Cirronet Corporation
FCC Part 15,
Class I Permissive Change Application
WIT2410

February 21, 2001

MEASUREMENT/TECHNICAL REPORT

COMPANY NAME: **Cirronet Corporation.**

MODEL: **WIT2410**

FCC ID: **HSW-2410M**

DATE: **February 21, 2001**

This report concerns (check one): Original grant_X_
Class II change_____

Equipment type: **_Modular Frequency Hopping Spread Spectrum Transceiver__**

Deferred grant requested per 47 CFR 0.457(d)(1)(ii)? yes_____ No_X_

If yes, defer until:_____
date

__N.A.__ agrees to notify the Commission by__N.A.____
date
of the intended date of announcement of the product so that the grant can be issued on that date.

Report prepared by:

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GENERAL INFORMATION

GENERAL INFORMATION

1.1 Product Description

The Equipment Under Test (EUT) is a Cirronet Corporation, Model WIT2410 modular 2.4 GHz spread spectrum modular transceiver.

The EUT was originally approved for use with one of seven different antennas. The EUT was previously approved under FCC ID: HSW-2410M by the FCC on 10/6/99. Cirronet Corporation desires to add an additional 5 antennas to their original grant of certification.

1.2 Related Submittal(s)/Grant(s)

The EUT was been previously approved under FCC ID: HSW-2410M by the FCC on 10/6/99.

Additionally, the transceiver presented in this report will be used with other like transceivers.

SECTION 2

TESTS AND MEASUREMENTS

TEST AND MEASUREMENTS

2.1 Configuration of Tested System

The sample was tested per ANSI C63.4, Methods of Measurement from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz (1992). Conducted and radiated emissions data were taken with the test receiver or spectrum analyzer's resolution bandwidth adjusted to 9 kHz and 120 kHz, respectively. All measurements are peak unless stated otherwise. The video filter associated with the spectrum analyzer was off throughout the evaluation process. Interconnecting cables were manipulated as necessary to maximize emissions. Interconnecting cables were manipulated as necessary to maximize emissions. A block diagram of the tested system is shown in Figure 1. Test configuration photographs for spurious and fundamental emissions are shown in Figure 2.

The sample used for testing was received by U.S. Technologies on January 17, 2001 in good condition.

The EUT was originally approved for use with one of seven different antennas. The EUT was previously approved under FCC ID: HSW-2410M by the FCC on 10/6/99. Cirronet Corporation desires to add an additional 5 antennas to their original grant of certification. Since the EUT has been previously tested and approved, only the spurious emissions test has been repeated. Additionally, since Cirronet Corporation desires to add two parabolic dish antennas (+18 dBi and +24 dBi), only the highest gain model was selected for test (+24 dBi).

2.2 Test Facility

Testing was performed at US Tech's measurement facility at 3505 Francis Circle, Alpharetta, GA. This site has been fully described and submitted to the FCC, and accepted in their letter marked 31040/SIT. Additionally this site has also been fully described and submitted to Industry Canada (IC), and has been approved under file number IC2982.

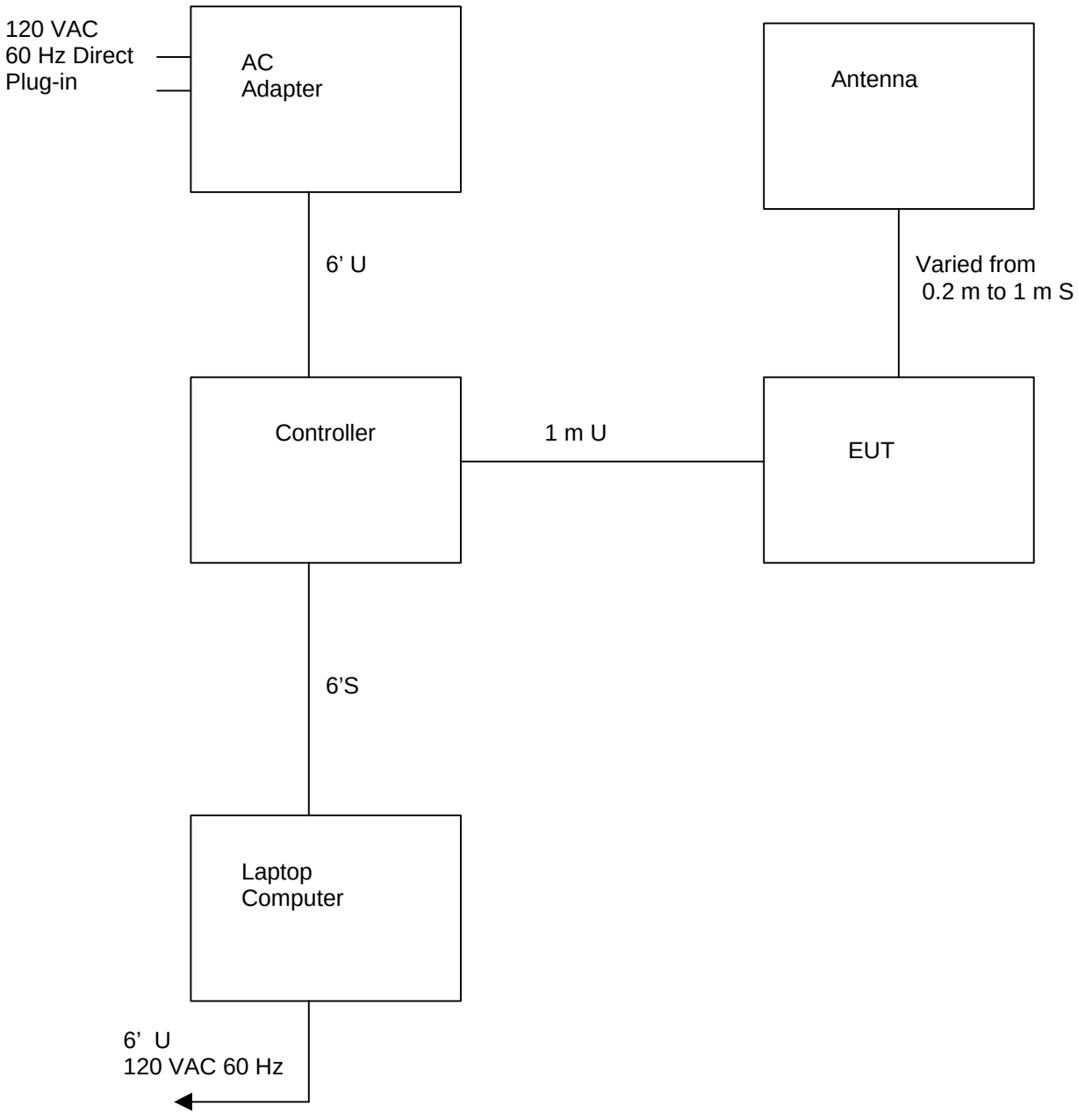
2.3 Test Equipment

Table 2 describes test equipment used to evaluate this product.

2.4 Modifications

No modifications were made by US Tech, to bring the EUT into compliance with FCC Part 15, Class B Limits for the transmitter portion of the EUT.

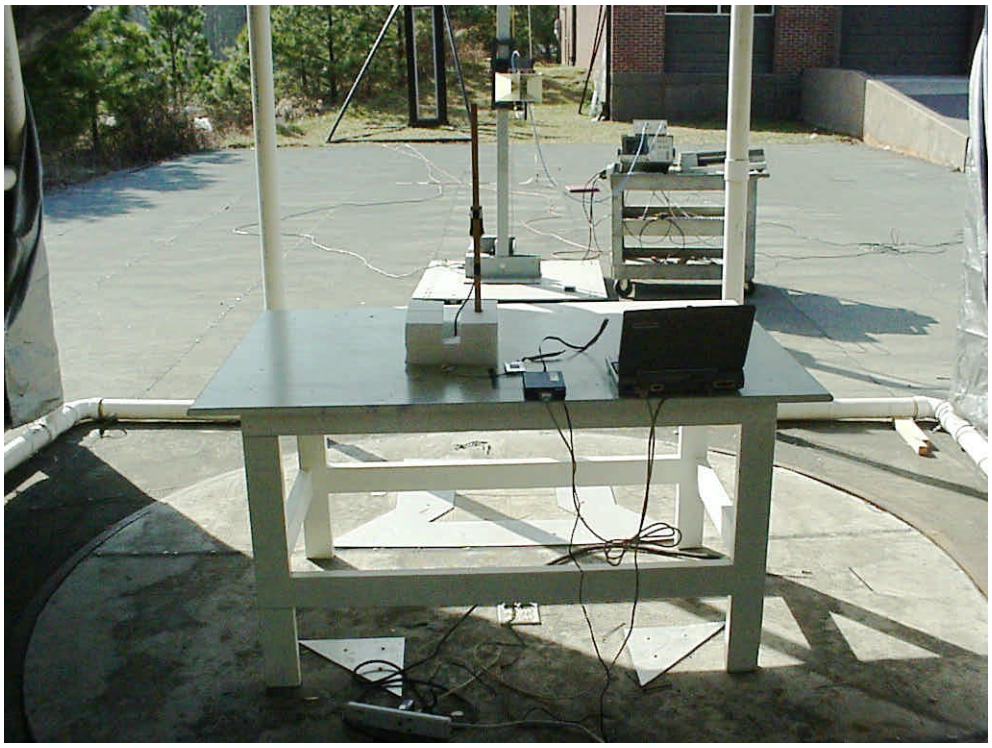
FIGURE 1
TEST CONFIGURATION



Test Date: February 4, 2001
UST Project: 01-0057
Customer: Cirronet Corporation
Model: WIT2410

FIGURE 2a

Photograph(s) for Spurious Emissions (2.5 dBi Vehicle Mount)



Test Date: February 4, 2001
UST Project: 01-0057
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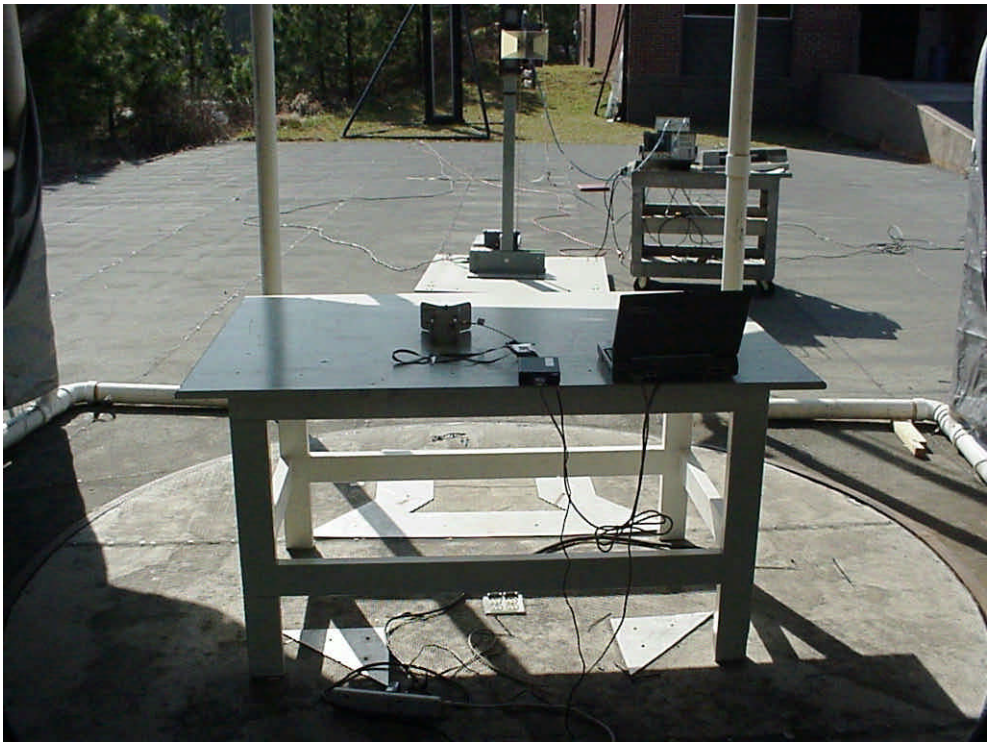
Model: WIT2410

FIGURE 2b

Photograph(s) for Spurious Emissions (9 dBi Corner Reflector)



Test Date: February 4, 2001
UST Project: 01-0057
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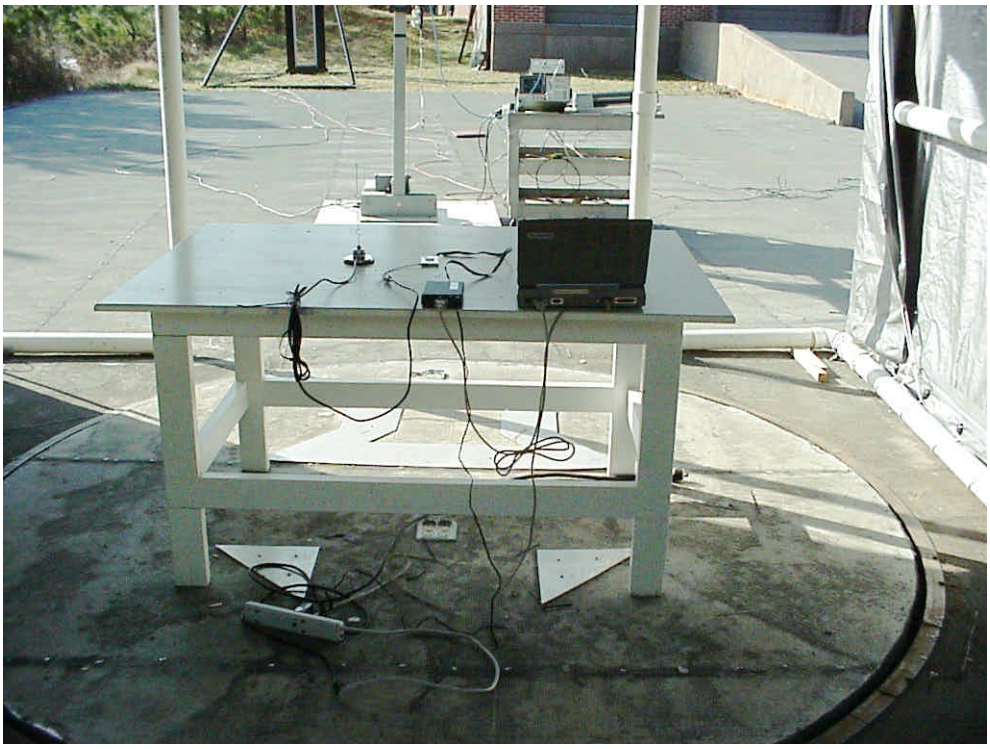
FIGURE 2c

Photograph(s) for Spurious Emissions (5 dBi Whip)



Test Date: February 4, 2001
UST Project: 01-0057
Customer: Cirronet Corporation
Model: WIT2410

FIGURE 2d

Photograph(s) for Spurious Emissions (24 dBi Parabolic Dish)

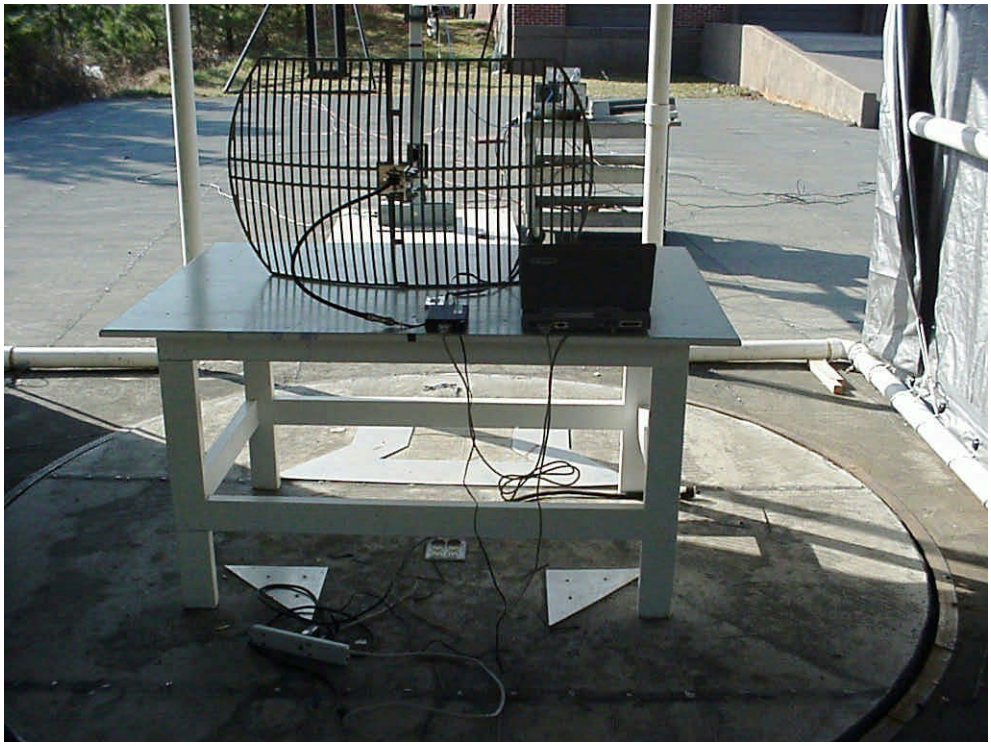


TABLE 1

Test Date: **February 4, 2001**
UST Project: **01-0057**
Customer: **Cirronet Corporation**
Model: **WIT 2410M**

EUT and Peripherals

PERIPHERAL MANU.	MODEL NUMBER	SERIAL NUMBER	FCC ID:	CABLES P/D
(EUT) Cirronet Corporation	WIT 2410M	008517	HSW-2410M	1 m U
Antenna Various, see antenna descriptions			None	Varied from 0.2 to 1 m S
AC Adapter Volgen	SPU10R-1	None	None	6' U 120 VAC 60 Hz Direct Plug-in
Controller Cirronet Corporation	None	None	None	6' S
Laptop Computer Toshiba	Satelite Pro T2155CDS	09543879	CJ6UK323	6' U 120 VAC Hz Power Cord

TABLE 2
TEST INSTRUMENTS

TYPE	MANUFACTURER	MODEL	SN.
SPECTRUM ANALYZER	HEWLETT-PACKARD	8593E	3205A00124
SPECTRUM ANALYZER	HEWLETT-PACKARD	8558B	2332A09900
S A DISPLAY	HEWLETT-PACKARD	853A	2404A02387
COMB GENERATOR	HEWLETT-PACKARD	8406A	1632A01519
RF PREAMP	HEWLETT-PACKARD	8447D	1937A03355
RF PREAMP	HEWLETT-PACKARD	8449B	3008A00480
HORN ANTENNA	EMCO	3115	3723
HORN ANTENNA	EMCO	3116	9505-2255
BICONICAL ANTENNA	EMCO	3110	9307-1431
LOG PERIODIC ANTENNA	EMCO	3146	9110-3600
BILOG	CHASE	CBL6112A	2238
LISN	SOLAR ELE.	8012	865577
LISN	SOLAR ELE.	8028	910494
LISN	SOLAR ELE.	8028	910495
THERMOMETER	FLUKE	52	5215250
MULTIMETER	FLUKE	85	53710469
FUNCTION GENERATOR	TEKTRONIX	CFG250	CFG250TW15059
PLOTTER	HEWLETT-PACKARD	7475A	2325A65394