



H.B. Compliance Solutions

Maximum Permissible Exposure Statement

For the

Microchip Technology Inc.

MRF89XAM9A Transceiver Module

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Prepared for:

Microchip Technology Inc.

2355 W. Chandler Blvd.

Chandler, Arizona 85224

Prepared By:

H.B. Compliance Solutions

3292 E. Mead Drive

Gilbert, Arizona 85298

Reviewed By:

A handwritten signature in black ink, appearing to read 'Hoosamuddin Bandukwala'.

Hoosamuddin Bandukwala



Cert # ATL-0062-E

Prediction of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = PG/4\pi R^2$$

Where,

S = power density (mW/cm²)

P = output power at the antenna terminal (mW)

G = gain of transmit antenna (numeric)

R = distance from transmitting antenna (cm)

Maximum peak output power at antenna input terminal = 10.69 (dBm)

Maximum peak output power at antenna input terminal = 11.72 (mW)

Antenna gain (typical) = -1(dBi)

Maximum antenna gain = 0.8 (numeric)

Prediction distance = 200 (cm)

Prediction frequency = 903 (MHz)

MPE limit for uncontrolled exposure at prediction frequency = 1.0 (mW/cm²)

Power density at prediction frequency = 0.001865 (mW/cm²)

To solve for the minimum mounting distance required;

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

$$R = \sqrt{11.72 \times 0.8 / 4\pi \times 0.001865} = \underline{20 \text{ cm}} \text{ (Based on continuous transmission)}$$

RF Exposure Statement

1. Standard Applicable

According to 1.1307 (b)(1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

This is a portable device.

2. Measurement Result:

This a portable device and the max peak output power is 10.69 dBm (0.0117 W). Lower that low threshold 60/f GHz mW (66.44 mW), d<2.5 cm general population category.

The SAR measurement is not necessary

END OF TEST REPORT