

Strix Systems, Inc.
26610 Agoura Road Suite 110
Calabasas, CA 91302
(818) 251-1000P
(818) 251-1099 F
www.strixsystems.com

31 January 2007

Federal Communications Commission
7435 Oakland Mills Road
Columbia, Maryland 21046

Subject: RF Exposure Information for Strix Systems' DTS and Public Safety Devices

Gentlemen,

The Strix Access/One Network contains three independent 802.11 a/b/g 4.9GHz Public Safety band 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 (2) two meters (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 (2) two meters (200cm) in each operating band are:

Maximum Possible EIRP Power Density In Each Band/Antenna

P_D , power density in mW/cm^2 , at $r = 200\text{cm}$ 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: 251mW (24dBm)

EIRP: 24dBm + 12dBi = 36dBm (3981mW)

Power Density at 200cm: $0.0079\text{mW}/\text{cm}^2$

2.4 GHz ISM, 16.4dBi Sectorized Antenna:

Maximum conducted power: 126mW (21dBm)

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

Power Density at 200cm: $0.0109\text{mW}/\text{cm}^2$

4.9 GHz Public Safety, 11dBi Omnidirectional Antenna:

Maximum conducted power: 1174.89mW (30.70dBm)

EIRP: 30.70dBm + 11dBi = 41.70dBm (14791mW)

Power Density at 200cm: $0.0294\text{mW}/\text{cm}^2$

5.8 GHz ISM, 12dBi Omnidirectional Antenna:

Maximum conducted power: 398mW (26dBm)

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

Power Density at 200cm: $0.0126\text{mW}/\text{cm}^2$

5.8 GHz ISM, 23dBi Patch Panel Antenna:

Maximum conducted power: 398mW (26dBm)

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

Power Density at 200cm: $0.1580\text{mW}/\text{cm}^2$

The worst case personal exposure would be achieved through simultaneous exposure to one channel operating in the 4.9 GHz band with an 11dBi Omnidirectional antenna, two channels in the 5.8 GHz band with 23 dBi patch panel antennae and three channels operating in the 2.4GHz band with 16.4 dBi sectorized antennae. This worst case would provide a total exposure at 200cm of:

$$(1 \times 0.0294\text{mW}/\text{cm}^2) + (2 \times 0.1580\text{mW}/\text{cm}^2) + (3 \times 0.0109\text{mW}/\text{cm}^2) = 0.3781\text{mW}/\text{cm}^2$$

The worst case power density generated by the Strix Access/One Network is well below the $1\text{mW}/\text{cm}^2$ limit allowed in FCC Title 47 CFR1.1310

Sincerely,



Steve Coffelt
Director, Product Management
Strix Systems, Inc.