



Excellence in Compliance Testing

Certification Exhibit

**FCC ID: OOSNRMH902
IC: 9378A-NRMH902**

**FCC Rule Part: 15.247
IC Radio Standards Specification: RSS-210**

ACS Report Number: 10-0346.W06.11.A

Manufacturer: L3 Nova Engineering
Model: MH902

RF Exposure

General Information:

Applicant: L3 Nova Engineering
 ACS Project: 10-0346
 Device Category: Fixed
 Environment: General Population/Uncontrolled Exposure

Technical Information:

Antenna: Omni-directional, Laird Part No. FG9026
 Antenna Gain: 8 dBi
 Cable Insertion Loss: 2.4dB (60' LMR-400)
 Maximum Transmitter Conducted Power: 29.47 dBm
 Maximum System EIRP: 35.07 dBm, 3213.7 mW

Antenna Type: Yagi, Laird Part No. YS8966
 Antenna Gain: 11 dBi Yagi
 Cable Insertion Loss: 5.1dB (130' LMR-400)
 Maximum Transmitter Conducted Power: 29.47 dBm
 Maximum System EIRP: 35.37 dBm, 3443.5 mW

MPE Calculation

The Power Density (mW/cm²) is calculated as follows:

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

Where:

S = power density (in appropriate units, e.g. mW/cm²)

P = power input to the antenna (in appropriate units, e.g., mW)

G = 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 (appropriate units, e.g., cm)

MPE Calculator for Mobile Equipment Limits for General Population/Uncontrolled Exposure*							
Transmit Frequency (MHz)	Radio Power (dBm)	Power Density Limit (mW/Cm ²)	Radio Power (mW)	Antenna Gain (dBi)	Antenna Gain (mW eq.)	Distance (cm)	Power Density (mW/cm ²)
914.8	29.47	0.61	885.12	5.9	3.890	22	0.566

NOTE: MPE calculations based on maximum conducted power with antenna gain adjusted for cable insertion loss. Antenna gain for Yagi antenna is 11dBi, - 5.1dB for cable insertion loss. Total system antenna gain is 5.9 dBi.

Installation Guidelines

The installation manual should contain text similar to the following advising how to install the equipment to maintain compliance with the FCC RF exposure requirements:

RF Exposure

In accordance with FCC requirements of human exposure to radio frequency fields, the radiating element shall be installed such that a minimum separation distance of 22 centimeters will be maintained.

Conclusion

This device complies with the MPE requirements by providing adequate separation between the device, any radiating structure and the general population.