



Test Report S/N:	100504KBC-T566-M90M
Test Type:	MPE Evaluation

DECLARATION OF COMPLIANCE MPE EVALUATION REPORT		
Test LabCELLTECH LABS INC.1955 Moss CourtKelowna, B.C.Canada V1Y 9L3Phone:250-448-7047Fax:250-448-7046e-mail:info@celltechlabs.comweb site:www.celltechlabs.com		Applicant Information ITRONIX CORPORATION 801 South Stevens Street Spokane, WA 99204 United States
FCC Rule Part(s): FCC Classification: Device Description: FCC IDENTIFER: Model(s): Tx Frequency Range(s): Max. RF Conducted Power: Source-Based Time-Av. Power: Max. Duty Cycle Evaluated: Antenna Type(s):	47 CFR §90; 15.247; §2.1091; §1.1310 Licensed Non-Broadcast Station Transmitter (TNB) Rugged Laptop PC with Wavenet BM3-900M Mobitex Radio Modem (co-located with Senao NL-3054MP 802.11b/g WLAN & Internal Antenna) with Swivel Dipole Antenna, (3) Vehicle-Mount Antennas, & Vehicle Cradle KBCIX260PNL3BM390 IX260PNL3BM390 896.0 - 901.0 MHz 33.2 dBm (Peak) 28.0 dBm (Max. Peak Conducted) 30 % (Source-Based Time-Averaged) Itronix IX260+ External Swivel Dipole MaxRad Z563 Vehicle-Mount - Unity Gain MaxRad Z567 Vehicle-Mount - 5 dB Gain MaxRad Z573 Vehicle-Mount - 5 dB Gain	

This mobile device is compliant with localized Maximum Permissible Exposure (MPE) for the Uncontrolled Exposure / General Population limits specified in FCC 47 CFR §1.1310, in accordance with the requirements of FCC OET Bulletin 65, Edition 97-01, ANSI / IEEE C95.1-1992, and ANSI / IEEE C95.3-1992.

I attest to the accuracy of data. All measurements and/or calculations were performed by me or were made 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 evaluation 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.

Duane M. Friesen EMC Manager Celltech Labs Inc.



ITRONIX CORPORATION FCC ID: KBCIX260PNL3BM390 (Model: IX260PNL3BM390) Rugged Laptop PC with Wavenet Mobitex Radio Modem and co-located Senao WLAN Antenna Types Evaluated: Swivel Dipole and (3) Vehicle-Mount (with Vehicle Cradle)





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1.1 MPE Calculation Data

1. Itronix IX260+ Swivel Dipole Antenna







Z563







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2.1 Calculation to determine MPE

$$S = \frac{PG}{4\pi R^2}$$

$$R = \sqrt{\frac{PG}{4\pi S}}$$

$$S = \text{ power density}$$

$$P = \text{ power input to}$$

$$G = \text{ power gain of}$$
interest relative
$$R = \text{ distance to the}$$

- power input to the antenna power gain of the antenna in the direction of interest relative to an isotropic radiator
- R= distance to the center of radiation of the antenna

3.1 MPE Limits

According to FCC 47 CFR 1.1310: The criteria listed in the following table shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b).

Frequency	Electric Field	Magnetic Field	Power Density	Average Time
Range	Strength (V/m)	Strength (A/m)	(mW/cm ²)	(minutes)
(MHz)				
(A)Limits For Occupational / Control Exposures				
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6
(B)Limits For General Population / Uncontrolled Exposure				
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

F = Frequency in MHz

4.1 Summary

The Maximum Permissible Exposure (MPE) limit for the frequency range in the Mobitex band (900MHz) is 0.6 mW/cm^{2} (F/1500) for the General Population / Uncontrolled Exposure environment. The data in this report demonstrates that the Itronix Corporation Model: IX260PNL3BM390 Rugged Laptop PC FCC ID: KBCIX260PNL3BM390, with Wavenet BM3-900M Mobitex Radio Modem utilizing an external swivel dipole antenna and (3) vehicle-mount antennas with vehicle cradle, complies with the Maximum Permissible Exposure (MPE) requirements specified in FCC §2.1091, §1.1310, and OET Bulletin 65 (Edition 97-01), for the General Population / Uncontrolled Exposure environment.

Notes:

- 1. The 17 ft antenna cable is supplied with and connected to the vehicle antennas at time of purchase.
- 2. The Mobitex radio modem, 802.11b/g WLAN, and respective antennas do not transmit simultaneously.
- 3. The Senao NL-3054MP 802.11b/g WLAN does not utilize the vehicle-mount antennas and vehicle cradle.
- 4. Please refer to the Part 15.247 EMC test report for MPE evaluation data of the 802.11b/g WLAN transmitter.

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	Antenna Types Evaluated: Swivel Dipole and (3) Vehicle-Mount (with Vehicle Cradle)