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Federal Communications Commission 7435 Oakland Mills Road Columbia, Maryland 21046

Subject: **RF Exposure Information for Strix Systems' DTS and U-NII Devices**

Gentlemen,

The Strix Access/One Network contains three independent 802.11 a/g radios, each transmitting independently in the same or different frequency bands. Our system requires professional installation and the installation instructions require that the system be installed such that a minimum of 2meters (200cm) separates the antennae and any person and that the antennae are not to be installed in such a way to allow the beams to overlap. The maximum possible EIRP values and power densities at 2meters (200cm) in each operating band are:

Maximum Possible EIRP Power Density In Each Band/Antenna

P_d , power density in mW/cm^2 , at $r=200$ cm where $P_d = P_{\text{out}} / (4 * \pi * r^2)$, P_{out} is EIRP in mW.

2.4 GHz ISM, 12dBi Omnidirectional Antenna:

Maximum conducted power: 251 mW (24dBm)

EIRP: 24dBm + 12dBi = 36dBm (3981mW)₂

Power Density at 200cm: 0.0079mW/cm²

2.4 GHz ISM, 16.4dBi Sectorized Antenna:

Maximum conducted power: 126 mW (21dBm)

EIRP: 21dBm + 16.4dBi = 37.4dBm (5495mW)₂

Power Density at 200cm: 0.0109mW/cm²

5.2 GHz U-NII, 12dBi Omnidirectional Antenna:

Maximum conducted power: 50 mW (17dBm)

EIRP: 17dBm + 12dBi = 29 dBm (794mW)₂

Power Density at 200cm: 0.00158mW/cm²

5.2 GHz U-NII, 23dBi Patch Panel Antenna:

Maximum conducted power: 3 mW (5dBm)

EIRP: 5dBm + 23dBi = 28 dBm (631mW)₂

Power Density at 200cm: 0.0013mW/cm²

5.8 GHz ISM, 12dBi Omnidirectional Antenna:

Maximum conducted power: 398 mW (26dBm)

EIRP: 26dBm + 12dBi = 38 dBm (6310mW)₂

Power Density at 200cm: 0.0126mW/cm²

5.8 GHz ISM, 23dBi Patch Panel Antenna:

Maximum conducted power: 398 mW (26dBm)

EIRP: 26dBm + 23dBi = 49 dBm (79433mW)²

Power Density at 200cm: 0.1580mW/cm²

The worst case personal exposure would be achieved through simultaneous exposure to three channels operating in the 5.8 GHz band with 23dBi patch panel antennae and three channels operating in the 2.4 GHz band with 16.4 dBi sectored antennae. This worst case would provide a total exposure at 200cm of:

$$(3 \times 0.158\text{mW/cm}^2) + (3 \times 0.0109\text{mW/cm}^2) = 0.5067\text{mW/cm}^2$$

The worst case power density generated by the Strix Access/One Network is well below the 1mW/cm² limit allowed in FCC Title 47 CFR1.1310.

Sincerely,



Leonid Kalika
Chief Operating Officer
Strix Systems, Inc.