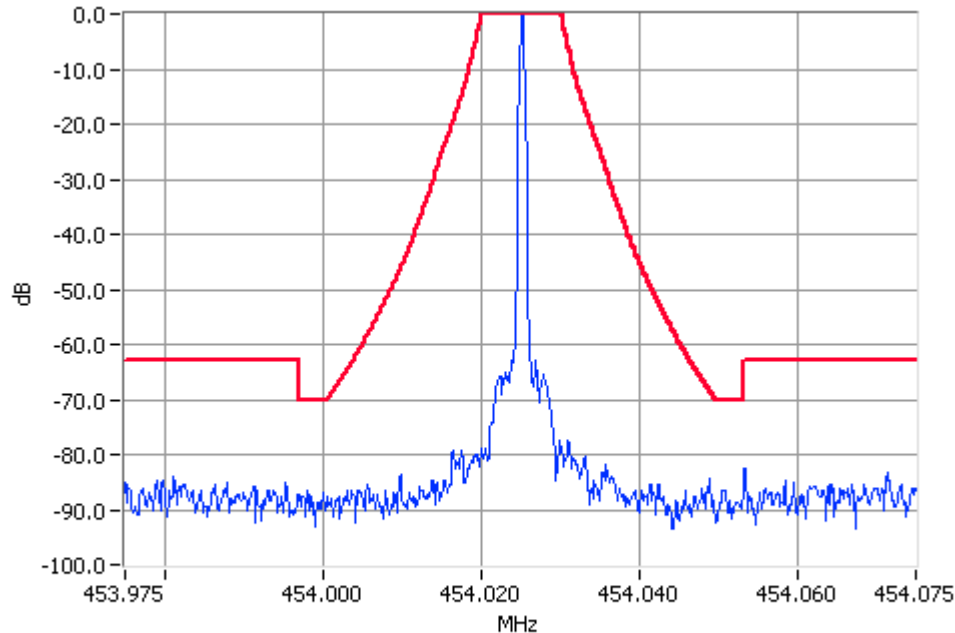
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

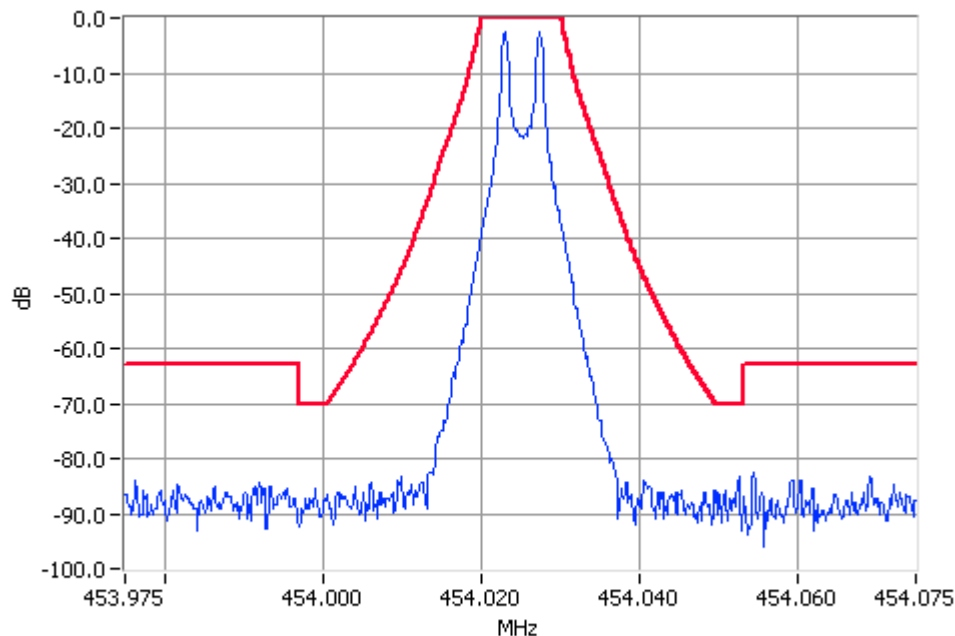
Tx FREQUENCY: 454.025MHz 100W 12.5 kHz Channel Spacing

Unmodulated:



Unmodulated 454.0250MHz Mask G 100W Pass
RBW=300Hz VBW=3000Hz

512 Baud:



Paging Modulation 454.0250MHz Mask G 100W Pass
RBW=300Hz VBW=3000Hz

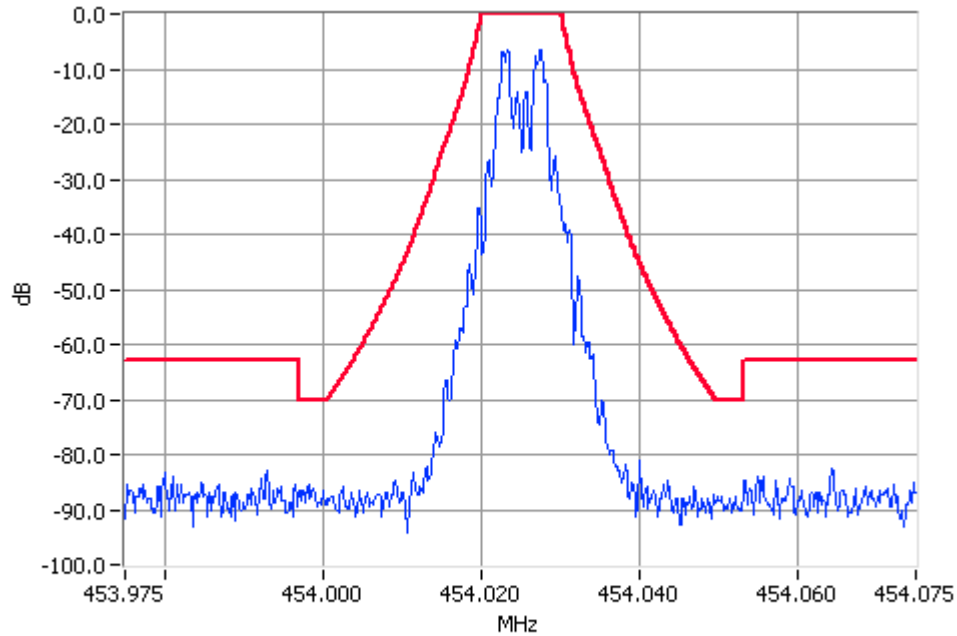
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

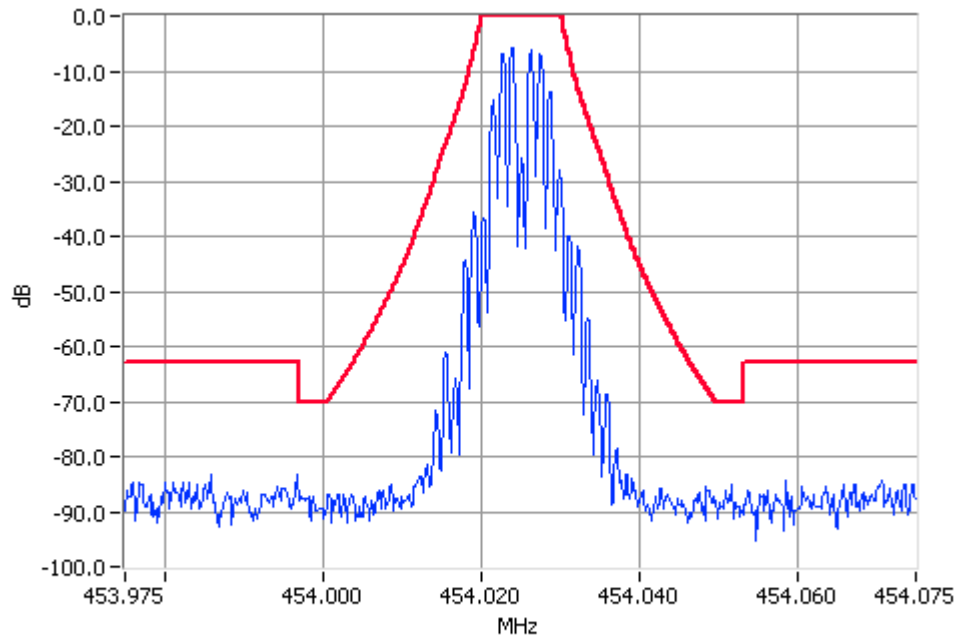
Tx FREQUENCY: 454.025MHz 100W 12.5 kHz Channel Spacing

1200 Baud:



Paging Modulation 454.0250MHz Mask G 100W Pass
RBW=300Hz VBW=3000Hz

2400 Baud:



Paging Modulation 454.0250MHz Mask G 100W Pass
RBW=300Hz VBW=3000Hz

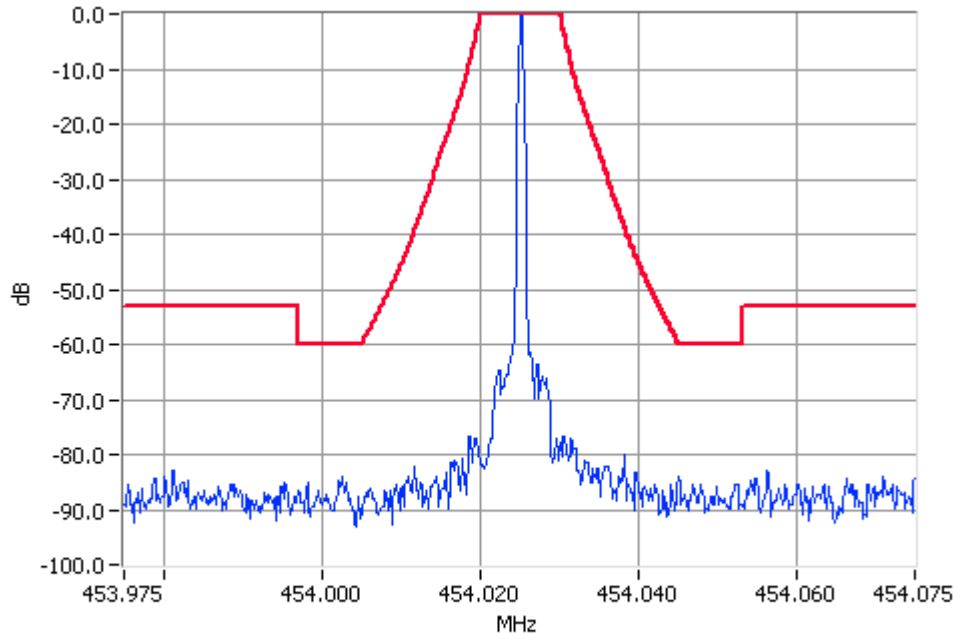
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

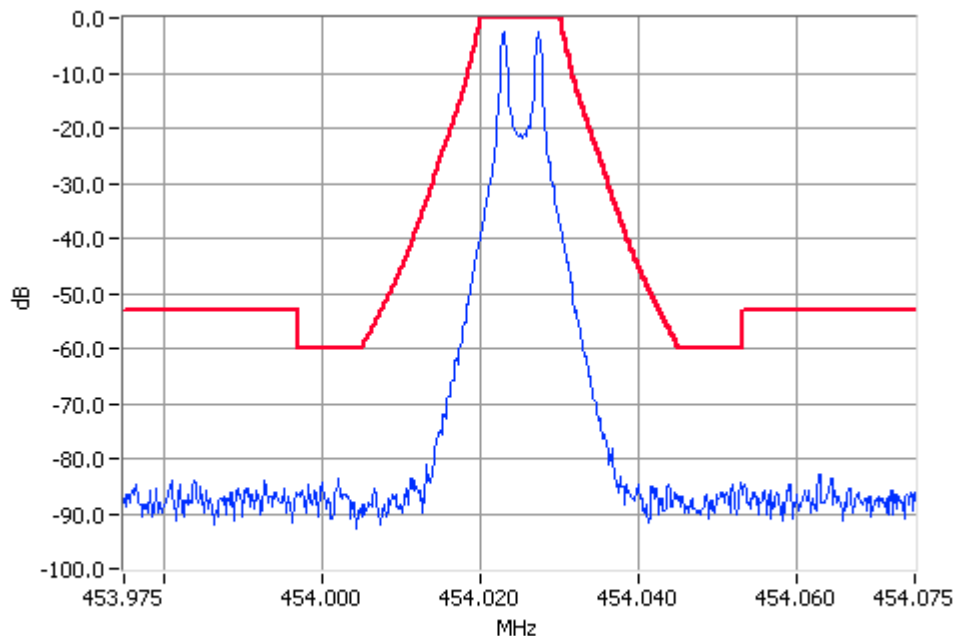
Tx FREQUENCY: 454.025MHz 10W 12.5 kHz Channel Spacing

Unmodulated:



Unmodulated 454.025MHz Mask G 10W Pass
RBW=300Hz VBW=3000Hz

512 Baud:



Paging Modulation 454.025MHz Mask G 10W Pass
RBW=300Hz VBW=3000Hz

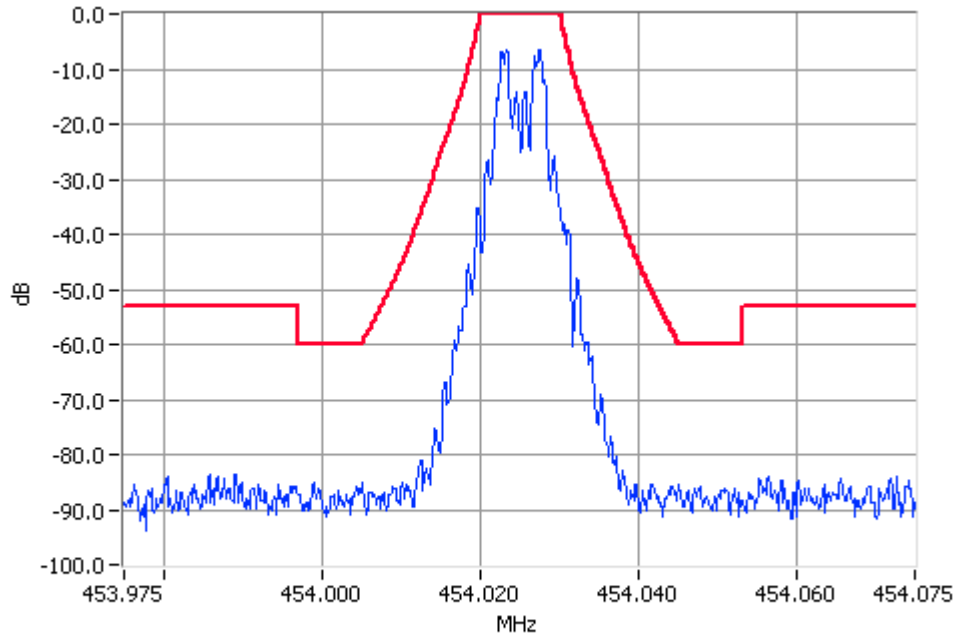
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

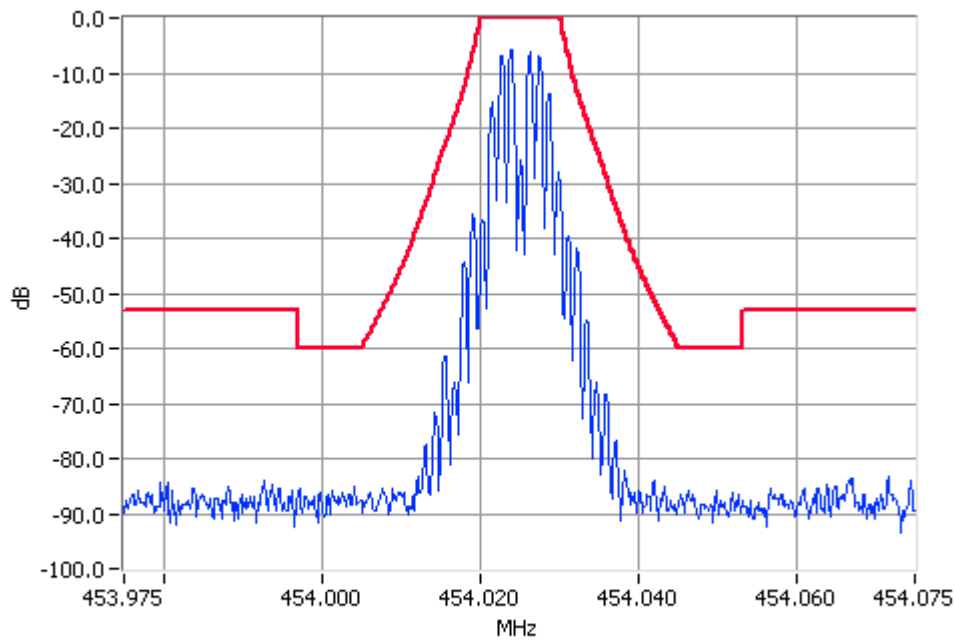
Tx FREQUENCY: 454.025MHz 10W 12.5 kHz Channel Spacing

1200 Baud:



Paging Modulation 454.0250MHz Mask G 10W Pass
RBW=300Hz VBW=3000Hz

2400 Baud:



Paging Modulation 454.0250MHz Mask G 10W Pass
RBW=300Hz VBW=3000Hz

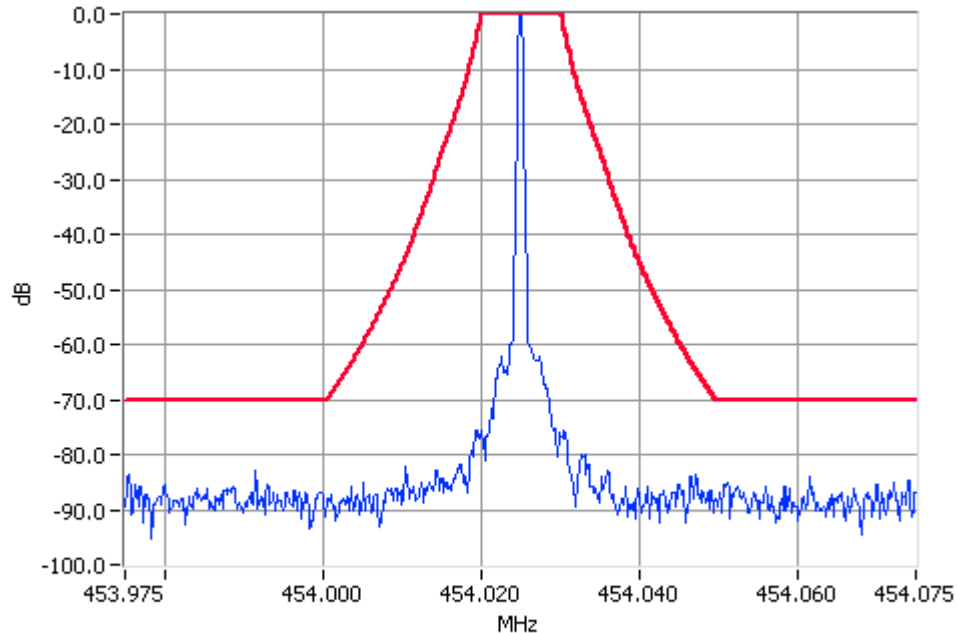
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

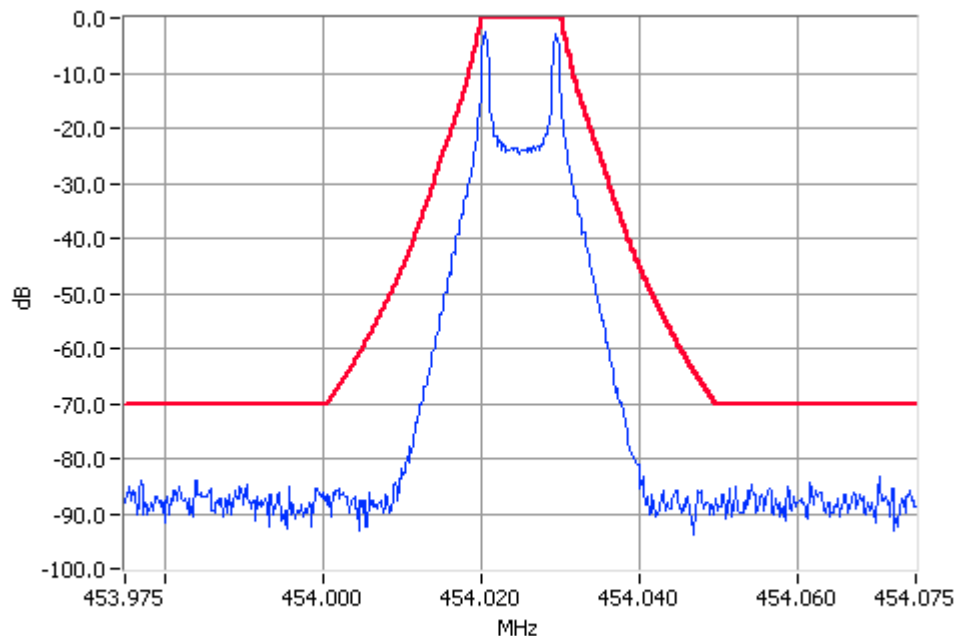
Tx FREQUENCY: 454.025MHz 100W 25 kHz Channel Spacing

Unmodulated:



Unmodulated 454.0250MHz Mask G 100W Pass
RBW=300Hz VBW=3000Hz

512 Baud:



Paging Modulation 454.0250MHz Mask G 100W Pass
RBW=300Hz VBW=3000Hz

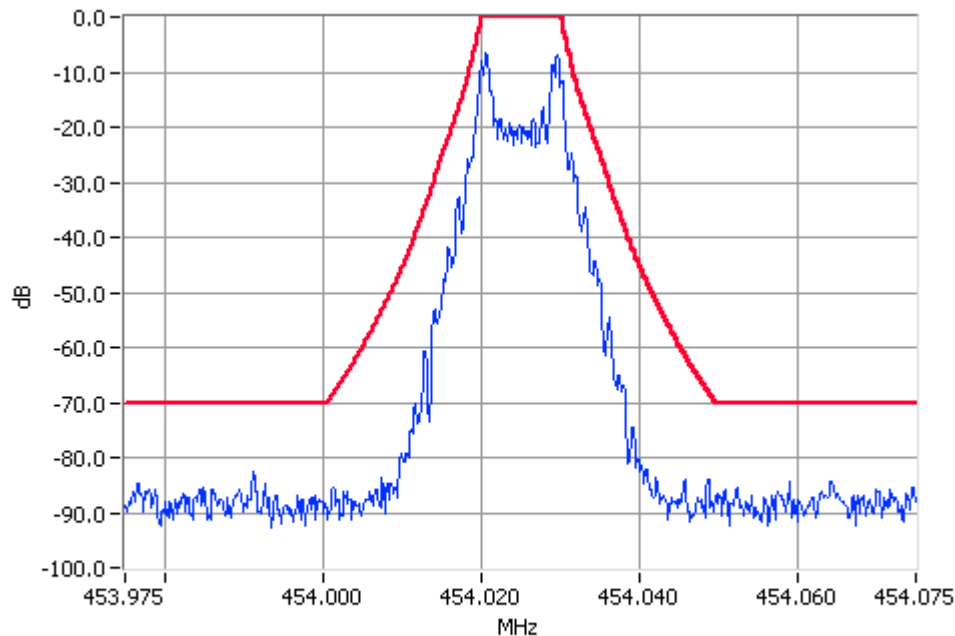
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

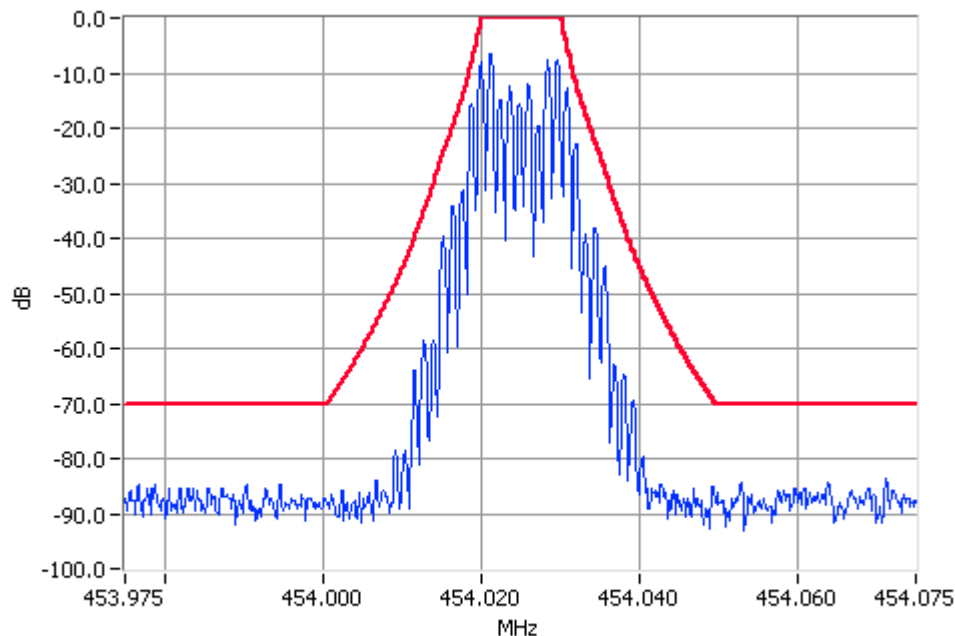
Tx FREQUENCY: 454.025MHz 100W 25 kHz Channel Spacing

1200 Baud:



Paging Modulation 454.0250MHz Mask G 100W Pass
RBW=300Hz VBW=3000Hz

2400 Baud:



Paging Modulation 454.0250MHz Mask G 100W Pass
RBW=300Hz VBW=3000Hz

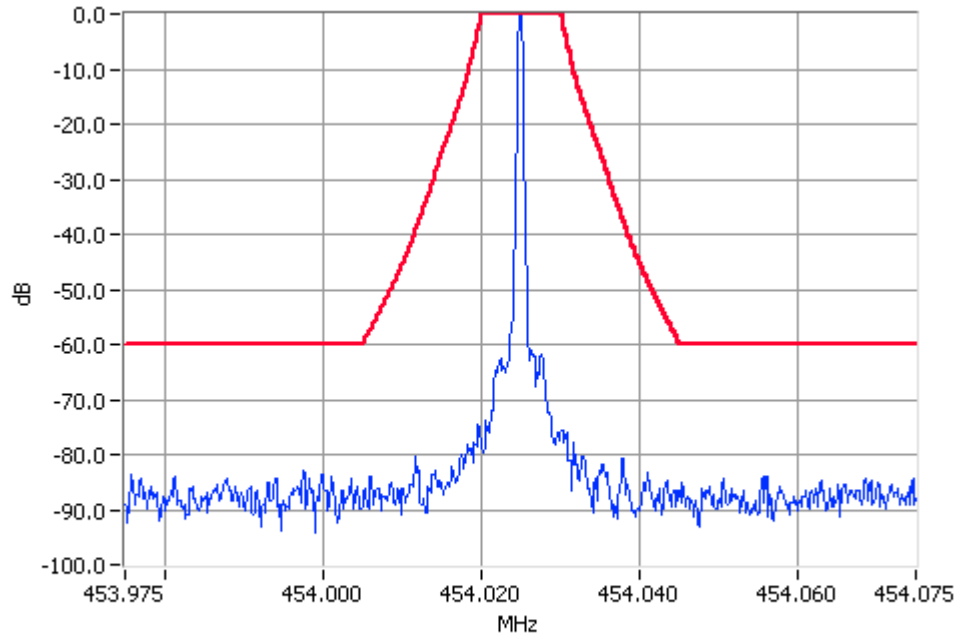
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

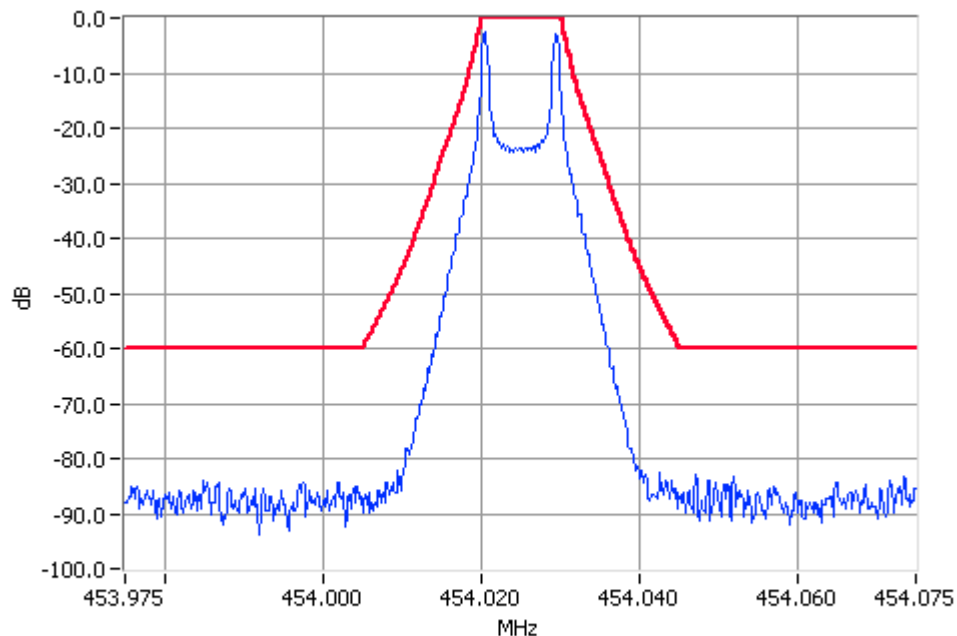
Tx FREQUENCY: 454.025MHz 10W 25 kHz Channel Spacing

Unmodulated:



Unmodulated 454.025MHz Mask G 10W Pass
RBW=300Hz VBW=3000Hz

512 Baud:



Paging Modulation 454.025MHz Mask G 10W Pass
RBW=300Hz VBW=3000Hz

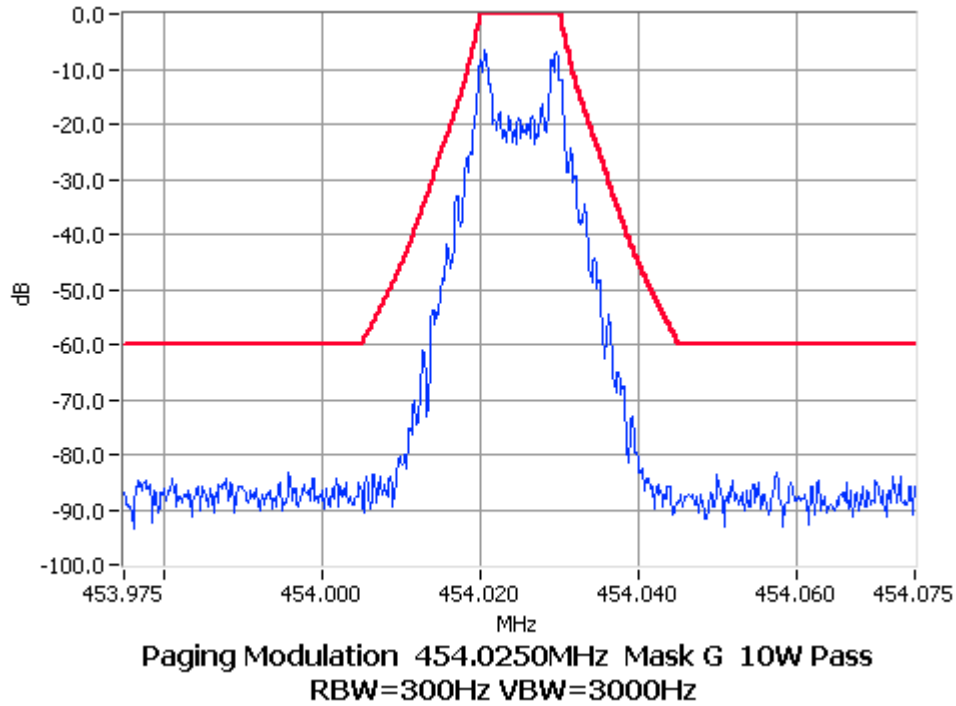
OCCUPIED BANDWIDTH

PAGING (POCSAG)

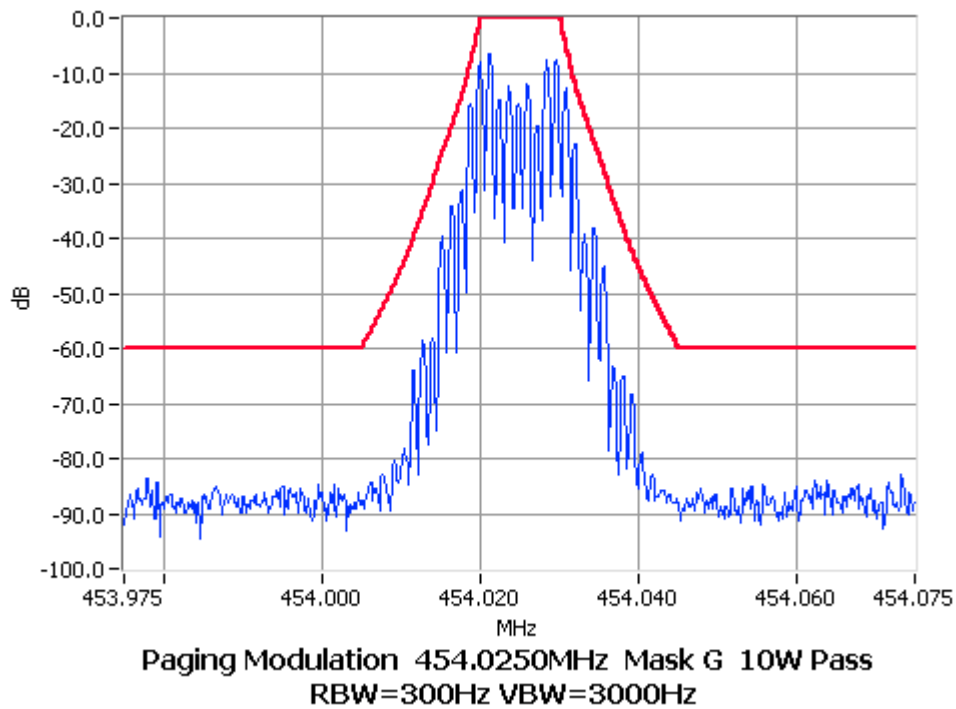
SPECIFICATION: FCC CFR 2.1049 (c)

Tx FREQUENCY: 454.025MHz 10W 25 kHz Channel Spacing

1200 Baud:



2400 Baud:



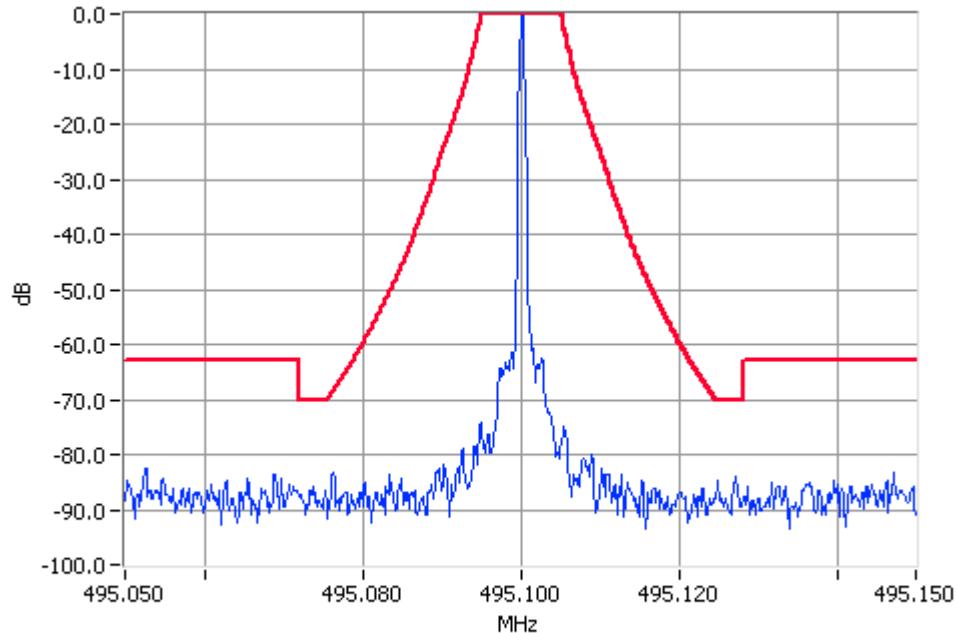
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

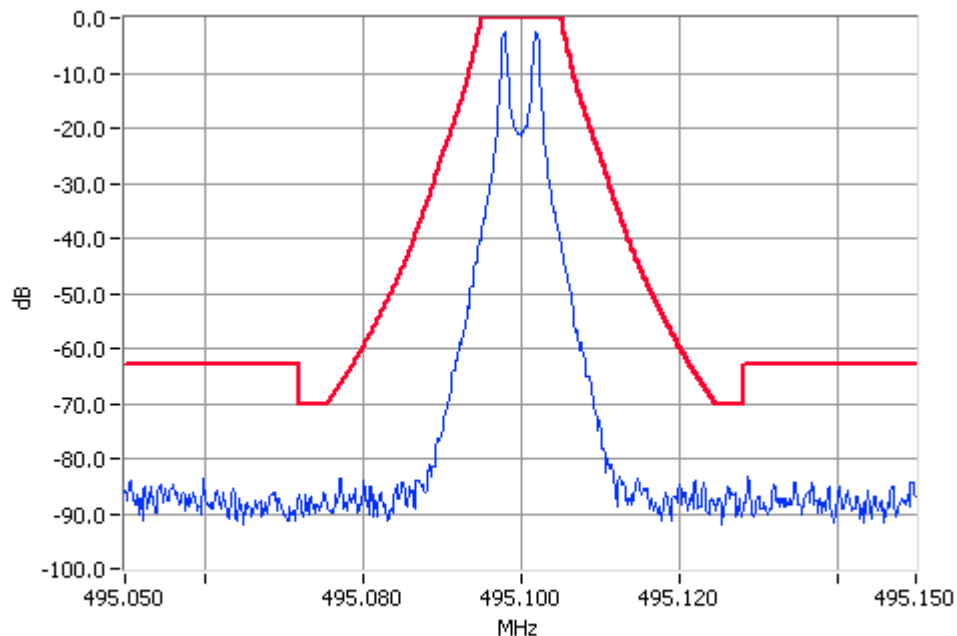
Tx FREQUENCY: 495.1MHz 100W 12.5 kHz Channel Spacing

Unmodulated:



Unmodulated 495.1000MHz Mask G 100W Pass
RBW=300Hz VBW=3000Hz

512 Baud:



Paging Modulation 495.1000MHz Mask G 100W Pass
RBW=300Hz VBW=3000Hz

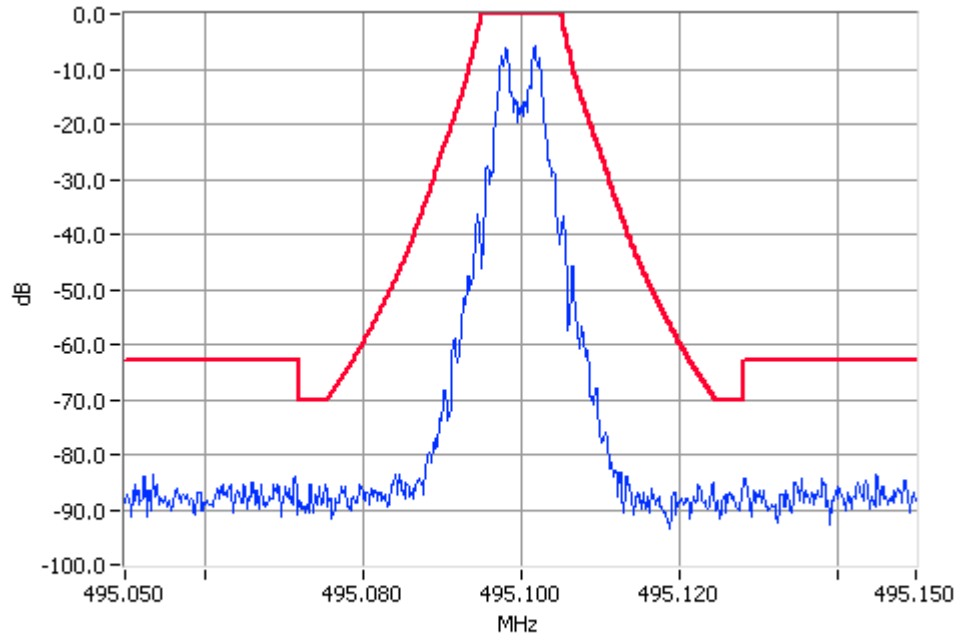
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

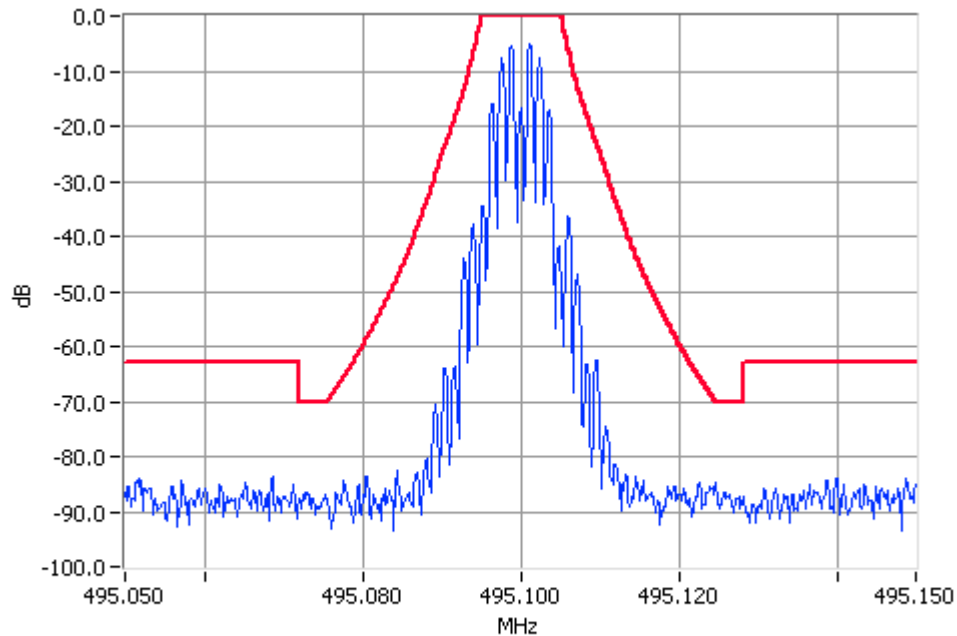
Tx FREQUENCY: 495.1MHz 100W 12.5 kHz Channel Spacing

1200 Baud:



Paging Modulation 495.1000MHz Mask G 100W Pass
RBW=300Hz VBW=3000Hz

2400 Baud:



Paging Modulation 495.1000MHz Mask G 100W Pass
RBW=300Hz VBW=3000Hz

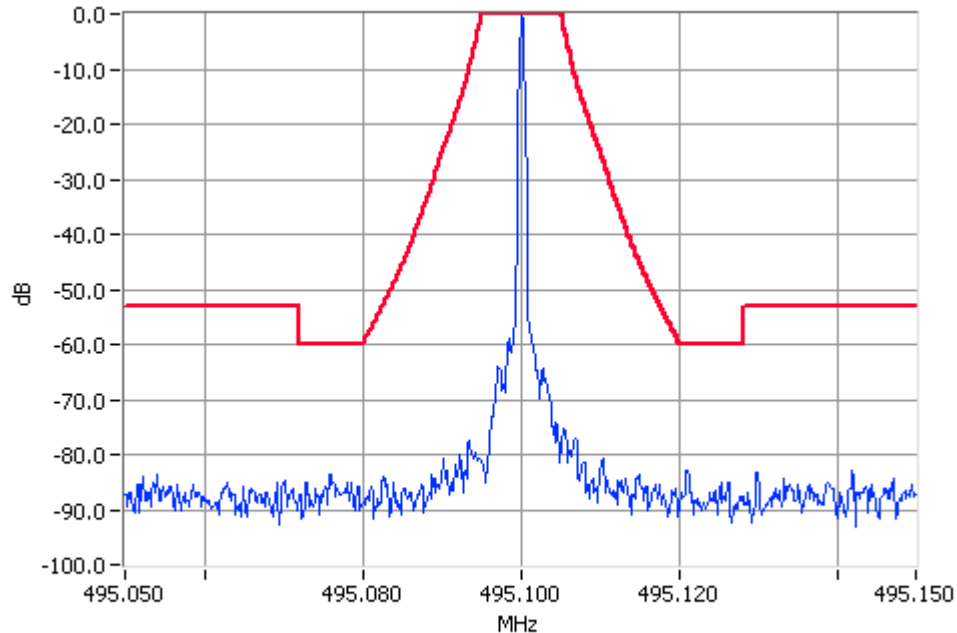
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

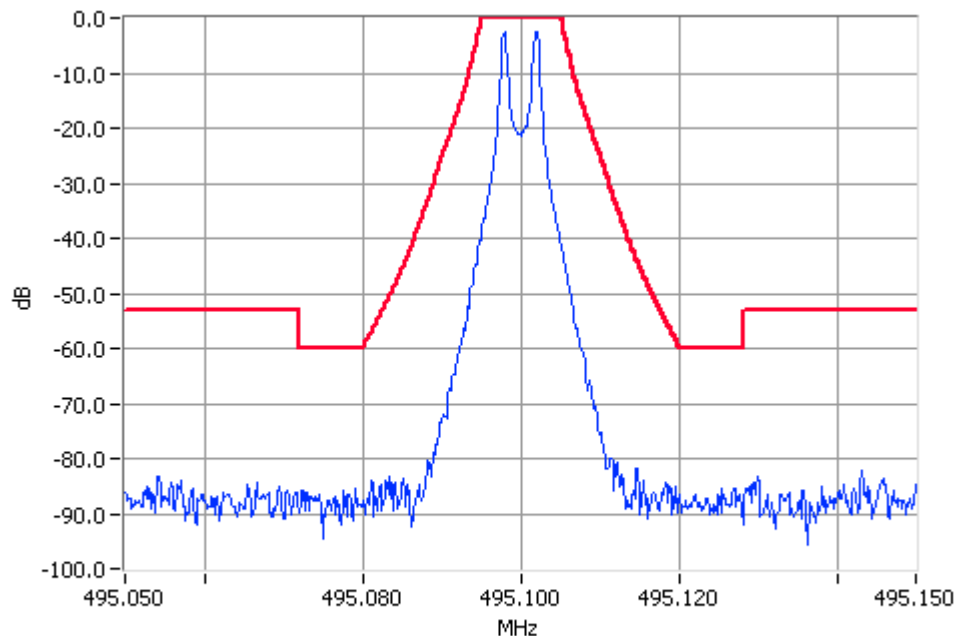
Tx FREQUENCY: 495.1MHz 10W 12.5 kHz Channel Spacing

Unmodulated:



Unmodulated 495.1000MHz Mask G 10W Pass
RBW=300Hz VBW=3000Hz

512 Baud:



Paging Modulation 495.1000MHz Mask G 10W Pass
RBW=300Hz VBW=3000Hz

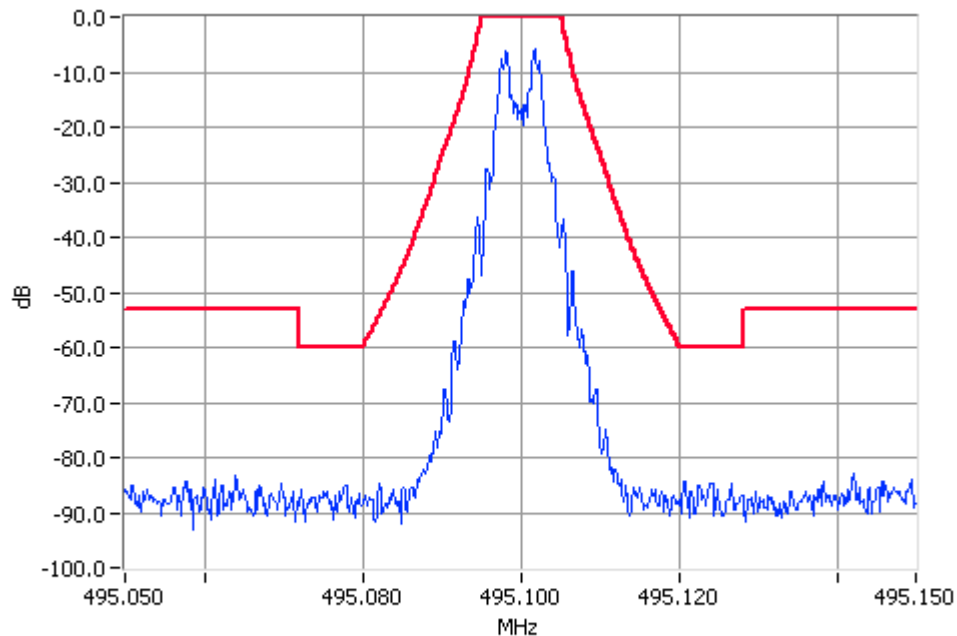
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

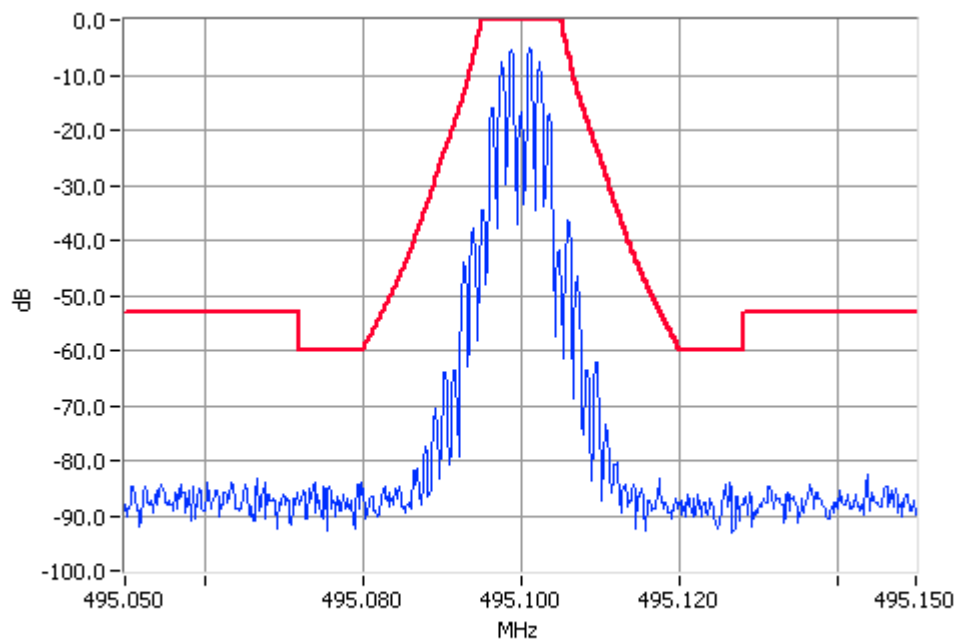
Tx FREQUENCY: 495.1MHz 10W 12.5 kHz Channel Spacing

1200 Baud:



Paging Modulation 495.1000MHz Mask G 10W Pass
RBW=300Hz VBW=3000Hz

2400 Baud:



Paging Modulation 495.1000MHz Mask G 10W Pass
RBW=300Hz VBW=3000Hz

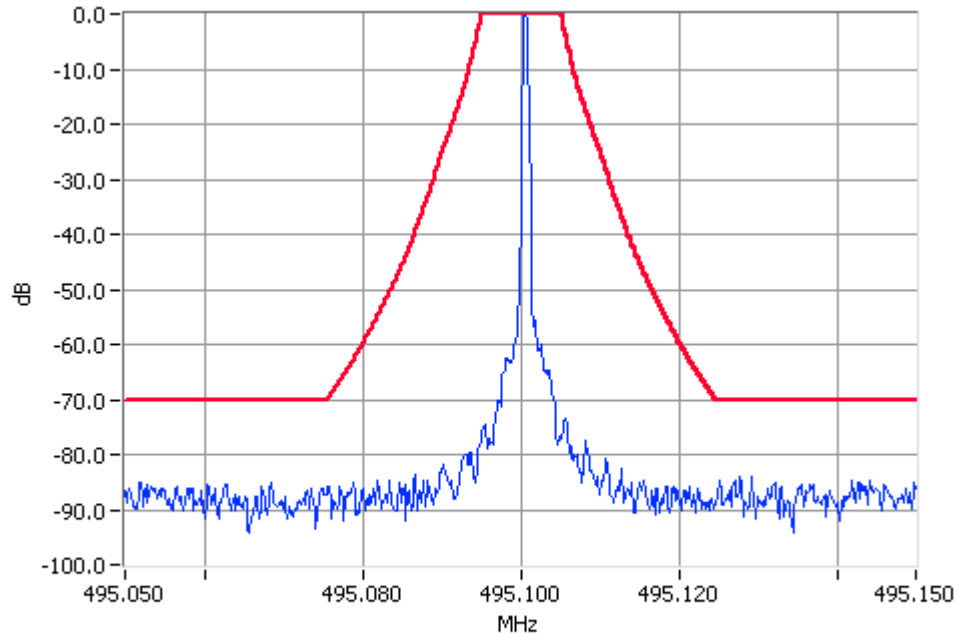
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

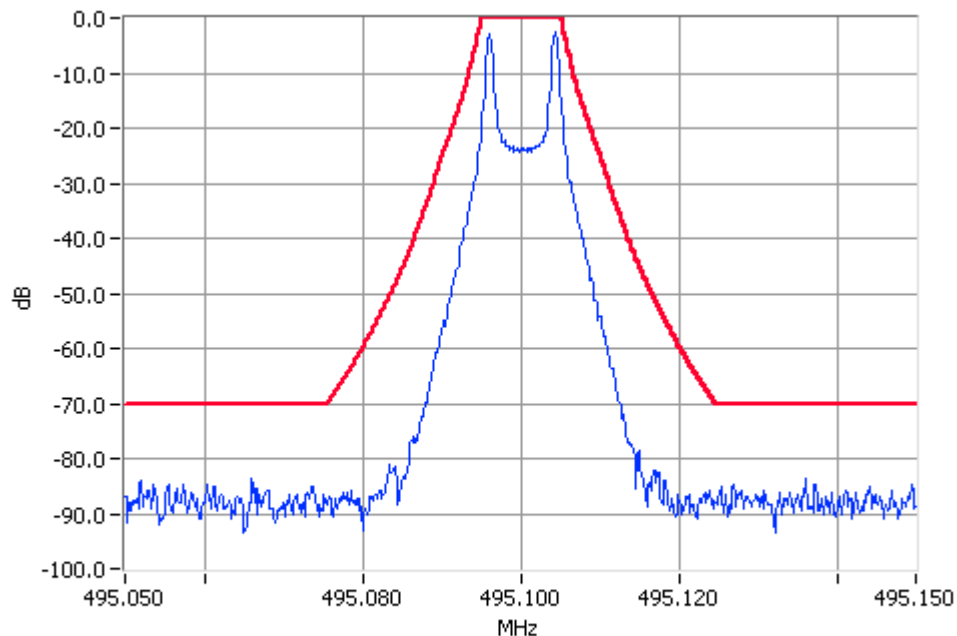
Tx FREQUENCY: 495.1MHz 100W 25 kHz Channel Spacing

Unmodulated:



Unmodulated 495.1000MHz Mask G 100W Pass
RBW=300Hz VBW=3000Hz

512 Baud:



Paging Modulation 495.1000MHz Mask G 100W Pass
RBW=300Hz VBW=3000Hz

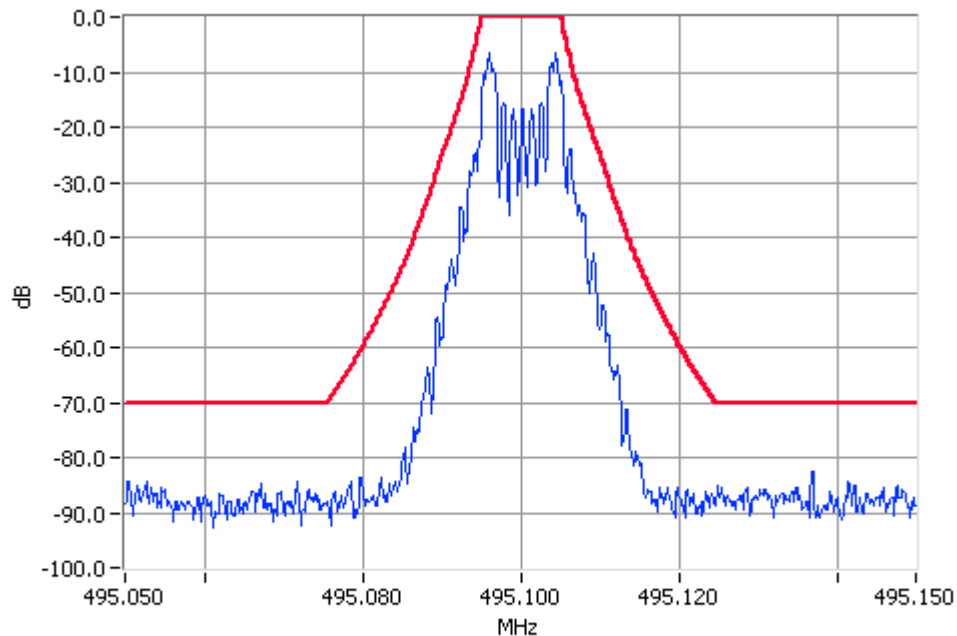
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

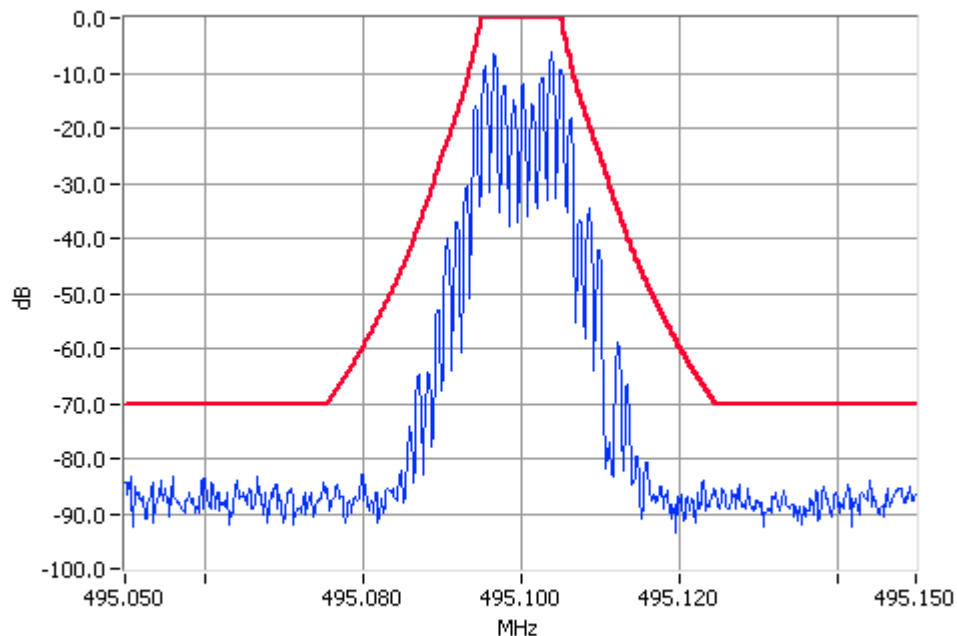
Tx FREQUENCY: 495.1MHz 100W 25 kHz Channel Spacing

1200 Baud:



Paging Modulation 495.1000MHz Mask G 100W Pass
RBW=300Hz VBW=3000Hz

2400 Baud:



Paging Modulation 495.1000MHz Mask G 100W Pass
RBW=300Hz VBW=3000Hz

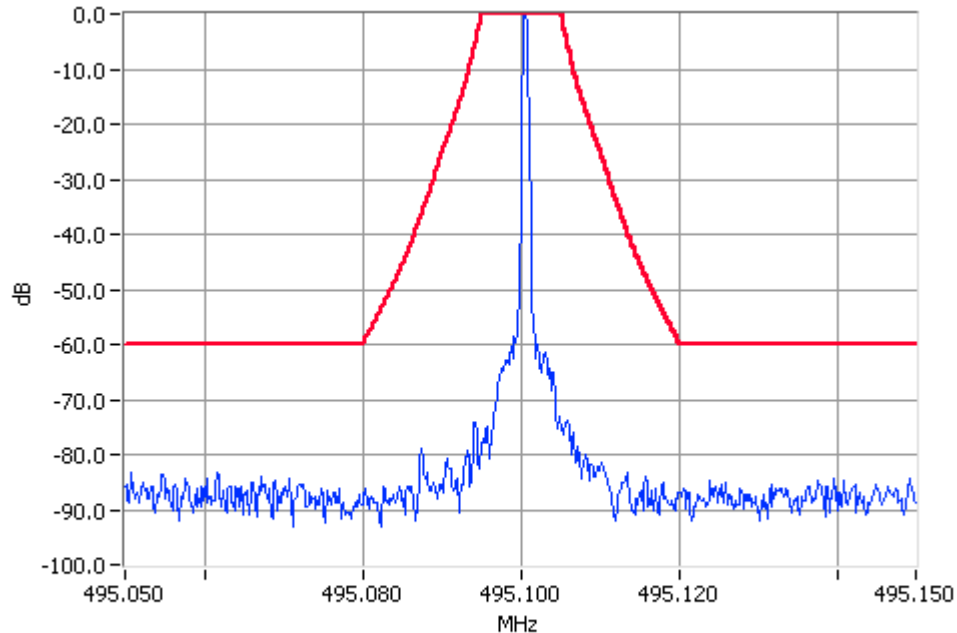
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

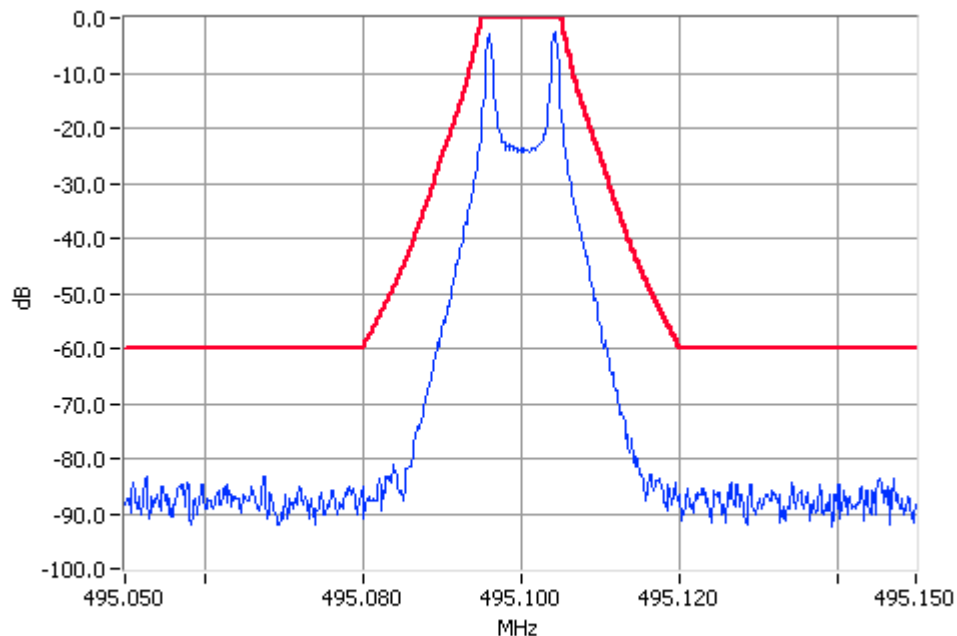
Tx FREQUENCY: 495.1MHz 10W 25 kHz Channel Spacing

Unmodulated:



Unmodulated 495.1000MHz Mask G 10W Pass
RBW=300Hz VBW=3000Hz

512 Baud:



Paging Modulation 495.1000MHz Mask G 10W Pass
RBW=300Hz VBW=3000Hz

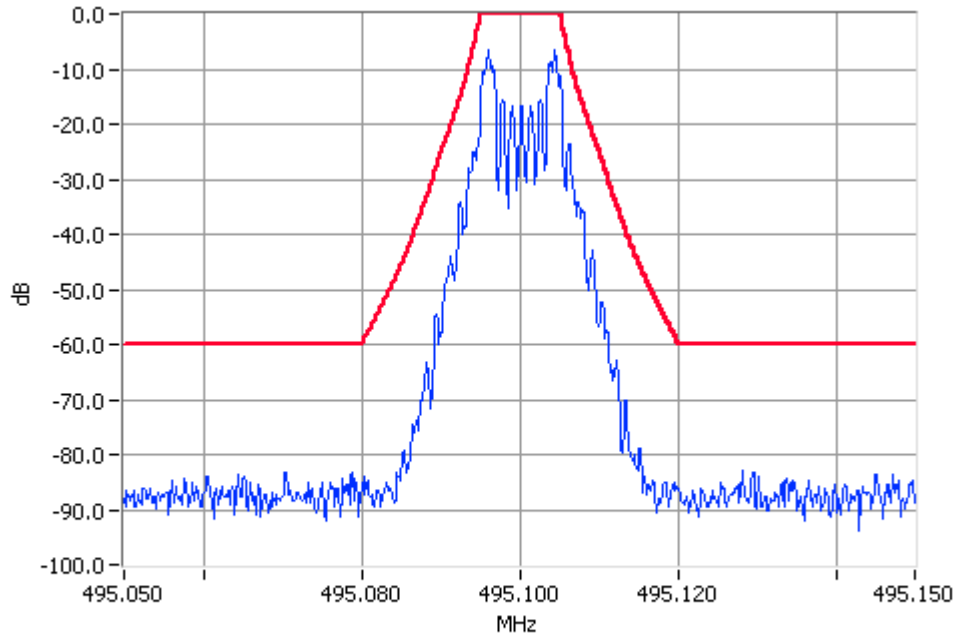
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

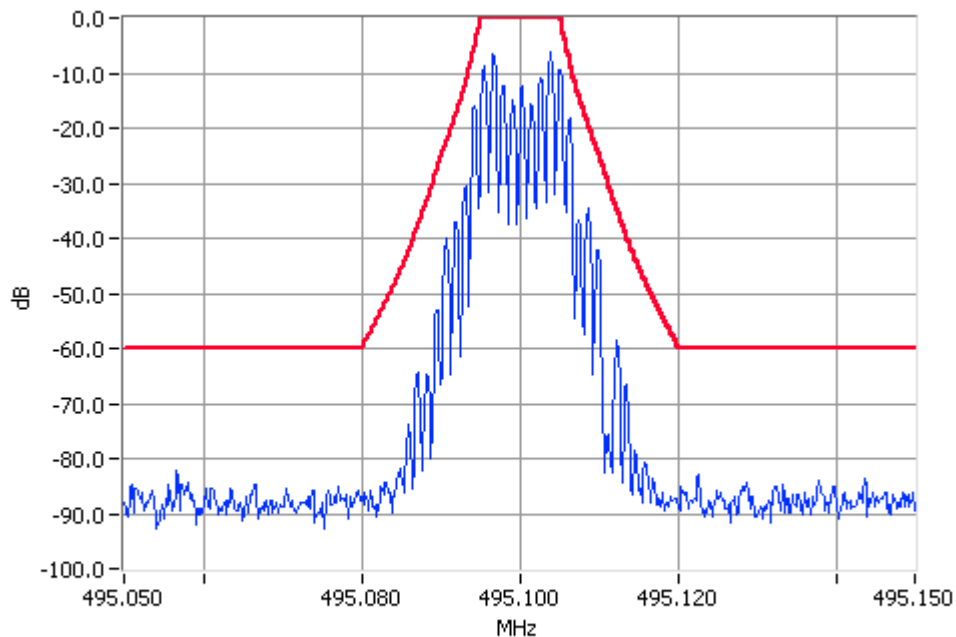
Tx FREQUENCY: 495.1MHz 10W 25 kHz Channel Spacing

1200 Baud:



Paging Modulation 495.1000MHz Mask G 10W Pass
RBW=300Hz VBW=3000Hz

2400 Baud:



Paging Modulation 495.1000MHz Mask G 10W Pass
RBW=300Hz VBW=3000Hz

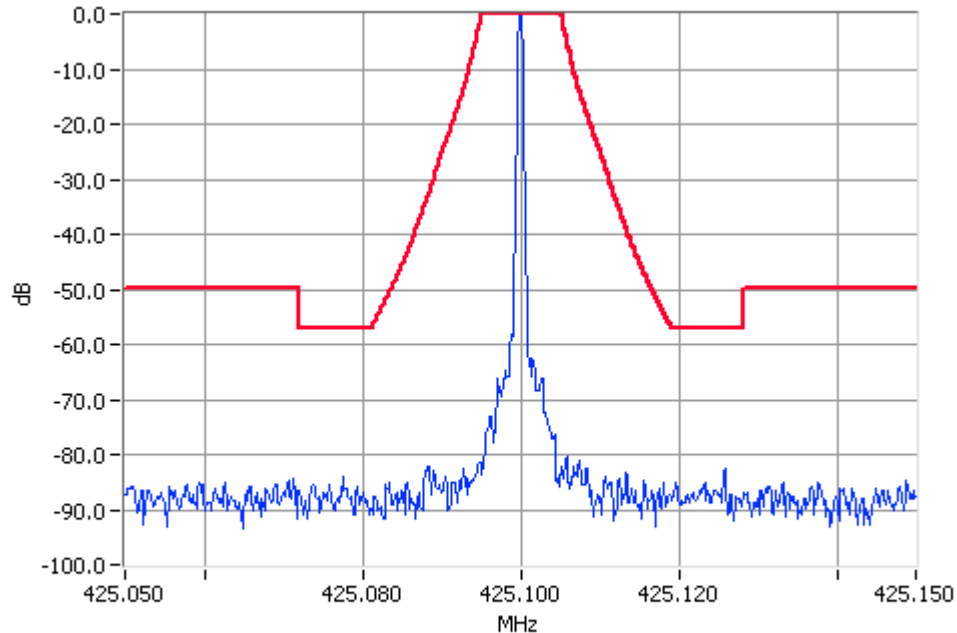
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

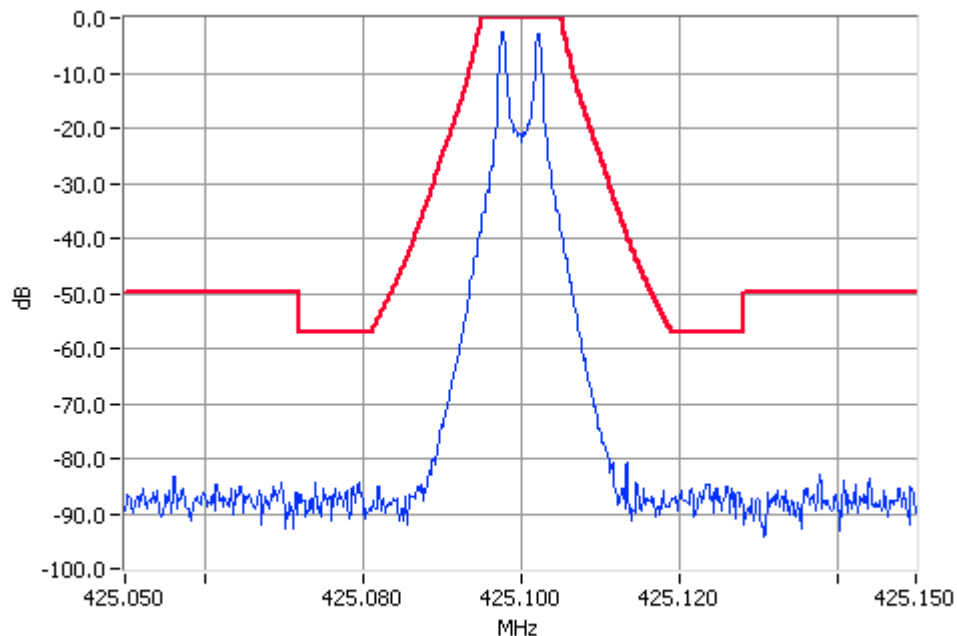
Tx FREQUENCY: 425.1MHz 5W 12.5 kHz Channel Spacing

Unmodulated:



Unmodulated 425.1000MHz Mask G 5W Pass
RBW=300Hz VBW=3000Hz

512 Baud:



Paging Modulation 425.1000MHz Mask G 5W Pass
RBW=300Hz VBW=3000Hz

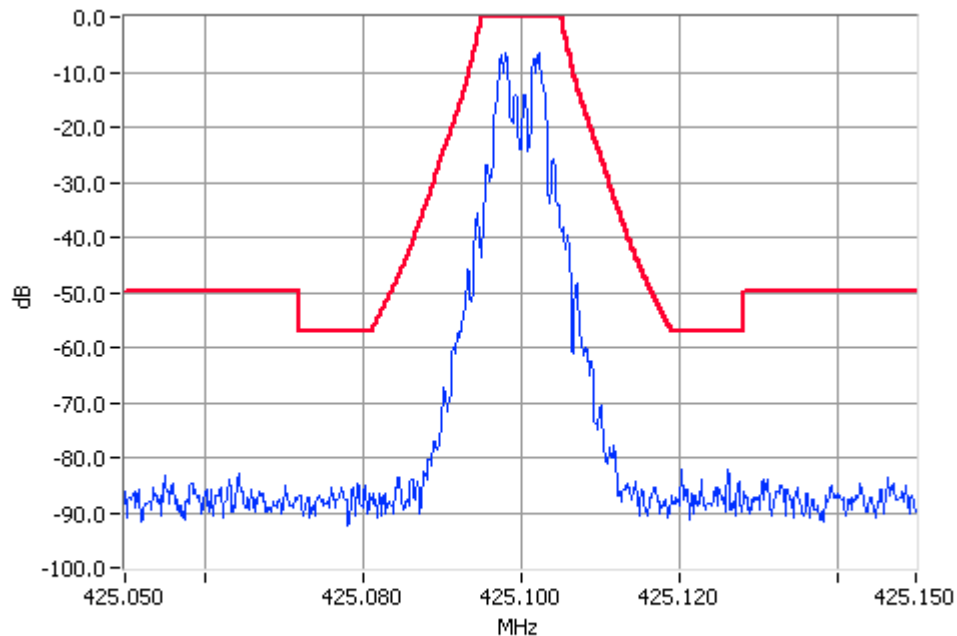
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

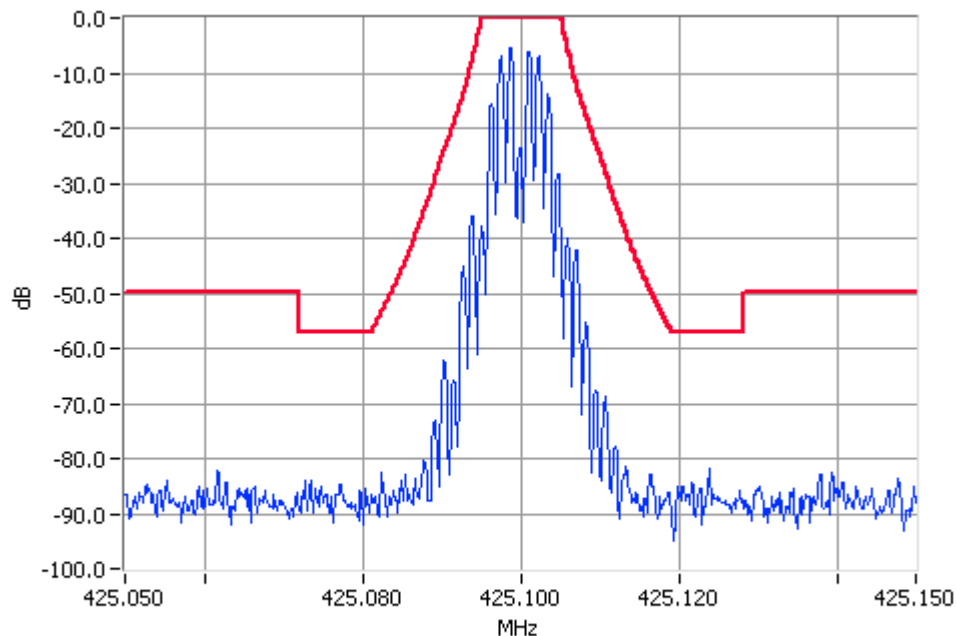
Tx FREQUENCY: 425.1MHz 5W 12.5 kHz Channel Spacing

1200 Baud:



Paging Modulation 425.1000MHz Mask G 5W Pass
RBW=300Hz VBW=3000Hz

2400 Baud:



Paging Modulation 425.1000MHz Mask G 5W Pass
RBW=300Hz VBW=3000Hz

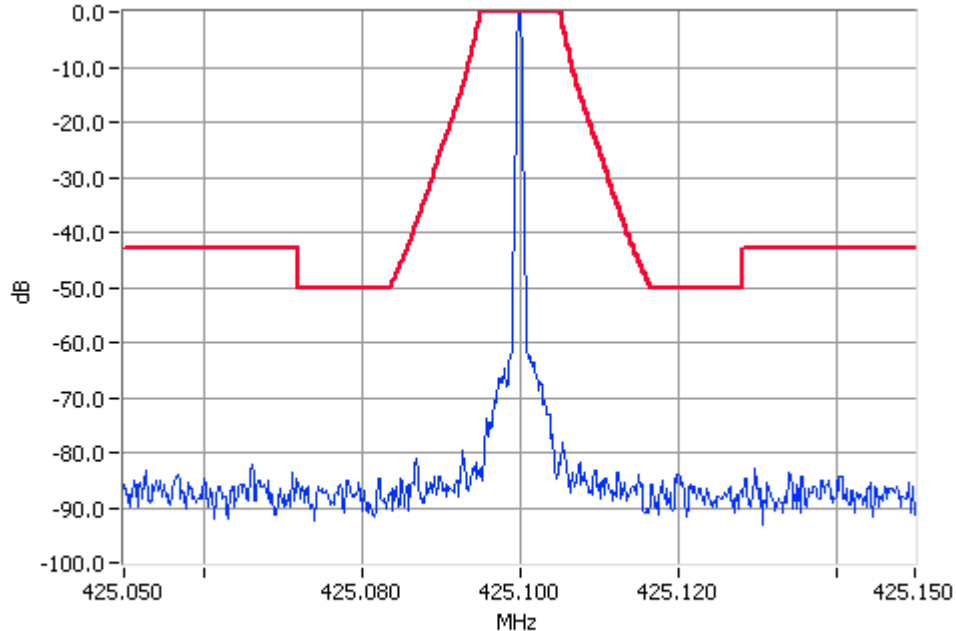
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

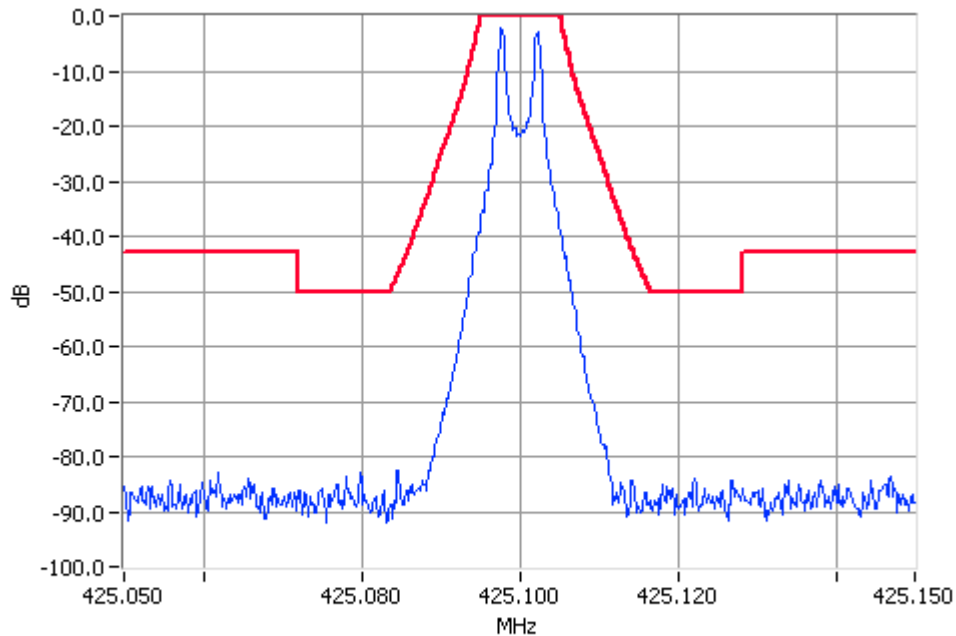
Tx FREQUENCY: 425.1MHz 1W 12.5 kHz Channel Spacing

Unmodulated:



Unmodulated 425.1000MHz Mask G 1W Pass
RBW=300Hz VBW=3000Hz

512 Baud:



Paging Modulation 425.1000MHz Mask G 1W Pass
RBW=300Hz VBW=3000Hz

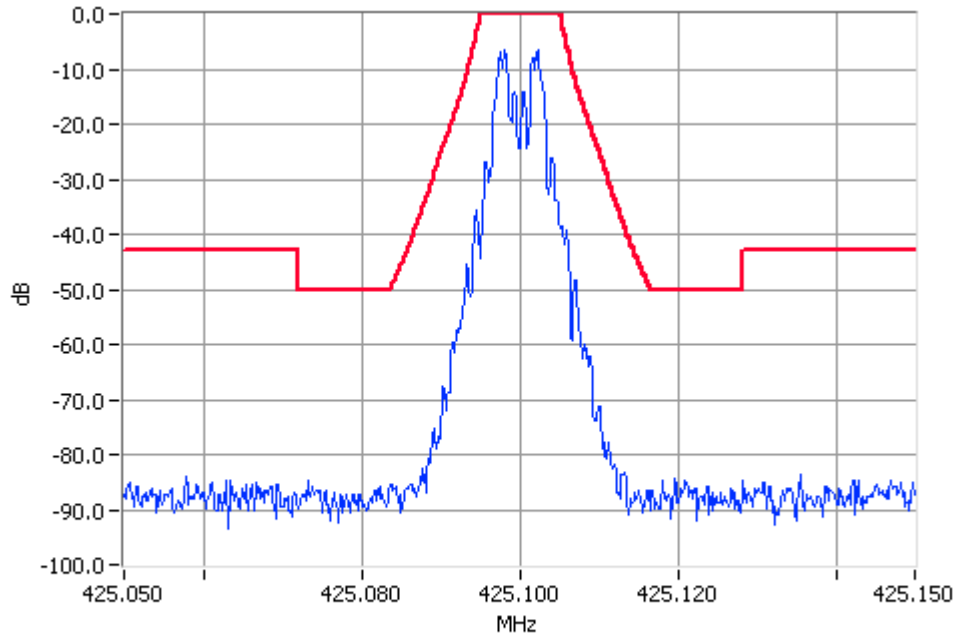
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

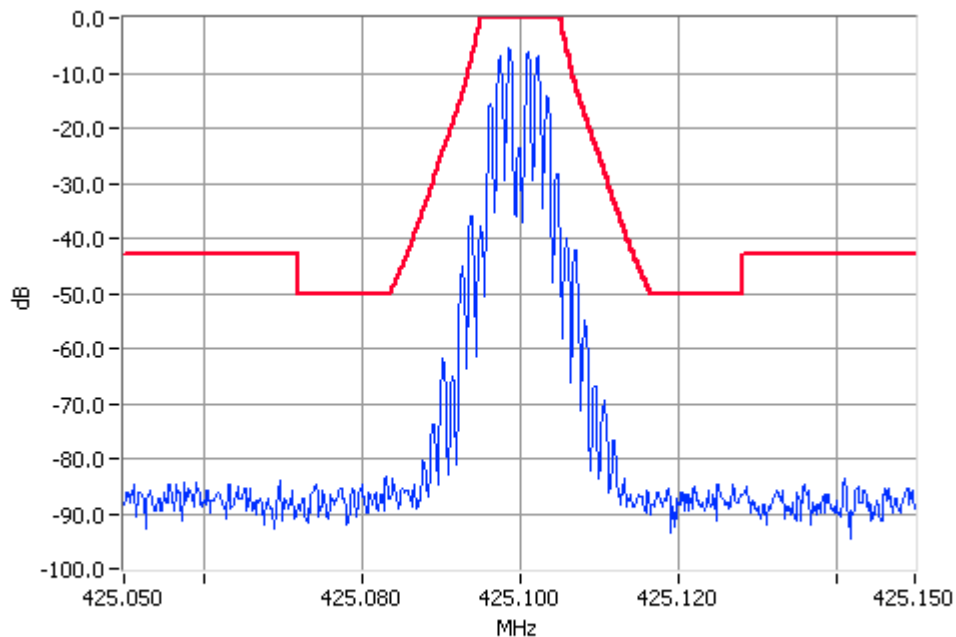
Tx FREQUENCY: 425.1MHz 1W 12.5 kHz Channel Spacing

1200 Baud:



Paging Modulation 425.1000MHz Mask G 1W Pass
RBW=300Hz VBW=3000Hz

2400 Baud:



Paging Modulation 425.1000MHz Mask G 1W Pass
RBW=300Hz VBW=3000Hz

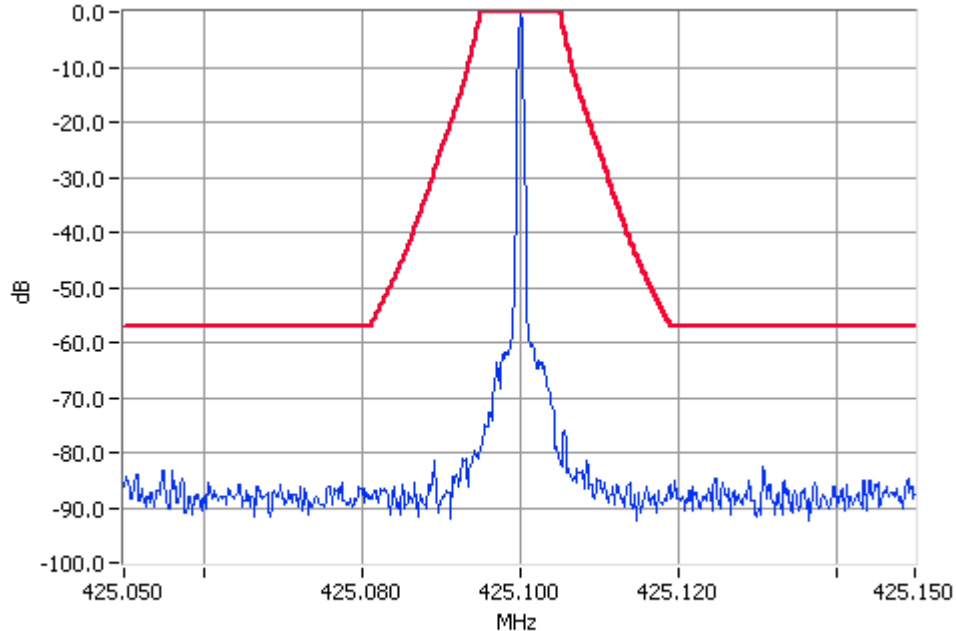
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

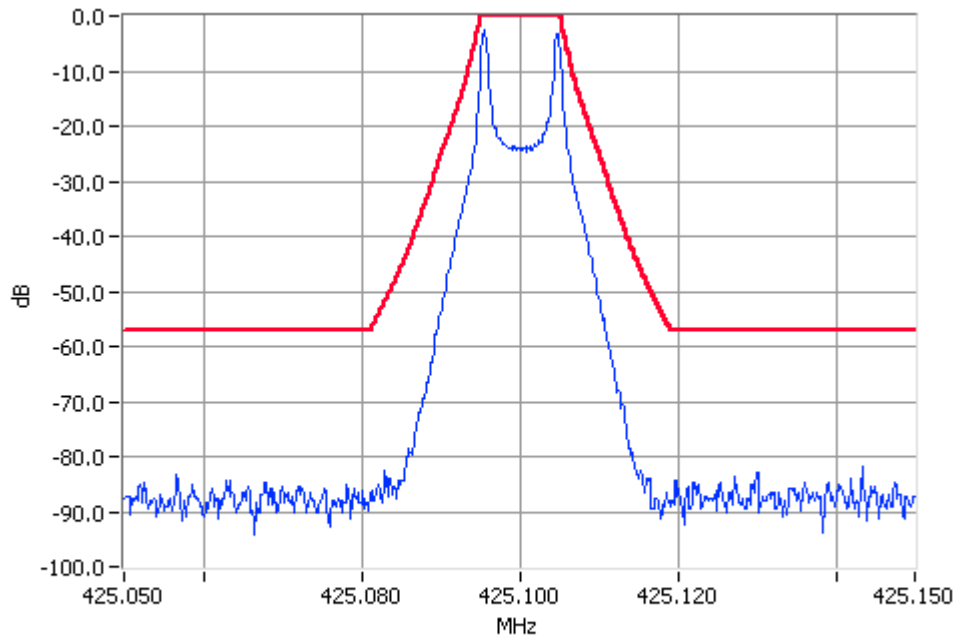
Tx FREQUENCY: 425.1MHz 5W 25 kHz Channel Spacing

Unmodulated:



Unmodulated 425.1000MHz Mask G 5W Pass
RBW=300Hz VBW=3000Hz

512 Baud:



Paging Modulation 425.1000MHz Mask G 5W Pass
RBW=300Hz VBW=3000Hz

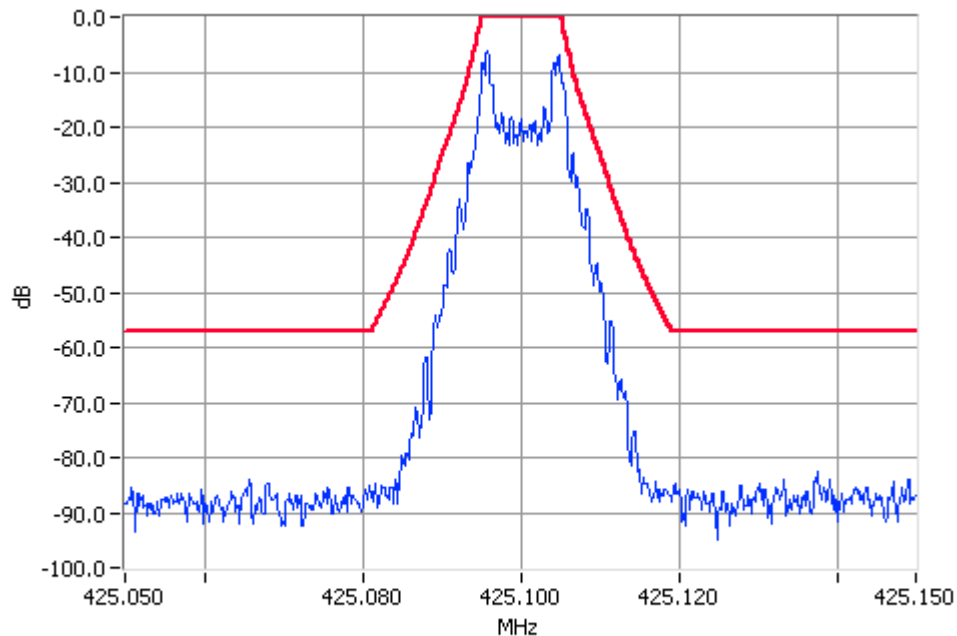
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

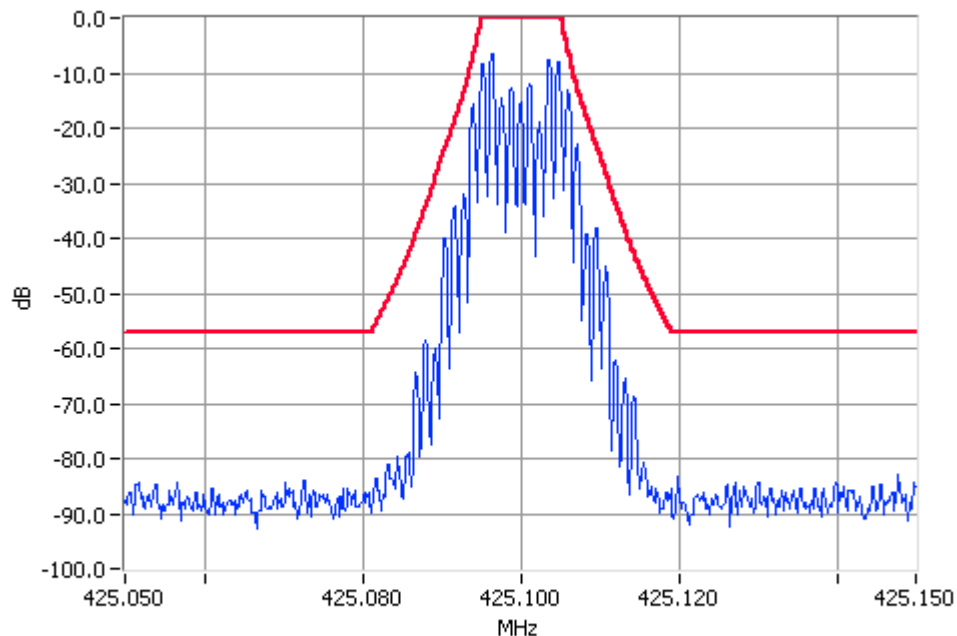
Tx FREQUENCY: 425.1MHz 5W 25 kHz Channel Spacing

1200 Baud:



Paging Modulation 425.1000MHz Mask G 5W Pass
RBW=300Hz VBW=3000Hz

2400 Baud:



Paging Modulation 425.1000MHz Mask G 5W Pass
RBW=300Hz VBW=3000Hz

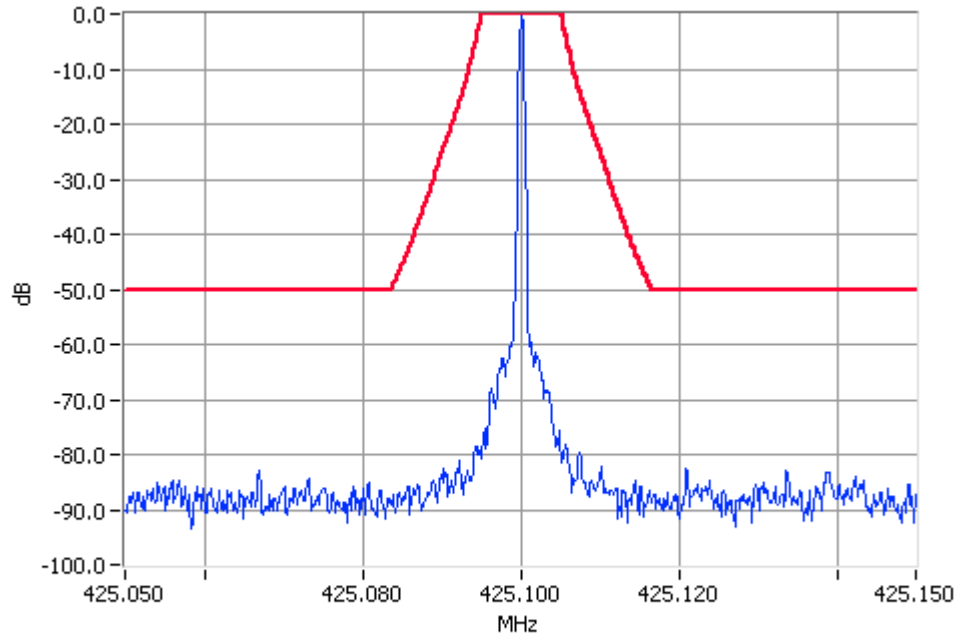
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

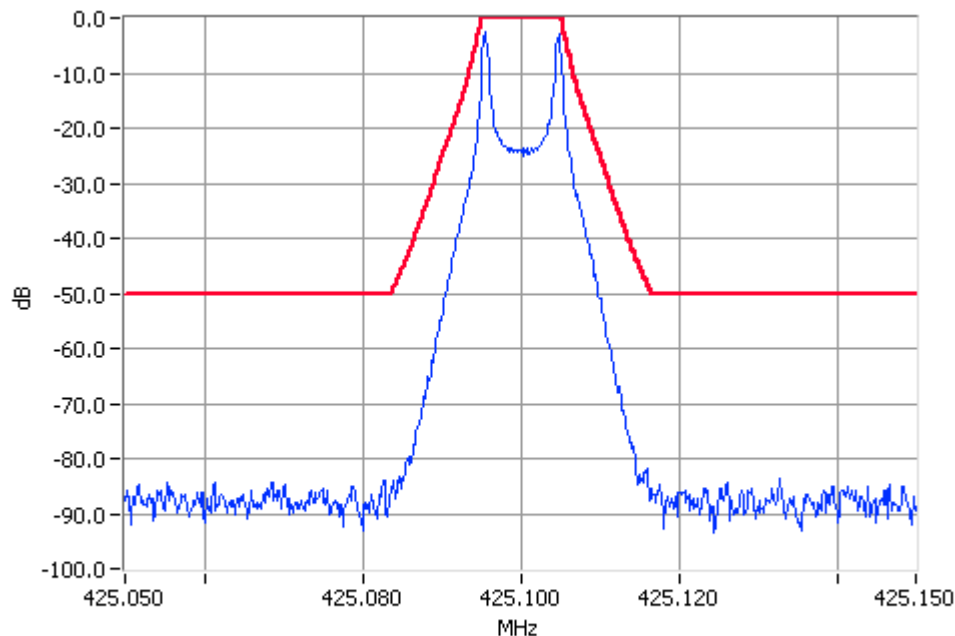
Tx FREQUENCY: 425.1MHz 1W 25 kHz Channel Spacing

Unmodulated:



Unmodulated 425.1000MHz Mask G 1W Pass
RBW=300Hz VBW=3000Hz

512 Baud:



Paging Modulation 425.1000MHz Mask G 1W Pass
RBW=300Hz VBW=3000Hz

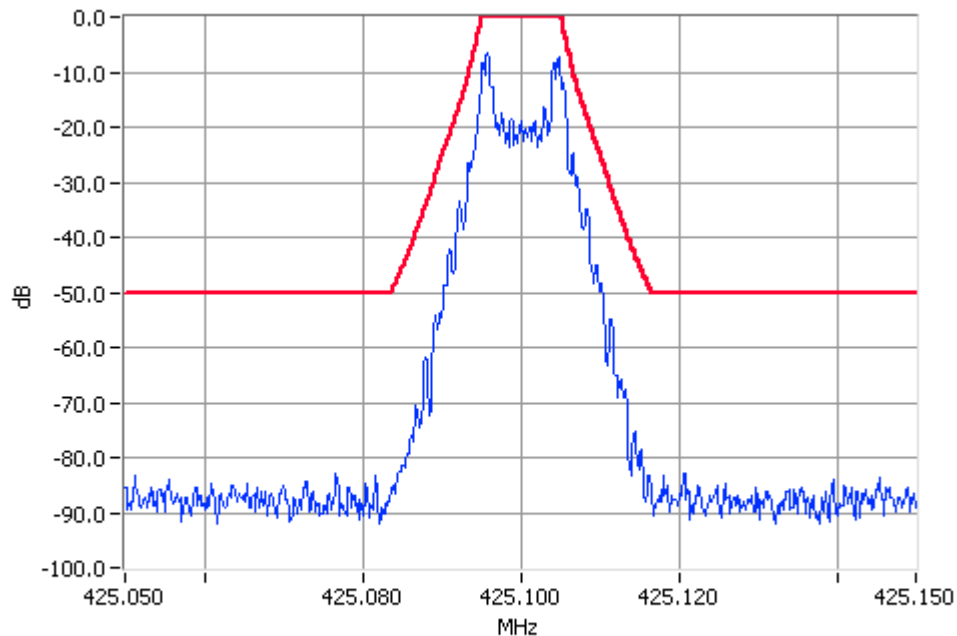
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

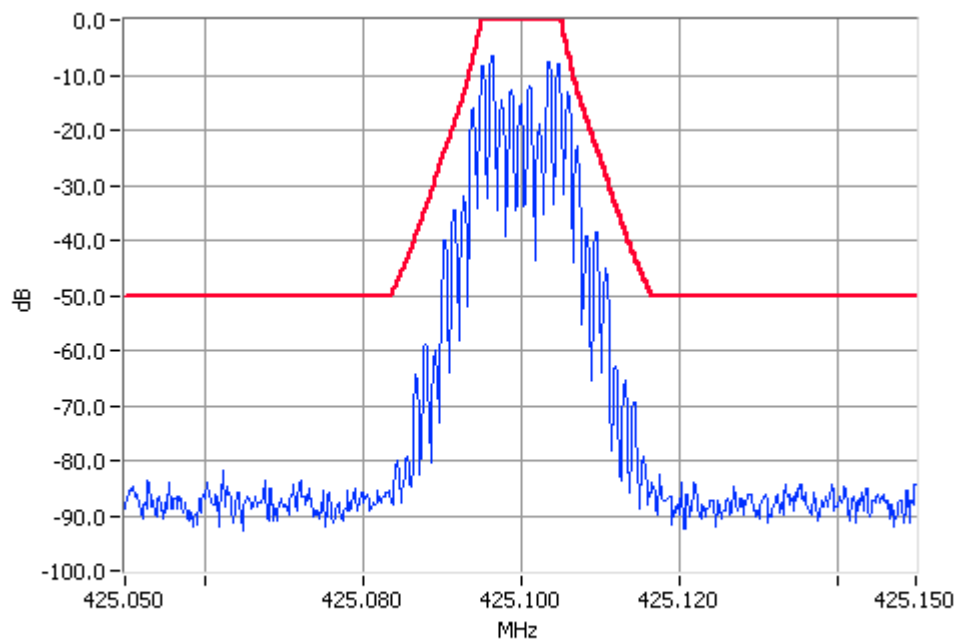
Tx FREQUENCY: 425.1MHz 1W 25 kHz Channel Spacing

1200 Baud:



Paging Modulation 425.1000MHz Mask G 1W Pass
RBW=300Hz VBW=3000Hz

2400 Baud:



Paging Modulation 425.1000MHz Mask G 1W Pass
RBW=300Hz VBW=3000Hz

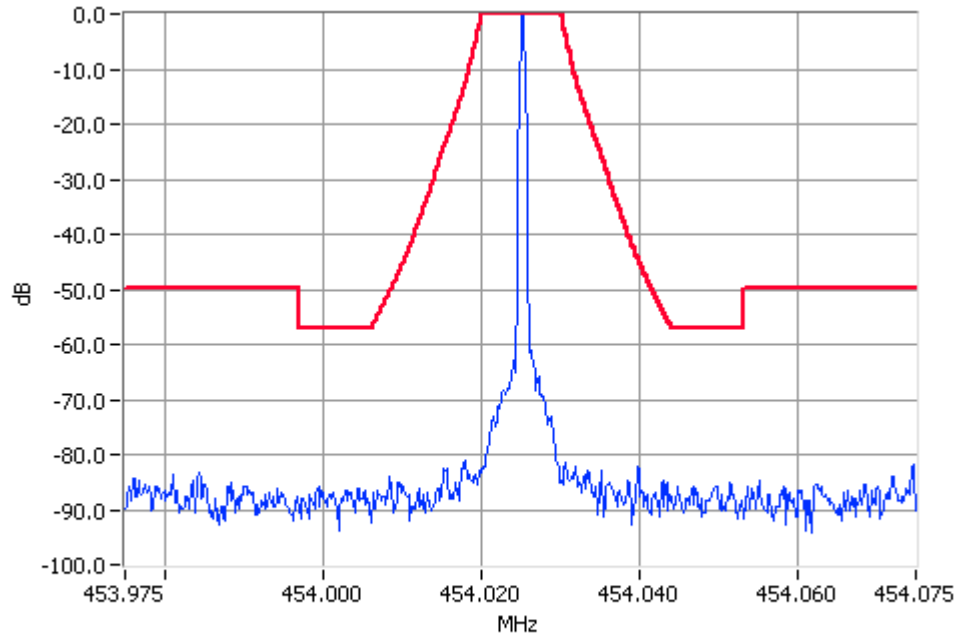
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

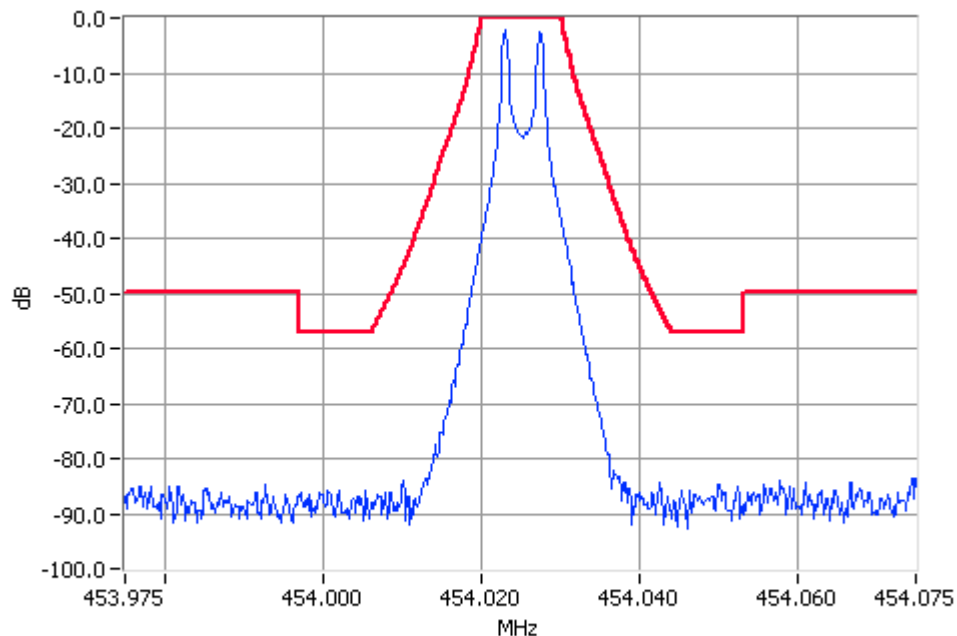
Tx FREQUENCY: 454.025MHz 5W 12.5 kHz Channel Spacing

Unmodulated:



Unmodulated 454.025MHz Mask G 5W Pass
RBW=300Hz VBW=3000Hz

512 Baud:



Paging Modulation 454.025MHz Mask G 5W Pass
RBW=300Hz VBW=3000Hz

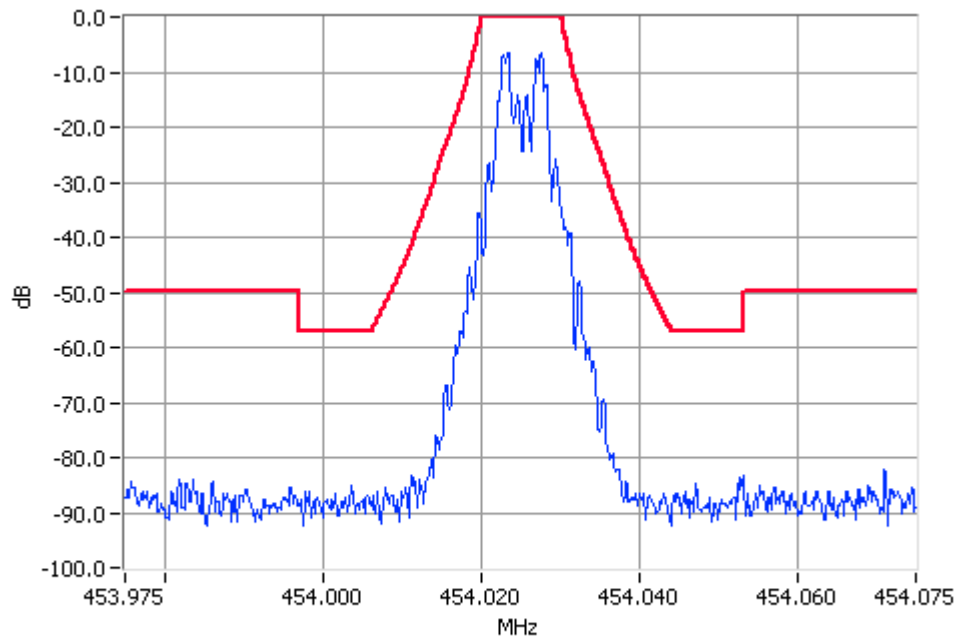
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

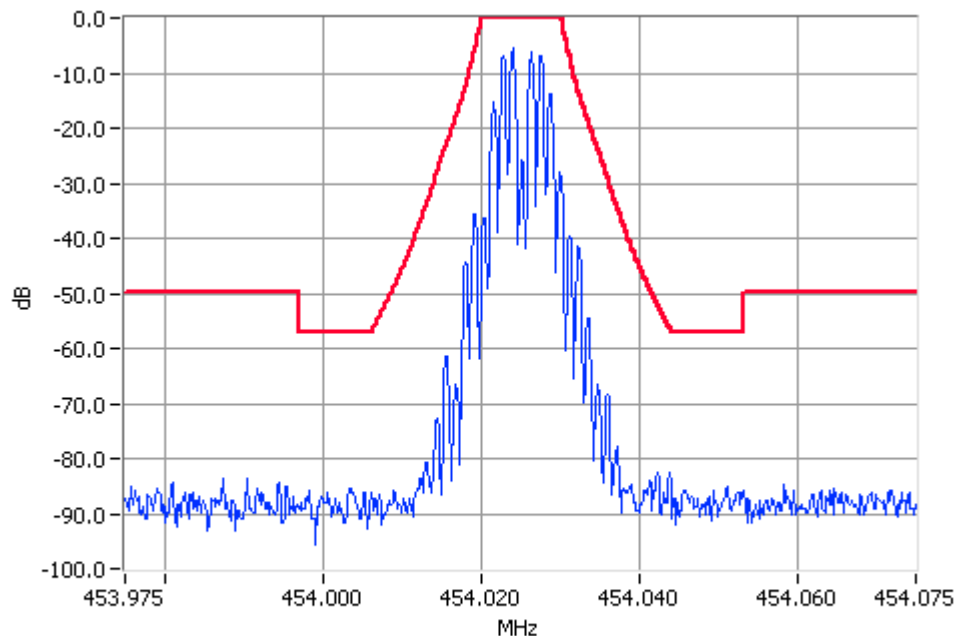
Tx FREQUENCY: 454.025MHz 5W 12.5 kHz Channel Spacing

1200 Baud:



Paging Modulation 454.025MHz Mask G 5W Pass
RBW=300Hz VBW=3000Hz

2400 Baud:



Paging Modulation 454.025MHz Mask G 5W Pass
RBW=300Hz VBW=3000Hz

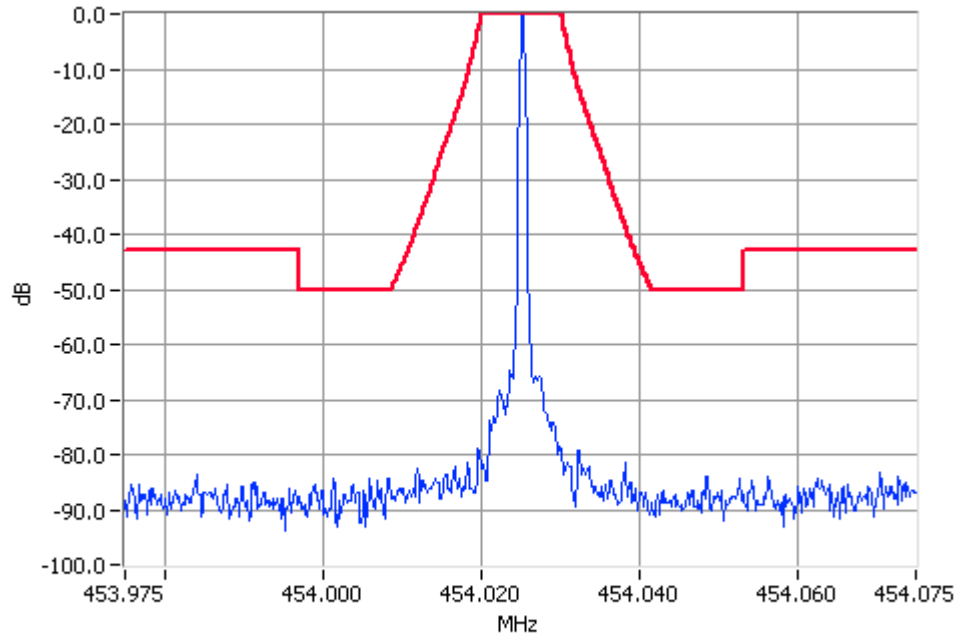
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

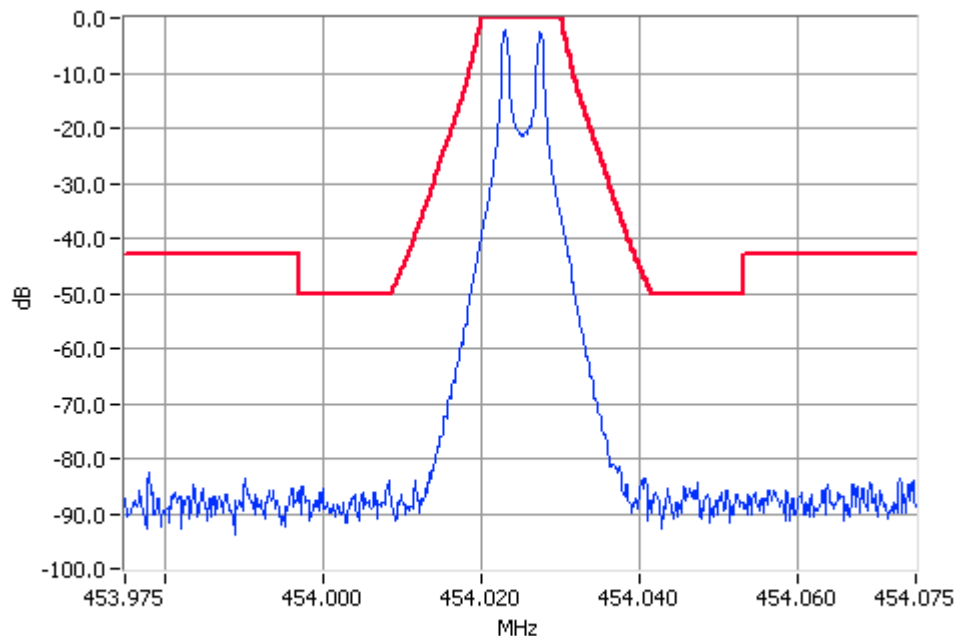
Tx FREQUENCY: 454.025MHz 1W 12.5 kHz Channel Spacing

Unmodulated:



Unmodulated 454.025MHz Mask G 1W Pass
RBW=300Hz VBW=3000Hz

512 Baud:



Paging Modulation 454.025MHz Mask G 1W Pass
RBW=300Hz VBW=3000Hz

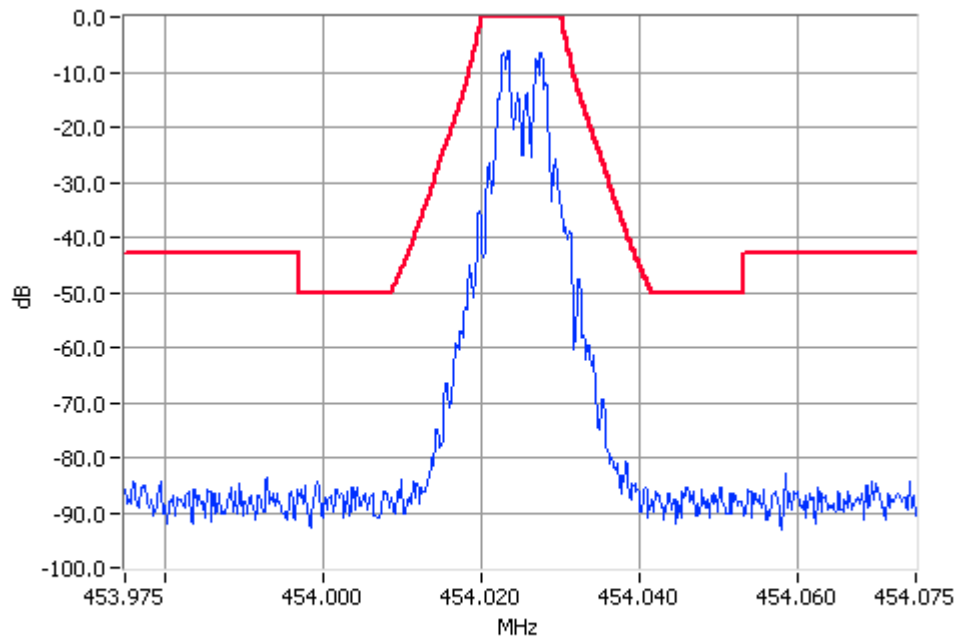
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

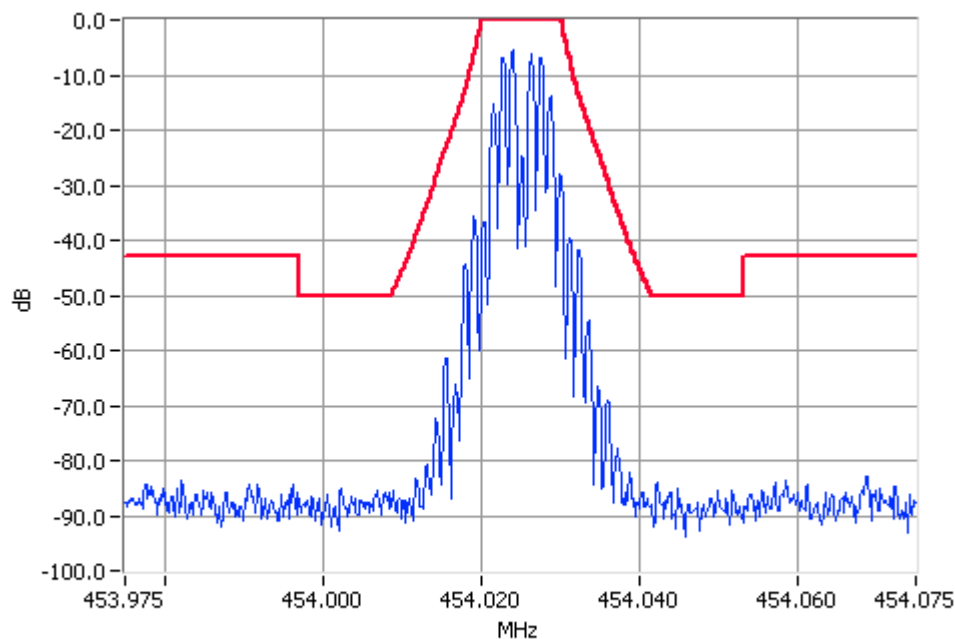
Tx FREQUENCY: 454.025MHz 1W 12.5 kHz Channel Spacing

1200 Baud:



Paging Modulation 454.0250MHz Mask G 1W Pass
RBW=300Hz VBW=3000Hz

2400 Baud:



Paging Modulation 454.0250MHz Mask G 1W Pass
RBW=300Hz VBW=3000Hz

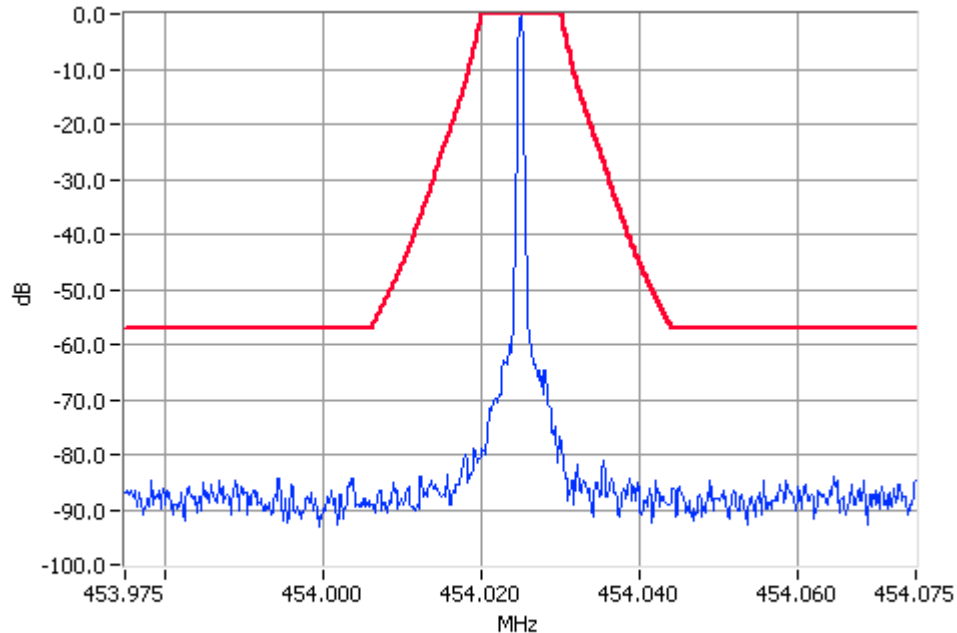
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

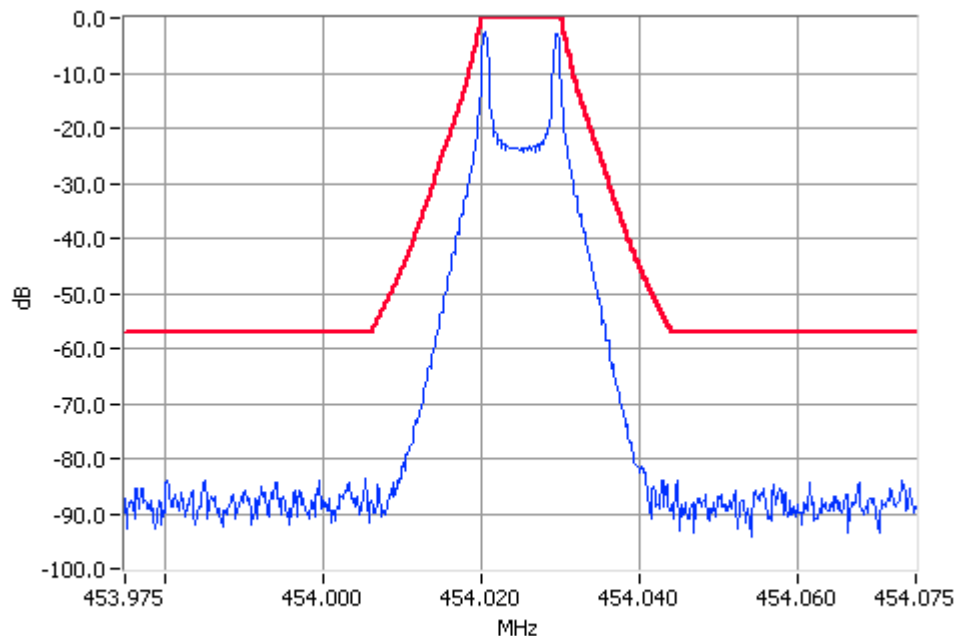
Tx FREQUENCY: 454.025MHz 5W 25 kHz Channel Spacing

Unmodulated:



Unmodulated 454.025MHz Mask G 5W Pass
RBW=300Hz VBW=3000Hz

512 Baud:



Paging Modulation 454.025MHz Mask G 5W Pass
RBW=300Hz VBW=3000Hz

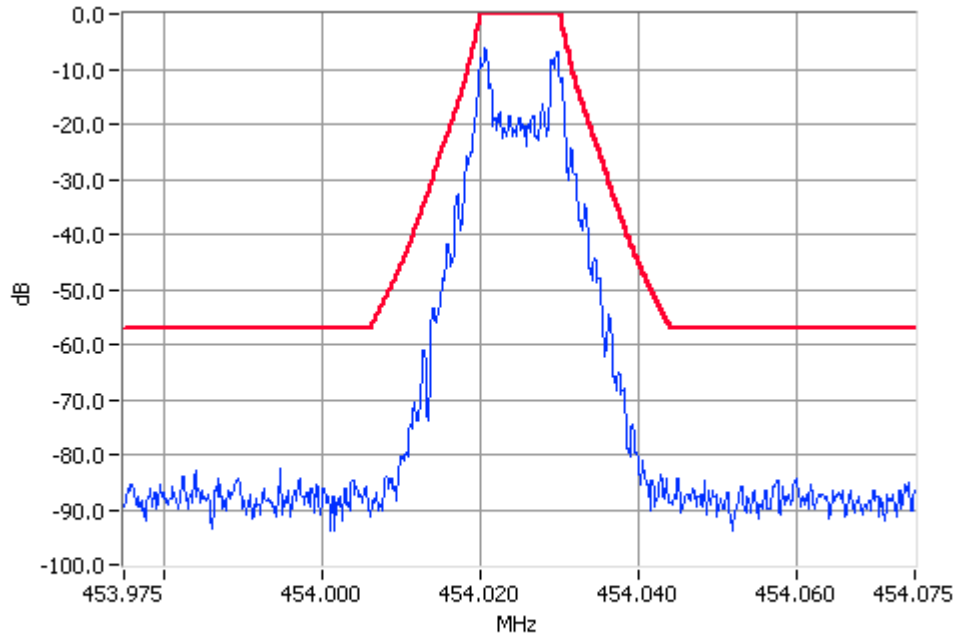
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

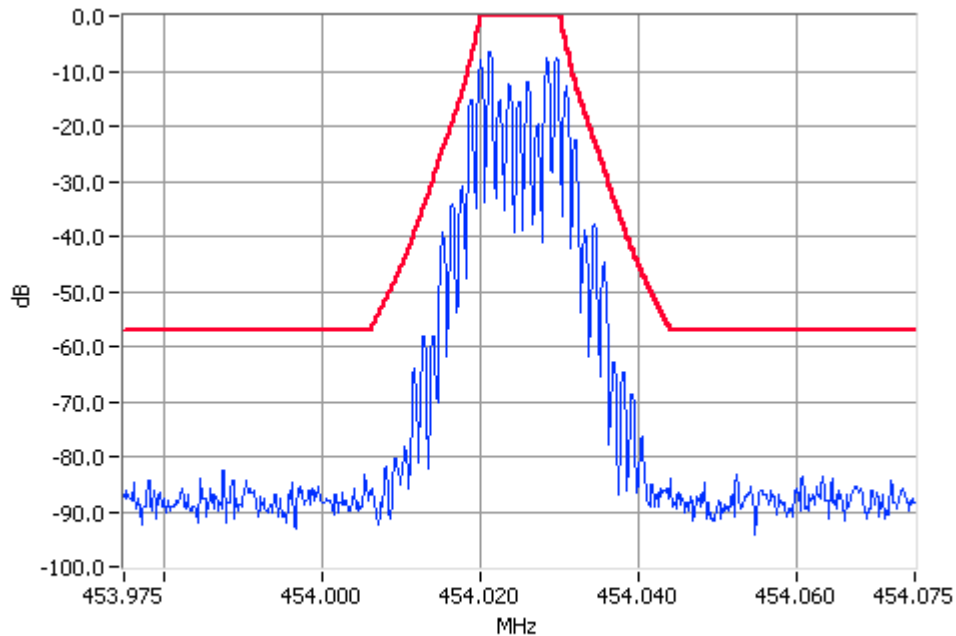
Tx FREQUENCY: 454.025MHz 5W 25 kHz Channel Spacing

1200 Baud:



Paging Modulation 454.025MHz Mask G 5W Pass
RBW=300Hz VBW=3000Hz

2400 Baud:



Paging Modulation 454.025MHz Mask G 5W Pass
RBW=300Hz VBW=3000Hz

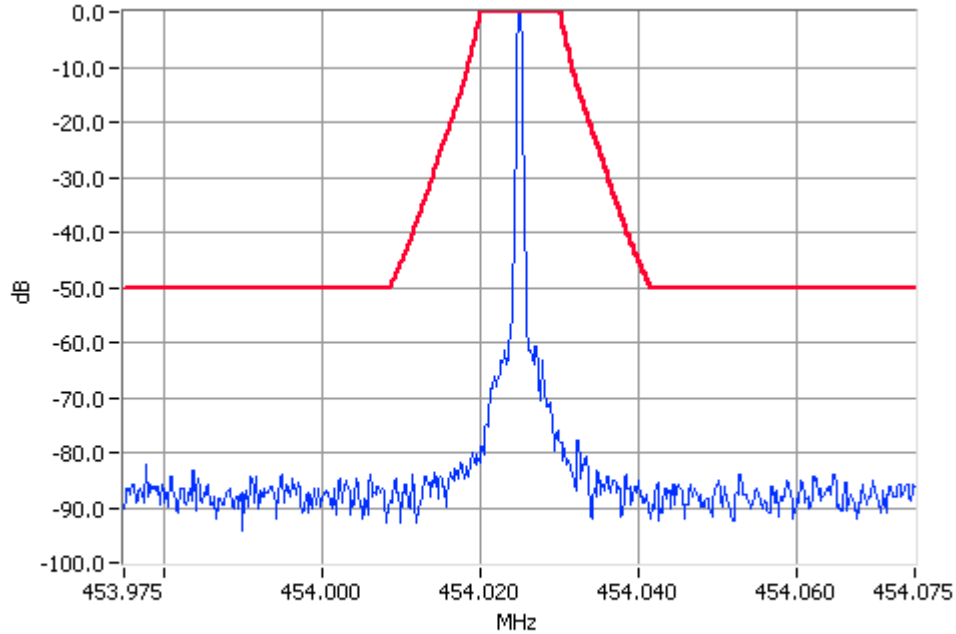
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

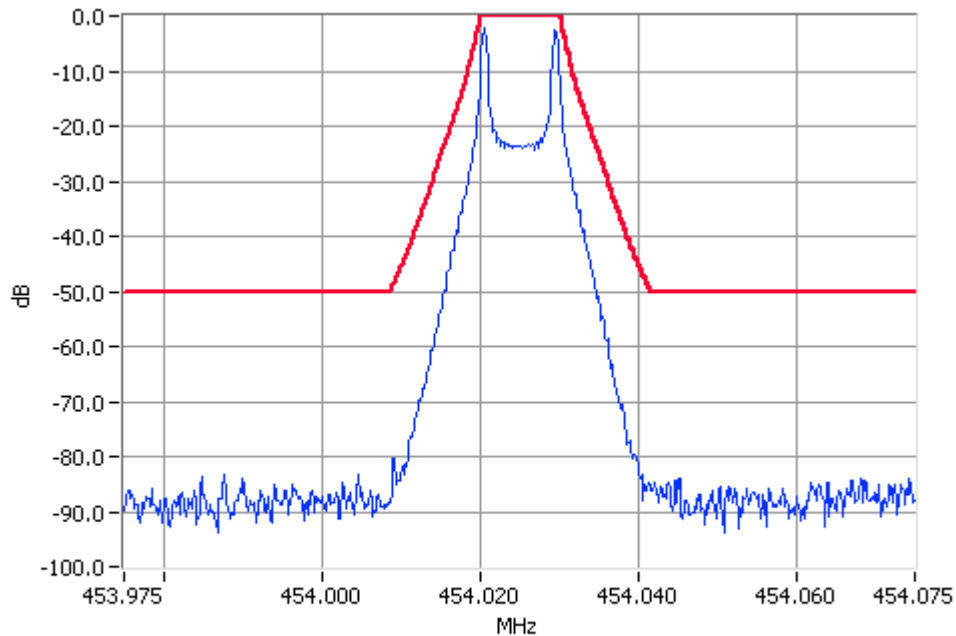
Tx FREQUENCY: 454.025MHz 1W 25 kHz Channel Spacing

Unmodulated:



Unmodulated 454.025MHz Mask G 1W Pass
RBW=300Hz VBW=3000Hz

512 Baud:



Paging Modulation 454.025MHz Mask G 1W Pass
RBW=300Hz VBW=3000Hz

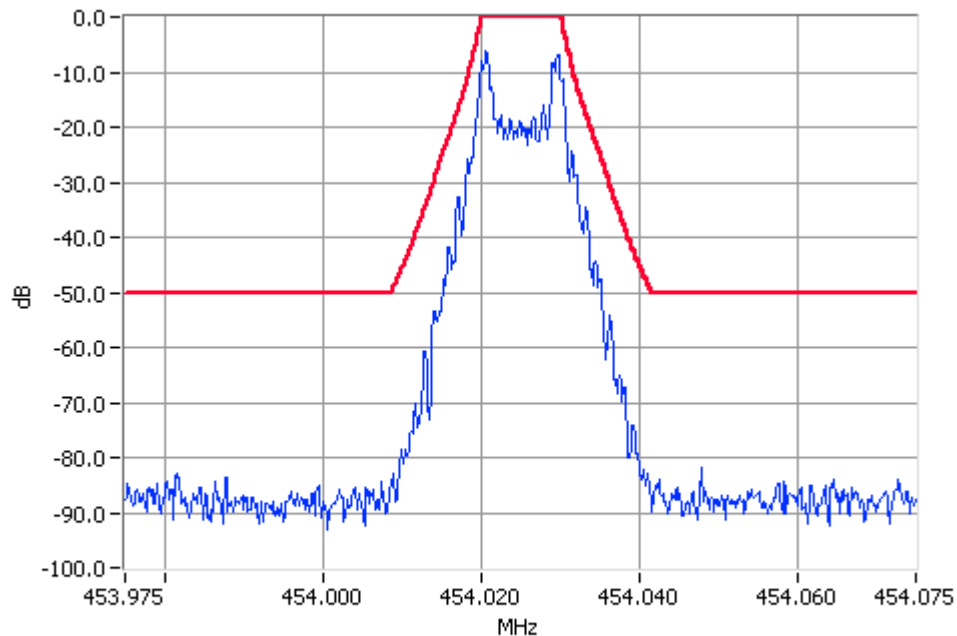
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

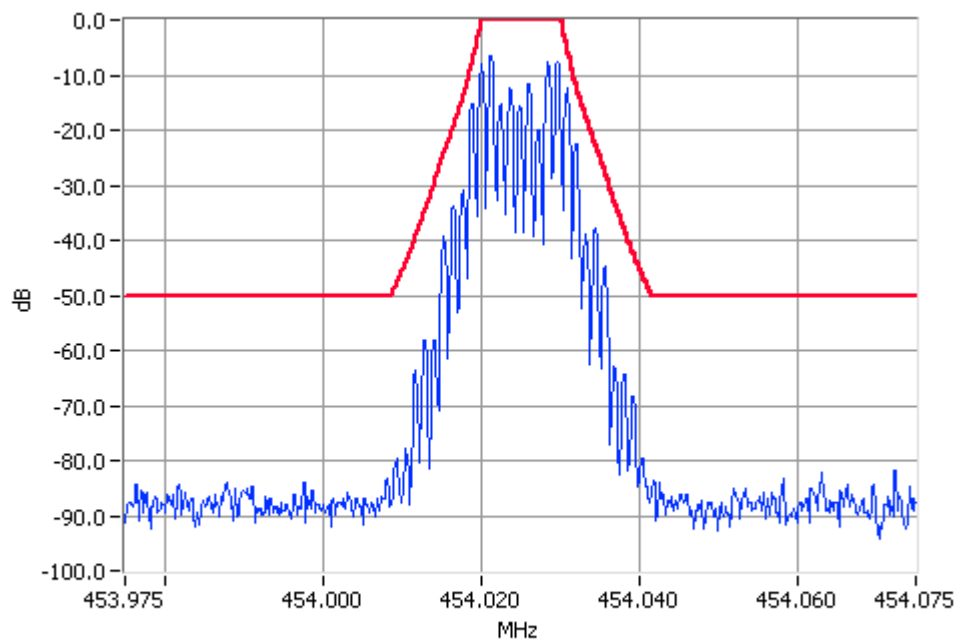
Tx FREQUENCY: 454.025MHz 1W 25 kHz Channel Spacing

1200 Baud:



Paging Modulation 454.025MHz Mask G 1W Pass
RBW=300Hz VBW=3000Hz

2400 Baud:



Paging Modulation 454.025MHz Mask G 1W Pass
RBW=300Hz VBW=3000Hz

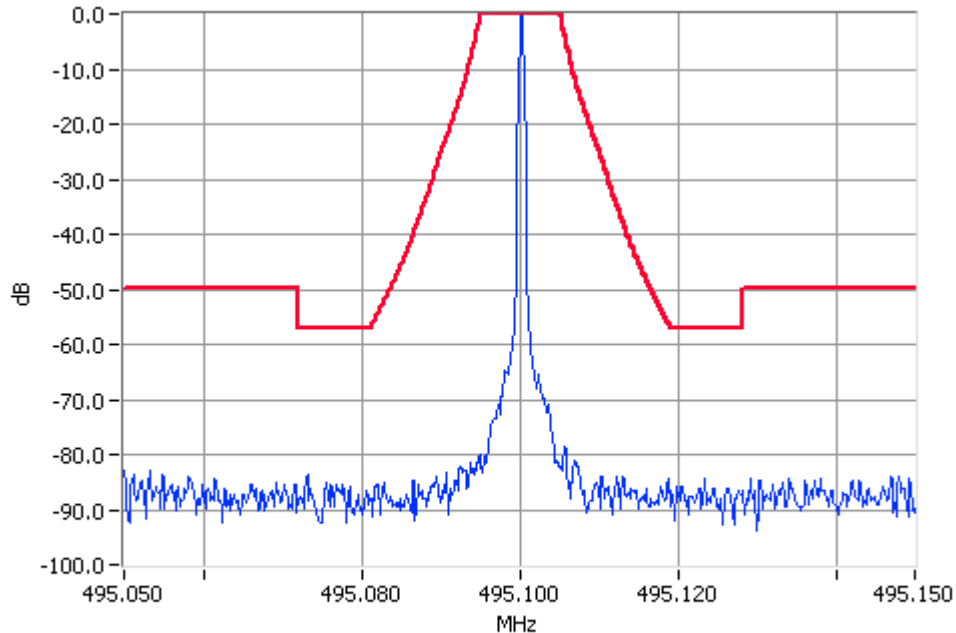
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

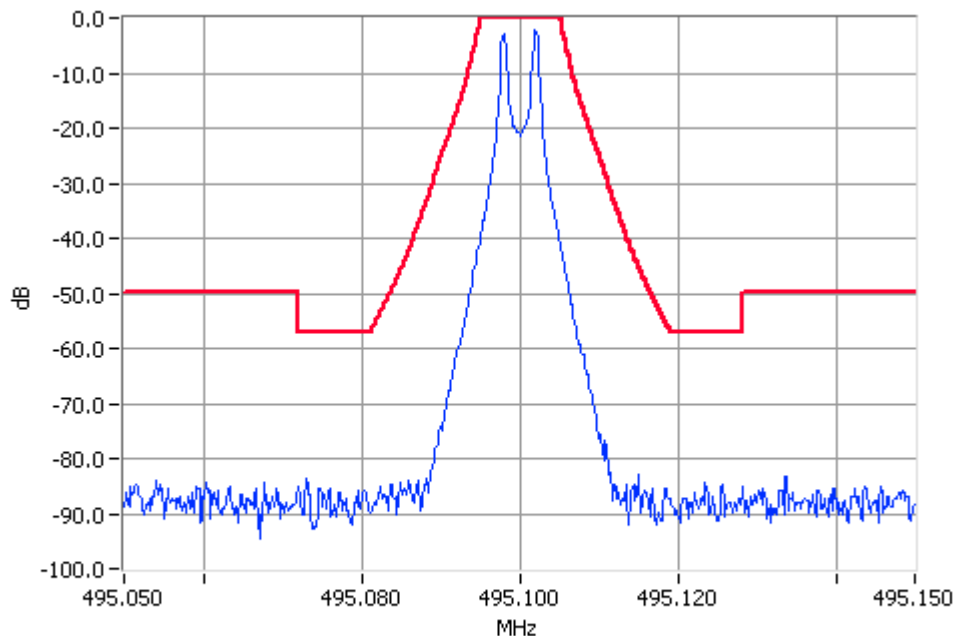
Tx FREQUENCY: 495.1MHz 5W 12.5 kHz Channel Spacing

Unmodulated:



Unmodulated 495.1000MHz Mask G 5W Pass
RBW=300Hz VBW=3000Hz

512 Baud:



Paging Modulation 495.1000MHz Mask G 5W Pass
RBW=300Hz VBW=3000Hz

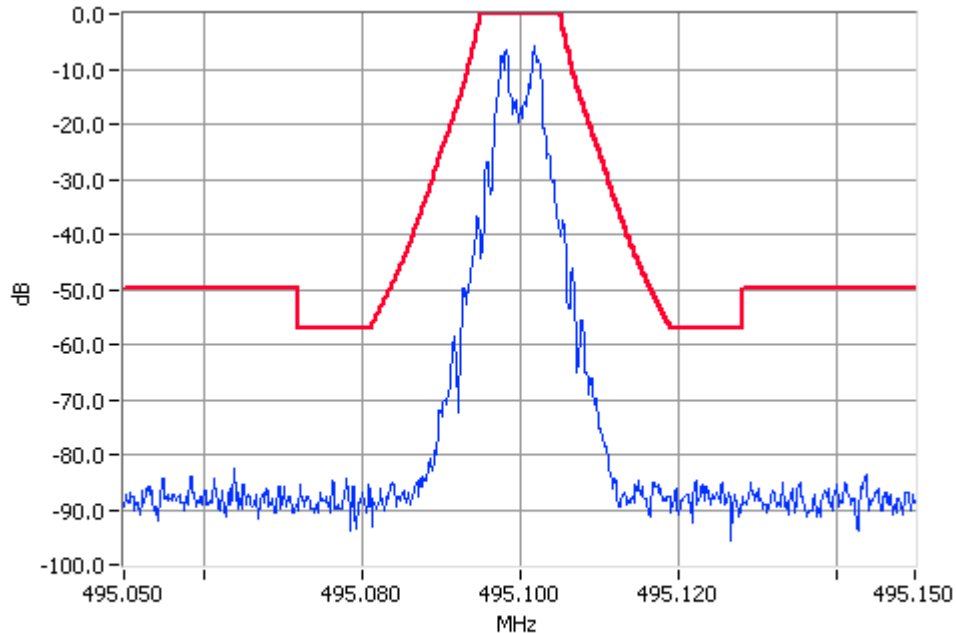
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

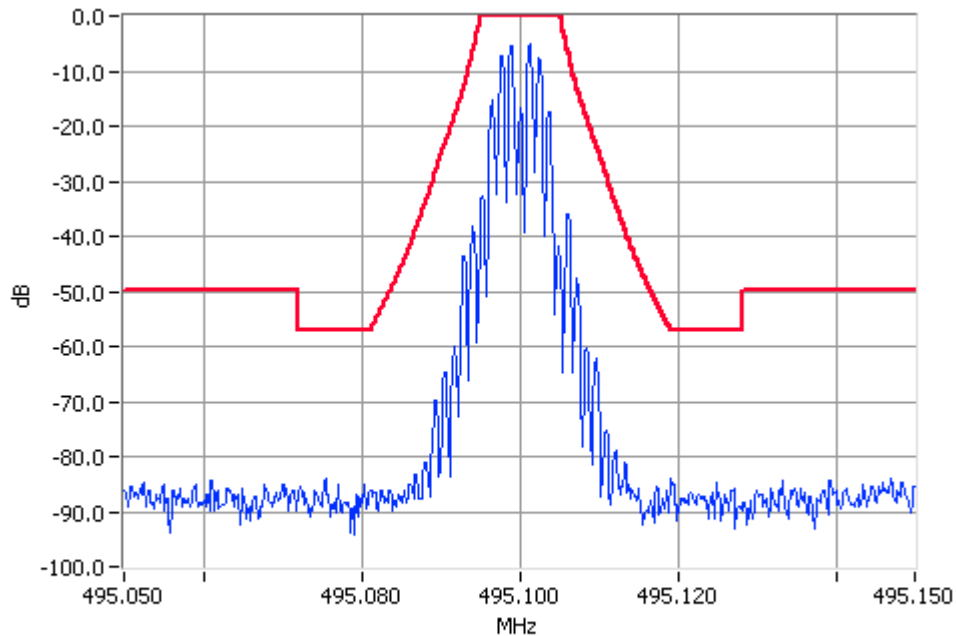
Tx FREQUENCY: 495.1MHz 5W 12.5 kHz Channel Spacing

1200 Baud:



Paging Modulation 495.1000MHz Mask G 5W Pass
RBW=300Hz VBW=3000Hz

2400 Baud:



Paging Modulation 495.1000MHz Mask G 5W Pass
RBW=300Hz VBW=3000Hz

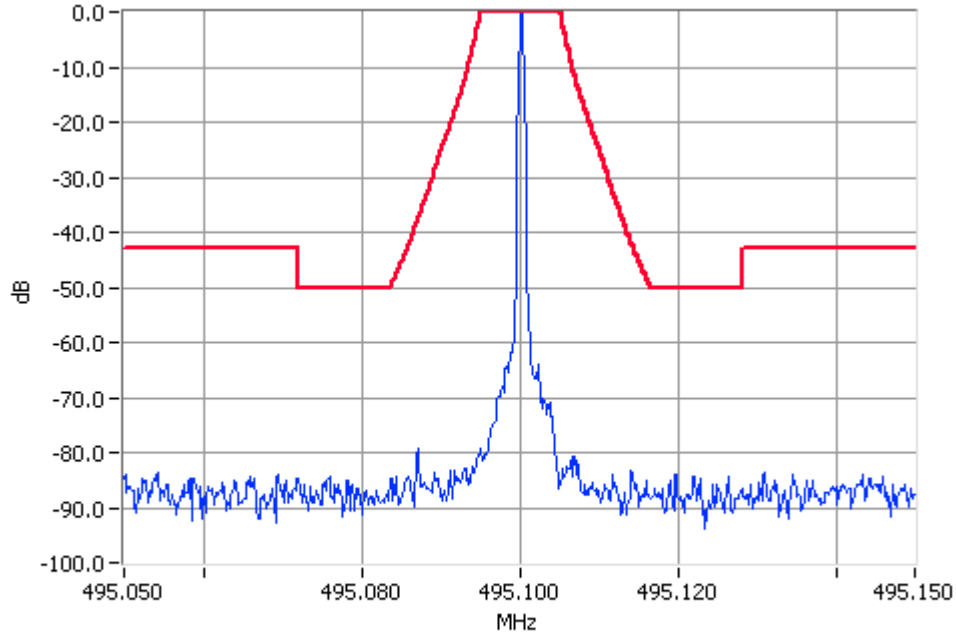
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

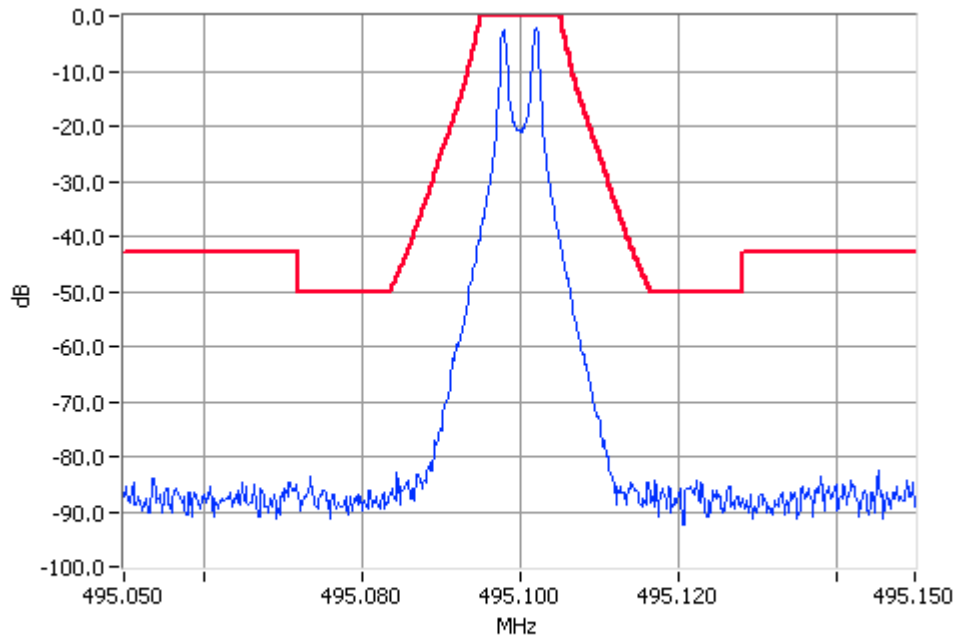
Tx FREQUENCY: 495.1MHz 1W 12.5 kHz Channel Spacing

Unmodulated:



Unmodulated 495.1000MHz Mask G 1W Pass
RBW=300Hz VBW=3000Hz

512 Baud:



Paging Modulation 495.1000MHz Mask G 1W Pass
RBW=300Hz VBW=3000Hz

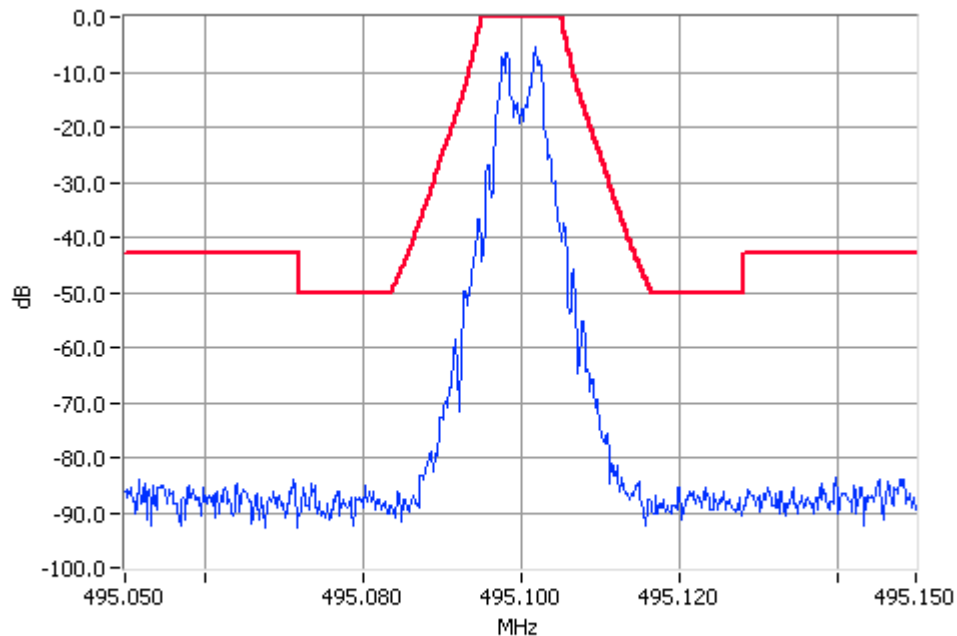
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

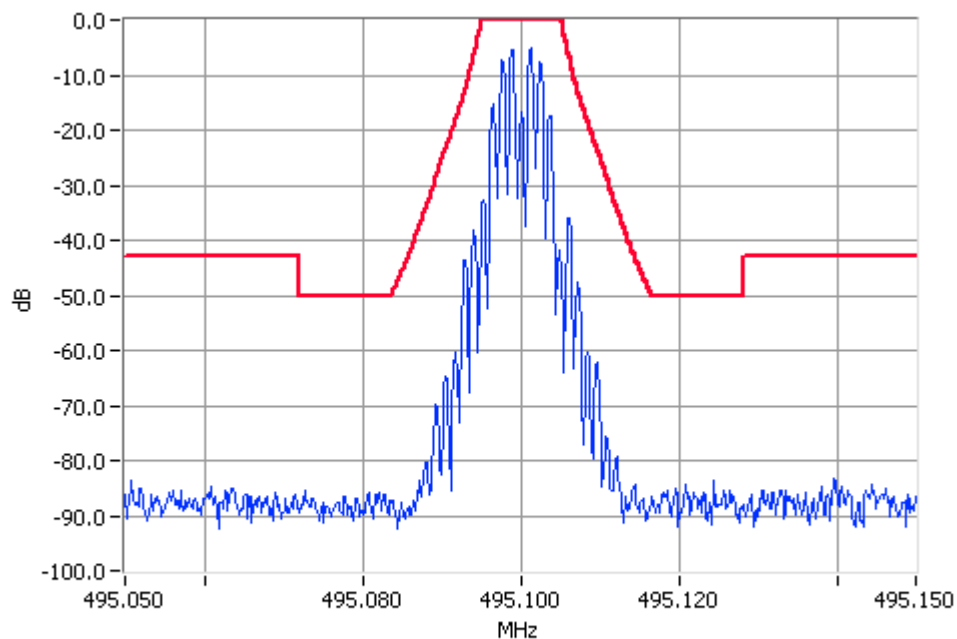
Tx FREQUENCY: 495.1MHz 1W 12.5 kHz Channel Spacing

1200 Baud:



Paging Modulation 495.1000MHz Mask G 1W Pass
RBW=300Hz VBW=3000Hz

2400 Baud:



Paging Modulation 495.1000MHz Mask G 1W Pass
RBW=300Hz VBW=3000Hz

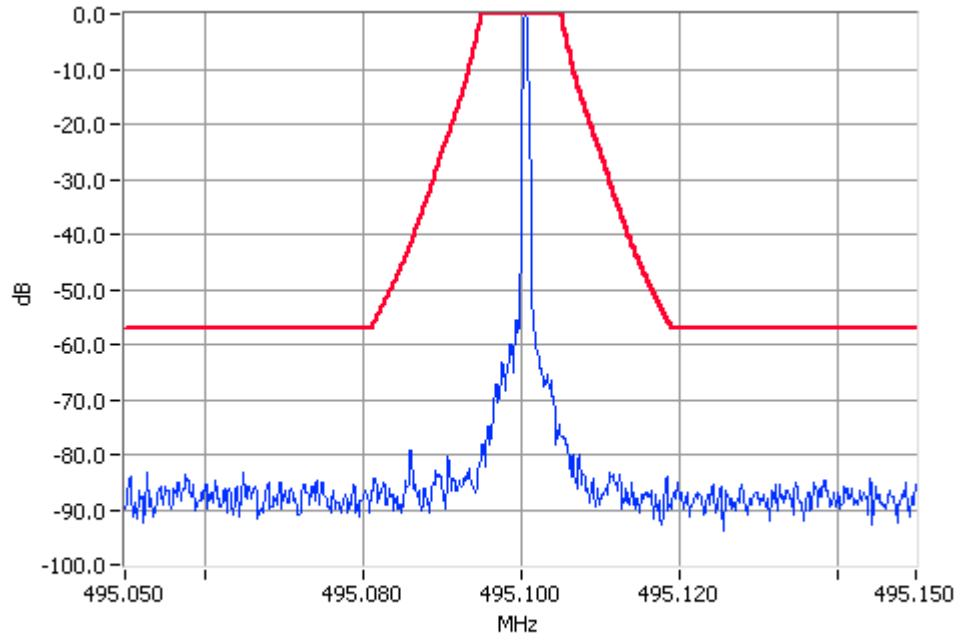
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

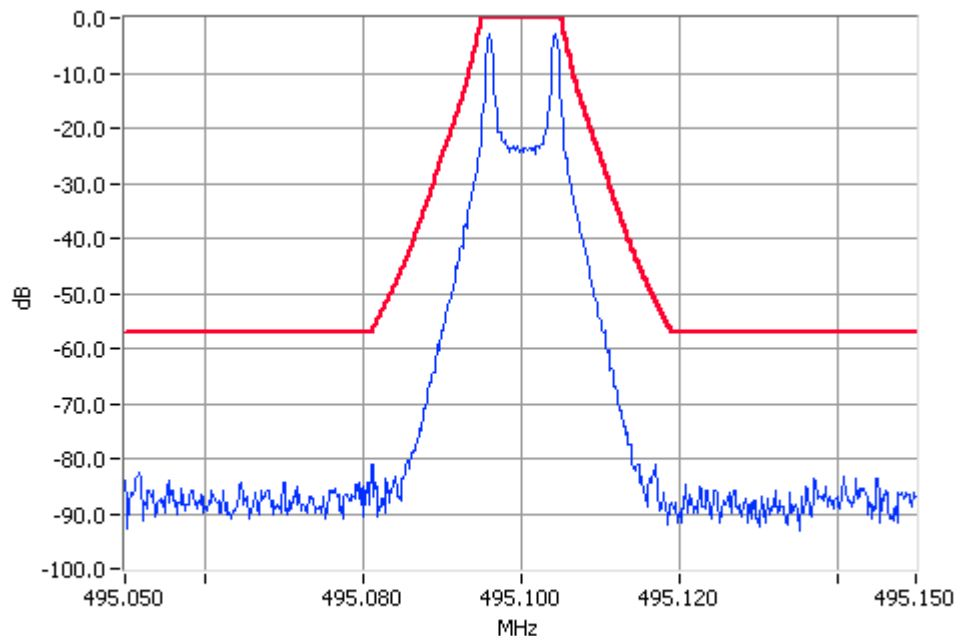
Tx FREQUENCY: 495.1MHz 5W 25 kHz Channel Spacing

Unmodulated:



Unmodulated 495.1000MHz Mask G 5W Pass
RBW=300Hz VBW=3000Hz

512 Baud:



Paging Modulation 495.1000MHz Mask G 5W Pass
RBW=300Hz VBW=3000Hz

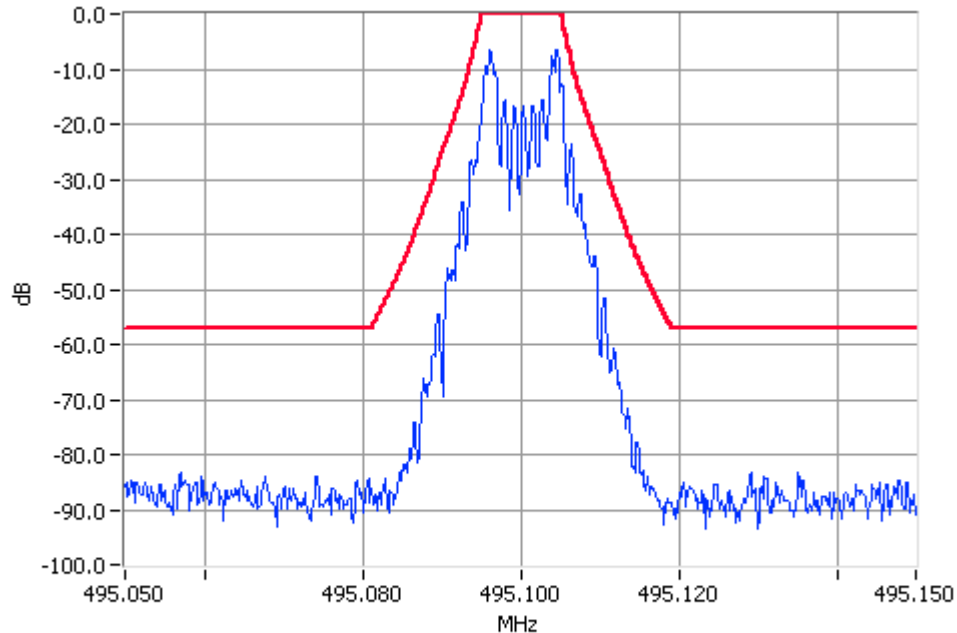
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

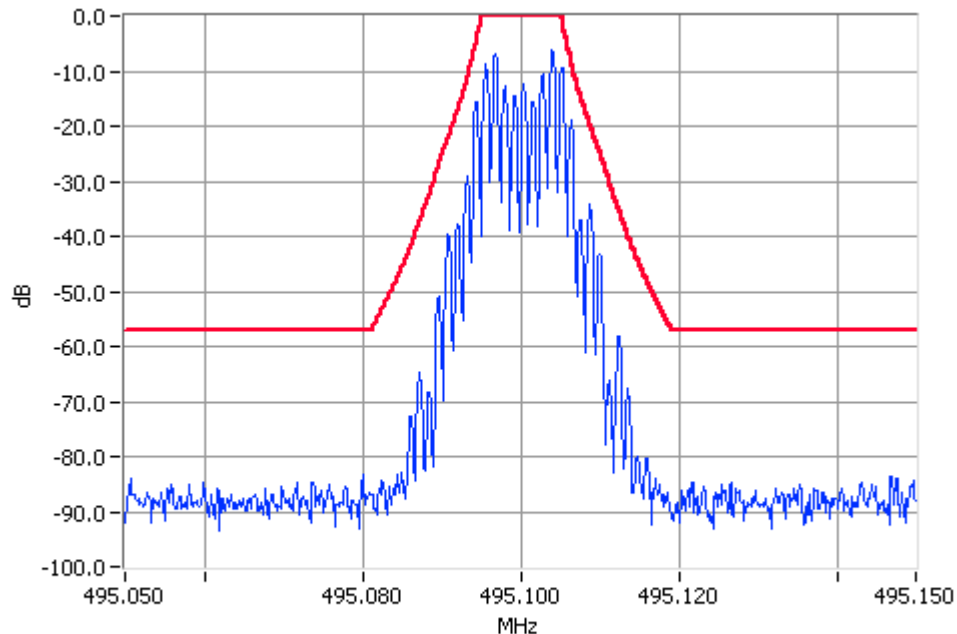
Tx FREQUENCY: 495.1MHz 5W 25 kHz Channel Spacing

1200 Baud:



Paging Modulation 495.1000MHz Mask G 5W Pass
RBW=300Hz VBW=3000Hz

2400 Baud:



Paging Modulation 495.1000MHz Mask G 5W Pass
RBW=300Hz VBW=3000Hz

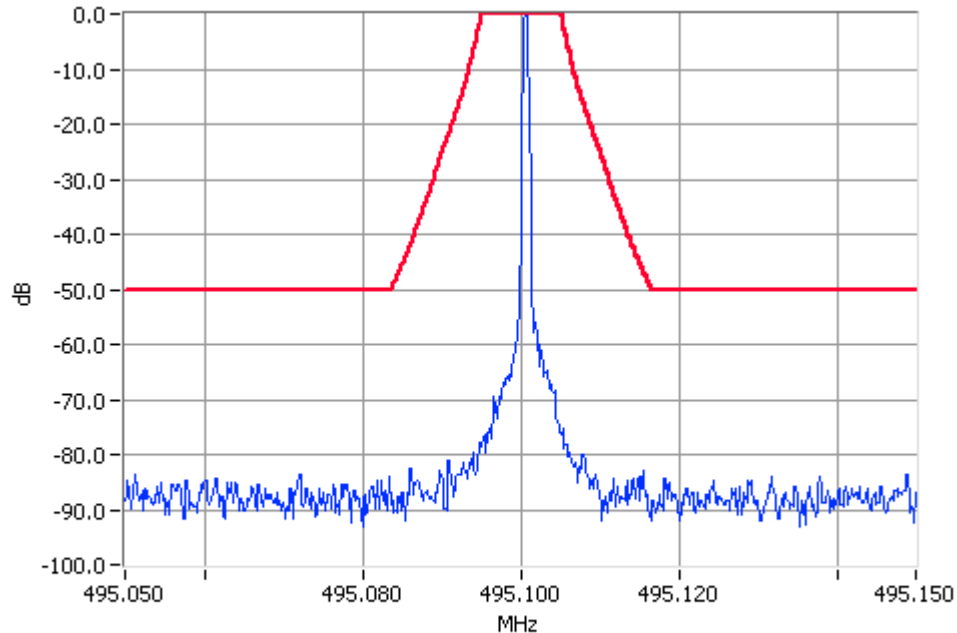
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

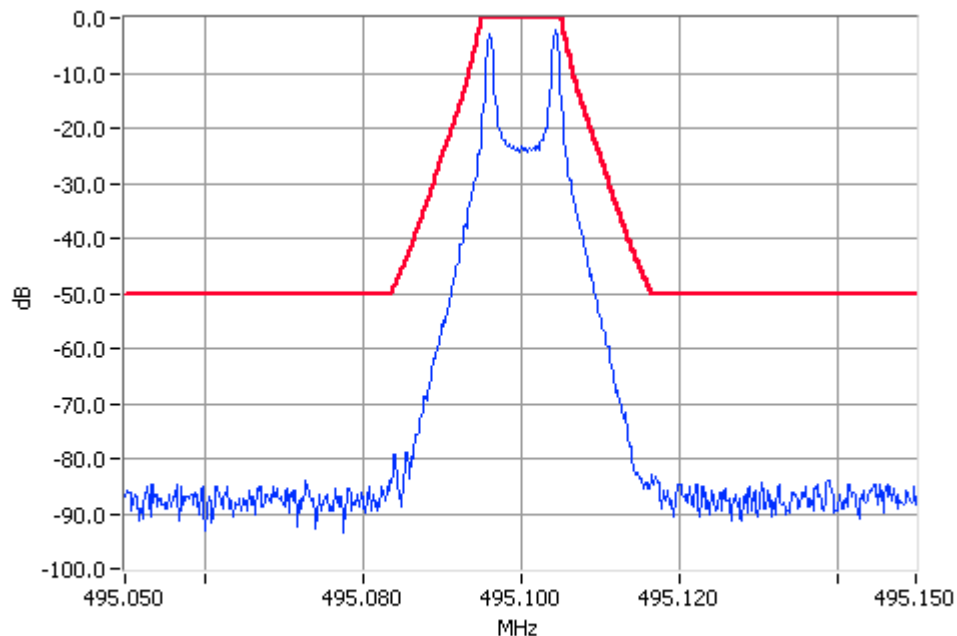
Tx FREQUENCY: 495.1MHz 1W 25 kHz Channel Spacing

Unmodulated:



Unmodulated 495.1000MHz Mask G 1W Pass
RBW=300Hz VBW=3000Hz

512 Baud:



Paging Modulation 495.1000MHz Mask G 1W Pass
RBW=300Hz VBW=3000Hz

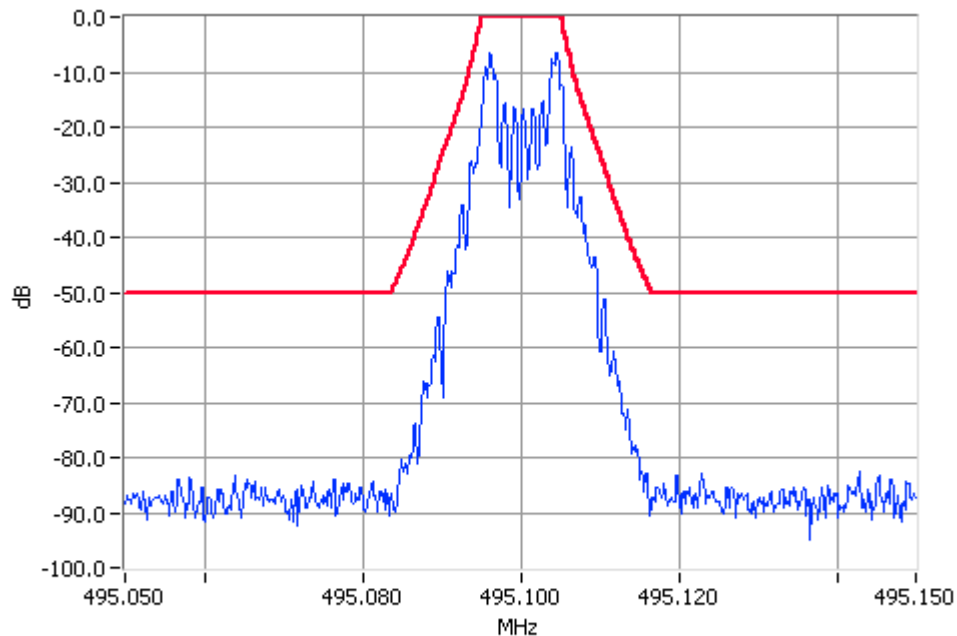
OCCUPIED BANDWIDTH

PAGING (POCSAG)

SPECIFICATION: FCC CFR 2.1049 (c)

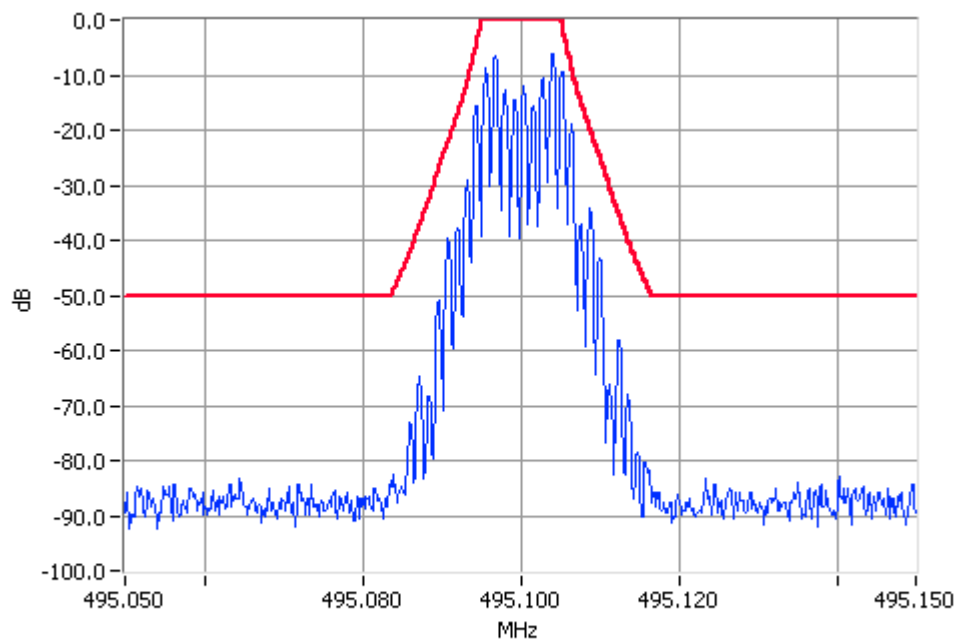
Tx FREQUENCY: 495.1MHz 1W 25 kHz Channel Spacing

1200 Baud:



Paging Modulation 495.1000MHz Mask G 1W Pass
RBW=300Hz VBW=3000Hz

2400 Baud:



Paging Modulation 495.1000MHz Mask G 1W Pass
RBW=300Hz VBW=3000Hz

TEST EQUIPMENT USED

No#	Equipment	Manufacturer	Model No	Serial No#	Tait ID	Cal Due
60	RF Attenuator 250W	Weinschel	45-30-34	JW663	E3386	15-Nov-05
123	Spectrum Analyser	Agilent	E4445A	MY42510072	E4139	30-May-06
136	Multimeter	Fluke	77	35069359	E3237	09-Nov-05

APPENDIX A

TEST SETUP DETAILS

All testing is performed using the Teltest **R**adio **E**VAuation system (TREVA), which is configured as shown below. The Spectrum Analyser is connected to the EUT via the attenuator network for Conducted Emissions testing, and Occupied Bandwidth.

