

Nemko Test Report: 2L0223RUS1

Applicant: Raze Technologies
2450 East Plano Parkway
Suite 188
Plano, Texas 75074

**Equipment Under Test:
(E.U.T.)** RZ-BASECH

In Accordance With: **FCC Part 15, Subpart E**
Unlicensed National Information Infrastructure Devices

Tested By: Nemko Dallas Inc.
802 North Kealy
Lewisville, Texas 75057



Authorized By:

Tom Tidwell, Wireless Group Manager

Date: 5/29/02

Total Number of Pages: 39

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EQUIPMENT: RZ-BASECH**Section 1. Summary Of Test Results**

Manufacturer: Raze Technologies

Model No.: RZ-BASECH

Serial No.: 1

General: **All measurements are traceable to national standards.**

These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with FCC Part 15, Subpart C for low power devices. All tests were conducted using measurement procedure ANSI C63.4-1992. Radiated Emissions were made on an open area test site.



New Submission



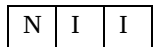
Production Unit



Class II Permissive Change



Pre-Production Unit



Equipment Code

THIS TEST REPORT RELATES ONLY TO THE ITEM(S) TESTED.

THE FOLLOWING DEVIATIONS FROM, ADDITIONS TO, OR EXCLUSIONS FROM THE TEST
SPECIFICATIONS HAVE BEEN MADE.

See " Summary of Test Data".

**NVLAP LAB CODE: 100351-0**

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This report applies only to the items tested.

EQUIPMENT: RZ-BASECH**Summary Of Test Data**

NAME OF TEST	PARA. NO.	SPEC.	RESULT
Emission Bandwidth	15.403(c)	-26 dBc	Complies
Peak Transmit Power	15.407(a)(3)	Lesser of 1 Watt or 17 dBm + 10logB	Complies
Peak Power Spectral Density	15.407(a)(3)	17 dBm	Complies
Ratio of the peak excursion of the modulation to the peak transmit power	15.407(a)(6)	13 dB	Complies
Spurious Emissions below 1 GHz	15.407(b)(5)	15.209	Complies
Spurious Emissions above 1 GHz	15.407(b)(3)	-17 dBm/MHZ > 10 MHz from bandedge -27 dBm/MHz < 10 MHz from bandedge	Complies

Footnotes:

EQUIPMENT: RZ-BASECH

Section 2. General Equipment Specification

Frequency Range: 5.725-5.825 GHz

Operating Frequency(ies) of Sample: 5.729 to 5.821 GHz

Modulation: Digital

Integral Antenna	Yes	No
	☐	☒

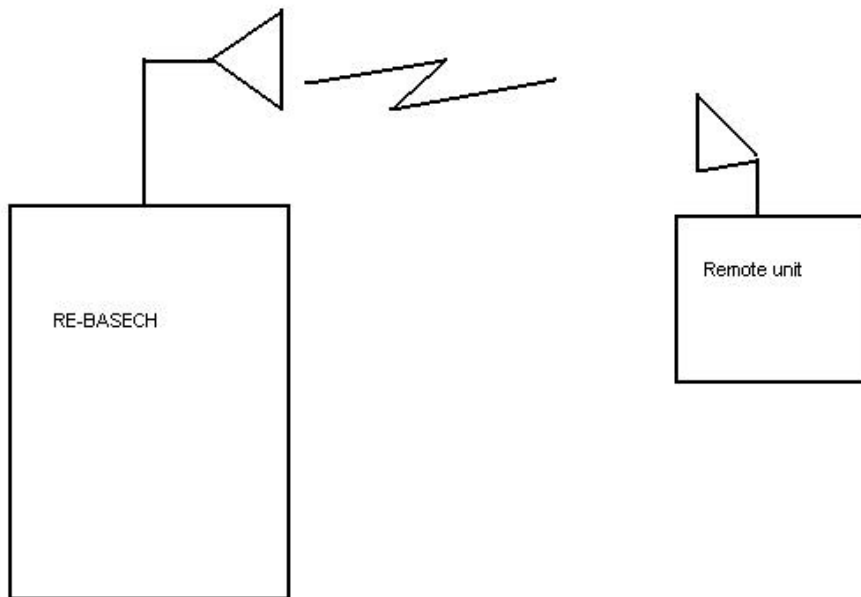
Note: *This device is professionally installed.*

EQUIPMENT: RZ-BASECH

Description of Operation

This device is a data transceiver operating in the UNII band.

System Diagram



EQUIPMENT: RZ-BASECH

Section 3 Emission Bandwidth

NAME OF TEST: Emission Bandwidth	PARA. NO.: 15.403(c)
TESTED BY: David Light	DATE: 5/2/2002

Minimum Standard: 15.403(c) Emission bandwidth. For purposes of this subpart the emission bandwidth shall be determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 26 dB down relative to the maximum level of the modulated carrier..

Test Results: Complies

Measurement Data: See attached plots

EQUIPMENT: RZ-BASECH

Test Data – Emission Bandwidth



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Data Plot

Page 1 of 2

Occupied Bandwidth

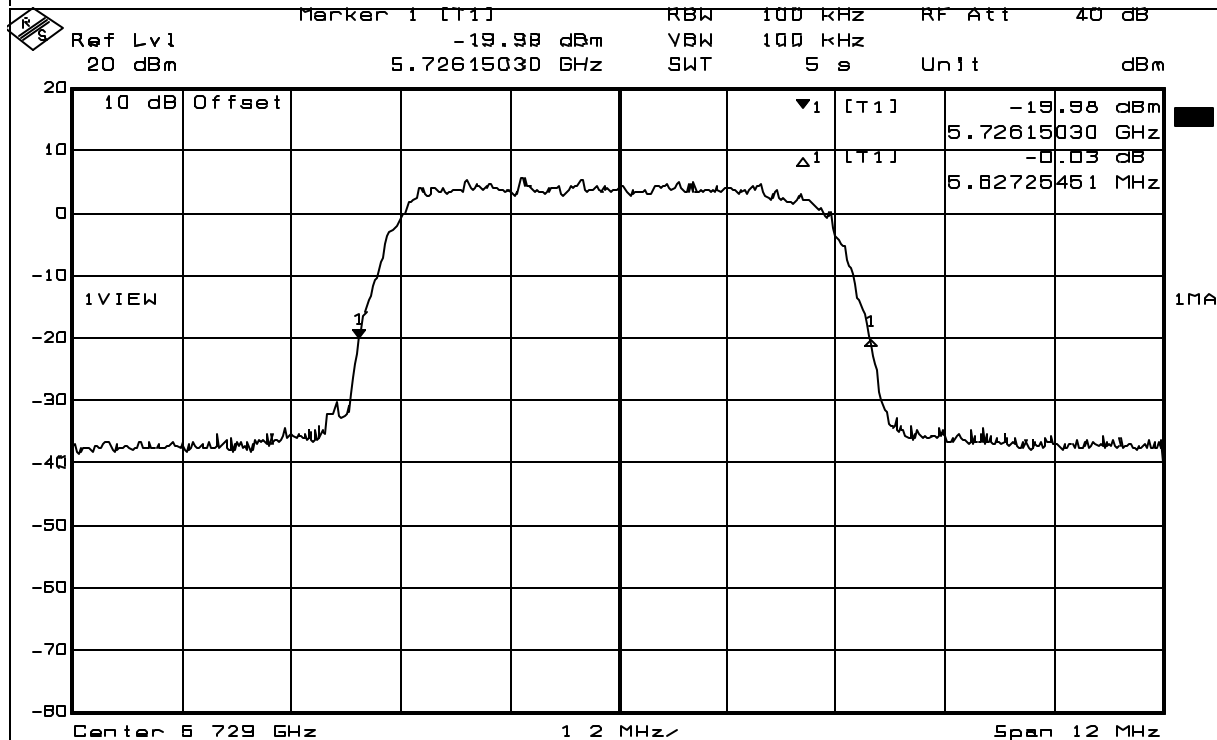
Job No.: 2L0223 Date: 5/2/2002
Specification: PART 15 Temperature(°C): 24
Tested By: David Light Relative Humidity(%): 40
E.U.T.: UNIBASE STATION
Configuration: TRANSMIT
Sample Number: 1
Location: Lab 1 RBW: Refer to plots
Detector Type: Peak VBW: Refer to plots

Complete X
Preliminary: _____

Measurement
Distance: _____ m

Test Equipment Used

Antenna: _____ Directional Coupler: _____
Pre-Amp: _____ Cable #1: 1485
Filter: _____ Cable #2: _____
Receiver: 1036 Cable #3: _____
Attenuator #1: _____ Cable #4: _____
Attenuator #2: 1471 Mixer: _____
Additional equipment used: _____
Measurement Uncertainty: +/-1.7 dB



Date: 02.MAY 2002 10:40:23

Notes: Lowest operating frequency

EQUIPMENT: RZ-BASECH

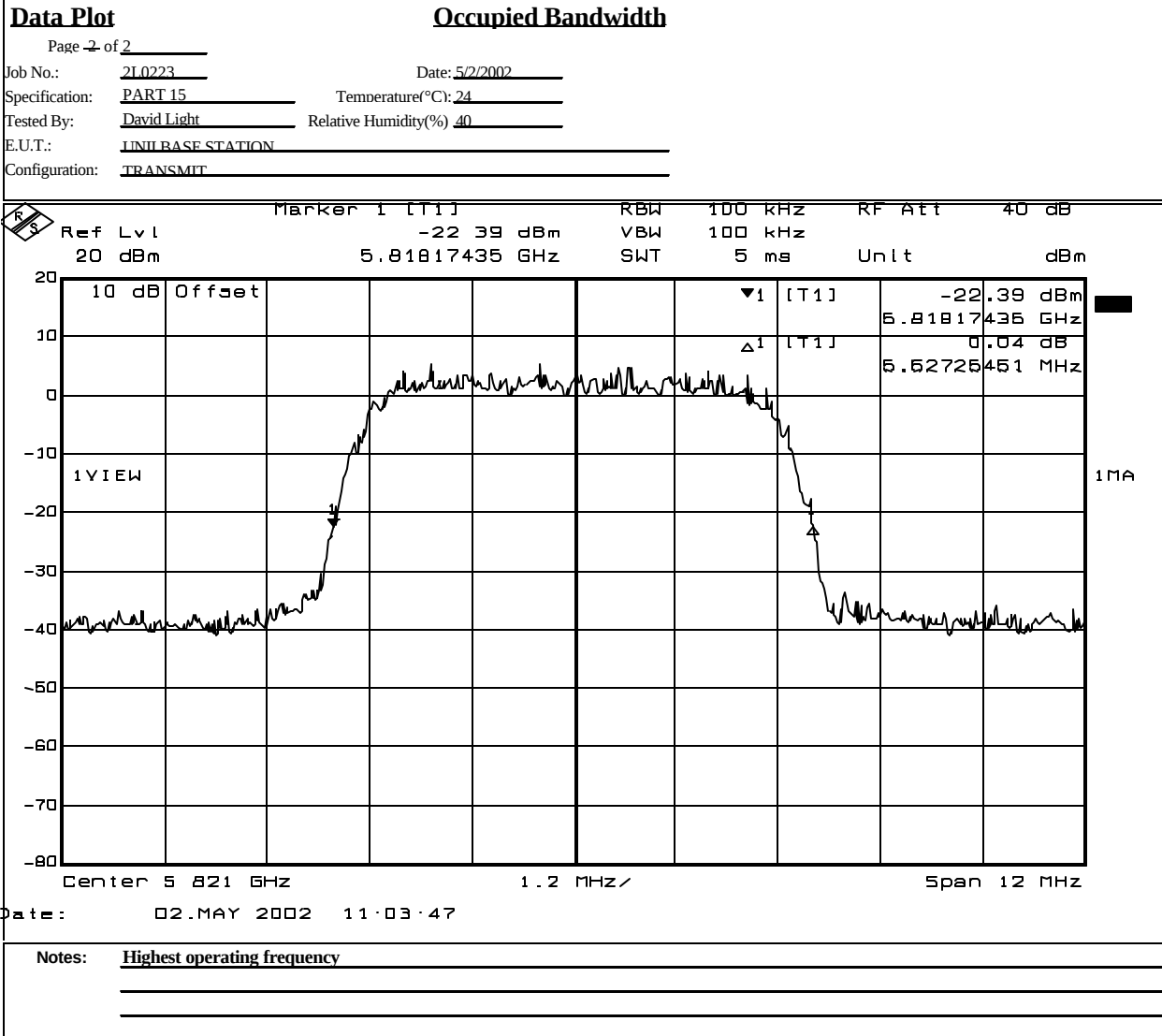
Test Data – Emission Bandwidth



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EQUIPMENT: RZ-BASECH**Section 4. Peak Transmit Power**

NAME OF TEST: Peak Transmit Power	PARA. NO.: 15.407(a)(3)
TESTED BY: David Light	DATE: 5/2/2002

Minimum Standard: 15.407(a)(3) For the band 5.725-5.825 GHz, the peak transmit power over the frequency band of operation shall not exceed the lesser of 1 W or 17 dBm + 10logB, where B is the 26-dB emission bandwidth in MHz.

Test Results: Complies

Measurement Data:

Frequency (GHz)	Power Output at Antenna Terminal (dBm)	Antenna Gain (dBi)	Power Output (EIRP)
5.729	11.2	18	29.2
5.821	11.5	18	29.5

Measurement Uncertainty: +/- 0.6 dB

Test Conditions:

Temperature: 22° C
Relative Humidity: 40%

Test Equipment used: 406-1056

EQUIPMENT: RZ-BASECH

Section 5. Peak Spectral Density

NAME OF TEST: Peak Spectral Density	PARA. NO.: 15.407(a)3)
TESTED BY: David Light	DATE: 5/2/2002

Minimum Standard: 15.407(a)(3) The peak power spectral density shall not exceed 17 dBm in any 1-MHz band.

Test Results: Complies.

Measurement Data: See attached graph(s).

Method of Measurement: Refer to annex – RF Conducted Measurements.

EQUIPMENT: RZ-BASECH

Test Data – Peak Spectral Density



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Data Plot

Spectral Density

Page 1 of 2

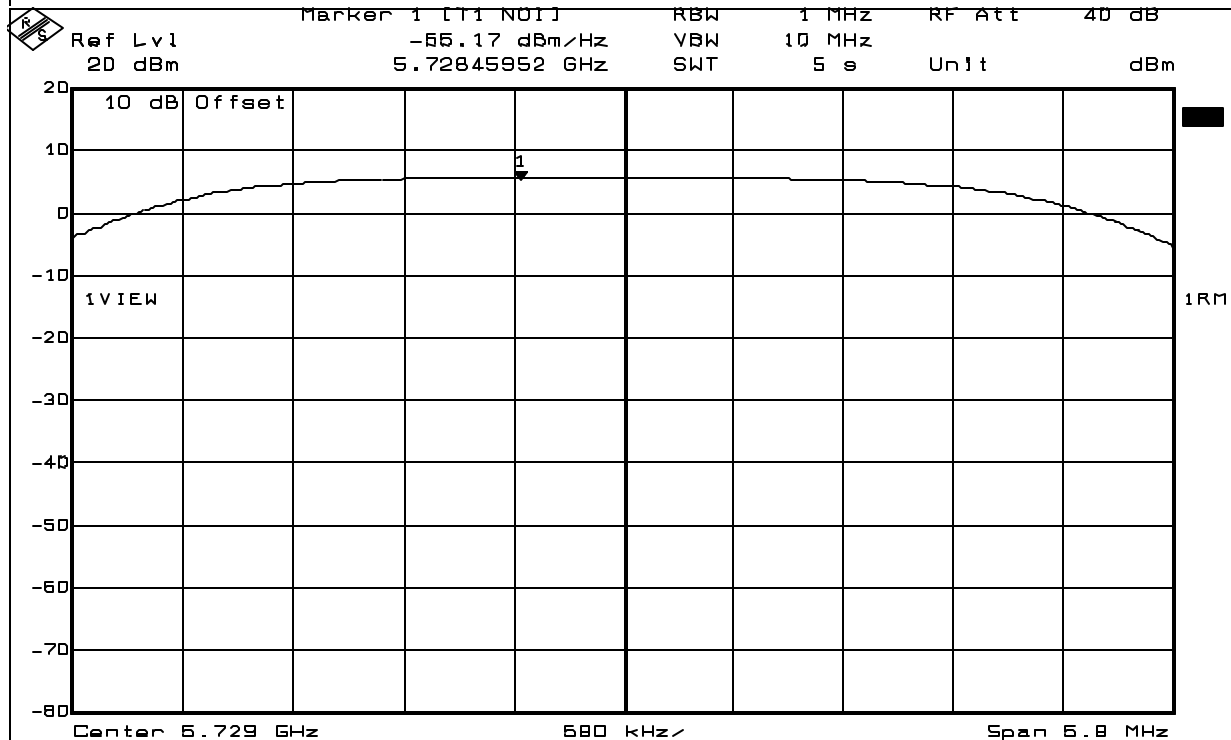
Job No.: 2L0223 Date: 5/2/2002
 Specification: PT 15 Temperature(°C): 24
 Tested By: David Light Relative Humidity(%): 40
 E.U.T.: UNIBASE STATION
 Configuration: TRANSMIT
 Sample Number: 1
 Location: Lab 1 RBW: 1 MHz
 Detector Type: Rms VBW: 10 MHz

Complete X
 Preliminary: _____

Measurement
 Distance: _____ m

Test Equipment Used

Antenna: _____ Directional Coupler: _____
 Pre-Amp: _____ Cable #1: 1485
 Filter: _____ Cable #2: _____
 Receiver: 1036 Cable #3: _____
 Attenuator #1: 1471 Cable #4: _____
 Attenuator #2: _____ Mixer: _____
 Additional equipment used: _____
 Measurement Uncertainty: +/-1.7 dB



Date: 02.MAY 2002 10:33:02

Notes: Lowest operating frequency
 -55.17 dBm/Hz = 4.83 dBm/MHz

EQUIPMENT: RZ-BASECH

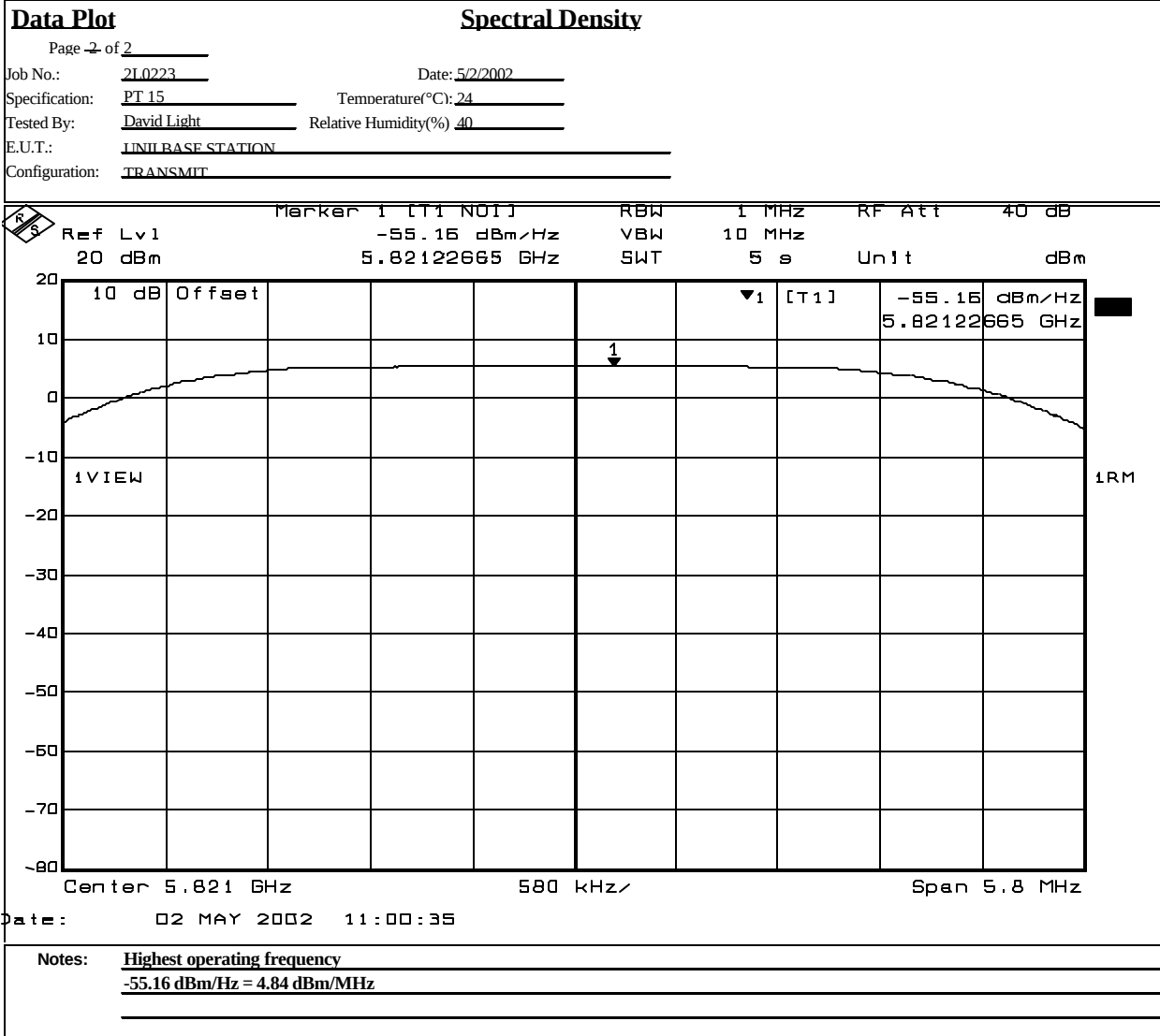
Test Data – Peak Spectral Density



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EQUIPMENT: RZ-BASECH

Section 6. Peak to Average Ratio

NAME OF TEST: Peak to Average Ratio	PARA. NO.: 15.407(a)6)
TESTED BY: David Light	DATE: 5/2/2002

Minimum Standard 15.407(a)(6) The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power (measured as specified in this paragraph) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

Test Results: Complies.

Measurement Data: See attached graph(s).

Method of Measurement: Refer to annex

EQUIPMENT: RZ-BASECH

Test Data – Peak to Average Ratio



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Data Plot

Peak to Average Ratio

Page 1 of 6

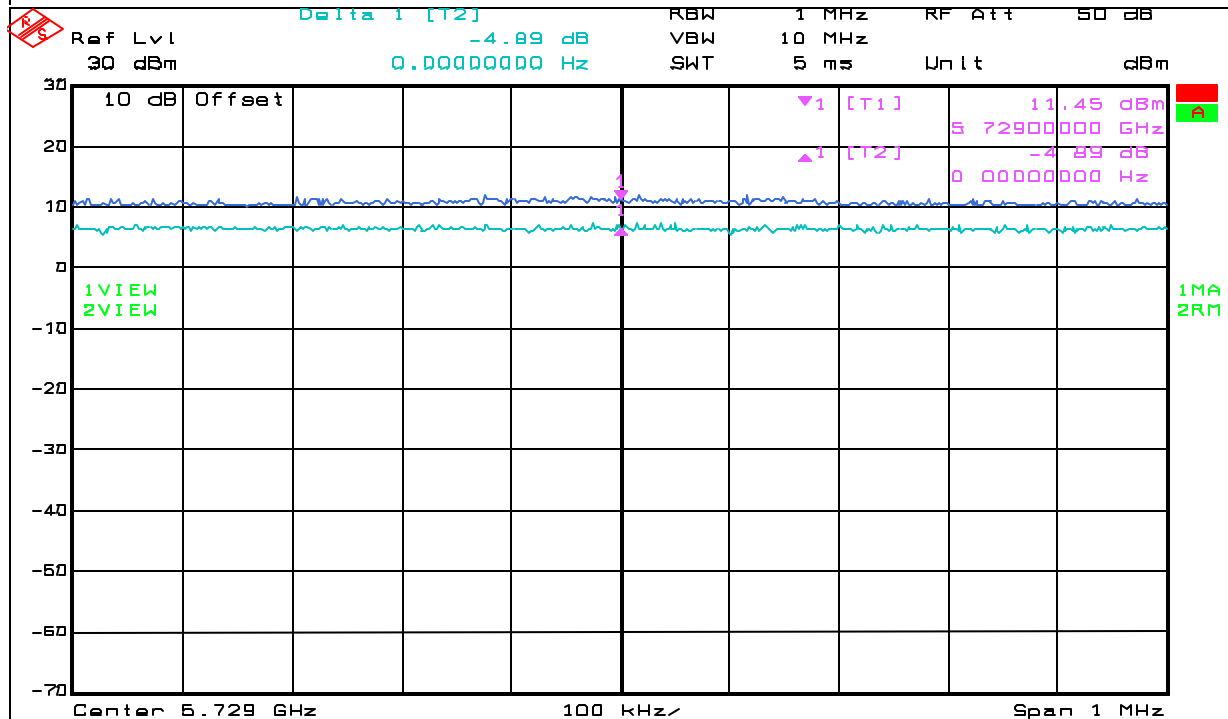
Job No.: 2L0223R Date: 5/2/2002
Specification: PART 15 Temperature(°C): 24
Tested By: David Light Relative Humidity(%): 40
E.U.T.: UNII BASE STATION
Configuration: TRANSMIT
Sample Number: 1
Location: Lab 1 RBW: 1 MHz
Detector Type: Refer to plots VBW: Refer to plots

Complete: X
Preliminary:

Measurement
Distance: m

Test Equipment Used

Antenna: Directional Coupler:
Pre-Amp: Cable #1: 1485
Filter: Cable #2:
Receiver: 1036 Cable #3:
Attenuator #1: 1471 Cable #4:
Attenuator #2: Mixer:
Additional equipment used:
Measurement Uncertainty: +/-1.7 dB



Date: 02.MAY 2002 13:36:36

Notes: Lowest operating frequency
QPSK

EQUIPMENT: RZ-BASECH

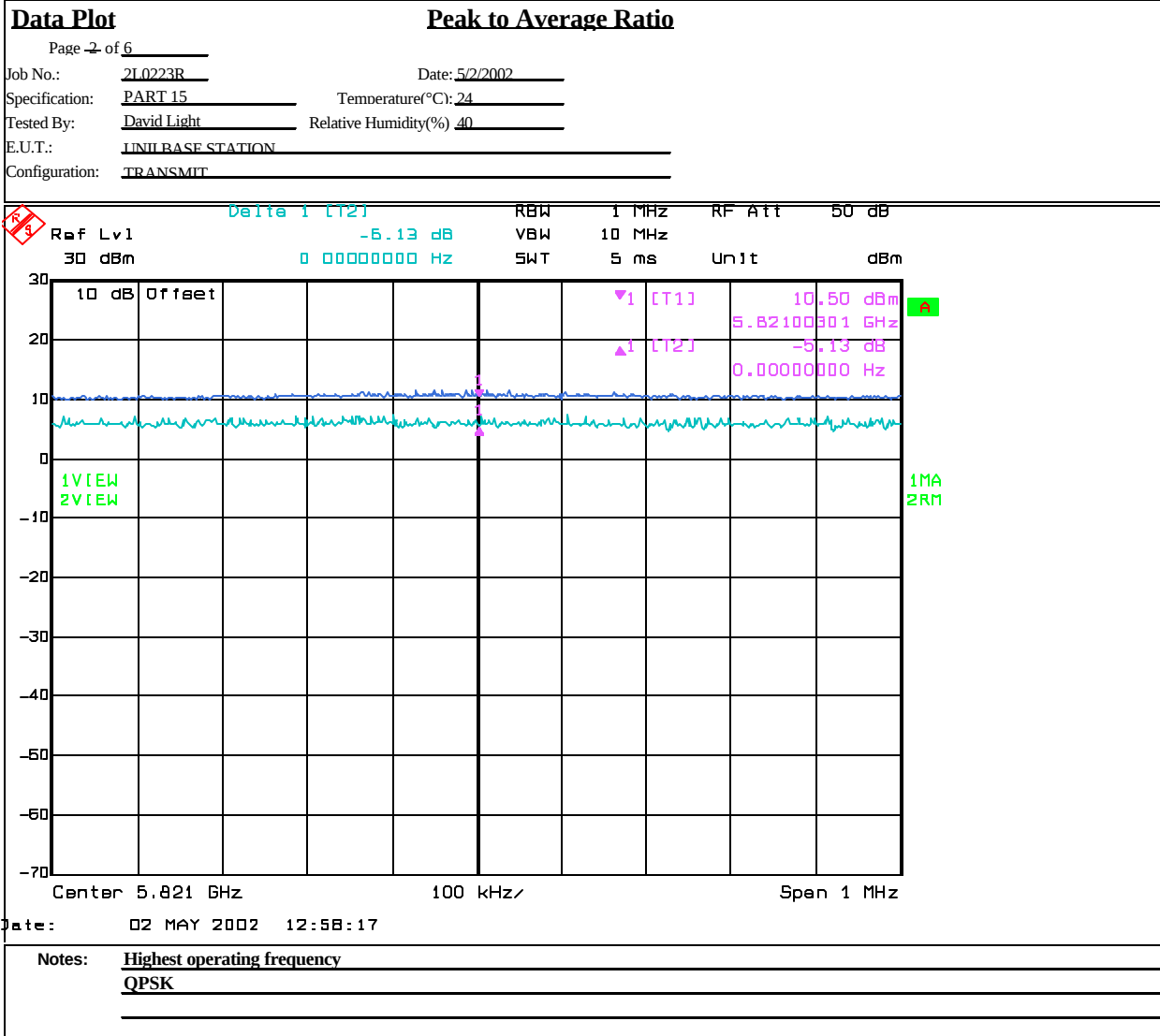
Test Data – Peak to Average Ratio



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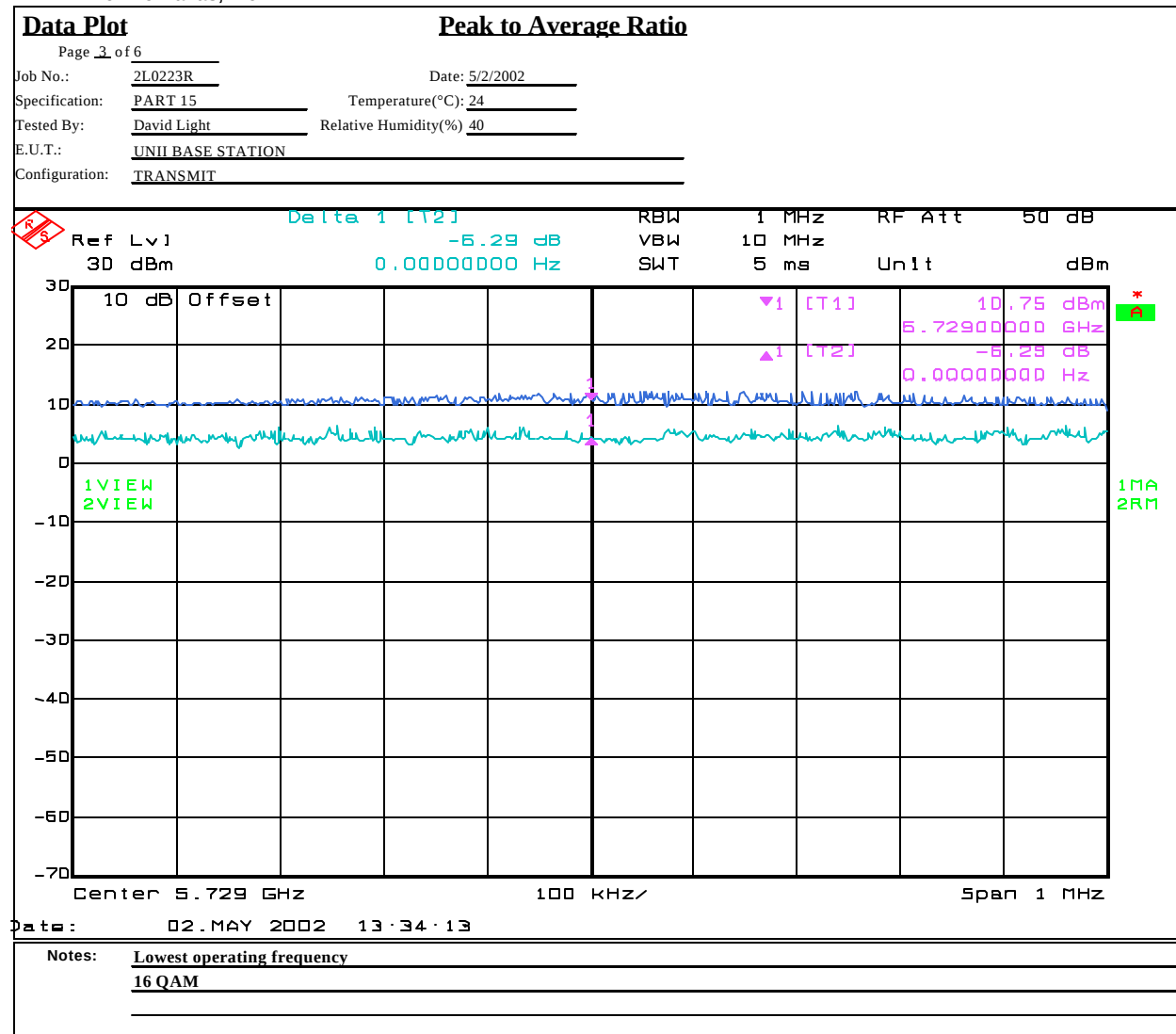
EQUIPMENT: RZ-BASECH

Test Data – Peak to Average Ratio



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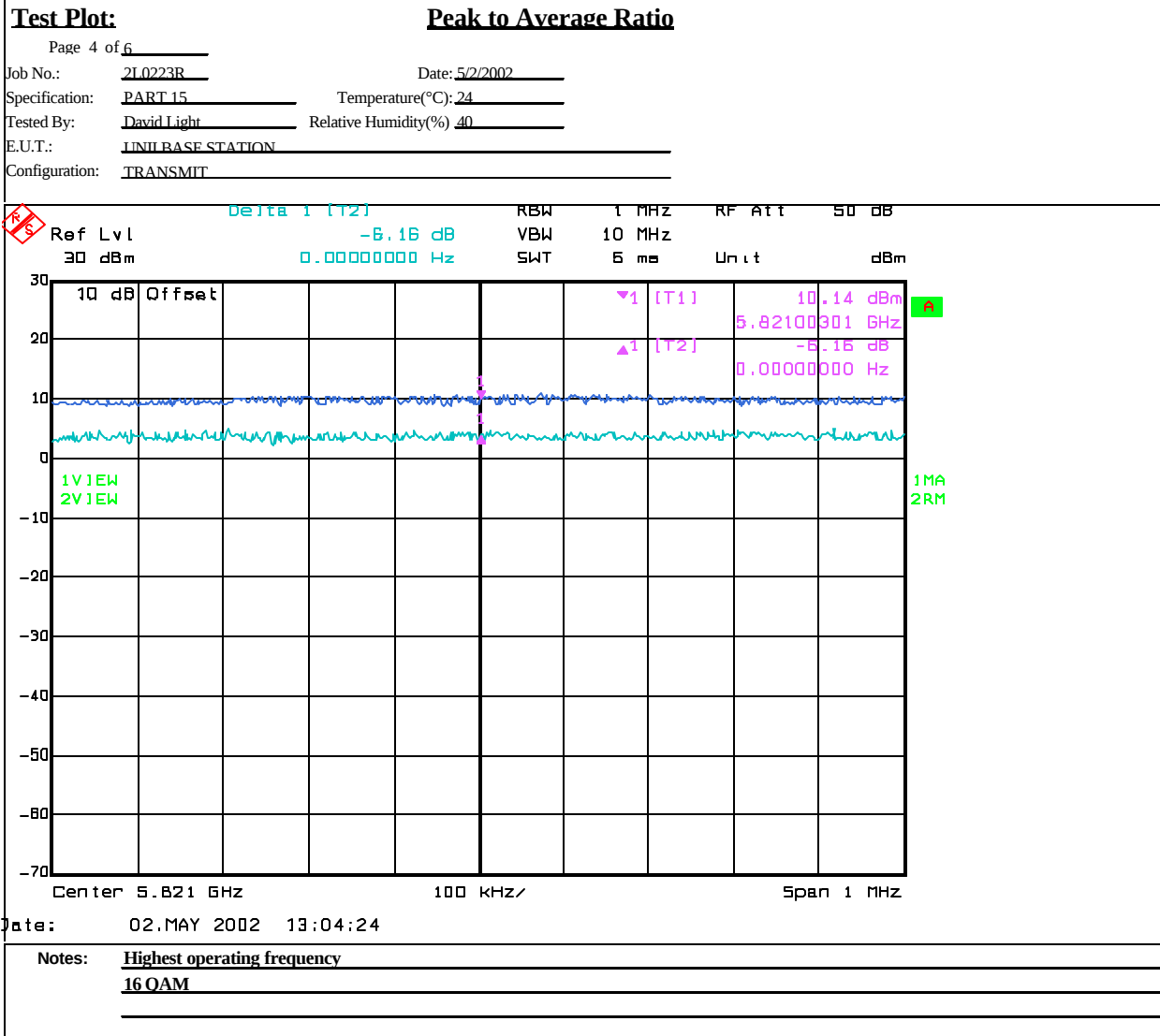
EQUIPMENT: RZ-BASECH

Test Data – Peak to Average Ratio



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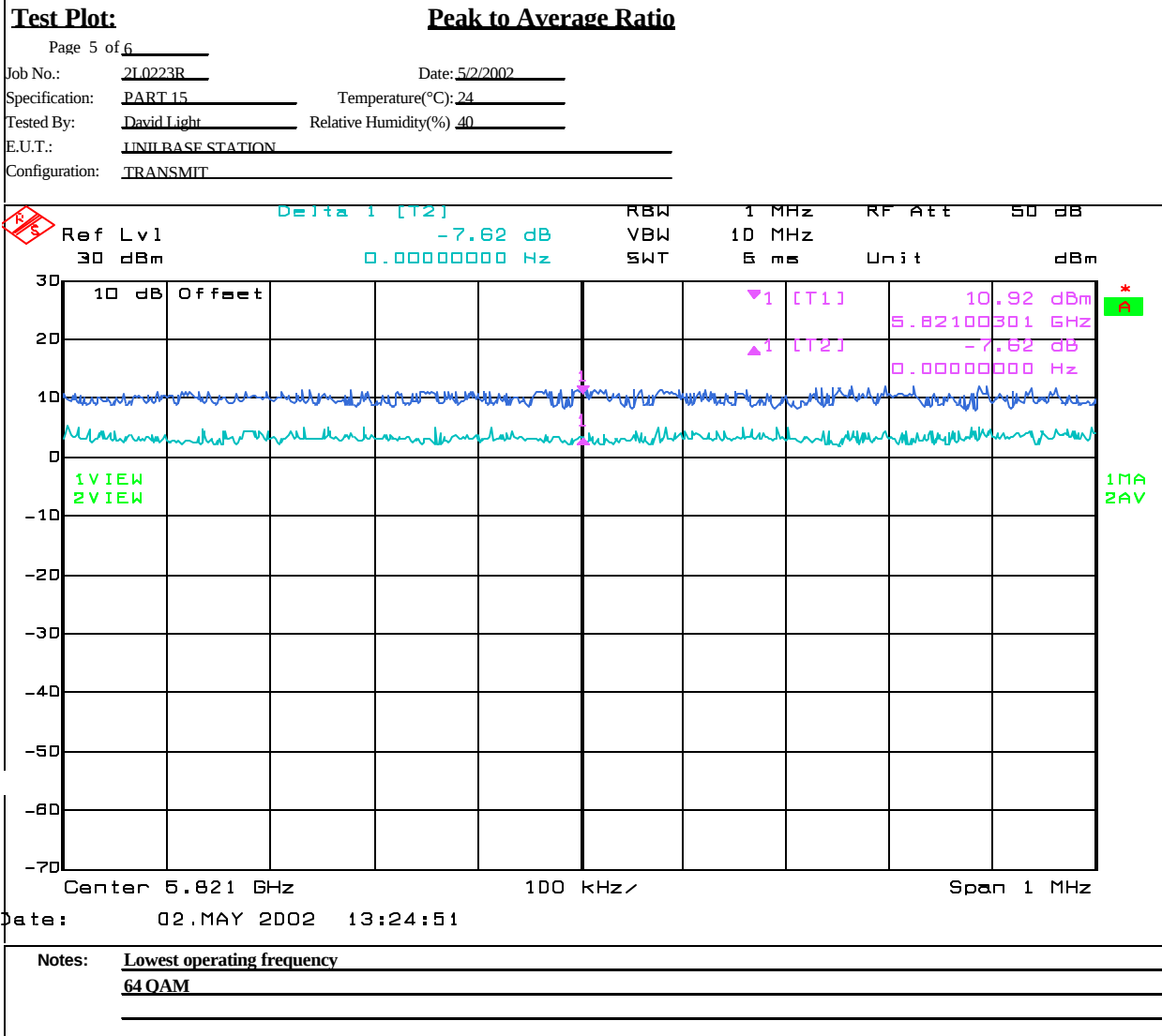
EQUIPMENT: RZ-BASECH

Test Data – Peak to Average Ratio



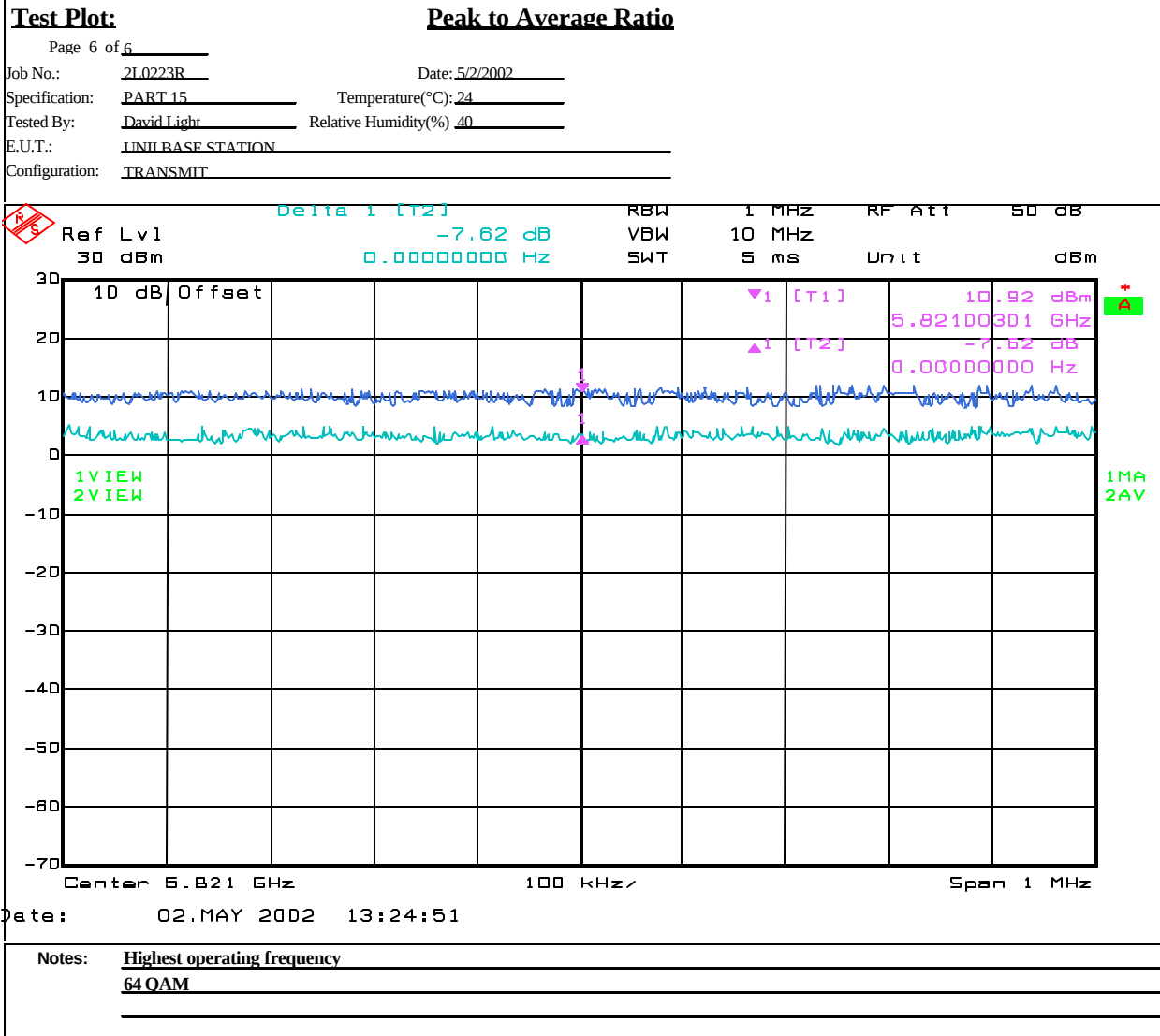
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EQUIPMENT: RZ-BASECH**Test Data – Peak to Average Ratio**

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EQUIPMENT: RZ-BASECH**Section 7 Spurious Emissions Below 1 GHz**

NAME OF TEST: Spurious Emissions Below 1 GHz

PARA. NO.: 15.407(b)5)

TESTED BY: Kevin Rose

DATE: 5/16/2002

Minimum Standard

15.407(b)5) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.

Frequency(MHz)	Field Strength (dBmV/m @ 3m)
30 - 88	40.0
88 - 216	43.5
216 - 960	46.0
Above 960	54.0

Test Results: Complies.**Measurement Data:** See attached graph(s).**Method of Measurement:** Refer to annex

EQUIPMENT: RZ-BASECH

Test Data – Spurious Emissions Below 1 GHz



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Radiated Emissions Data

Complete	<u>X</u>	Job # :	<u>210223</u>	Test # :	<u>re5</u>
Preliminary	<u> </u>	Page	<u>1</u>	of	<u>3</u>
Client Name :	<u>Raze</u>				
EUT Name :	<u>Sky Fire Base Station</u>				
EUT Model # :	<u> </u>				
EUT Part # :	<u> </u>				
EUT Serial # :	<u> </u>				
EUT Config. :	<u>Typical - Tx full power into antenna</u>				
Specification :	<u>CFR47 Part 15, Subpart B, Class B</u>				
Rod. Ant. #:	<u> </u>	Temp. (deg. C) :	<u>23</u>	Reference :	<u> </u>
Bicon Ant.#:	<u>707</u>	Humidity (%) :	<u>38</u>	Date :	<u>May 16 2002</u>
Log Ant.#:	<u>1393</u>	EUT Voltage :	<u>48dc</u>	Time :	<u>2:20</u>
Bilog Ant.#:	<u> </u>	EUT Frequency :	<u> </u>	Staff :	<u>Kevin Rose</u>
Dipole Ant.#:	<u>1404</u>	Phase:	<u> </u>	Photo ID:	<u>na</u>
Cable#:	<u>1518</u>	Location:	<u>oatsB</u>	Peak Bandwidth:	<u>100 kHz</u>
Preamplifier#:	<u>791</u>	Distance:	<u>3 m</u>	Video Bandwidth:	<u>100 kHz</u>
Limiter#:	<u>na</u>				
Atten #:	<u>na</u>				
Detector#:	<u>1036</u>				

Meas. Freq. (MHz)	Ant. Pol. (H/V)	Atten. (dB)	Meter Reading (dBuV)	Antenna Factor (dB)	Path Loss (dB)	RF Gain (dB)	Corrected Reading (dBuV/m)	Spec. limit (dBuV/m)	CR/SL Diff. (dB)	Pass Fail Unc.	Comment
30	V		34.6	12.6	2.3	22.6	26.9	40.0	-13.1	Pass	
30	H		31.1	12.6	2.3	22.6	23.4	40.0	-16.6	Pass	
40	V		31.9	13.6	2.3	22.0	25.8	40.0	-14.2	Pass	
40	H		27.7	13.6	2.3	22.0	21.6	40.0	-18.4	Pass	
120	V		38.6	13.5	4.1	22.6	33.6	43.5	-9.9	Pass	
120	H		38.3	13.5	4.1	22.6	33.3	43.5	-10.2	Pass	
131.1	V		39.2	11.3	4.6	22.7	32.4	43.5	-11.1	Pass	
131.1	H		40.9	11.3	4.6	22.7	34.1	43.5	-9.4	Pass	
140	V		47.5	11.2	4.6	22.7	40.6	43.5	-2.9	Pass	CISPR DIPOLE
140	H		46.4	12.3	4.6	22.7	40.6	43.5	-2.9	Pass	
140	H		43.5	11.2	4.6	22.7	36.6	43.5	-6.9	Pass	CISPR DIPOLE
139.3	V		42	11.3	4.6	22.7	35.2	43.5	-8.3	Pass	
139.3	H		43.9	11.3	4.6	22.7	37.1	43.5	-6.4	Pass	
137.2	V		33.2	11.3	4.6	22.7	26.4	43.5	-17.1	Pass	
137.2	H		36.3	11.3	4.6	22.7	29.5	43.5	-14.0	Pass	
192.5	V		32	17.1	4.6	22.9	30.8	43.5	-12.7	Pass	
192.5	H		30.3	17.1	4.6	22.9	29.1	43.5	-14.4	Pass	

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EQUIPMENT: RZ-BASECH

Test Data – Spurious Emissions Below 1 GHz



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Radiated Emissions Data

Complete X
Preliminary Job # : 2I0223 Test # : re5
Page 2 of 3 Client Name : Raze
EUT Name : Sky Fire Base Station
EUT Model # :
EUT Part # :
EUT Serial # :
EUT Config. : Typical - Tx full power into antennaSpecification : CFR47 Part 15, Subpart B, Class B Reference :

Meas. Freq. (MHz)	Ant. Pol. (H/V)	Det. Atten. (dB)	Meter Reading (dBuV)	Antenna Factor (dB)	Path Loss (dB)	RF Gain (dB)	Corrected Reading (dBuV/m)	Spec. limit (dBuV/m)	CR/SL Diff. (dB)	Pass Fail Unc.	Comment
196.6	V		42	14.4	4.6	22.9	38.1	43.5	-5.4	Pass	CISPR DIPOLE
196.6	H		43.2	14.4	4.6	22.9	39.3	43.5	-4.2	Pass	CISPR DIPOLE
241.7	V		37.2	17	6.0	22.9	37.3	46.0	-8.7	Pass	
241.7	H		37.4	17	6.0	22.9	37.5	46.0	-8.5	Pass	
243	V		33.4	17	6.0	22.9	33.5	46.0	-12.5	Pass	
243	H		33.2	17	6.0	22.9	33.3	46.0	-12.7	Pass	
253.9	V		38.7	17	6.7	22.9	39.5	46.0	-6.5	Pass	
253.9	H		39.6	17	6.7	22.9	40.4	46.0	-5.6	Pass	
294.9	V		43.5	17.3	6.7	22.9	44.6	46.0	-1.4	Pass	CISPR DIPOLE
294.9	H		32.5	17.3	6.7	22.9	33.6	46.0	-12.4	Pass	CISPR DIPOLE
299	V		28.3	19.3	6.7	22.9	31.4	46.0	-14.6	Pass	
299	H		25	19.3	6.7	22.9	28.1	46.0	-17.9	Pass	
630	V		35.6	19.5	11.2	23.2	43.1	46.0	-2.9	Pass	
630	H		35.4	19.5	11.2	23.2	42.9	46.0	-3.1	Pass	
383.9	V		34.8	16.1	7.5	23.2	35.2	46.0	-10.8	Pass	
383.9	H		34.5	16.1	7.5	23.2	34.9	46.0	-11.1	Pass	
393.2	V		39.6	16.6	7.5	23.2	40.5	46.0	-5.5	Pass	
393.2	H		39.4	16.6	7.5	23.2	40.3	46.0	-5.7	Pass	
399.9	V		40.2	16.6	7.5	23.2	41.1	46.0	-4.9	Pass	
399.9	H		36.8	16.6	7.5	23.2	37.7	46.0	-8.3	Pass	
430	V		39.4	16.2	8.8	23.1	41.3	46.0	-4.7	Pass	
430	H		36.1	16.2	8.8	23.1	38.0	46.0	-8.0	Pass	
450	V		38.4	18.3	8.8	23.5	42.0	46.0	-4.0	Pass	
450	H		40.7	18.3	8.8	23.5	44.3	46.0	-1.7	Pass	
440	V		40.2	16.2	8.8	23.1	42.1	46.0	-3.9	Pass	
440	H		34.7	16.2	8.8	23.1	36.6	46.0	-9.4	Pass	

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Test Data – Spurious Emissions Below 1 GHz



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Complete X

Preliminary _____

Client Name : Raze

EUT Name : Sky Fire Base Station

EUT Model # : _____

EUT Part # : _____

EUT Serial # : _____

EUT Config. : Typical - Tx full power into antenna

Specification : CFR47 Part 15, Subpart B, Class B

Job # : 2I0223 Test # : re5

Page 3 of 3

Reference : _____

Meas. Freq. (MHz)	Ant. Pol. (H/V)	Det. Atten. (dB)	Meter Reading (dBUV)	Antenna Factor (dB)	Path Loss (dB)	RF Gain (dB)	Corrected Reading (dBUV/m)	Spec. limit (dBUV/m)	CR/SL Diff. (dB)	Pass Fail Unc.	Comment
460	V		36	18.3	8.8	23.5	39.6	46.0	-6.4	Pass	
460	H		30.6	18.3	8.8	23.5	34.2	46.0	-11.8	Pass	
470	V		38	18.3	8.8	23.5	41.6	46.0	-4.4	Pass	
470	H		36	18.3	8.8	23.5	39.6	46.0	-6.4	Pass	
520	V		37.2	18	10.0	23.2	42.0	46.0	-4.0	Pass	CISPR
520	H		36.6	18	10.0	23.2	41.4	46.0	-4.6	Pass	
575.9	V		31.32	19.7	10.0	23.0	38.0	46.0	-8.0	Pass	
575.9	H		31.3	19.7	10.0	23.0	38.0	46.0	-8.0	Pass	
810	V		28.5	26.4	13.0	23.7	44.2	46.0	-1.8	Pass	CISPR dipole
810	H		28	25.7	13.0	23.7	43.0	46.0	-3.0	Pass	CISPR dipole
											All readings are PEAK unless otherwise stated

Document Control #EMC DS EM RAD HFE

EQUIPMENT: RZ-BASECH

Photos – Spurious Emissions Below 1 GHz

Front



EQUIPMENT: RZ-BASECH

Rear



EQUIPMENT: RZ-BASECH

Section 8 Spurious Emissions Above 1 GHz

NAME OF TEST: Spurious Emissions Above 1 GHz	PARA. NO.: 15.407(b)(3)
TESTED BY: David Light	DATE: 5/10/2002

Minimum Standard 15.407(b)(3) For transmitters operating in the 5.725-5.825 GHz band: all emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an EIRP of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an EIRP of -27 dBm/MHz

Test Results: Complies.

Measurement Data: See attached graph(s).

Method of Measurement: Refer to annex

EQUIPMENT: RZ-BASECH

Test Data –Spurious Emissions Above 1 GHz



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Lewisville, TX 75057
Tel: (972) 436-9600
Fax: (972) 436-2667EIRP Substitution Method

Page 1 of 1

Job No.: 2L0223R Date: 5/10/2002 Complete X
 Specification: Part 15, Subpart E Temperature(°C): 22 Preliminary _____
 Tested By: David Light Relative Humidity(%) 40
 E.U.T.: UNII Basestation
 Configuration: Tx Full Power, TDD Mode
 Sample No: 1
 Location: AC 3 RBW: 1 MHz Measurement
 Detector Type: Average VBW: 10 Hz Distance: 3 m

Test Equipment Used

Antenna: 1304 Directional Coupler: _____
 Pre-Amp: 1016 Cable #1: 1484
 Filter: 1651 Cable #2: 1485
 Receiver: 1464 Cable #3: 1046
 Attenuator #1: _____ Cable #4: _____
 Attenuator #2: _____ Mixer: _____
 Additional equipment used: 1650 983 991 988 989 984 1651 992
 Measurement Uncertainty: +/-3.6 dB

Frequency (MHz)	Meter Reading (dBm)	Correction Factor (dB)		Pre-Amp Gain (dB)	Substitution Antenna Gain (dBi)	Limit (dBm/MHz)	EIRP (dBm/MHz)	EIRP (mW)	Polarity	Comments
										Tx @ 5.729 GHz
5249	-83.5	41.3		0	10.3	-27	-31.9	0.0007	V	LO
5249	-86.8	38.3		0	10.3	-27	-38.2	0.0002	H	LO
5725	-72.5	39.8		0	11.4	-17	-21.3	0.0075	V	Lower bandedge
5725	-82.0	37.8		0	11.4	-17	-32.8	0.0005	H	Lower bandedge
11458	-72.5	47.0		35.8	12.5	-27	-48.8	0.0000	H	Noise floor
11458	-72.5	43.7		35.8	12.5	-27	-52.1	0.0000	V	Noise floor
17187	-74.3	47.3		33	13.0	-27	-47.0	0.0000	V	Noise floor
17187	-74.3	52.3		33	13.0	-27	-42.0	0.0001	H	Noise floor
										Tx @ 5.821 GHz
5341	-86.8	38.3		0	10.3	-27	-38.2	0.0002	H	LO
5341	-86.0	41.3		0	10.3	-27	-34.4	0.0004	V	LO
5825	-83.0	37.8		0	11.4	-17	-33.8	0.0004	H	Upper bandedge
5825	-80.0	39.8		0	11.4	-17	-28.8	0.0013	V	Upper bandedge
11462	-73.8	47.0		35.8	12.5	-27	-50.1	0.0000	H	Noise floor
11462	-73.8	43.7		35.8	12.5	-27	-53.4	0.0000	V	Noise floor
17463	-74.7	47.3		33.5	13.0	-27	-47.9	0.0000	V	Noise floor
17463	-74.7	52.3		33.5	13.0	-27	-42.9	0.0001	H	Noise floor

Notes: Searched spectrum to 60 GHz

No emissions were detected past 6 GHz The noise floor was at least 6 dB below the spec limit

EQUIPMENT: RZ-BASECH

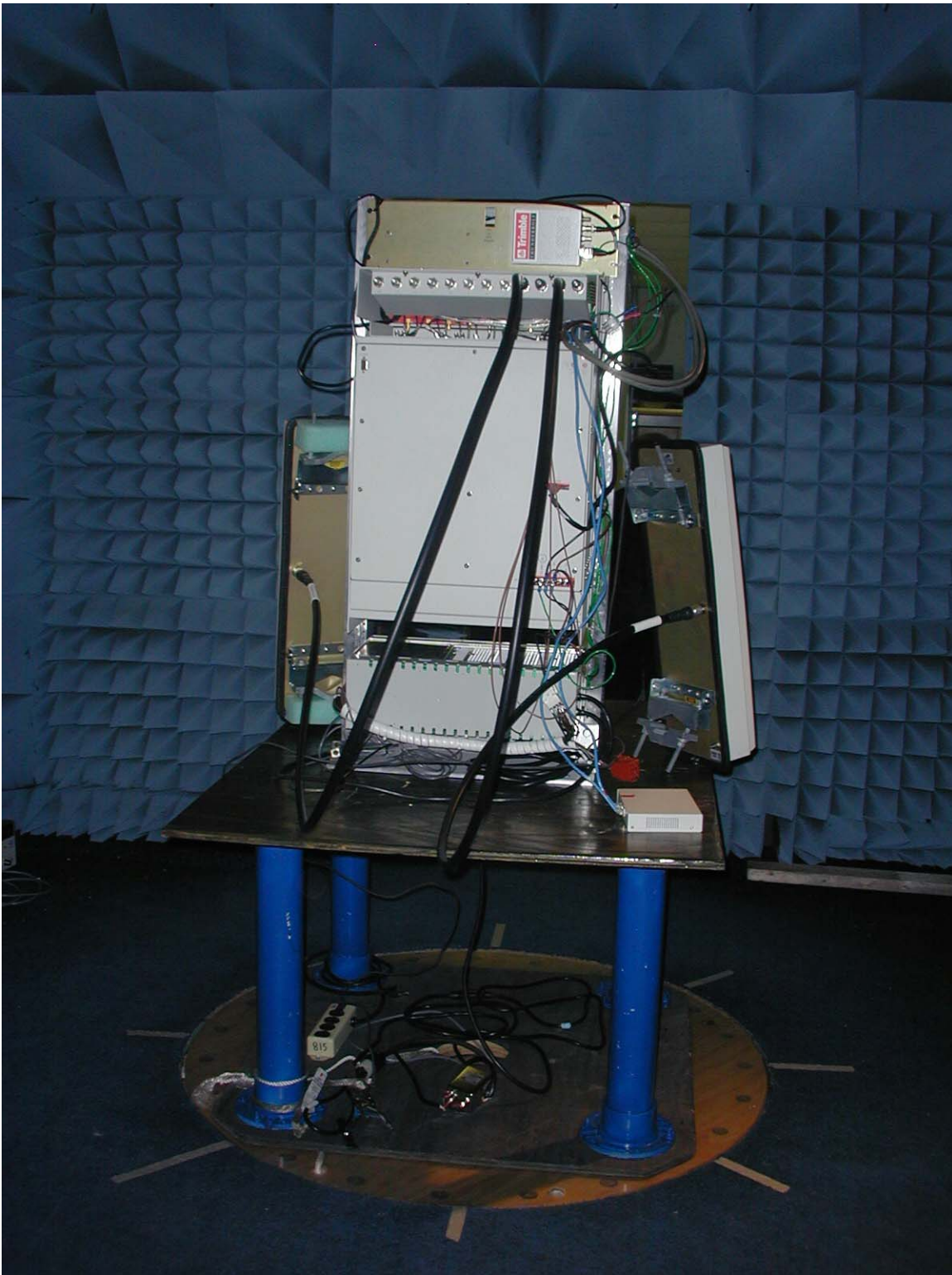
Photos – Spurious Emissions Above 1 GHz

Front



EQUIPMENT: RZ-BASECH

Rear



EQUIPMENT: RZ-BASECH**Section 9 Powerline Conducted Emissions**

NAME OF TEST: Powerline Conducted Emissions PARA. NO.: 15.407(b)(5)

TESTED BY: David Light

DATE: 5/13/2002

Minimum Standard

15.407(b)(5) Any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207

Frequency	Maximum Powerline Conducted RF Voltage	
(MHz)	mV	dBmV
0.45 - 30.0	250	48

Test Results: Complies.**Measurement Data:** See attached graph(s).**Method of Measurement:** Refer to annex

EQUIPMENT: RZ-BASECH

Test Data – Powerline Conducted Emissions



Nemko Dallas, Inc.

Dallas Headquarters:

802 N. Kealy
Lewisville, TX 75057
Tel: (972) 436-9600
Fax: (972) 436-2667

Data Plot		Powerline Conducted Emissions	
Page 1 of 4		Complete <u> X </u>	
Job No.: 2L0223	Date: <u> 5/13/2002 </u>	Preliminary: <u> </u>	
Specification: PART 15	Temperature(°C): <u> 22 </u>		
Tested By: <u> David Light </u>	Relative Humidity(%): <u> 50 </u>		
E.U.T.: <u> UNIT BASE STATION </u>			
Configuration: <u> TX FULL POWER ON TWO CHANNELS DIGITAL CARD ACTIVE </u>			
Sample Number: <u> 1 </u>			
Location: <u> Lab 3 </u>	RBW: <u> 10 kHz </u>	Measurement	
Detector Type: <u> Peak </u>	VBW: <u> 10 kHz </u>	Distance: <u> N/A </u> m	
Test Equipment Used			
Antenna: <u> </u>	L.I.S.N.: <u> 1258 </u>		
Pre-Amp: <u> </u>	Cable #1: <u> 1038 </u>		
Filter: <u> 1555 </u>	Cable #2: <u> 1534 </u>		
Receiver: <u> 1036 </u>	Cable #3: <u> </u>		
Attenuator #1: <u> </u>	Cable #4: <u> </u>		
Attenuator #2: <u> </u>	Transient Limiter: <u> </u>		
Additional equipment used: <u> </u>			
Measurement Uncertainty: <u> +/-1.7 dB </u>			
Marker 1 [11] Ref Lvl 40.33 dBμV 97 dBμV 21.69098196 MHz RBW 10 kHz RF Att 10 dB VBW 10 kHz Unit dBμV SWT 740 ms Start 450 kHz 2.955 MHz/ Stop 30 MHz			
Date: 13.MAY 2002 10:00:41			
Notes: <u> DIGITAL CARDS & Tx </u>			
<u> LINE 1 </u>			

EQUIPMENT: RZ-BASECH

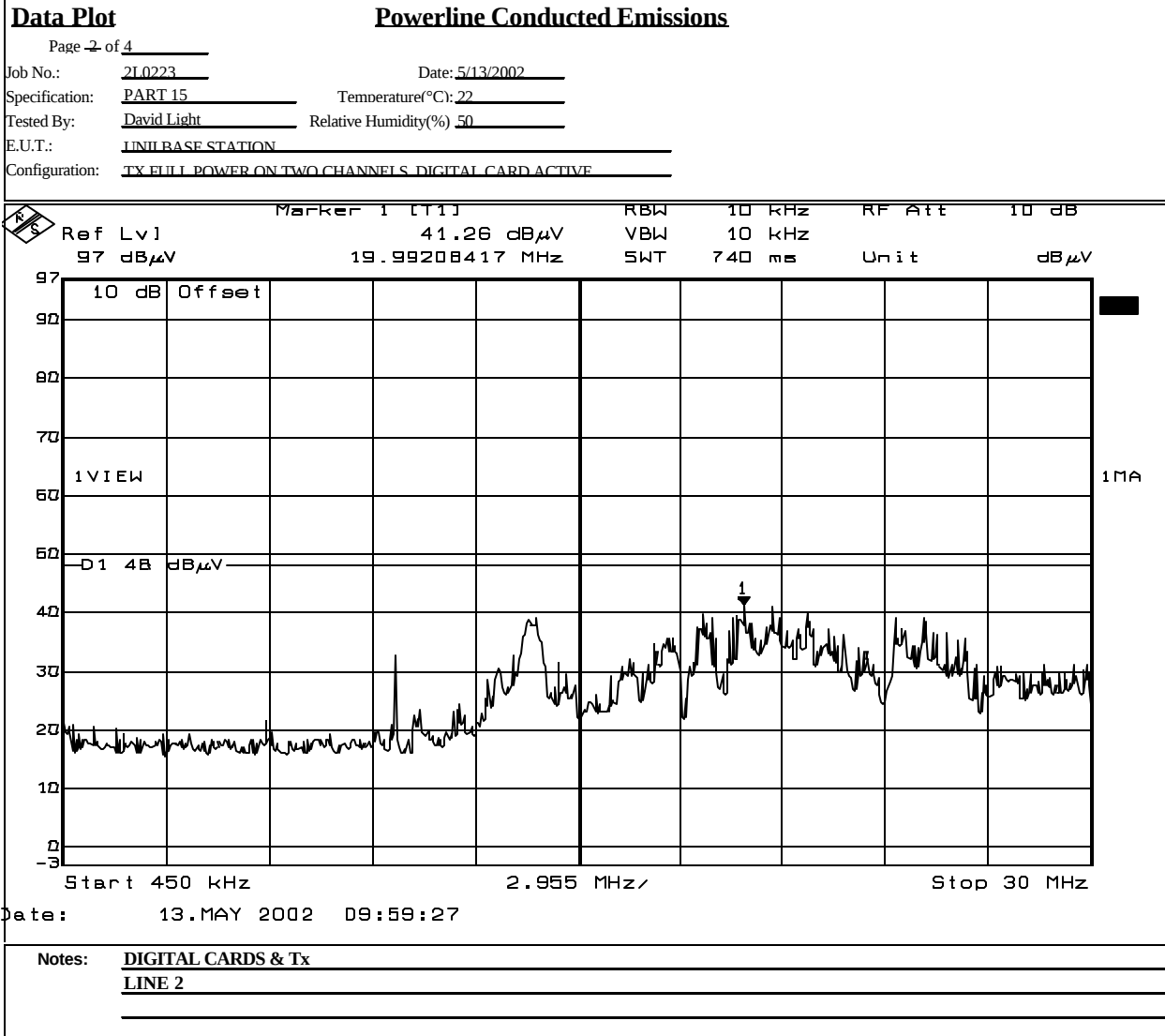
Test Data – Powerline Conducted Emissions



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EQUIPMENT: RZ-BASECH

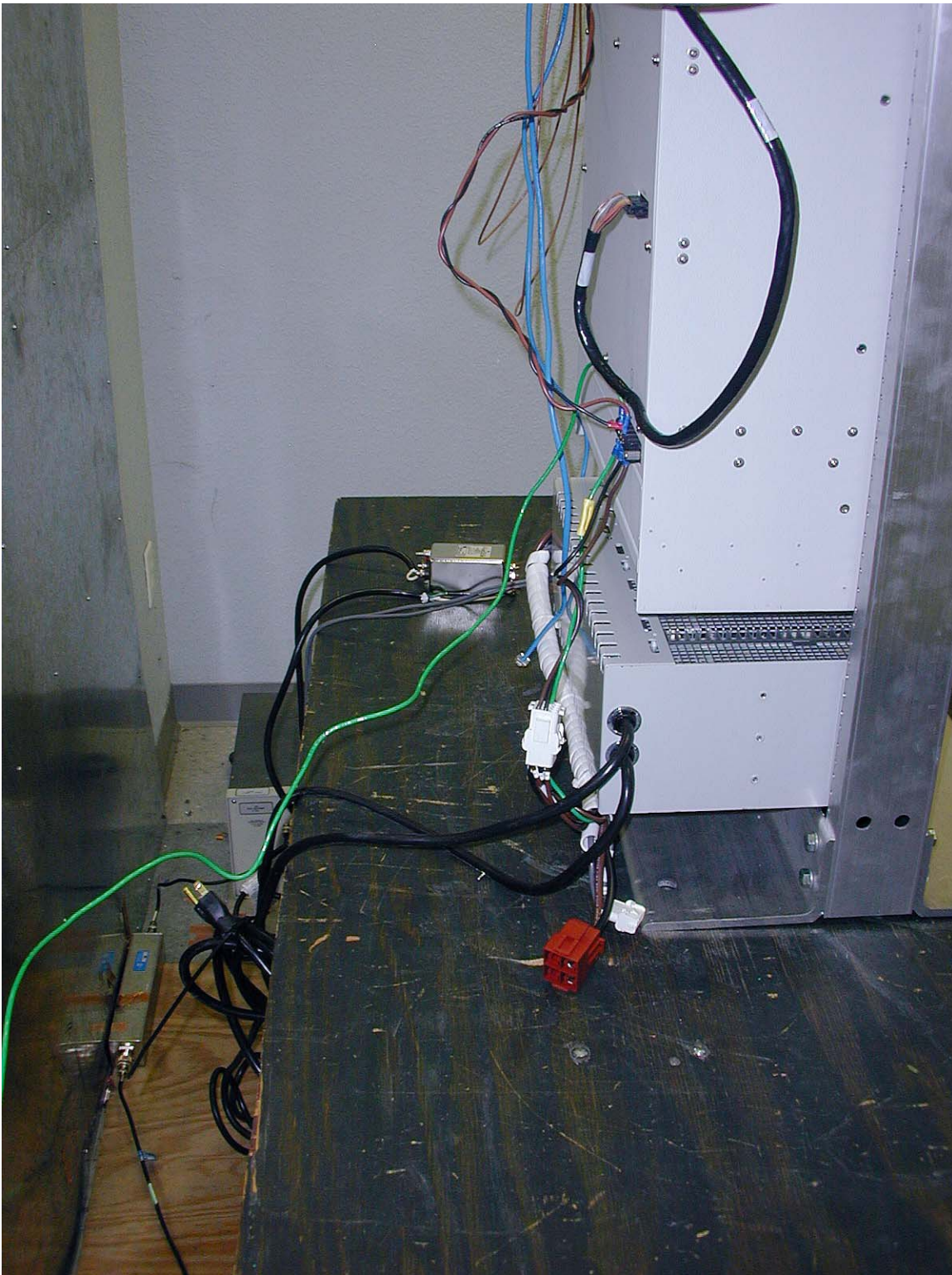
Photos – Powerline Conducted Emissions

Front



EQUIPMENT: RZ-BASECH

Side



EQUIPMENT: RZ-BASECH**Section 10 Test Equipment List**

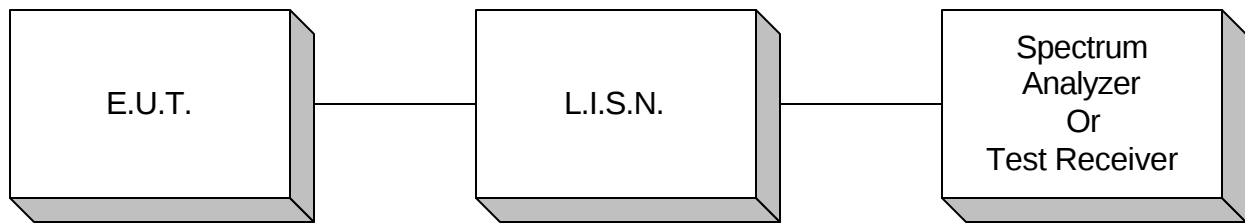
Nemko ID	Description	Manufacturer Model Number	Serial Number	Calibration Date
1555	Filter high pass 5KHz	Solar Electronics 7930-5.0	933125	05/29/01
1036	SPECTRUM ANALYZER	ROHDE & SCHWARZ FSEK30	830844/006	12/18/01
1258	LISN .15mhz-30mhz	EMCO 0	1305	7/9/02
1038	CABLE, .5m	KTL RG223	N/A	05/29/01
1534	CABLE, 9M	KTL RG223	NA	06/13/01
674	LIMITER	HP 11947A	3107A02200	11/04/00
1304	HORN ANTENNA	ELECTRO METRICS RGA-60	6151	07/30/01
1016	Pre-Amp	HEWLETT PACKARD 8449A	2749A00159	05/30/01
1651	WR62 Band Pass Filter	Nemko (David Light) None	None	CBU
1464	Spectrum analyzer	Hewlett Packard 8563E	3551A04428	01/02/01
1485	Cable 2.0-18.0 Ghz	Storm PR90-010-216	N/A	06/01/01
1484	Cable 2.0-18.0 Ghz	Storm PR90-010-072	N/A	06/01/01
1046	Flex cable 1m	Astrolab Inc. 32022-2-29094K-1M	N/A	01/18/02
1650	WR90 Band Pass Filter	Nemko (David Light) None	None	CBU
983	PRE-AMP, 18-40 GHz	KTL BB1	1	01/18/02
991	Horn antenna	EMCO 3160-10	9704-1049	CNR
988	HARMONIC MIXER	Hewlett Packard 11970A	2332A01929	01/00/00
989	HARMONIC MIXER	Hewlett Packard 11970U	2332A00116	01/00/00
984	HORN ANTENNA	MILLITECH NONE	NONE	CNR
1651	WR62 Band Pass Filter	Nemko (David Light) None	None	CBU
992	Horn antenna	EMCO 3160-09	9705-1079	CNR
707	Biconn antenna	EMCO 3104	3243	03/31/01
1393	Antenna log periodic	0 0	0	08/06/01
1404	Dipole set	EMCO 3121C	9701-1256	01/00/00
1518	Cable Assy, LAB 4 - C OATS	KTL Site C OATS	N/A	01/21/02
791	PREAMP, 25dB	ICC LNA25	398	08/16/01
1036	SPECTRUM ANALYZER	ROHDE & SCHWARZ FSEK30	830844/006	12/18/01
1471	10 db Attenuator DC 18 Ghz	MCL Inc. BW-S10W2 10db-2WDC	NONE	CBU
1485	Cable 2.0-18.0 Ghz	Storm PR90-010-216	N/A	06/01/01

ANNEX A

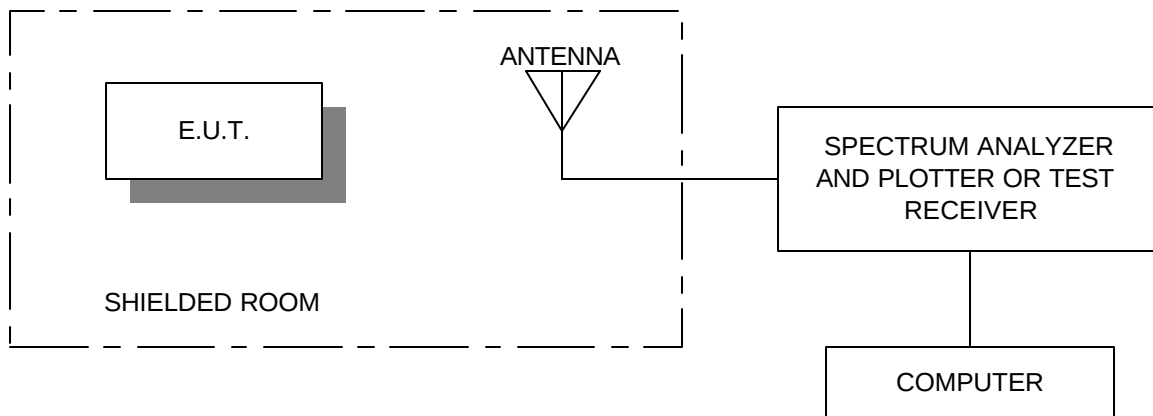
TEST DIAGRAMS

EQUIPMENT: RZ-BASECH

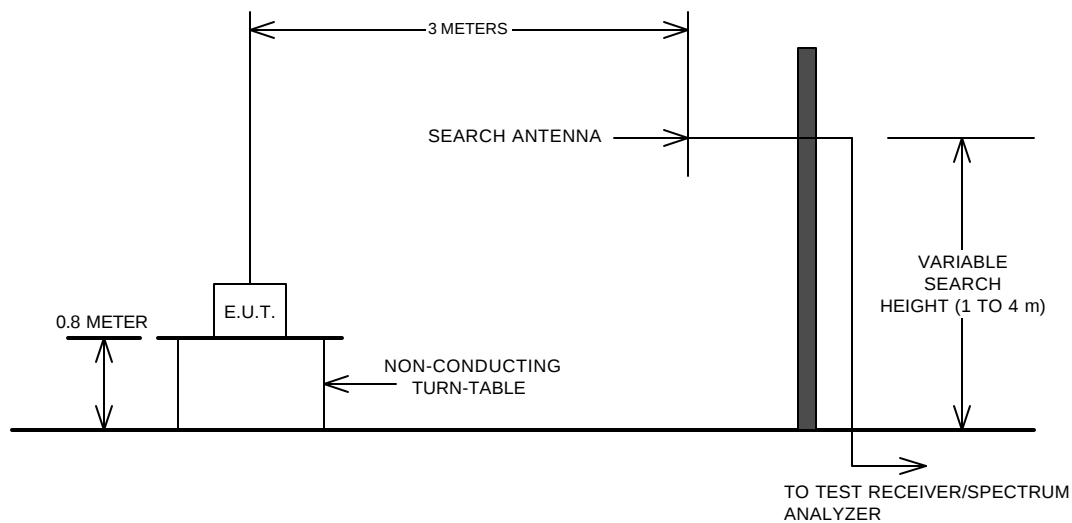
Conducted Emissions



Radiated Prescan



Test Site For Radiated Emissions



EQUIPMENT: RZ-BASECH

RF Conducted Measurements

