

**Application for Certification
For an RF amplifier**

**Janizary Holdings Inc.
5330 Derry Ave, Suite F
Agoura Hills, CA 91301**

RF amplifier

FCC ID: RFK-LMSWDJHNEX

REPORT # RV58031A-000

This report was prepared in accordance with the requirements of the FCC Rules and Regulations Part 2, Subpart J, 2.1031 through 2.1057, and Parts 24, and 90 and other applicable sections of the rules as indicated herein.

Prepared By:

**DNB Engineering, Inc.
5969 Robinson Avenue
Riverside, Ca 92503-8620**

23 Sep 2004

TEST LAB PERSONNEL

Test Performed by:	Date	Signature
Thomas Elders	23 Sep 2004	

APPROVALS

Management Approval	Date	Signature
Les Payne Sr. Engineering Manager	10 Feb 2004	

Original report**RV58031A-000****Dated 23 Sep 2004**

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1.0 ADMINISTRATIVE DATA

1.1 Certifications and Qualifications

I certify that DNB Engineering, Inc conducted the tests performed in order to obtain the technical data presented in this application. Also, based on the results of the enclosed data, I have concluded that the equipment tested meets or exceeds the requirements of the Rules and Regulations governing this application.

1.2 Measurement Repeatability Information

The test data presented in this report has been acquired using the guidelines set forth in FCC Part 2.1031 through 2.1057, and Parts 22, 24, and 90. The test results presented in this document are valid only for the equipment identified herein under the test conditions described. Repeatability of these test results will only be achieved with identical measurement conditions. These conditions include: The same test distance, EUT Height, Measurement Site Characteristics, and the same EUT System Components. The system must have the same Interconnecting Cables arranged in identical placement to that in the test set-up, with the system and/or EUT functioning in the identical mode of operation (i.e. software and so on) as on the date of the test. Any deviation from the test conditions and the environment on the date of the test may result in measurement repeatability difficulties.

All changes made to the EUT during the course of testing as identified in this test report must be incorporated into the EUT or identical models to ensure compliance with the FCC regulations.



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1.3 Test Methodology

The tests were performed in accordance with FCC Part 2 Subpart J, 2.1031 through 2.1057, 24, and 90 on a sample of the production model.

1.4 Test Equipment

FIGURE 1: TEST EQUIPMENT

Description	Manufacturer	M / N	S / N	Cal Date	Test Used On
Signal Generator	Rhode & Schwarz	SMU200A	N/A	09/10/05	RF Power Out put, Emissions Lim, Cond Spur, Rad Spur, CE
Signal Generator	Marconi	2024	112231/034	02/02/05	RF Power Out put, Emissions Lim, Cond Spur, Rad Spur, CE
Spectrum Analyzer Display	H/P	85662A	259101-1	01/10/05	RF Power Out put, Emissions Lim, Cond Spur, Rad Spur, CE
Spectrum Analyzer	H/P	8566B	259101-2	01/10/05	RF Power Out put, Emissions Lim, Cond Spur, Rad Spur, CE
Spec Analyzer Display	H/P	85662A	2318A05282	8/14/05	RE
Spectrum Analyzer	H/P	85680B	2049A01403	6/2/05	RE
Quasi-Peak Adapter	H/P	85650A	2043A00184	6/2/05	RE
Bicon Antenna	H/P	85650A	2043A00184	6/2/05	RE
Logarithmic Antenna	AH Systems	SAS-200/540	524	12/26/04	RE
DRG Antenna	EMCO	3146	1284	1/2/05	RE
S/A	Rhode & Schwarz	FSU 46	N/A	09/10/05	RF Power Out put, Emissions Lim, Cond Spur, Rad Spur, CE

1.5 DEVIATIONS

Deviations/Modifications to the EUT

None.

Deviations/Modifications from test standard.

None

1.6 TEST DESCRIPTION

1.6.1 RF Power Output
For RF amplifier.

1.6.2 Emissions Limitation and Occupied Bandwidth
Occupied Bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are equal to 0.5 percent of the total mean power radiated by a given emission.

1.6.3 Conducted Spurious Emissions at Antenna Terminals
Conducted Spurious Emissions are emissions at the antenna terminals on a frequency or frequencies which are outside an occupied band sufficient to ensure transmission of information of required quality for the class of communication desired. The reduction in the level of these spurious emissions will not affect the quality of the information being transmitted.

1.6.4 Radiated Field Strength of Spurious Emissions
Emissions from the equipment when connected into a non-radiating load on a frequency or frequencies which are outside an occupied band sufficient to ensure transmission of information of required quality for the class of communication desired. The reduction in the level of these spurious emissions will not affect the quality of the information being transmitted.

1.6.5 Conducted Emissions
Emissions which are conducted onto the AC power mains.

1.6.6 Radiated Emissions
Emissions which emanate from the EUT.

2.1033 (C) (1) Application for Certification

Name of Applicant:	Janizary Holdings Inc. 5330 Derry Ave, Suite F Agoura Hills, CA 91301		
FRN:	0009486226		
Applicant is:	X	Manufacturer Vendor Licensee Prospective Licensee Other	
Name of Manufacturer	Janizary Holdings Inc.		
Description:	RF amplifier		
Part Number:	LMSWDJHNEX		
Anticipated Production Quantity:	Multiple Units		
Applicable FCC Parts:	24 and 90		
FCC ID No:	Customer to provide		
FCC Emissions Designator:	24E	F3E	
	24E	GXW	
	24E	DXW	
	24E	AMP	
Frequency Range:	Uplink	806-825	MHz
	Uplink	1850-1910	MHz
	Downlink	850-869	MHz
	Downlink	1930-1990	MHz
Rated Output Power:	Uplink	806-825	140mW
	Uplink	1850-1910	250mW
	Downlink	850-869	1mW
	Downlink	1930-1990	1mW

2.1033 (C) (2) FCC Identifier

FCC ID: RFK-LMSWDJHNEX

2.1033 (C) (4) Type of Emission

24E	F3E
24E	GXW
24E	DXW
24E	AMP

2.1033 (C) (5) Frequency Range

Uplink	806.0 – 825.0 MHz	Downlink	850.0 – 869.0 MHz
Uplink	1850.0 – 1910.0 MHz	Downlink	1930.0 – 1990.0 MHz

2.1033 (C) (6) Operating Power

Uplink	806.0 – 825.0 MHz	0.140W	(+21.5dBm)
Downlink	850.0 – 869.0 MHz	0.001W	(+ 0.0dBm)
Uplink	1850.0 – 1910.0 MHz	0.250W	(+24.0dBm)
Downlink	1930.0 – 1990.0 MHz	0.001W	(+ 0.0dBm)

2.1033 (C) (7) Maximum Power Allowed in Applicable Part(s) of the Rules

<u>RULES PART</u>	<u>MAXIMUM POWER (WATTS)</u>
Part 24	2
Part 90	5

2.1033 (C) (8) Input Power Characteristics 10 - 60 mW Maximum

2.1033 (C) (9) Tune Up Procedure Customer will provide.

2.1033 (C) (10) Schematic Diagram and Circuit Description

Customer will provide.

2.1033 (C) (11) Equipment Identification Plate

Customer will provide.

2.1033 (C) (12) Equipment Photographs - Internal

Customer will provide.

2.1033 (C) (12) Equipment Photographs - External

Customer will provide.

2.1033 (C) (13) Digital Modulation Techniques

AMPS / CDMA / TDMA / GSM

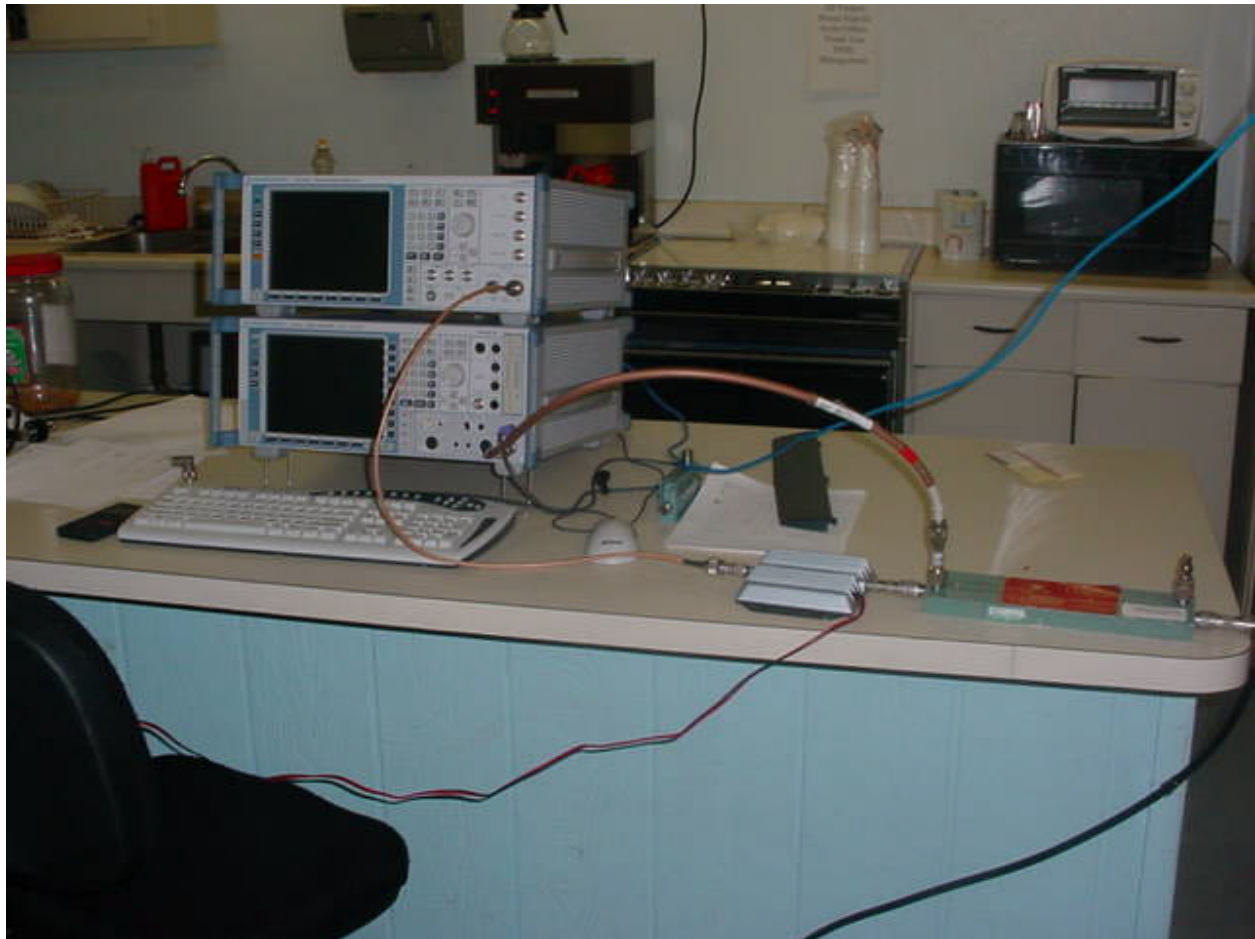
2.1033 (c) (14) Test Data

See 2.1046-2.1053 and Radiated Emissions

FIGURE 2: TEST RESULT SUMMARY

NAME OF TEST	FCC PARA. NO.	RESULTS
RF Power Output	2.1046	Complies
Emissions Limitations: TDMA	2.1049	Complies
Emissions Limitations: GSM	2.1049	Complies
Occupied Bandwidth: TDMA/GSM	2.1049	Complies
Conducted Spurious Emissions at Antenna Terminals	2.1051	Complies
Radiated Field Strength of Spurious Emissions	2.1053	Complies

2.1033 (c) (14) Photograph of Test Set Up



2.1033 (c) (14)

FIGURE 3: TEST SET UP BLOCK DIAGRAM FOR RF POWER OUTPUT, EMISSIONS LIMITATIONS GSM/TDMA, OCCUPIED BANDWIDTH GSM/TDMA, CONDUCTED SPURIOUS EMISSIONS AT ANTENNA TERMINALS.

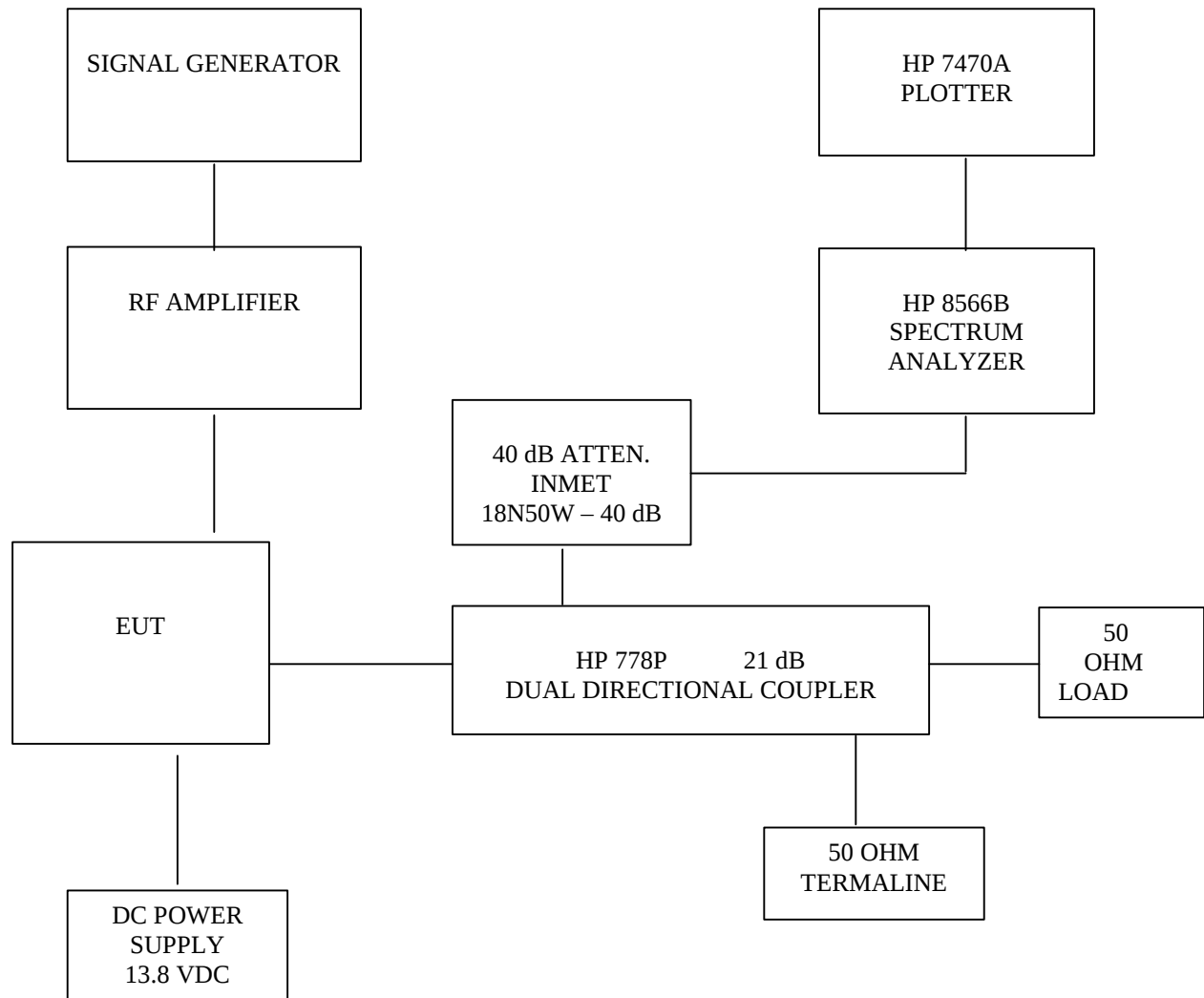
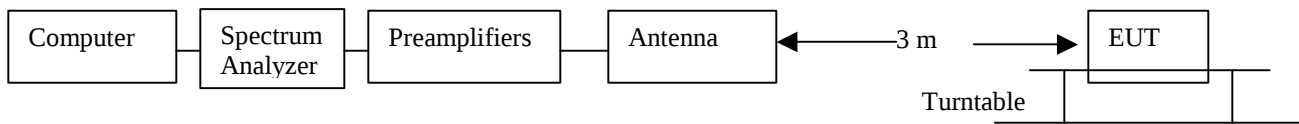


FIGURE 4: TEST SET UP BLOCK DIAGRAM FOR RADIATED EMISSIONS



2.1046 Measurement of RF Power Output

Definition: For RF amplifier

Test Method: See FIGURE 1.

Output Power is measured across a precision 50 ohm load with a Spectrum Analyzer. For the power measurement, CW (no modulation) is used. CW signal provided maximum emissions signature for all modulation types.

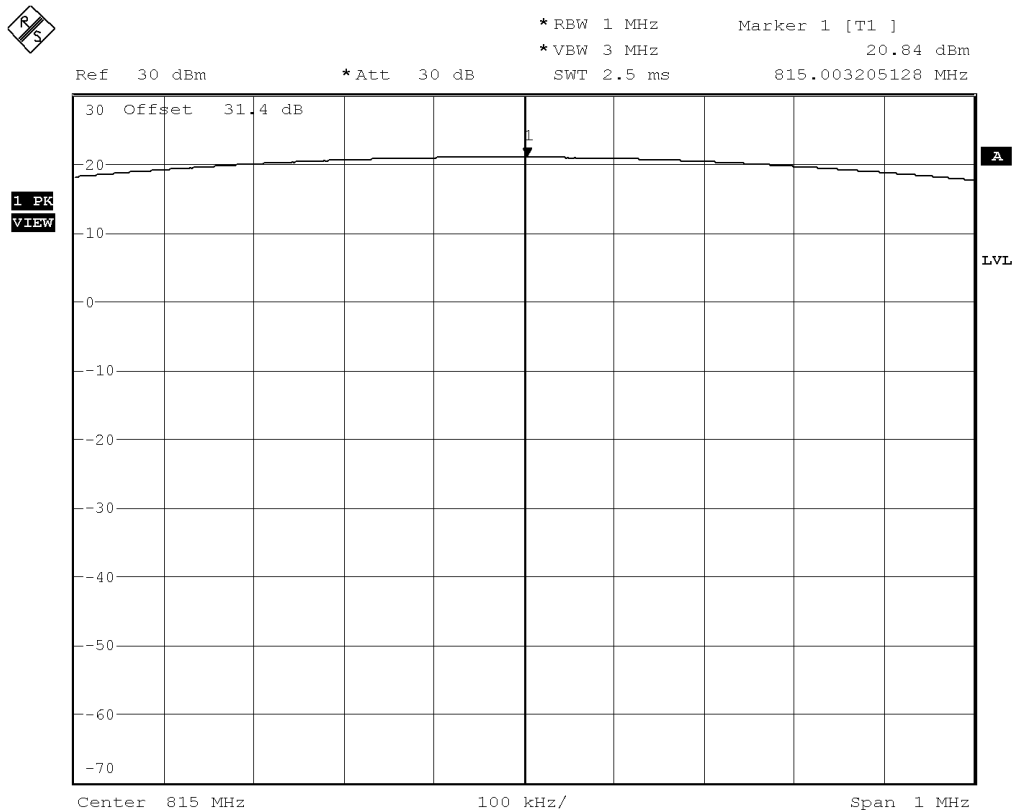
Test Results:

POWER OUTPUT MEASURED AT NOMINAL VOLTAGE WAS:

Frequency in MHz	Power (dBm)	Power (W)
806-824	20.84	0.121
851-869	0.25	0.00106
1860-1910	24.16	0.261
1930-1980	0.22	0.00105

FIGURE 5: OUTPUT POWER PLOTS, UPLINK.

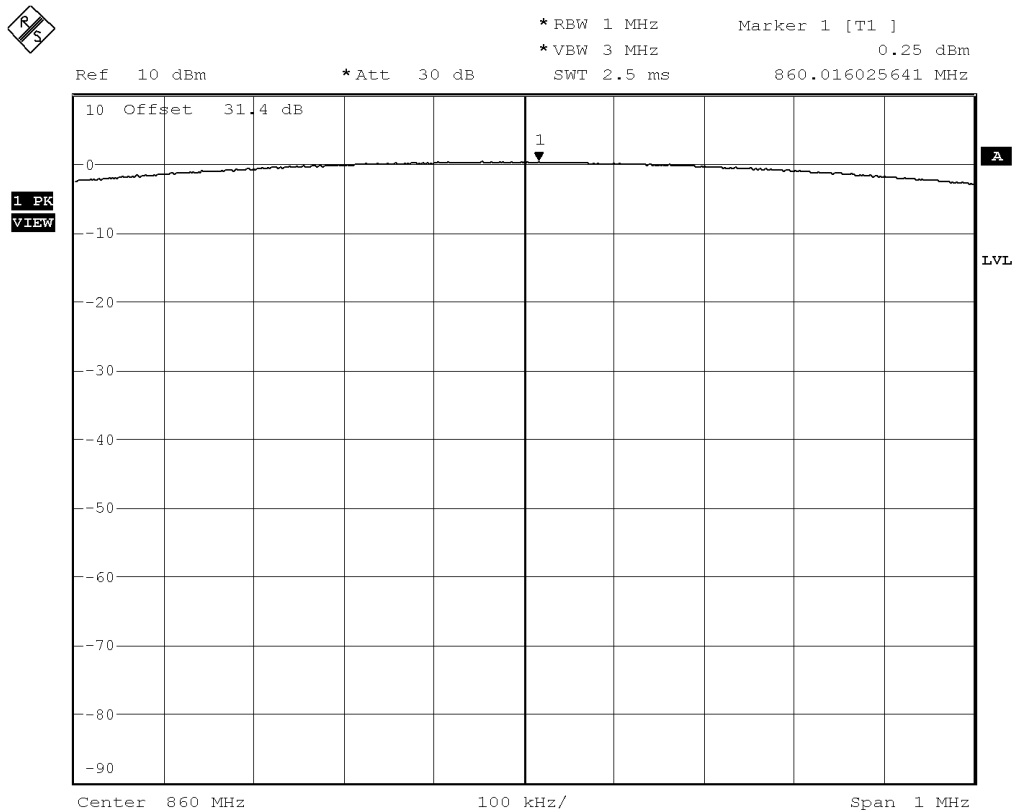
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Output Power	
DNB Job Number:	RV58031A	Date: 11 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink 815MHz		



Date: 11.SEP.2004 10:57:23

FIGURE 5: OUTPUT POWER PLOTS, UPLINK.

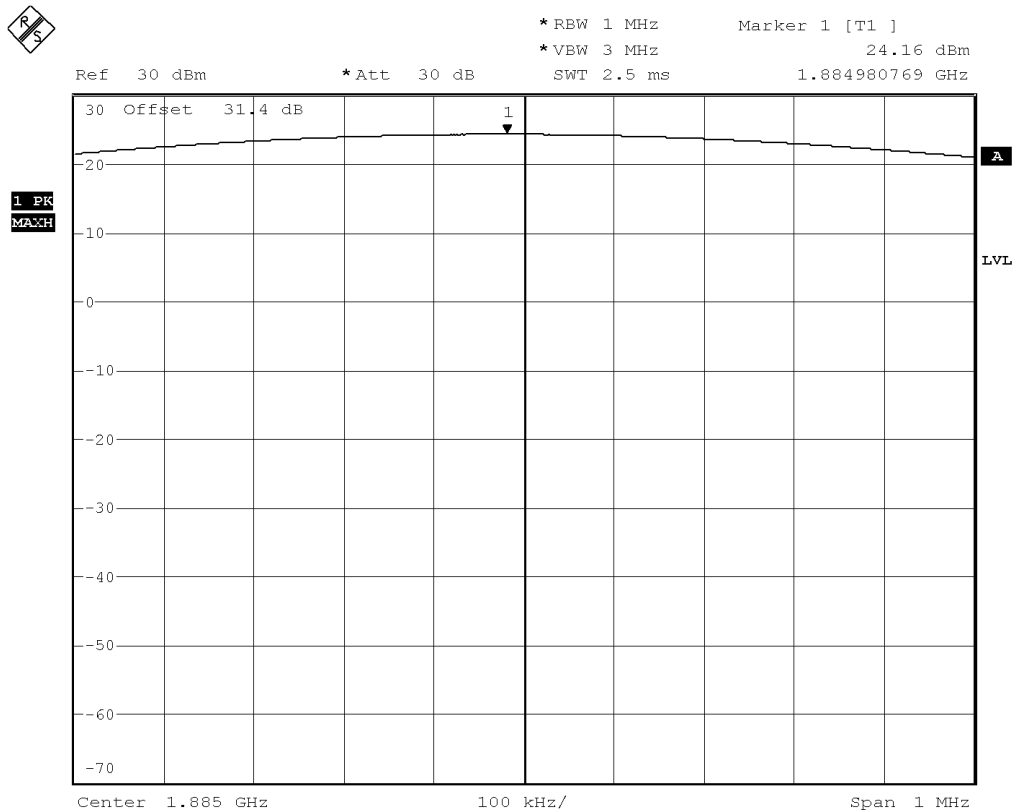
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Output Power	
DNB Job Number:	RV58031A	Date: 11 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink 860MHz		



Date: 11.SEP.2004 11:04:49

FIGURE 5: OUTPUT POWER PLOTS, UPLINK.

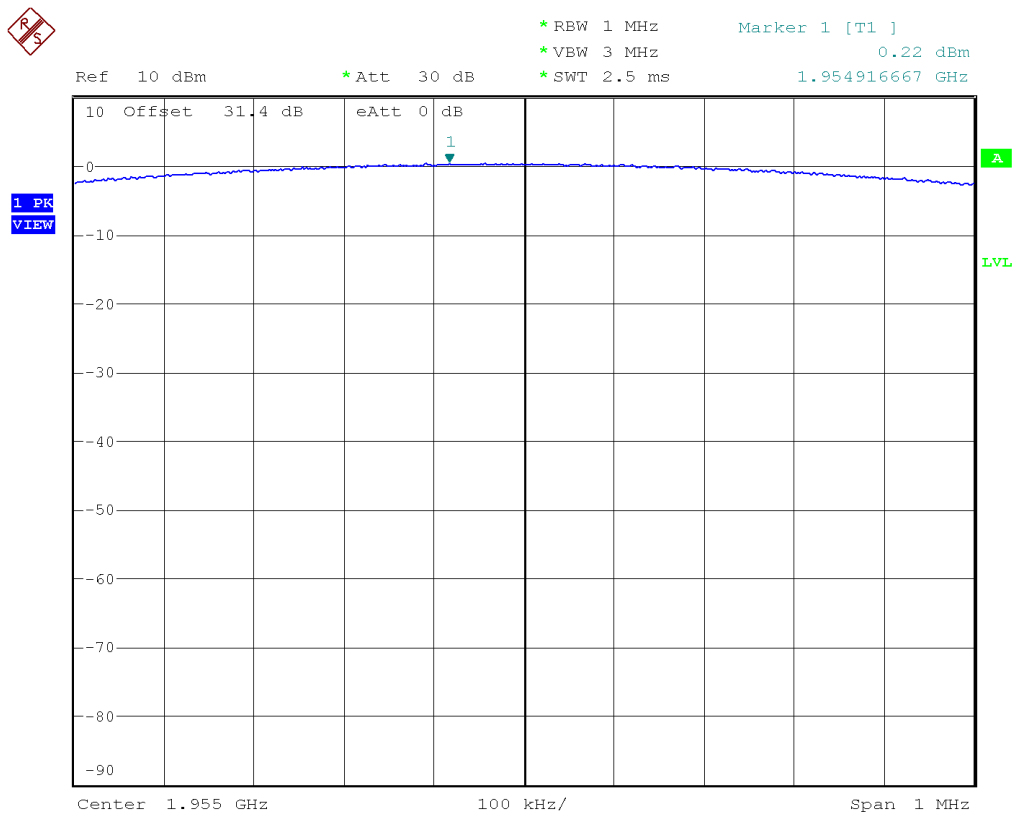
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Output Power	
DNB Job Number:	RV58031A	Date: 11 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink 1885MHz		



Date: 11.SEP.2004 11:10:30

FIGURE 5: OUTPUT POWER PLOTS, UPLINK.

	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Output Power	
DNB Job Number:	RV58031A	Date: 11 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink 1910MHz		



Date: 11.SEP.2004 11:39:04

2.1049 Measurement of Occupied Bandwidth

Definition:

Occupied Bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are equal to 0.5 percent of the total mean power radiated by a given emission.

Test Method: Connect the Equipment per FIGURE 1.

Measurements were made while the driving source generated the following:

TDMA Signal
GSM Signal
CDMA Signal

Test Results: See Plots

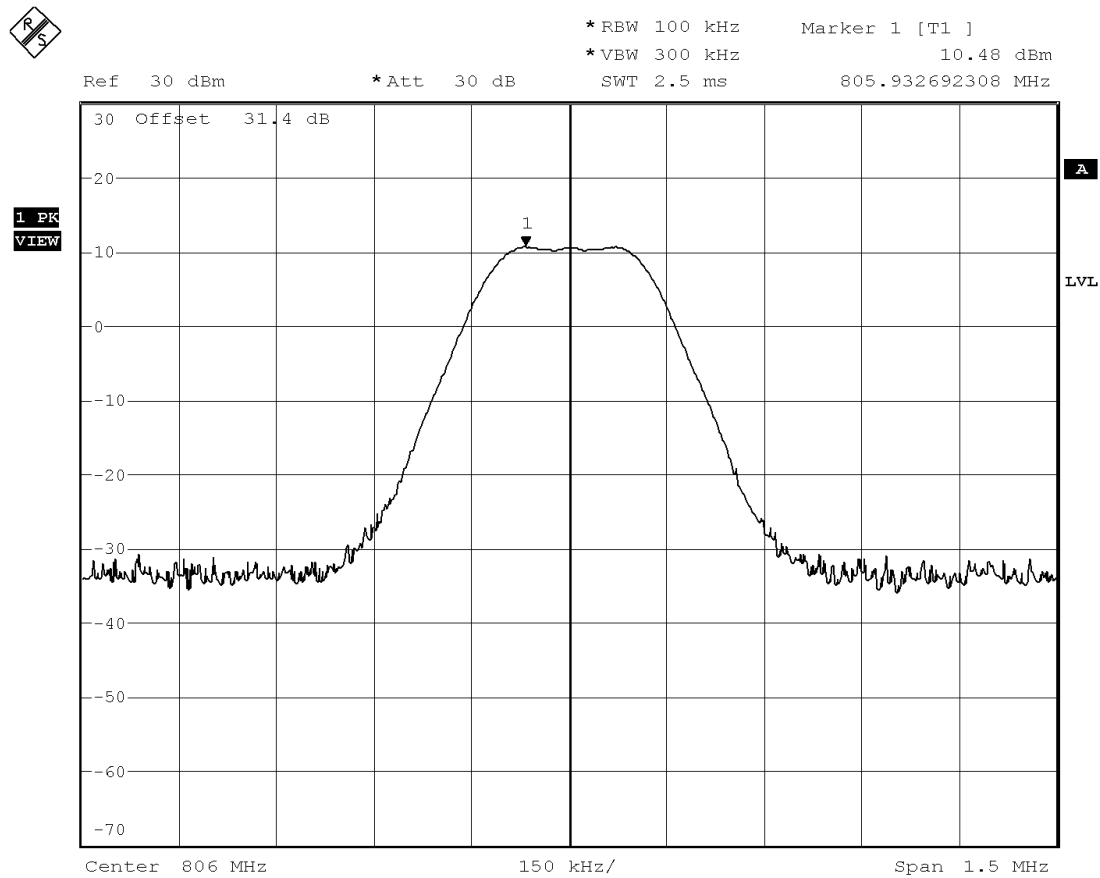
The center frequency of the signal did not shift with modulation. The Spectrum Bandwidth was well within the limits specified in the FCC Regulations.

Inter-modulation test are required for the downlink only as this device is a single use channel device and is to be dedicated to one phone, therefore only one channel uplink can be active at any given time.

Modulation characteristic plots are shown in this section.

FIGURE 6: OCCUPIED BANDWIDTH

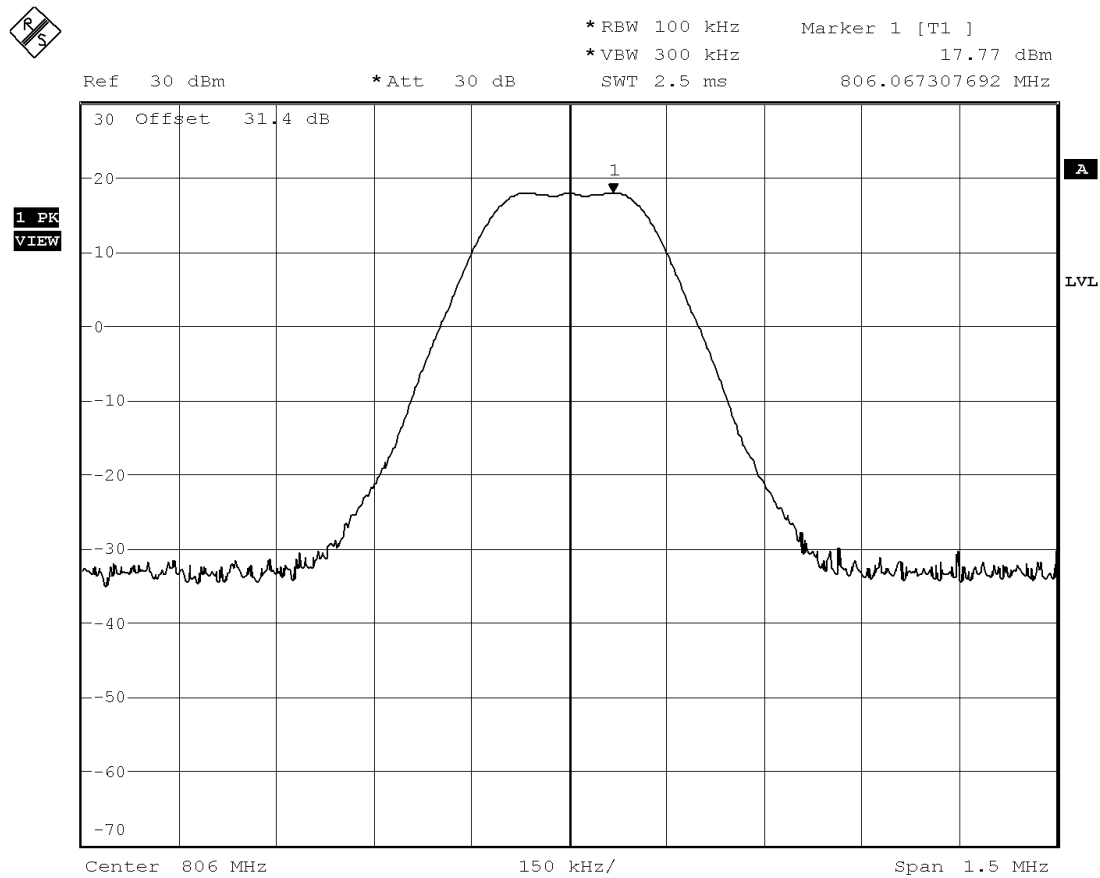
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 11 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink		
	Signal Source - GSM – Input – 806MHz		



Date: 11.SEP.2004 10:40:01

FIGURE 6: OCCUPIED BANDWIDTH

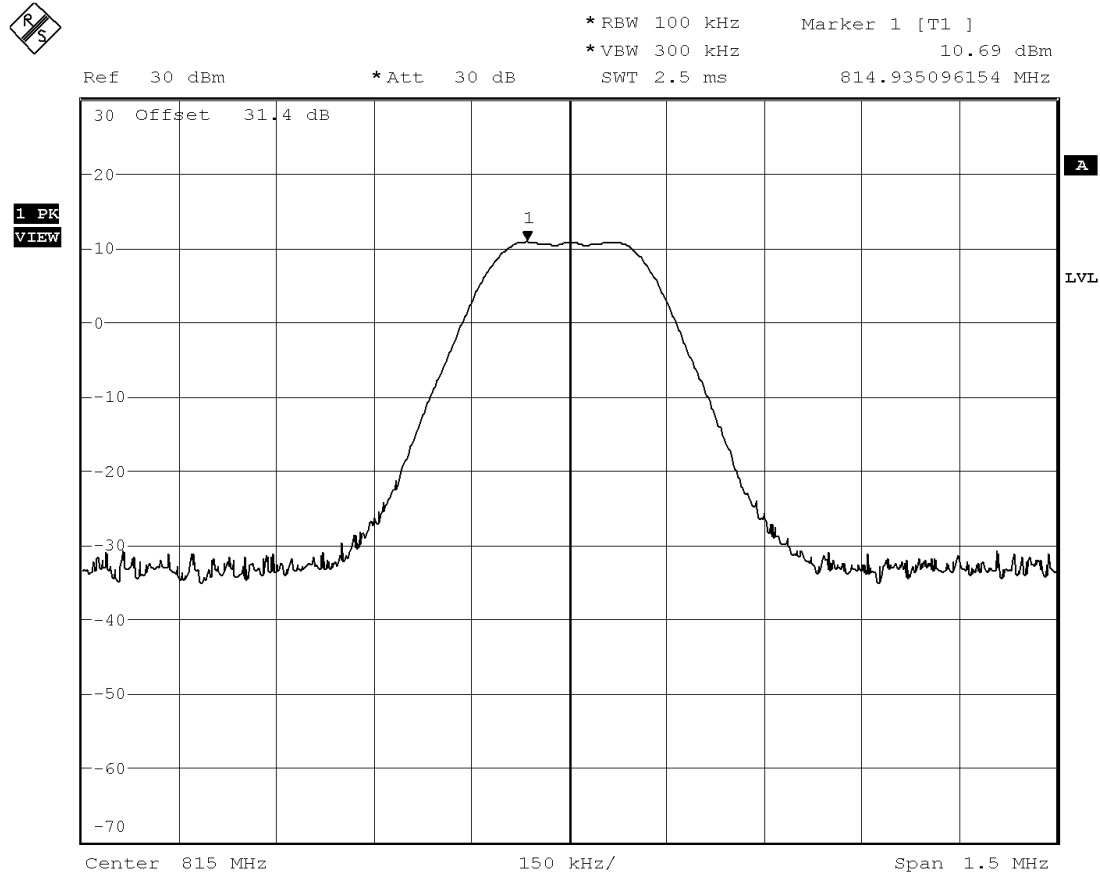
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 11 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink		
	Signal Source - GSM – Output – 806MHz		



Date: 11.SEP.2004 10:29:10

FIGURE 6: OCCUPIED BANDWIDTH

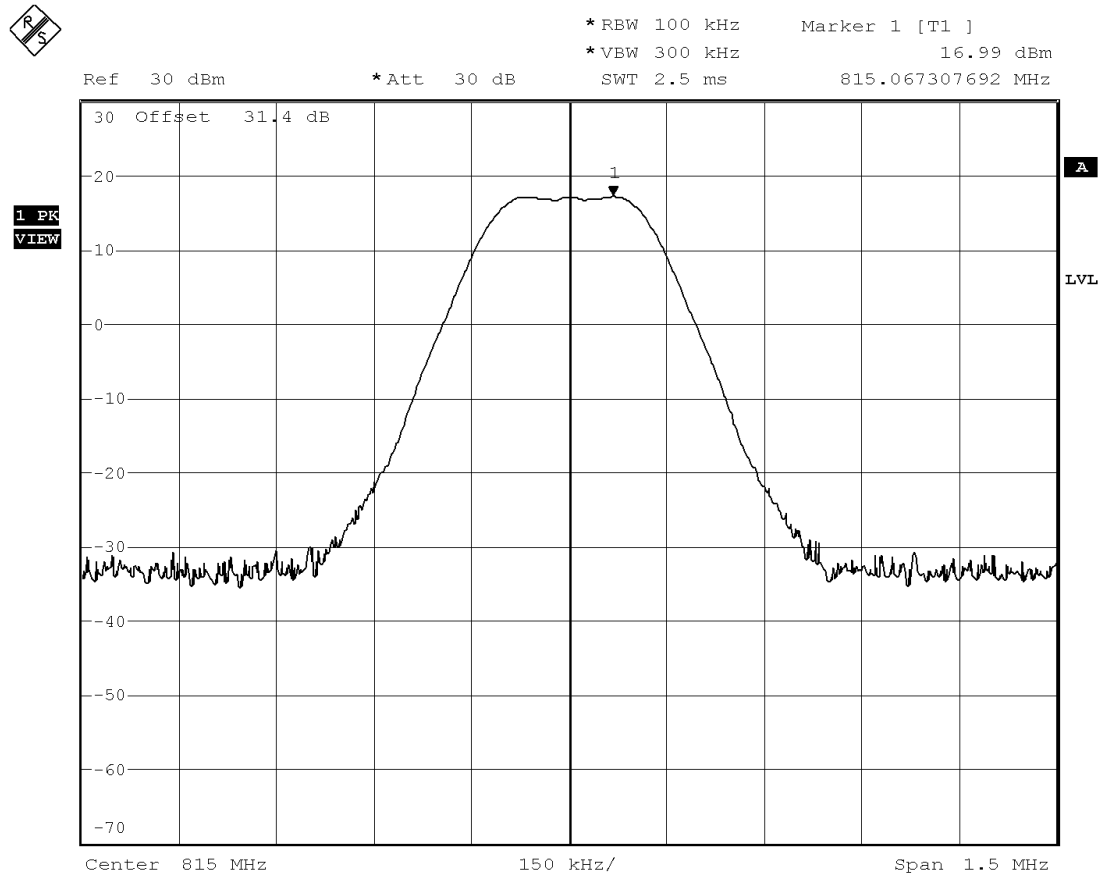
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 11 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink		
	Signal Source - GSM – Input – 815MHz		



Date: 11.SEP.2004 10:38:29

FIGURE 6: OCCUPIED BANDWIDTH

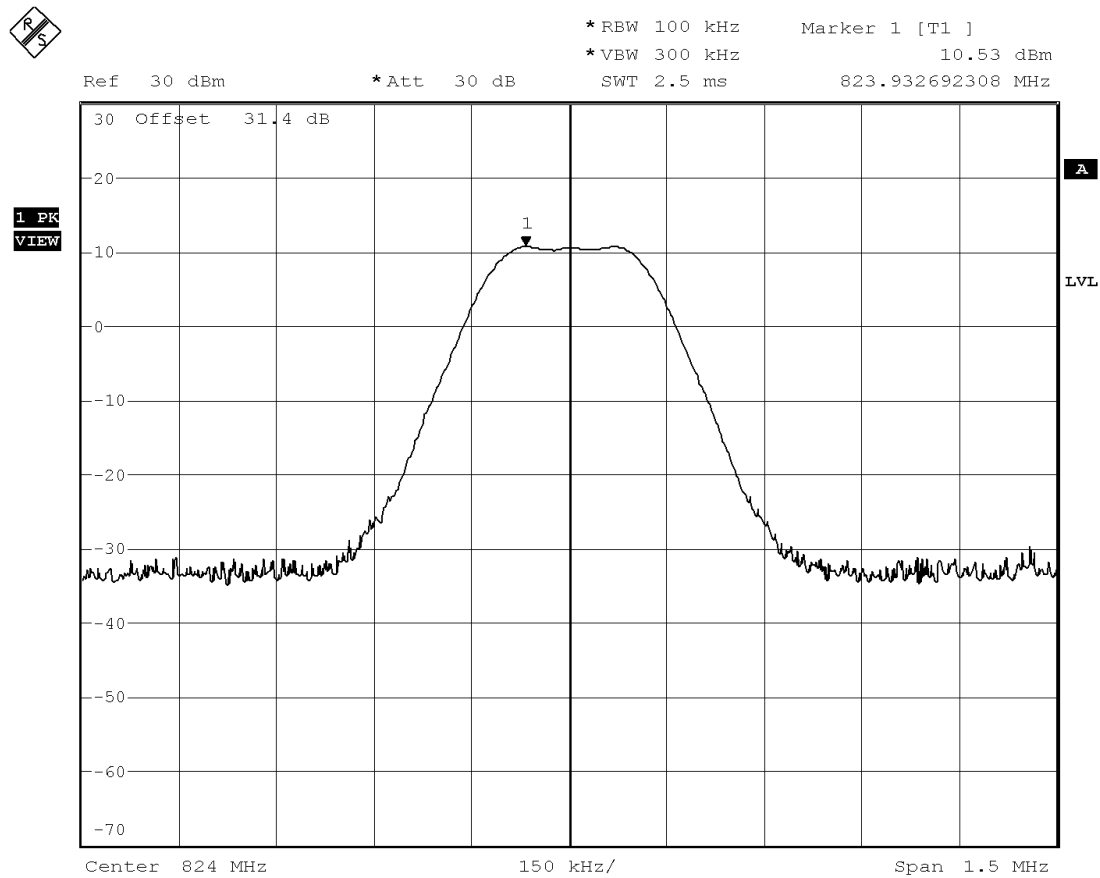
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth		
DNB Job Number:	RV58031A	Date:	11 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc			
Model Number:	LMSWDJHNEX	Serial Number:		
Description:	RF amplifier			
	Uplink			
	Signal Source - GSM – Output – 815MHz			



Date: 11.SEP.2004 10:31:01

FIGURE 6: OCCUPIED BANDWIDTH

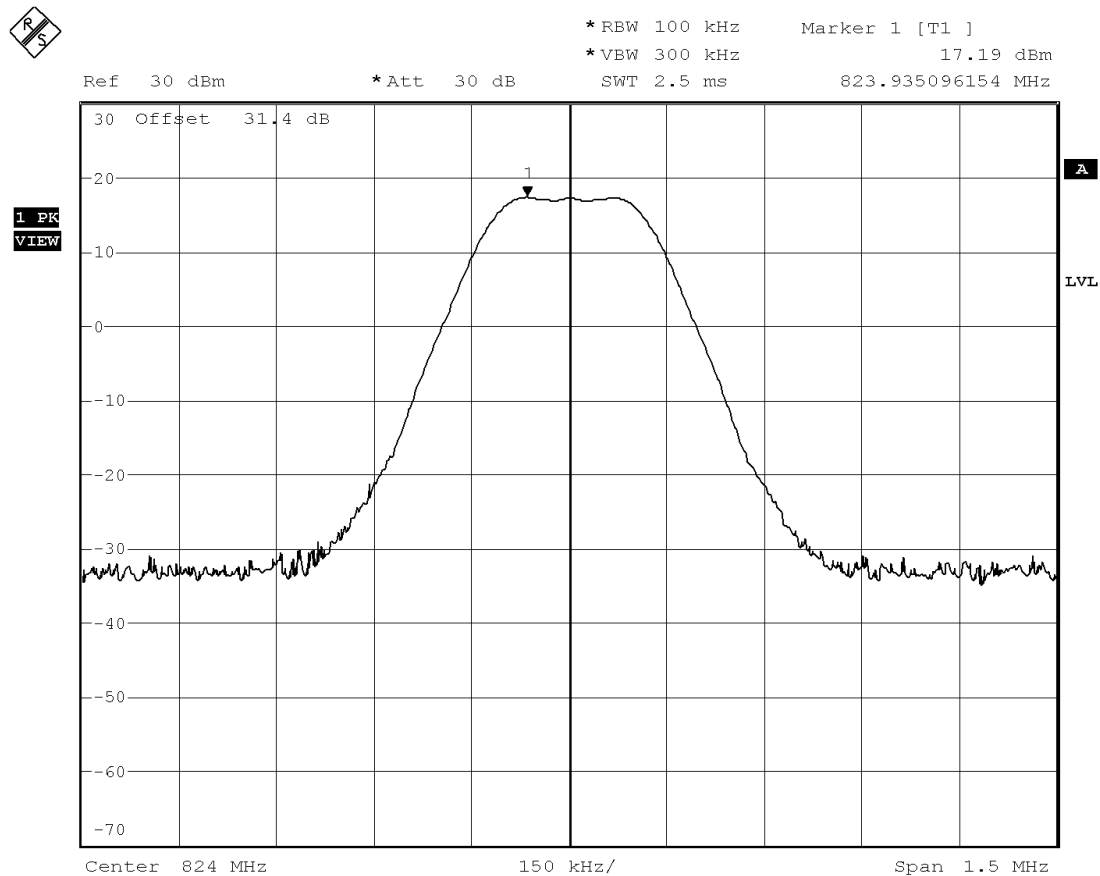
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 11 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink		
	Signal Source - GSM – Input – 824MHz		



Date: 11.SEP.2004 10:34:57

FIGURE 6: OCCUPIED BANDWIDTH

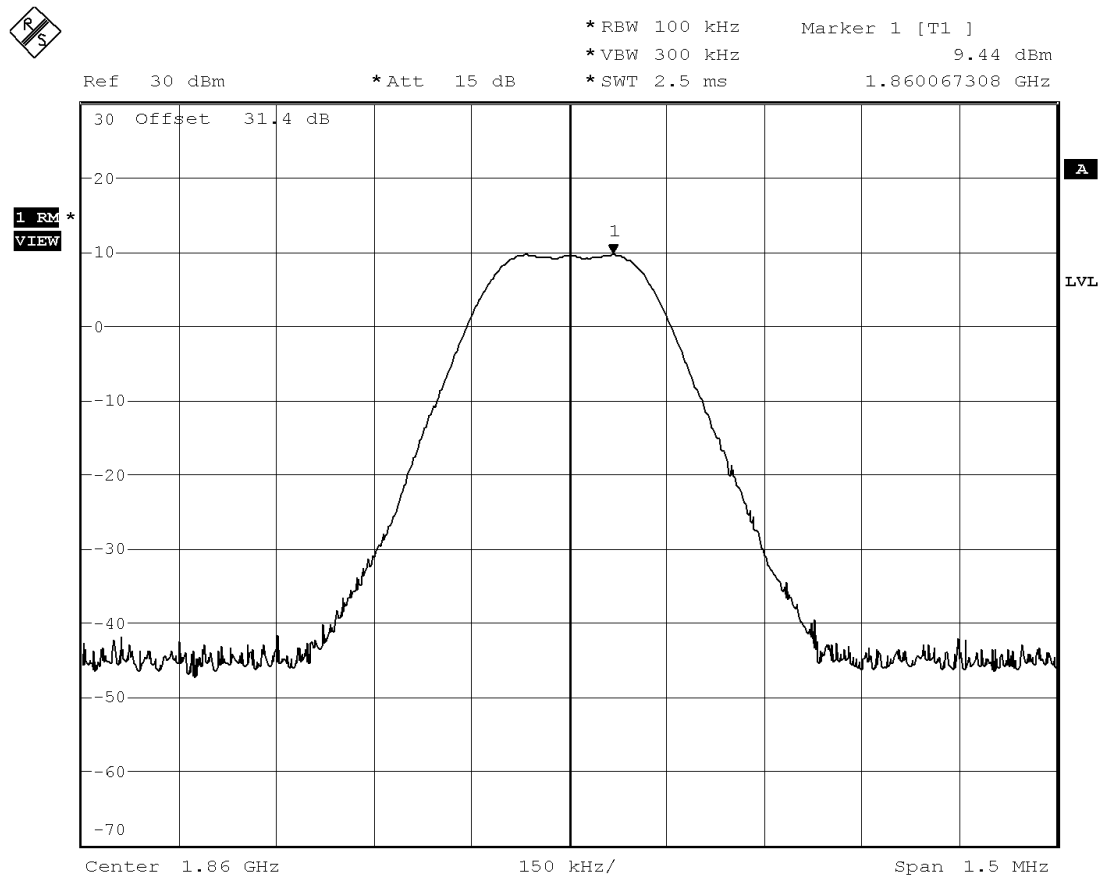
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 11 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink		
	Signal Source - GSM – Output – 824MHz		



Date: 11.SEP.2004 10:32:22

FIGURE 6: OCCUPIED BANDWIDTH

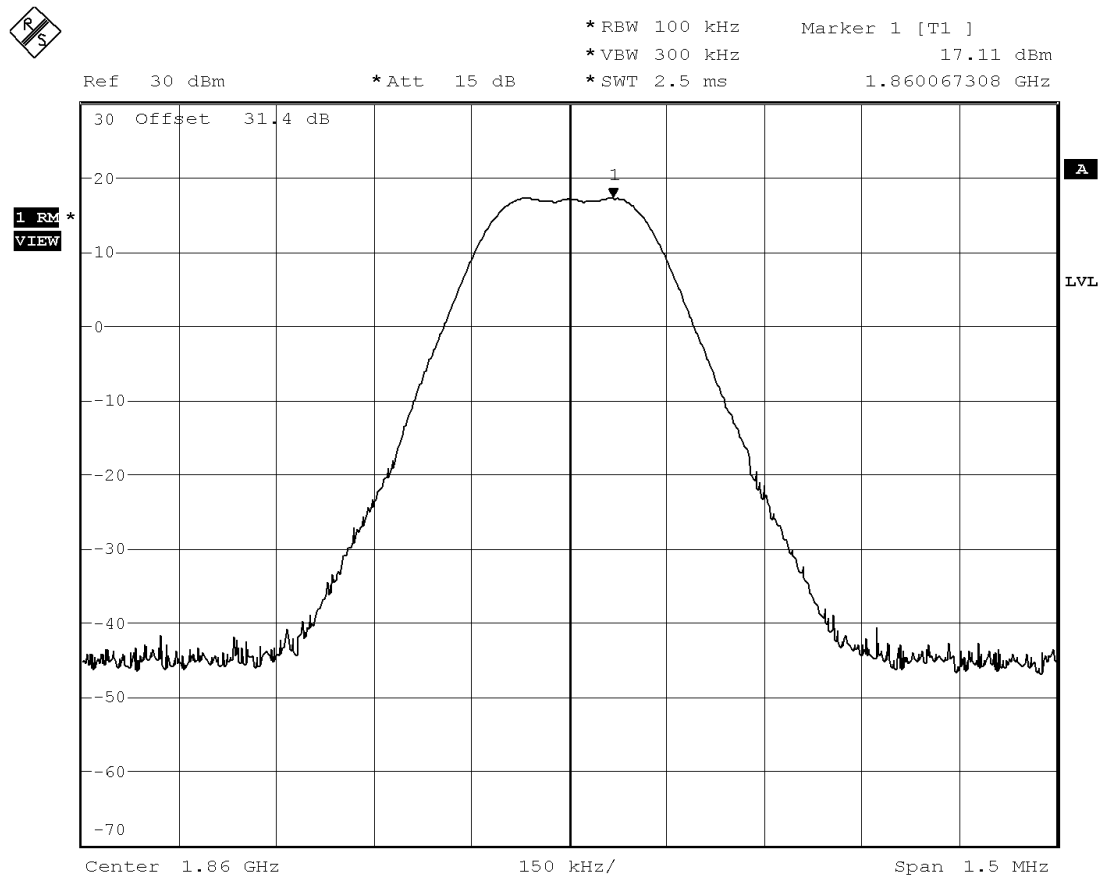
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 8 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink		
	Signal Source - GSM – Input – 1860MHz		



Date: 8.SEP.2004 17:40:08

FIGURE 6: OCCUPIED BANDWIDTH

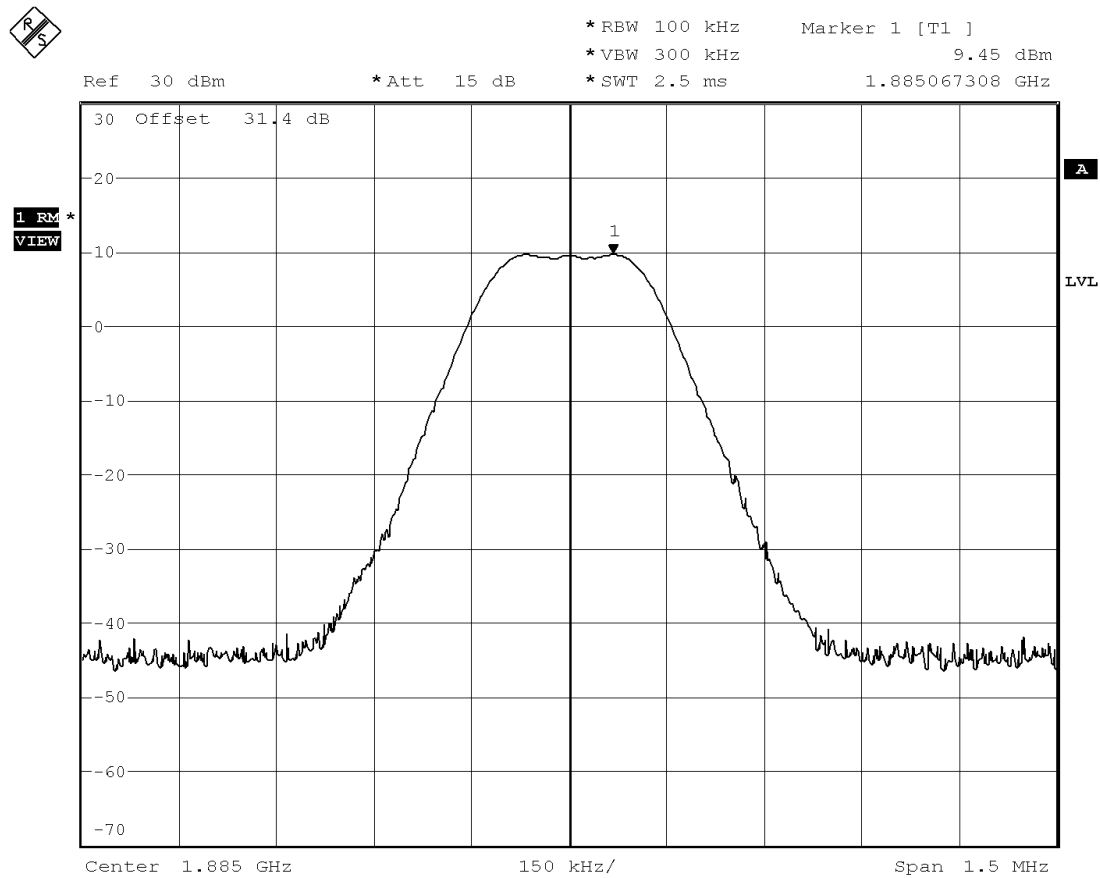
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 8 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink		
	Signal Source - GSM – Output – 1860MHz		



Date: 8.SEP.2004 17:22:30

FIGURE 6: OCCUPIED BANDWIDTH

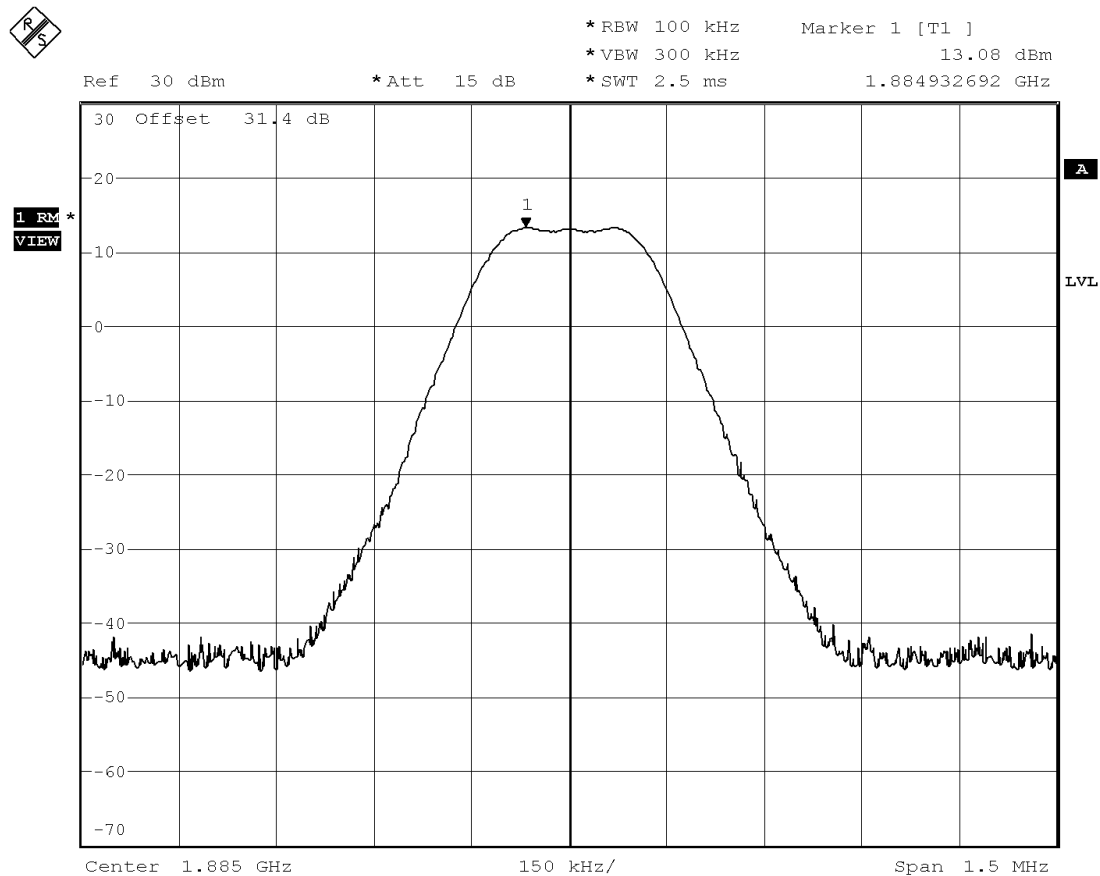
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 8 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink		
	Signal Source - GSM – Input – 1885MHz		



Date: 8.SEP.2004 17:39:10

FIGURE 6: OCCUPIED BANDWIDTH

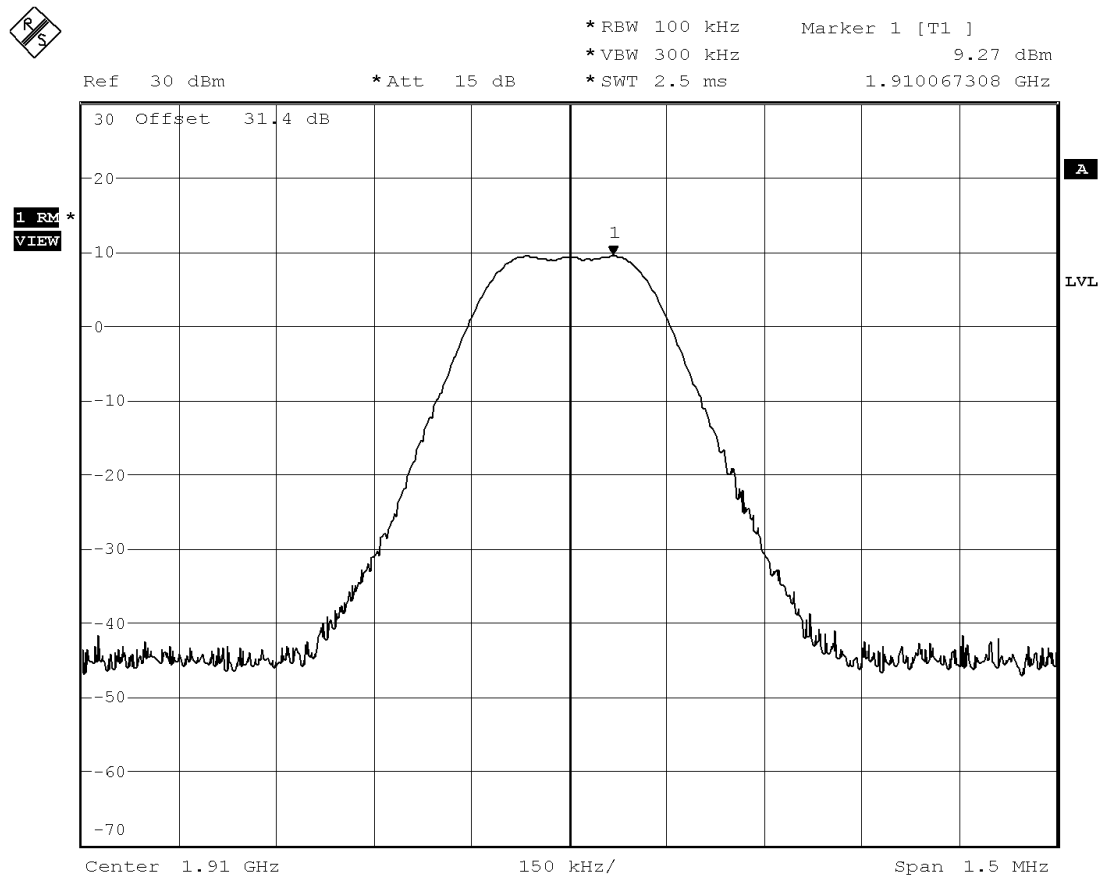
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 8 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink		
	Signal Source - GSM – Output – 1885MHz		



Date: 8.SEP.2004 17:24:02

FIGURE 6: OCCUPIED BANDWIDTH

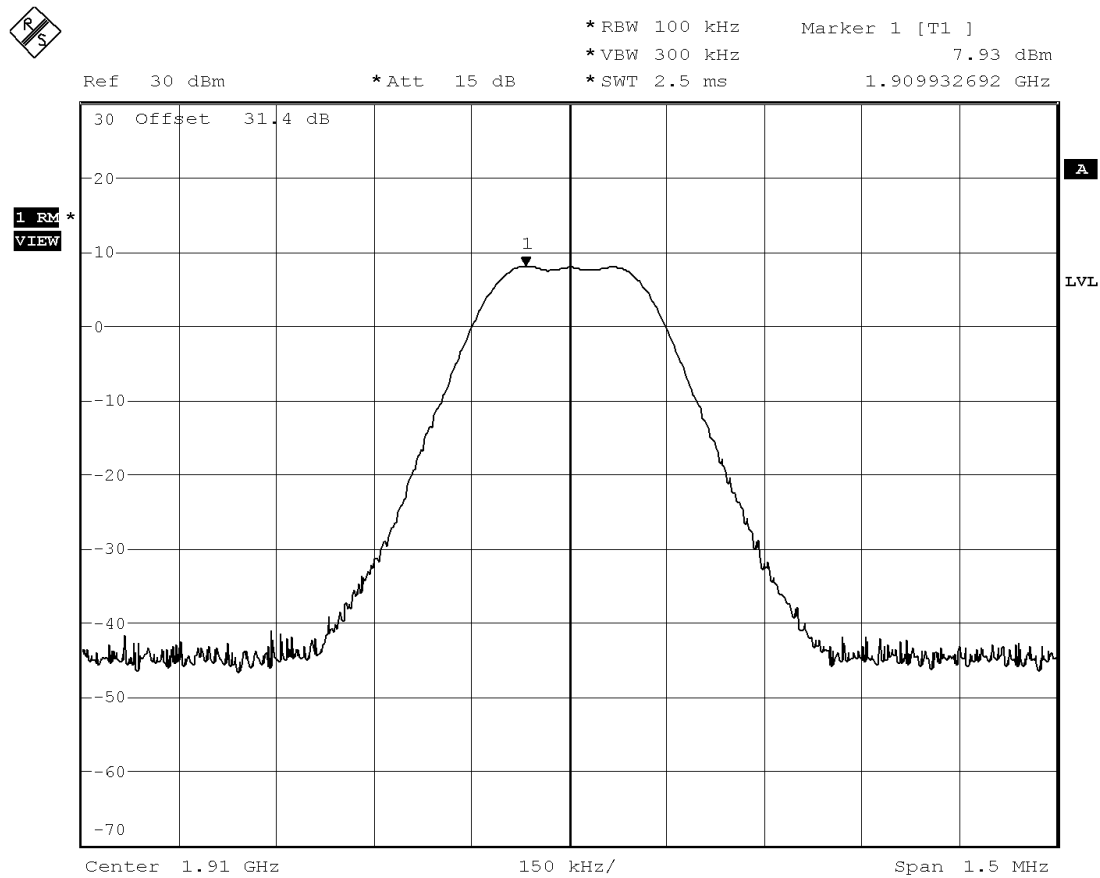
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 8 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink		
	Signal Source - GSM – Input – 1910MHz		



Date: 8.SEP.2004 17:37:50

FIGURE 6: OCCUPIED BANDWIDTH

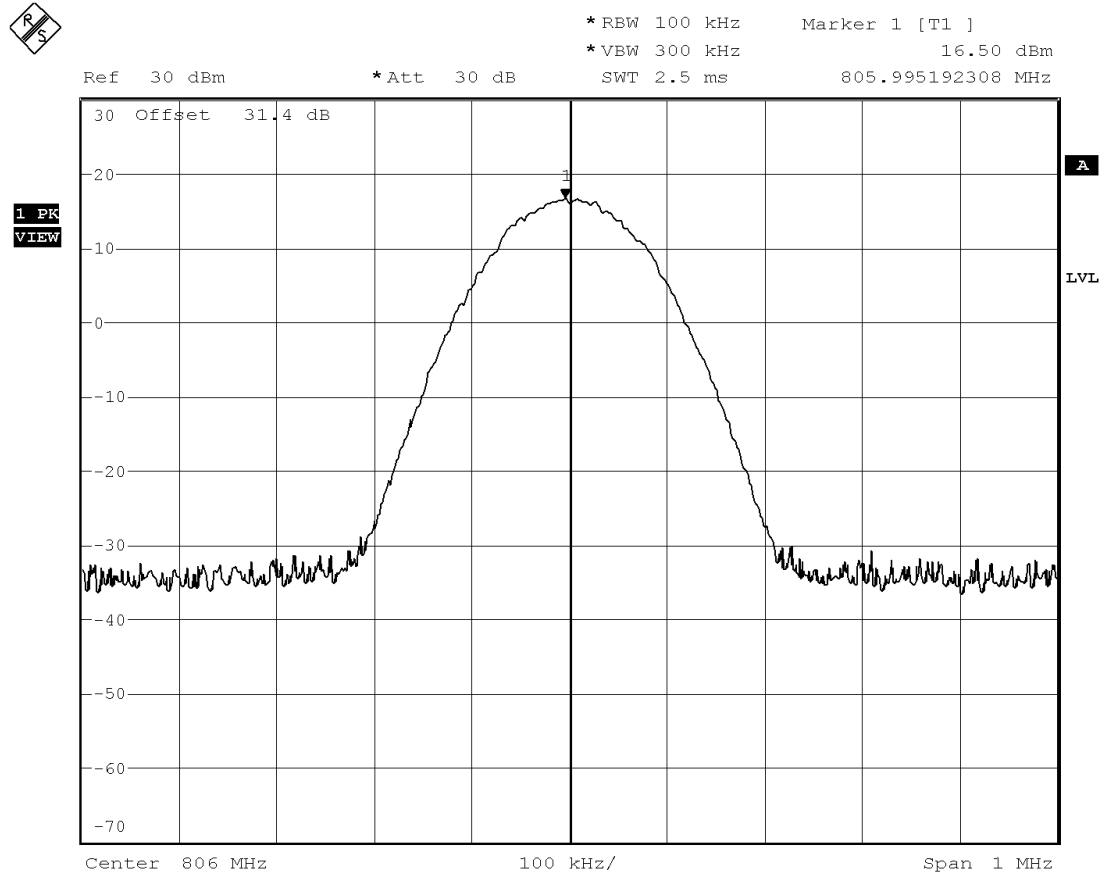
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 8 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink		
	Signal Source - GSM – Output – 1910MHz		



Date: 8.SEP.2004 17:25:05

FIGURE 6: OCCUPIED BANDWIDTH

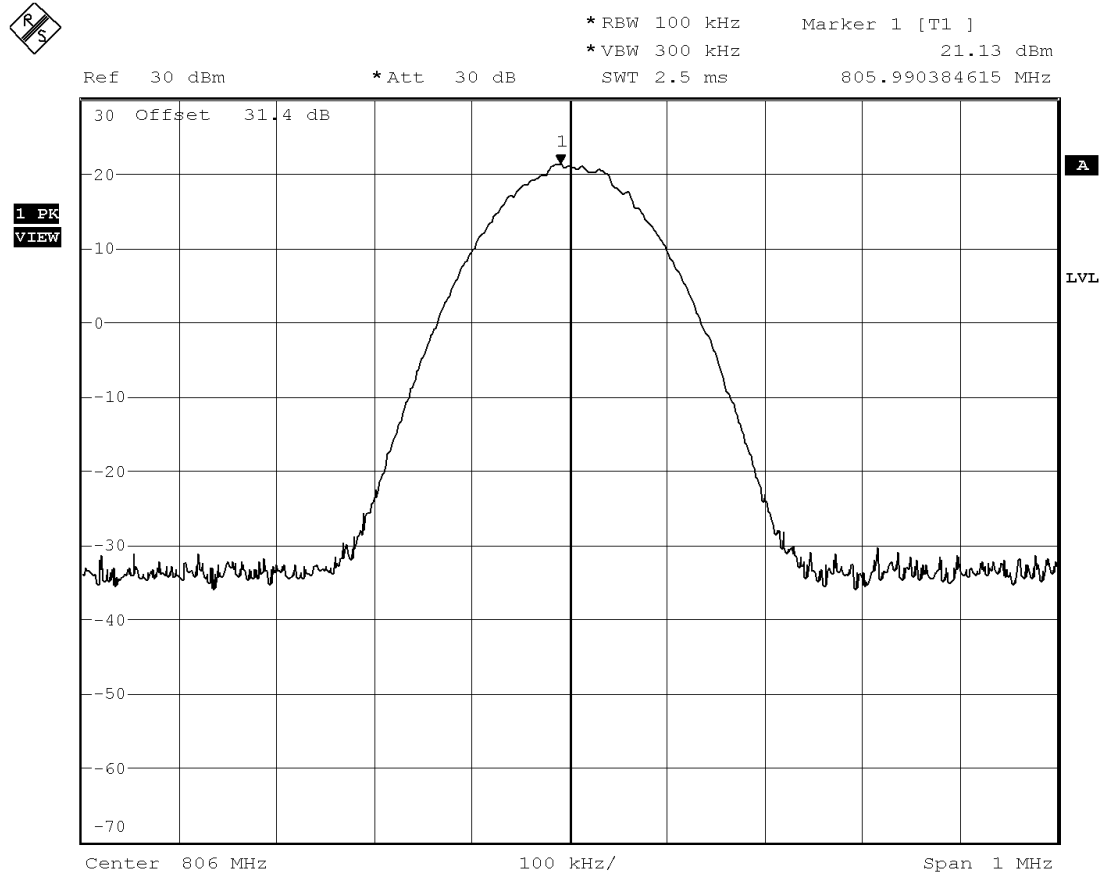
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 11 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink		
	Signal Source - TDMA – Input – 806MHz		



Date: 11.SEP.2004 10:03:39

FIGURE 6: OCCUPIED BANDWIDTH

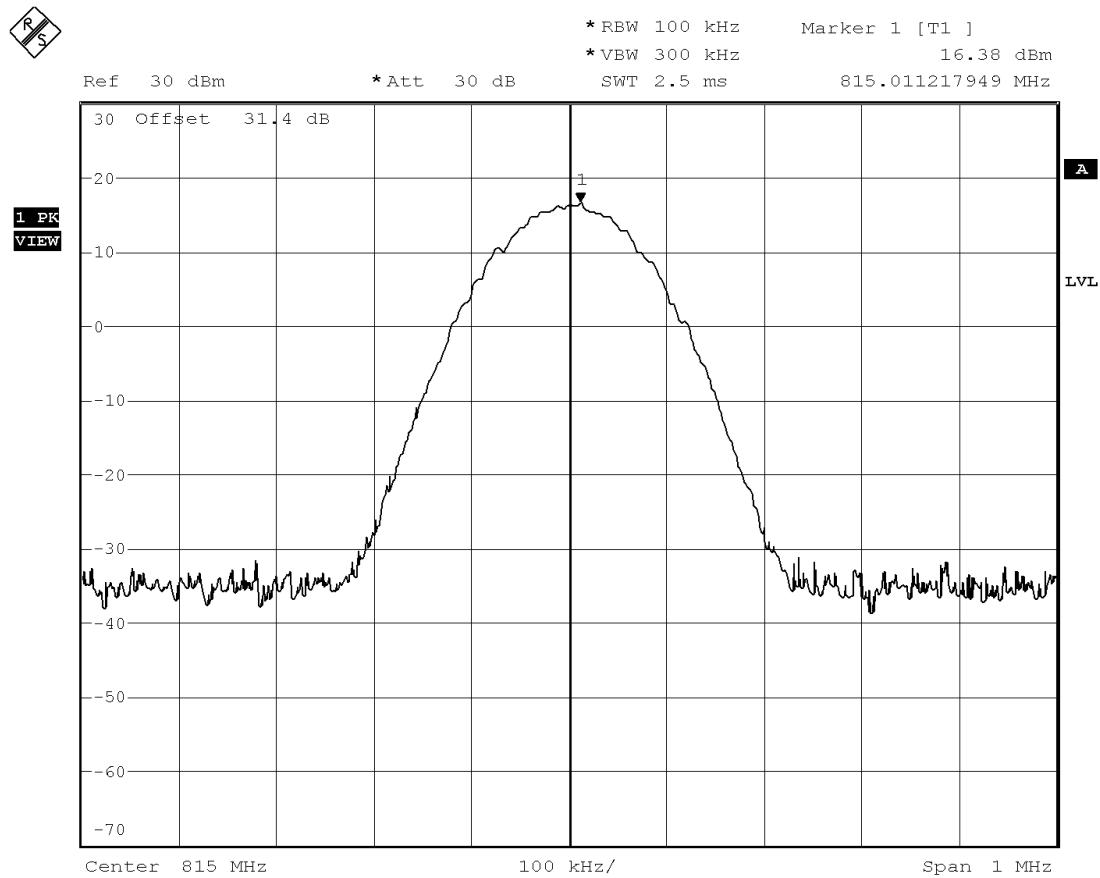
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 11 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink		
	Signal Source - TDMA – Output – 806MHz		



Date: 11.SEP.2004 10:17:36

FIGURE 6: OCCUPIED BANDWIDTH

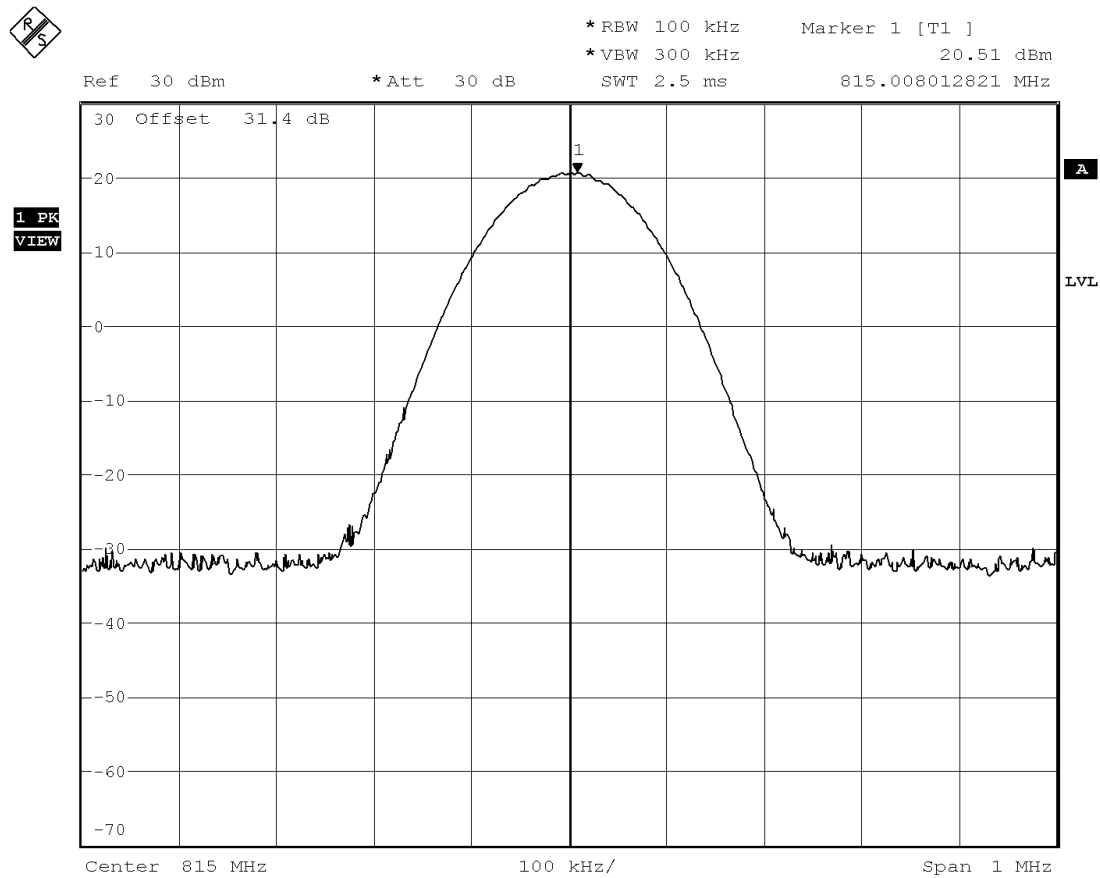
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 11 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink		
	Signal Source - TDMA – Input – 815MHz		



Date: 11.SEP.2004 10:05:37

FIGURE 6: OCCUPIED BANDWIDTH

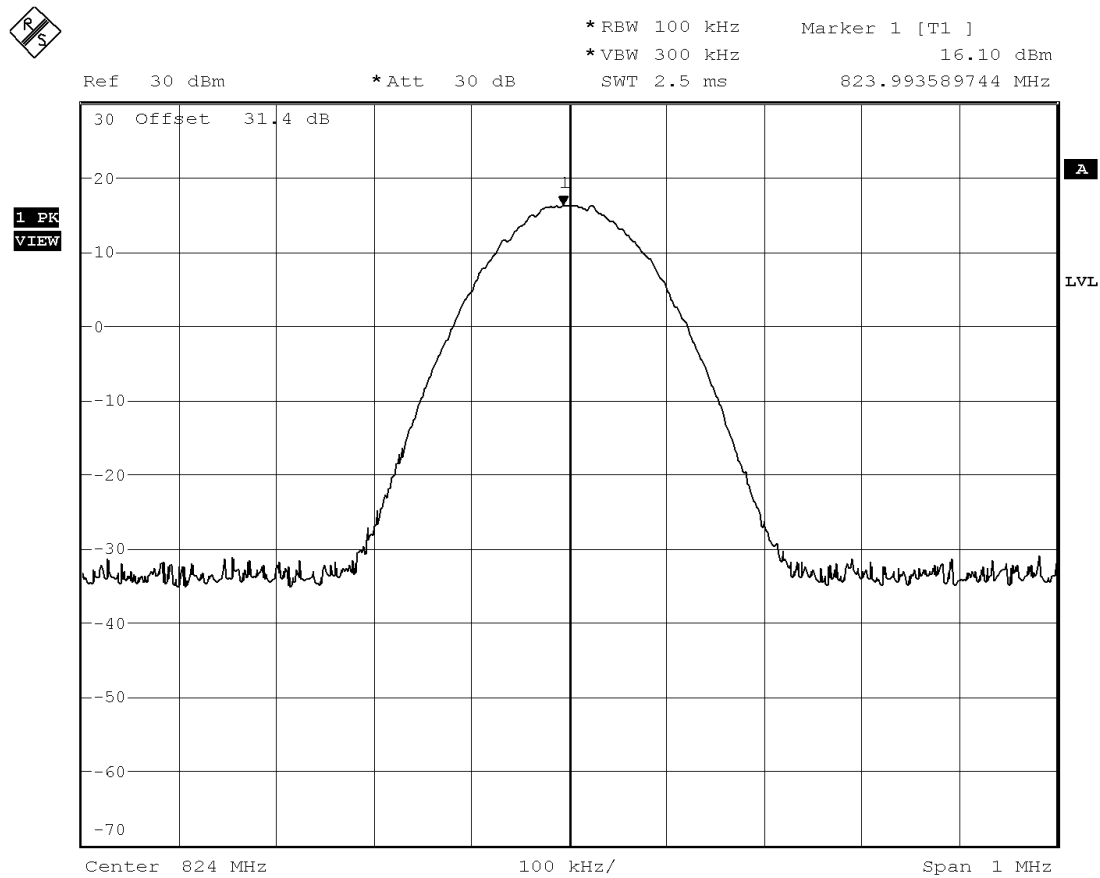
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 11 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink		
	Signal Source - TDMA – Output – 815MHz		



Date: 11.SEP.2004 10:14:15

FIGURE 6: OCCUPIED BANDWIDTH

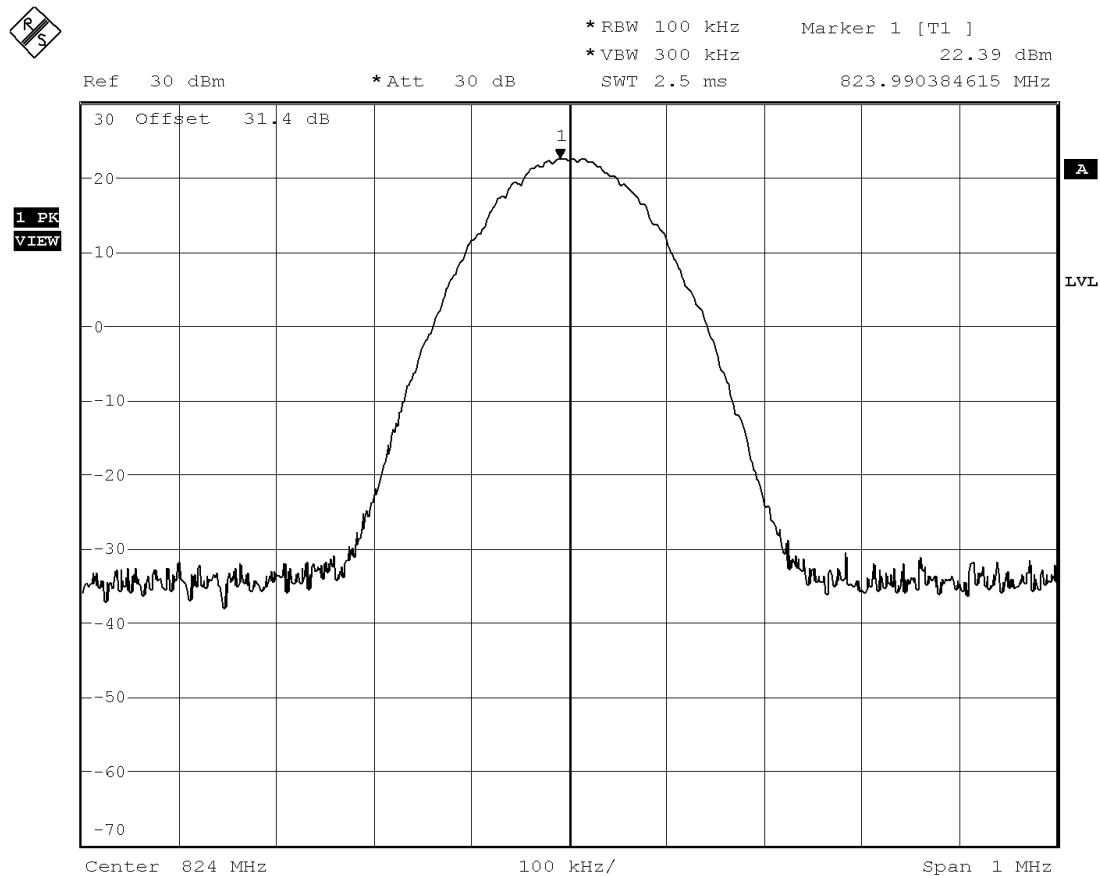
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 11 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink		
	Signal Source - TDMA – Input – 824MHz		



Date: 11.SEP.2004 10:12:23

FIGURE 6: OCCUPIED BANDWIDTH

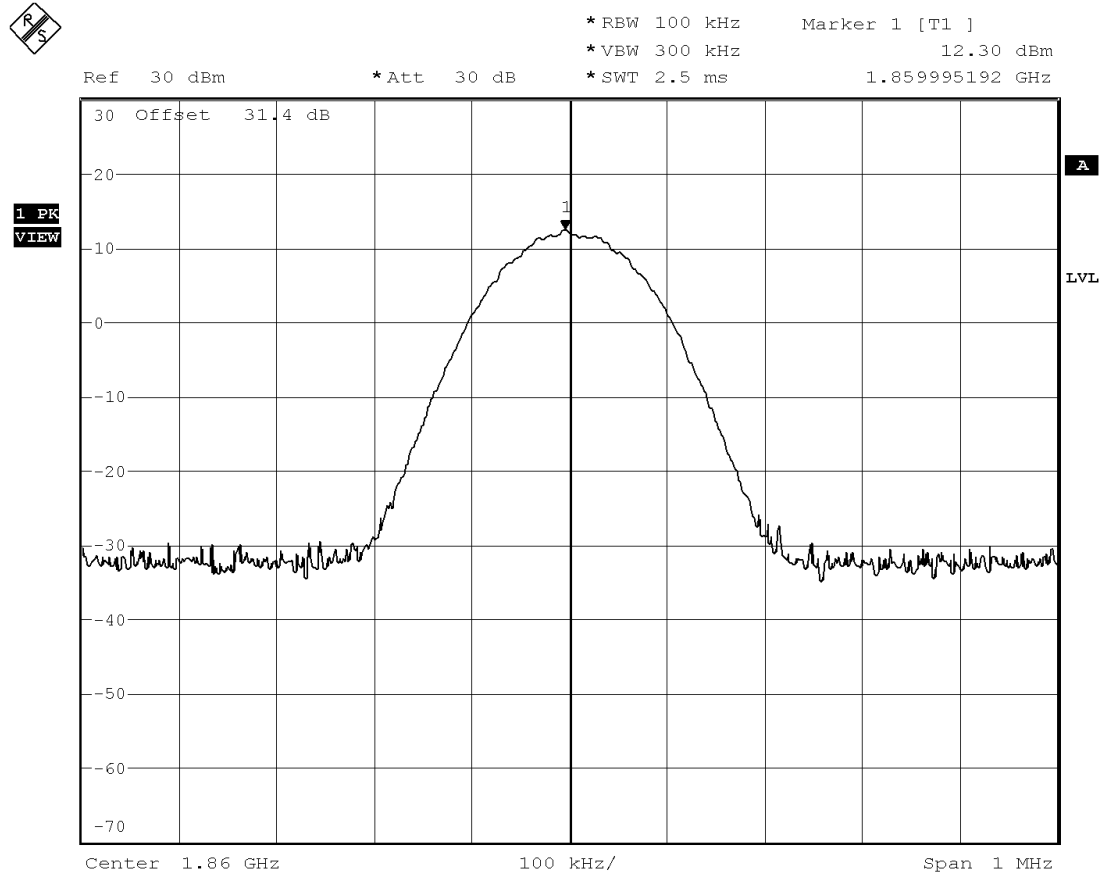
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 11 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink		
	Signal Source - TDMA – Output – 824MHz		



Date: 11.SEP.2004 10:11:05

FIGURE 6: OCCUPIED BANDWIDTH

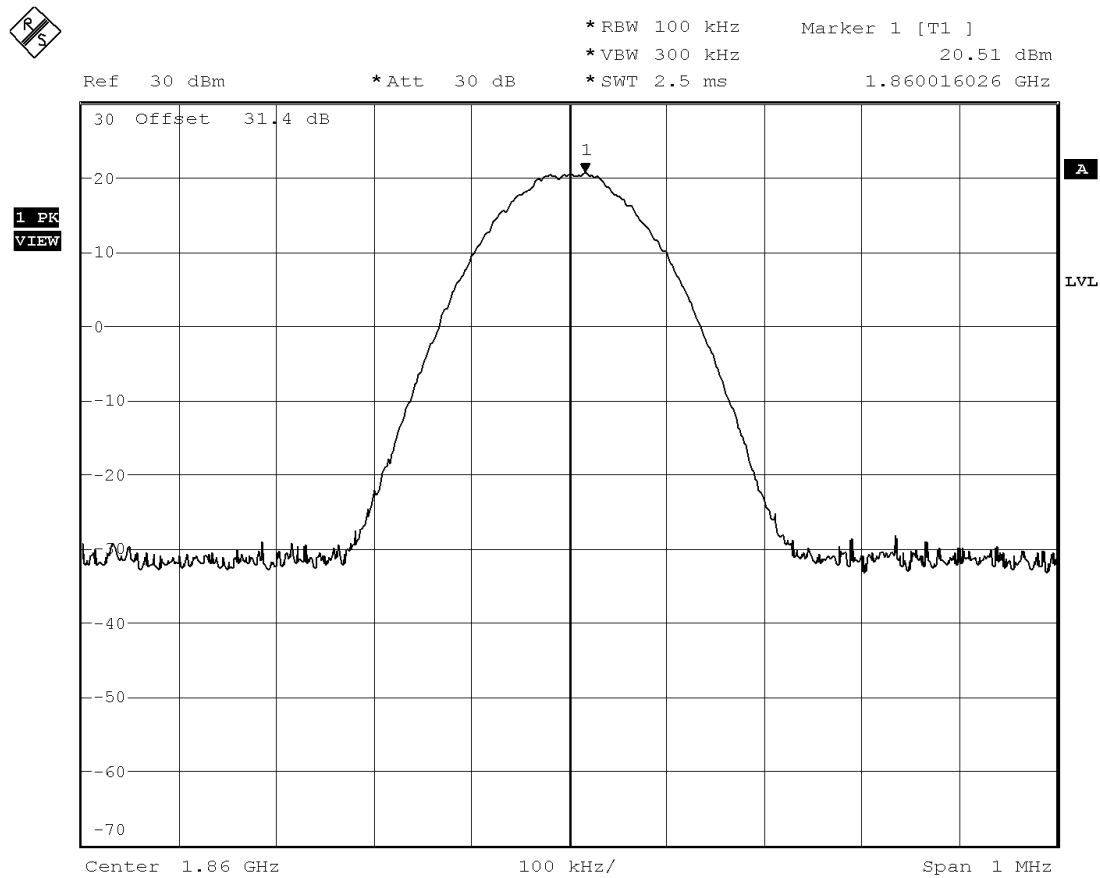
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 10 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink		
	Signal Source - TDMA – Input – 1860MHz		



Date: 10.SEP.2004 10:55:21

FIGURE 6: OCCUPIED BANDWIDTH

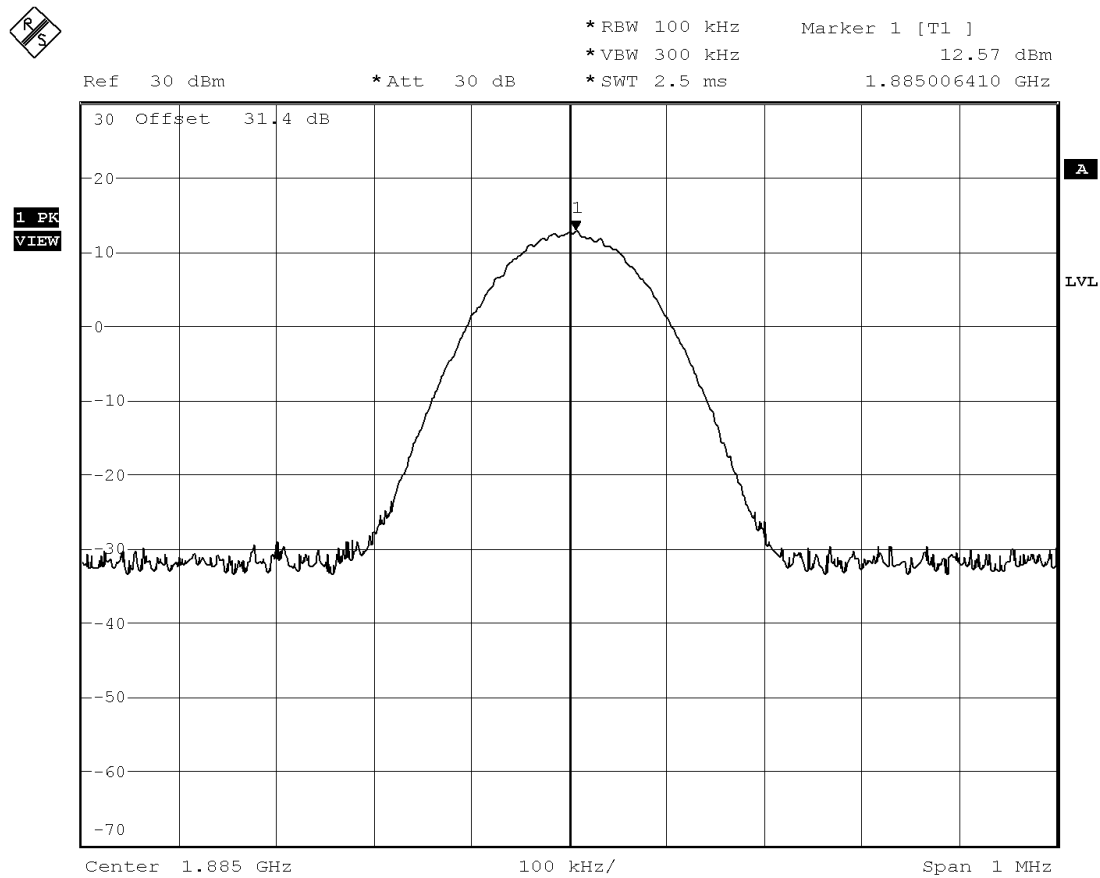
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 10 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink		
	Signal Source - TDMA – Output – 1860MHz		



Date: 10.SEP.2004 12:14:57

FIGURE 6: OCCUPIED BANDWIDTH

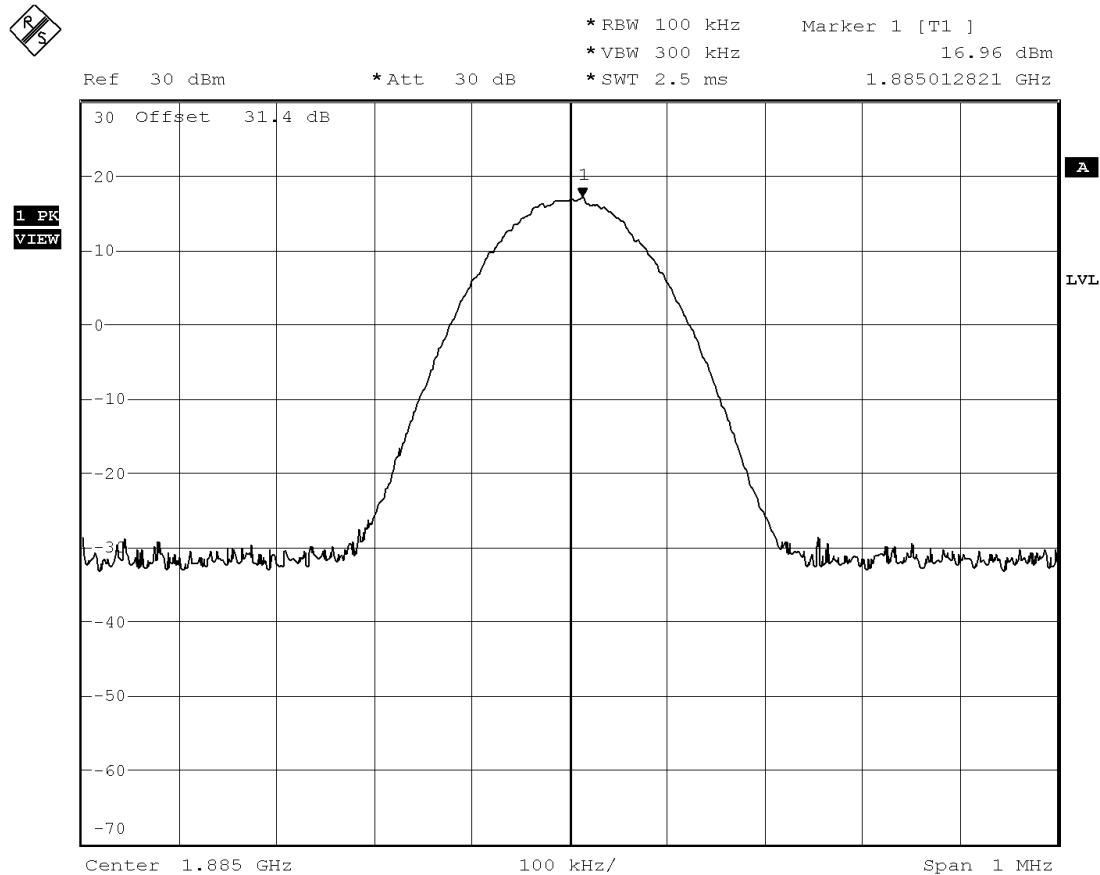
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 10 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink		
	Signal Source - TDMA – Input – 1885MHz		



Date: 10.SEP.2004 10:54:18

FIGURE 6: OCCUPIED BANDWIDTH

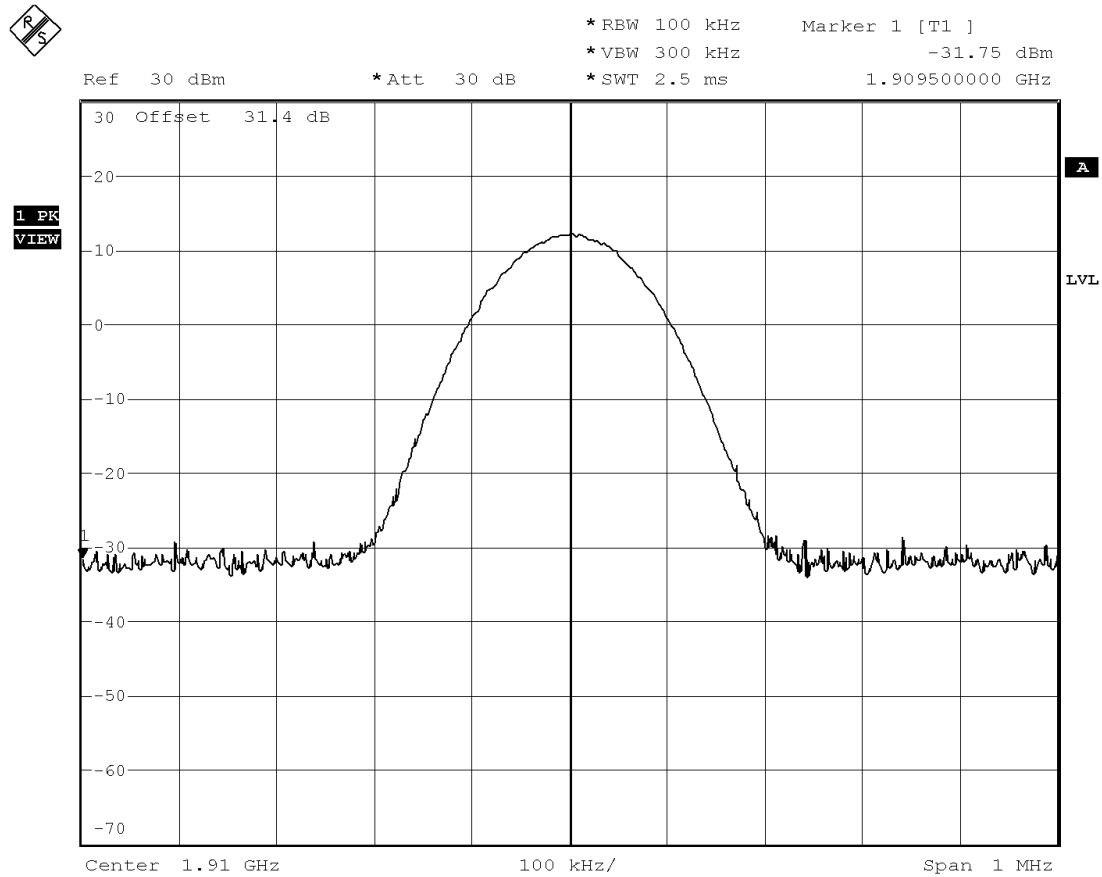
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704		Occupied Bandwidth	
	DNB Job Number:	RV58031A	Date:	10 Sep 2004
	Customer:	Janizary Holdings Inc		Conformance Standards [X] FCC Part 24 [X] FCC Part 90
	Model Number:	LMSWDJHNEX	Serial Number:	
	Description:	RF amplifier Uplink Signal Source - TDMA – Output – 1885MHz		



Date: 10.SEP.2004 12:10:24

FIGURE 6: OCCUPIED BANDWIDTH

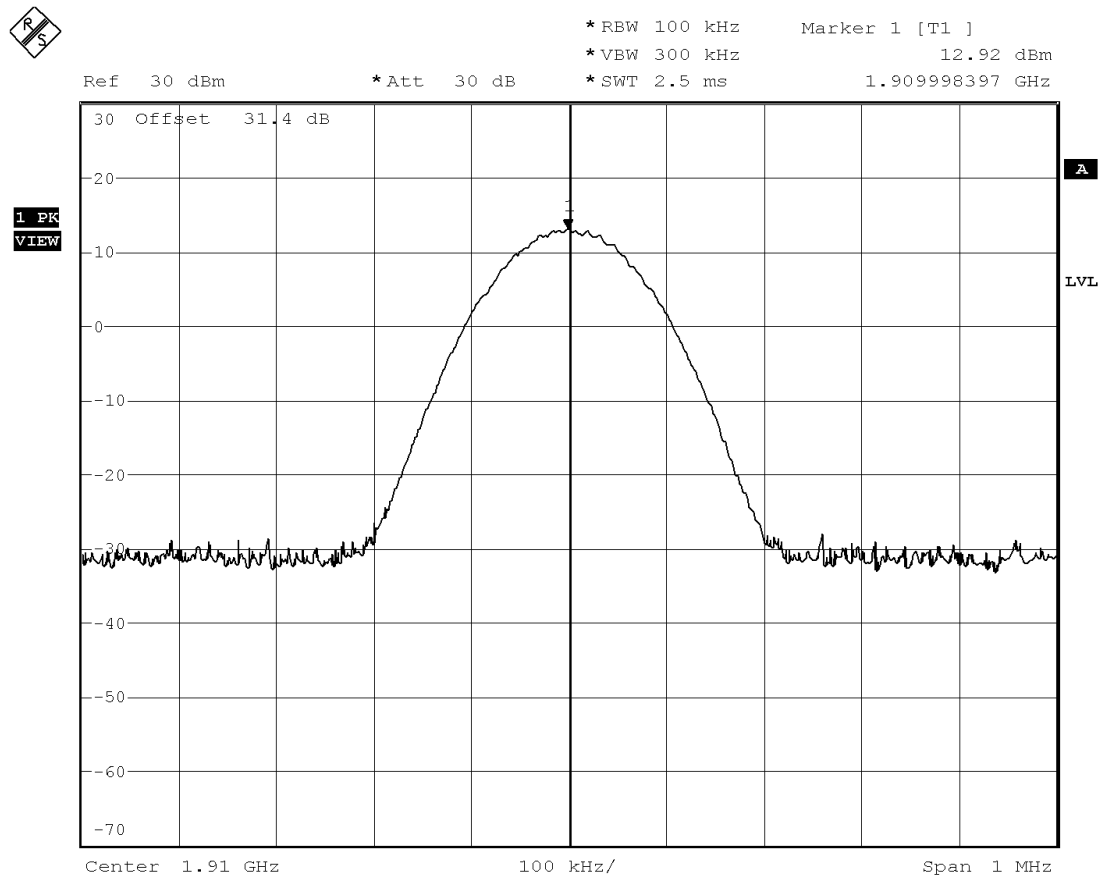
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 10 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink		
	Signal Source - TDMA – Input – 1910MHz		



Date: 10.SEP.2004 10:58:08

FIGURE 6: OCCUPIED BANDWIDTH

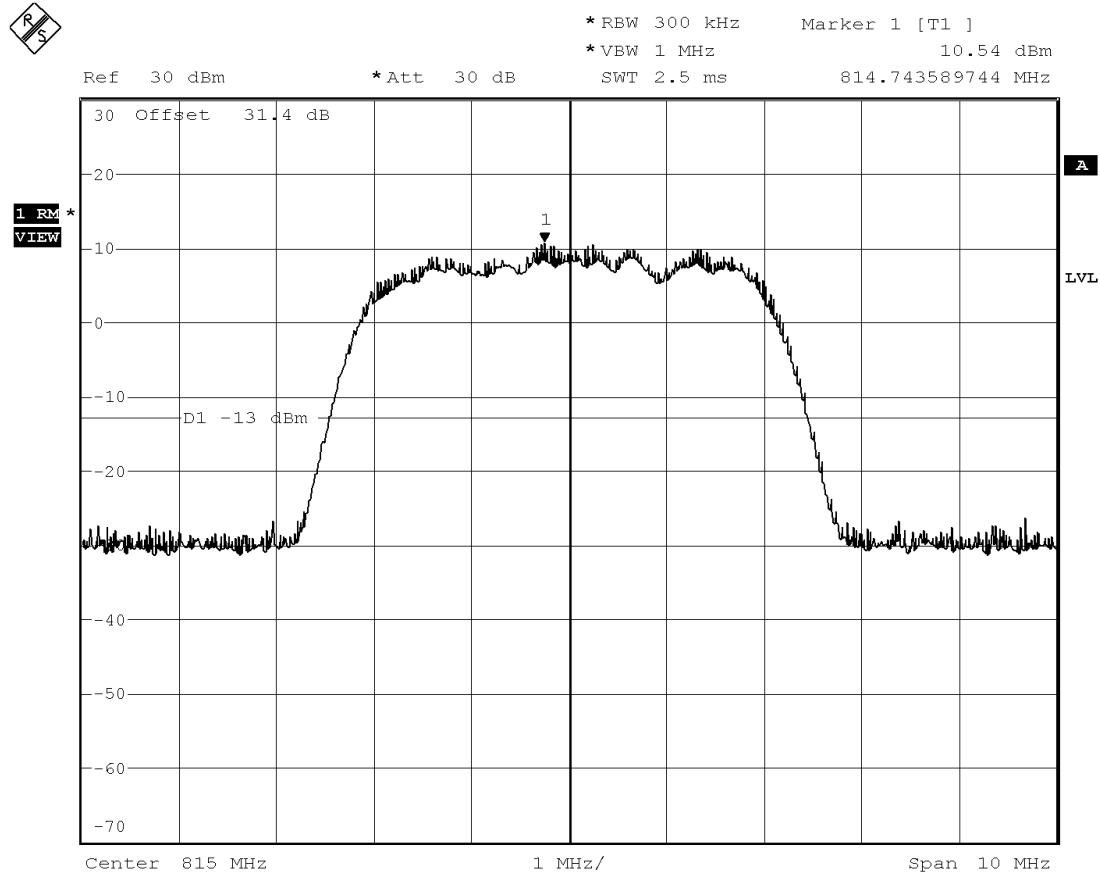
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 10 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink		
	Signal Source - TDMA – Output – 1910MHz		



Date: 10.SEP.2004 12:12:25

FIGURE 6: OCCUPIED BANDWIDTH

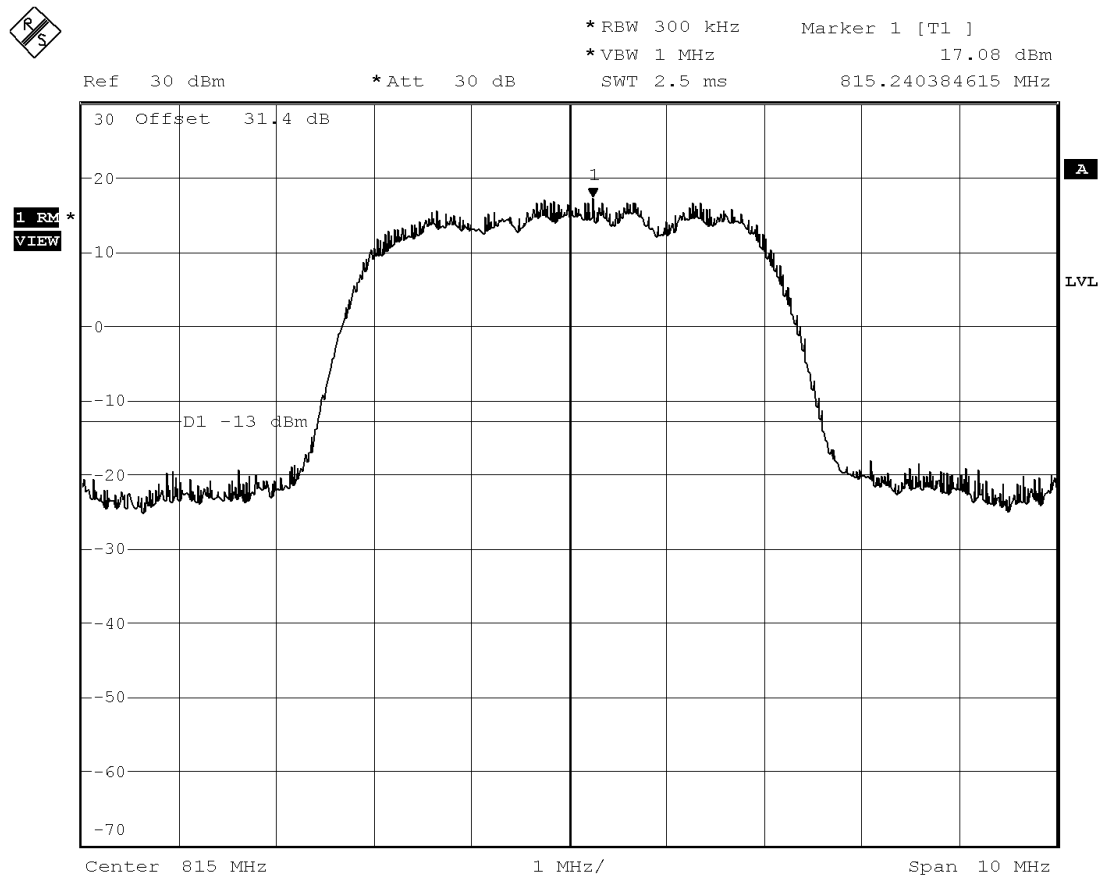
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 11 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink		
	Signal Source - CDMA – Input – 815MHz		



Date: 11.SEP.2004 09:43:30

FIGURE 6: OCCUPIED BANDWIDTH

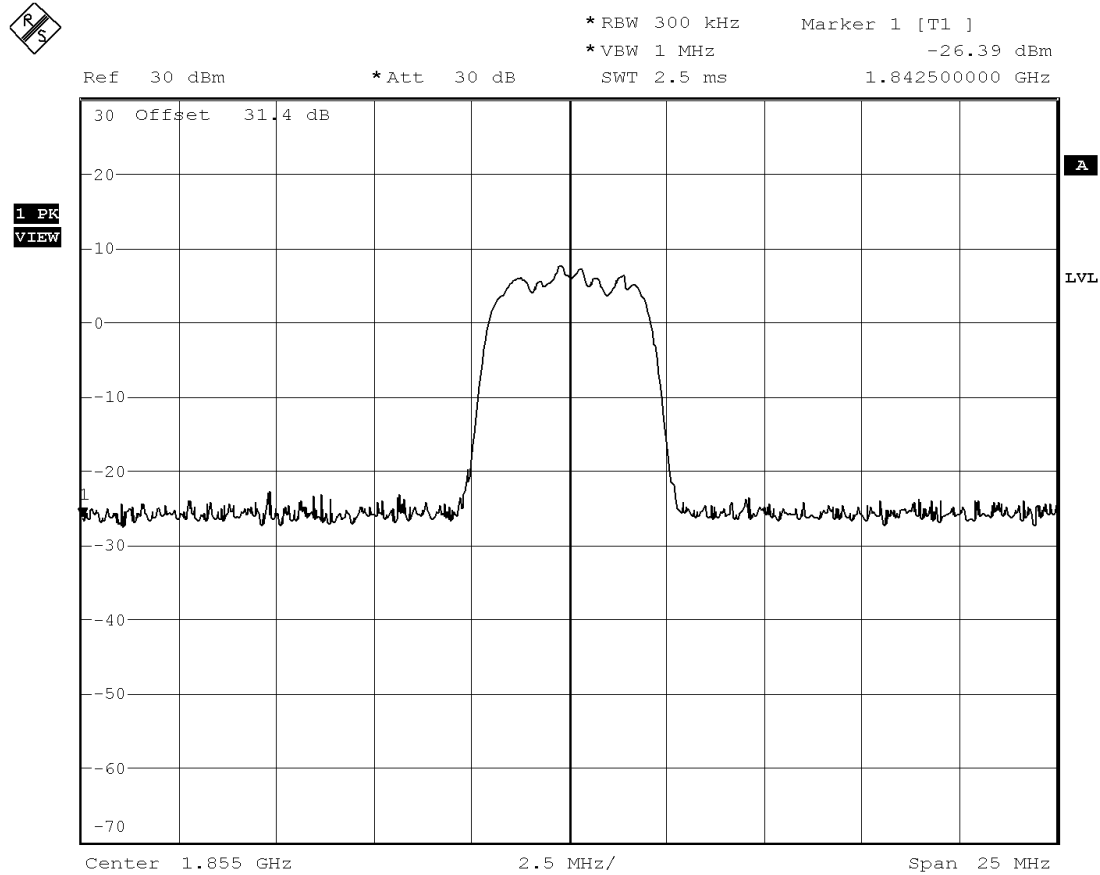
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 11 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink		
	Signal Source - CDMA – Output – 815MHz		



Date: 11.SEP.2004 09:40:23

FIGURE 6: OCCUPIED BANDWIDTH

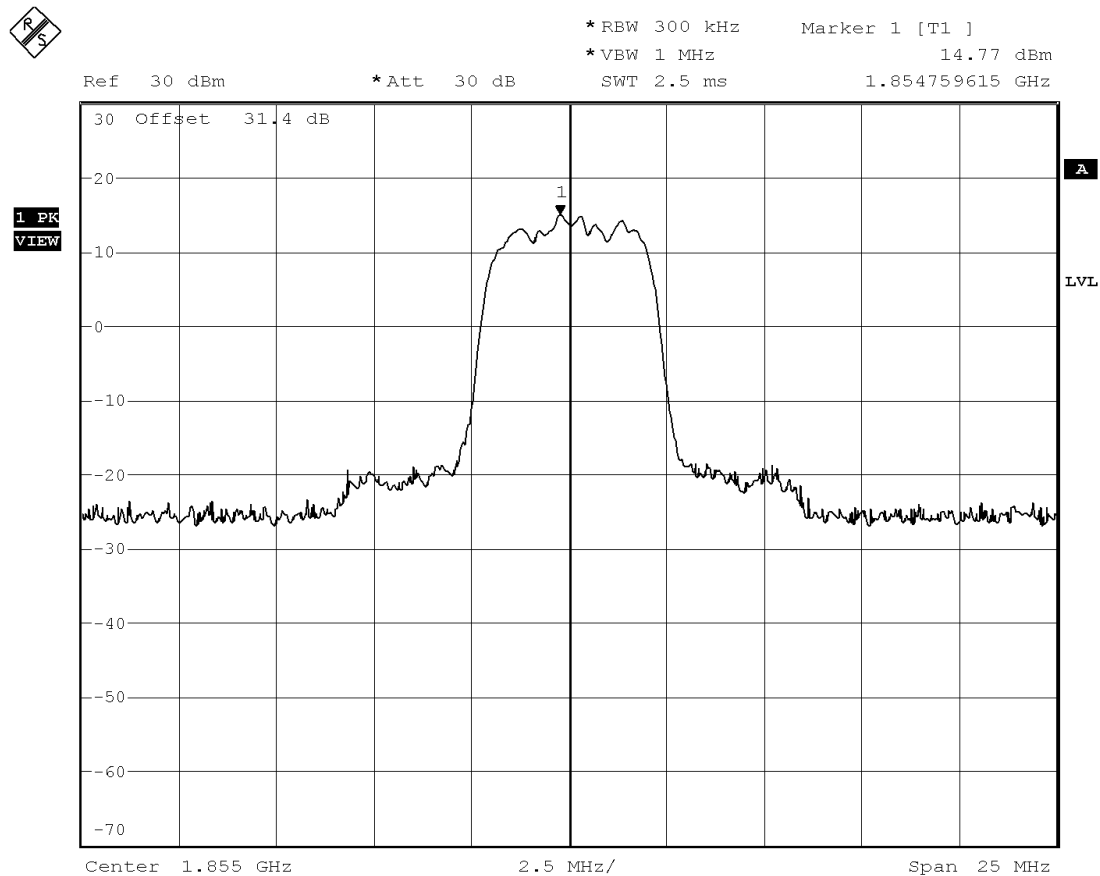
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date:	10 Sep 2004
Customer:	Janizary Holdings Inc	Conformance Standards [X] FCC Part 24 [X] FCC Part 90	
Model Number:	LMSWDJHNEX		
Description:	RF amplifier Uplink Signal Source - CDMA – Input – 1885MHz		



Date: 10.SEP.2004 13:26:43

FIGURE 6: OCCUPIED BANDWIDTH

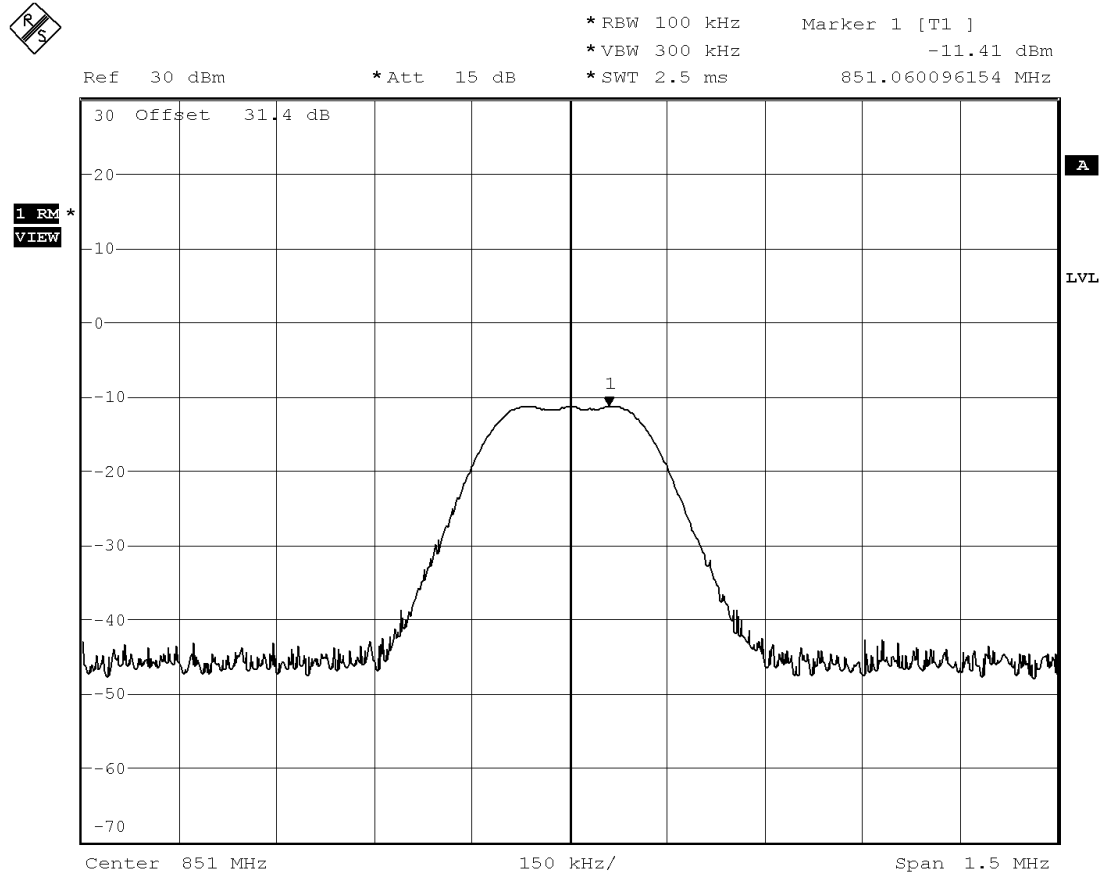
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 10 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink		
	Signal Source - CDMA – Output – 1885MHz		



Date: 10.SEP.2004 13:34:10

FIGURE 6: OCCUPIED BANDWIDTH

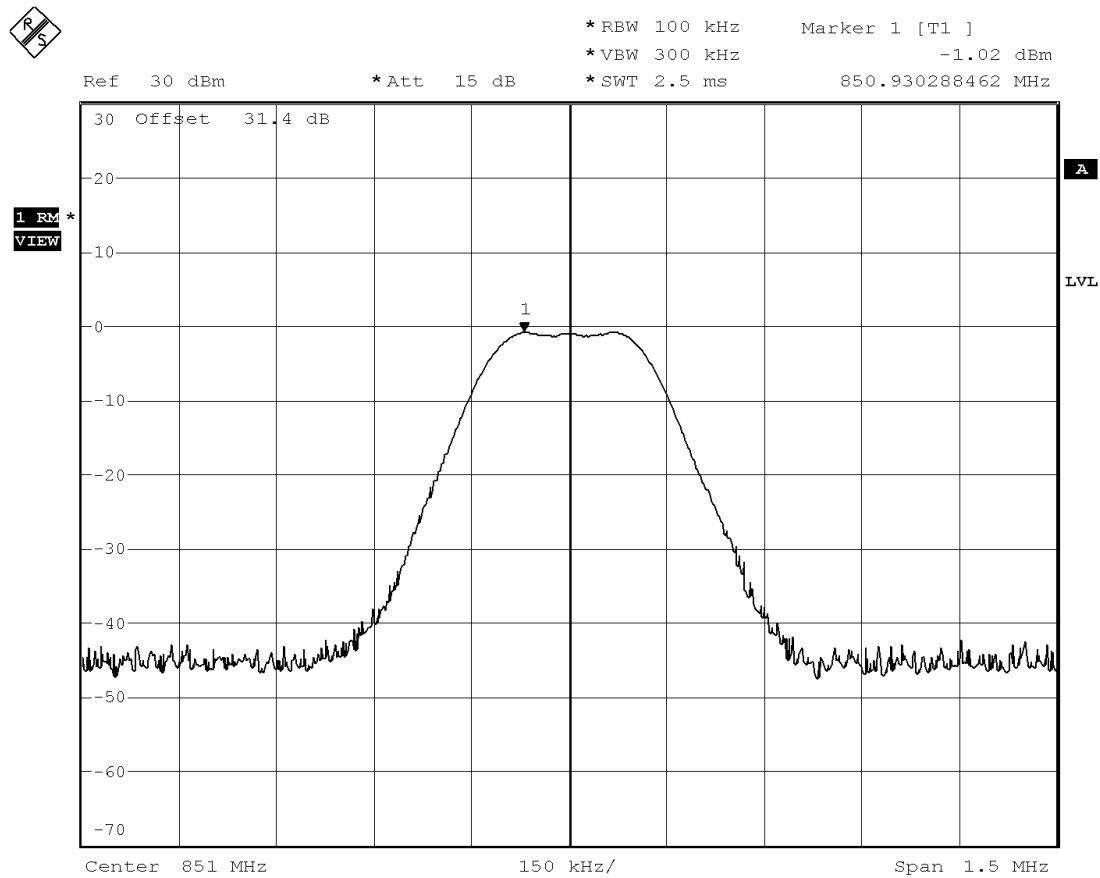
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 8 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink		
	Signal Source - GSM – Input – 851MHz		



Date: 8.SEP.2004 17:46:41

FIGURE 6: OCCUPIED BANDWIDTH

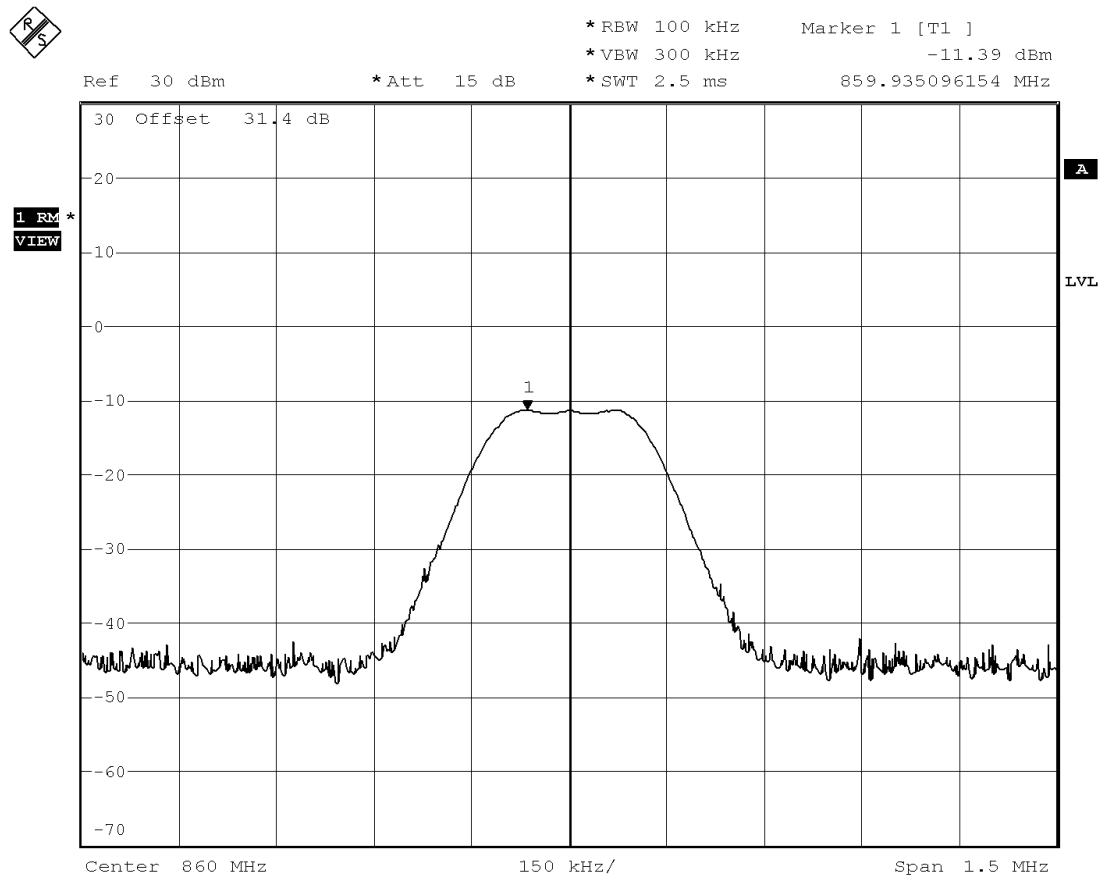
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 8 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink		
	Signal Source - GSM – Output – 851MHz		



Date: 8.SEP.2004 17:09:53

FIGURE 6: OCCUPIED BANDWIDTH

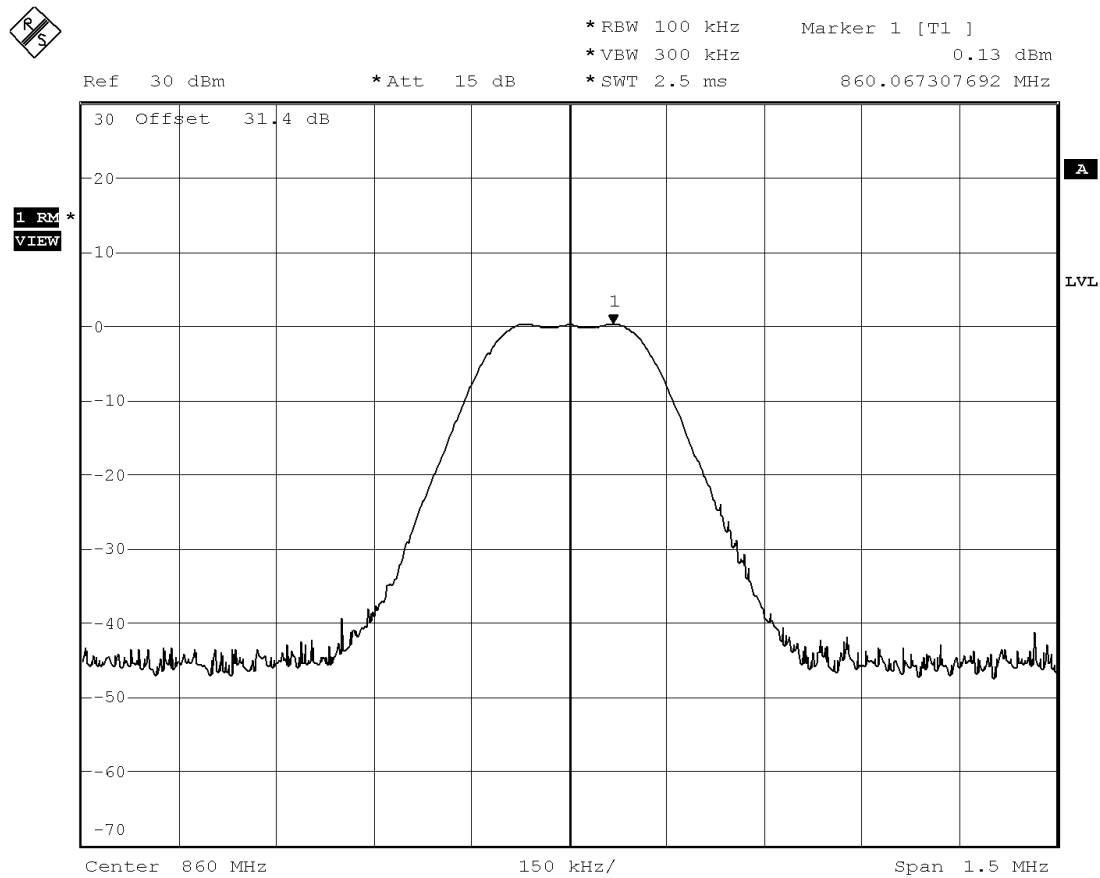
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 8 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier Downlink Signal Source - GSM – Input – 860MHz		



Date: 8.SEP.2004 17:45:12

FIGURE 6: OCCUPIED BANDWIDTH

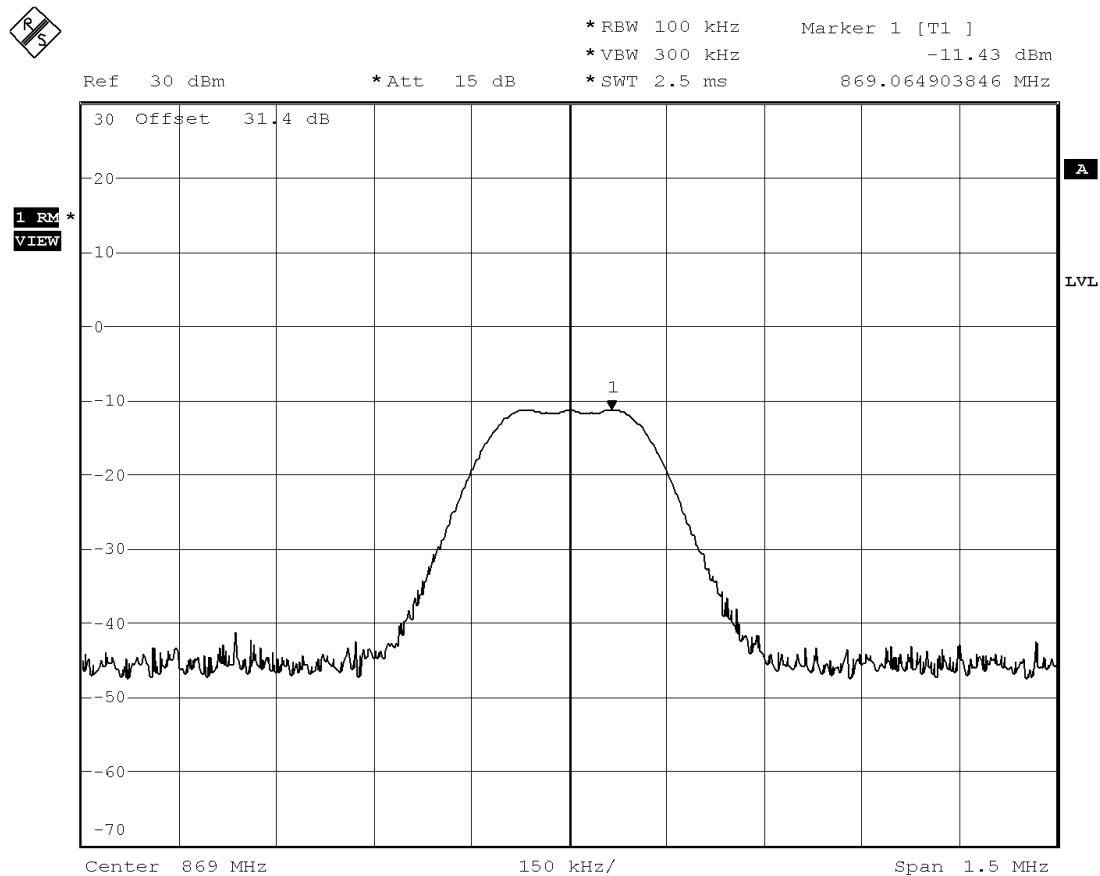
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 8 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink		
	Signal Source - GSM – Output – 860MHz		



Date: 8.SEP.2004 17:06:40

FIGURE 6: OCCUPIED BANDWIDTH

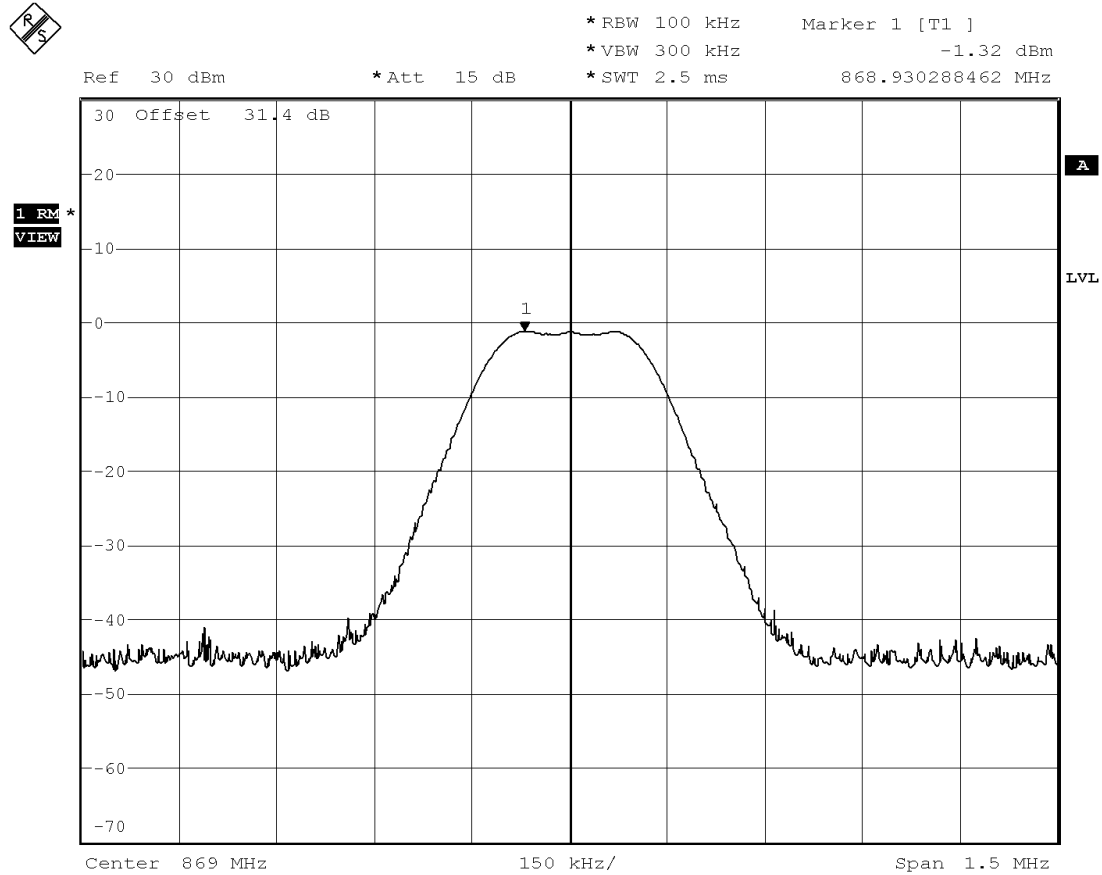
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 8 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier Downlink Signal Source - GSM – Input – 869MHz		



Date: 8.SEP.2004 17:43:51

FIGURE 6: OCCUPIED BANDWIDTH

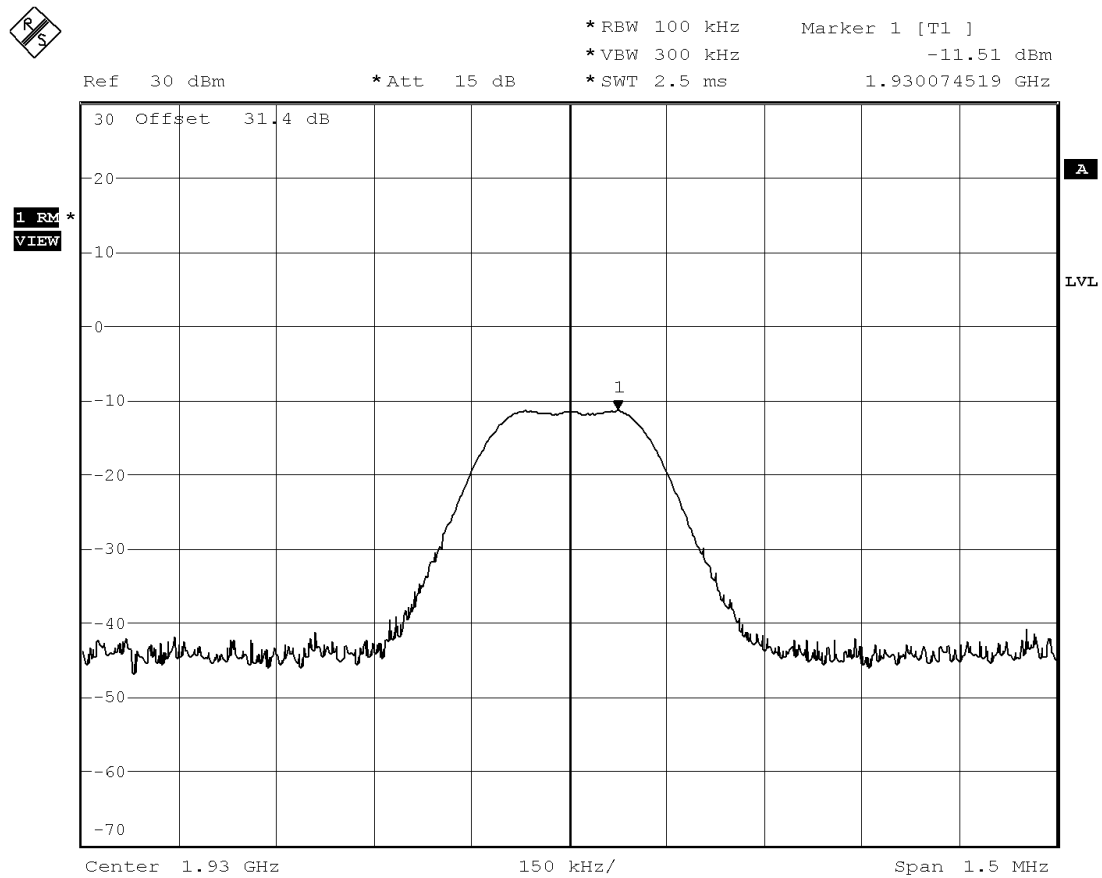
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 8 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink		
	Signal Source - GSM – Output – 869MHz		



Date: 8.SEP.2004 17:11:21

FIGURE 6: OCCUPIED BANDWIDTH

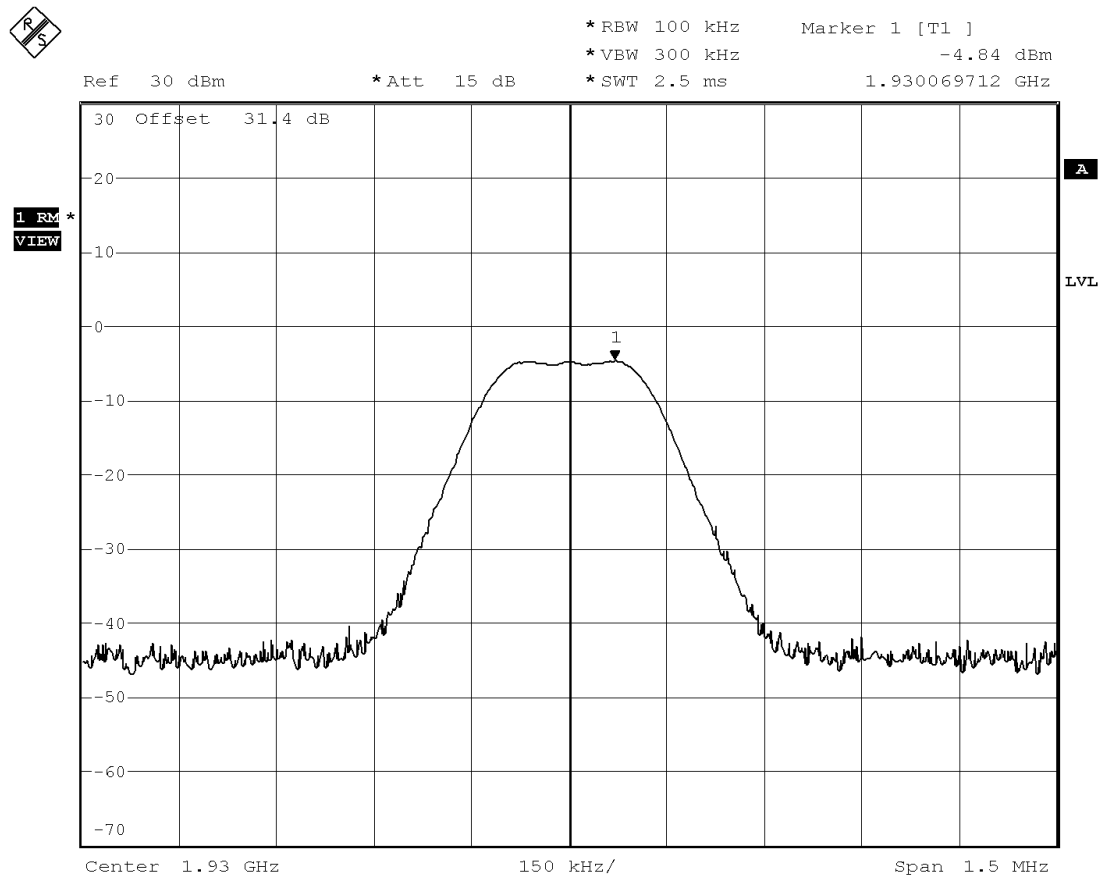
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 8 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink		
	Signal Source - GSM – Input – 1930MHz		



Date: 8.SEP.2004 17:36:38

FIGURE 6: OCCUPIED BANDWIDTH

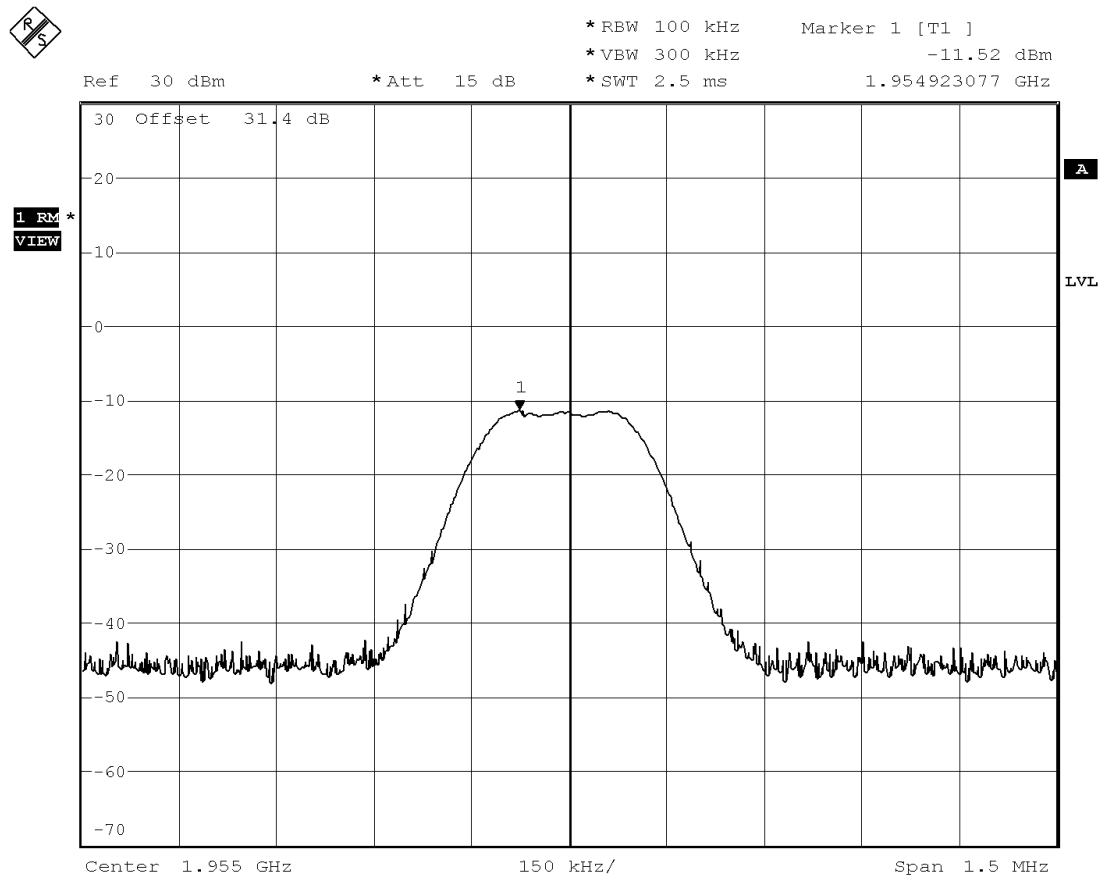
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 8 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink		
	Signal Source - GSM – Output – 1930MHz		



Date: 8.SEP.2004 17:28:35

FIGURE 6: OCCUPIED BANDWIDTH

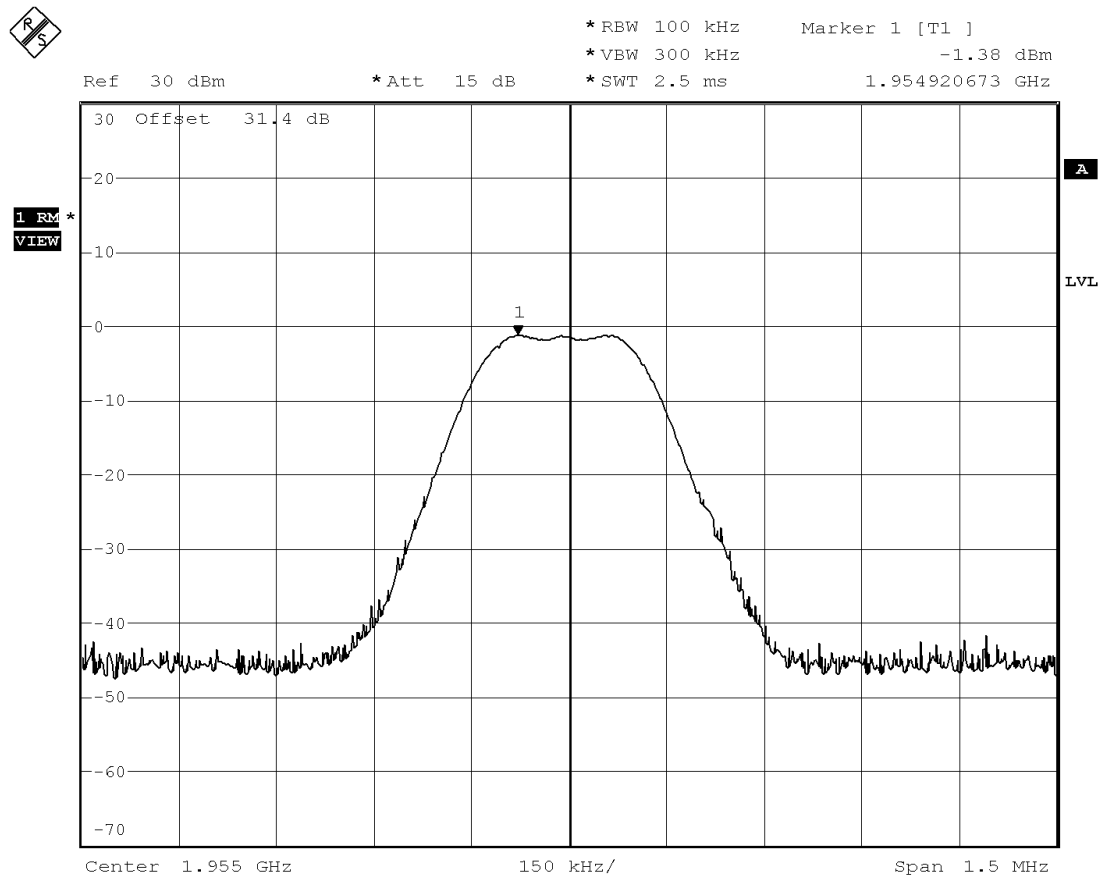
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 8 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink		
	Signal Source - GSM – Input – 1955MHz		



Date: 8.SEP.2004 17:35:36

FIGURE 6: OCCUPIED BANDWIDTH

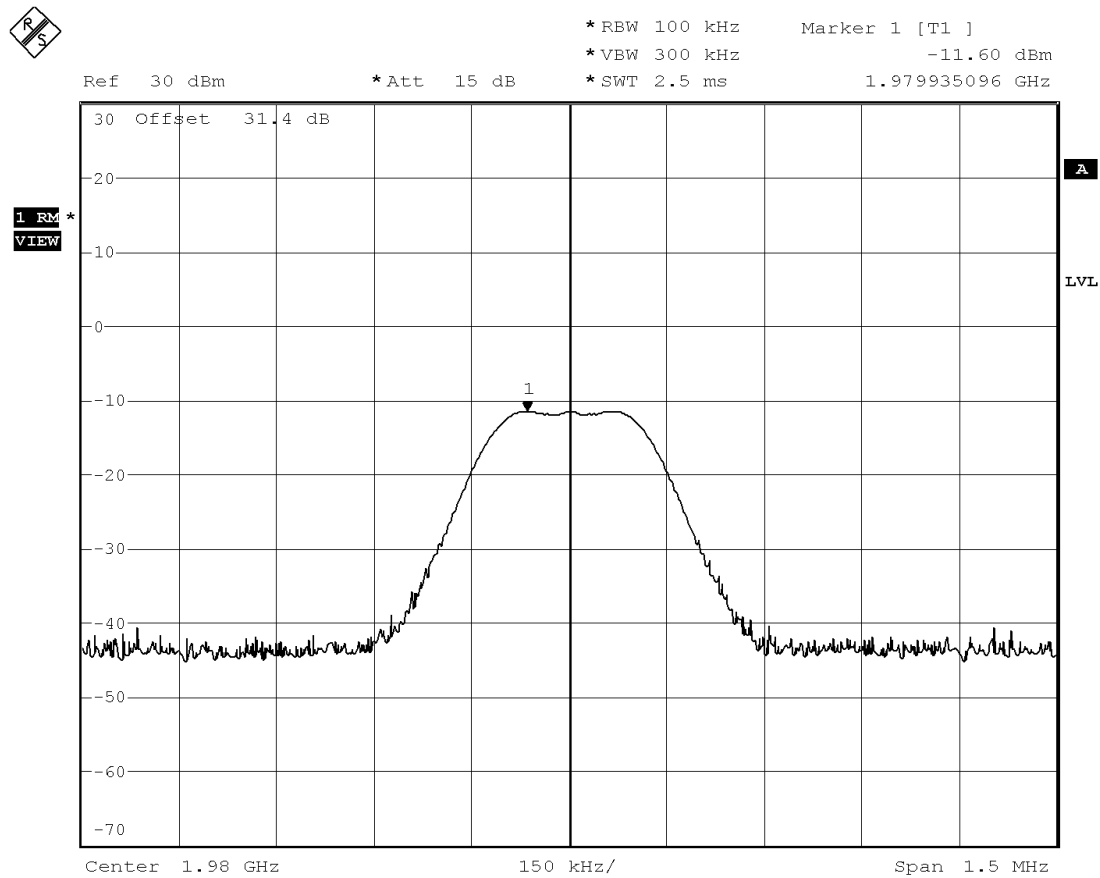
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 8 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink		
	Signal Source - GSM – Output – 1955MHz		



Date: 8.SEP.2004 17:29:33

FIGURE 6: OCCUPIED BANDWIDTH

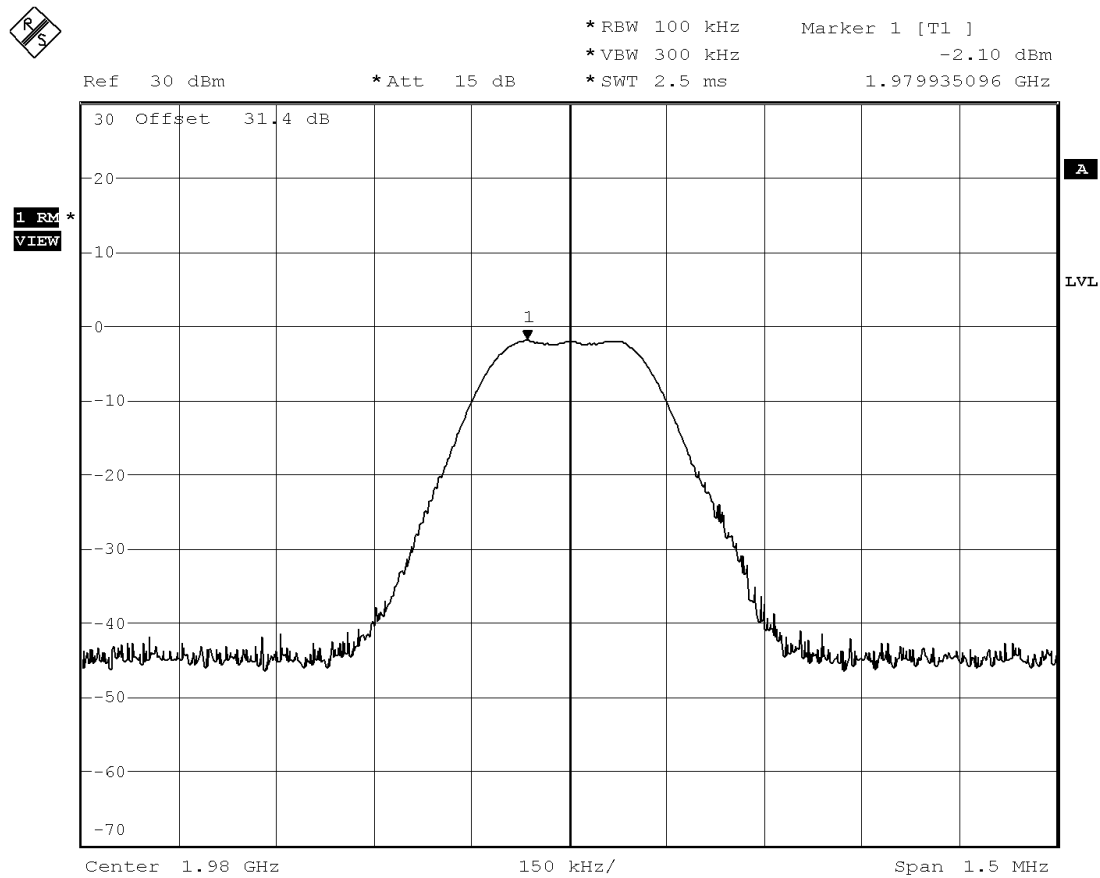
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 8 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink		
	Signal Source - GSM – Input – 1980MHz		



Date: 8.SEP.2004 17:34:48

FIGURE 6: OCCUPIED BANDWIDTH

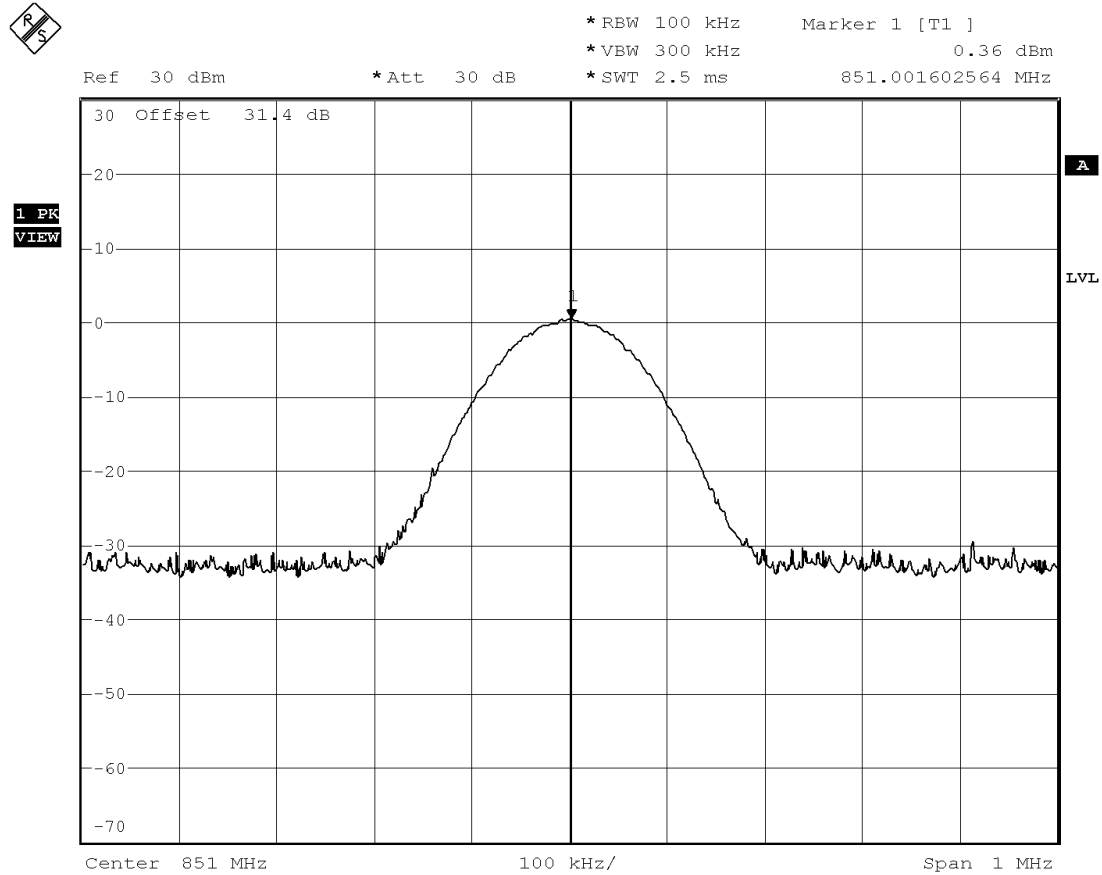
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 8 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink		
	Signal Source - GSM – Output – 1980MHz		



Date: 8.SEP.2004 17:30:31

FIGURE 6: OCCUPIED BANDWIDTH

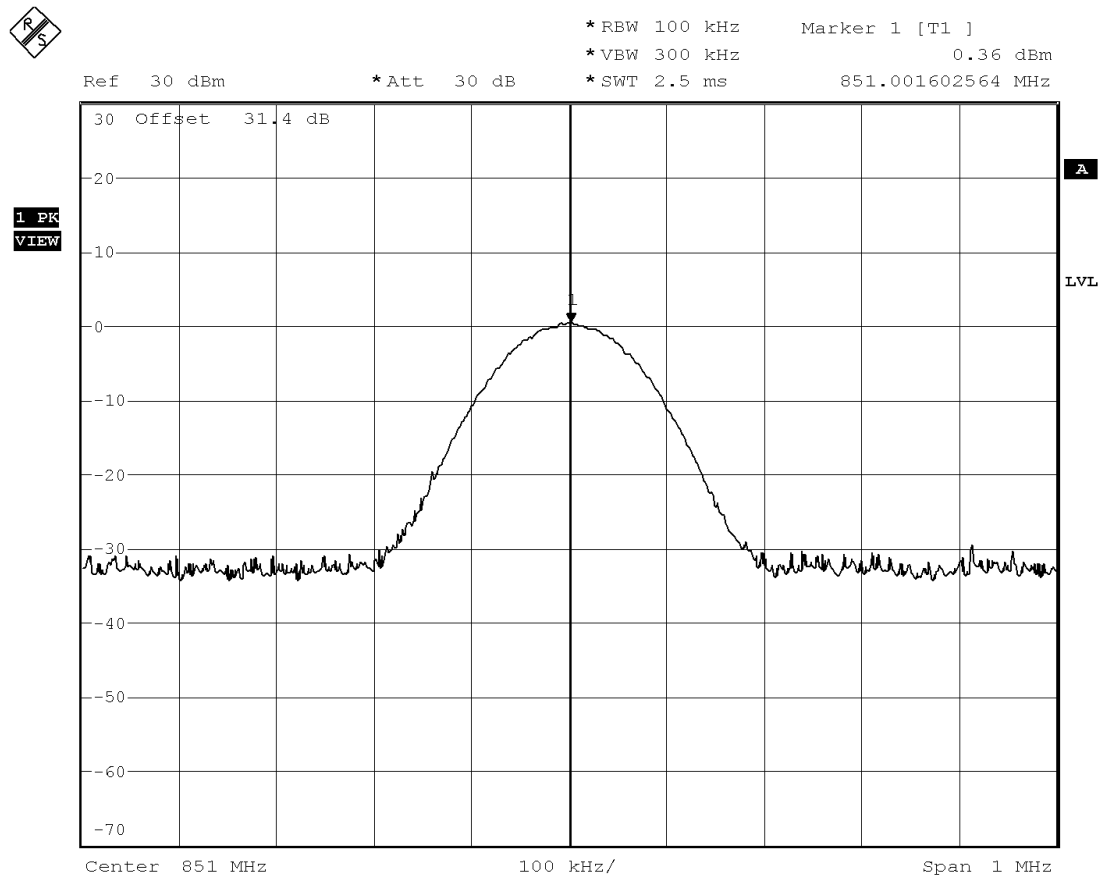
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 10 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink		
	Signal Source - TDMA – Input – 851MHz		



Date: 10.SEP.2004 12:28:42

FIGURE 6: OCCUPIED BANDWIDTH

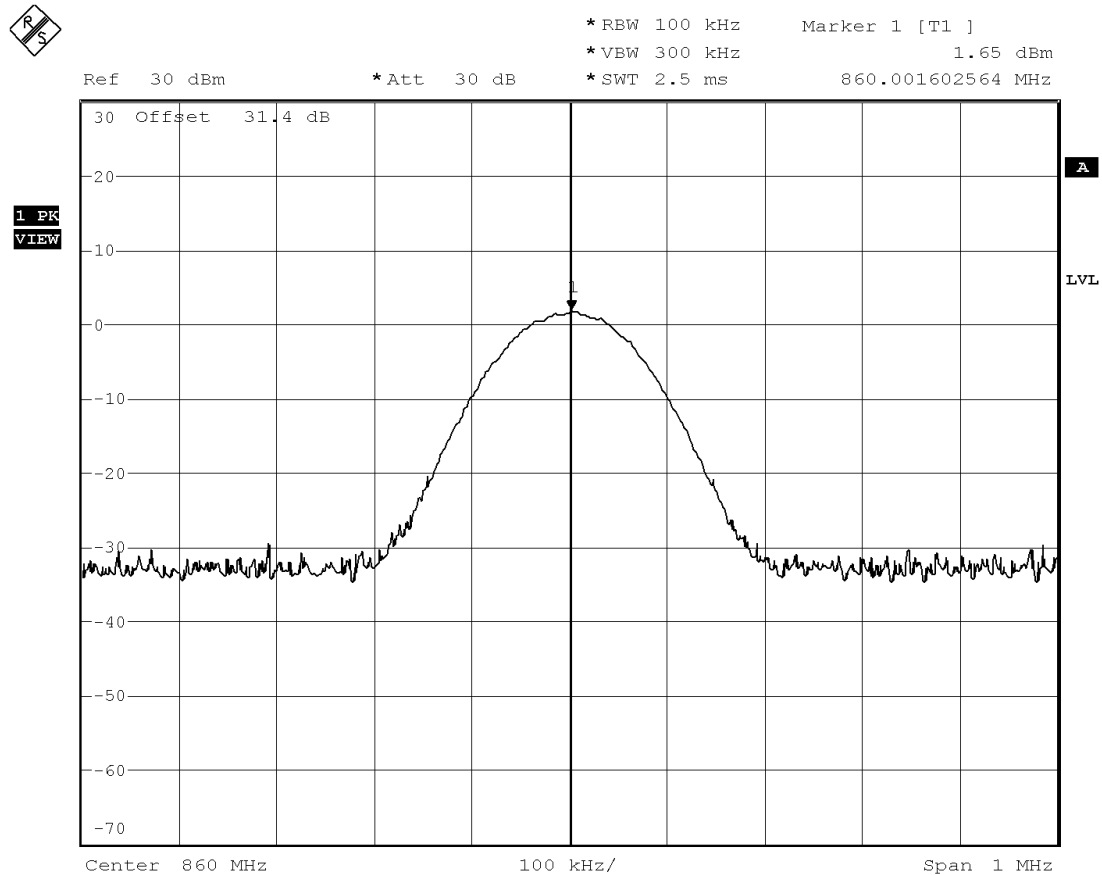
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 10 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink		
	Signal Source - TDMA – Output – 851MHz		



Date: 10.SEP.2004 12:28:42

FIGURE 6: OCCUPIED BANDWIDTH

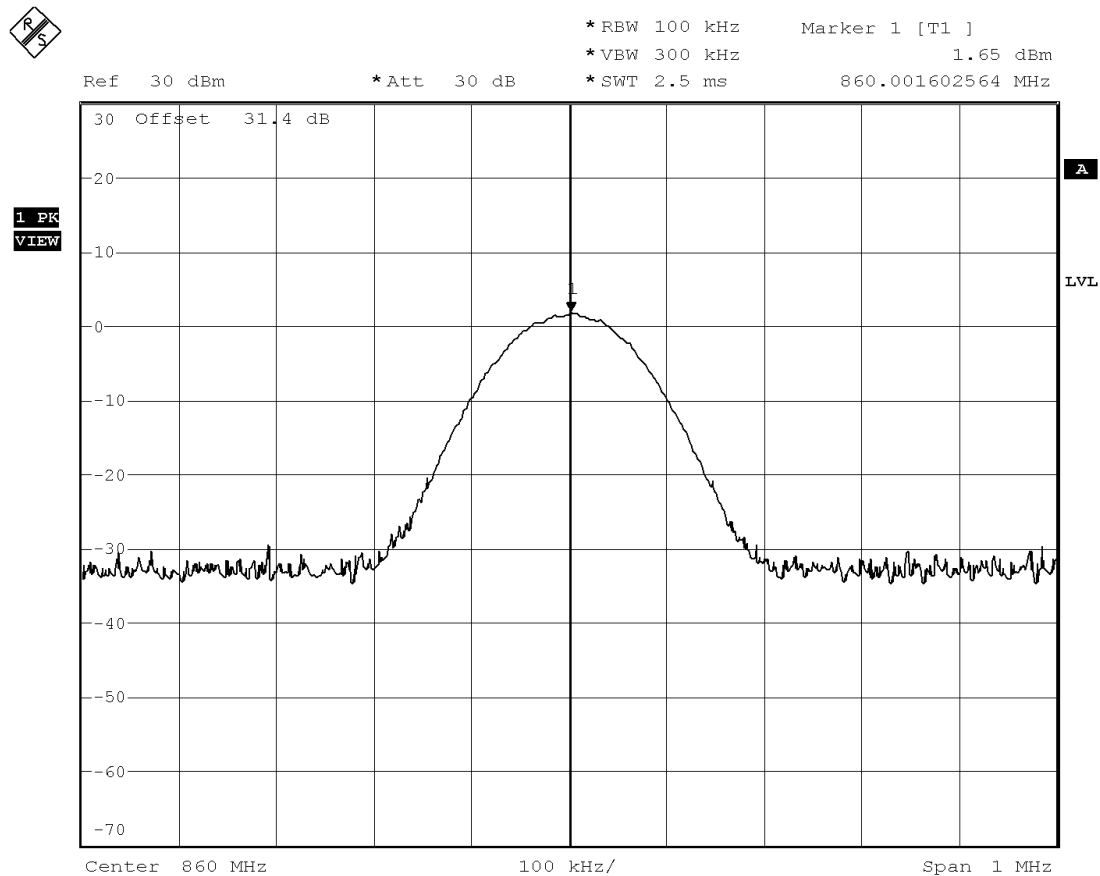
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth		
DNB Job Number:	RV58031A	Date:	10 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc			
Model Number:	LMSWDJHNEX	Serial Number:		
Description:	RF amplifier Downlink Signal Source - TDMA – Input – 860MHz			



Date: 10.SEP.2004 12:30:08

FIGURE 6: OCCUPIED BANDWIDTH

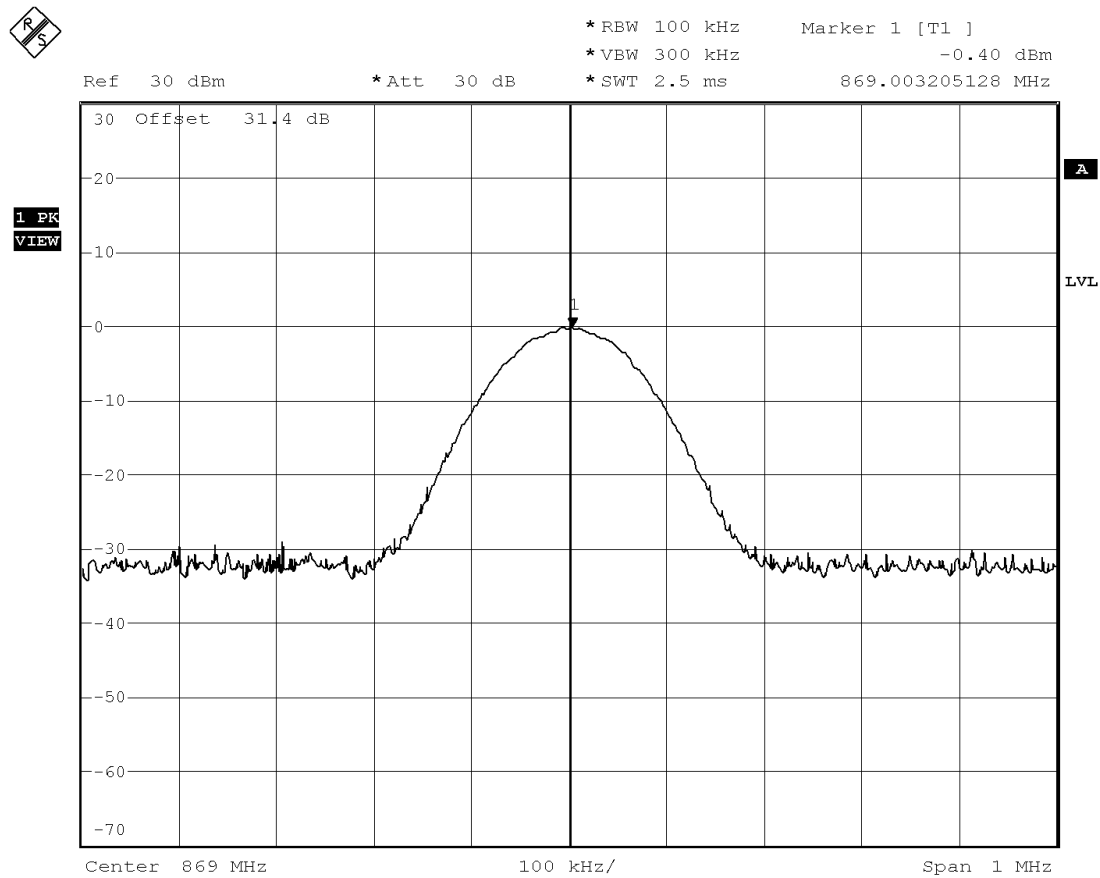
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 10 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink		
	Signal Source - TDMA – Output – 860MHz		



Date: 10.SEP.2004 12:30:08

FIGURE 6: OCCUPIED BANDWIDTH

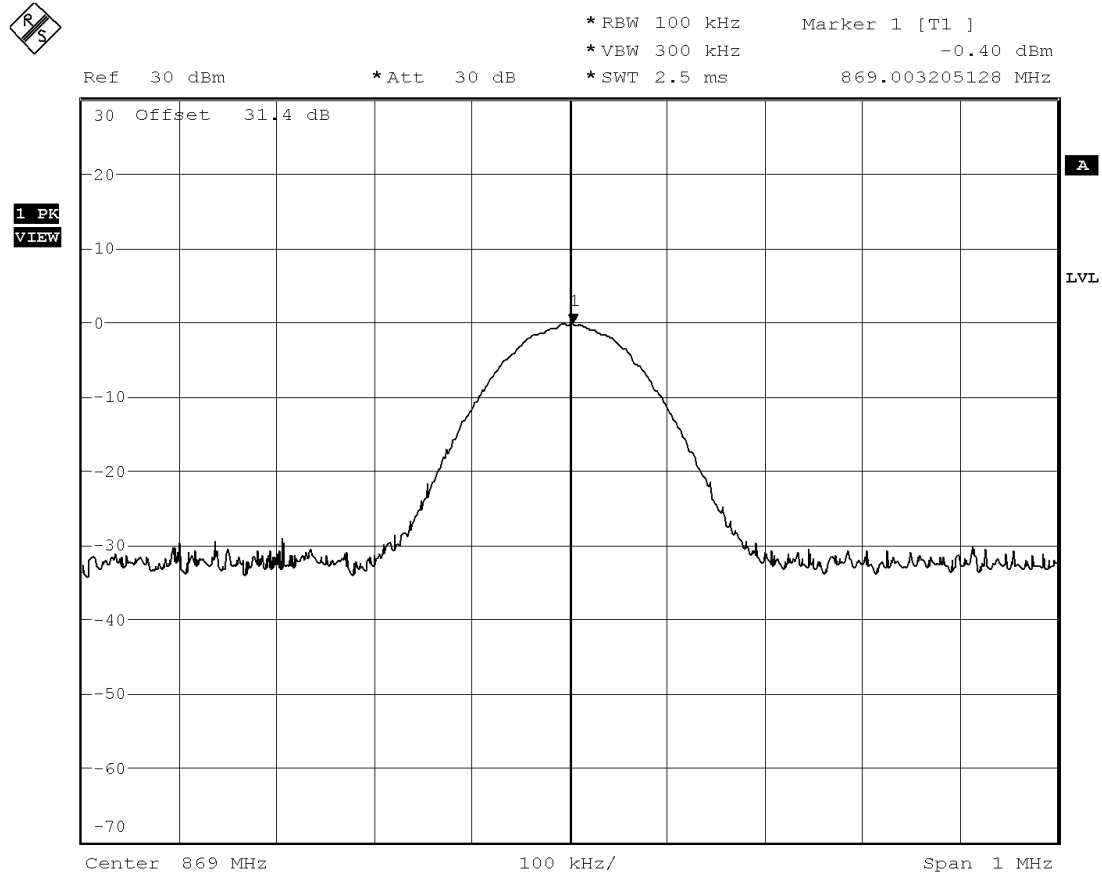
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 10 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink		
	Signal Source - TDMA – Input – 869MHz		



Date: 10.SEP.2004 12:31:04

FIGURE 6: OCCUPIED BANDWIDTH

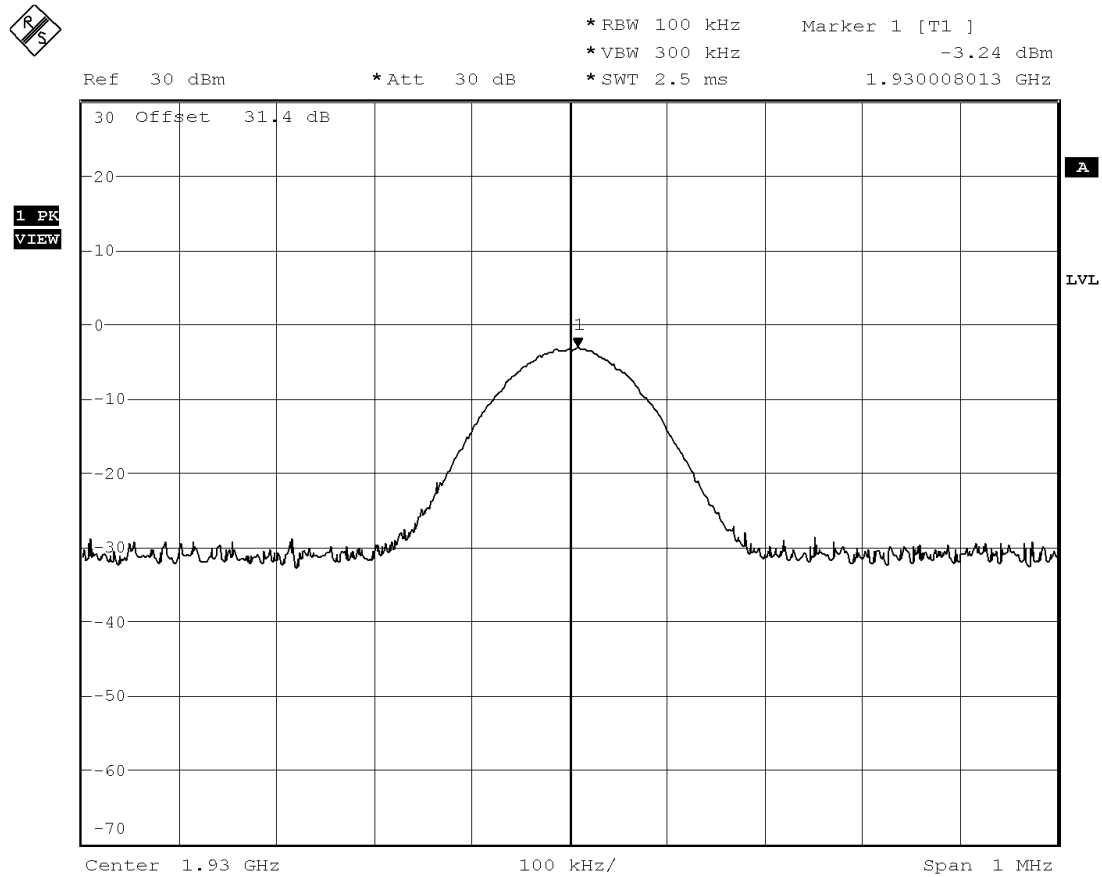
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 10 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink		
	Signal Source - TDMA – Output – 869MHz		



Date: 10.SEP.2004 12:31:04

FIGURE 6: OCCUPIED BANDWIDTH

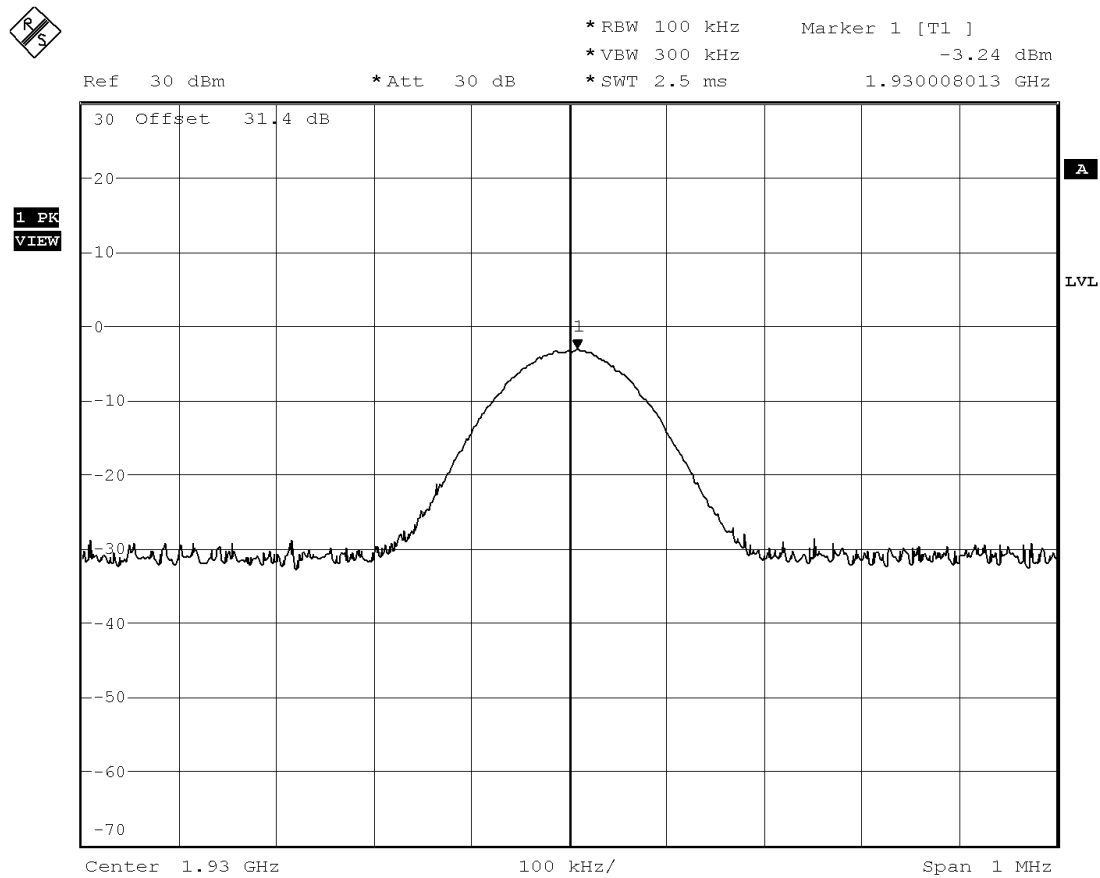
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 10 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink		
	Signal Source - TDMA – Input – 1930MHz		



Date: 10.SEP.2004 11:58:04

FIGURE 6: OCCUPIED BANDWIDTH

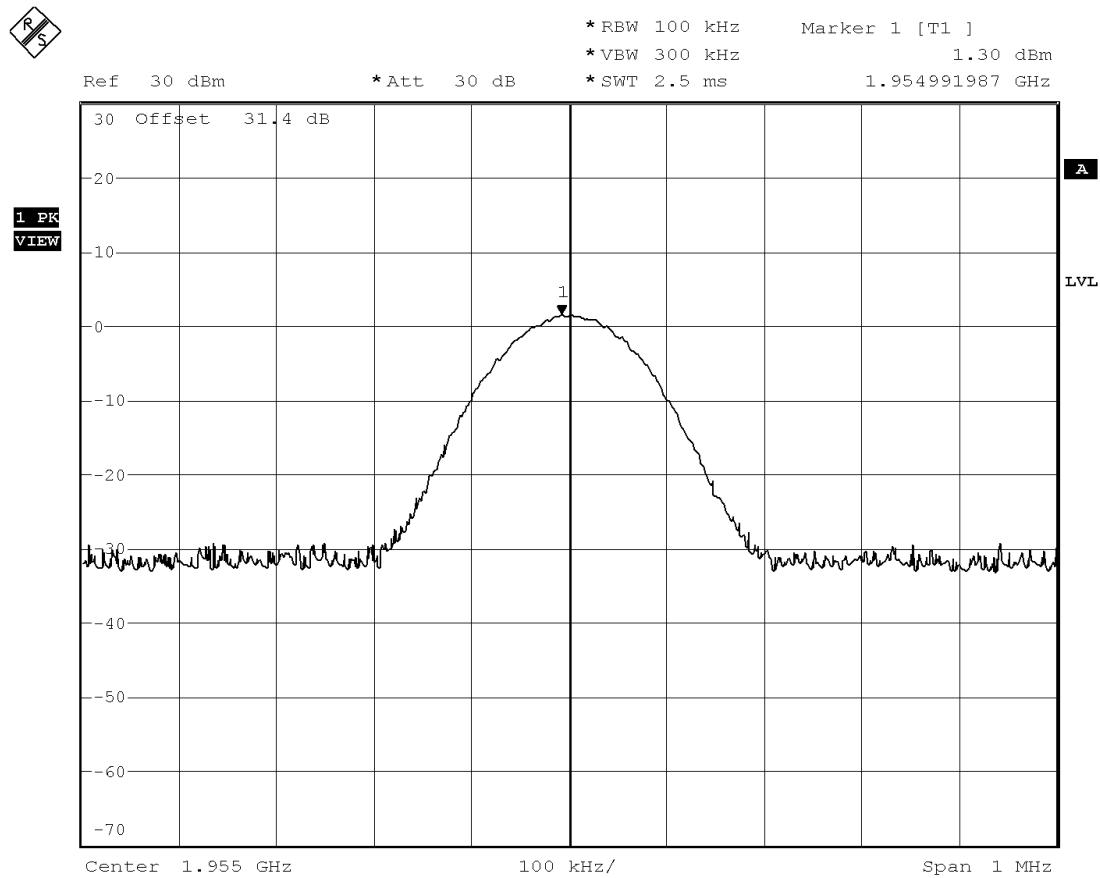
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 10 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink		
	Signal Source - TDMA – Output – 1930MHz		



Date: 10.SEP.2004 11:58:04

FIGURE 6: OCCUPIED BANDWIDTH

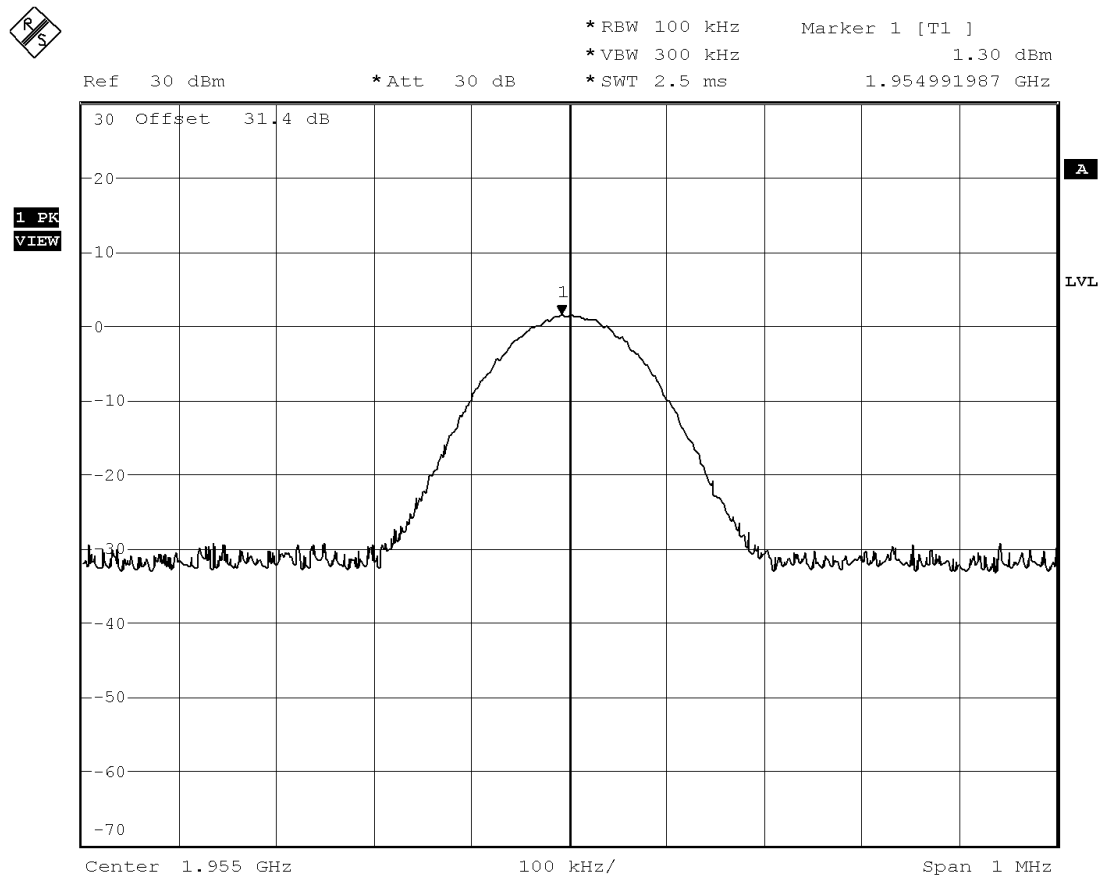
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 10 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink		
	Signal Source - TDMA – Input – 1955MHz		



Date: 10.SEP.2004 11:55:10

FIGURE 6: OCCUPIED BANDWIDTH

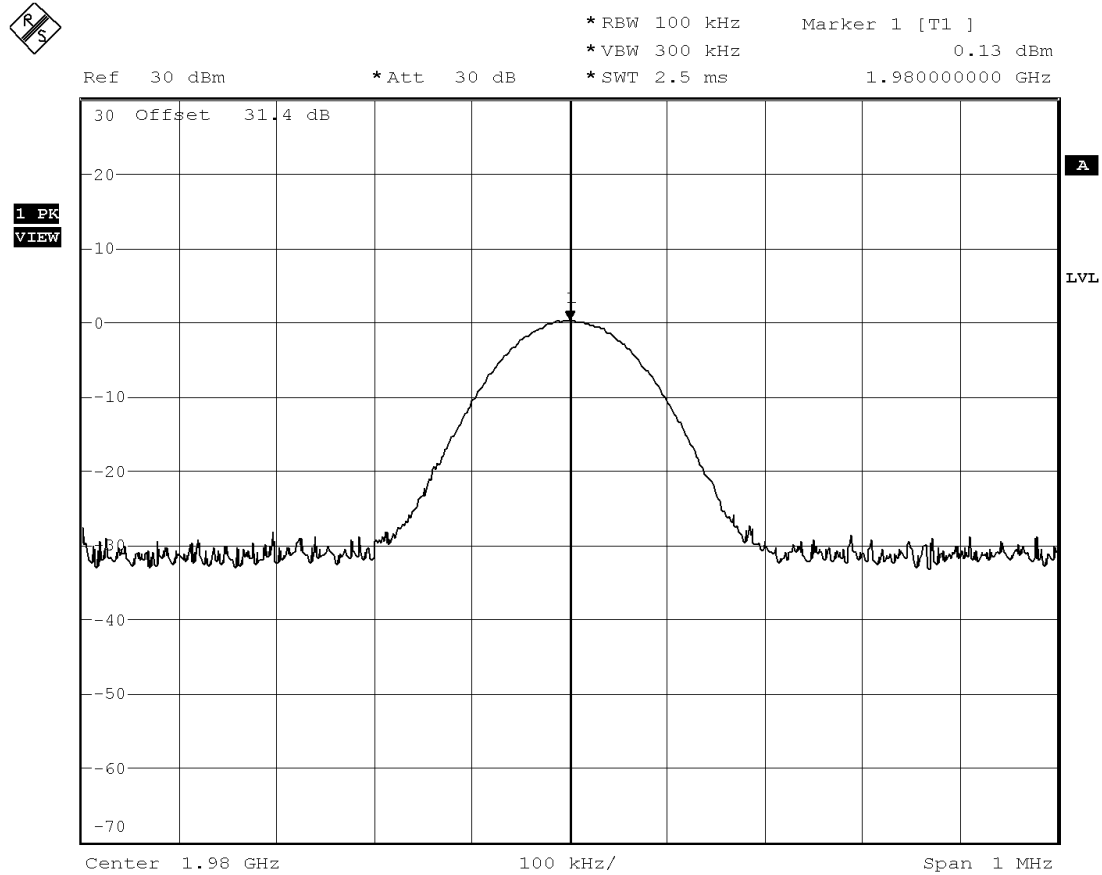
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 10 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink		
	Signal Source - TDMA – Output – 1955MHz		



Date: 10.SEP.2004 11:55:10

FIGURE 6: OCCUPIED BANDWIDTH

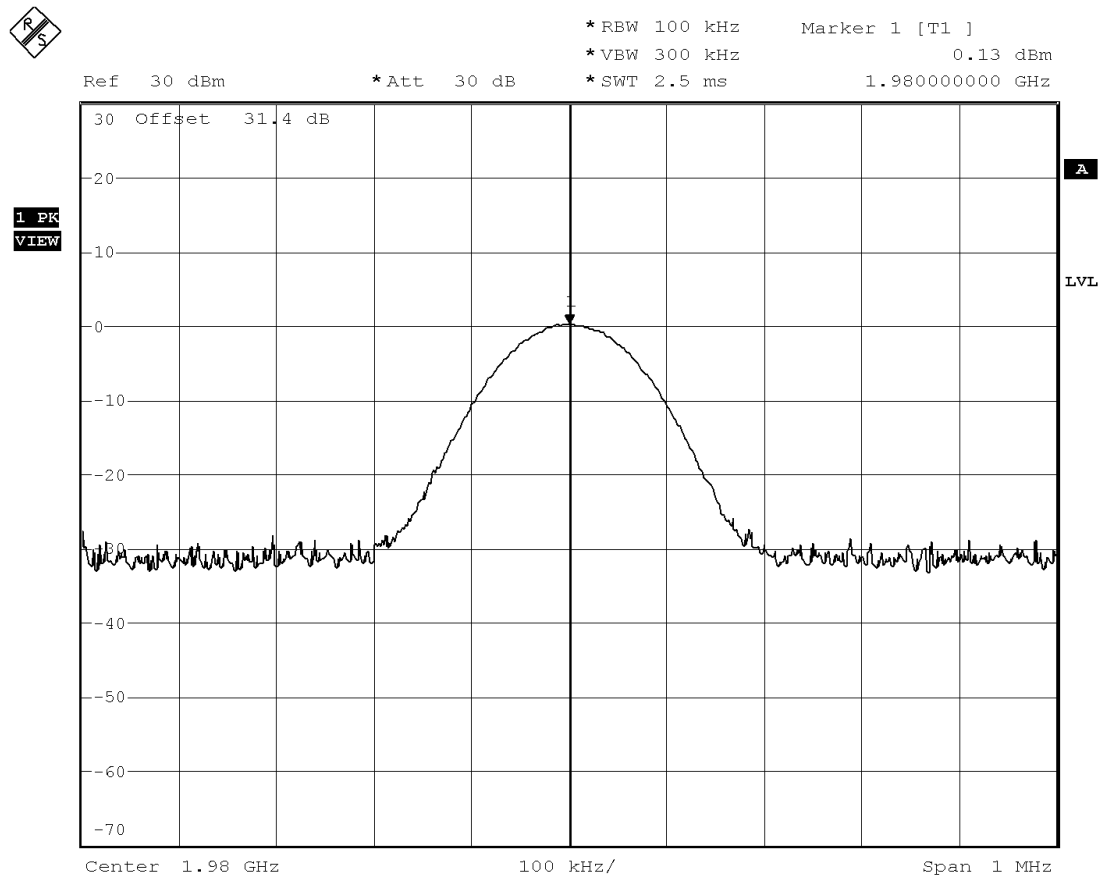
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 10 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink		
	Signal Source - TDMA – Input – 1980MHz		



Date: 10.SEP.2004 11:53:55

FIGURE 6: OCCUPIED BANDWIDTH

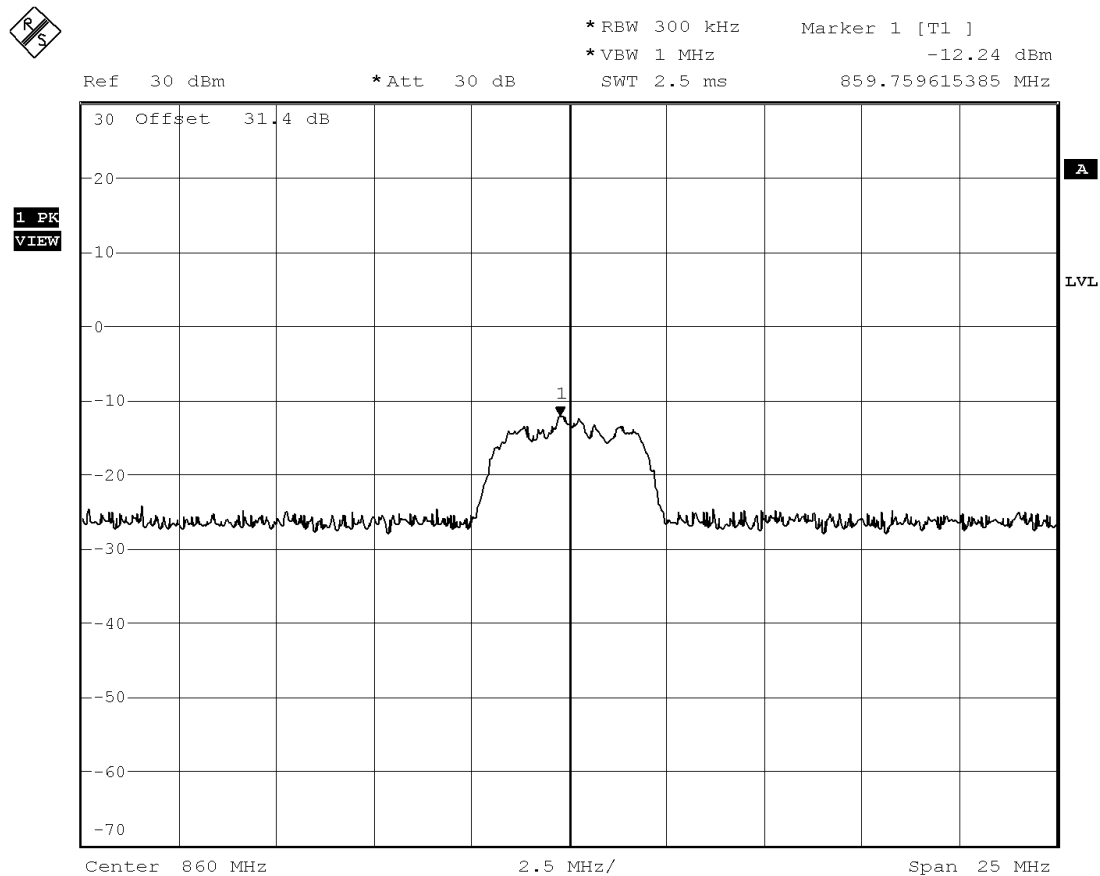
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 10 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink		
	Signal Source - TDMA – Output – 1980MHz		



Date: 10.SEP.2004 11:53:55

FIGURE 6: OCCUPIED BANDWIDTH

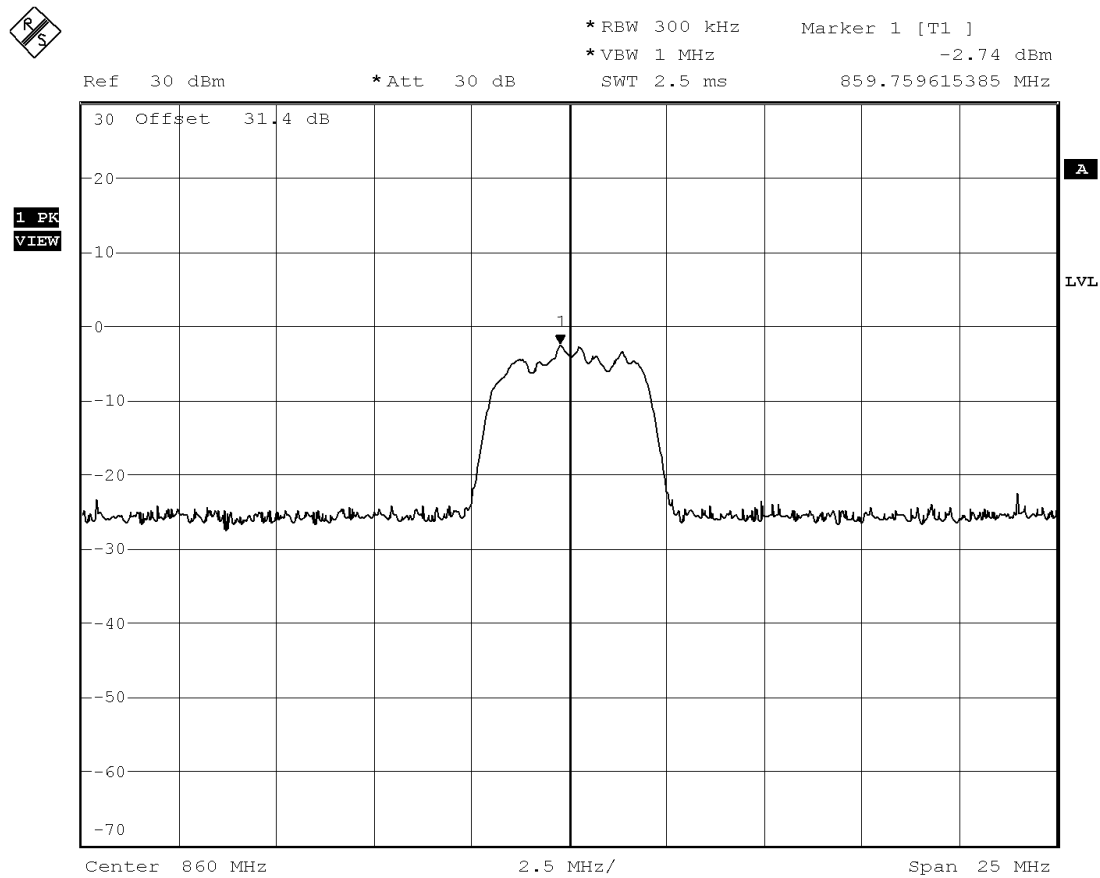
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 10 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink		
	Signal Source - CDMA – Input – 860MHz		



Date: 10.SEP.2004 13:13:04

FIGURE 6: OCCUPIED BANDWIDTH

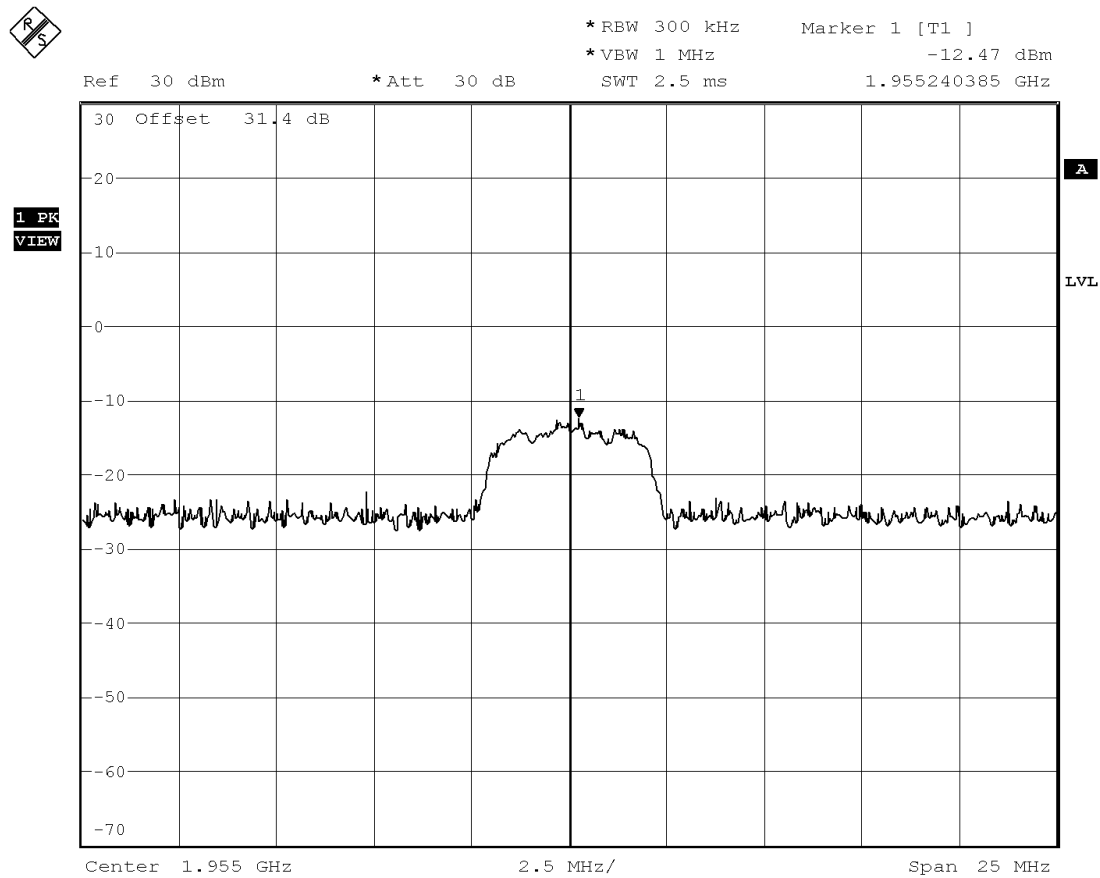
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 10 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink		
	Signal Source - CDMA – Output – 860MHz		



Date: 10.SEP.2004 13:11:30

FIGURE 6: OCCUPIED BANDWIDTH

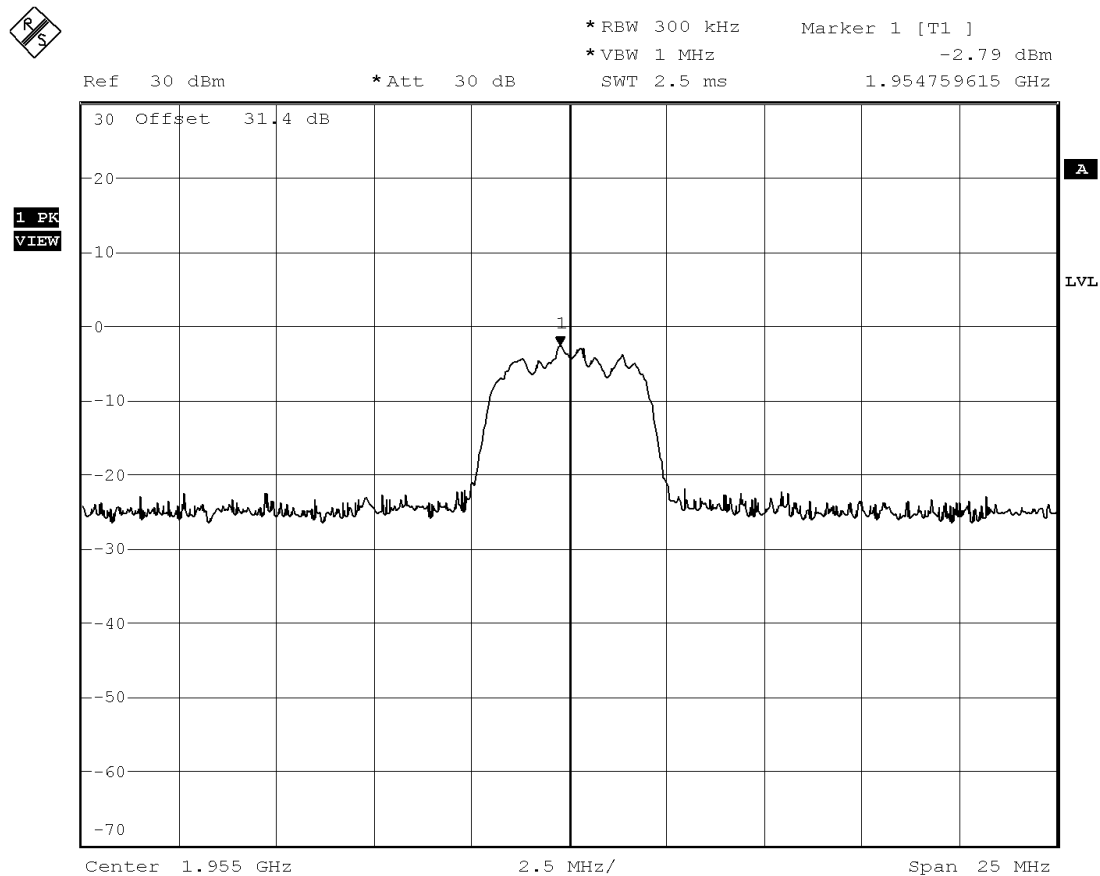
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 10 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink		
	Signal Source - CDMA – Input – 1955MHz		



Date: 10.SEP.2004 13:37:19

FIGURE 6: OCCUPIED BANDWIDTH

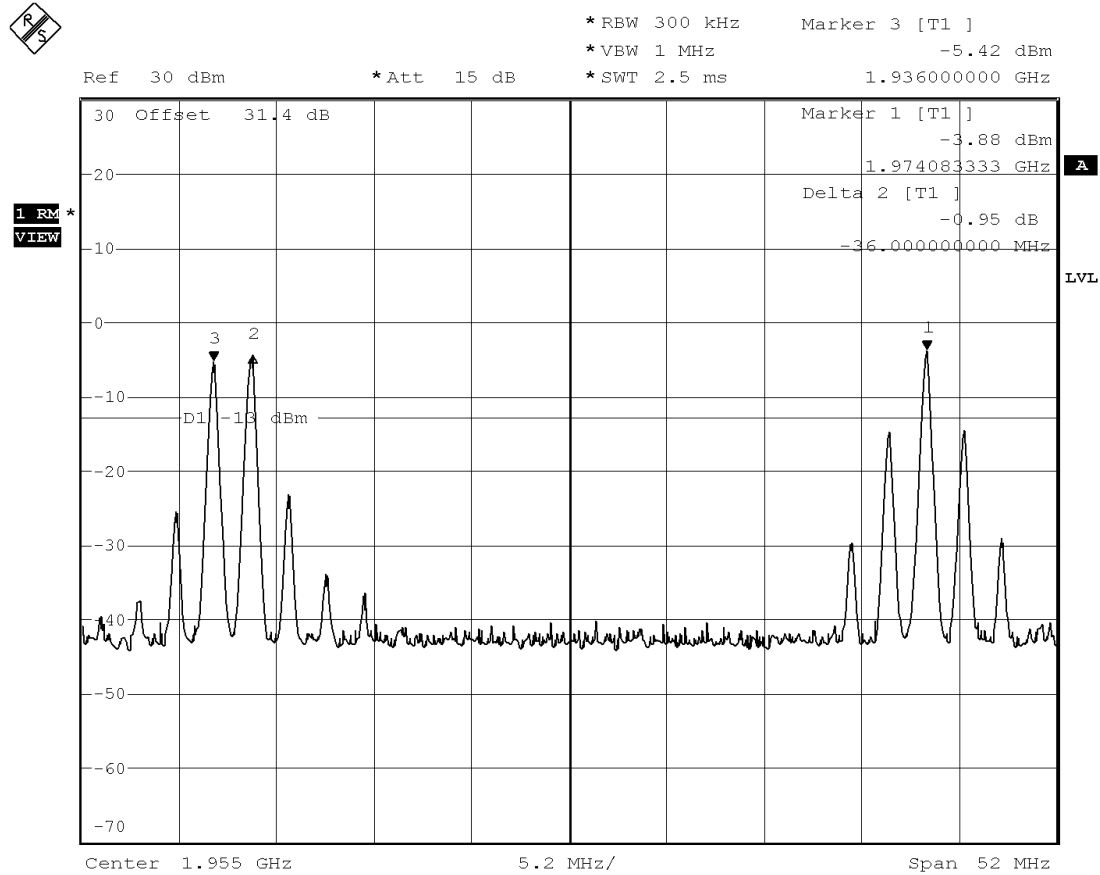
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Occupied Bandwidth	
DNB Job Number:	RV58031A	Date: 10 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink		
	Signal Source - CDMA – Output – 1955MHz		



Date: 10.SEP.2004 13:39:24

FIGURE 6: OCCUPIED BANDWIDTH

	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Inter-Modulation	
DNB Job Number:	RV58031A	Date:	9 Sep 2004
Customer:	Janizary Holdings Inc	Conformance Standards [X] FCC Part 24 [X] FCC Part 90	
Model Number:	LMSWDJHNEX		
Description:	RF amplifier		
	Downlink		
	Signal Source - CW – Input – Part 24 Band		



Date: 9.SEP.2004 09:14:37

2.1051 Spurious Emissions at Antenna Terminals

Definition:

Conducted Spurious Emissions are emissions at the antenna terminals on a frequency or frequencies which are outside an occupied band sufficient to ensure transmission of information of required quality for the class of communication desired. The reduction in the level of these spurious emissions will not affect the quality of the information being transmitted.

Conducted Spurious Emissions shall be attenuated below the maximum level of the carrier frequency in accordance with the following formula:

$$-13\text{dB} = \text{Measured Power} - (43 + 10 \log_{10} (\text{Rated Power}))$$

Test Method: Per EIA RS 152-B, Paragraph 4 as modified below.

Connect the equipment as shown in FIGURE 1.

Adjust the drive source to produce FM modulation. Adjust the Spectrum Analyzer to display the Modulated Carrier.

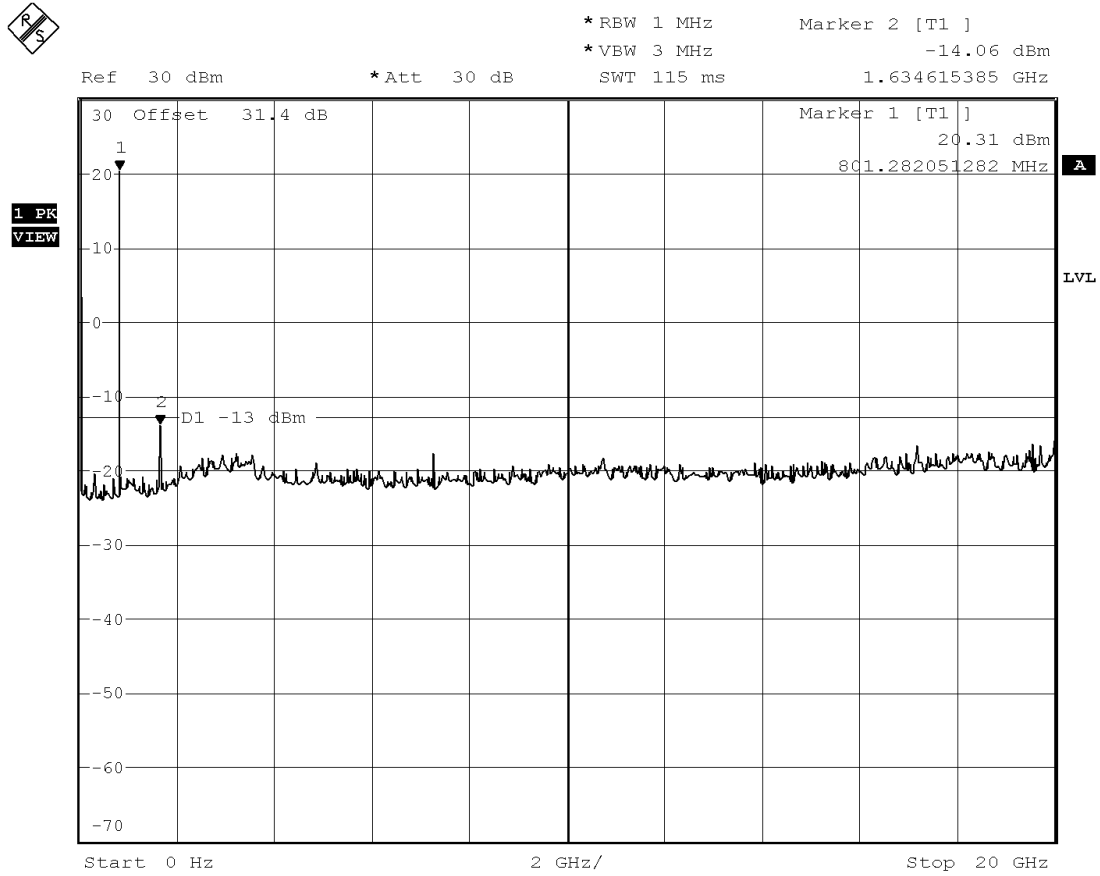
Scan the frequency spectrum from the lowest radio frequency generated in the equipment through the 10th harmonic of the carrier frequency.

Test Results: See Plots

All spurious emissions at the antenna terminals are below the FCC specifications

Figure 7: Conducted Spurious Emissions at Antenna Terminals, Uplink.

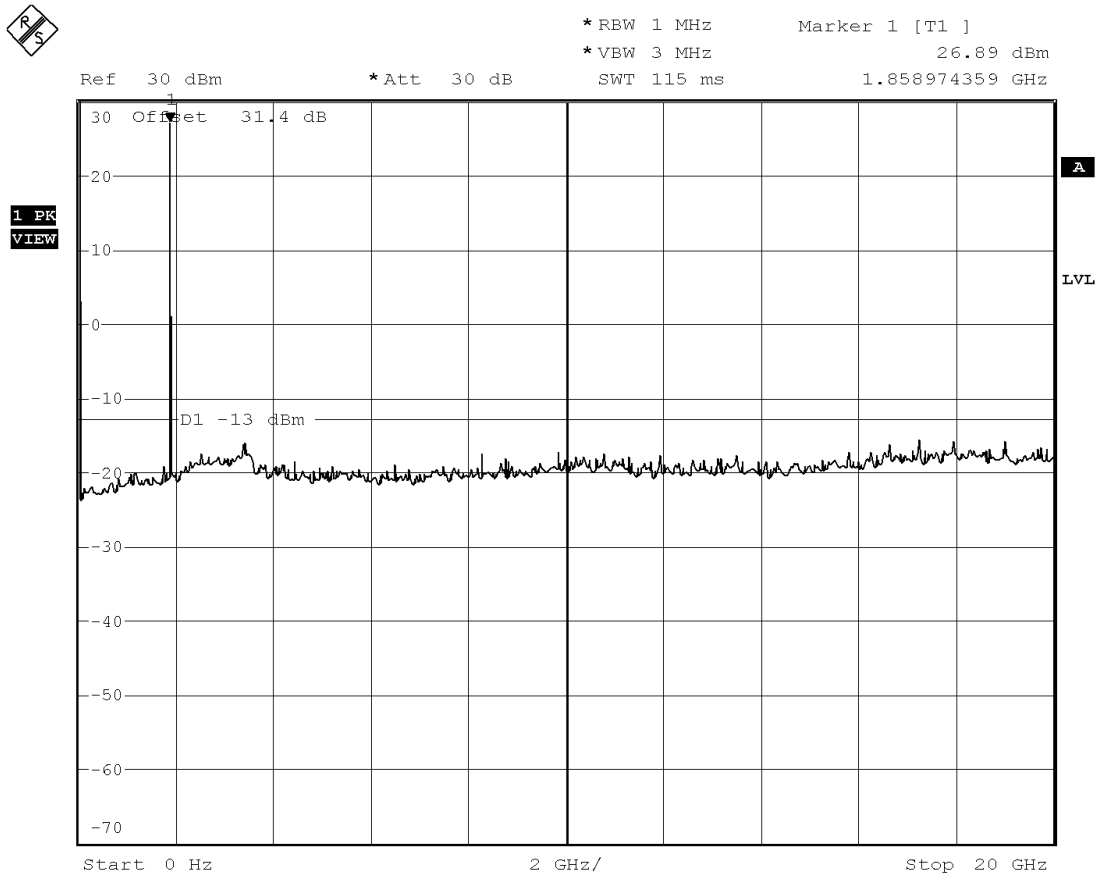
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Antenna Conducted Spurious	
DNB Job Number:	RV58031A	Date: 11 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink – 815MHz		



Date: 11.SEP.2004 10:46:06

Figure 7: Conducted Spurious Emissions at Antenna Terminals, Uplink.

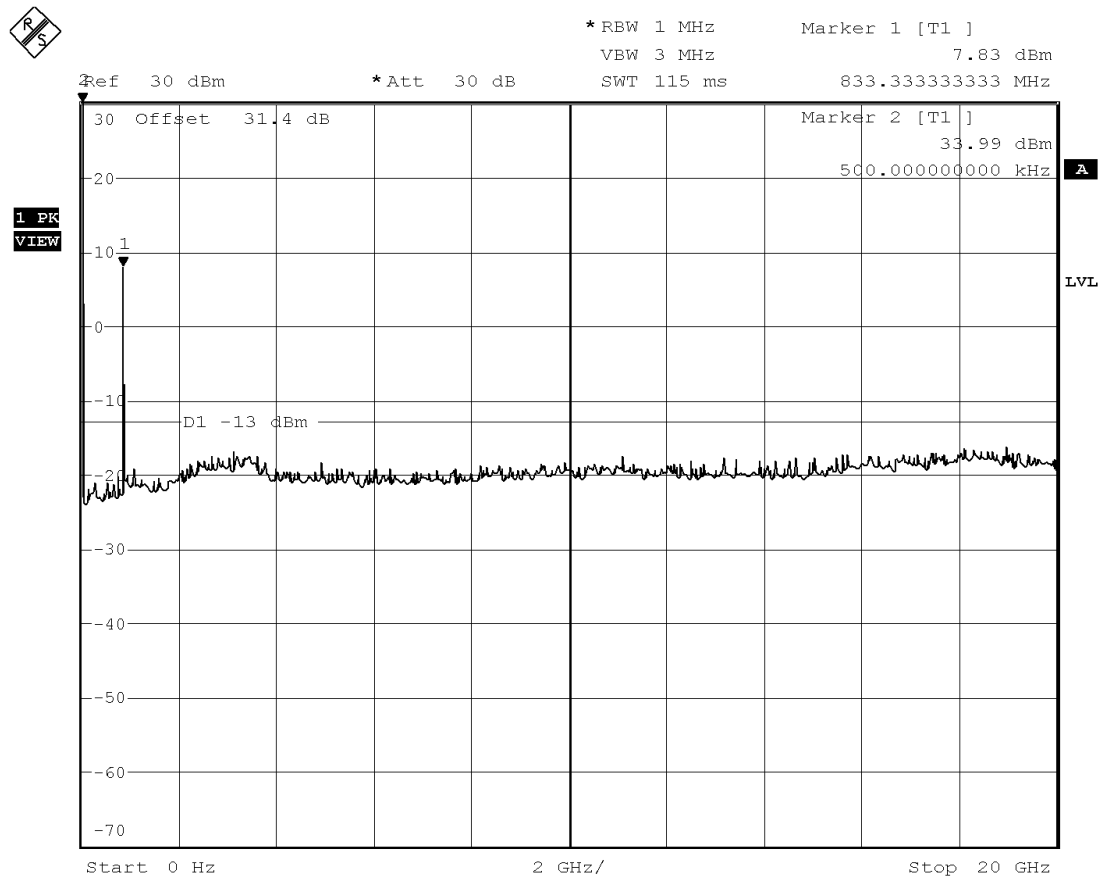
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Antenna Conducted Spurious	
DNB Job Number:	RV58031A	Date: 10 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink – 1885MHz		



Date: 10.SEP.2004 14:04:23

Figure 7: Conducted Spurious Emissions at Antenna Terminals, Uplink.

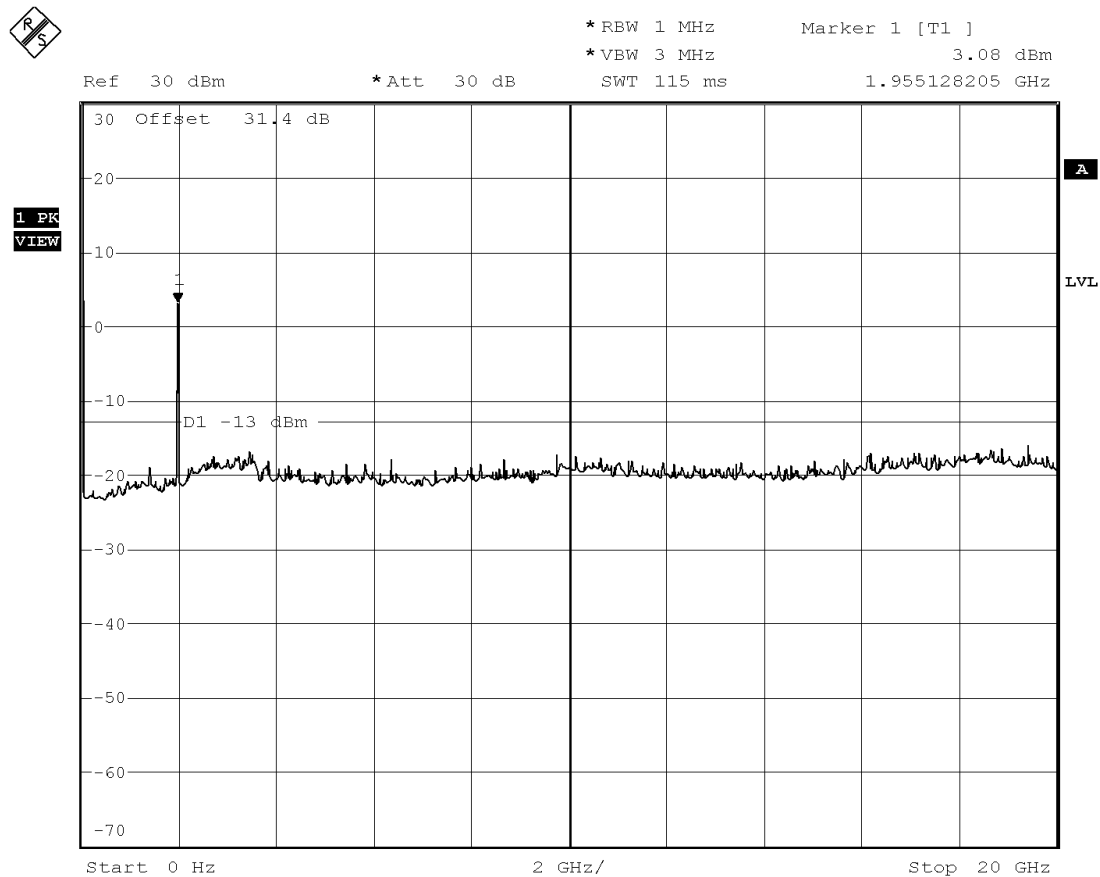
	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Antenna Conducted Spurious	
DNB Job Number:	RV58031A	Date: 10 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink – 860MHz		



Date: 10.SEP.2004 14:53:33

Figure 7: Conducted Spurious Emissions at Antenna Terminals, Uplink.

	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Antenna Conducted Spurious	
DNB Job Number:	RV58031A	Date: 10 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Downlink – 1955MHz		



Date: 10.SEP.2004 13:57:48

2.1053 Field Strength of Spurious Radiation

Definition:

Emissions from the equipment when connected into a non-radiating load on a frequency or frequencies which are outside an occupied band sufficient to ensure transmission of information of required quality for the class of communication desired. The reduction in the level of these spurious emissions will not affect the quality of the information being transmitted.

Test Method: Per TIA /EIA 603.

Connect the equipment and follow the procedure described in paragraph 2.2.1.12. Measure the amplitude of each spurious radiated signal through the 10th harmonic. The spurious signals are then measured on the 3 meter range. First the EUT is measured using a tuned reference dipole below 1GHz and a double ridge guide Horn antenna above 1GHz. If the DRG antenna is used the appropriate gain factor for the antenna is subtracted from the final measurement. Then a dipole to dipole (or drg to drg) measurement is conducted to determine the actual power at each harmonic being generated by the EUT. If no noticeable emission can be observed the ground floor is recorded in the data sheets.

Test Results: All readings were at the spectrum analyzer ground floor above the fundamental.

All radiated spurious emissions are below the FCC Specifications.

FIGURE 8: RADIATED FIELD STRENGTH OF SPURIOUS EMISSIONS, UPLINK.

	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704		Radiated Spurious	
DNB Job Number:	RV58031A	Date:	8 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc			
Model Number:	LMSWDJHNEX	Serial Number:		
Description:	RF amplifier			
	Uplink 815MHz			

Harmonics	Freq In MHz	Antenna Polar	dBm Reading	-13dB Limit	Margin
2nd	1630	H	-31.7	-13	-18.7
	1630	V	-35.6	-13	-22.6
3rd	2445	H	-43.0	-13	-30.0
	2445	V	-40.2	-13	-27.2
4th	3260 *	H	< -60.0	-13	> -47.0
	3260 *	V	< -60.0	-13	> -47.0
5th	4075 *	H	< -60.0	-13	> -47.0
	4075 *	V	< -60.0	-13	> -47.0
6th	4890 *	H	< -60.0	-13	> -47.0
	4890 *	V	< -60.0	-13	> -47.0
7th	5705 *	H	< -60.0	-13	> -47.0
	5705 *	V	< -60.0	-13	> -47.0
8th	6520 *	H	< -60.0	-13	> -47.0
	6520 *	V	< -60.0	-13	> -47.0
9th	7335 *	H	< -60.0	-13	> -47.0
	7335 *	V	< -60.0	-13	> -47.0
10th	8150 *	H	< -60.0	-13	> -47.0
	8150 *	V	< -60.0	-13	> -47.0

* Measurement made at instrument ground floor – no discernible reading

FIGURE 8: RADIATED FIELD STRENGTH OF SPURIOUS EMISSIONS, UPLINK.

	5969 Robinson Avenue Riverside, CA 92503 (951) 637-2630 FAX (951) 637-2704	Radiated Spurious	
DNB Job Number:	RV58031A	Date: 8 Sep 2004	Conformance Standards [X] FCC Part 24 [X] FCC Part 90
Customer:	Janizary Holdings Inc		
Model Number:	LMSWDJHNEX	Serial Number:	
Description:	RF amplifier		
	Uplink – 1885 MHz		

Harmonics	Freq In MHz	Antenna Polar	dBm Reading	-13dB Limit	Margin
2nd	3770	H	-57.3	-13	-44.3
	3770	V	-48.4	-13	-35.4
3rd	5655 *	H	< -60.0	-13	> -47.0
	5655 *	V	< -60.0	-13	> -47.0
4th	7540 *	H	< -60.0	-13	> -47.0
	7540 *	V	< -60.0	-13	> -47.0
5th	9425 *	H	< -60.0	-13	> -47.0
	9425 *	V	< -60.0	-13	> -47.0
6th	11310 *	H	< -60.0	-13	> -47.0
	11310 *	V	< -60.0	-13	> -47.0
7th	13195 *	H	< -60.0	-13	> -47.0
	13195 *	V	< -60.0	-13	> -47.0
8th	15080 *	H	< -60.0	-13	> -47.0
	15080 *	V	< -60.0	-13	> -47.0
9th	16965 *	H	< -60.0	-13	> -47.0
	16965 *	V	< -60.0	-13	> -47.0
10th	18850 *	H	< -60.0	-13	> -47.0
	18850 *	V	< -60.0	-13	> -47.0

* Measurement made at instrument ground floor – no discernible reading

2.1055 Measurement of Frequency Stability

The EUT is a power amplifier and contains no circuitry for generating or stabilizing the RF signal. The driver will be responsible for this task.

2.1057 Frequency Spectrum to be Investigated

The Frequency was searched from the lowest radio frequency generated in the equipment through the 10th harmonic of the carrier frequency.

RF Exposure

The LMSWDJHNEX (800 / 1900 MHz) dual band RF Compensator is operated as a mobile device as defined in 2.1091(b) based on its design and installation. The compensator is installed into a vehicle such that it is physically secured and is generally located more than 20 cm from the end-user. This information is included in the user manual. It is suggested that the antenna be installed such that there is at least 20 cm of separation between the occupants of the vehicle and the antenna.

The LMSWDJHNEX (800 / 1900 MHz) dual band RF Compensator has a transmitted conducted power of 0.14 W in the low band and 0.25W in the high band. The mobile antenna supplied with the transceiver has a maximum gain of 3 dB, and minimum cable loss of -1.0 dB, together resulting in a maximum EIRP of 1 W. Since the transmit cellular band (806-824 MHz) is below 1.5 GHz and its EIRP with the supplied antenna is below 1.5 and transmit PCS band (1860-1910 MHz) is above 1.5 GHz and its EIRP with the supplied antenna is below 3W, the 800 / 1900 MHz RF Compensator is categorically excluded from routine environmental evaluation per 2.1091(c).

RF Exposure – MPE Calculations

Input

Transmitter Power: Lo band 140 mW Hi band 250mW

Antenna Gain: 3 dB

Cable loss: 1 dB @ 806 – 825 MHz
 2 dB @ 1850 – 1910 MHz

Frequency range: 806-825 MHz and 1850-1910 MHz

Assumptions

1. A single $\frac{1}{4}$ wavelength radiating antenna is assumed.
2. Closest exposure distance is assumed to be 20 cm

RF Exposure – MPE Calculations

Calculations

The following results shall be assumed to be accurate for the far-field only. These predictions will over-estimate power density in the near-field. Based on the use of a $\frac{1}{4}$ wavelength radiator, a distance of 20 cm is considered to be in the far-field for all cases.

$$S = PG/4*\pi*R^2$$

@ 806 – 825 MHz

P is 140 mW

G is 2 dB (Antenna gain – loss) or $10^{(2/20)}$ or 1.25

R is 20 cm

$$\underline{S = 0.028 \text{ mW/cm}^2}$$

For Occupational/Controlled Exposure

From 300 to 1500 MHz, power density limit is $f/300 \text{ mW/cm}^2$

@ 806 MHz, power density limit is **2.69 mW/cm² for 6 minutes.**

For General Population/Uncontrolled Exposure

From 300 to 1500 MHz, power density limit is $f/1500 \text{ mW/cm}^2$

@ 806 MHz, Power density limit is **0.54 mW/cm² for 30 minutes.**

Conclusion: Meets MPE limits

@ 1850 – 1910 MHz

P is 250 mW

G is 1 dB (Antenna gain – loss) or $10^{(1/20)}$ or 1.12

R is 20 cm

$$\underline{S = 0.044 \text{ mW/cm}^2}$$

For Occupational/Controlled Exposure

From 1,500 to 100,000 MHz, power density limit is **6.17 mW/cm² for 6 minutes.**

For General Population/Uncontrolled Exposure

From 1,500 to 100,000 MHz, power density limit is **1.23 mW/cm² for 30 minutes.**

Conclusion: Meets MPE limits

Appendix A

Photographs

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PHOTOS: RADIATED FIELD STRENGTH OF SPURIOUS EMISSIONS

Notes:



**PHOTO: RF POWER OUTPUT, EMISSIONS LIMITATIONS
GSM/TDMA, OCCUPIED BANDWIDTH
GSM/TDMA, CONDUCTED SPURIOUS
EMISSIONS AT ANTENNA TERMINALS**

Notes:

