EXHIBITS

EXHIBIT 1:	Letter Requesting Confidentiality under Sec. 0.457(d)
EXHIBIT 2:	Product Description and Operation Overview
EXHIBIT 3:	Information for which Confidentiality is Requested Schematics Block Diagrams Theory of Operation
EXHIBIT 4:	Product Photographs
EXHIBIT 5:	Bill of Materials (BOM)
EXHIBIT 6:	User Manual and FCC ID Label
EXHIBIT 7:	RF Hazard Information per Sec. 1.1307
EXHIBIT 8:	Report of Measurements
EXHIBIT 9:	Data Graphs – Emissions Masks
EXHIBIT 10:	Data Graphs - Out of Band Emissions
EXHIBIT 11:	IF Card TX Signals to RF Module

EXHIBIT 1: Letter Requesting Confidentiality under Sec. 0.457(d)

Thomas N. Cokenias *EMC &Radio Approvals*
Test & Consulting Services for Commercial, Military, International Compliance
P.O. Box 1086
El Granada, CA 94018

22 May 1999

FCC Laboratory
7435 Oakland Mills Road
Columbia, MD 21046

Attention: Application Examiner
Reviewing Engineer

Re: Request for confidentiality per Section 0.459 of FCC Rules

Applicant: Cisco Systems Inc.

FCC ID: LDK-OFDM-MMDS2

To whom it may concern,

Request is hereby submitted, on behalf of my client Cisco Systems Inc., to withhold from public review certain portions of the application for equipment certification for the referenced FCC identifier. In particular, the following sections of the application and report are requested to be kept confidential:

Schematics
Block diagrams
Theory of operation (P2P Architecture)

Rationale for request for confidentiality:

Cisco Systems has invested considerable time and materials in research and development to produce the referenced product. Disclosure of the confidential portions of this application to competitors would give them competitive advantage in developing similar products.

The $135 fee for confidentiality has been submitted along with the fee for certification. If you have questions or need further information, please contact the undersigned.

Sincerely,

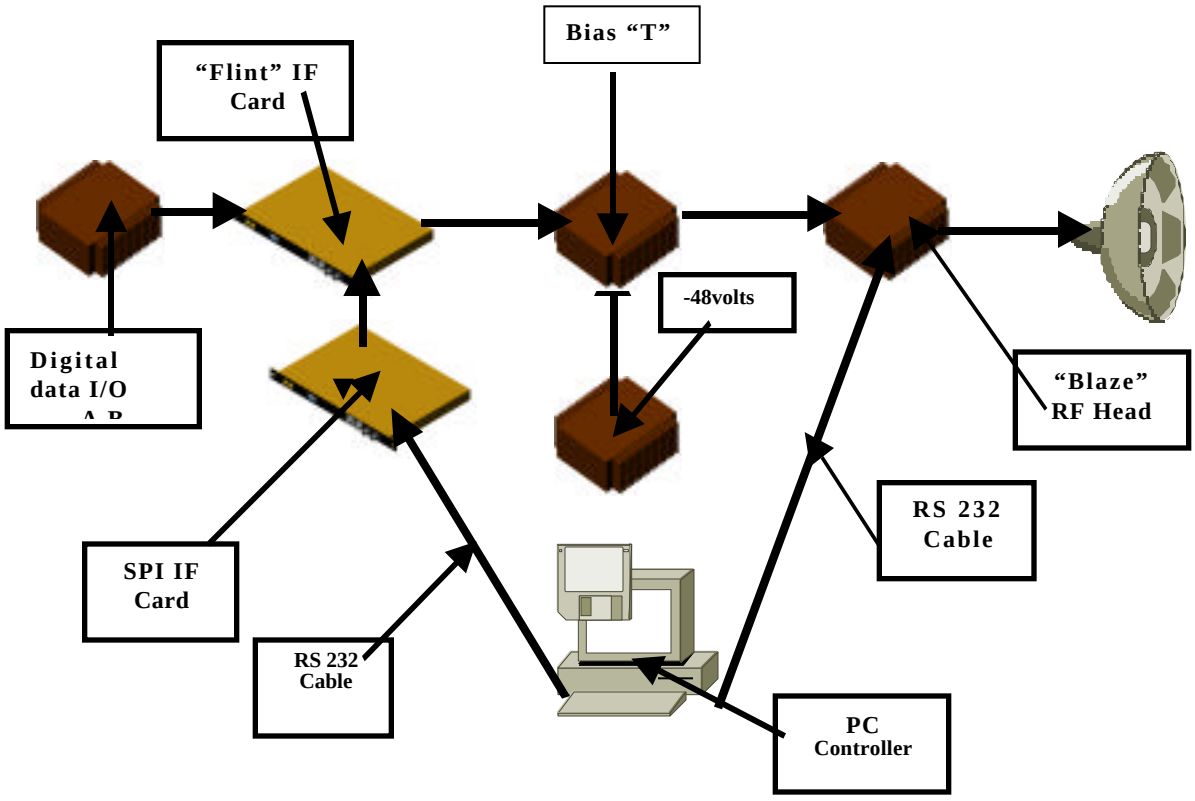
THOMAS N. COKENIAS
EMC Consultant/Agent for Cisco Systems Inc.

Tel 650 726 1263 *fax 650 726 1252* *trephonc@macconnect.com*

EXHIBIT 2: Product Description and Operation Overview

The Cisco FCC ID: LDKOFDMMMDSU is a MMDS transceiver operating under the provisions of Part 21 of the Rules. The product functions as a point to point (P2P) wireless router.

Refer to the system module diagram below:



Product development strategy is to follow a modular approach.

Digital data I/O for the initial version of the system will be a line card that will fit into a standard Cisco uBR7246 or 7223 router chassis. For test purposes, a Tektronix arbitrary waveform generator will simulate the signal output of the router/line card combination.

The **"Flint" IF card** up-link performs the modulation functions of the system. A 324 MHz signal is modulated with the digital data stream using Orthogonal Frequency Division Multiplexing (OFDM) techniques. The system is capable of producing channel bandwidths in 6 MHz multiples. The system will be configurable for use with 6 MHz and 12 MHz channel bandwidths.

For the down-link signal, the IF card demodulates the receiver IF signal from the RF head and routes the demodulated digital information to the digital I/O card.

It is anticipated that the Flint IF card will be used with a number of different RF heads, but will provide the same kind of OFDM modulation, the same IF signals, and at the same channel spacing

as will be provided for the present application. The Flint output RF spectrum is shown for 6 MHz channel spacings and 12 MHz channel spacings in Exhibit 11.

The **bias "T"** provides DC and the 324 MHz IF signal on a single coaxial cable for routing to the RF head.

The **"Blaze" RF head** produces the RF transmit link at 2.5 – 2.7 GHz , and houses the receiver LNAs, receiver local oscillator, and the 139 MHz receiver IF bandpass filters and IF amplifiers. The RF head also houses the TX-RF diplexer.

The **PC controller** and **RS 232 cables** are for system control and set-up for testing purposes.

The antenna shown in the diagram is specified but not supplied by Cisco. The –48 VDC supply shown in the diagram is telephone central office (CO) power or a customer provided supply.

SPECIFICATIONS

RF Head

Frequency range:	2.5 – 2.7 GHz
Power output:	30 dBm
Channel Bandwidth:	6 MHz and 12 MHz, configurable

IF Head

Frequency range:	324 MHz 24 MHz clock	
Power output:	324 MHz: 24 MHz:	-13 dBm nominal (programmable) -12 dBm nominal
Data transfer rate, air link:	44 Mbs/sec (12 MHz channels)	

A detailed description of the theory of operation and product configuration is found in the attached document, "P2P OEM Product Architecture" (P2P-Architecture.doc, Microsoft Word file). Page 46 of this document is the system signal path block diagram.