



125 Technology Parkway
Norcross, Georgia, US 30092

RF Exposure Compliance Statement

**FCC 15.247(b)(4)
&
FCC 2.1091
Mobile Devices**

LXE Model 6730

FCC ID: KDZLXE6730M

LXE Project No: 02-059

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LXE 6730 Wireless Access Point

The LXE 6730 is an OEM Direct Sequence Spread Spectrum product manufactured by Cisco Systems. It is IEEE 802.11b compliant and operates in the band of 2400-2483.5 GHz. The unit is capable of 4 data rates and self adjusts to the most appropriate rate depending on the performance required. The data rates are 11, 5.5, 2 and 1 Mbps, where 11 Mbps gives the maximum throughput for data transfer, and 1 Mbps gives the best coverage where only small data packets are sent.

The unit has 2 ports, each cable of TX/RX operation. The unit can be used either with a single antenna scheme in the main port, or a diverse antenna scheme using both ports.

The average conducted output power of the 6730 is 19.22 dbm

The highest conducted output power of the 6730 is 19.98 dbm

Intended Use

The LXE 6730 Wireless Access Point is defined as mobile according to section 2.1091 of the FCC rules. The unit is typically mounted on a wall or ceiling and not designed to be used on or within 20cm of the body.

Antennas

The table below describes each of the antennas

Table 1: Antennas

Manufacturer	Mfr. P/N	LXE P/N	Type	Gain (dbi)	Power Density (S), at 20cm, in mW/cm ²
Cushcraft	RTN2400SXR	153180-0001	Omni	0	0.02
Cushcraft	S2400FGNM	153325-0001	Omni	0	0.02
LXE	SPIRE	155845-0001	Omni	6	0.08
LXE	SPIRE	155846-0001	Omni	3	0.04
Cushcraft	PC2415N	460602-3020	Yagi	15	0.63
Mobile Mark	OD9-2400	480424-0411	Omni	9	0.16
Mobile Mark	OD12-2400	480429-0411	Omni Directional	12	0.32
Cushcraft	S2401290P 12RTN	480429-2703	90 Directional	12	0.32
Cushcraft	N/A	480429-3508	Patch	8	0.125
Cisco	AIR-ANT2012	TBD	Diversity Patch	6	0.08
Cisco	AIR-ANT2506	TBD	Omni	5	0.063
Hypergain	2415P	TBD	Patch	15	0.63

Power Density Calculations at 20cm: Per OET Bulletin 65

Using the calculation given in OET Bulletin 65, $S = \frac{PG}{4\pi R^2}$, where

S = power density

P = power input to the antenna, in mW

G = power gain of the antenna

R = distance to the center of radiation of the antenna, in cm

Because the antenna gain is known in dBi, G must be converted first to a numeric gain by

the equation: $G = 10^{\frac{dB}{10}}$


For the values given for S in the table, a value of 100mW (max radio output power) is used for P , and R is set at 20 cm.

Wall or ceiling mounted host

Access Point : 6730

The 6730 Access Point is providing the bi-directional routing of data traffic between the wireless LAN (the VX and MX computers) and the wired LAN backbone in an installation.

When installed according to the installation guide, the 6730 Access Point maintains a minimum of 20cm from the antenna to the general population. The following statement is included with the product when shipped with the 6730 AP:

<p>Caution</p> 	<p><i>This device is intended to transmit RF energy. For protection against excessive RF exposure to humans and in accordance with FCC and Industry Canada rules, this transmitter should be installed such that a minimum separation distance of at least 20cm (7.8 in.) is maintained between the antenna and the general population. This device is not to be co-located with other transmitters.</i></p>
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