

Exhibit I: Spurious RF Conducted Emissions

FCC ID: CW21669-3

Justification

The individuals and/or the organization requesting the test provided the modes, configurations and settings available to evaluate. While scanning the radiated emissions, all of the EUT parameters listed below were investigated. This includes, but may not be limited to, antennas, tuned transmit frequency ranges, operating modes, and data rates.

Channels in Specified Operating Band Investigated:

Low Channel - 152.87 MHz
Mid Channel - 161 MHz
High Channel - 170 MHz

Operating Modes Investigated:

Modulated with Random Data

Data Rates Investigated:

1200 baud (only data rate available)

Output Power Investigated:

+20 dBm (not user adjustable)

Power Input Settings Investigated:

Battery operated. Cannot be operated while connected to AC mains or any other power source.

Frequency range Investigated

Start Frequency	30 MHz	Stop Frequency	2 GHz
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Software\Firmware Applied During Test

Exercise software	1669-3 Firmware	Version	1.4
Description			
The system was tested using standard operating production software to exercise the functions of the device during the testing.			

Equipment Modifications

No EMI suppression devices were added or modified. The EUT was tested as delivered.

EUT and Peripherals

Description	Manufacturer	Model/Part Number	Serial Number
Test Box	Rothenbuhler Engineering	1669-3	111

Cables

Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
Serial	No	1.8	No	Test Box	Unterminated
Test Probe	No	0.5	No	Test Box	Antenna Terminal

PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.

Measurement Equipment

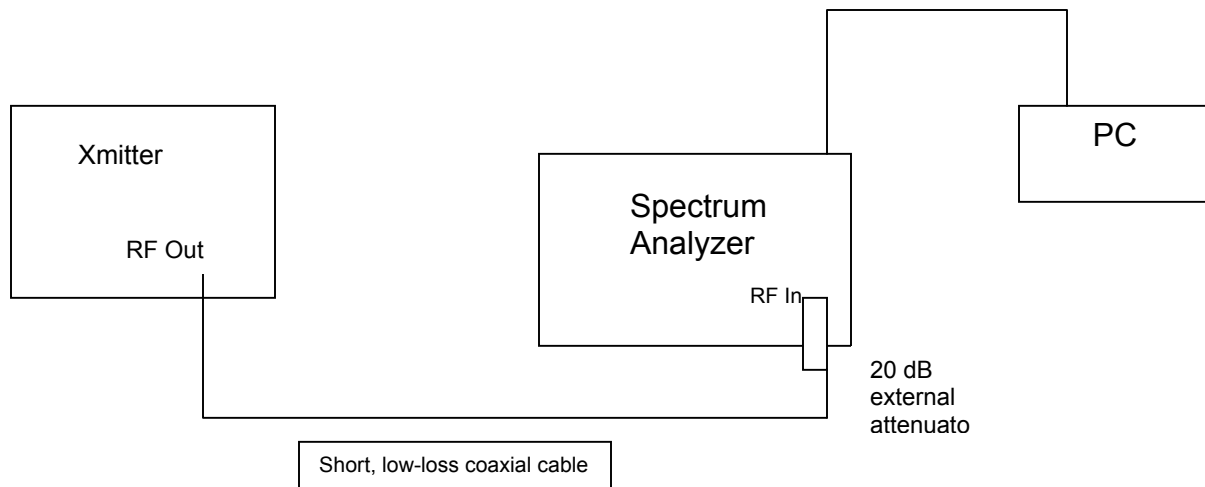
Description	Manufacturer	Model	Identifier	Last Cal	Interval
Spectrum Analyzer	Tektronix	2784	AAO	03/08/2001	12 mo
Power Meter	Hewlett Packard	E4418A	SPA	04/09/2001	12 mo
Power Sensor	Hewlett-Packard	8481H	SPB	07/10/2000	24 mo

Test Description

Requirement: Per 47 CFR 90.217(b), any emission appearing on a frequency 25 kHz or more removed from the assigned frequency must be attenuated at least 30 dB below the un-modulated carrier. Per 47 CFR 2.1051, the spurious emissions were measured at the RF output terminals with analyzer plots made for each modulation type.

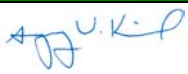
Configuration: A spectrum analyzer was used to scan from 0 to 2 GHz. A 10kHz resolution bandwidth was used below 1GHz and 1MHz above 1GHz. No video filtering was employed. A 20dB external attenuator was used on the RF input of the spectrum analyzer.

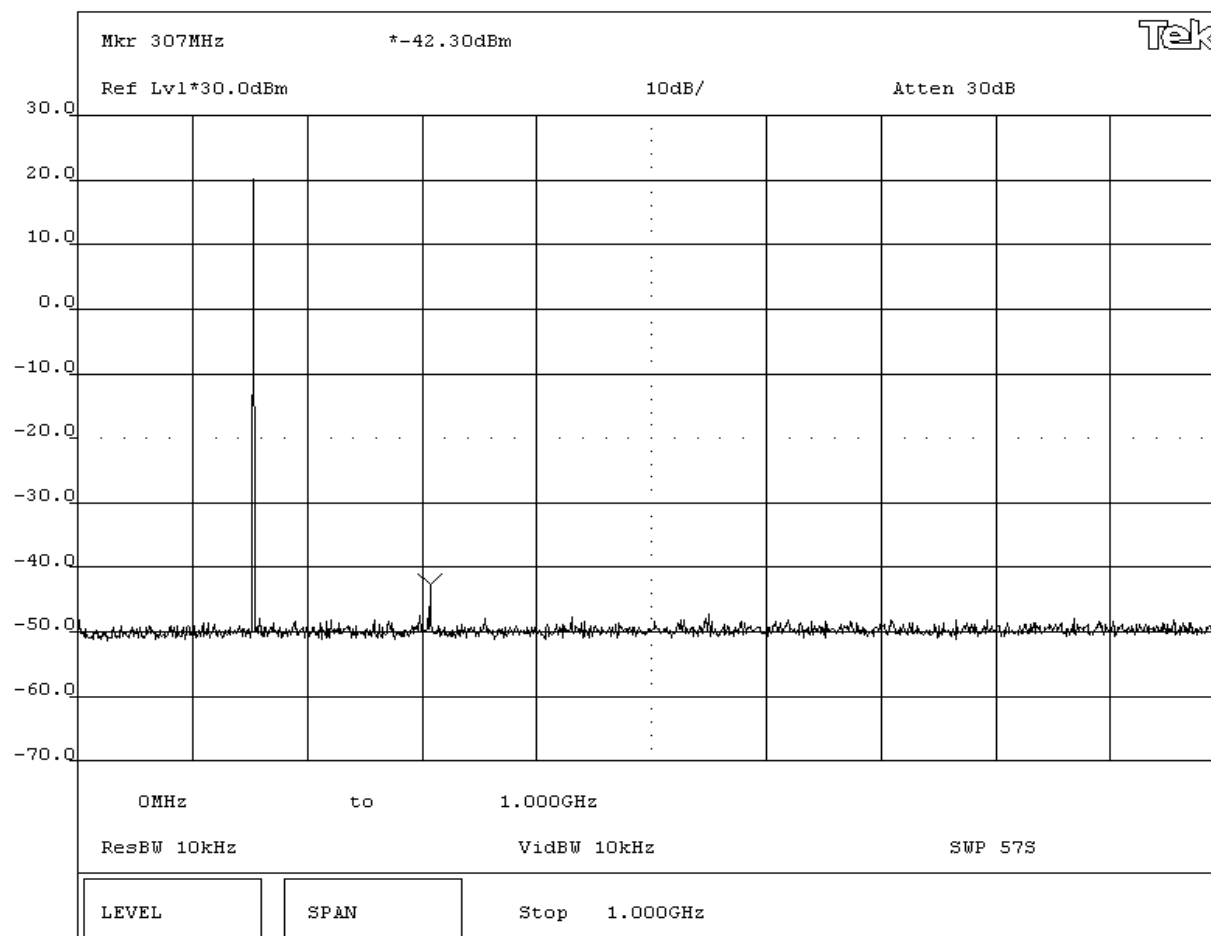
Test Setup

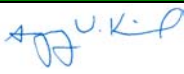


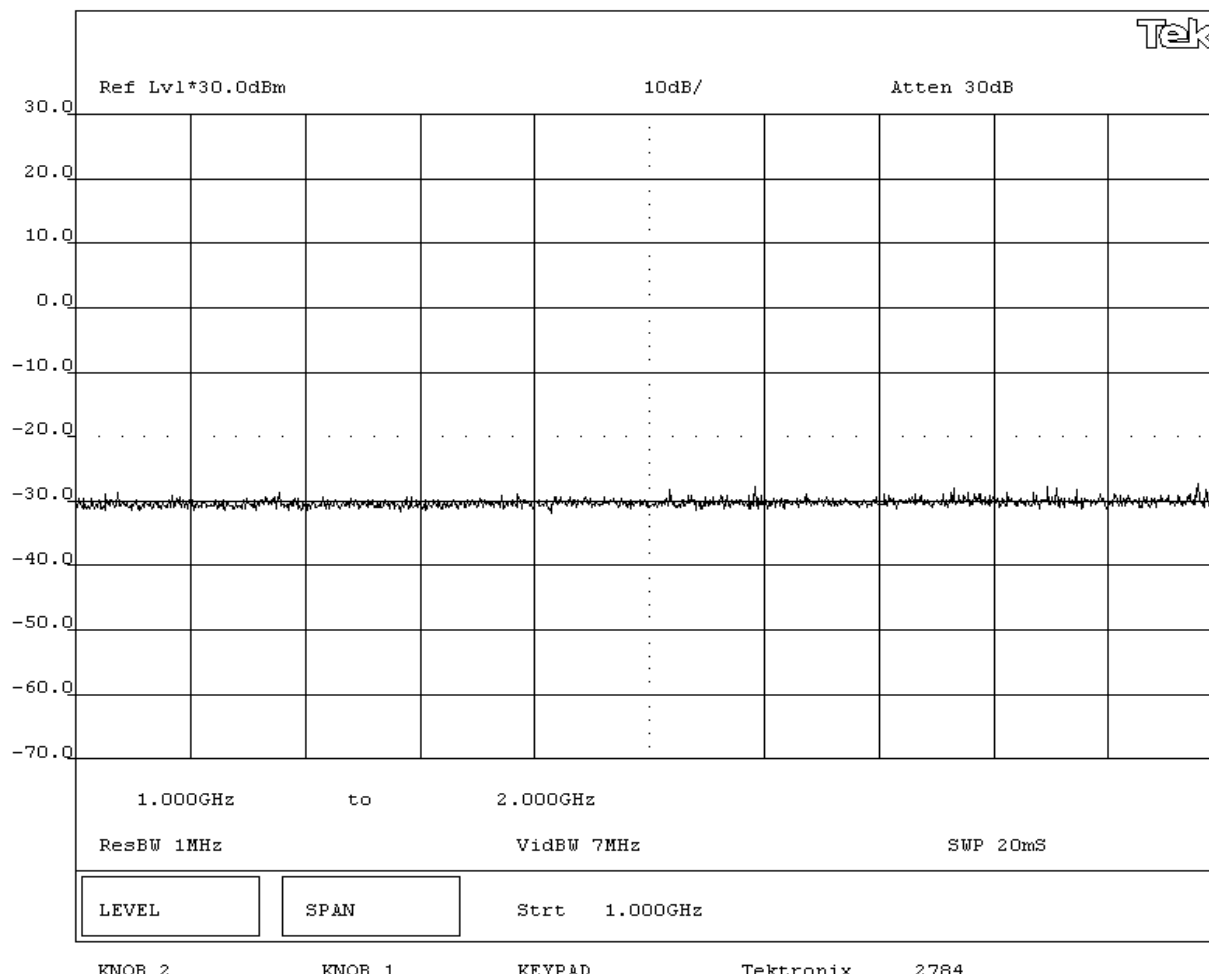
Completed by:


A handwritten signature in blue ink, appearing to read "U.K.P." with a stylized initial "A" or "J" to the left.

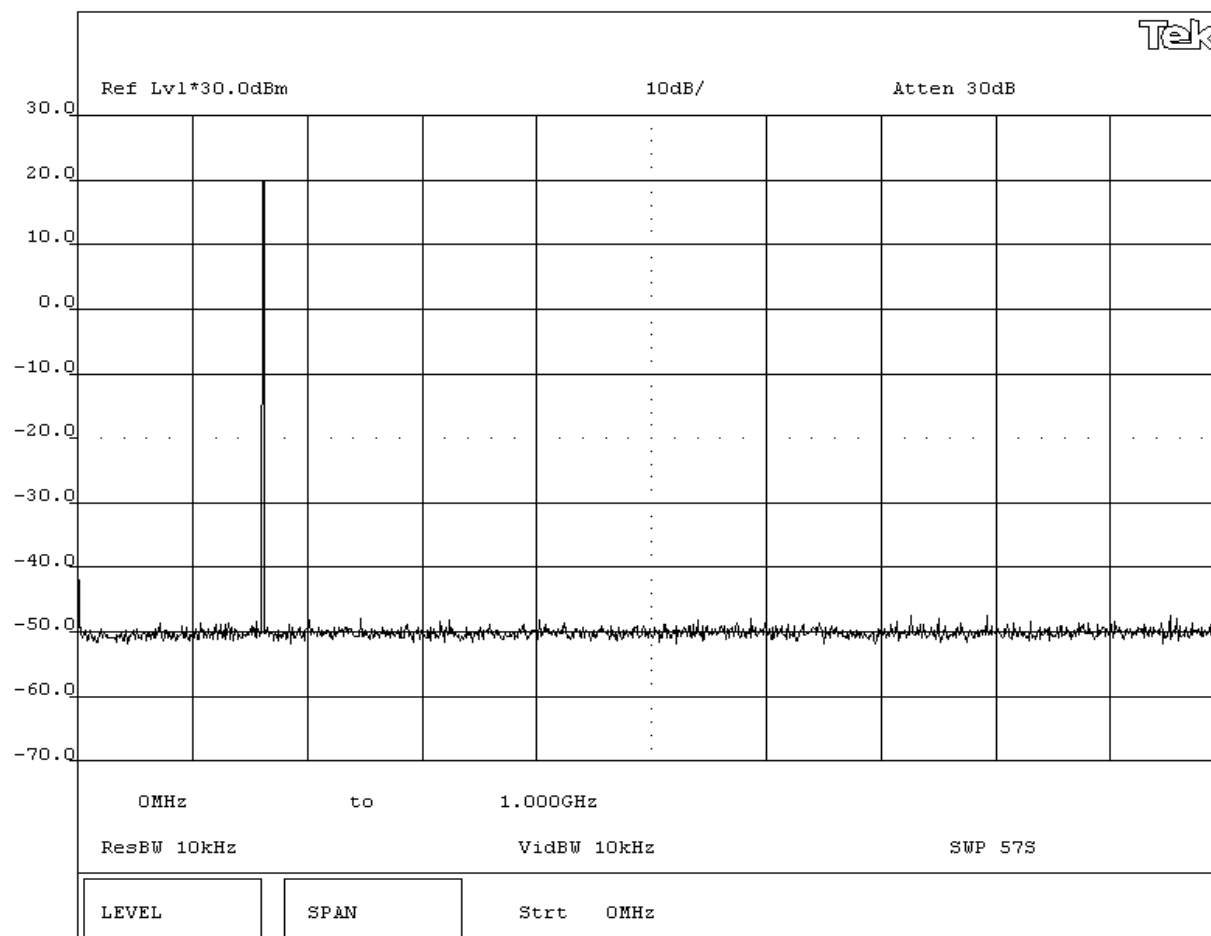
NORTHWEST EMC				EMISSIONS DATA SHEET				Rev BETA 01/30/01	
EUT: Test Box Model 1669-3				Work Order: ROTH0001					
Serial Number: 111				Date: 01/07/02					
Customer: Rothenbuhler Engineering				Temperature: 73 F					
Attendees: Herb Hainey		Tested by: Greg Kiemel		Humidity: 38% RH					
Customer Ref. No.: N/A		Power: N/A		Job Site: SU03					
TEST SPECIFICATIONS									
Specification: 47 CFR 2.1051 & 90.217(b)		Year: Most Current		Method: TIA/EIA-603		Year: 1993			
SAMPLE CALCULATIONS									
COMMENTS									
EUT OPERATING MODES									
1200 baud, random data. Max and only data rate.									
DEVIATIONS FROM TEST STANDARD									
None									
REQUIREMENTS									
Maximum level of any spurious emission outside of the authorized band is 30 dB down from the fundamental									
RESULTS									
Pass									
SIGNATURE									
<div style="text-align: center;">  Tested By: _____ </div>									
DESCRIPTION OF TEST									
Antenna Conducted Spurious Emissions - Low Channel 0MHz-1GHz									

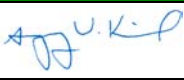


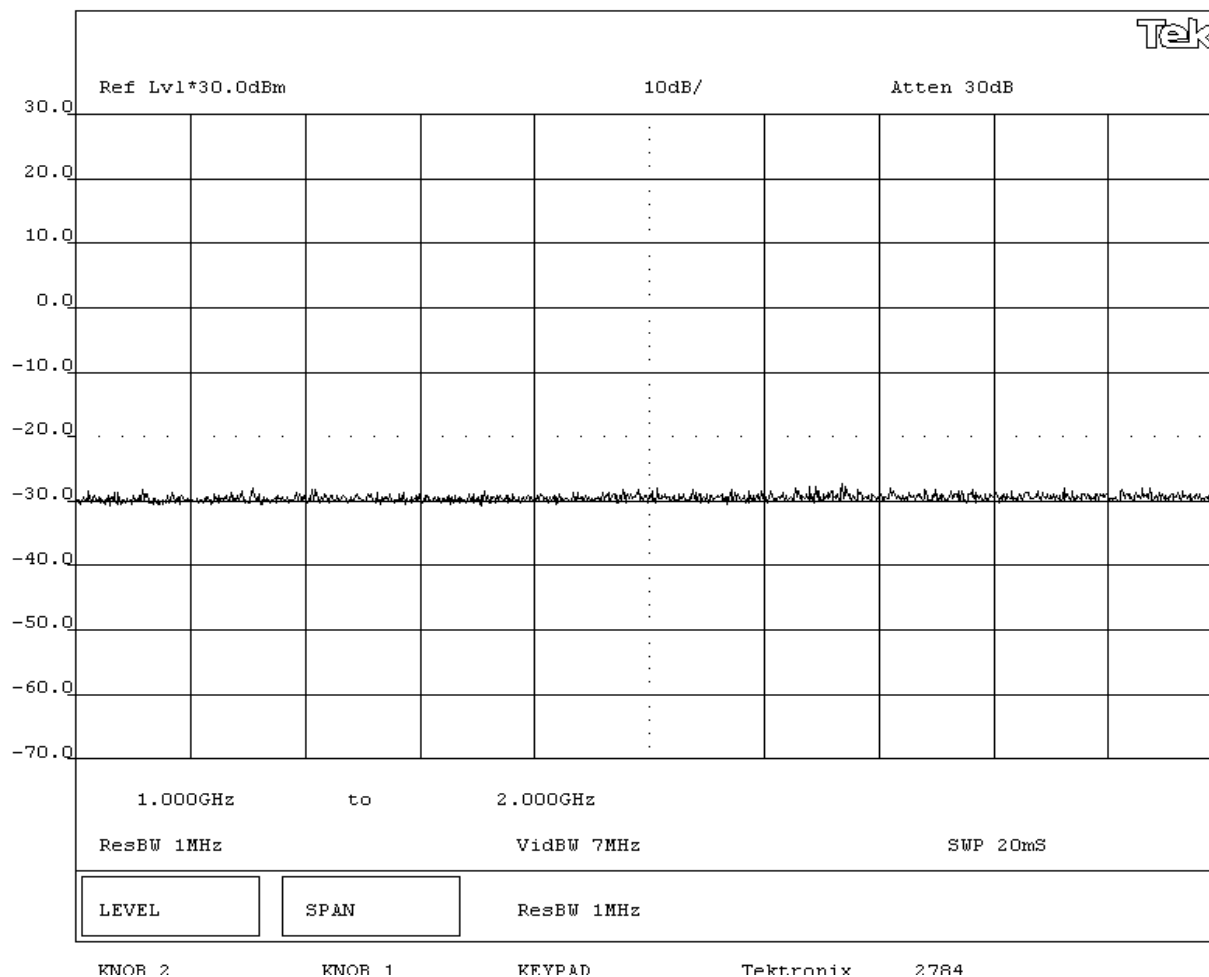
NORTHWEST EMC		EMISSIONS DATA SHEET		Rev BETA 01/30/01	
EUT:	Test Box Model 1669-3			Work Order:	ROTH0001
Serial Number:	111			Date:	01/07/02
Customer:	Rothenbuhler Engineering			Temperature:	73 F
Attendees:	Herb Hainey	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	N/A	Job Site:	SU03
TEST SPECIFICATIONS					
Specification:	47 CFR 2.1051 & 90.217(b)	Year:	Most Current	Method:	TIA/EIA-603
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1200 baud, random data. Max and only data rate.					
DEVIATIONS FROM TEST STANDARD					
None					
REQUIREMENTS					
Maximum level of any spurious emission outside of the authorized band is 30 dB down from the fundamental					
RESULTS					
Pass					
SIGNATURE					
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">  </div> <div> Tested By: _____ </div> </div>					
DESCRIPTION OF TEST					
Antenna Conducted Spurious Emissions - Low Channel 1GHz-2GHz					




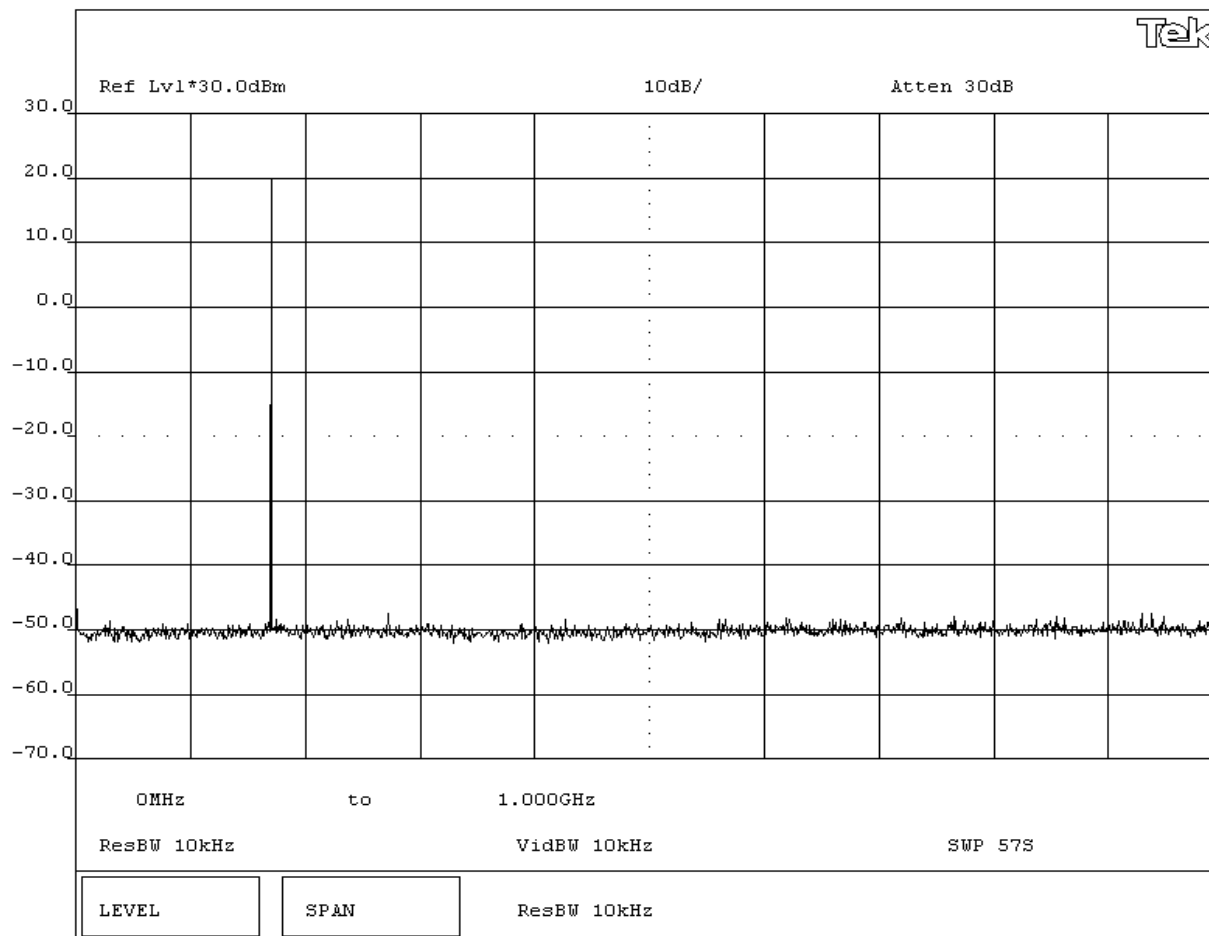
NORTHWEST EMC		EMISSIONS DATA SHEET		Rev BETA 01/30/01	
EUT:	Test Box Model 1669-3			Work Order:	ROTH0001
Serial Number:	111			Date:	01/07/02
Customer:	Rothenbuhler Engineering			Temperature:	73 F
Attendees:	Herb Hainey	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	N/A	Job Site:	SU03
TEST SPECIFICATIONS					
Specification:	47 CFR 2.1051 & 90.217(b)	Year:	Most Current	Method:	TIA/EIA-603
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DEVIATIONS FROM TEST STANDARD					
None					
REQUIREMENTS					
Maximum level of any spurious emission outside of the authorized band is 30 dB down from the fundamental					
RESULTS					
Pass					
SIGNATURE					
<div style="text-align: center;">  Tested By: _____ </div>					
DESCRIPTION OF TEST					
Antenna Conducted Spurious Emissions - Mid Channel 0MHz-1GHz					



NORTHWEST EMC				EMISSIONS DATA SHEET				Rev BETA 01/30/01	
EUT: Test Box Model 1669-3				Work Order: ROTH0001					
Serial Number: 111				Date: 01/07/02					
Customer: Rothenbuhler Engineering				Temperature: 73 F					
Attendees: Herb Hainey		Tested by: Greg Kiemel		Humidity: 38% RH					
Customer Ref. No.: N/A		Power: N/A		Job Site: SU03					
TEST SPECIFICATIONS									
Specification: 47 CFR 2.1051 & 90.217(b)		Year: Most Current		Method: TIA/EIA-603		Year: 1993			
SAMPLE CALCULATIONS									
COMMENTS									
EUT OPERATING MODES									
1200 baud, random data. Max and only data rate.									
DEVIATIONS FROM TEST STANDARD									
None									
REQUIREMENTS									
Maximum level of any spurious emission outside of the authorized band is 30 dB down from the fundamental									
RESULTS									
Pass									
SIGNATURE									
<div style="text-align: center;">  Tested By: _____ </div>									
DESCRIPTION OF TEST									
Antenna Conducted Spurious Emissions - Mid Channel 1GHz-2GHz									



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EUT:	Test Box Model 1669-3			Work Order:	ROTH0001
Serial Number:	111			Date:	01/07/02
Customer:	Rothenbuhler Engineering			Temperature:	73 F
Attendees:	Herb Hainey	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	N/A	Job Site:	SU03
TEST SPECIFICATIONS					
Specification:	47 CFR 2.1051 & 90.217(b)	Year:	Most Current	Method:	TIA/EIA-603
				Year:	1993
SAMPLE CALCULATIONS					
COMMENTS					
EUT OPERATING MODES					
1200 baud, random data. Max and only data rate.					
DEVIATIONS FROM TEST STANDARD					
None					
REQUIREMENTS					
Maximum level of any spurious emission outside of the authorized band is 30 dB down from the fundamental					
RESULTS					
Pass					
SIGNATURE					
<div style="text-align: center;">  Tested By: _____ </div>					
DESCRIPTION OF TEST					
Antenna Conducted Spurious Emissions - High Channel 0MHz-1GHz					



NORTHWEST EMC		EMISSIONS DATA SHEET		Rev BETA 01/30/01	
EUT:	Test Box Model 1669-3			Work Order:	ROTH0001
Serial Number:	111			Date:	01/07/02
Customer:	Rothenbuhler Engineering			Temperature:	73 F
Attendees:	Herb Hainey	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	N/A	Job Site:	SU03
TEST SPECIFICATIONS					
Specification:	47 CFR 2.1051 & 90.217(b)	Year:	Most Current	Method:	TIA/EIA-603
				Year:	1993
SAMPLE CALCULATIONS					
COMMENTS					
EUT OPERATING MODES					
1200 baud, random data. Max and only data rate.					
DEVIATIONS FROM TEST STANDARD					
None					
REQUIREMENTS					
Maximum level of any spurious emission outside of the authorized band is 30 dB down from the fundamental					
RESULTS					
Pass					
SIGNATURE					
<div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div>Tested By: </div> </div>					
DESCRIPTION OF TEST					
Antenna Conducted Spurious Emissions - High Channel 1GHz-2GHz					

