# 13 RF EXPOSURE INFORMATION

ComNet Ericsson
CRITICAL RADIO SYSTEMS

February 19, 2001

Federal Communications Commissions
Authorization & Evaluation Division
7435 Oakland Mills Road
Columbia, Maryland 21046

Attention: Equipment Authorization Branch

Subject: MPE , OWDTR-0009-A

1. The installation and operators manuals state the limit for uncontrolled exposure along with a statement as to the responsibility of users for the maintenance of the MPE radius with respect to bystanders. The instructions are unambiguous concerning the fact that a maximum gain antenna for vehicular and desktop basestation mounts are stated specifically to be 3 dBd and 6 dBd respectively

2. MPE limits were calculated using a worst case scenario of a 3dBd gain antenna for vehicular mounts and a 6 dBd gain antenna for desktop basestation (building roof top/tower ) mounts. A maximum power of the radio was found to be 42 watts conducted, this value was used in the estimation for MPE radius. The equation found in OET 65, section 2 and equation 4 was used for the estimation. 3 dB was subtracted from the EIRP value to allow for the 50 percent duty cycle for a push-to-talk radio. A work sheet from a "maple" mathematics program was uploaded to clearly show how the computation for MPE radius was performed. The same radius is being used for this radio as it was for the OWDTR-0005-A, which is the sister product and lower split of this radio, as the lowest frequency of the band was worst case as was the power rating of that radio (43.8 watts). We realize that the frequency used in the calculation is lower than the lowest end of the band of this product, we would still like to use this value as it still represents a worse case. The same manuals are being used for both of these products (owdtr-0005-a) and (owdtr-0009-a).

3. A label alerting the user to review the specific operating requirements for satisfying FCC RF exposure limits was uploaded. This 8-point label will be place on the microphone cable near the microphone so as to be in plane view for the operator.

4. The installation manual states that no rear deck installation should allow any occupant within the MPE radius stipulated.

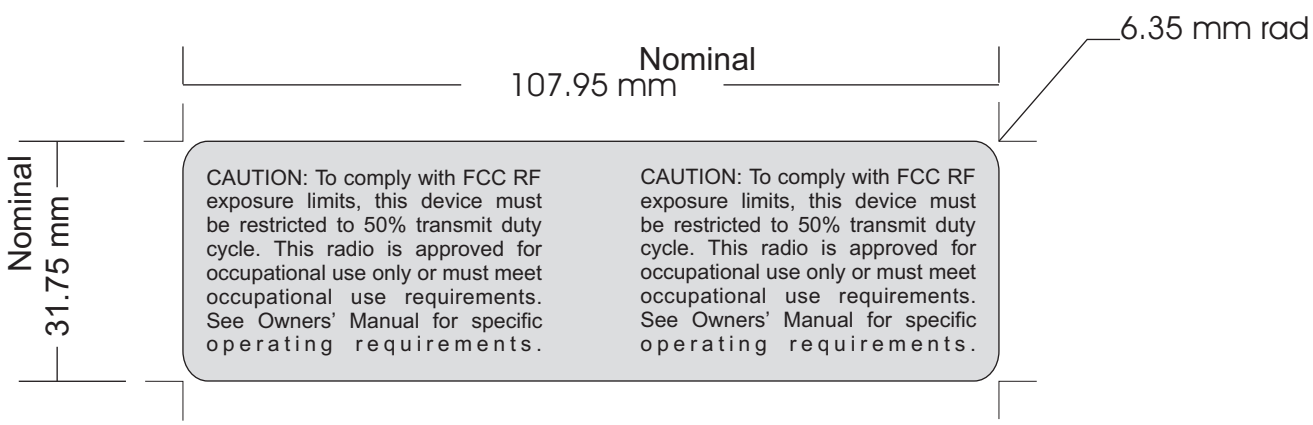
ComNet Ericsson
CRITICAL RADIO SYSTEMS

5. The desktop basestation option is briefly discussed as being a typical building roof-top/tower installation. The warning pertaining to the desktop basestation option is included in this section as it may use up to a 6 dBd gain antenna as compared to the 3 dBd gain antenna limit with the vehicular mount option, again there is no ambiguity in our warning. Training is comprised of warnings and instructions in the manuals and a label on the product as addressed in item 3 above.

6. We have applied the typical 50 percent duty cycle factor when calculating the MPE radius. This effectively lowers the EIRP by a factor of 3 dB. See calculation worksheet uploaded to the FCC.

Regards,

Bryan McWatters
Mgr, Engineering Regulatory
Com-Net Ericsson




LABEL COLOR: MAT SILVER

TEXT COLOR: BLACK

FONT: ARIAL 8 PT

MATERIAL: POLYESTER .002 INCHES THICK

NOTES:

1. THIS DRAWING IS FOR REFERENCE ONLY. ARTWORK IS TO BE CREATED BY VENDOR USING THE ELECTRONIC FILE SHOWN BELOW. WHICH IS SUPPLIED AND ARCHIVED IN THE "INTRALINK/LABELS" DIRECTORY AT COM-NET ERICSSON IN LYNCHBURG.

2. IMAGE SETTER OUTPUT TO BE HIGH RES. (2500 DPI) EMULSION SIDE DOWN.

3. FCC AND INDUSTRY CANADA NUMBERS CALLED FOR ON 1301-KDR 103 154 Uen.

MARKING DRAWING

| | | |
|---|---|---|
| Com-Net Ericsson | Prepared (also subject responsible if other): PHIL JONES | |
| Referenser - References<br>CAD: CorelDRAW 9<br>FILE: 4-1424-KRD103154-RA.cdr<br>DRAWING RULES: 1011-386<br>TOLERANCE:<br>DOCUMENT SIZE: A<br>SCALE: 1:1<br>UNITS: mm | Approved: (M FULK) / Date: 2001-01-26 / Rev: PA3<br>Product name: PANTHER 300M FCC EXPOSURE COMPLIANCE LABEL<br>Document No: 4/1424-KRD 103 154 / Sheet: 1 (1) | |

**STUDENT >** evalf$\left(\left(\frac{.5\ 42000\ 1.64\ 10^{\left(\frac{6}{10}\right)}}{4\ \pi\ \frac{470}{1500.00}}\right)^{\left(\frac{1}{2}\right)}, 15\right)$

Centimeters using a 6 dBd gain antenna 186.605027395978

**STUDENT >** evalf$\left(\left(\frac{.5\ 42000\ 1.64\ 10^{\left(\frac{3}{10}\right)}}{4\ \pi\ \frac{470}{1500.00}}\right)^{\left(\frac{1}{2}\right)}, 15\right)$

Centimeters using a 3 dBd gain antenna132.106242489869

**STUDENT >** evalf$\left(\frac{\left(\frac{.5\ 42000\ 1.64\ 10^{\left(\frac{6}{10}\right)}}{4\ \pi\ \frac{470}{1500.00}}\right)^{\left(\frac{1}{2}\right)}}{2.54}, 15\right)$

Inches using a 6 dBd gain antenna73.4665462214597

**STUDENT >** evalf$\left(\frac{\left(\frac{.5\ 42000\ 1.64\ 10^{\left(\frac{3}{10}\right)}}{4\ \pi\ \frac{470}{1500.00}}\right)^{\left(\frac{1}{2}\right)}}{2.54}, 15\right)$

Inches using a 3 dBd gain antenna52.0103316907446

**STUDENT >**