



SHENZHEN MOST ELECTRONICS CO., LTD.
Tel: (86) 755-26825180 Fax: (86) 755-86170310
Http:// www. szmost.com Email: szmost@szmost.com

Test Report

Product Name: Bluetooth Car Kit

FCC ID: UR9-WS001

MODEL NO. : WS-BTK001, WS-BTK002, WS-BTK003, WS-BTK004, WS-BTK005,
WS-BTK006, WS-BTK007, WS-BTK008, WS-BTK009

Applicant:

WINNER'SUN PLASTIC & ELECTRONIC (SHENZHEN) CO., LTD.

Zone E, Ying Tai Industrial Park, Dalang, Longhua Town, Bao An District, Shenzhen,
P.R. China

Date Received: 11/21/2006-12/01/2006

Date Tested: 12/01/2006

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Cover Sheet



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TABLE OF CONTENTS

APPLICANT: WINNER ' SUN PLASTIC & ELECTRONIC (SHENZHEN) CO., LTD.

FCC ID: UR9-WS001

TEST REPORT CONTAINING:

PAGE 1.....TEST EQUIPMENT LIST
PAGE 3-5.....POWER LINE CONDUCTED INTERFERENC AND PLOTS
PAGE 6-7.....RADIATION INTERFERENCE TEST DATA
PAGE 8-11.....OCCUPIED BANDWIDTH AND PLOTS

EXHIBIT INCLUDED:

PAGE 1.....BLOCK DIAGRAM
PAGE 2.....SCHEMATIC
PAGE 3.....USERS MANUAL
PAGE 4.....LABEL SAMPLE
PAGE 5.....LABEL LOCATION
PAGE 6.....EXTERNAL PHOTOGRAPHS
PAGE 7.....INTERNAL PHOTOGRAPHS
PAGE 8.....OPERATIONAL DESCRIPTION
PAGE 9.....TEST SET UP PHOTOGRAPHS

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TABLE OF CONTENTS



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EMC Equipment List

Test Equipment	Manufacturer	Model	Serial No.	Last Cal.	Cal. Due
EMI Test Receiver	R&S	ESCS 30	640101048	2006-06-08	2007-06-08
LISN	R&S	ESH2-Z5	640201028-02	2006-06-08	2007-06-08
EMI Test Receiver	R&S	ESMI	640201028	2006-06-08	2007-06-08
BiConiLog antenna	ETS•Lindgren	3142B	00026414	2006-06-08	2007-06-08
Double ridge horn Antenna	EMCO	3115	640201028-08	2006-06-08	2007-06-08
Chamber	ETS•Lindgren	RFSD-F-100	2693	2006-06-08	2007-06-08
Radio communication tester	R&S	CMU200	106389	2006-08-08	2007-08-08

Remark:

Test Firm Name: CHINA CEPREI (HEADQUARTERS) LABORATORY
Test Firm Address: NO 110 DONGGUANZHUANG ROAD, TIANHE DISTRICT, GUANGZHOU 510610, P.R. CHINA
FCC Registered Test Site Number: 258518



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TEST PROCEDURE

GENERAL: This report shall NOT be reproduced except in full without the written approval of SHENZHEN MOST ELECTRONICS CO., LTD. The EUT was transmitting a test signal during the testing.

POWER LINE CONDUCTED INTERFERENCE: The test procedure used was ANSI Standard C63.4-2003 using a 50 uH LISN. Both Lines were observed. The bandwidth of the receiver was 10kHz with an appropriate sweep speed. The ambient temperature of the EUT was 25 with a humidity of 58%.

RADIATION INTERFERENCE: The test procedure used was ANSI Standard C63.4-2003 using a ANRITSU spectrum analyzer with a pre-selector. The analyzer was calibrated in dB above a micro volt at the output of the antenna. The resolution bandwidth was 100 kHz and the video bandwidth was 300 kHz up to 1 GHz and 1 MHz with a video BW of 3 MHz above 1 GHz. The ambient temperature of the EUT was 25 with a humidity of 58%.

FORMULA OF CONVERSION FACTORS: The Field Strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of dBuV) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB. The gain of the Pre-selector was accounted for in the Spectrum Analyzer Meter Reading.

Example:

$$\begin{array}{ll} \text{Freq (MHz) METER READING + ACF = FS} \\ 33 \quad 20 \text{ dBuV} + 10.36 \text{ dB} = 30.36 \text{ dBuV/m @ 3m} \end{array}$$

ANSI STANDARD C63.4-2003 10.1.7 MEASUREMENT PROCEDURES: The EUT was placed on a table 80 cm high and with dimensions of 1m by 1.5m. The EUT was placed in the center of the table (1.5m side). The table used for radiated measurements is capable of continuous rotation.

When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical planes.

The situation was similar for the conducted measurement except that the table did not rotate. The EUT was setup as described in ANSI Standard C63.4-2003 10.1.7 with the EUT 40 cm from the vertical ground wall.

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FCC ID: UR9-WS001

NAME OF TEST: POWER LINE CONDUCTED INTERFERENCE

RULES PART NUMBER: 15.107

MINIMUM REQUIREMENTS:	FREQUENCY	LEVEL
	<u>MHz</u>	<u>UV</u>
	0.150-30	250

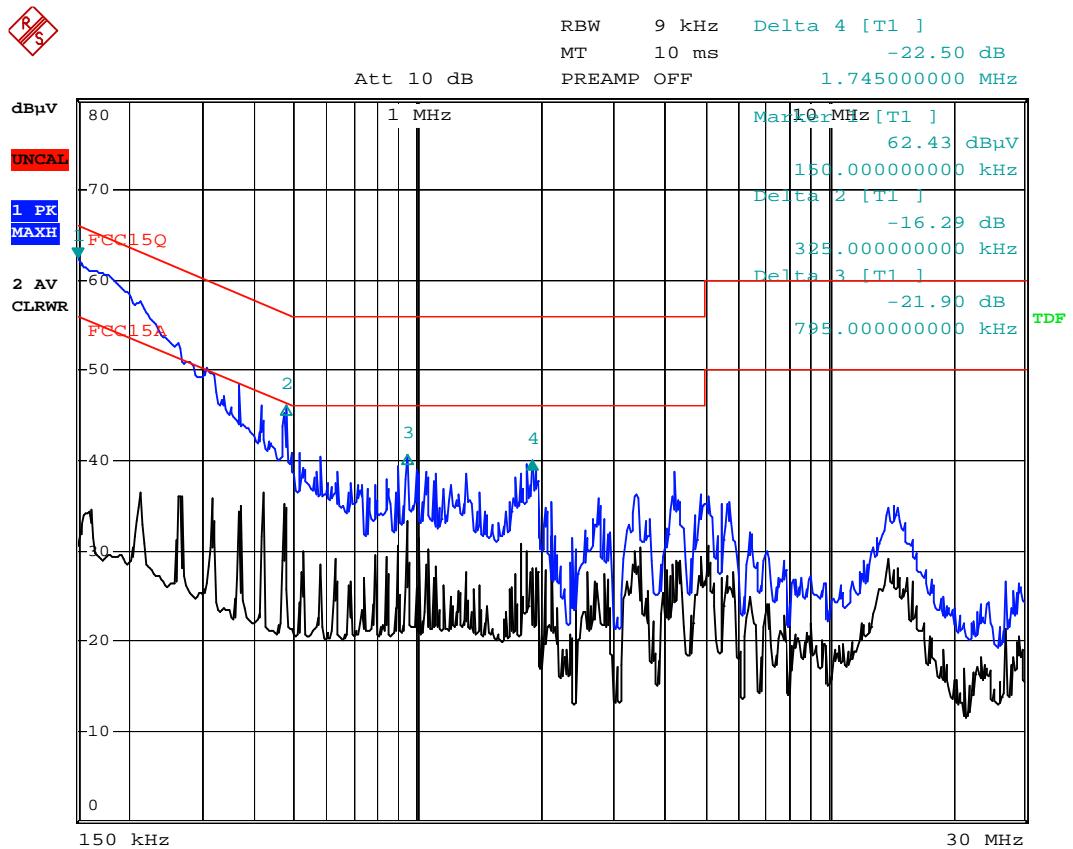
TEST PROCEDURE: ANSI STANDARD C63.4-2003

THE HIGHEST EMISSION READ FOR LINE 1 WAS 43.5dB_{UV} @ 473kHz.

THE HIGHEST EMISSION READ FOR LINE 2 WAS 42.6dB_{UV} @ 475kHz.

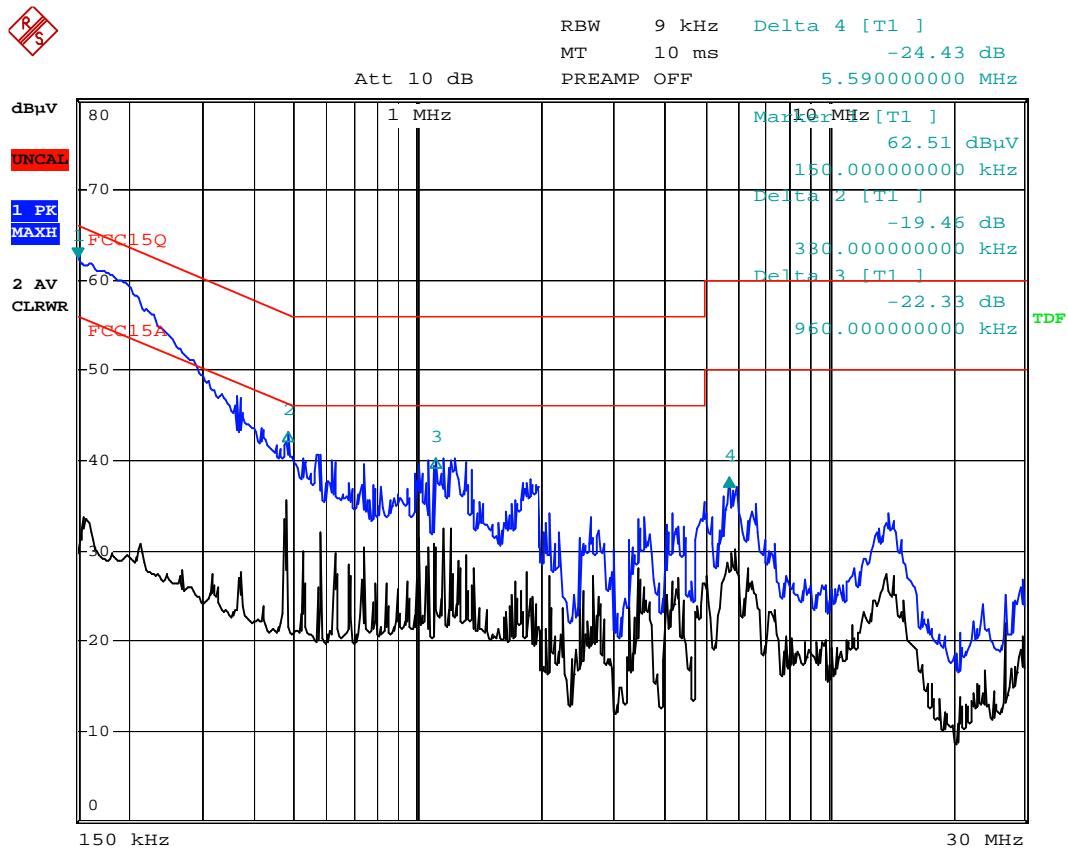
THE PLOTS ON THE NEXT PAGE REPRESENT THE EMISSIONS READ FOR POWER LINE CONDUCTED FOR THIS DEVICE.

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Date: 29.NOV.2006 13:13:10 L Line

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Date: 29.NOV.2006 13:16:11 N Line



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FCC ID: UR9-WS001

NAME OF TEST: RADIATION INTERFERENCE

RULES PART NUMBER: 15.249, 15.209

REQUIREMENTS:

FIELD STRENGTH of Fundamental:	FIELD STRENGTH of Harmonics	S15.209
902-928 MHZ		30 - 88 MHz 40 dBuV/m @3M
2.4-2.4835 GHz		88 - 216 MHz 43.5
94 dBuV/m @3m	54 dBuV/m @3m	216 - 960 MHz 46 ABOVE 960 MHz 54dBuV/m

EMISSIONS RADIATED OUTSIDE OF THE SPECIFIED FREQUENCY BANDS, EXCEPT FOR HARMONICS, SHALL BE ATTENUATED BY AT LEAST 50 dB BELOW THE LEVEL OF THE FUNDAMENTAL OR TO THE GENERAL RADIATED EMISSION LIMITS IN 15.209, WHICHEVER IS THE LESSER ATTENUATION.

Frequency (MHz)	Antenna Polarization	Emission Level (dBuV/m)	FCC 15 Subpart C Limit (dBuV/m)
Low frequency(2402.0 MHz)			
171.02	Vertical	35.10	46.0
363.50	Vertical	34.25	46.0
2402.00	Vertical	73.15	94.0
4804.10	Vertical	35.25	54.0
7206.20	Vertical	34.20	54.0
12010.30	Vertical	34.50	54.0
164.05	Horizontal	33.93	46.0
371.50	Horizontal	33.20	46.0
2402.00	Horizontal	74.10	94.0
4804.10	Horizontal	33.00	54.0
7206.20	Horizontal	34.20	54.0
12010.30	Horizontal	34.10	54.0
Middle frequency(2441.0 MHz)			
173.11	Vertical	33.51	46.0
2441.00	Vertical	73.35	94.0
4882.10	Vertical	34.15	54.0
7323.70	Vertical	35.65	54.0
389.00	Horizontal	34.50	46.0
2441.00	Horizontal	74.25	94.0
4882.10	Horizontal	34.36	54.0
7323.70	Horizontal	35.20	54.0
12206.21	Horizontal	34.30	54.0

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NAME OF TEST: RADIATION INTERFERENCE

RULES PART NUMBER: 15.249, 15.209

REQUIREMENTS:

FIELD STRENGTH of Fundamental:	FIELD STRENGTH of Harmonics	S15.209
902-928 MHZ		30 - 88 MHz 40 dBuV/m @3M
2.4-2.4835 GHz		88 - 216 MHz 43.5
94 dBuV/m @3m	54 dBuV/m @3m	216 - 960 MHz 46 ABOVE 960 MHz 54 dBuV/m

EMISSIONS RADIATED OUTSIDE OF THE SPECIFIED FREQUENCY BANDS, EXCEPT FOR HARMONICS, SHALL BE ATTENUATED BY AT LEAST 50 dB BELOW THE LEVEL OF THE FUNDAMENTAL OR TO THE GENERAL RADIATED EMISSION LIMITS IN 15.209, WHICHEVER IS THE LESSER ATTENUATION.

Continued:

Frequency (MHz)	Antenna Polarization	Emission Level (dBuV/m)	FCC 15 Subpart C Limit (dBuV/m)
High frequency(2480.0 MHz)			
166.53	Vertical	31.15	43.5
2480.00	Vertical	74.51	94.0
4960.10	Vertical	33.61	54.0
7440.40	Vertical	34.10	54.0
12400.50	Vertical	34.31	54.0
361.70	Horizontal	34.05	43.5
2480.00	Horizontal	75.52	94.0
4960.10	Horizontal	34.50	54.0
7440.40	Horizontal	34.40	54.0
12400.50	Horizontal	35.50	54.0

TEST PROCEDURE: ANSI Standard C63.4-2003 using a spectrum analyzer with a pre-selector and an appropriate antenna. The resolution bandwidth of spectrum analyzer was 100 kHz below 1 GHz and 1 MHz above 1 GHz. An appropriate sweep speed was used. When an emission was found, the table was rotated to produce the maximum signal strength. The antenna was placed in both the horizontal and vertical planes and the worse case emissions were reported. The spectrum was searched to at least the tenth (10) harmonic of the fundamental.

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NAME OF TEST: Occupied Bandwidth and Band Edge Compliance

RULES PART NUMBER: 15.249

REQUIREMENTS: The field strength of any emissions appearing outside the band edges and up to 10 kHz above and below the band edges shall be attenuated at least 50 dB below the level of the carrier or to the general limits of 15.249.

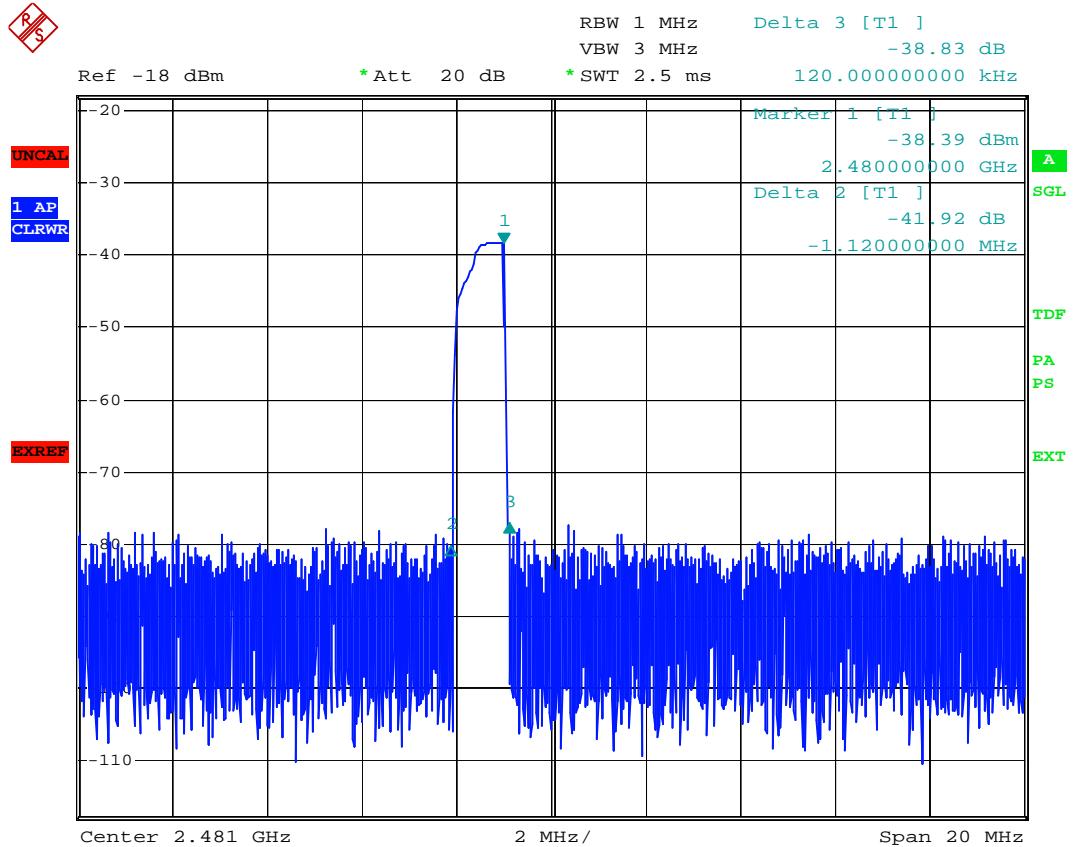
Band edge emissions plots are included on the following pages

METHOD OF MEASUREMENT: A small sample of the transmitter output was fed into the spectrum analyzer and the attached plot was printed. The vertical scale is set to -10 dB per division.

TEST RESULTS: The unit DOES meet the FCC requirements.

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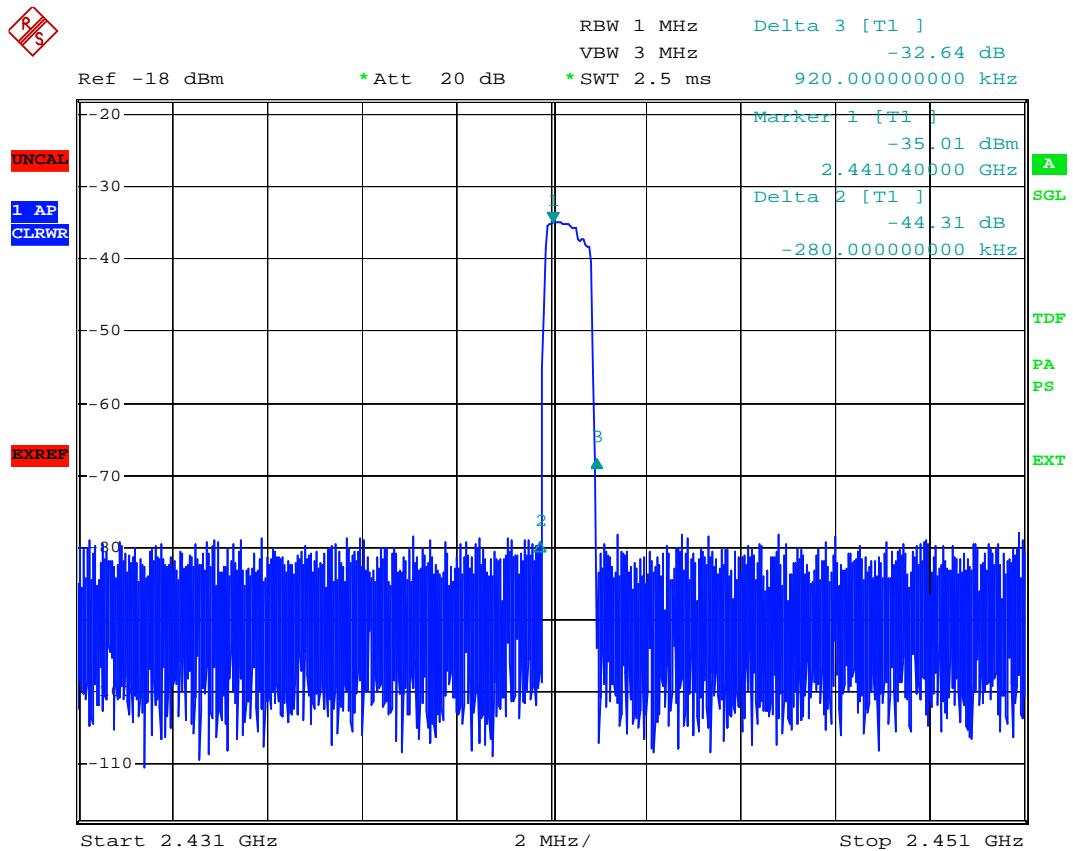
High



Date: 1.DEC.2006 09:02:13

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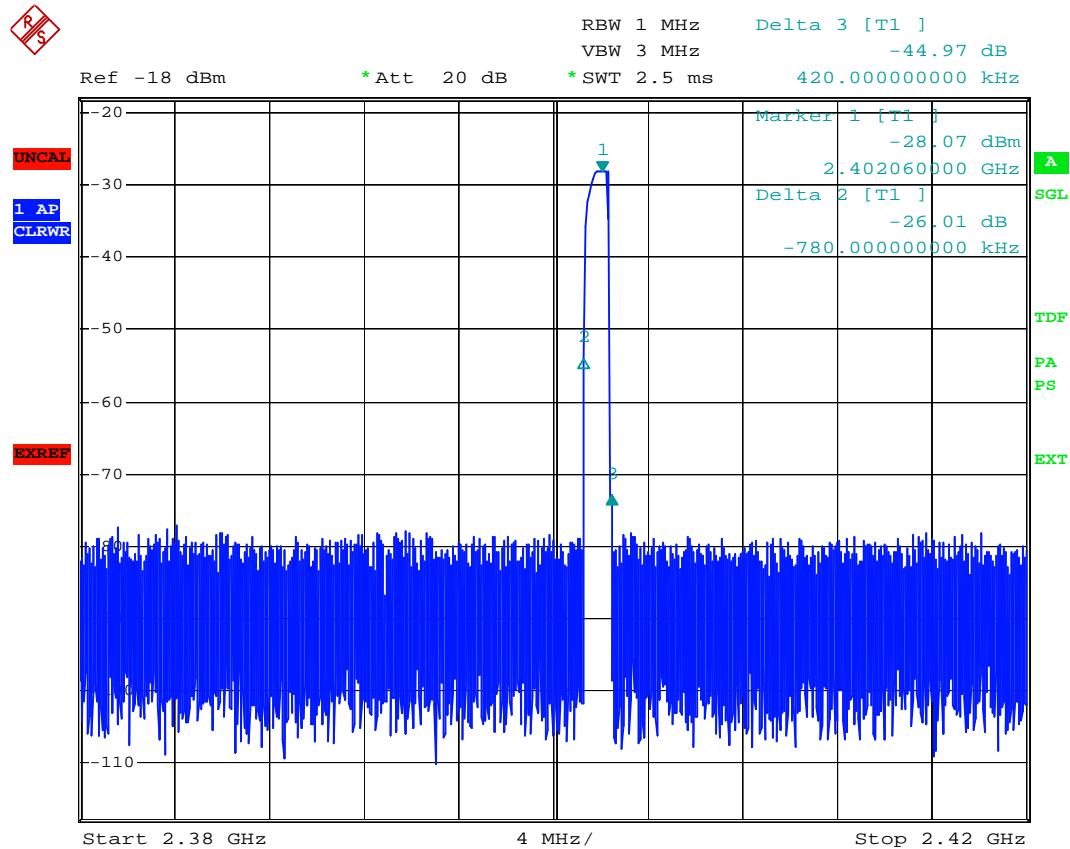
Middle



Date: 1.DEC.2006 08:41:31

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Low



Date: 1.DEC.2006 08:38:24

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