



Excellence in Compliance Testing

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## **Certification Exhibit**

**FCC ID: ONTJETIREX12US**

**IC: 10491A-JETIREX12US**

**FCC Rule Part: 15.247**

**IC Radio Standards Specification: RSS-247**

**ACS Project Number: 15.2048**

Manufacturer: Esprit Model

Model(s): JETIREX12US, JETIREX10US, JETIREX7US

## **RF Exposure**

**General Information:**

Applicant: Esprit Model  
ACS Project: 15.2048  
Device Category: Mobile  
Environment: General Population/Uncontrolled Exposure

**Technical Information:**

Antenna Type: Coaxial Wire Antenna  
Antenna Gain: 2.1 dBi  
Maximum Transmitter Conducted Power: 18.91 dBm, 77.8 mW  
Maximum System EIRP: 21.01 dBm, 126.18 mW  
Exposure Conditions: Greater than 20 centimeters

**MPE Calculation per FCC Section 1.1310**

The Power Density (mW/cm<sup>2</sup>) is calculated as follows:

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

Where:

S = power density (in appropriate units, e.g. mW/cm<sup>2</sup>)

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)

**Table 1: Maximum Permissible Exposure per FCC Section 1.1310**

MPE Calculator for Mobile Equipment Limits for General Population/Uncontrolled Exposure*							
Transmit Frequency (MHz)	Radio Power (dBm)	Power Density Limit (mW/Cm <sup>2</sup> )	Radio Power (mW)	Antenna Gain (dBi)	Antenna Gain (mW eq.)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )
2405	18.91	1.00	77.80	2.1	1.622	20	0.025

**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 20 centimeters will be maintained.

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

**MPE Calculation per RSS-102**

Per RSS-102 Issue section 2.5.2, this device is exempt from routine RF exposure evaluation. The source-based, time-averaged maximum EIRP. of the device is equal to or less than  $1.31 \times 10^{-2} f^{0.6834} \text{ W}$  (adjusted for tune-up tolerance), where  $f$  is 2405 MHz;

$$1.31 \times 10^{-2} 2405^{0.6834} \text{ W} = 2.7 \text{ W EIRP}$$

The maximum permissible exposure calculations are provided below for reference.

The Power Density ( $\text{W/m}^2$ ) is calculated as follows:

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

Where:

S = power density (in appropriate units, e.g.  $\text{W/m}^2$ )

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

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., m)

**Table 2: Maximum Permissible Exposure per RSS-102**

Transmit Frequency (MHz)	Radio Power (dBm)	Power Density Limit ( $\text{W/m}^2$ )	Radio Power (mW)	Antenna Gain (dBi)	Antenna Gain (mW eq.)	Distance (cm)	Power Density ( $\text{W/m}^2$ )
2405	18.91	5.36	77.80	2.1	1.622	20	0.251