

RF Exposure REPORT

Amendment to and including RFE073108-02-01C

Company: Worth Data
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Santa Cruz, CA 95060

Contact: Steve Luzovich

Product: B5001, B5002 Base Station

FCC ID: JWSB5001
IC ID: 4724A-B5001

Test Report No: RFE073108-02-02D

Issued by: NCEE Labs
4740 Discovery Dr.
Lincoln, NE 68521

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RF Exposure Calculations:

The minimum separation distance is calculated from FCC OET 65 Appendix B, Table 1B “Guidelines for General Population/Uncontrolled Exposure.” This calculation is based on the highest EIRP possible from the system, considering maximum power and antenna gain. The duty cycle of the EUT is set in the firmware and is not adjustable by the user. It operates in half-duplex mode, therefore has a maximum duty cycle of 50%

RF Power Measurement

The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuators. The spectrum analyzer was used to make power measurements using the channel power function, with a channel width of 20MHz

Frequency (MHz)	Output Power dBm	Output Power mW
902.971	20.93	123.880
915.000	21.51	141.580
926.277	22.82	191.426

Test Equipment Used

Serial #	Manufacturer	Model	Description	Last Cal.
100007	Rohde & Schwarz	ESIB7	EMI Test Receiver	6/9/08

Test Environment

Testing was performed at the NCEE Labs Lincoln facility. Laboratory environmental conditions varied slightly throughout the test:

Relative humidity of $40 \pm 5\%$

Temperature of $20 \pm 2^\circ$ Celsius

Exposure Limit (mW/cm ²) = F/1200	0.77 mW/cm ²
Frequency (MHz)	926.277
Maximum peak output power (mW)	191.426
Antenna Gain (Numeric)	1.50
Antenna type	Dipole(whip)
Maximum duty cycle	50%

$$P_d = D \times (P_{out} \times G) / (4\pi \times R^2)$$

$$R = \sqrt{(P_{out} \times G \times D) / (4\pi \times P_d)}$$

P_d = Power density limit, mW/cm²

P_{out} = Peak power output, mW

G = Numeric Antenna Gain

R = Distance from antenna, cm

D = Duty cycle factor

P _{out} mW	G Numeric	P _d mW/cm ²	R cm	D	Frequency MHz	Calculation
191.426	1.500	0.770	0.24	0.500	926.277	Minimum distance to meet limit
191.426	1.500	0.029	20.0	0.500	926.277	Power density at 20 cm

Notes:

1. The minimum safe distance is based on a conservative “worst case” prediction, i.e. using the formula shown above and no duty factor. In practice the minimum distance will be much shorter. (Ref. 2)

References:

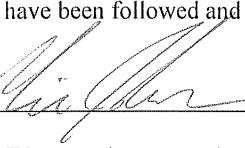
1. FCC OET Bulletin 65, Edition 97-01
2. FCC Supplement C to OET Bulletin 65, edition 01-01
3. IEEE C95.1, 1999

Radio Frequency Exposure Compliance of
Radiocommunication Apparatus (All Frequency Bands)

RSS-102

Annex B - Declaration of RF Exposure Compliance

ATTESTATION: I attest that the information provided in Annex A is correct; that a Technical Brief was prepared and the information it contains is correct; that the device evaluation was performed or supervised by me; that applicable measurement methods and evaluation methodologies have been followed and that the device meets the SAR and/or RF exposure limits of RSS-102.

Signature:  Date: 09 Feb 09

NAME (Please print or type): Nic Johnson

TITLE (Please print or type): Test Engineer

COMPANY (Please print or type): NCEE Labs