



FCC Certification Report for the  
**LA24001AZL** WLAN PC Card  
Class II Permissive Change

EXHIBIT 4

**RF EXPOSURE INFO**



# RF Exposure Antenna Summary

## Network Systems Organization

FCC ID: **H9PLA24001AZL**    WLAN PC Card, 1 Mbps, CR-1, Lo Power  
 Output Power: 100 mW    Class II Permissive Change

Source Based  
 Mobile DC Factor: 0.600  
 Portable DC Factor: 0.320

### Body Worn Antennas

Ant No	Model	Symbol P/N	Type	Gain (dBi)	Cabel Loss (dB)	Pout (dBm)	EIRP (mW)	TR Status	Device Type	Tx Limited
01.	Oniel BFA	50-21900-023	Slot	0.0	0.39	19.61	29.3	Requested	Body Worn	

Antenna Gain listed without cable  
 TR Status refers to whether the antenna was tested. If not refer to the directed antenna test data

Duty Cycle Factors are applied to MPE and EIRP

Tx Limited configurations are for low power versions of the radio. See the specific antenna exhibit for detail



# Antenna List by FCC ID

Network Systems Organization

FCC ID: **H9PLA24001AZL** WLAN PC Card, 1 Mbps, CR-1, Lo Power

Output Power: 100 mW

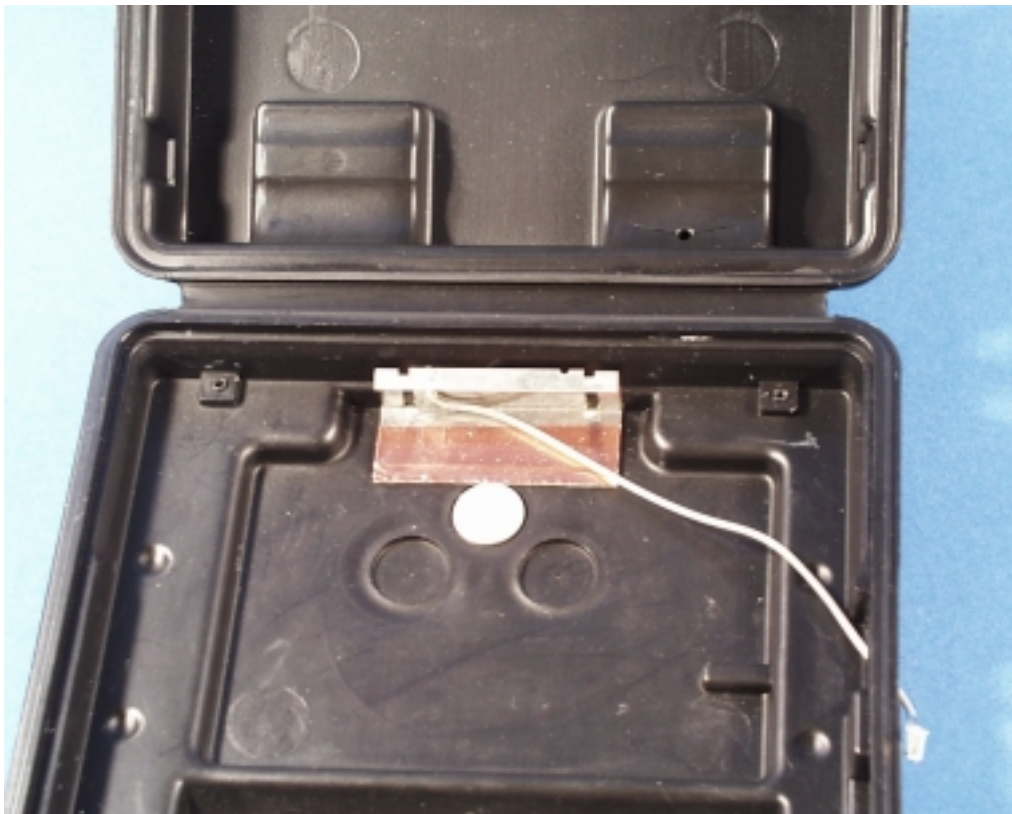
Grant Date	Ant #:	Model	Symbol P/N	Mfg	Mfg P/N
9/20/96					
	01	Plane	50-21900-008	Tecom	505042C(48IN)
	02	Rubber Duck	50-21900-007	Cushcraft	RBN2400SXR
	03	End Cap, 6 Pin	50-21900-009	Tecom	505068E
	04	Pipe Bomb 11"x4'	50-11901-048P	Cushcraft	S2403BHPS48RBN
	04.1	Pipe Bomb 11"x15'	50-11901-180P	Cushcraft	S2403BHPS180RB
Applied For					
	1	Oniel BFA	50-21900-023	Tecom	703620

**Oneil BFA / Oneil MMCX Antenna**

The **Oneil** antenna is 0 dBi omnidirectional in azimuth plane. It is available with either a MuRatta BFA or MMCX connector. It is mounted as an internal antenna on the O'Neil MicroFlash series of portable belt worn printers. In its use it would be within 5 cm of a users body. It is used in portable devices.

<i>Location</i>	Body worn
<i>Pattern</i>	Omni
<i>Type</i>	Slot
<i>Max Gain</i>	0 dBi
<i>Physical</i>	See attached dwg
<i>Cable</i>	MXYH75 or RG-178
<i>Symbol P/N</i>	50-21900-023 50-21900-031
<i>EIRP</i>	See Summary Tbl

**Note: This antenna is only to be used with a transmitter that produces an EIRP of less than 200 mW. For an EIRP of more than 200 mW a SAR test must be performed.**

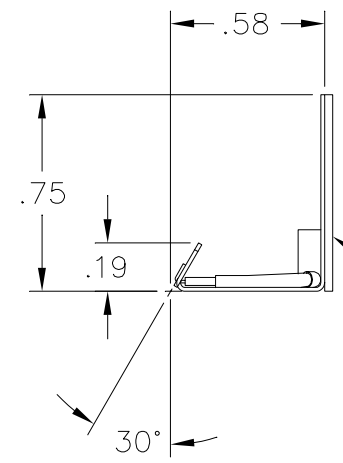
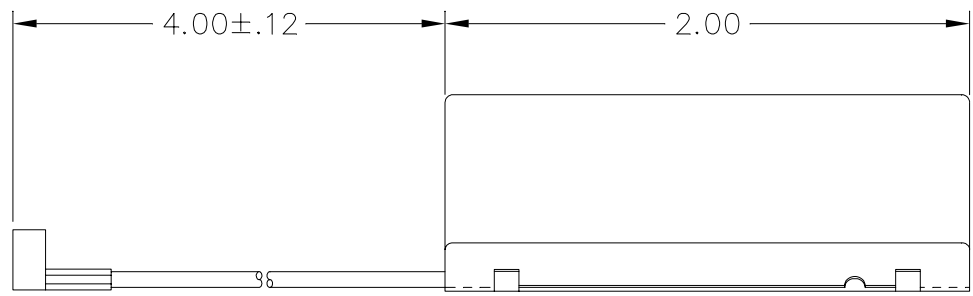


Antenna Installation Photo

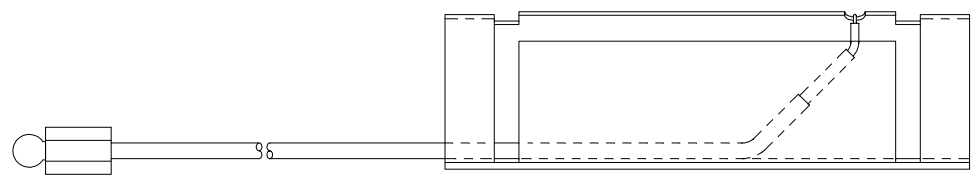


Device use Photograph.

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
C2	A	.58 WAS .42 ADHESIVE CALLOUT WAS: ... X .025 THK (3M 4930 OR EQUIV) WD 2675 REDRAWN	1-4-00 JL	



ADHESIVE FILM,  
.75 X 2.00 X .031 THK  
(3M 4032 OR EQUIV)



### SPECIFICATIONS

FREQUENCY:	2.4-2.485 GHZ
VSWR	2.0:1 MAX
GAIN	0dBi NOMINAL
POLARIZATION	LINEAR
CABLE:	MURATA MXYH75
CONNECTOR:	TYPE BFA

- 4. SHARP CORNERS & EDGES .005 MAX.
- 3. FINISH SHALL BE UNIFORM AND EXHIBIT NO EVIDENCE OF CORROSION OR OXIDATION WHEN VIEWED WITH THE UNAIDED EYE. EDGE PLATING ON CUT OR SHEARED SURFACES IS NOT REQUIRED.

- 2. ALTERNATE:  
MATERIAL: CRS 1008, .015 THK.  
FINISH: BRIGHT TIN PLATE PER MIL-T-10727A, TYPE 1, ELECTRO DEPOSITED .00010-.00025 IN.
- 1. MATERIAL: ELECTROLYTIC TIN PLATED STEEL SHEET, .015 THK.



NOTES : UNLESS OTHERWISE SPECIFIED

PMIC	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES. TOLERANCES: .XX ± .03 .XXX ± .010 ANGLES ± 0°30' MACHINED SURFACE ROUGHNESS 125 ✓ REMOVE BURRS, SHARP EDGES R.005-.015 MACHINED FILLETS R.005-.015 DIMENSIONS ARE AFTER PLATING. MACHINED DIA'S ON COMMON CENTERLINE CONCENTRIC WITHIN .005 TIR. INTERPRET PER ANSI Y14.5M-1982.		CONTRACT NUMBER	
			CONTRACTOR	
			DRAWN BY J. LOWE	DATE 11-8-99
			CHECKER	MFG ENGR
			QA	ENGR BI
			PRGM MGR	ENGR
823362	C090-874	HOLE TOLERANCES:		
NEXT ASSY	USED ON	.040 - .128 +.003 -.001	.515 - .750 +.008 -.001	
		.136 - .228 +.004 -.001	.765 - 1.000 +.010 -.002	
		.234 - .500 +.006 -.001	1.031 UP +.015 -.002	
APPLICATION		MATL ENGR	APPROVAL	

		TECOM INDUSTRIES INC. 9324 TOPANGA CYN BLVD CHATSWORTH, CA. 91311 <i>TECHNICAL EXCELLENCE COMMITTED TO QUALITY</i>	
		TITLE <b>ANTENNA, 2.4 GHZ</b>	
SIZE <b>C</b>	CAGE CODE <b>52791</b>	DWG NO <b>703620</b>	
SCALE 2/1	UNIT WT	SHEET 1 OF 1	