TEST PROCEDURE

GENERAL: This report shall NOT be reproduced except in full without the written approval of TIMCO ENGINEERING, INC. The UUT was transmitting a test signal during the testing.

RADIATION INTERFERENCE: The test procedure used was ANSI STANDARD C63.4-1992 using a HEWLETT PACKARD spectrum analyzer with a preselector. The analyzer was calibrated in dB above a microvolt at the output of the antenna. The resolution bandwidth was 100KHz and the video bandwidth was 300KHz up to 1.0GHz and 1.0MHz with a video BW of 3.0MHz above 1.0GHz. The hopping was stopped at the low, middle, & high end of the band and the UUT measured. The ambient temperature of the UUT was 85Deg F with a humidity of 89.2%. The hopping was stopped at the low end, middle and high end of the band in order to test the radiated emissions.

FORMULA OF CONVERSION FACTORS: The Field Strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of dBuV) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB. The gain of the Preselector was accounted for in the Spectrum Analyzer Meter Reading.

Example:

Freq (MHz)	METER READING + ACF = FS
33	20 dBuV + 10.36 dB = 30.36 dBuV/m @ 3m

TEST EQUIPMENT LIST

1. Spectrum Analyzer: Hewlett Packard 8566B - Opt 462, w/ preselector 85685A, & Quasi-Peak Adapter HP 85650A, & HP 8449B - OPT H02 Cal. 10/02/97
2. Signal Generator, Hewlett Packard 8640B, cal. 6/26/98
3. Eaton Biconnical Antenna Model 94455-1
   20-200 MHz Serial No. 0997 Cal. 9/17/97
4. Electro-Metric Dipole Kit, 20-1000 MHz, Model TDA 25 cal. 5/15/97
5. Electro-Metric Horn 1-18 GHz, Model RGA-180, Cal. 9/24/97
6. Electro-Metric Antennas Model TDS-25-1, TDS-25-2, 9/3/97
7. Electro-Metric Line Impedance Stabilization Network Model No. EM-7821, Serial No. 101; 100KHz-30MHz 50uH. 9/30/97
8. Electro-Metric Line Impedance Stabilization Network Model No. EM-7820, Serial No. 2682; 10KHz-30MHz 50uH. 9/30/97

INTRODUCTION: GENERAL INFORMATION AND DATA

PRODUCT DESCRIPTION The IMKAP2-1020 is a frequency hopping radio LAN which consists of several separate blocks. The controller is responsible for all interfacing and receives and responds to all incoming events. The controller executes a multitasking kernel which resides in internal memory. The controller powers up and down the receiver section, transmitter, the time base and power management.

APPLICANT: PROXIM, INC.

FCC ID: IMKAP2-1020

NAME OF TEST: RADIATION INTERFERENCE

RULES PART NUMBER: 15.247, 15.209

REQUIREMENTS:

FIELD STRENGTH of Fundamental:	FIELD STRENGTH of Harmonics	§15.209
		30 - 88 MHz 40 dBuV/m @3M
		88 -216 MHz 43.5
2400-2483.5MHz		216 -960 MHz 46
127.38dBuV/m @3m	54 dBuV/m @3m	ABOVE 960 MHz 54dBuV/m

EMISSIONS RADIATED OUTSIDE OF THE SPECIFIED FREQUENCY BANDS, EXCEPT FOR HARMONICS, SHALL BE ATTENUATED BY AT LEAST 50 dB BELOW THE LEVEL OF THE FUNDAMENTAL OR TO THE GENERAL RADIATED EMISSION LIMITS IN 15.209, WHICHEVER IS THE LESSER ATTENUATION.

TEST RESULTS: This unit DOES meet the FCC requirements.

TEST DATA:

EMISSION FREQ. MHz	METER READING @ 3m dBuV	COAX LOSS dB	ACF dB	FIELD STRENGTH dBuV/m	MARGIN dB	ANT.
2401.14	74.70	1.09	29.00	104.79	22.59	H
4802.08R	16.4	1.45	33.90	51.35	2.65	H
7203.12	14.2	1.81	36.60	52.61	1.39	H
2436.14	77.60	1.10	29.09	107.79	19.59	H
4872.15R	17.20	1.46	33.98	52.64	1.36	H
7308.29R	14.10	1.83	36.72	52.65	1.35	H
2456.16	77.60	1.10	29.14	107.84	19.54	H
4912.32R	16.70	1.47	34.03	52.20	1.80	H
7368.48R	14.20	1.84	36.79	52.83	1.17	H
12280.80R	2.60	2.36	38.71	43.67	10.33	V

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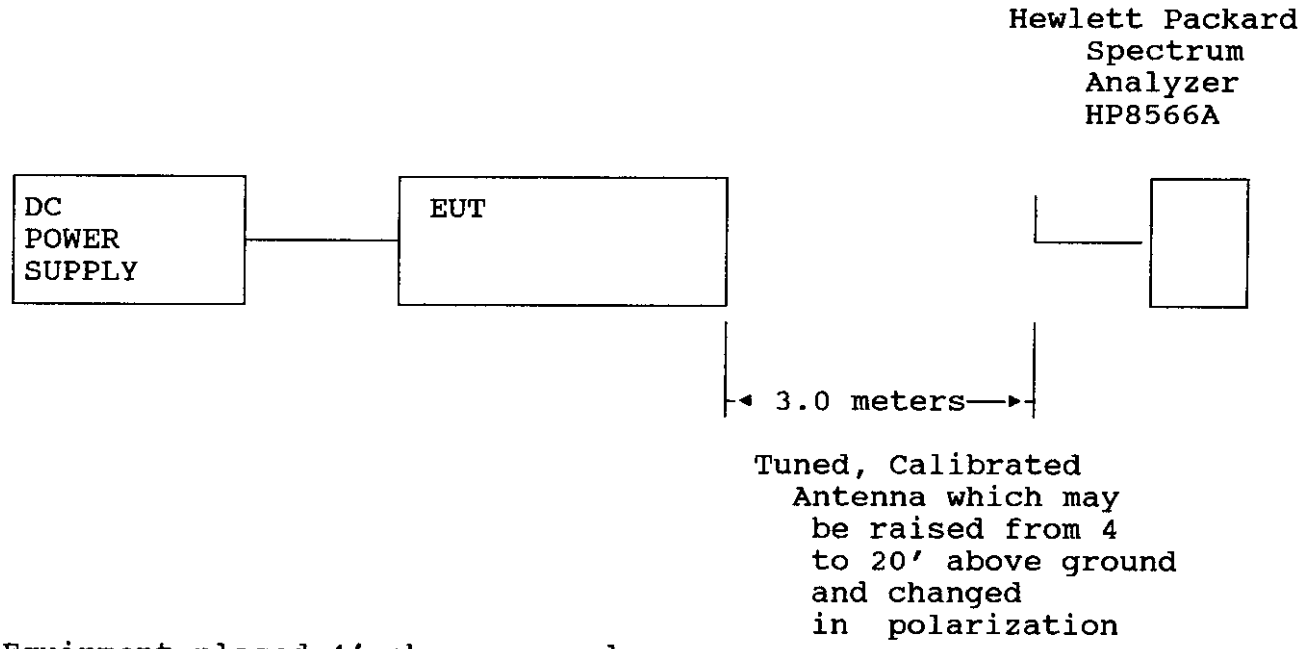
TEST PROCEDURE: ANSI STANDARD C63.4-1992 as described on previous page.

2.993(a)(b) Continued Field strength of spurious emissions:

Method of Measuring Radiated Spurious Emissions



Equipment placed 4' above ground on a rotatable platform.

LXE REPAIR SERVICES WORK ORDER

The repair of your LXE equipment is much faster when you provide us accurate information regarding the problem(s). Please include this form with all RA's to help us serve you better.

Phone Number to call to get an RA Number: 770-449-0154 / FAX # 770-447-4561

Return Authorization Number (RA*): _____

Unit Model No.: _____ Customer Name: _____

Unit Serial No.: _____ P.O. _____

RETROFIT (DESCRIBE WORK TO BE PERFORMED ON THE BACK)

SITE CONTACT NAME AND PHONE NUMBER: _____

SHIP TO" ADDRESS: _____

"BILL TO" ADDRESS: _____

Note: For faster service please include a hard copy P.O. (N.T.E. $400.00), or FAX to the above number (not required on Service Contracts). Subject to LXE's standard terms and conditions.
If repair exceeds $400.00 you will be notified, otherwise actual charges will be invoiced. Always reference the RA # on your P.O. # with "Ship To" and "Bill To" addresses.

RF TERMINALS / CHECK ALL THAT APPLY

[ ] NO BEEP [ ] DISPLAY PROBLEM
[ ] GETS "PLEASE SEND AGAIN" OR "PRESS INQ TO CONTINUE"
[ ] GETS "COMPUTER DID NOT ANSWER, PLEASE SEND AGAIN"
[ ] THE MESSAGE "TRANSMITTING" IS DISPLAYED LONGER THAN NORMAL
[ ] BARCODE PORT: [ ] NO BEAM [ ] NO READ [ ] CONSTANT BEAM
[ ] RS-232 PORT: [ ] NO SEND [ ] NO RECEIVE
[ ] OTHER (SPECIFY)

CIU OR NETWORK CONTROLLER / CHECK ALL THAT APPLY

[ ] WON'T BOOT [ ] NO DISK LIGHT [ ] STOPS IN BOOT PROCESS
[ ] GREENLICHTSONCARDSSTOPFLASHING&STAYONSOLID [ ] RF CARD [ ] HOST CARE
[ ] NO CONSOLE DISPLAY
[ ] NO COMMUNICATION FROM CIU TO RFU
[ ] SLOW RESPONSE TIME
[ ] HAVE THERE BEEN ANY LIGHTNING STRIKES OR POWER SURGES RECENTLY?
[ ] OTHER SPECIFY:

RADIO FREQUENCY UNIT/CHECK ALL THAT APPLY

[ ] NO TRANSMIT
[ ] NO RECEIVE
[ ] NO COMMUNICATION TO CIU
[ ] LIGHTNING DAMAGE
[ ] FREQUENCY CHANCE OR UPGRADE (SPECIFY BELOW)

SCANNING DEVICES/ CHECK ALL THAT APPLY

[ ] NO BEAM [ ] NO DECODE [ ] CONSTANT REAM
[ ] CABLE PROBLEM [ ] OTHER (SPECIFY)

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