

## 1 Test methods

EUT was placed on a platform of nominal size, 1m by 1.5m, raised 1m above the conducting ground plane.

EUT was placed in the center of table.

Test was made with the antenna positioned in both the horizontal and vertical planes of polarization.

The measurement antenna was varied in height above the conducting ground plane to obtain the maximum signal strength. The measurement distance was 3m.

## 2 Test Items of requirement

EUT was tested the following test items of requirements according to FCC Part 15, Subpart C, Section 15.274.

### a) Section 15.274 (b)

The maximum peak output power of the transmitter shall not exceed 1 Watt. If transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

The maximum peak output power of WLI-PCM-US < 1Watt.

	Result	Limits
CHNL-ID 1 (VER) :	0.60mWatt	< 1Watt
(HOR) :	0.42mWatt	< 1Watt
CHNL-ID 6 (VER):	0.38mWatt	< 1Watt
(HOR):	0.37mWatt	< 1Watt
CHNL-ID 11(VER):	0.63mWatt	< 1Watt
(HOR):	0.63mWatt	< 1Watt

Summary of the test result : Pass

Data of test : See Appendix 1

### b) Section 15.274 (d)

For direct sequence systems, the transmitted power density averaged over any 1 second interval shall not be greater than 8dBm in any 3kHz bandwidth within these bands.

For WLI-PCM-US direct sequence system, the transmitted power density averaged over any 1 second period is less than 8dBm in any 3 kHz bandwidth within these ranges.

	Result	Limits
CHNL-ID 1 (VER) :	-38.4dBm	< 8dBm
(HOR) :	-46.3dBm	< 8dBm
CHNL-ID 6 (VER):	-41.8dBm	< 8dBm
(HOR):	-48.7dBm	< 8dBm
CHNL-ID 11(VER):	-42.8dBm	< 8dBm
(HOR):	-48.8dBm	< 8dBm

Summary of the test result : Pass

Data of test : See Appendix 2

### c) Section 15.274 (e)

The processing gain of a direct sequence system shall be at least 10dB. The processing gain shall be determined from the ratio in dB of the signal to noise ratio with the system spreading code turned off to the signal to noise ratio with the system spreading code turned on, as measured at the demodulated output of the receiver.

Summary of the test result : Pass

Data of test : See Appendix 3-5

Testing Laboratory

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# OUTPUT POWER TEST

A-PEX INTERNATIONAL CO., LTD  
YOKOWA NO.1 OPEN SITE

COMPANY : MELCO INC,  
 TRADE NAME : BUFFALO  
 EQUIPMENT : WIRELESS LAN  
 MODEL : WLI-PCM-US  
 POWER : AC120V/60Hz(DC5V)  
 DESCRIPTION : RUNNING  
 REMARKS : PK DETECT  
 DATE : 07/26/1999

REPORT NO : 18D0045-02-1  
 REGULATION : FCC Part 15.274(b)  
 TEST DISTANCE : 3m  
 FCC ID : FDI-04600000-0

ENGINEER : Naoki.Sakamoto

ch_ID	FREQ [GHz]	ANT TYPE	S/A READING		ANT Factor [dB]	CABLE LOSS [dB]	AMP GAIN [dB]	E		LIMIT [mW]	RESULT	
			HOR [dBfÊV]	VER [dBfÊV]				HOR [dBfÊV/m]	VER [dBfÊV/m]		HOR [mw]	VER [mw]
1	2.4110	HA	89.3	90.8	30.4	6.1	34.3	91.5	93.0	1000	0.42	0.60
6	2.4360	HA	88.7	88.9	30.4	6.1	34.3	90.9	91.1	1000	0.37	0.38
11	2.4630	HA	91.0	91.0	30.4	6.1	34.3	93.2	93.2	1000	0.63	0.63

SAMPLE CALCLATION :

E = READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN

RESULT = (E \* d)squared/30G

E : Converted to V/m

d : Test distance (3m)

G : Antenna gain (1)

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# POWER DENSITY TEST

A-PEX INTERNATIONAL CO., LTD  
YOKOWA NO.1 OPEN SITE

COMPANY : MELCO INC,	REPORT NO : 18D0045-02-1
TRADE NAME : BUFFALO	REGULATION : FCC Part 15.274(d)
EQUIPMENT : WIRELESS LAN	TEST DISTANCE : 3m
MODEL : WLI-PCM-US	FCC ID : FDI-04600000-0
POWER : AC120V/60Hz(DC5V)	
DESCRIPTION : RUNNING	
REMARKS : PK DETECT	
DATE : 05/26/1999	

ENGINEER : Naoki.Sakamoto

ch_ID	FREQ [GHz]	ANTI TYPE	S/A READING		ANT Factor [dB]	CABLE LOSS [dB]	AMP GAIN [dB]	E		LIMIT [dBm]	RESULT	
			HOR [dB fÊV]	VER [dB fÊV]				HOR dB fÊV/m	VER dB fÊV/m		HOR [dBm]	VER [dBm]
1	2.4110	HA	58.5	66.4	30.4	6.1	34.3	60.7	68.6	8	-46.3	-38.4
6	2.4361	HA	56.1	63.0	30.4	6.1	34.3	58.3	65.2	8	-48.7	-41.8
11	2.4630	HA	56.0	62.0	30.4	6.1	34.3	58.2	64.2	8	-48.8	-42.8

SAMPLE CALCLATION :

E = READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN

RESULT = E - 107•mdB•n : Converted to dBm

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