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<i>FCC ID:</i>	P57-AU2006
<i>Report NO:</i>	2001345
<i>Model NO:</i>	Fiber Leap
<i>Customer:</i>	Telaxis Communications Corp.

Federal Communications Commission
Equipment Authorization Branch
7435 Oakland Mills Road
Columbia, MD 21046

April 10, 2002

Reference: FCC ID: P57-AU2006
Correspondence Number: 22537
731 Confirmation Number: EA340496
Attention: Joe Dichoso

Dear Mr. Dichoso,

In response to your correspondence letter date April 5th, 2002 correspondence Number 22537, the following are answers to questions regarding the referenced FCC application submitted by Rhein Tech Laboratories, Inc. on behalf of our client.

1) Internal photo's cannot be confidential. Submit a revised confidential letter.

Response:

Agreed. See revised confidentiality letter dated April 9th.

2) Indicate the calculated RF safety distance in the RF safety user manual statements.

Response:

The initial RF Exposure safe distance calculation was performed using far field formula which resulted in an overly conservative result. A new RF exposure analysis was performed as directed per Bulletin 65 for near field operation. This analysis shows that the FCC power density limit of $1\text{mW}/\text{cm}^2$ is not exceed at any location exterior to the device housing. Therefore the need to apply RF safety warning in the user manual is not necessary. However, the manufacturer is willing to apply the RF safety statement in the user manual if you feel it is appropriate.

Response:

3) The frequency range will be changed from 58.7-62 GHz.

Agreed. The manufacturer has accepted this premise.



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4) The bandwidth is taken at the widest points 26 dBc. Re-measure the bandwidth. You may have to place the transmitter at a closer distance to gain sensitivity.

Response:

The 26 dB bandwidth was re-measured at several distances in order to improve the dynamic range of the measurement. The following antenna to EUT distance was used: directly on the Radom, 1 meter distance from the Radom, and three meter distance from the Radom including various spectrum analyzer resolution bandwidths. During the measurement it was determined that the 3 meter antenna to EUT distance using a spectrum analyzer bandwidth of 1 MHz provided the best dynamic range. Extreme care was taken in order to accurately measure the 26dB bandwidths for both modulations. The new re-measured plots are submitted for your review. The originally submitted OC3 bandwidth plots listed the 26 dBc as 312.1 MHz and 316.1 MHz for Access Unit A and B respectively. The bandwidth data represented the main carrier lobes. Upon careful examination of the bandwidth measurement, using OC3 modulation and applying the commission's 26 dB bandwidth criteria, it was determined that the 26dB bandwidths was larger than originally reported. In-fact, due to modulation products, OC 3 bandwidth is similar to that of OC 12. Both modulation types is within the authorized band.

5) What are the pulse widths and pulse repetition factor (PRF) for each modulation types.

Response:

For OC3: The PRF = 155.52e6/second, and the pulse width = $1/155.52e6 = 6.43nS$
For OC12: The PRF = 622.08e6/second and the pulse width = $1/622.08e6 = 1.61 nS$

7) The main lobe(2/pulse width) must not be in the restricted bands.

Response:

The Main lobe bandwidth is within the authorized band and is as follows:

OC3: $2/\text{pulsewidth} = 311 \text{ MHz}$
OC12 $2/\text{pulsewidth} = 1244 \text{ MHz}$

Respectfully,

Desmond A. Fraser
President