

Test Report S/N:	102604KBC-1	Issue 1.0		
Test Date(s):	21Sept04 - 14Oct04, 22Oct04			
Test Type(s):	FCC §15.247	IC RSS-210 Issue 5		
Lab Registration(s):	FCC #714830	IC Lab	File #3874	

# FCC PART 15(C) EMC TEST REPORT FOR THE ITRONIX RUGGED LAPTOP PC MODEL: IX260PNLA555BT WITH CIRRONET BT2022 BLUETOOTH TRANSMITTER AND INTERNAL RANGESTAR SURFACE-MOUNT ANTENNA CO-LOCATED WITH SENAO NL-3054MP 802.11B/G 2.4 GHz DSSS WLAN MINI-PCI CARD AND INTERNAL RANGESTAR SURFACE-MOUNT ANTENNA CO-LOCATED WITH SIERRA WIRELESS AIRCARD 555/550 DUAL-BAND CDMA PCMCIA MODEM AND ITRONIX EXTERNAL SWIVEL DIPOLE ANTENNA

TRSN 102604KBC-T576-E15B Issue 1.0

Celltech Compliance Testing & Engineering Lab (Celltech Labs Inc.) 1955 Moss Court Kelowna, BC Canada V1Y 9L3

October 22, 2004



Test Report S/N:	102604KBC-1	Issue 1.0		
Test Date(s):	21Sept04 - 14Oct04, 22Oct04			
Test Type(s):	FCC §15.247	247 IC RSS-210 Issue 5		
Lab Registration(s):	FCC #714830 IC Lab File #387			

		DECLARATIO	ON O	F COMPL		CE
Tes: 195 Kelo Can Phone: 250 Fax: 250 e-mail: info	CELLTECH LABS INC. Testing and Engineering Services 1955 Moss Court Kelowna, B.C. Canada V1Y 9L3hone:250-448-7047 250-448-7048mail:info@celltechlabs.com				nform	ation ITRONIX CORPORATION 801 South Stevens Street Spokane, WA 99204 United States
Laboratory Registratio	n No.(s):	FCC: 714830			IC:	IC 3874
Rule Part(s):	<u>):</u> FCC: §15.247; §2.1091; §1.131				IC:	RSS-210 Issue 5
Device Classification:	FCC:	CC: Spread Spectrum Transm		ter (DSS)	IC:	Low Power Licence-Exempt Transmitter
Device Identification:	FCC ID:	KBCIX260PNLA555	5BT		IC:	1943A-IX260Pb
DUT Description:						
Model:	IX2	60PNLA555BT				
Device Description:	Ruç	gged Laptop PC with in	nternal (	Cirronet BT20	22 Blue	etooth Transmitter
Co-located Transmitter	(s). Ser	Senao NL-3054MP 802.11b/g 2.4 GHz DSSS WLAN Mini-PCI Card				
	Sie	Sierra Wireless AirCard 555/550 Dual-Band PCS/Cellular CDMA PCMCIA Modem				
Tx Frequency Range:	240	2 - 2480 MHz (Bluetoo	oth)			
Max. RF Output Power:	0.03	364 Watts / 15.61 dBm	n (Peak	Conducted)		
Mode(s) of Operation:	Fre	quency Hopping Sprea	ad Spec	trum (FHSS)		
Modulation Type(s):	ulation Type(s): GFSK 1 Mbps 0.5 BT Gaussian					
	Blu	etooth: RangeStar P/N	N: 1009	29 Internal S	urface-	Mount (upper left side rear of LCD Display)
Antenna Type(s):	WL	AN: RangeStar P/N: 1	00929	Internal Surfa	ace-Mo	ount (upper right side rear of LCD Display)
	CD	MA: Itronix IX260+ Ex	ternal S	Swivel Dipole	(upper	right side edge of LCD Display)
Power Supply:	90 \	Watt AC Power Adapte	er			

This wireless mobile device has demonstrated compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in FCC 47 CFR Part 15.247 and Industry Canada RSS-210 Issue 5, and ANSI TIA/EIA-603-B-2002.

I attest to the accuracy of the data. All measurements reported herein were performed by me or were under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

This test report shall not be reproduced partially, or in full, without the prior written approval of Celltech Labs Inc. The results and statements contained in this report pertain only to the device(s) evaluated.

D. Pupe

Russell Pipe Senior Compliance Technologist Celltech Labs Inc.

Duane M. Friesen EMC Manager Celltech Labs Inc.



Applicant:	Itronix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA							ITRONIX
2005 Celltech Labs Inc							



Test Report S/N:	102604KBC-T576-E15B		Issue 1.0	
Test Date(s):	21Sept04 - 14Oct04, 22Oct04			
Test Type(s):	FCC §15.247	IC RSS-210 Issue 5		
Lab Registration(s):	FCC #714830	IC Lab File #3874		

# **TABLE OF CONTENTS**

1.0 SCOPE
2.0 REFERENCES
2.1 Normative References
3.0 TERMS AND DEFINITIONS
4.0 FACILITIES AND ACCREDITATIONS
5.0 GENERAL INFORMATION
5.1 Applicant Information
5.2 DUT Description
5.3 Co-Located Equipment9
5.4 Cable Descriptions
5.5 Support Equipment
5.6 Clock Frequencies
5.7 Mode(s) of Operation Tested 10
5.8 Configuration Description
6.0 PASS/FAIL CRITERIA
APPENDICES
Appendix A - DUT Photographs
Appendix B - Conducted Powerline Emissions Measurement 14
Appendix C - Peak Conducted RF Output Power Measurement
Appendix D - Adjacent Channel Separation
Appendix E - Number of Hopping Channels
Appendix F - Channel Dwell Time
Appendix G - 20 dB Bandwidth Measurement27
Appendix H - Radiated Spurious Emissions Measurement
Appendix I - Restricted Band Emissions Measurement
Appendix J - Maximum Permissible Exposure Calculation
END OF DOCUMENT

 Applicant:
 Itronix Corporation
 Model:
 IX260PNLA555BT
 FCC ID:
 KBCIX260PNLA555BT
 IC ID:
 1943A-IX260Pb

 Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA
 IC ID:
 1943A-IX260Pb

 2005 Celltech Labs Inc.
 This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc.
 3 of 45



Test Report S/N:	102604KBC-T	Issue 1.0	
Test Date(s):	21Sept04 - 14Oct04, 22Oct04		
Test Type(s):	FCC §15.247 IC RSS-210 Issue		
Lab Registration(s):	FCC #714830	IC Lab	File #3874

# **FIGURES**

Figure B-1 - Setup Drawing	
Figure C-1 - Setup Drawing	
Figure H-1 - Setup Drawing	
Figure I-1 - Setup Drawing	
rigure r r octup Drawing	

# PHOTOGRAPHS

Photograph A-1 - Front of Open IX260+ Laptop PC	13
Photograph A-2 - Back of Open IX260+ Laptop PC	13
Photograph A-3 - Left Side of Open IX260+ Laptop PC	13
Photograph A-4 - Right Side of Open IX260+ Laptop PC	13
Photograph B-1 - AC Powerline Conducted Emission Configuration	16
Photograph B-2 - AC Powerline Conducted Emission Cable Placement	16
Photograph H-1 - 3115 Horn Antenna (1-18GHz)	30
Photograph H-2 - 3160-09 Horn Antenna (18-26GHz)	
Photograph I-1 - Loop Antenna (10kHz - 30MHz)	
Photograph I-2 - Bilog Antenna (30MHz - 1 GHz)	
Photograph I-3 - Horizontal Polarization (30MHz - 1 GHz)	
Photograph I-4 - Vertical Polarization (30MHz - 1 GHz)	
Photograph I-5 - Front of Radiated Emission Configuration	
Photograph I-6 - Back of Radiated Emission Configuration	

Applicant:	Itronix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA						ITRONIX	
2005 Celltec	2005 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc. 4 of 45						4 of 45



Test Report S/N:	102604KBC-1	Issue 1.0		
Test Date(s):	21Sept04 - 14Oct04, 22Oct04			
Test Type(s):	FCC §15.247	5.247 IC RSS-210 Issue 5		
Lab Registration(s):	FCC #714830	IC Lab	File #3874	

		TEST SUMMAR	Y			
	Referen	nced Standard: FCC CFF	R Title 47 Part 15			
<u>Appendix</u>	Test Description	Procedure Reference	Limit Reference	Test Start Date	<u>Test End</u> Date	<u>Result</u>
В	Powerline Conducted Emissions	ANSI C63.4	§15.207	14Oct04	14Oct04	Pass
С	Peak Conducted RF Power	FCC 97-114	§15.247 (b) (1)	21Sep04	21Sep04	Pass
D	Adjacent Channel Separation	Note 1	§15.247 (a) (1)	Note 1	Note 1	Pass
E	Number of Hopping Channels	Note 1	§15.247 (a) (1) (iii)	Note 1	Note 1	Pass
F	Channel Dwell Time	Note 1	§15.247 (a) (1) §15.247 (a) (1) (iii)	Note 1	Note 1	Pass
G	20 dB Bandwidth	Note 1	§15.247 (a) (1) (iii)	Note 1	Note 1	Pass
н	Radiated Spurious Emissions	FCC 97-114	§15.247(c)	22Sep04	01Oct04	Pass
			310.211(0)	2200001	22Oct04	1 466
	Restricted Band Emissions	FCC 97-114	§15.205 (a), (b)	22Sep04	01Oct04	Pass
		10001114	§15.209 (a)	2200004	22Oct04	1 400
J	Maximum Permissible Exposure	FCC CFR 47 § 2.1091 IEEE Std C95.1-1999	§1.1310 Table 1 (b)	13Oct04	13Oct04	Pass
-	<u>Refe</u>	renced Standard: IC RS	S-210 Issue 5	-		
В	Powerline Conducted Emissions	RSS-212, ANSI C63.4	RSS-210 §6.6	14Oct04	14Oct04	Pass
С	Peak Conducted RF Power	RSS-210 § 10	RSS-210 §6.2.2 (o)(a3)	21Sep04	21Sep04	Pass
D	Adjacent Channel Separation	RSS-210 § 10	RSS-210 A1 §I (ii)	Note 1	Note 1	Pass
E	Number of Hopping Channels	RSS-210 § 10	RSS-210 A1 §I (ii)	Note 1	Note 1	Pass
F	Channel Dwell Time	RSS-210 § 10	RSS-210 A1 §I (ii)	Note 1	Note 1	Pass
G	20 dB Bandwidth	RSS-210 § 10	RSS-210 A1 §I (ii)	Note 1	Note 1	Pass
	Dedicted Courieurs Enviroinne			000 am0.4	01Oct04	Dees
Н	Radiated Spurious Emissions	RSS-212, ANSI C63.4	RSS-210 §6.2.2 (o)(e1)	22Sep04	22Oct04	Pass
	Restricted Band Emissions	RSS-212, ANSI C63.4	RSS-210 §6.3	22Sep04	01Oct04	Pass
, , , , , , , , , , , , , , , , , , ,		100-212, ANOI 000.4	100-210 30.0	2200004	22Oct04	1 000
J	Maximum Permissible Exposure	RSS-102	RSS-210 §14 Safety Code 6 2.2.1(a) Table 5	13Oct04	13Oct04	Pass

Note 1: The test procedures used and the results obtained are referenced to the ACS Test Report Number 03-0193-15BC.

#### **REVISION LOG**

Issue	Description	Implemented By	Implementation Date	
1.0	Initial Release	Jon Hughes	22Oct04	

#### SIGNATORIES

Prepared By	D2	Oct. 22, 2004
Name/Title	Duane M. Friesen, C.E.T. / EMC Manager	Date
Approved By	H	Oct. 22, 2004
Name/Title	Jon Hughes / General Manager	Date

 Applicant:
 Itronix Corporation
 Model:
 IX260PNLA555BT
 FCC ID:
 KBCIX260PNLA555BT
 IC ID:
 1943A-IX260Pb

 Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA
 IC ID:
 1943A-IX260Pb

 2005 Celltech Labs Inc.
 This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc.
 5 of 45



Test Report S/N:	Test Report S/N: 102604KBC-T576-E15B		Issue 1.0	
Test Date(s):	: 21Sept04 - 14Oct04, 22Oct04			
Test Type(s):	FCC §15.247	IC RSS-210 Issue \$		
Lab Registration(s):	FCC #714830	IC Lab	File #3874	

# 1.0 <u>SCOPE</u>

This report outlines the measurements made and results collected during electromagnetic emissions testing of the Itronix Corporation Rugged Laptop PC including the internal Cirronet BT2022 Bluetooth Transmitter with internal surface-mount antenna located in the upper left side rear of the LCD display. The DUT also incorporates an internal Senao NL-3054MP 802.11b/g 2.4 GHz DSSS WLAN Mini-PCI Card with internal surface-mount antenna located in the upper right side rear of the LCD display. The DUT also incorporates an internal co-located Sierra Wireless AirCard 555/550 Dual-Band CDMA PCMCIA Modem with external swivel dipole antenna located at the upper right side edge of the LCD display. The Cirronet BT2022 Bluetooth and the Senao NL-3054MP 802.11b/g WLAN can transmit simultaneously. The Cirronet BT2022 Bluetooth and the Sierra Wireless AirCard 555/550 CDMA Modem can transmit simultaneously. The Senao NL-3054MP 802.11b/g WLAN and the Sierra Wireless AirCard 555/550 CDMA PCMCIA Modem were disabled during the Cirronet BT2022 Bluetooth measurements referenced in this report. Please refer to the Supplementary EMC test reports for simultaneous transmit measurement data. The results were applied against the EMC requirements and limits outlined in the technical rules and regulations set forth in the Federal Communication Commission Code of Federal Regulations Title 47 Part 15 Subpart C, and Industry Canada Radio Standards Specification RSS-210 Issue 5.

# 2.0 <u>REFERENCES</u>

#### 2.1 Normative References

	5
ANSI/ISO 17025:1999	General Requirements for competence of testing and calibration laboratories
IEEE/ANSI C63.4-2003	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
IEEE/ANSI Std C95.1-1999	American National Standard Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields
CFR Title 47 Part 2:2003	Code of Federal Regulations Title 47: Telecommunication Part 2: Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
CFR Title 47 Part 15:2003	Code of Federal Regulations Title 47: Telecommunication Part 15: Radio Frequency Devices
IC Spectrum Management & Telecommunications Policy	Radio Standards Specification RSS-212 Issue 1 (Provisional) - Test Facilities & Test Methods for Radio Equipment RSS-210 Issue 5 - Low Power Licence-Exempt Radiocommunication Devices: November 2001 & Amendment November 30, 2002 RSS-102 Issue 1 (Provisional) - Evaluation Procedure for Mobile and Portable Radio Transmitters with respect to Health Canada's Safety Code 6 for Exposure of Humans to Radio Frequency Fields
ACS Test Report	FCC Part 15 Certification Test Report 2.4 GHz Frequency Hopping Spread Spectrum (Modular Approval) ACS Report Number 03-0193-15BC Issue Date: January 5, 2004

Applicant: Itronix Corporation Model: IX260PNLA555BT FCC ID: KBCIX260PNLA555BT IC ID: 1943A-IX260Pb Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA ITRONIX<sup>®</sup> 6 of 45



Test Report S/N:	102604KBC-T	576-E15B	Issue 1.0
Test Date(s):	21Sept04 - 14Oct04, 22Oct04		
Test Type(s):	Type(s): FCC §15.247 IC RSS-210 Issue 5		
Lab Registration(s):	FCC #714830	IC Lab	File #3874

# 3.0 TERMS AND DEFINITIONS

AVG	Average
CFR	Code of Federal Regulations
dB	decibel
dBm	dB referenced to 1 mW
dBuV	dB referenced to 1 uV
DUT	Device under Test
dBc	dB down from carrier
EBW	Emission Bandwidth
EMC	Electromagnetic Compatibility
FCC	Federal Communication Commission
FHSS	Frequency Hopping Spread Spectrum
HP	Hewlett Packard
HPF	High Pass Filter
Hpol	Horizontal Polarization
Hz	Hertz
IC	Industry Canada
KHz	kilohertz
LNA	Low Noise Amplifier
m	meter
MHz	Megahertz
Mbps	megabits per second
na	not applicable
n/a	not available
PK	Peak
PPSD	Peak Power Spectral Density
QP	Quasi-peak
RBW	Resolution Bandwidth
R&S	Rohde & Schwarz
RSS	Radio Standard Specification
SA	Spectrum Analyzer
VBW	Video Bandwidth
SA	Spectrum Analyzer
VBW	Video Bandwidth
Vpol	Vertical Polarization
WLAN	Wireless Local Area Network

Applicant:	Itronix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged L	Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA		<b>ITRONIX</b>				
2005 Celltec	2005 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc. 7 of 45			7 of 45			



Test Report S/N:	Test Report S/N: 102604KBC-T576-E15B		Issue 1.0
Test Date(s):	21Sept04 - 14Oct04, 22Oct04		
Test Type(s):	FCC §15.247	IC RSS-2	210 Issue 5
Lab Registration(s):	FCC #714830	IC Lab	File #3874

# 4.0 FACILITIES AND ACCREDITATIONS

The facilities used in collecting the test results outlined in this report are located at 1955 Moss Court, Kelowna, British Columbia, Canada, V1Y 9L3. The radiated and conducted emissions sites conform with the requirements set forth in ANSI C63.4 and are filed and listed with the FCC under Registration Number 714830 and Industry Canada under File Number IC 3874.

# 5.0 GENERAL INFORMATION

## 5.1 Applicant Information

Company Name:	Itronix Corporation
ddress:	801 South Stevens Street
	Spokane, WA 99204
	United States

## 5.2 DUT Description

The DUT consisted of the Rugged Laptop PC with the Cirronet BT2022 Bluetooth Transmitter connected to the RangeStar Internal Surface-Mount Antenna installed in the upper left side rear of the LCD display. Co-located within the Rugged Laptop PC is a Senao NL-3054MP 802.11b/g 2.4 GHz DSSS WLAN Mini-PCI Card connected to the RangeStar Internal Surface-Mount Antenna installed in the upper right side rear of the LCD display. The DUT also incorporates an internal co-located Sierra Wireless AirCard 555/550 Dual-Band CDMA PCMCIA Modem with external swivel dipole antenna located at the upper right side edge of the LCD display. Photographs of the DUT placement and construction are shown in Appendix A.

Device:	Rugged La	Rugged Laptop PC		
Model:	IX260PNLA555BT			
Serial Number:	ZZGEG419	96ZZ6473		
Identifier(s): FCC ID:		KBCIX260PNLA555BT	IC:	1943A-IX260Pb
Power Source:	Delta Elect	nics Model ADP-90AB Rev B 90 Watt AC-DC power supply		

Device:         2.4GHz FHSS Bluetooth Transmitter				
Model:	Cirronet BT2022			
Serial Number:	n/a			
Rule Part(s):	FCC:	§15.247; §2.1091; §1.1310	IC:	RSS-210 Issue 5
Classification:	FCC:	Spread Spectrum Transmitter (DSS)	nitter (DSS) IC: Low Power Licence-Exempt Tra	
Power Source:	Powered from the internal PC power supply			

Device:	Internal Surface-Mount Antenna (upper left side rear of LCD display)
Model:	RangeStar P/N: 100929
Gain:	+4.5 dBi

 Applicant:
 Itronix Corporation
 Model:
 IX260PNLA555BT
 FCC ID:
 KBCIX260PNLA555BT
 IC ID:
 1943A-IX260Pb

 Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA
 Image: Constant Con

2005 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc.

8 of 45



Test Report S/N:	102604KBC-1	Issue 1.0		
Test Date(s):	21Sept04 - 14Oct04, 22Oct04			
Test Type(s):	FCC §15.247 IC RSS-210 Issue			
Lab Registration(s):	FCC #714830	IC Lab	File #3874	

# 5.3 Co-Located Equipment

Device:	2.4GHz DSSS WLAN Mini-PCI Card (802.11b/g)
Model:	Senao NL-3054MP
Serial Number:	048253621
Antenna Type:	Internal Surface-Mount Antenna (upper right side rear of LCD display)
Model:	RangeStar P/N: 100929
Gain:	+4.5 dBi
Device:	Dual-Band PCS/Cellular CDMA PCMCIA Modem
Device: Model:	Dual-Band PCS/Cellular CDMA PCMCIA Modem         Sierra Wireless AirCard 555/550
Model:	Sierra Wireless AirCard 555/550
Model: Serial Number:	Sierra Wireless AirCard 555/550       63013A85
Model: Serial Number: Antenna Type:	Sierra Wireless AirCard 555/550         63013A85         External Swivel Dipole Antenna (upper right side edge of LCD display)
Model: Serial Number: Antenna Type: Model:	Sierra Wireless AirCard 555/550         63013A85         External Swivel Dipole Antenna (upper right side edge of LCD display)         Itronix IX260+

Device:	GPS Receiver Module and Antenna (Receive only)			
Model:	Leadtek P/N GPS9547			

# 5.4 Cable Descriptions

ROUT	ROUTING Le		Model	Model Terminations		Shield Type	Shield Termination		Suppression
From	То	m		End 1	End 2		End 1	End 2	
PC Fire Wire Port	Unterminated	1.0	Copartner E119932	IEEE-1528	Fire wire	n/a	n/a	n/a	None
PC modem port	Unterminated	1.0	n/a	RJ-11	RJ-11	None	na	na	None
PC Ethernet Port	Ethernet Hub	1.0	N/a	RJ-45	RJ-45	None	na	na	None

# 5.5 Support Equipment

The following equipment was used in support of the DUT.

CO-LOCATED SUPPORT EQUIPMENT LIST					
MANUFACTURER MODEL DESCRIPTION					
D-Link	DE-809TC/	Ethernet hub			
YNG YUH	YP-040	Hub power supply			
MLi	699	Speakers			
Polk Audio	n/a	Speaker-microphone			
DeLorme	Tripmate	GPS Receiver			
Intel	CS-430	Camera			
Logitech	M-S34	Mouse			

 Applicant:
 Itronix Corporation
 Model:
 IX260PNLA555BT
 FCC ID:
 KBCIX260PNLA555BT
 IC ID:
 1943A-IX260Pb

 Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA
 Image: Constant Cons

ITRONIX
 9 of 45

2005 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc.



Test Report S/N:	102604KBC-1	Issue 1.0		
Test Date(s):	21Sept04 - 14Oct04, 22Oct04			
Test Type(s):	FCC §15.247	IC RSS-210 Issue 5		
Lab Registration(s):	FCC #714830	IC Lab	File #3874	

#### **5.6 Clock Frequencies**

## 5.6.1 DUT Clock Frequencies

Device:	Rugged Laptop PC
Clocks:	1.6 GHz processor
Device:	2.4GHz FHSS Cirronet Bluetooth
Clocks:	n/a
Device:	Internal Surface-Mount Antenna
Clocks:	None

# 5.6.2 Co-Located Clock Frequencies

Device:	Peripherals
Clocks:	n/a

# 5.7 Mode(s) of Operation Tested

Customer supplied software was used to place the Bluetooth radio module at the appropriate channel with the power level and modulation for the specific measurement.

TX Frequency Range	2402 - 2480 MHz Ch. 0 (2402 MHz), Ch. 39 (2441 MHz) & Ch. 78 (2480 MHz) measured unless otherwise noted)
Software Power Gain Settings	Ch. 0 - 250 / 40 Ch. 39 - 250 / 44 Ch. 78 - 220 / 45
RF Peak Conducted Output Power Tested	Ch. 0 - +15.40 dBm Ch. 39 - +15.61 dBm Ch. 78 - +15.34 dBm
Modulation Type	GFSK 0.5 BT Gaussian
Modulation Frequency	1000
Battery Type(s)	11.1V Lithium-Ion, 6.0Ah (Model: A2121-2)

# 5.7.1 DUT Exercising Software Description

The DUT was configured and exercised using customer supplied test software that allowed an operator to set the parameters of the Bluetooth module's operation. The settings used are described in each appendix.

 Applicant:
 Itronix Corporation
 Model:
 IX260PNLA555BT
 FCC ID:
 KBCIX260PNLA555BT
 IC ID:
 1943A-IX260Pb

 Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA
 IC ID:
 1943A-IX260Pb

 2005 Celltech Labs Inc.
 This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc.
 10 of 45



Test Report S/N:	102604KBC-1	Issue 1.0		
Test Date(s):	21Sept04 - 14Oct04, 22Oct04			
Test Type(s):	FCC §15.247	IC RSS-210 Issue 5		
Lab Registration(s):	FCC #714830	IC Lab File #3874		

# 5.8 Configuration Description

The DUT was configured, as described by the client as being representative of what would be delivered to a final customer. More specific details may be included in each appendix.

# 5.8.1 Configuration Justification

The DUT was tested in a configuration described by the client as being worse case but typical of normal use.

Prescan measurements were made with the Bluetooth transmitter set at each of three frequencies describing the frequency band of operation; low (2402 MHz), mid (2441 MHz) and high (2480 MHz) to determine the highest emission present in each band. The transmit power setting for each of these frequencies was set to closely match that defined in the modular certification. A representative modulation of 1000 was applied when applicable. Unless otherwise specified in the applicable appendices, these settings were used for the measurements described in this report.

# 6.0 PASS/FAIL CRITERIA

Unless otherwise noted in the Appendices, the pass/fail criteria is the limit set forth in the reference standards. A DUT is considered to have passed the requirements, if the data collected during the described measurement procedure is no greater than the specified limits as defined. The pass/fail statements made in this report only apply to the unit tested.

Applicant:	Itronix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged L	Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA						ITRONIX
2005 Cellter	2005 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc. 11 of 45						11 of 45



Test Report S/N:	102604KBC-1	Issue 1.0		
Test Date(s):	21Sept04 - 14Oct04, 22Oct04			
Test Type(s):	FCC §15.247 IC RSS-210 Issue			
Lab Registration(s):	FCC #714830 IC Lab File #38			

# **APPENDICES**

Applicant:	Itronix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA						ITRONIX	
2005 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc.						bs Inc.	12 of 45



Test Report S/N:	102604KBC-1	Issue 1.0			
Test Date(s):	21Sept04 - 14Oct04, 22Oct04				
Test Type(s):	FCC §15.247	IC RSS-210 Issue 5			
Lab Registration(s):	FCC #714830	IC Lab	File #3874		



Photograph A-3 - Left Side of Open IX260+ Laptop PC



Photograph A-4 - Right Side of Open IX260+ Laptop PC





Applicant:	Itronix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA							ITRONIX
2005 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc.						bs Inc.	13 of 45

Photograph A-2 - Back of Open IX260+ Laptop PC



Test Report S/N:	102604KBC-1	Issue 1.0		
Test Date(s):	21Sept04 - 14Oct04, 22Oct04			
Test Type(s):	FCC §15.247	IC RSS-210 Issue 5		
Lab Registration(s):	FCC #714830	IC Lab	File #3874	

# Appendix B - Conducted Powerline Emissions Measurement

B.1. REFERENCES	
Normative Reference Standard	CFR 47 FCC Part 15 §15.207
Procedure Reference	ANSI C63.4

# **B.2. LIMITS**

§15.207: Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each powerline and ground at the power terminal.

Frequency of Emission (MHz)	Conducted Limit (dBuV)				
	Quasi-Peak	Average			
0.15 – 0.5	66 to 56*	56 to 46*			
0.50 - 5.0	56	46			
5.0 - 30.0	60	50			

\*Decreases with the logarithm of the frequency

B.3. ENVIRONMENTAL CONDITIONS			
Temperature	+26 <u>+</u> 5 °C		
Humidity	31 % <u>+</u> 10% RH		
Barometric Pressure	101.4 kpa		

B.4. EQUIPMENT LIST							
ASSET NUMBER	MANUFACTURER	MODEL	DESCRIPTION	LAST CAL	CAL DUE		
00063	HP	85662A	Spectrum Analyzer Display	na	na		
00051	HP	8566B	Spectrum Analyzer RF Section	18May04	18May05		
00049	HP	85650A	Quasi-Peak Adapter	18May04	18May05		
00047	HP	85685A	Preselector	18May04	18May05		
00083	EMCO	3825/2	Line Impedance Stabilization Network	29Apr04	29Apr05		
00084	EMCO	3825/2	Line Impedance Stabilization Network	29Apr04	29Apr05		

Applicant:	Itronix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA							ITRONIX
2005 Colltach Labs Inc. This document is not to be reproduced in whole or in part without the written permission of Colltach Labs Inc.							



Test Report S/N:	102604KBC-1	Issue 1.0		
Test Date(s):	21Sept04 - 14Oct04, 22Oct04			
Test Type(s):	FCC §15.247	IC RSS-210 Issue 5		
Lab Registration(s):	FCC #714830	IC Lab File #3874		

B.5. MEASUREMENT EQUIPMENT SETUP					
MEASUREMENT EQUIPMENT CONNECTIONS	The conducted emissions were measured on each of the two AC powerline leads connected to the DUT's power supply brick. A two line LISN was used to make this measurement. A drawing of the equipment setup is shown in B.7				
MEASUREMENT EQUIPMENT SETTINGS	<ul> <li>Each of the monitor ports from the 2-line LISN was connected in turn to the spectrum analyzer. The port not connected to the analyzer was terminated in a 50-ohm load. A pre-scan of the peak emission levels was made of the 150 kHz – 30 MHz range split into 4 equal frequency bands. The following were the instrumentation settings:</li> <li>Spectrum Analyzer: <ul> <li>Start Frequency and Stop Frequency set by software for each of the four bands RBW: 100 kHz</li> <li>VBW: 300 kHz</li> <li>Sweep: 500 mS</li> </ul> </li> <li>Quasi-Peak Adapter: <ul> <li>Normal - Automatic Bandwidth Setting: 9 kHz</li> </ul> </li> <li>The resulting data from each band was corrected and collected by software and presented in the graphical representations shown in B.9 for the two leads.</li> <li>A defined set of frequency points of interest on each lead were used by software to</li> </ul>				
	optimize a set of readings for each type of detector (peak, quasi-peak and average). This data was corrected by the software and is presented in the tables shown in section B.9.				

Applicant:	Itronix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA						ITRONIX	
2005 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc.						bs Inc.	15 of 45



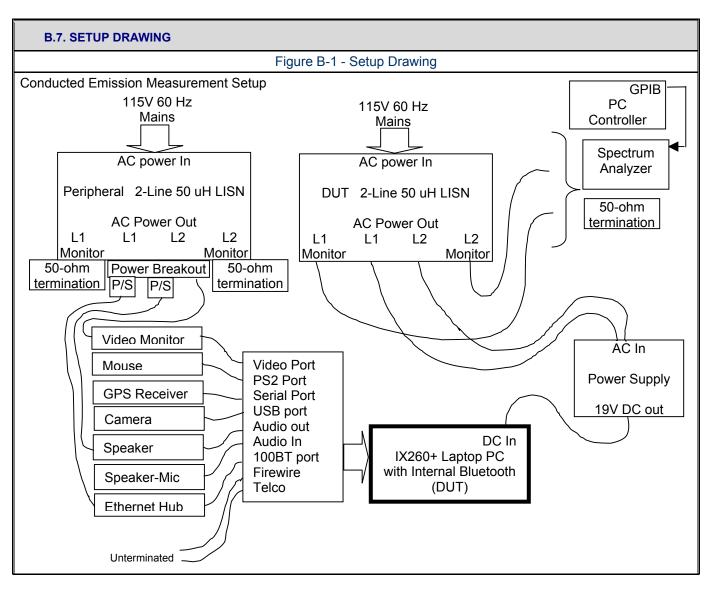
Test Report S/N:	102604KBC-1	Issue 1.0		
Test Date(s):	21Sept04 - 14Oct04, 22Oct			
Test Type(s):	FCC §15.247	IC RSS-210 Issue 5 IC Lab File #3874		
Lab Registration(s):	FCC #714830			

B.6. SETUP PHOTOS
Photograph B-1 - AC Powerline Conducted Emission Configuration
Photograph B-2 - AC Powerline Conducted Emission Cable Placement

Applicant:	Itronix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA							ITRONIX
							16 of 45



Test Report S/N:	102604KBC-1	Issue 1.0		
Test Date(s):	21Sept04 - 14Oct04, 22Oct			
Test Type(s):	FCC §15.247	IC RSS-210 Issue		
Lab Registration(s):	FCC #714830	IC Lab	File #3874	



B.8. DUT OPERATING DESCRIPTION						
Bluetooth	The Bluetooth transmitter was set to transmit at full power on Channel 39 (2441 MHz) with a 1000 modulation setting.					
PC	Other than operating the Bluetooth software and running MS windows, no PC exercising was performed.					
Peripherals	All peripherals were active, but no specific traffic was initiated.					

 Applicant:
 Itronix Corporation
 Model:
 IX260PNLA555BT
 FCC ID:
 KBCIX260PNLA555BT
 IC ID:
 1943A-IX260Pb

 Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA
 IC ID:
 1943A-IX260Pb

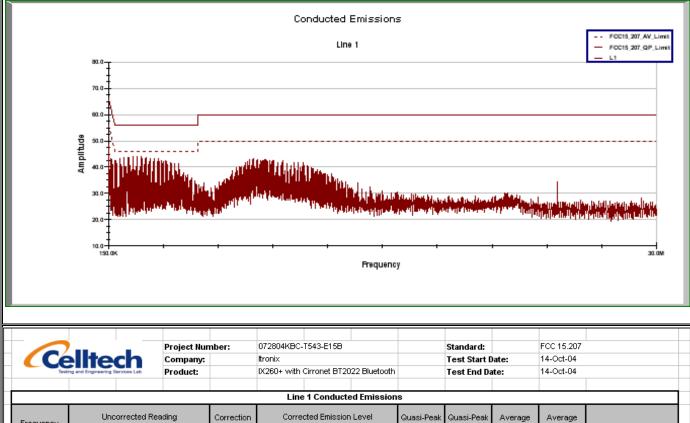
 2005 Celltech Labs Inc.
 This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc.
 17 of 45



Test Report S/N:	102604KBC-1	Issue 1.0		
Test Date(s):	21Sept04 - 14Oct04, 22Oct			
Test Type(s):	FCC §15.247	•		
Lab Registration(s):	FCC #714830			

#### **B.9. TEST RESULTS**

Following are peak emission plots and tabular data describing the peak, quasi-peak and average measurements made of the DUT.

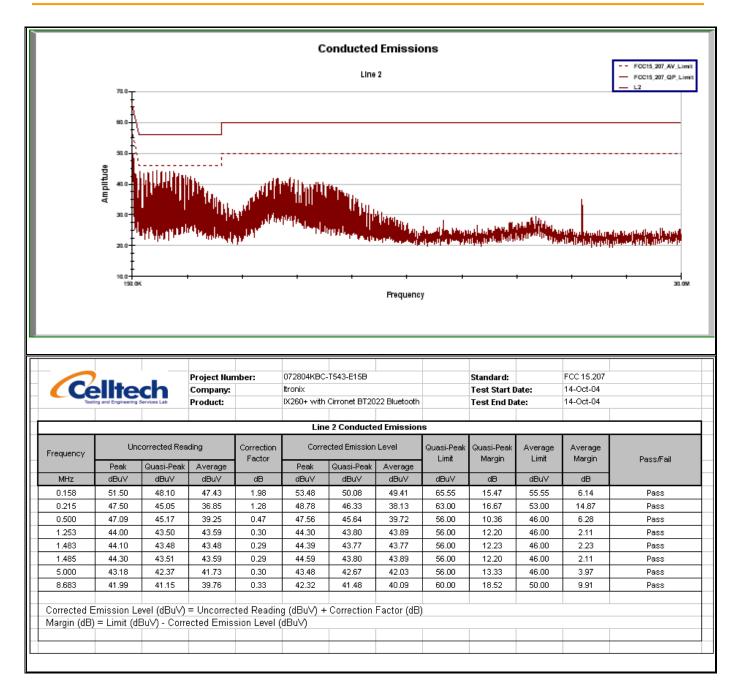


Frequency	Und	corrected Rea	ding	Correction Factor	Corre	Corrected Emission Level		Quasi-Peak Limit	Quasi-Peak Marqin	Average Limit	Average Marqin	Pass/Fail
	Peak	Quasi-Peak	Average	racior	Peak	Quasi-Peak	Average		Margin	LIIIIL	margin	Fass/Fail
MHz	dBuV	dBu∀	dBu∀	dB	dBuV	dBuV	dBu∀	dBuV	dB	dBuV	dB	
0.159	50.40	47.24	45.54	1.98	52.38	49.22	47.52	65.53	16.31	55.53	8.01	Pass
1.251	43.60	43.04	43.15	0.31	43.91	43.35	43.46	56.00	12.66	46.00	2.55	Pass
1.252	43.80	43.14	43.29	0.30	44.10	43.44	43.59	56.00	12.56	46.00	2.41	Pass
1.486	44.00	43.19	43.32	0.29	44.29	43.48	43.61	56.00	12.52	46.00	2.39	Pass
1.718	43.80	43.15	43.18	0.29	44.09	43.44	43.47	56.00	12.57	46.00	2.54	Pass
1.722	44.00	43.34	43.50	0.28	44.29	43.63	43.78	56.00	12.38	46.00	2.22	Pass
1.957	44.10	43.25	43.34	0.28	44.38	43.53	43.62	56.00	12.47	46.00	2.38	Pass
8.055	43.40	41.99	39.94	0.32	43.72	42.31	40.26	60.00	17.69	50.00	9.74	Pass
Corrected Emission Level (dBuV) = Uncorrected Reading (dBuV) + Correction Factor (dB) Margin (dB) = Limit (dBuV) - Corrected Emission Level (dBuV)												
		,			,							

Applicant: Itronix C	Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA							
2005 Celltech Labs Inc	This docum	nent is not to t	be reproduced in whole or i	n part without	the written permission of Celltech La	bs Inc.	18 of 45



Test Report S/N:	102604KBC-1	Issue 1.0		
Test Date(s):	21Sept04 - 14Oct04, 22Oct0			
Test Type(s):	FCC §15.247	IC RSS-210 Issue 5 IC Lab File #3874		
Lab Registration(s):	FCC #714830			



Applicant: Itro	nix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA							
2005 Celltech Lab	Inc. This docu	ment is not to	be reproduced in whole or i	n part without	the written permission of Celltech La	bs Inc.	19 of 45



Test Report S/N:	102604KBC-1	Issue 1.0		
Test Date(s):	21Sept04 - 14Oct04, 22Oct0			
Test Type(s):	FCC §15.247	IC RSS-210 Issue 5 IC Lab File #3874		
Lab Registration(s):	FCC #714830			

#### **B.10. PASS/FAIL**

In reference to the results outlined in B.9 the DUT passes the requirements as stated in the reference standards as follows: The RF voltage measured in reference to ground on each of the power line conductors does not exceed the limits as outline in FCC 15.207.

#### B.11. SIGN-OFF

I attest to the accuracy of the data. All measurements reported herein were performed by me and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements.

Duane M. Friesen, C.E.T. EMC Manager Celltech Labs Inc.

> 12Oct04 Date

	Applicant:	Itronix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA								ITRONIX
	2005 Celltech	Labs Inc. This docur	nent is not to I	be reproduced in whole or in	n part without	the written permission of Celltech La	bs Inc.	20 of 45



Test Report S/N:	102604KBC-1	Issue 1.0		
Test Date(s):	21Sept04 - 14Oct04, 22Oct04			
Test Type(s):	FCC §15.247	§15.247 IC RSS-210 Issue 5		
Lab Registration(s):	FCC #714830 IC Lab File #387			

# Appendix C - Peak Conducted RF Output Power Measurement

C.1. REFERENCES				
Normative Reference Standard	FCC CFR 47 §15.247(b) (1)			
Procedure Reference	FCC 97-114			

#### C.2. LIMITS

#### C.2.1. FCC CFR 47

\$15.247(b): The maximum peak output power of the intentional radiator shall not exceed the following: \$15.247(b) (1) For frequency hopping systems operating in the 2400 – 2483.5 MHz band employing at least 75 hopping channels, and all frequency hopping systems in the 5725 – 5850 MHz bands: 1 Watt.\*

\*Appendix E results confirm the number of hopping channels is at least 75.

Note: When a reference is made to conducted results outlined in the ACS test report they will be referenced to the conducted power measurements outlined in section 6.4 of that report. The conducted power measurements reported herein were made for correlation purposes and are applicable as references for the measurements described in this report.

C.3. ENVIRONMENTAL CONDITIONS				
Temperature 25.2 +/- 2 °C				
Humidity	35 +/- 2 %			
Barometric Pressure 96.34 kPa				

C.4. EQUIPME	C.4. EQUIPMENT LIST							
ASSET NUMBER MANUFACTURER MODEL DESCRIPTION LAST CAL CAL DUE								
00015	Agilent	E4408B	Spectrum Analyzer	29Dec03	29Dec04			
00076	Pasternack	PE7014-30	30dB 2 Watt Attenuator	08Jul04*	24Jun05			

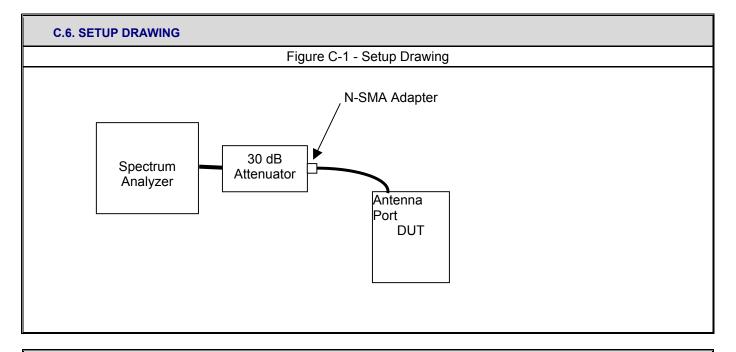
\*Attenuator verified with power meter prior to use

Applicant:	Itronix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA						ITRONIX	
2005 Celltec	2005 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc. 21 of 45						21 of 45



Test Report S/N:	102604KBC-1	Issue 1.0		
Test Date(s):	21Sept04 - 14Oct04, 22Oct04			
Test Type(s):	FCC §15.247 IC RSS-210 Issue			
Lab Registration(s):	FCC #714830 IC Lab File #387			

C.5. MEASUREMENT	C.5. MEASUREMENT EQUIPMENT SETUP				
Measurement Equipment Connections	The equipment was connected as shown in the setup drawing in C.6.				
Measurement Equipment Settings	The power is measured within the band with the following spectrum analyzer settings: RBW – 100 kHz VBW – 1 MHz Detector – Peak Average – Power				



# C.7. DUT OPERATING DESCRIPTION

The unmodulated carrier was set to each of the three frequencies representing the frequency band of operation.

Applicant:	Itronix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA							ITRONIX
2005 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc.					22 of 45		



Test Report S/N:	102604KBC-1	Issue 1.0		
Test Date(s):	21Sept04 - 14Oct04, 22Oct04			
Test Type(s):	FCC §15.247 IC RSS-210 Issue			
Lab Registration(s):	FCC #714830 IC Lab File #38			

C.8. TEST RESULTS					
Channel	Frequency	Peak Conducted Power Limit			
	MHz	dBm	Watts		
Low	2402	15.40	.0347	1	
Mid	2441	15.61	.0364	1	
High	2480	15.34	.0342	1	

#### C.9. PASS/FAIL

In reference to the results outlined in C.8 the DUT passes the requirements as stated in the reference standards as follows: FCC 15.247 (b) (1): The peak power did not exceed 1 Watt.

#### C.10. SIGN-OFF

I attest to the accuracy of the data. All measurements reported herein were performed by me and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements.

Duane M. Friesen, C.E.T. EMC Manager Celltech Labs Inc.

> 14Oct04 Date

Applicant:	Itronix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA							
2005 Celltecl	2005 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc. 23 of 45						



Test Report S/N:	102604KBC-1	Issue 1.0		
Test Date(s):	21Sept04 - 14Oct04, 22Oct04			
Test Type(s):	FCC §15.247 IC RSS-210 Issue			
Lab Registration(s):				

# Appendix D - Adjacent Channel Separation

D.1. REFERENCES		
Normative Reference Standard	FCC CFR 47 §15.2	47 (a) (1)
Test Reference	ACS Test Report:	FCC Part 15 Certification Test Report - FCC ID: HSW-BT2022M 2.4 GHz Frequency Hopping Spread Spectrum (Modular Approval) ACS Report Number 03-0193-15BC Issue Date: January 5, 2004

#### D.2. LIMITS

§15.247(a) (1): Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or 20 dB bandwidth of the hopping channel, whichever is greater.

Note: The 20 dB bandwidth of the hopping channel is described to be 1 MHz as outlined in section 6.5.4 of the ACS report. Therefore the channel separation must be 1 MHz.

#### D.3. TEST PROCEDURE & RESULTS

The test method used to show compliance to the applicable parts and the results obtained are outlined in the ACS reference test report number 03-0193-15BC section 6.5.1. A channel separation of 1.0 MHz was reported for all channels.

#### D.4. PASS/FAIL

Applicant:	Itronix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA							
2005 Celltec	2005 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc. 24 of 45						



Test Report S/N:	102604KBC-1	Issue 1.0			
Test Date(s):	21Sept04 - 14Oct04, 22Oct04				
Test Type(s):	FCC §15.247 IC RSS-210 Issue				
Lab Registration(s):	FCC #714830 IC Lab File #38				

# Appendix E - Number of Hopping Channels

E.1. REFERENCES	
Normative Reference Standard	FCC CFR 47 §15.247 (a) (1) (iii)
Test Reference	ACS Test Report: FCC Part 15 Certification Test Report - FCC ID: HSW-BT2022M 2.4 GHz Frequency Hopping Spread Spectrum (Modular Approval) ACS Report Number 03-0193-15BC Issue Date: January 5, 2004

#### E.2. LIMITS

§15.247 (a) (1) (iii): Frequency hopping systems in the 2400 – 2483.5 MHz band shall use at least 15 non-overlapping channels.

#### E.3. TEST PROCEDURE & RESULTS

The test method used to show compliance to the applicable parts and the results obtained are outlined in the ACS reference test report number 03-0193-15BC section 6.5.2

The results outlined in the reference test report show that the number of hopping channels is at least 75; which implies an applicable power limit of 1 watt be applied to the results outlined in Appendix C.

#### E.4. PASS/FAIL

Applicant:	Itronix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged L	Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA						ITRONIX
2005 Cellted	2005 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc. 25 of						25 of 45



Test Report S/N:	102604KBC-1	Issue 1.0			
Test Date(s):	21Sept04 - 14Oct04, 22Oct04				
Test Type(s):	FCC §15.247	15.247 IC RSS-210 Issue 5			
Lab Registration(s):	FCC #714830	0 IC Lab File #3874			

# Appendix F - Channel Dwell Time

F.1. REFERENCES	
Normative Reference Standard	FCC CFR 47 §15.247 (a) (1), FCC CFR 47 §15.247 (a) (1) (iii)
Test Reference	ACS Test Report: FCC Part 15 Certification Test Report - FCC ID: HSW-BT2022M 2.4 GHz Frequency Hopping Spread Spectrum (Modular Approval) ACS Report Number 03-0193-15BC Issue Date: January 5, 2004

#### F.2. LIMITS

§15.247 (a) (1): ....The system shall hop to channel frequencies that are selected at the hopping rate from a pseudorandomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter.
§15.247 (a) (1) (iii): .....The average time of occupancy on any channel shall be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

## F.3. TEST PROCEDURE & RESULTS

The test method used to show compliance to the applicable parts and the results obtained are outlined in the ACS reference test report number 03-0193-15BC section 6.5.3. A channel dwell of 10 mS each 20 seconds was reported.

#### F.4. PASS/FAIL

Applicant:	Itronix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA							
2005 Celltech I	2005 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc. 26 of 45						



Test Report S/N:	102604KBC-1	Issue 1.0			
Test Date(s):	21Sept04 - 14Oct04, 22Oct04				
Test Type(s):	FCC §15.247 IC RSS-210 Issue				
Lab Registration(s):	FCC #714830	IC Lab	File #3874		

# Appendix G - 20 dB Bandwidth Measurement

G.1. REFERENCES		
Normative Reference Standard	FCC CFR 47 §15.247	7 (a) (1) (iii)
Test Reference		FCC Part 15 Certification Test Report - FCC ID: HSW-BT2022M 2.4 GHz Frequency Hopping Spread Spectrum (Modular Approval) ACS Report Number 03-0193-15BC Issue Date: January 5, 2004

#### G.2. LIMITS

§15.247 (a) (1) (iii): Frequency hopping systems in the 2400 – 2483.5 MHz band shall use at least 15 non-overlapping channels.

Note: The channel width as referenced in the results outlined in Appendix C and D is 1 MHz, therefore to be non-overlapping, the 20 dB bandwidth must be no greater than 1 MHz for the system to comply.

## G.3. TEST PROCEDURE & RESULTS

The test method used to show compliance to the applicable parts and the results obtained are outlined in the ACS reference test report number 03-0193-15BC section 6.5.4. A 20 dB bandwidth measurement of 1 MHz was reported.

#### G.4. PASS/FAIL

Applicant:	Itronix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA							
2005 Celltec	2005 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc. 27 of 45						



Test Report S/N:	102604KBC-T	Issue 1.0			
Test Date(s):	21Sept04 - 14Oct04, 22Oct04				
Test Type(s):	FCC §15.247 IC RSS-210 Issue				
Lab Registration(s):	FCC #714830 IC Lab File #387				

# Appendix H - Radiated Spurious Emissions Measurement

H.1. REFERENCES	
Normative Reference Standard	FCC CFR 47 §15.247(c)
Procedure Reference	ANSI C63.4; FCC 97-114

#### H.2. LIMITS

#### H.2.1. FCC CFR 47

§15.247 (c): In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in 15.209 (a) is not required.

Note:

Spurious emissions within the restricted bands are reported in Appendix I.

The maximum carrier field strength @ 3m was determined to be in the horizontal orientation with transmitter set for the mid channel (2441 MHz). The field strength in this configuration was 108.31 dBuV/m and was used as the limit reference. Therefore the calculated limit used was 88.31 dBuV/m (Limit (dBuV/m) = 108.31 (dBuV/m) – 20 dB) for the horizontal polarization and 83.21 dBuV/m (Limit (dBuV/m) = 103.21 (dBuV/m) – 20 dB) for vertical.

H.3. ENVIRONMENTAL COND	ITIONS
Temperature	27.4 +/- 2 °C
Humidity	33 +/- 2 %
Barometric Pressure	96.24 +/- 0.2 kPa

H.4. EQUIPME	NT LIST				
ASSET NUMBER	MANUFACTURER	MODEL	DESCRIPTION	LAST CAL	CAL DUE
00072	EMCO	2075	Mini-mast	n/a	n/a
00073	EMCO	2080	Turn Table	n/a	n/a
00071	EMCO	2090	Multi-Device Controller	n/a	n/a
00035	ETS	3115	Double Ridged Guide Horn	24Mar04	24Mar05
00202	ETS	3160-09	Small Horn Antenna	27May04	27Jun05
00015	Agilent	E4408B	Spectrum Analyzer	29Dec03	29Dec04
00049	HP	8566B	Spectrum Analyzer RF Section	18May04	18May05
00048	Gore	65474	Microwave Cable	20May04	20May05
00030	HP	83017A	LNA	20May04	20May05

 Applicant:
 Itronix Corporation
 Model:
 IX260PNLA555BT
 FCC ID:
 KBCIX260PNLA555BT
 IC ID:
 1943A-IX260Pb

 Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA
 Image: Constant Con

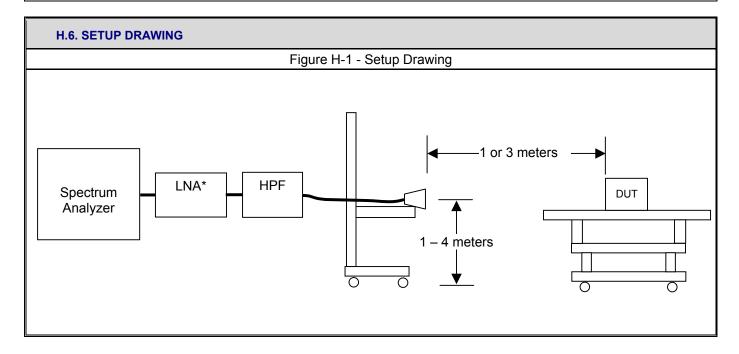
2005 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc.

28 of 45



Test Report S/N:	102604KBC-1	Issue 1.0							
Test Date(s):	21Sept04 - 14Oct04, 22Oct04								
Test Type(s):	FCC §15.247	IC RSS-2	210 Issue 5						
Lab Registration(s):	FCC #714830	IC Lab	File #3874						

H.5. MEASUREN	IENT EQUIPMENT SETUP										
MEASUREMENT		The measurement equipment was connected as shown in H.6. A number of antennas were used to cover the applicable frequency range test. The ranges in which each antenna was used are as follows									
EQUIPMENT	Frequency	Range	Antenna								
CONNECTIONS	1 GHz – 1	8 GHz	ETS 3115 H	orn							
	18 GHz – 2	26GHz	ETS 3160-09	ETS 3160-09 Horn							
	The spectrum analyzer was set to the following settings:										
	Frequency Range	RBW	VBW	Detector							
	MHz	kHz	kHz								
MEASUREMENT EQUIPMENT	> 1000	1000 <sup>1</sup>	1000	Peak <sup>2</sup>							
SETTINGS	applicable limit v MHz RBW. Wh	was applied to me	hen suitable margin could be re asurements made with a peak d asurement was reported, it was h a VBW of 1 Hz.	letector using a 1							

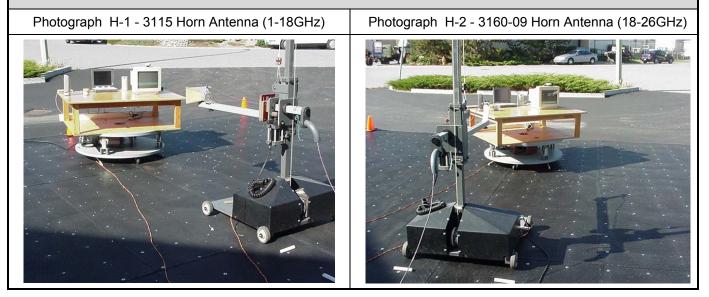


Applicant:	Itronix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb			
Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA										
2005 Celltec	h Labs Inc. This docum	nent is not to I	be reproduced in whole or in	n part without	the written permission of Celltech La	bs Inc.	29 of 45			



Test Report S/N:	102604KBC-1	Issue 1.0							
Test Date(s):	21Sept04 - 14Oct04, 22Oct04								
Test Type(s):	FCC §15.247	IC RSS-2	210 Issue 5						
Lab Registration(s):	FCC #714830	IC Lab	File #3874						

#### **H.7. SETUP PHOTOGRAPHS**



## H.8. DUT OPERATING DESCRIPTION

Measurements were made at three channels throughout the band, Low Channel (2402 MHz), Mid Channel (2441 MHz), High Channel (2480 MHz). The configuration used was with a gain setting of 250/40 for the low channel, 250/44 for mid channel and 220/45 for the high channel. The modulation was set to 1000. As a worse case, the band-edge measurements were made of the low and high channels with data stream modulation.

Applicant:	Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA					1943A-IX260Pb	
Rugged L	aptop PC with Cirronet	BT2022 BI	uetooth, Senao NL-305	4MP 802.11	b/g WLAN, & AC555 CDMA		ITRONIX
2005 Celltec	h Labs Inc. This docum	nent is not to I	be reproduced in whole or in	n part without	the written permission of Celltech La	bs Inc.	30 of 45



Test Report S/N:	102604KBC-1	Issue 1.0							
Test Date(s):	21Sept04 - 14Oct04, 22Oct04								
Test Type(s):	FCC §15.247	IC RSS-2	210 Issue 5						
Lab Registration(s):	FCC #714830	IC Lab	File #3874						

	Band	I-ed	ge Er	nission		Strengths								
						Upper Ban			·					
						annel 0 -		ed Ban	d-edg	e Plot	S			
				🔆 Agile	nt 12:57	57 Oct 22,20				Mi	r2 2.402			
				Ref 21.4 Peak	dBm	#At	ten 0 dB				15.3	8 dBm		
				Log 10 dB/							r	A		
				Offst 31 dB							M			
				dB						Ame	~~			
				-	www.			······	man M	, /				
				Ŀ										
				Start 2.3 #Res BW Marker		Tupo	VBW 30 X Axis	ı kHz	S		Stop 2.40 72 ms (40)			
				1R 16	(1) (1)	Type Freq Freq	2.40000 GHz 2.00 MHz 2.40200 GHz		-35.33 dE 50.72 d 15.38 dE	3m dB				
				2	(1)	Freq	2.40200 6Hz		15.38 di	Sm				
					Ch		Dedicted (	Corrier E	iald Ctr	onatha				
		_			Cr	annel 0 - I			ieiu Str	enguis				
	arity	ance	Ry AI	ntenna	Channel	Frequency	SA Level	Rx AF	Rx CL	Other	Total	Field	Detector	
	Polarity	Distance		iterina	Cha	Trequency	SA Level		IX OL	Rx	Rx CF	Strength	Detector	
		m				MHz	dBuV	dB/m	dB	dB	dB/m	dBuV/m (F	PK/QP/AVG)	
	н	3	Horn S	SN6276	0	2402.00	83.90	30.24	3.48	0.00	33.72	117.62	PK	
	н	3	Horn S	SN6276	0	2402.00	42.30	30.24	3.48	0.00	33.72	76.02	AV	
	V	3		SN6276	0	2402.00	75.50	30.24	3.48	0.00	33.72	109.22	PK	
	۷	3	Horn S	SN6276	0	2402.00	38.70	30.24	3.48	0.00	33.72	72.42	AV	
				Char	nel 0 -	Calculated	Band-od	ne (Out-(	of-Banc		Strong	nthe		
		_		Chan		rrier	Danu-eu(		1			Juis	1	
			une	Freewoon	Rac	liated to	Marker- Delta	Calculated andedge Fie	l I Im	nce L	Limit istance	Calculated Limit	Margin	Pass/Fail
olarity stance xa	Anter	ina	a	Frequen						Co	prrection			
Dist	Anter	ina	Channe		Stre	ength 👸		Strength	~		dB	dBu\//m	dP	
H 3 Hor	n SN6	6276	O Chai	MHz 2400.0	Stre dBi	JV/m 7.62 PK	dB 50.72	Strength dBuV/m 66.9	m 3		dB 0	dBuV/m 97.62	dB 30.72	Pass
H 3 Horn H 3 Horn		6276 6276		MHz	Stress           dBr           0           11           0           76	uV/m	dB	dBuV/m	-					Pass Pass Pass



Test Report S/N:	102604KBC-T576-E15B Issue 1.0								
Test Date(s):	21Sept04 - 14Oct04, 22Oct04								
Test Type(s):	FCC §15.247	IC RSS-2	210 Issue 5						
Lab Registration(s):	FCC #714830	IC Lab	File #3874						

Cell	te	ch		Company: Product:		Itror	304KBC- iix 60+ with I		th						Standard: Test Start Da Test End Dat		FCC15.247 21Sep04 12Oct04	7c
Channel	Polarity	Distance	Rx Antenna	Frequency	SA Level	Noise Floor	Rx AF	Rx CL	IX2 Other Rx	*Duty Cycle Correction	Total Rx CF	Field Strength	Detector	Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fai
	_	m		MHz	dBuV	_	dB/m	dB	dB	dB	dB/m	dBuV/m	(PK/QP/AV)	m	dB	dBuV/m	dB	
BT-Low	н	3	Horn SN6276	2000.00	14.40	х	29.60	3.18	0.00	-20.00	12.78	27.18	PK	3.00	0.00	88.31	61.13	PASS
BT-Low	н	3	Horn SN6276	7206.72	52.40		38.17	6.21	-34.32	-20.00	-9.94	42.46	PK	3.00	0.00	88.31	45.85	PASS
BT-Low	н	1	Horn SN6276	17986.00	44.90		45.86	10.43	-32.01	-20.00	4.28	49.18	PK	3.00	9.54	97.85	48.68	PASS
BT-Low	V	3	Horn SN6276	2000.00	17.00	х	29.60	3.18	0.00	-20.00	12.78	29.78	PK	3.00	0.00	83.21	53.43	PASS
BT-Low	V	3	Horn SN6276	4804.58	52.70		35.31	4.96	-34.08	-20.00	-13.81	38.89	PK	3.00	0.00	83.21	44.32	PASS
BT-Low	V	3	Horn SN6276	4804.46	50.80		35.31	4.96	-34.08	-20.00	-13.81	36.99	PK	3.00	0.00	83.21	46.22	PASS
BT-Low	V	3	Horn SN6276	7207.22	57.30		38.17	6.21	-34.32	-20.00	-9.93	47.37	PK	3.00	0.00	83.21	35.85	PASS
BT-Low	V	1	Horn SN6276	17874.00	44.50		45.52	10.28	-32.09	-20.00	3.71	48.21	PK	3.00	9.54	92.75	44.54	PASS
BT-Mid	Н	3	Horn SN6276	2000.00	14.40	х	29.60	3.18	0.00	-20.00	12.78	27.18	PK	3.00	0.00	88.31	61.13	PASS
BT-Mid	Н	3	Horn SN6276	4882.41	55.90		35.46	5.04	-34.09	-20.00	-13.59	42.31	PK	3.00	0.00	88.31	46.00	PASS
BT-Mid	Н	3	Horn SN6276	7323.65	50.00		38.38	6.32	-34.32	-20.00	-9.62	40.38	PK	3.00	0.00	88.31	47.93	PASS
BT-Mid	Н	1	Horn SN6276	17992.00	44.50		45.88	10.45	-32.01	-20.00	4.32	48.82	PK	3.00	9.54	97.85	49.03	PASS
BT-Mid	V	3	Horn SN6276	2000.00	17.00	х	29.60	3.18	0.00	-20.00	12.78	29.78	PK	3.00	0.00	83.21	53.43	PASS
BT-Mid	V	3	Horn SN6276	4882.23	49.80		35.46	5.04	-34.09	-20.00	-13.59	36.21	PK	3.00	0.00	83.21	47.00	PASS
BT-Mid	V	3	Horn SN6276	7323.74	55.80		38.38	6.32	-34.32	-20.00	-9.62	46.18	PK	3.00	0.00	83.21	37.03	PASS
BT-Mid	V	3	Horn SN6276	9764.87	49.40		40.30	7.41	-34.25	-20.00	-6.54	42.86	PK	3.00	0.00	83.21	40.35	PASS
BT-Mid	V	1	Horn SN6276	18000.00	43.90		45.90	10.48	-32.00	-20.00	4.38	48.28	PK	3.00	9.54	92.75	44.47	PASS
BT-High	н	3	Horn SN6276	2000.00	14.40	х	29.60	3.18	0.00	-20.00	12.78	27.18	PK	3.00	0.00	88.31	61.13	PASS
BT-High	н	3	Horn SN6276	4960.48	52.20		35.62	5.06	-34.10	-20.00	-13.42	38.78	PK	3.00	0.00	88.31	49.53	PASS
BT-High	Н	1	Horn SN6276	17862.00	44.70		45.49	10.28	-32.10	-20.00	3.67	48.37	PK	3.00	9.54	97.85	49.49	PASS
BT-High	V	3	Horn SN6276	2000.00	17.00	х	29.60	3.18	0.00	-20.00	12.78	29.78	PK	3.00	0.00	83.21	53.43	PASS
BT-High	V	3	Horn SN6276	4960.39	50.80		35.62	5.06	-34.10	-20.00	-13.42	37.38	PK	3.00	0.00	83.21	45.83	PASS
BT-High	V	3	Horn SN6276	7440.88	49.80		38.59	6.43	-34.32	-20.00	-9.29	40.51	PK	3.00	0.00	83.21	42.70	PASS
BT-High	V	1	Horn SN6276	17936.00	44.70		45.71	10.28	-32.04	-20.00	3.94	48.64	PK	3.00	9.54	92.75	44.11	PASS

Limit (dBuV/m) = Published Limit (dBuV/m) + Limit Distance Correction (dB) Margin (dB) = Limit (dBuV/m) - Field Strength (dBuV/m) Duty Cycle Correction (dB) = 20 \* log (duty cycle ratio\*) Duty Cycle ratio = maximum time on in any 100 mS period (in mS) / 100 mS

\*DUT duty cyle = 10 mS in each 10 seconds

\*The frequency points reported, describe the highest emission measured in each of the ranges tested and are used to describe the measured spectrum as a whole. Emissions that may be present in the restricted bands are evaluated against the appropriate limits in Appendix I. No out-of-band emissions were measured above the levels noted.

Applicant:	Itronix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged L	Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA						
2005 Celltec	2005 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc. 32 of 45						



Test Report S/N:	102604KBC-1	Issue 1.0		
Test Date(s):	21Sept04 - 14Oct04, 22Oct04			
Test Type(s):	FCC §15.247	IC RSS-210 Issue 5		
Lab Registration(s):	FCC #714830	IC Lab	File #3874	

#### H.10. PASS/FAIL

In reference to the results outlined in H.9, the DUT passes the requirements as stated in the reference standards as follows: FCC 15.247 (c): All emissions within any 100 kHz bandwidth outside the operating frequency band are greater than 20 dB below the maximum 100 kHz bandwidth signal within the operating band.

## H.11. SIGN-OFF

I attest to the accuracy of the data. All measurements reported herein were performed by me and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements.

Pusal W. Pupe

Russell Pipe Senior Compliance Technologist Celltech Labs Inc.

22Oct04 Date

	Applicant: Itro	onix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA							ITRONIX	
	2005 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc. 33 of 45							



Test Report S/N:	102604KBC-1	Issue 1.0	
Test Date(s):	21Sept04 - 14Oct04, 22Oct04		
Test Type(s):	FCC §15.247	IC RSS-2	210 Issue 5
Lab Registration(s):	FCC #714830	IC Lab	File #3874

# **Appendix I - Restricted Band Emissions Measurement**

I.1. REFERENCES	
Normative Reference Standard	FCC CFR 47 §15.205 (a) (b), FCC CFR 47 §15.209 (a)
Procedure Reference	FCC 97-114

I.2. LIMITS					
FCC CFR 47 §15.205	(a) Except as shown in paragraph (c frequency bands listed below:	l) of this section, only spurious	s emissions are perm	itted in any of the	
	MHz	MHz MHz MH			
	0.090-0.110 10.495-0.505 2.1735-2.1905 4.125-4.128 4.17725-4.17775 4.20725-4.20775 6.215-6.218 6.26775-6.26825 6.31175-6.31225 8.291-8.294 8.362-8.366 8.37625-8.38675 8.41425-8.41475 12.29-12.293 12.51975-12.52025 12.57675-12.57725 13.36-13.41. 1 Until February 1, 1999, this restricted b 2 Above 38.6 (b) Except as provided in paragraphs bands shall not exceed the limits show with the limits in Section 15.209 shall	16.69475–16.69525           16.80425–16.80475           25.5–25.67           37.5–38.25           73–74.6           74.8–75.2           108–121.94           123–138           149.9–150.05           156.52475–156.52525           156.7–156.9           162.0125–167.17           162.025–335.4           and shall be 0.490–0.510 MHz.           (d) and (e), the field strength of own in 15.209. At frequencies of the strength of the	equal to or less than	1000 MHz, compliance	
	quasi-peak detector. Above 1000 demonstrated based on the average measurements.	MHz, compliance with the e	mission limits in Se	ction 15.209 shall be	
FCC CFR 47 §15.209	(a) Except as provided elsewhere in the field strength levels specified strength levels specifie		om an intentional rad	iator shall not exceed	
	Frequency	Field Strength	Measu	Measurement Distance	
	MHz	uV/m		Meters	
	.009 – 0.490	2400/F(kHz)		300	
	0.490 – 1.705	24000/F(kHz)		30	
	1.705 – 30.0	30		30	
	30 – 88	100		3	
	88 – 216	150		3	
	216 - 960	200		3	
	Above 960	500		3	
	(b) In the emission table above, the	tighter limit applies at the band	d edges.		

 Applicant:
 Itronix Corporation
 Model:
 IX260PNLA555BT
 FCC ID:
 KBCIX260PNLA555BT
 IC ID:
 1943A-IX260Pb

 Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA
 IC ID:
 1943A-IX260Pb

2005 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc.

34 of 45



Test Report S/N:	102604KBC-1	Issue 1.0	
Test Date(s):	21Sept04 - 14Oct04, 22Oct04		
Test Type(s):	FCC §15.247	IC RSS-2	210 Issue 5
Lab Registration(s):	FCC #714830	IC Lab	File #3874

I.3. ENVIRONMENTAL CONDITIONS		
Temperature	27.4 +/- 2 °C	
Humidity	33 +/- 2 %	
Barometric Pressure	96.24 +/- 0.2 kPa	

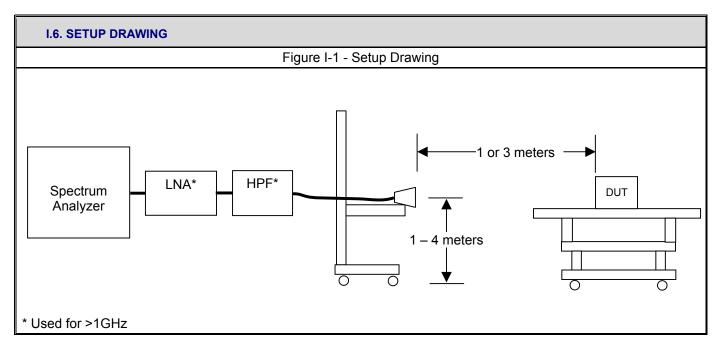
I.4. EQUIPMENT LIST								
ASSET NUMBER	MANUFACTURER	MODEL	DESCRIPTION	LAST CAL	CAL DUE			
00072	EMCO	2075	Mini-mast	n/a	n/a			
00073	EMCO	2080	Turn Table	n/a	n/a			
00071	EMCO	2090	Multi-Device Controller	n/a	n/a			
00085	EMCO	6502	Loop Antenna	10Aug04	10Aug05			
00050	Chase	CBL-6111A	Bilog Antenna	30Apr04	30Apr05			
00035	ETS	3115	Double Ridged Guide Horn	24Mar04	24Mar05			
00202	ETS	3160-09	Small Horn Antenna	27May04	27Jun05			
00015	Agilent	E4408B	Spectrum Analyzer	29Dec03	29Dec04			
00049	HP	8566B	Spectrum Analyzer RF Section	18May04	18May05			
00049	HP	85650A	Quasi-peak Adapter	18May04	18May05			
00047	HP	85685A	RF Preselector	18May04	18May05			
00048	Gore	65474	Microwave Cable	20May04	20May05			
00030	HP	83017A	LNA	20May04	20May05			

Applicant:	Itronix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA							
2005 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc. 35 of 45							



Test Report S/N:	102604KBC-1	Issue 1.0		
Test Date(s):	21Sept04 - 14Oct04, 22Oct04			
Test Type(s):	FCC §15.247	IC RSS-2	210 Issue 5	
Lab Registration(s):	FCC #714830	IC Lab	File #3874	

I.5. MEASUREME	I.5. MEASUREMENT EQUIPMENT SETUP						
	The measurement equipment was connected as shown in I.6. A number of antennas were used to cover the applicable frequency range test. The ranges in which each antenna was used are as follows:						
MEASUREMENT	Frequency	Range		Antenna			
EQUIPMENT	10 kHz – 3	0 MHz		EMCO 6502 Loop			
CONNECTIONS	30 MHz –	1 GHz		CBL-6111A Bilog			
	1 GHz – 18	3 GHz		ETS 3115 Horn			
	18 GHz– 2	6GHz		ETS 3160-09 Horn			
	The spectrum analyzer was set to the following settings:						
	Frequency Range RBW \		VBW	Quasi-Peak BW	Detector		
	MHz	kHz	kHz	kHz			
	0.01 - 0.15	3 <sup>1</sup>	30	0.2	Peak <sup>2</sup>		
MEASUREMENT	0.15 – 30	100 <sup>1</sup>	300	3	Peak <sup>2</sup>		
EQUIPMENT SETTINGS	30 – 1000	1000 <sup>1</sup>	300	120	Peak <sup>2</sup>		
02111100	> 1000	1000	1000	na	Peak <sup>2</sup>		
	Note 1: The Quasi-peak adapter was placed in normal for all measurements below 1000 MHz, therefore its bandwidths take precedence. Note 2: As a worse case measurement, when suitable margin could be realized, the average limit was applied to measurements made with a peak detector.						

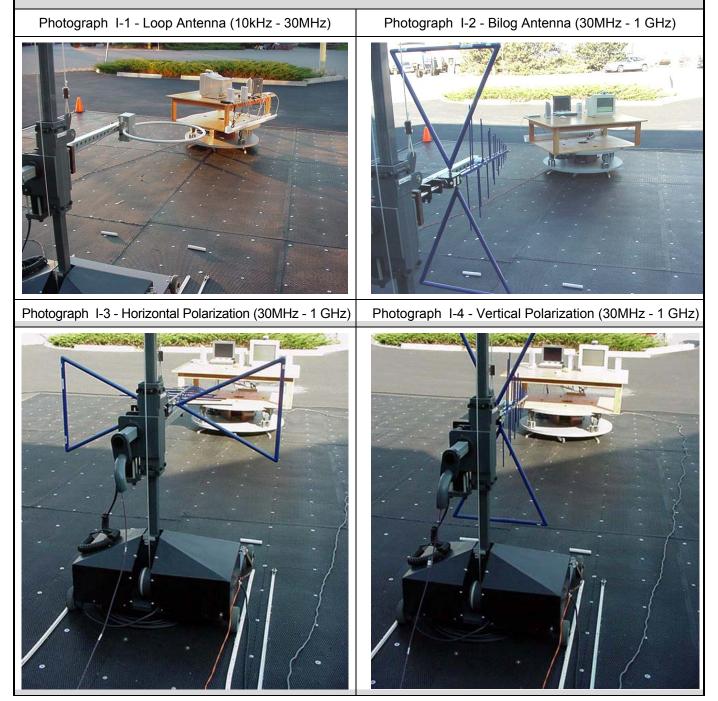


Applicant:	Itronix Corporation	oration Model: IX260PNLA555BT FCC ID: KBCIX260PNLA555BT IC ID: 1943A-IX260Pb									
Rugged L	aptop PC with Cirronet	BT2022 BI	uetooth, Senao NL-305	4MP 802.11	b/g WLAN, & AC555 CDMA		ITRONIX <sup>®</sup>				
2005 Celltec	h Labs Inc. This docum	nent is not to	be reproduced in whole or in	n part without	the written permission of Celltech La	bs Inc.	36 of 45				



Test Report S/N:	102604KBC-T	576-E15B	Issue 1.0
Test Date(s):	21Sept	t04 - 14Oct0	4, 22Oct04
Test Type(s):	FCC §15.247	IC RSS-2	210 Issue 5
Lab Registration(s):	FCC #714830	IC Lab	File #3874

#### **I.7. SETUP PHOTOGRAPHS**

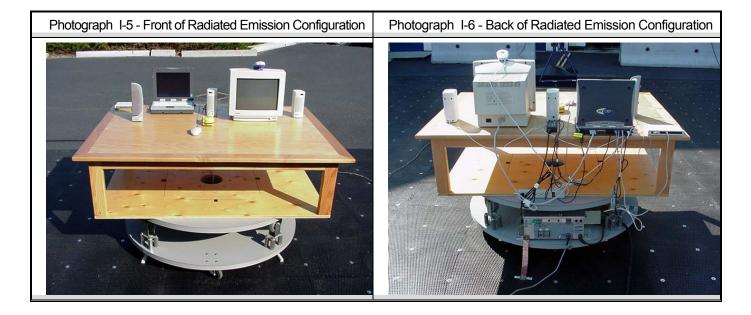


 Applicant:
 Itronix Corporation
 Model:
 IX260PNLA555BT
 FCC ID:
 KBCIX260PNLA555BT
 IC ID:
 1943A-IX260Pb

 Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA
 Image: Constant of the senator o



Test Report S/N:	102604KBC-1	576-E15B	Issue 1.0
Test Date(s):	21Sept	t04 - 14Oct0	4, 22Oct04
Test Type(s):	FCC §15.247	IC RSS-2	210 Issue 5
Lab Registration(s):	FCC #714830	IC Lab	File #3874



## **I.8. DUT OPERATING DESCRIPTION**

Measurements were made at three channels throughout the band, Low Channel (2402 MHz), Mid Channel (2441 MHz), High Channel (2480 MHz). The configuration used was with a gain setting of 250/40 for the low channel, 250/44 for mid channel and 220/45 for the high channel. The modulation was set to 1000. As a worse case, the band-edge measurements were made of the low and high channels with data stream modulation.

Applicant:	Itronix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged La	aptop PC with Cirronet	BT2022 BI	uetooth, Senao NL-305	4MP 802.11	b/g WLAN, & AC555 CDMA		ITRONIX
2005 Celltec	h Labs Inc. This docum	nent is not to l	be reproduced in whole or in	n part without	the written permission of Celltech La	bs Inc.	38 of 45



Test Report S/N:	102604KBC-T	576-E15B	Issue 1.0
Test Date(s):	21Sept	t04 - 14Oct0	4, 22Oct04
Test Type(s):	FCC §15.247	IC RSS-2	210 Issue 5
Lab Registration(s):	FCC #714830	IC Lab	File #3874

Note: Lower Band-edge (Out-of-Band) is in Appendix H)         Channel 79 - Conducted Band-edge Plots         Mer 1.1.4 dbm **fitten 0 db **fitten 0 d	Channel 79 - Conducted Band-edge Plots           Mirit 130159 Oct 22,2004           Mirit 12,48001 GHz           Field dm + Fitten 0 dB           Mirit 2,44 dBm + Fitten 0 dB           Start 2,476 GHz           Start 2,476 GHz      <	Channel 79 - Conducted Band-edge Plots         Meri 2.4000         Stop 2.455 file	Channel 79 - Conducted Band-edge Plots           Mini 2.4880 (c)           Mini 2.4880 (c)           Mini 2.4880 (c)           Sequence 0 db           Mini 2.4880 (c)           Sequence 0 db           Sequence 0 db         Sequence 0 db           Sequence 0 db         Sequence 0 db         Sequence 0 db           Sequence 0 db         Sequence 0 db         Sequence 0 db         Sequence 0 db         Sequence 0 db           Marke regular db         db         Marke regular db         Marke regular db         db           Marke regular db	Channel 79 - Conducted Band-edge Plots         Maria 2.4880.06: 15.13 dBm         Maria 2.4880.06: 15.13 dBm         Maria 2.4880.06: 15.13 dBm         Maria 2.4880.06: 15.13 dBm         Supp 2.485 GHz Supp 2.485 GHz Supp 2.485 GHz Supp 2.485 GHz         Supp 2.485 GHz Supp	I.9.1	. Upp	e	r Ban	id-e	dge En	nissio	n Fie	ld Streng	gths (	@ Spe	cified [	Distan	се											
* Aglient         13:01:23:01:22,20:04           Mir1 2.48001 CH2           Peak         Mir1 2.48001 CH2           Peak         15:18 dBm           19         Colspan="2">Official Ch2           Peak         15:28 dBm           19         Colspan="2">Colspan="2">Mir1 2.48001 CH2           Start 2.479 GH2         VBM 30 HH2         Steps 12.8 ms (401 pts)           View of the colspan="2">Start 2.479 GH2         VIEW 30 HH2         Steps 12.8 ms (401 pts)           View of the colspan="2">Trade 2.48001 GH2         Steps 15.28 ms (401 pts)           View of the colspan="2">Steps 12.8 ms (401 pts)           View of the colspan="2">Steps 12.8 ms (401 pts)           Trade 7.499 GH2         Step 12.8 ms (401 pts)           Trade 7.499 GH2         Step 12.8 ms (401 pts)           Step 2.485 GH2         Step 2.485 GH2           Step 2.485 GH2         Step 2.485 GH2           Step 2.485 GH2         Step 2.485 GH2           Step 2.485 GH2         Step 2.485 GH2 <th colspa="&lt;/td"><td>* Aglient         13:01:59         Oct 22, 2004           Ref 21.4 dBm         *ftten 0 dB         15.18 dBm           Log dB/ dB/ dB/ dB/ dB/ dB/ dB/ dB/ dB/ dB/</td><td>Image: 12:0:159         Det 22:2:001           Part 2:1:10         Part 2:1:10           Part 2:10         Part 2:1:10           Part 2:10         Part 2:1:10           Part 2:10         Part 2:10           Part 2:10         Part 2:10:10           Part 2:10:10</td><td>Image: Second second</td><td>Image: Section of the sectio</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Note</td><td>: (Lower I</td><td>Band-</td><td>edge (0</td><td>Out-of-E</td><td>and) i</td><td>s in App</td><td>oendix H</td><td>)</td><td></td><td></td><td></td></th>	<td>* Aglient         13:01:59         Oct 22, 2004           Ref 21.4 dBm         *ftten 0 dB         15.18 dBm           Log dB/ dB/ dB/ dB/ dB/ dB/ dB/ dB/ dB/ dB/</td> <td>Image: 12:0:159         Det 22:2:001           Part 2:1:10         Part 2:1:10           Part 2:10         Part 2:1:10           Part 2:10         Part 2:1:10           Part 2:10         Part 2:10           Part 2:10         Part 2:10:10           Part 2:10:10</td> <td>Image: Second second</td> <td>Image: Section of the sectio</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Note</td> <td>: (Lower I</td> <td>Band-</td> <td>edge (0</td> <td>Out-of-E</td> <td>and) i</td> <td>s in App</td> <td>oendix H</td> <td>)</td> <td></td> <td></td> <td></td>	* Aglient         13:01:59         Oct 22, 2004           Ref 21.4 dBm         *ftten 0 dB         15.18 dBm           Log dB/ dB/ dB/ dB/ dB/ dB/ dB/ dB/ dB/ dB/	Image: 12:0:159         Det 22:2:001           Part 2:1:10         Part 2:1:10           Part 2:10         Part 2:1:10           Part 2:10         Part 2:1:10           Part 2:10         Part 2:10           Part 2:10         Part 2:10:10           Part 2:10:10	Image: Second	Image: Section of the sectio								Note	: (Lower I	Band-	edge (0	Out-of-E	and) i	s in App	oendix H	)								
Mir1 2.48001 GHz 15.18 dBm         Peak Log Ide Instruction 0 dB Start 2.473 GHz Start 2.473 GHz Start 2.473 GHz Start 2.473 GHz Start 2.473 GHz 2.8 (1) Freq 2.405 GHz Start 2.473 GHz Start 2.49 Hz Start 2.405 GHz Start 2	Mkr1 2.48001 GHz 15.18 dBm         Peak Log dB/ dB/ dB/ dB/ dB/ dB/ dB/ dB/ dB/ dB/	Mile         Mile <th< td=""><td>Brit 2.4001 Bits 15.18 dB           Brit 2.4001 Bits 15.18 dB           Print 2.4001 Bits 15.18 dB           Print 2.4001 Bits 15.18 dB           Star 2.405 Bits 15.18 dB           Bits 100 Sits 10.00 Sits</td><td>Mini 2,40000 (Gr         Mini 2,40000 (Gr           Performance         State of the second seco</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>ucted E</td><td>Band-</td><td>edge F</td><td>Plots</td><td></td><td></td><td></td><td></td></th<>	Brit 2.4001 Bits 15.18 dB           Brit 2.4001 Bits 15.18 dB           Print 2.4001 Bits 15.18 dB           Print 2.4001 Bits 15.18 dB           Star 2.405 Bits 15.18 dB           Bits 100 Sits 10.00 Sits	Mini 2,40000 (Gr         Mini 2,40000 (Gr           Performance         State of the second seco												ucted E	Band-	edge F	Plots										
Peak Log         18       0 <td>Peak all B/ dB/ dB/ dB/ dB/ dB/ dB/ dB/ dB/ dB/</td> <td>Provide of the provide of the provide</td> <td>Peeds 19 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9</td> <td>Pregulation of the preduction of the pred</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td>	Peak all B/ dB/ dB/ dB/ dB/ dB/ dB/ dB/ dB/ dB/	Provide of the provide	Peeds 19 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Pregulation of the preduction of the pred								-																	
10       0	10       0 <th0< th=""> <th0< th=""> <th0< th=""></th0<></th0<></th0<>	Image: Start 2475 GHz         Start 2485 GHz	Image: Start 2473 Bit:       Start 2483 Bit:       Start 2483 Bit: <td>Implifying the second second</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Peak</td> <td>1.4 dBm</td> <td>Â</td> <td>#At</td> <td>ten 0 dB</td> <td></td> <td></td> <td></td> <td>15.1</td> <td>.8 dBm</td> <td></td> <td></td> <td></td>	Implifying the second							Peak	1.4 dBm	Â	#At	ten 0 dB				15.1	.8 dBm									
31 dB       4 <td>31         31         31         31         Start 2.479 GHz         Start 2.480 GHz         Start 2.480 Mz         Start 2.480 Mz       Start 2.480 Mz         Start 2.480 MHz       Start 2.480 MHz       Start 2.480 Mz         Start 2.49 MHz       Start 2.480 MHz       Detector         MHz       Gtart 2.480 Mz</td> <td>Image: Start 2,473 GH2       UBI 30 Hz       Start 0,473 GH2       <th< td=""><td>and a diagonal diagonal</td><td>Note: 2,23 GHz       Step 2,435 GHz         Step 2,435 GHz       Step 2,435 GHz         Step 2,445 GHz       Step 2,445 GHz         Marker       Step 2,445 GHz       Step 2,445 GHz</td><td></td><td></td><td></td><td></td><td></td><td></td><td>10 dB/</td><td>m</td><td>M</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<></td>	31         31         31         31         Start 2.479 GHz         Start 2.480 GHz         Start 2.480 Mz         Start 2.480 Mz       Start 2.480 Mz         Start 2.480 MHz       Start 2.480 MHz       Start 2.480 Mz         Start 2.49 MHz       Start 2.480 MHz       Detector         MHz       Gtart 2.480 Mz	Image: Start 2,473 GH2       UBI 30 Hz       Start 0,473 GH2       Start 0,473 GH2 <th< td=""><td>and a diagonal diagonal</td><td>Note: 2,23 GHz       Step 2,435 GHz         Step 2,435 GHz       Step 2,435 GHz         Step 2,445 GHz       Step 2,445 GHz         Marker       Step 2,445 GHz       Step 2,445 GHz</td><td></td><td></td><td></td><td></td><td></td><td></td><td>10 dB/</td><td>m</td><td>M</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	and a diagonal	Note: 2,23 GHz       Step 2,435 GHz         Step 2,435 GHz       Step 2,435 GHz         Step 2,445 GHz       Step 2,445 GHz         Marker       Step 2,445 GHz       Step 2,445 GHz							10 dB/	m	M																
Start 2,473 GHz       Stop 2,485 GHz         *Res BH 30 kHz       VBH 30 kHz         *Res BH 30 kHz       VBH 30 kHz         *Res BH 30 kHz       VBH 30 kHz         Start 2,473 GHz       Stop 2,485 GHz         *Res BH 30 kHz       VBH 30 kHz         Start 2,473 GHz       Stop 2,485 GHz         *Res BH 30 kHz       VBH 30 kHz         Start 2,473 GHz       Stop 2,485 GHz         *Res SH 30 kHz       VBH 30 kHz         Start 2,473 GHz       Yereq         2,480580 GHz       -51,48         2a       (1)         Freq       -3,49 MHz         S6,18 dB       B         Start 2,473 GHz       Freq         2a       (1)       Freq         Start 2,473 GHz       Start 2,473 GHz         Start 2,473 GHz       Freq         2a       (1)       Freq         2a       (1)       Freq         2a       (1)       Freq         Start 2,4358 GHz       Start 40 HHz         Start 2,437 GHz       Freq	Start 2,479 GHz         Start 2,483 GHz <th 2,483="" colspan="6" ghz<="" start="" td="" tho<=""><td>Start 2.473 BHz       Start 2.473 BHz</td><td>Start 2.479 GHz         Start 2.489 GHz         Start 2.480 GHz         <t< td=""><td>Star 2.473 GHz         Star 2.475 GHz         <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>31</td><td></td><td></td><td>m</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<></td></t<></td></th>	<td>Start 2.473 BHz       Start 2.473 BHz</td> <td>Start 2.479 GHz         Start 2.489 GHz         Start 2.480 GHz         <t< td=""><td>Star 2.473 GHz         Star 2.475 GHz         <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>31</td><td></td><td></td><td>m</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<></td></t<></td>						Start 2.473 BHz       Start 2.473 BHz	Start 2.479 GHz         Start 2.489 GHz         Start 2.480 GHz <t< td=""><td>Star 2.473 GHz         Star 2.475 GHz         <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>31</td><td></td><td></td><td>m</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<></td></t<>	Star 2.473 GHz         Star 2.475 GHz <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>31</td><td></td><td></td><td>m</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>							31			m									
Start 2.479 GHz       Stop 2.485 GHz         Stop 2.485 GHz         Trace Type 2.4001 GHz 15.28 ms (401 pts)         Marker       Trace 7.4001 GHz 2.40350 GHz 15.28 ms (401 pts)       Megintude         28       (1)       Freq       2.40350 GHz 15.28 ms (401 pts)	Start 2.479 GHz       Stop 2.485 GHz         Stop 2.475 GHz         Stop 2.479 GHz       Stop 2.475 GHz         Freed WH 30 kHz       Stop 2.485 GHz         Marker Trace Type 2.4896 BHz       Stop 2.485 GHz         Trace Type 2.4896 BHz       Stop 2.485 GHz         2.4001 BHz       Stop 2.485 GHz         2.4001 BHz       Stop 2.485 GHz         2.4001 BHz       Stop 2.485 GHz         Channel 0 - Radiated Carrier Field Strengths         Detector         MHz       Other Rx CL       Other Rx CF       Strength       Detector         MHz       dBuV       dB/m       dB/m       dB/m       dB/m       MB/m         MHz       dB/m       dB/m       dB/m       G         M       G       Frequency       SA Level       Rx CL       Other Rx       Field       Detector         MHz       dB/M <th cols<="" td=""><td>Start 2.473 6Hz         Start 2.475 6Hz         Start 2.475 6Hz         <t< td=""><td>Start 2.473 GHz       Stort 2.473 GHz       Stort 2.473 GHz         Start 2.473 GHz       Stort 2.485 GHz       Stort 2.485 GHz         Stort 2.4873 GHz       Stort 2.485 GHz         Stort 2.4873 GHz       Stort 2.485 GHz         Mather force for the form of th</td><td>Start 2.473 6Hz       Start 2.473 6Hz         Start 2.48186 bits       Start 2.48186 bits       Start 2.48186 bits         Channel 0 - Radiated Carrier Field Strength       Defector         MiHz       dBuV       dB/m       dB/m       Other Colspan="6"&gt;Start 2.48186 bits         MiHz       dBuV       dB/m       dB/m       Other Colspan="6"&gt;Start 2.48186 bits         MiHz       MHz</td></t<><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>mm</td><td>مسم</td><td>man</td><td>2R</td><td>mound</td><td>~~~~</td><td></td><td></td><td></td></td></th>	<td>Start 2.473 6Hz         Start 2.475 6Hz         Start 2.475 6Hz         <t< td=""><td>Start 2.473 GHz       Stort 2.473 GHz       Stort 2.473 GHz         Start 2.473 GHz       Stort 2.485 GHz       Stort 2.485 GHz         Stort 2.4873 GHz       Stort 2.485 GHz         Stort 2.4873 GHz       Stort 2.485 GHz         Mather force for the form of th</td><td>Start 2.473 6Hz       Start 2.473 6Hz         Start 2.48186 bits       Start 2.48186 bits       Start 2.48186 bits         Channel 0 - Radiated Carrier Field Strength       Defector         MiHz       dBuV       dB/m       dB/m       Other Colspan="6"&gt;Start 2.48186 bits         MiHz       dBuV       dB/m       dB/m       Other Colspan="6"&gt;Start 2.48186 bits         MiHz       MHz</td></t<><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>mm</td><td>مسم</td><td>man</td><td>2R</td><td>mound</td><td>~~~~</td><td></td><td></td><td></td></td>	Start 2.473 6Hz         Start 2.475 6Hz         Start 2.475 6Hz <t< td=""><td>Start 2.473 GHz       Stort 2.473 GHz       Stort 2.473 GHz         Start 2.473 GHz       Stort 2.485 GHz       Stort 2.485 GHz         Stort 2.4873 GHz       Stort 2.485 GHz         Stort 2.4873 GHz       Stort 2.485 GHz         Mather force for the form of th</td><td>Start 2.473 6Hz       Start 2.473 6Hz         Start 2.48186 bits       Start 2.48186 bits       Start 2.48186 bits         Channel 0 - Radiated Carrier Field Strength       Defector         MiHz       dBuV       dB/m       dB/m       Other Colspan="6"&gt;Start 2.48186 bits         MiHz       dBuV       dB/m       dB/m       Other Colspan="6"&gt;Start 2.48186 bits         MiHz       MHz</td></t<> <td></td> <td>mm</td> <td>مسم</td> <td>man</td> <td>2R</td> <td>mound</td> <td>~~~~</td> <td></td> <td></td> <td></td>	Start 2.473 GHz       Stort 2.473 GHz       Stort 2.473 GHz         Start 2.473 GHz       Stort 2.485 GHz       Stort 2.485 GHz         Stort 2.4873 GHz       Stort 2.485 GHz         Stort 2.4873 GHz       Stort 2.485 GHz         Mather force for the form of th	Start 2.473 6Hz       Start 2.473 6Hz         Start 2.48186 bits       Start 2.48186 bits       Start 2.48186 bits         Channel 0 - Radiated Carrier Field Strength       Defector         MiHz       dBuV       dB/m       dB/m       Other Colspan="6">Start 2.48186 bits         MiHz       dBuV       dB/m       dB/m       Other Colspan="6">Start 2.48186 bits         MiHz       MHz											mm	مسم	man	2R	mound	~~~~								
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	*Res BH 30 kHz       VBW 30 kHz       Sweep 15.28 ms (401 pts)         Maphredry 1       Trace       Type       X Akis       Amaphredry 1	Web Bit Bit Wet Vet 30 kHz Vet 30 kHz       Web 15.28 ms (401 prs)         Particular       Torial       Torial       Seven 15.28 ms (401 prs)         1       1       100       Freq       2.48861 682       15.18 48         2.6       0.0       Freq       2.48861 682       15.18 48       5         2.6       0.0       Freq       2.48861 682       15.18 48       5         Channel 0 - Radiated Carrier Field Strengths         Detector         Page dig       Rx Antenna       Page dig       Frequency       SA Level       Rx AF       Rx CL       Other       Field Strength       Detector         H       3       Hom SN6276       79       2480.00       83.00       30.37       3.51       0.00       33.88       116.88       PK         H       3       Hom SN6276       79       2480.00       76.70       30.37       3.51       0.00       33.88       110.58       PK         V 348.00       76.70       30.37       3.51       0.00       33.88       72.98       AV         V 3       Hom SN6276       79       2480.00       76.70       30.37       3.51       0.00       33.88	(Files Bit 30 kHz         Open 15.28 ms (401 pts)           There Trace Tr	(Bit 30 Hz)       (Bit 30 Hz) <th 6"="" 6"<="" colspan="6" td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>_</td><td></td><td></td><td></td><td></td><td></td></th>	<td></td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td></td>																			_					
1       (1)       Freq       2.48901 GHz       15.18 dB         26       (1)       Freq       2.48906 GHz       -5.18 dB         20       (1)       Freq       2.48906 GHz       -5.18 dB         Channel 0 - Radiated Carrier Field Strengths         MHz         Total Rx Ar CF         Visit       MHz       dBuV       dB       dB       dB/m       Detector         MHz       dBuV       dB/m       dB       dB       dB/m       dBuV       (PK/QP/AVG)         H       3       Horn SN6276       79       2480.00       83.00       30.37       3.51       0.00       33.88       116.88       PK	1       (1)       Freq 2a       2.48958 Hz (1)       15.18 dB Freq 2.48958 Hz -3.49 MHz       15.19 dB -51.dB 66.19 dB 66.19 dB         Channel 0 - Radiated Carrier Field Strengths         Channel 0 - Radiated Carrier Field Strengths         Total Rx CF       Field Strength       Detector         MHz       dBuV       dB       dB       dB/m       dBUV/m       Detector         10       MHz       dBuV       dB/m       dB       dB       dB/m       dBUV/m       (PK/QP/AVG)         10276       79       2480.00       41.80       30.37       3.51       0.00       33.88       116.88       PK         10276       79       2480.00       76.70       30.37       3.51       0.00       33.88       110.58       PK         10276       79       2480.00       76.70       30.37       3.51       0.00       33.88       110.58       PK         10276       79       2480.00       76.70       30.37       3.51       0.00       33.88       110.58       PK	1       1.00       Freq 2.4001 BHz 2.3.00 Mrz       15.80 BHz 3.4.00 Mrz       15.80 BHz 3.5.10 BHz 56.10 BHz         Channel 0 - Radiated Carrier Field Strengths         Detector Rx AF       Rx CL       Other Rx CF       Field Strength       Detector         0       0       0       0.88       15.80 BHz 56.10 BHz       0.00       38.88       16.88       PK         1       3       Horn SN6276       79       2480.00       41.80       30.37       3.51       0.00       33.88       116.88       PK         1       3       Horn SN6276       79       2480.00       76.70       30.37       3.51       0.00       33.88       110.58       PK         V       3       Horn SN6276       79       2480.00       37.03.71       3.51       0.00       33.88       110.58       PK         V       3       Horn SN6276       79       2480.00       39.10       30.37       3.51       0.00       33.88       75.68       AV         V       3       Horn SN6276       79       2480.00       39.10       30.37       3.51       0.00       33.88       75.68       AV         Other Strength       Deten Strength       Dete	1/2       1	1/2       (1)       Freq 2.       2.4688.9 m² 2-3.49 M²       15.18.48 66.10 48         1/2       (1)       Freq 2.       2.4688.9 m² 2-3.49 M²       15.18.48 66.10 48         Channel 0 - Radiated Carrier Field Strengths         Detector         1/2											VBk	1 30 kHz		Sweep											
Channel 0 - Radiated Carrier Field Strengths         Prequency       SA Level       Rx AF       Rx CL       Other Total Strength       Detector         n <th< td=""><td>Channel O - Radiated Carrier Field StrengthsInnaFrequencySA LevelRx AFRx CLOther RxField Rx CFSField StrengthDetectorInnaImage: FrequencySA LevelRx AFRx CLOther RxTotal Rx CFField StrengthDetectorImage: MHzIdBUVIdB/MIdBIdBIdBIdB/MIdBUV/M(PK/QP/AVG)Image: MHzIdBUVIdB/MIdB/MIdB/MIdB/MIdB/MIdB/MIdB/MImage: MHzIdBUVIdB/MIdBIdBIdBIdB/MIdB/V/M(PK/QP/AVG)Image: MHzIdB/MIdB/MIdB/MIdB/MIdB/MIdB/MIdB/MIdB/MImage: MHzIdB/MIdB/MIdB/MIdB/MIdB/MIdB/MIdB/MIdB/MImage: MHzImage: MHz&lt;</td><td>Channel 0 - Radiated Carrier Field Strengths         Image: Product of the strengt of t</td><td>Channel O - Radiated Carrier Field Strengths           Image of the term of term</td><td>Channel 0 - Radiated Carrier Field Strengths         Image: product of the strengt of t</td><td></td><td></td><td></td><td></td><td></td><td></td><td>Mar 1 2</td><td>ker T R</td><td>race Type (1) Free (1) Free</td><td>9</td><td>X Axis 2.48001 0 2.48350 0</td><td>i iHz iHz</td><td>15</td><td>iplitude .18 dBm -51 dBm</td><td></td><td></td><td></td><td></td><td></td></th<>	Channel O - Radiated Carrier Field StrengthsInnaFrequencySA LevelRx AFRx CLOther RxField Rx CFSField StrengthDetectorInnaImage: FrequencySA LevelRx AFRx CLOther RxTotal Rx CFField StrengthDetectorImage: MHzIdBUVIdB/MIdBIdBIdBIdB/MIdBUV/M(PK/QP/AVG)Image: MHzIdBUVIdB/MIdB/MIdB/MIdB/MIdB/MIdB/MIdB/MImage: MHzIdBUVIdB/MIdBIdBIdBIdB/MIdB/V/M(PK/QP/AVG)Image: MHzIdB/MIdB/MIdB/MIdB/MIdB/MIdB/MIdB/MIdB/MImage: MHzIdB/MIdB/MIdB/MIdB/MIdB/MIdB/MIdB/MIdB/MImage: MHzImage: MHz<	Channel 0 - Radiated Carrier Field Strengths         Image: Product of the strengt of t	Channel O - Radiated Carrier Field Strengths           Image of the term of term	Channel 0 - Radiated Carrier Field Strengths         Image: product of the strengt of t							Mar 1 2	ker T R	race Type (1) Free (1) Free	9	X Axis 2.48001 0 2.48350 0	i iHz iHz	15	iplitude .18 dBm -51 dBm											
Image: Presence of the second seco	Inna         Frequency         SA Level         Rx AF         Rx CL         Other Rx         Total Rx CF         Field Strength         Detector           MHz         dBuV         dB/m         dB         dB         dB/m         dBuV/m         (PK/QP/AVG)           3276         79         2480.00         83.00         30.37         3.51         0.00         33.88         116.88         PK           3276         79         2480.00         41.80         30.37         3.51         0.00         33.88         116.88         PK           3276         79         2480.00         76.70         30.37         3.51         0.00         33.88         110.58         PK	Image: bit	Image: bit with the b	Image: branch branch         Image: branch branch         Image: branch branch         Image: branch branc							2	۵	(1) Free	9	-3.49 M	1Hz	6	6.18 dB											
Image: Presence of the second seco	Inna         Frequency         SA Level         Rx AF         Rx CL         Other Rx         Total Rx CF         Field Strength         Detector           MHz         dBuV         dB/m         dB         dB         dB/m         dBuV/m         (PK/QP/AVG)           3276         79         2480.00         83.00         30.37         3.51         0.00         33.88         116.88         PK           3276         79         2480.00         41.80         30.37         3.51         0.00         33.88         116.88         PK           3276         79         2480.00         76.70         30.37         3.51         0.00         33.88         110.58         PK	Image: bit	Image: bit with the b	Image: branch branch         Image: branch branch         Image: branch branch         Image: branch branc																									
Image: Presence of the second seco	Inna         Frequency         SA Level         Rx AF         Rx CL         Other Rx         Total Rx CF         Field Strength         Detector           MHz         dBuV         dB/m         dB         dB         dB/m         dBuV/m         (PK/QP/AVG)           3276         79         2480.00         83.00         30.37         3.51         0.00         33.88         116.88         PK           3276         79         2480.00         41.80         30.37         3.51         0.00         33.88         116.88         PK           3276         79         2480.00         76.70         30.37         3.51         0.00         33.88         110.58         PK	Image: bit	Image: bit with the b	Image: branch branch         Image: branch branch         Image: branch branch         Image: branch branc									Channe	10-F	Radiated	d Carrie	r Field	Streng	ths										
m         MHz         dBuv         dB/m         dB/	MHz         dBuV         dB/m         dB         dB         dB/m	Image         Image <th< td=""><td>Image         Image         <th< td=""><td>Image         Image         <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>_</td><td></td><td>[</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<></td></th<></td></th<>	Image         Image <th< td=""><td>Image         Image         <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>_</td><td></td><td>[</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<></td></th<>	Image         Image <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>_</td><td></td><td>[</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>							_		[																
Im         Im         Im         Im         Imm	MHz         dBuV         dB/m         dB         dB         dB/m	Image         Image <th< td=""><td>Image         Image         <th< td=""><td>Image         Image         <th< td=""><td></td><td></td><td></td><td>olarity</td><td>stance</td><td>Rx An</td><td>tenna</td><td>annel</td><td>Frequenc</td><td>y S.</td><td>A Level</td><td>Rx AF</td><td>Rx Cl</td><td></td><td></td><td></td><td>Detector</td><td>r</td><td></td></th<></td></th<></td></th<>	Image         Image <th< td=""><td>Image         Image         <th< td=""><td></td><td></td><td></td><td>olarity</td><td>stance</td><td>Rx An</td><td>tenna</td><td>annel</td><td>Frequenc</td><td>y S.</td><td>A Level</td><td>Rx AF</td><td>Rx Cl</td><td></td><td></td><td></td><td>Detector</td><td>r</td><td></td></th<></td></th<>	Image         Image <th< td=""><td></td><td></td><td></td><td>olarity</td><td>stance</td><td>Rx An</td><td>tenna</td><td>annel</td><td>Frequenc</td><td>y S.</td><td>A Level</td><td>Rx AF</td><td>Rx Cl</td><td></td><td></td><td></td><td>Detector</td><td>r</td><td></td></th<>				olarity	stance	Rx An	tenna	annel	Frequenc	y S.	A Level	Rx AF	Rx Cl				Detector	r							
H 3 Horn SN6276 79 2480.00 83.00 30.37 3.51 0.00 33.88 116.88 PK	3276       79       2480.00       83.00       30.37       3.51       0.00       33.88       116.88       PK         5276       79       2480.00       41.80       30.37       3.51       0.00       33.88       75.68       AV         5276       79       2480.00       76.70       30.37       3.51       0.00       33.88       110.58       PK	H       3       Horn SN6276       79       2480.00       83.00       30.37       3.51       0.00       33.88       116.88       PK         H       3       Horn SN6276       79       2480.00       41.80       30.37       3.51       0.00       33.88       116.88       PK         V       3       Horn SN6276       79       2480.00       76.70       30.37       3.51       0.00       33.88       75.68       AV         V       3       Horn SN6276       79       2480.00       76.70       30.37       3.51       0.00       33.88       110.58       PK         V       3       Horn SN6276       79       2480.00       39.10       30.37       3.51       0.00       33.88       72.98       AV         V       3       Horn SN6276       79       2480.00       39.10       30.37       3.51       0.00       33.88       72.98       AV         V       3       Horn SN6276       79       2480.00       39.10       30.37       3.51       0.00       33.88       72.98       AV         V       Calculated Strength       Limit Distance Correction       Limit Distance Correction       C	H       3       Hom SN6276       79       2480.00       83.00       30.37       3.51       0.00       33.88       116.88       PK         H       3       Hom SN6276       79       2480.00       41.80       30.37       3.51       0.00       33.88       116.88       PK         V       3       Hom SN6276       79       2480.00       76.70       30.37       3.51       0.00       33.88       110.58       PK         V       3       Hom SN6276       79       2480.00       76.70       30.37       3.51       0.00       33.88       110.58       PK         V       3       Hom SN6276       79       2480.00       76.70       30.37       3.51       0.00       33.88       110.58       PK         V       3       Hom SN6276       79       2480.00       39.10       30.37       3.51       0.00       33.88       72.98       AV         Charrier Radiated Field Strength       Marker Bandedge Field Strength       Limit Distance Correction       Calculated Limit       Margin       Pass/Fail         H       3       Hom SN6276       79       2483.5       116.88       PK       66.18       50.7       3	H       3       Hom SN6276       79       2480.00       83.00       30.37       3.51       0.00       33.88       116.88       PK         H       3       Hom SN6276       79       2480.00       41.80       30.37       3.51       0.00       33.88       116.88       PK         V       3       Hom SN6276       79       2480.00       76.70       30.37       3.51       0.00       33.88       75.68       AV         V       3       Hom SN6276       79       2480.00       76.70       30.37       3.51       0.00       33.88       110.58       PK         V       3       Hom SN6276       79       2480.00       39.10       30.37       3.51       0.00       33.88       72.98       AV         Strength       30.37       3.51       0.00       33.88       72.98       AV         Hom SN6276       79       2480.00       39.10       30.37       3.51       0.00       33.88       72.98       AV         Strength       Marker       Calculated       Limit       Distance       Limit       Margin       Pass/Fail         M       3       Hom SN6276       79				P	Dis			ъ								ouchgur									
	3276     79     2480.00     41.80     30.37     3.51     0.00     33.88     75.68     AV       3276     79     2480.00     76.70     30.37     3.51     0.00     33.88     110.58     PK	H       3       Horn SN6276       79       2480.00       41.80       30.37       3.51       0.00       33.88       75.68       AV         V       3       Horn SN6276       79       2480.00       76.70       30.37       3.51       0.00       33.88       110.58       PK         V       3       Horn SN6276       79       2480.00       76.70       30.37       3.51       0.00       33.88       110.58       PK         V       3       Horn SN6276       79       2480.00       39.10       30.37       3.51       0.00       33.88       72.98       AV         Charner Calculated Band-edge Cout-of-Band       Sterngth       Ster	H       3       Horn SN6276       79       2480.00       41.80       30.37       3.51       0.00       33.88       75.68       AV         V       3       Horn SN6276       79       2480.00       76.70       30.37       3.51       0.00       33.88       75.68       AV         V       3       Horn SN6276       79       2480.00       76.70       30.37       3.51       0.00       33.88       110.58       PK         V       3       Horn SN6276       79       2480.00       39.10       30.37       3.51       0.00       33.88       72.98       AV         Channel O – Calculated Band-edge (Out-of-Band) Field Strength         m       Frequency       Radiated Strength       Strength       Distance Correction       Limit Distance Correction       Calculated Limit       Margin       Pass/Fail         H       3       Horn SN6276       79       2483.5       116.88       PK       66.18       50.7       3       0       73.98       23.28       Pass         H       3       Horn SN6276       79       2483.5       75.68       AV       66.18       9.5       3       0       73.98       23.28       Pass	H       3       Hom SN6276       79       2480.00       41.80       30.37       3.51       0.00       33.88       75.68       AV         V       3       Hom SN6276       79       2480.00       76.70       30.37       3.51       0.00       33.88       110.58       PK         V       3       Hom SN6276       79       2480.00       76.70       30.37       3.51       0.00       33.88       110.58       PK         V       3       Hom SN6276       79       2480.00       39.10       30.37       3.51       0.00       33.88       110.58       PK         V       3       Hom SN6276       79       2480.00       39.10       30.37       3.51       0.00       33.88       72.98       AV         Strength       30.37       3.51       0.00       33.88       72.98       AV         Minit Site of the strength         Strength       Strength       Strength       Strength       Strength       Strength       Strength       Strength       Strength       Strength       Strength       Strength       Strength       Strength       Strength       Strength       Strength       Strength       Strength<						Llorp C	NEOZE	70	1			l I					·	/G)							
	3276         79         2480.00         76.70         30.37         3.51         0.00         33.88         110.58         PK	V         3         Hom SN6276         79         2480.00         76.70         30.37         3.51         0.00         33.88         110.58         PK           V         3         Hom SN6276         79         2480.00         39.10         30.37         3.51         0.00         33.88         110.58         PK           V         3         Hom SN6276         79         2480.00         39.10         30.37         3.51         0.00         33.88         72.98         AV	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	V         3         Horn SN6276         79         2480.00         76.70         30.37         3.51         0.00         33.88         110.58         PK           V         3         Horn SN6276         79         2480.00         39.10         30.37         3.51         0.00         33.88         110.58         PK           V         3         Horn SN6276         79         2480.00         39.10         30.37         3.51         0.00         33.88         72.98         AV										_				-											
V 3 Horn SN6276 79 2480.00 76.70 30.37 3.51 0.00 33.88 110.58 PK	1276 79 2480.00 39.10 30.37 3.51 0.00 33.88 72.98 AV	Channel 0 – Calculated Band-edge (Out-of-Band) Field Strengths         Channel 0 – Calculated Band-edge (Out-of-Band) Field Strengths         Image: strength of the strength of th	Image: Section of the section of th	And the problem in the problem interview of the problem interview				v	3	Horn S	N6276			_				_	_		PK								
V 3 Horn SN6276 79 2480.00 39.10 30.37 3.51 0.00 33.88 72.98 AV		Verturn TopVerturn To	Image: box of the text of text	ProductProductProductCarrier Radiated StrengthMarker- DeltaCalculated Bandedge Field StrengthLimit DistanceLimit DistanceCalculated LimitMarginPass/FailMMHzdBUV/mMHzdBUV/mMarker- DeltaMarker- DeltaMarker- DeltaCalculated Bandedge Field StrengthLimit DistanceCalculated DistanceMarginPass/FailH3Horn SN6276792483.5116.88PK66.1850.73073.9823.28PassH3Horn SN6276792483.575.68AV66.189.53053.9844.48PassV3Horn SN6276792483.5110.58PK66.1844.43073.9829.58Pass				V	3	Horn S	N6276	79	2480.00		39.10	30.37	3.51	0.00	33.88	72.98	AV								
		Verturn TopVerturn To	Image: box of the text of text	ProductProductProductCarrier Radiated StrengthMarker- DeltaCalculated Bandedge Field StrengthLimit DistanceLimit DistanceCalculated LimitMarginPass/FailMMHzdBUV/mMHzdBUV/mMarker- DeltaMarker- DeltaMarker- DeltaCalculated Bandedge Field StrengthLimit DistanceCalculated DistanceMarginPass/FailH3Horn SN6276792483.5116.88PK66.1850.73073.9823.28PassH3Horn SN6276792483.575.68AV66.189.53053.9844.48PassV3Horn SN6276792483.5110.58PK66.1844.43073.9829.58Pass																									
		$ \frac{1}{10} $	$ \frac{1}{9} 1$	$ \frac{1}{2} \frac{1}{9} 1$		_	-				Cha	annel	_	lated	Band-e	edge (O	ut-of-E	Band) Fi	eld Strei	ngths									
	Carrier	m         MHz         dBuV/m         dB         dBuV/m         m         dB         dBuV/m         dB           H         3         Horn SN6276         79         2483.5         116.88         PK         66.18         50.7         3         0         73.98         23.28         Pass           H         3         Horn SN6276         79         2483.5         75.68         AV         66.18         9.5         3         0         53.98         44.48         Pass	m         MHz         dBuV/m         dB         dBuV/m         m         dB         dBuV/m         dB           H         3         Horn SN6276         79         2483.5         116.88         PK         66.18         50.7         3         0         73.98         23.28         Pass           H         3         Horn SN6276         79         2483.5         75.68         AV         66.18         9.5         3         0         53.98         44.48         Pass           V         3         Horn SN6276         79         2483.5         110.58         PK         66.18         44.4         3         0         73.98         29.58         Pass	m         MHz         dBuV/m         dB         dBuV/m         m         dB         dBuV/m         dB         dBuV/m         dB         dBuV/m         dB         dBuV/m         m         dB         dBuV/m         dB	-	larity tance		Rx An	tenna	annel	Freque	ency	Radiated	ctor			Field				ed Marg	gin	Pass/Fail						
	Calculated Limit	H         3         Horn SN6276         79         2483.5         116.88         PK         66.18         50.7         3         0         73.98         23.28         Pass           H         3         Horn SN6276         79         2483.5         75.68         AV         66.18         9.5         3         0         53.98         44.48         Pass	H       3       Horn SN6276       79       2483.5       116.88       PK       66.18       50.7       3       0       73.98       23.28       Pass         H       3       Horn SN6276       79       2483.5       75.68       AV       66.18       9.5       3       0       53.98       44.48       Pass         V       3       Horn SN6276       79       2483.5       110.58       PK       66.18       44.4       3       0       73.98       29.58       Pass	H       3       Horn SN6276       79       2483.5       116.88       PK       66.18       50.7       3       0       73.98       23.28       Pass         H       3       Horn SN6276       79       2483.5       75.68       AV       66.18       9.5       3       0       53.98       44.48       Pass         V       3       Horn SN6276       79       2483.5       110.58       PK       66.18       44.4       3       0       73.98       29.58       Pass		_	ļ			ъ			Strength	Dete			gth			1									
	Frequency Radiated Field Strength Bandedge Fiel Strength Bandedge Field Strength		V 3 Horn SN6276 79 2483.5 110.58 PK 66.18 44.4 3 0 73.98 29.58 Pass	V 3 Horn SN6276 79 2483.5 110.58 PK 66.18 44.4 3 0 73.98 29.58 Pass	ŀ		I					_		PK				3		-			Pass						
	FrequencyRadiated Field StrengthMarker- DeltaCalculated Bandedge Field StrengthLimit Distance CorrectionCalculated Limit Distance CorrectionMarginPass/FailMHzdBuV/mdBdBuV/mmdBdBuV/mdB2483.5116.88PK66.1850.73073.9823.28Pass				-	_	_					_								_									
H 3 Horn SN6276 79 2483.5 75.68 AV 66.18 9.5 3 0 53.98 44.48	FrequencyRadiated Field StrengthMarker- DeltaCalculated Bandedge Field StrengthLimit DistanceLimit DistanceCalculated LimitMarginPass/FailMHzdBuV/mdBdBuV/mmdBdBuV/mdBdBuV/mdB2483.5116.88PK66.1850.73073.9823.28Pass2483.575.68AV66.189.53053.9844.48Pass		V 3 Horn SN6276 79 2483.5 72.98 AV 66.18 6.8 3 0 53.98 47.18 Pass		-	-	_																						
End     End     Rx Antenna     End     Frequency     Radiated     O     Marker-     Bandedge Field     Limit     Distance     Calculated       0	(alculated limit	m         MHz         dBuV/m         dB         dBuV/m         m         dB         dBuV/m         dB           H         3         Horn SN6276         79         2483.5         116.88         PK         66.18         50.7         3         0         73.98         23.28         Pass           H         3         Horn SN6276         79         2483.5         75.68         AV         66.18         9.5         3         0         53.98         44.48         Pass	m         MHz         dBuV/m         dB         dBuV/m         m         dB         dBuV/m         dB           H         3         Horn SN6276         79         2483.5         116.88         PK         66.18         50.7         3         0         73.98         23.28         Pass           H         3         Horn SN6276         79         2483.5         75.68         AV         66.18         9.5         3         0         53.98         44.48         Pass           V         3         Horn SN6276         79         2483.5         110.58         PK         66.18         44.4         3         0         73.98         29.58         Pass	m         MHz         dBuV/m         dB         dBuV/m         m         dB         dBuV/m         dB         dBuV/m         dB         dBuV/m         dB         dBuV/m         m         dB         dBuV/m         dB		Polari		Rx An	tenna	Chann	Freque	ency	Field	stector		Bandedge	e Field		Distance	L imit	ed Marg	gin	Pass/Fail						
m MHz dBuV/m dB dBuV/m m dB dBuV/m dB	Calculated Limit	H 3 Horn SN6276 79 2483.5 75.68 AV 66.18 9.5 3 0 53.98 44.48 Pass	H         3         Horn SN6276         79         2483.5         75.68         AV         66.18         9.5         3         0         53.98         44.48         Pass           V         3         Horn SN6276         79         2483.5         110.58         PK         66.18         44.4         3         0         73.98         29.58         Pass	H         3         Horn SN6276         79         2483.5         75.68         AV         66.18         9.5         3         0         53.98         44.48         Pass           V         3         Horn SN6276         79         2483.5         110.58         PK         66.18         44.4         3         0         73.98         29.58         Pass		m						_	dBuV/m							-									
	Frequency Radiated Field Strength 2 and Strength 2		V 3 Horn SN6276 79 2483.5 110.58 PK 66.18 44.4 3 0 73.98 29.58 Pass	V 3 Horn SN6276 79 2483.5 110.58 PK 66.18 44.4 3 0 73.98 29.58 Pass			_													_									
	FrequencyRadiated Field StrengthMarker DeltaCalculated Bandedge Field StrengthLimit DistanceLimit Distance CorrectionCalculated Limit Distance CorrectionMarginPass/FailMHzdBu//mdBdBu//mmdBdBu//mdBdBu//mdB2483.5116.88PK66.1850.73073.9823.28Pass				-	_	_					_								_									
H       3       Horn SN6276       79       2483.5       75.68       AV       66.18       9.5       3       0       53.98       44.48         V       3       Horn SN6276       79       2483.5       110.58       PK       66.18       44.4       3       0       73.98       29.58         V       3       Horn SN6276       79       2483.5       72.98       AV       66.18       6.8       3       0       53.98       47.18	FrequencyRadiated Field Strengthb b g gMarker DeltaCalculated Bandedge Field StrengthLimit DistanceLimit Distance CorrectionCalculated Limit Distance CorrectionMarginPass/FailMHzdBuV/mdBdBuV/mmdBdBuV/mdBdBuV/mdB2483.5116.88PK66.1850.73073.9823.28Pass2483.575.68AV66.189.53053.9844.48Pass2483.5110.58PK66.1844.43073.9829.58Pass2483.572.98AV66.186.83053.9847.18Pass														r (Amplifi	er Gain,	Hiter Lo	oss, etc)	(dH)										
H       3       Horn SN6276       79       2483.5       75.68       AV       66.18       9.5       3       0       53.98       44.48         V       3       Horn SN6276       79       2483.5       110.58       PK       66.18       44.4       3       0       73.98       29.58         V       3       Horn SN6276       79       2483.5       72.98       AV       66.18       6.8       3       0       53.98       47.18         nulae:         CF (dB) = Antenna Factor (dB) + Cable Factor (dB) + Other Factor (Amplifier Gain, Filter Loss, etc) (dB)	Frequency     Radiated Field Strength     Marker Delta     Calculated Bandedge Field Strength     Limit Distance     Limit Distance Correction     Calculated Limit     Margin     Pass/Fail       MHz     dBuV/m     dB     dBuV/m     m     dB     dBuV/m     dB     dBu       2483.5     116.88     PK     66.18     50.7     3     0     73.98     23.28     Pass       2483.5     75.68     AV     66.18     9.5     3     0     53.98     44.48     Pass       2483.5     110.58     PK     66.18     44.4     3     0     73.98     29.58     Pass       2483.5     72.98     AV     66.18     6.8     3     0     53.98     47.18     Pass	CF (dB) = Antenna Factor (dB)+ Cable Factor (dB) + Other Factor (Amplifier Gain, Filter Loss, etc) (dB)	F (dB) = Antenna Factor (dB) + Cable Factor (dB) + Other Factor (Amplifier Gain, Filter Loss, etc) (dB)							-	• •				(d1/d2) f	orf≻30N	1Hz; wi	here d1 i	s the mea	surement	distance a	ind d2 i:	s the publis						
H       3       Horn SN6276       79       2483.5       75.68       AV       66.18       9.5       3       0       53.98       44.48         V       3       Horn SN6276       79       2483.5       110.58       PK       66.18       44.4       3       0       73.98       29.58         V       3       Horn SN6276       79       2483.5       72.98       AV       66.18       6.8       3       0       53.98       47.18         nulae:       I       CF (dB) = Antenna Factor (dB) + Cable Factor (dB) + Other Factor (Amplifier Gain, Filter Loss, etc) (dB)       45trength (dBuV/m) = SA Reading (dBuV) + Total CF (dB/m)	Frequency     Radiated Field Strength     b 0 0     Marker Delta     Calculated Bandedge Field Strength     Limit Distance Strength     Limit Distance Correction     Calculated Limit     Margin     Pass/Fail       MHz     dBuV/m     dB     dBuV/m     m     dB     dBuV/m     dB     dBu       2483.5     116.88     PK     66.18     50.7     3     0     73.98     23.28     Pass       2483.5     75.68     AV     66.18     9.5     3     0     53.98     44.48     Pass       2483.5     110.58     PK     66.18     44.4     3     0     53.98     47.18     Pass       2483.5     72.98     AV     66.18     6.8     3     0     53.98     47.18     Pass       Del Factor (dB) + Other Factor (Amplifier Gain, Filter Loss, etc) (dB)     BuV) + Total CF (dB/m)     Fail     Fail     Fail	CF (dB) = Antenna Factor (dB)+ Cable Factor (dB) + Other Factor (Amplifier Gain, Filter Loss, etc) (dB)	F (dB) = Antenna Factor (dB) + Cable Factor (dB) + Other Factor (Amplifier Gain, Filter Loss, etc) (dB) rength (dBuV/m) = SA Reading (dBuV) + Total CF (dB/m)	trength (dBuV/m) = SA Reading (dBuV) + Total CF (dB/m)	t (dBu)	v/m) =	P	ublishe	ed Lii	mit (dBu\	//m) + L	.imit D	istance Co	-															
H       3       Horn SN6276       79       2483.5       75.68       AV       66.18       9.5       3       0       53.98       44.48         V       3       Horn SN6276       79       2483.5       110.58       PK       66.18       44.4       3       0       73.98       29.58         V       3       Horn SN6276       79       2483.5       72.98       AV       66.18       6.8       3       0       53.98       47.18         nulae:       I       CF (dB) = Antenna Factor (dB) + Cable Factor (dB) + Other Factor (Amplifier Gain, Filter Loss, etc) (dB)       d       53.98       47.18         d Strength (dBuV/m) = SA Reading (dBuV) + Total CF (dB/m)       t       Distance Correction (dB) = 40 * log(d1/d2) for f < 30 MHz, 20*log(d1/d2) for f >30 MHz; where d1 is the measurement distance and d2 is it (dBuV/m) = Published Limit (dBuV/m) + Limit Distance Correction (dB)	Radiated Field Strength       b 0 0       Marker Delta       Calculated Bandedge Field Strength       Limit Distance Correction       Calculated Limit Distance Correction       Margin       Pass/Fail         MHz       dBuV/m       dB       dBuV/m       m       dB       dBuV/m       dB       dBu         2483.5       116.88       PK       66.18       50.7       3       0       73.98       23.28       Pass/ Pass         2483.5       75.68       AV       66.18       9.5       3       0       53.98       44.48       Pass/ Pass         2483.5       71.058       PK       66.18       44.4       3       0       53.98       47.18       Pass         2483.5       72.98       AV       66.18       6.8       3       0       53.98       47.18       Pass         2483.5       72.98       AV       66.18       6.8       3       0       53.98       47.18       Pass         BuV) + Total CF (dB/m)       Imate the measurement distance and d2 is the publisher       Imate the measurement distance and d2 is the publisher       Imate the publisher       Imate the publisher         m) + Limit Distance Correction (dB)       Imate the publisher       Imate the publisher       Imate the publisher       Imate	I CF (dB) = Antenna Factor (dB)+ Cable Factor (dB) + Other Factor (Amplifier Gain, Filter Loss, etc) (dB) I Strength (dBuV/m) = SA Reading (dBuV) + Total CF (dB/m) I Distance Correction (dB) = 40 * log(d1/d2) for f < 30 MHz, 20*log(d1/d2) for f > 30 MHz; where d1 is the measurement distance and d2 is the publish I (dBuV/m) = Published Limit (dBuV/m) + Limit Distance Correction (dB)	F (dB) = Antenna Factor (dB)+ Cable Factor (dB) + Other Factor (Amplifier Gain, Filter Loss, etc) (dB) rength (dBuV/m) = SA Reading (dBuV) + Total CF (dB/m) stance Correction (dB) = 40 * log(d1/d2) for f < 30 MHz, 20*log(d1/d2) for f > 30 MHz; where d1 is the measurement distance and d2 is the publish BuV/m) = Published Limit (dBuV/m) + Limit Distance Correction (dB)	trength (dBuV/m) = SA Reading (dBuV) + Total CF (dB/m) Distance Correction (dB) = 40 * log(d1/d2) for f < 30 MHz, 20*log(d1/d2) for f > 30 MHz; where d1 is the measurement distance and d2 is the publish dBuV/m) = Published Limit (dBuV/m) + Limit Distance Correction (dB)	gin (dB	) = Lin	nit	(dBuV	/m) -	Field Str	ength (	18uV/I	n)																
H       3       Horn SN6276       79       2483.5       75.68       AV       66.18       9.5       3       0       53.98       44.48         V       3       Horn SN6276       79       2483.5       110.58       PK       66.18       44.4       3       0       73.98       29.58         V       3       Horn SN6276       79       2483.5       72.98       AV       66.18       6.8       3       0       53.98       47.18         nulae:       I       CF (dB) = Antenna Factor (dB) + Cable Factor (dB) + Other Factor (Amplifier Gain, Filter Loss, etc) (dB)       d       53.98       47.18         d Strength (dBuV/m) = SA Reading (dBuV) + Total CF (dB/m)       t       Distance Correction (dB) = 40 * log(d1/d2) for f < 30 MHz, 20*log(d1/d2) for f >30 MHz; where d1 is the measurement distance and d2 is it (dBuV/m) = Published Limit (dBuV/m) + Limit Distance Correction (dB)	Radiated Field Strength       b 0 0       Marker Delta       Calculated Bandedge Field Strength       Limit Distance Correction       Calculated Limit Distance Correction       Margin       Pass/Fail         MHz       dBuV/m       dB       dBuV/m       m       dB       dBuV/m       dB       dBu         2483.5       116.88       PK       66.18       50.7       3       0       73.98       23.28       Pass/ Pass         2483.5       75.68       AV       66.18       9.5       3       0       53.98       44.48       Pass/ Pass         2483.5       71.058       PK       66.18       44.4       3       0       53.98       47.18       Pass         2483.5       72.98       AV       66.18       6.8       3       0       53.98       47.18       Pass         2483.5       72.98       AV       66.18       6.8       3       0       53.98       47.18       Pass         BuV) + Total CF (dB/m)       Imate the measurement distance and d2 is the publisher       Imate the measurement distance and d2 is the publisher       Imate the publisher       Imate the publisher         m) + Limit Distance Correction (dB)       Imate the publisher       Imate the publisher       Imate the publisher       Imate	I CF (dB) = Antenna Factor (dB)+ Cable Factor (dB) + Other Factor (Amplifier Gain, Filter Loss, etc) (dB) I Strength (dBuV/m) = SA Reading (dBuV) + Total CF (dB/m) I Distance Correction (dB) = 40 * log(d1/d2) for f < 30 MHz, 20*log(d1/d2) for f > 30 MHz; where d1 is the measurement distance and d2 is the publish I (dBuV/m) = Published Limit (dBuV/m) + Limit Distance Correction (dB)	F (dB) = Antenna Factor (dB)+ Cable Factor (dB) + Other Factor (Amplifier Gain, Filter Loss, etc) (dB) rength (dBuV/m) = SA Reading (dBuV) + Total CF (dB/m) stance Correction (dB) = 40 * log(d1/d2) for f < 30 MHz, 20*log(d1/d2) for f > 30 MHz; where d1 is the measurement distance and d2 is the publish BuV/m) = Published Limit (dBuV/m) + Limit Distance Correction (dB)	trength (dBuV/m) = SA Reading (dBuV) + Total CF (dB/m) Distance Correction (dB) = 40 * log(d1/d2) for f < 30 MHz, 20*log(d1/d2) for f > 30 MHz; where d1 is the measurement distance and d2 is the publish dBuV/m) = Published Limit (dBuV/m) + Limit Distance Correction (dB)	Meas	urem	er	nts an	d ca	alculati	on refe	erenc	e the Ma	rker-l	Delta M	lethod I	Descri	bed in	FCC Pu	blic Notic	e DA 00-	-705							
H       3       Hom SN6276       79       2483.5       75.68       AV       66.18       9.5       3       0       53.98       44.48         V       3       Hom SN6276       79       2483.5       110.58       PK       66.18       44.4       3       0       73.98       29.58         V       3       Hom SN6276       79       2483.5       72.98       AV       66.18       6.8       3       0       53.98       47.18         nulae:       I CF (dB) = Antenna Factor (dB) + Cable Factor (dB) + Other Factor (Amplifier Gain, Filter Loss, etc) (dB)       3       3       0       53.98       47.18         1 Strength (dBuV/m) = SA Reading (dBuV) + Total CF (dB/m)       1       1       0       7.30 MHz, 20*log(d1/d2) for f > 30 MHz, 20*log(d1/d2) for f > 30 MHz, where d1 is the measurement distance and d2 is t (dBuV/m) = Published Limit (dBuV/m) + Limit Distance Correction (dB)       3       0       1	Radiated Field Strength       b 0 0       Marker Delta       Calculated Bandedge Field Strength       Limit Distance Correction       Calculated Limit Distance Correction       Margin       Pass/Fail         MHz       dBuV/m       dB       dBuV/m       m       dB       dBuV/m       dB       dBu         2483.5       116.88       PK       66.18       50.7       3       0       73.98       23.28       Pass/ Pass         2483.5       75.68       AV       66.18       9.5       3       0       53.98       44.48       Pass/ Pass         2483.5       710.58       PK       66.18       44.4       3       0       53.98       47.18       Pass         2483.5       72.98       AV       66.18       6.8       3       0       53.98       47.18       Pass         BuV) + Total CF (dB/m)         63.0 MHz, where d1 is the measurement distance and d2 is the publisher       m) + Limit Distance Correction (dB)       m) + Limit Distance Correctio	I CF (dB) = Antenna Factor (dB)+ Cable Factor (dB) + Other Factor (Amplifier Gain, Filter Loss, etc) (dB) I Strength (dBuV/m) = SA Reading (dBuV) + Total CF (dB/m) t Distance Correction (dB) = 40 * log(d1/d2) for f < 30 MHz, 20*log(d1/d2) for f > 30 MHz; where d1 is the measurement distance and d2 is the publish t (dBuV/m) = Published Limit (dBuV/m) + Limit Distance Correction (dB) in (dB) = Limit (dBuV/m) - Field Strength (dBuV/m)	F (dB) = Antenna Factor (dB)+ Cable Factor (dB) + Other Factor (Amplifier Gain, Filter Loss, etc) (dB) rength (dBuV/m) = SA Reading (dBuV) + Total CF (dB/m) stance Correction (dB) = 40 * log(d1/d2) for f < 30 MHz, 20*log(d1/d2) for f > 30 MHz; where d1 is the measurement distance and d2 is the publish BuV/m) = Published Limit (dBuV/m) + Limit Distance Correction (dB) (dB) = Limit (dBuV/m) - Field Strength (dBuV/m)	trength (dBuV/m) = SA Reading (dBuV) + Total CF (dB/m) Distance Correction (dB) = 40 * log(d1/d2) for f < 30 MHz, 20*log(d1/d2) for f > 30 MHz; where d1 is the measurement distance and d2 is the publish dBuV/m) = Published Limit (dBuV/m) + Limit Distance Correction (dB) (dB) = Limit (dBuV/m) - Field Strength (dBuV/m)																									
H       3       Horn SN6276       79       2483.5       75.68       AV       66.18       9.5       3       0       53.98       44.48         V       3       Horn SN6276       79       2483.5       110.58       PK       66.18       44.4       3       0       73.98       29.58         V       3       Horn SN6276       79       2483.5       72.98       AV       66.18       6.8       3       0       53.98       47.18         nulae:       I       CF (dB) = Antenna Factor (dB) + Cable Factor (dB) + Other Factor (Amplifier Gain, Filter Loss, etc) (dB)       d       d       d       d       for f > 30       MHz, 20*log(d1/d2) for f > 30       MHz, 20*log(d1/d2) for f > 30       MHz, where d1 is the measurement distance and d2 is it (dBuV/m) = Published Limit (dBuV/m) + Limit Distance Correction (dB)         gin (dB) = Limit (dBuV/m) - Field Strength (dBuV/m)       Strength (dBuV/m)       4BuV/m)       Field Strength (dBuV/m)	FrequencyRadiated Field StrengthMarker- DeltaCalculated Badedge Field DistanceLimit Distance CorrectionCalculated LimitMarginPass/FailMHzdBuV/mdBdBuV/mmdBdBuV/mdBdBuV/mdB2483.5116.88PK66.1850.73073.9823.28Pass2483.575.68AV66.189.53053.9844.48Pass2483.5110.58PK66.1844.43073.9829.58Pass2483.572.98AV66.186.83053.9847.18Pass2483.572.98AV66.186.83053.9847.18Passble Factor (dB) + Other Factor (Amplifier Gain, Filter Loss, etc) (dB)BuV) + Total CF (dB/m)(d1/d2) for f < 30 MHz, 20*log(d1/d2) for f > 30 MHz; where d1 is the measurement distance and d2 is the publishemm) + Limit Distance Correction (dB)mgth (dBuV/m)	I CF (dB) = Antenna Factor (dB)+ Cable Factor (dB) + Other Factor (Amplifier Gain, Filter Loss, etc) (dB) I Strength (dBuV/m) = SA Reading (dBuV) + Total CF (dB/m) t Distance Correction (dB) = 40 * log(d1/d2) for f < 30 MHz, 20*log(d1/d2) for f > 30 MHz; where d1 is the measurement distance and d2 is the publish t (dBuV/m) = Published Limit (dBuV/m) + Limit Distance Correction (dB) in (dB) = Limit (dBuV/m) - Field Strength (dBuV/m)	F (dB) = Antenna Factor (dB)+ Cable Factor (dB) + Other Factor (Amplifier Gain, Filter Loss, etc) (dB) rength (dBuV/m) = SA Reading (dBuV) + Total CF (dB/m) stance Correction (dB) = 40 * log(d1/d2) for f < 30 MHz, 20*log(d1/d2) for f > 30 MHz; where d1 is the measurement distance and d2 is the publish BuV/m) = Published Limit (dBuV/m) + Limit Distance Correction (dB) (dB) = Limit (dBuV/m) - Field Strength (dBuV/m)	trength (dBuV/m) = SA Reading (dBuV) + Total CF (dB/m) Distance Correction (dB) = 40 * log(d1/d2) for f < 30 MHz, 20*log(d1/d2) for f > 30 MHz; where d1 is the measurement distance and d2 is the publish dBuV/m) = Published Limit (dBuV/m) + Limit Distance Correction (dB) (dB) = Limit (dBuV/m) - Field Strength (dBuV/m)		ltr	ro	nix Co	orpo	oration	Mo	del:	IX260	PNL	A555B	T FC	C ID:	K	BCIX26	0PNLA55	5BT	IC ID	: 1943A-						
H       3       Horn SN6276       79       2483.5       75.68       AV       66.18       9.5       3       0       53.98       44.48         V       3       Horn SN6276       79       2483.5       110.58       PK       66.18       44.4       3       0       73.98       29.58         V       3       Horn SN6276       79       2483.5       72.98       AV       66.18       6.8       3       0       53.98       47.18         mulae:       al CF (dB) = Antenna Factor (dB) + Cable Factor (dB) + Other Factor (Amplifier Gain, Filter Loss, etc) (dB)       d       d       d       d       filter Loss, etc) (dB)       d         d Strength (dBuV/m) = SA Reading (dBuV) + Total CF (dB/m)       it       Distance Correction (dB) = 40 * log(d1/d2) for f < 30 MHz, 20*log(d1/d2) for f >30 MHz; where d1 is the measurement distance and d2 is it (dBuV/m) = Published Limit (dBuV/m) + Limit Distance Correction (dB)       gin (dB) = Limit (dBuV/m) - Field Strength (dBuV/m)         Measurements and calculation reference the Marker-Delta Method Described in FCC Public Notice DA 00-705	Frequency       Radiated Field Strength       b b 0       Marker- Delta       Calculated Bandedge Field Strength       Limit Distance Correction       Calculated Limit       Margin       Pass/Fail         MHz       dB       dB       dBuV/m       m       dB       dBU/m       dB       44.48       Pass       Pa	I CF (dB) = Antenna Factor (dB)+ Cable Factor (dB) + Other Factor (Amplifier Gain, Filter Loss, etc) (dB) I Strength (dBuV/m) = SA Reading (dBuV) + Total CF (dB/m) t Distance Correction (dB) = 40 * log(d1/d2) for f < 30 MHz, 20*log(d1/d2) for f > 30 MHz, where d1 is the measurement distance and d2 is the publish t (dBuV/m) = Published Limit (dBuV/m) + Limit Distance Correction (dB) in (dB) = Limit (dBuV/m) - Field Strength (dBuV/m)  Measurements and calculation reference the Marker-Delta Method Described in FCC Public Notice DA 00-705	F (dB) = Antenna Factor (dB)+ Cable Factor (dB) + Other Factor (Amplifier Gain, Filter Loss, etc) (dB) rength (dBuV/m) = SA Reading (dBuV) + Total CF (dB/m) stance Correction (dB) = 40 * log(d1/d2) for f < 30 MHz, 20*log(d1/d2) for f > 30 MHz; where d1 is the measurement distance and d2 is the publish BuV/m) = Published Limit (dBuV/m) + Limit Distance Correction (dB) (dB) = Limit (dBuV/m) - Field Strength (dBuV/m) asurements and calculation reference the Marker-Delta Method Described in FCC Public Notice DA 00-705	trength (dBuV/m) = SA Reading (dBuV) + Total CF (dB/m) Distance Correction (dB) = 40 * log(d1/d2) for f < 30 MHz, 20*log(d1/d2) for f > 30 MHz; where d1 is the measurement distance and d2 is the publish dBuV/m) = Published Limit (dBuV/m) + Limit Distance Correction (dB) (dB) = Limit (dBuV/m) - Field Strength (dBuV/m) easurements and calculation reference the Marker-Delta Method Described in FCC Public Notice DA 00-705	icant:																								



Test Report S/N:	102604KBC-1	576-E15B	Issue 1.0
Test Date(s):	21Sept	t04 - 14Oct0	4, 22Oct04
Test Type(s):	FCC §15.247	IC RSS-2	210 Issue 5
Lab Registration(s):	FCC #714830	IC Lab	File #3874

9.2. Spu	riou	is E	mission F	Field Str	engths	@	Spe	cifie	d Dista	ince								
Cell	lee	ch		Company: Product:		Itror	804KBC hix 60+ with								Standard: Test Start Da Test End Dat		FCC15.209 21Sep04 12Oct04	)
									IX2	260+ with Blueto	ooth							
Channel	Polarity	Distance	Rx Antenna	Frequency	SA Level	Noise Floor	Rx AF	Rx CL	Other Rx	*Duty Cycle Correction	Total Rx CF	Field Strength	Detector	Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m		MHz	dBuV		dB/m	dB	dB	dB	dB/m	dBuV/m	(PK/QP/AV)	m	dB	dBuV/m	dB	
BT-Low	Н	3	Horn SN6276	2000.00	14.40	х	29.60	3.18	0.00	-20.00	12.78	27.18	PK	3.00	0.00	53.98	26.80	PASS
BT-Low	Н	3	Horn SN6276	2390.00	36.40		30.22	3.47	0.00	-20.00	13.69	50.09	PK	3.00	0.00	53.98	3.89	PASS
BT-Low	Н	3	Horn SN6276	2483.00	50.90		30.37	3.51	-20.26	-20.00	-6.37	44.53	PK	3.00	0.00	53.98	9.45	PASS
BT-Low	Н	3	Horn SN6276	7206.72	52.40		38.17	6.21	-34.32	-20.00	-9.94	42.46	PK	3.00	0.00	53.98	11.52	PASS
BT-Low	Н	1	Horn SN6276	17986.00	44.90		45.86	10.43	-32.01	-20.00	4.28	49.18	PK	3.00	9.54	63.52	14.35	PASS
BT-Low	V	3	Horn SN6276	2000.00	17.00	х	29.60	3.18	0.00	-20.00	12.78	29.78	PK	3.00	0.00	53.98	24.20	PASS
BT-Low	V	3	Horn SN6276	2390.00	29.20		30.22	3.47	0.00	-20.00	13.69	42.89	PK	3.00	0.00	53.98	11.09	PASS
BT-Low	V	3	Horn SN6276	2483.00	44.00		30.37	3.51	-20.26	-20.00	-6.37	37.63	PK	3.00	0.00	53.98	16.35	PASS
BT-Low	V	3	Horn SN6276	4804.58	52.70		35.31	4.96	-34.08	-20.00	-13.81	38.89	PK	3.00	0.00	53.98	15.09	PASS
BT-Low	V	3	Horn SN6276	4804.46	50.80		35.31	4.96	-34.08	-20.00	-13.81	36.99	PK	3.00	0.00	53.98	16.99	PASS
BT-Low	V	3	Horn SN6276	7207.22	57.30		38.17	6.21	-34.32	-20.00	-9.93	47.37	PK	3.00	0.00	53.98	6.61	PASS
BT-Low	V	1	Horn SN6276	17874.00	44.50		45.52	10.28	-32.09	-20.00	3.71	48.21	PK	3.00	9.54	63.52	15.31	PASS
BT-Mid	Н	3	Horn SN6276	2000.00	14.40	х	29.60	3.18	0.00	-20.00	12.78	27.18	PK	3.00	0.00	53.98	26.80	PASS
BT-Mid	Н	3	Horn SN6276	2390.00	47.20		30.22	3.47	-20.40	-20.00	-6.71	40.49	PK	3.00	0.00	53.98	13.49	PASS
BT-Mid	Н	3	Horn SN6276	2483.50	51.60		30.37	3.51	-20.26	-20.00	-6.37	45.23	PK	3.00	0.00	53.98	8.75	PASS
BT-Mid	Н	3	Horn SN6276	4882.41	55.90		35.46	5.04	-34.09	-20.00	-13.59	42.31	PK	3.00	0.00	53.98	11.67	PASS
BT-Mid	Н	3	Horn SN6276	7323.65	50.00		38.38	6.32	-34.32	-20.00	-9.62	40.38	PK	3.00	0.00	53.98	13.60	PASS
BT-Mid	Н	1	Horn SN6276	17992.00	44.50		45.88	10.45	-32.01	-20.00	4.32	48.82	PK	3.00	9.54	63.52	14.70	PASS
BT-Mid	V	3	Horn SN6276	2000.00	17.00	х	29.60	3.18	0.00	-20.00	12.78	29.78	PK	3.00	0.00	53.98	24.20	PASS
BT-Mid	V	3	Horn SN6276	2390.00	50.30		30.22	3.47	-20.40	-20.00	-6.71	43.59	PK	3.00	0.00	53.98	10.39	PASS
BT-Mid	V	3	Horn SN6276	2483.50	45.90		30.37	3.51	-20.26	-20.00	-6.37	39.53	PK	3.00	0.00	53.98	14.45	PASS
BT-Mid	V	3	Horn SN6276	4882.23	49.80		35.46	5.04	-34.09	-20.00	-13.59	36.21	PK	3.00	0.00	53.98	17.77	PASS
BT-Mid	V	3	Horn SN6276	7323.74	55.80		38.38	6.32	-34.32	-20.00	-9.62	46.18	PK	3.00	0.00	53.98	7.80	PASS
BT-Mid	V	3	Horn SN6276	9764.87	49.40		40.30	7.41	-34.25	-20.00	-6.54	42.86	PK	3.00	0.00	53.98	11.12	PASS
BT-Mid	V	1	Horn SN6276	18000.00	43.90		45.90	10.48	-32.00	-20.00	4.38	48.28	PK	3.00	9.54	63.52	15.24	PASS
DTUE				0000.00	11.10		00.00	0.40	0.00		40.70	07.40	DK	0.00	0.00	50.00		DAGO
BT-High	H H	3	Horn SN6276	2000.00	14.40 50.50	х	29.60	3.18 3.47	0.00	-20.00	12.78	27.18 43.79	PK PK	3.00 3.00	0.00	53.98 53.98	26.80	PASS PASS
BT-High			Horn SN6276	2390.00		$\vdash$	30.22				-6.71						10.19	
BT-High	Н	3	Horn SN6276	2483.50	46.40		30.37	3.51	0.00	-20.00	13.89	60.29	PK	3.00	0.00	73.98	13.69	PASS
BT-High	Н	3	Horn SN6276	2483.50	26.60		30.37	3.51	0.00	-20.00	13.89	40.49	PK	3.00	0.00	53.98	13.49	PASS
BT-High BT-High	H H	3	Horn SN6276 Horn SN6276	4960.48 17862.00	52.20 44.70		35.62 45.49	5.06 10.28	-34.10 -32.10	-20.00	-13.42 3.67	38.78 48.37	PK PK	3.00 3.00	0.00 9.54	53.98 63.52	15.19 15.16	PASS PASS
BT-High	H V	1	Horn SN6276 Horn SN6276	2000.00	44.70		45.49 29.60	3.18	-32.10	-20.00	3.67	48.37 29.78	PK PK	3.00	9.54	53.98	24.20	PASS
8	V				17.00 48.00	x	29.60 30.22	3.18					PK PK	3.00		53.98 53.98	24.20	PASS
BT-High BT High	V	3	Horn SN6276 Horn SN6276	2390.00 2483.50	48.00		30.22 30.37	3.47	-20.40	-20.00	-6.71 13.89	41.29 54.19	PK PK	3.00	0.00	53.98 73.98	12.69 19.79	PASS
BT-High BT-High	V	3	Horn SN6276 Horn SN6276	2483.50 2483.50	40.30 24.10		30.37	3.51	0.00	-20.00	13.89	54.19 37.99	PK AV	3.00	0.00	73.98	19.79	PASS
•	V	3	Horn SN6276 Horn SN6276	2483.50 4960.39	24.10 50.80		30.37	3.51 5.06	-34.10	-20.00	-13.42	37.99	PK	3.00	0.00	53.98 53.98	15.99	PASS
BT-High	V	3								-20.00	-13.42			3.00	0.00			PASS
BT-High	v	3	Horn SN6276	7440.88	49.80		38.59	6.43	-34.32	-20.00	-9.29	40.51	PK	3.00	0.00	53.98	13.47	PASS

Formulae:

Total CF (dB) = Antenna Factor (dB)+ Cable Factor (dB) + Other Factor (Amplifier Gain, Filter Loss, etc) (dB)

Field Strength (dBuV/m) = SA Reading (dBuV) + Total CF (dB/m)

Limit Distance Correction (dB) = 40 \* log(d1/d2) for f < 30 MHz, 20\*log(d1/d2) for f > 30 MHz; where d1 is the measurement distance and d2 is the published limit distance

Limit (dBuV/m) = Published Limit (dBuV/m) + Limit Distance Correction (dB)

Margin (dB) = Limit (dBuV/m) - Field Strength (dBuV/m)

Duty Cycle Correction (dB) = 20 \* log (duty cycle ratio\*)

Duty Cycle ratio = maximum time on in any 100 mS period (in mS) / 100 mS

\*DUT duty cyle = 10 mS in each 10 seconds

\*The frequency points reported, describe the highest emission measured in each of the ranges tested and are used to describe the measured spectrum as a whole. Though a frequency point detailed may not be in a restricted band, it was the highest emission present in the band measured therefore infers that all emissions that may be present within the restricted bands are in compliance if it is in compliance.

 Applicant:
 Itronix Corporation
 Model:
 IX260PNLA555BT
 FCC ID:
 KBCIX260PNLA555BT
 IC ID:
 1943A-IX260Pb

 Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA
 IC ID:
 1943A-IX260Pb

 2005 Celltech Labs Inc.
 This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc.
 40 of 45



Test Report S/N:	102604KBC-1	576-E15B	Issue 1.0
Test Date(s):	21Sept	t04 - 14Oct0	4, 22Oct04
Test Type(s):	FCC §15.247	IC RSS-2	210 Issue 5
Lab Registration(s):	FCC #714830	IC Lab	File #3874

#### I.10. PASS/FAIL

In reference to the results outlined in I.9, the DUT passes the requirements as stated in the reference standards as follows: FCC 15.205 (a) (b) and 15.209 (a): No emissions were measured within the restricted bands as outlined in 15.205 that exceeded the limits stated in 15.209.

#### I.11. SIGN-OFF

I attest to the accuracy of the data. All measurements reported herein were performed by me and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements.

Quand W. Pupe

Russell Pipe Senior Compliance Technologist Celltech Labs Inc.

22Oct04 Date

Applicant:	Itronix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged La	ptop PC with Cirrone	t BT2022 BI	uetooth, Senao NL-305	4MP 802.11	b/g WLAN, & AC555 CDMA		ITRONIX
2005 Celltech	Labs Inc. This docur	nent is not to	pe reproduced in whole or in	n part without	the written permission of Celltech La	bs Inc.	41 of 45



Test Report S/N:	102604KBC-1	576-E15B	Issue 1.0
Test Date(s):	21Sept	t04 - 14Oct0	4, 22Oct04
Test Type(s):	FCC §15.247	IC RSS-2	210 Issue 5
Lab Registration(s):	FCC #714830	IC Lab	File #3874

# Appendix J - Maximum Permissible Exposure Calculation

J.1. REFERENCES	
Normative Reference Standard	FCC CFR 47§1.1310 IEEE Std C95.1-1999
Procedure Reference	FCC CFR 47§2.1091

J.2. LIMITS	
FCC CFR 47§1.1310 Table 1(b)	1.0 mW/cm <sup>2</sup>

J.3. ENVIRONMENTAL CONDITIONS				
Temperature	na			
Humidity	na			
Barometric Pressure	na			

J.4. EQUIPMENT LIST							
ASSET NUMBER	MANUFACTURER	MODEL	DESCRIPTION	LAST CAL	CAL DUE		
na							

J.5. MEASUREMENT EQUIPMENT SETUP						
MEASUREMENT EQUIPMENT CONNECTIONS	The results described herein were determined by the following calculation, so no measurement equipment was used.					
MEASUREMENT EQUIPMENT SETTINGS	na					

J.6. SETUP PHOTOS	
na	

J.7. SETUP DRAWINGS	
na	

#### J.8. DUT OPERATING DESCRIPTION

na

 Applicant:
 Itronix Corporation
 Model:
 IX260PNLA555BT
 FCC ID:
 KBCIX260PNLA555BT
 IC ID:
 1943A-IX260Pb

 Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA
 IC ID:
 1943A-IX260Pb

 2005 Celltech Labs Inc.
 This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc.
 42 of 45



Test Report S/N:	102604KBC-1	Issue 1.0			
Test Date(s):	21Sept04 - 14Oct04, 22Oct04				
Test Type(s):	FCC §15.247	IC RSS-210 Issue 5			
Lab Registration(s):	FCC #714830	IC Lab	File #3874		

J.9. EVALUATION RESULTS							
Calculation:							
RangeStar Int	ernal Surface-Moun	t Antenna:					
	RF Outpur R =	G=	Antenna gain: 1.00 (mW/cm^2) 3915 (mW) 2.82 (numeric) (cm)	2441 (MHz) (dBm) (dBi)			
Formulae:							
S = PG	where: 9	S = Power Density	/ Limit				
4πR <sup>2</sup>	F	P = Power Applied	d to the Antenna				
$R = \sqrt{\frac{P}{4\pi S}}$		G = Numeric Anter R = Distance from					
Results:							
Channel	RF Conducted Output Power	Antenna Gain	MPE Distance	Power Density at 20 cm	Power Density Limit		
	dBm	dBi	cm	mW/cm <sup>2</sup>	mW/cm <sup>2</sup>		
39	15.61	+4.5	2.86	0.020	1.0		

Applicant: Itroniz	Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA							
2005 Celltech Labs I	2005 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc. 43 of 45						



Test Report S/N:	102604KBC-1	Issue 1.0			
Test Date(s):	21Sept04 - 14Oct04, 22Oct04				
Test Type(s):	FCC §15.247	7 IC RSS-210 Issue 5			
Lab Registration(s):	FCC #714830 IC Lab File #387				

#### J.10. PASS/FAIL

In reference to the results outlined in J.9, the DUT passes the requirements as stated in the reference standards as follows: 1) The DUT must comply with the minimum spacing requirement of 20 cm to ensure an exposure of not more than 1 mW/cm<sup>2</sup>.

# J.11. SIGN-OFF

I attest to the accuracy of the data. All measurements reported herein were performed by me and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements.

Duane M. Friesen, C.E.T. EMC Manager Celltech Labs Inc.

> 09Oct04 Date

Applicant:	Itronix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb	
Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA								
2005 Celltec	2005 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc. 44 of 45							



Test Report S/N:	102604KBC-1	Issue 1.0			
Test Date(s):	21Sept04 - 14Oct04, 22Oct04				
Test Type(s):	FCC §15.247 IC RSS-210 Issue				
Lab Registration(s):	FCC #714830	IC Lab	File #3874		

END OF DOCUMENT

Applicant:	Itronix Corporation	Model:	IX260PNLA555BT	FCC ID:	KBCIX260PNLA555BT	IC ID:	1943A-IX260Pb
Rugged Laptop PC with Cirronet BT2022 Bluetooth, Senao NL-3054MP 802.11b/g WLAN, & AC555 CDMA							ITRONIX
2005 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the written permission of Celltech Labs Inc.							45 of 45