

NO.151, Sec 3, Haidian RD., Annan District, Tainan City 70966, Taiwan, R.O.C. TEL: +886-6-2475285 FAX: +886-6-2475282 E-mail: <u>ivy@rfcastle.com</u> Website: <u>www.rfcastle.com</u>



#### U-Tenna <USB+2.4GHz Omni 8dBi antenna>

- Designed for wireless LAN communications
- · Mounted easily for the outdoor application
- Designed to obtain maximum gain
- Made with weatherproof and corrosion resistant
- Operate at 2.4GHz with data transmission rate up to54Mbps
- · IEEE Standards support: IEEE 802.11b/g
- Advanced security features including WEP, WPA and WPA2
- USB 2.0 interface compliant with USB 1.1
- Advanced power saving technology
- Support WPA 802.1x authentication for Windows 98SE, ME, 2000 and XP
- Compatible with Windows 98SE, ME, 2000, XP, MAC, Linux

### Features

- 1. Wireless setup plan is not required.
  - 2. Easy and Convenience to install
  - 3. Just plug in your computer or notebook.
  - 4. Good reception and search result on all WiFi outdoor wireless signals.
  - 5. The transmission distance is around 2-3 km
  - 6. Easy to use, minimal or no technical knowledge required.

### **Technical Information**

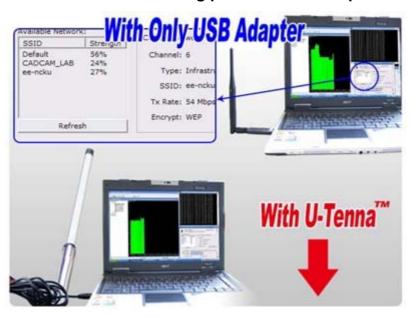
	U-TennaTM OMNI Type				
OMNI Antenna SPEC		USB SPEC			
Frequency	2400 - 2483MHz	Standard	IEEE 802.11b/g		
Gain	8dBi	Frequency	2400 - 2483MHz		
Polarization	Vertical	Date Rate	54/48/36/18/12/11/9/6/5.5/2/1Mbps		
Beamwidth deg: vertical & horizontal	Horz.360°Vert.15°	Transmitter Output Power	<16dBm		
VSWR	1.5 : 1	Receive Sensitivity	Operating at 11Mbps: @ -80dBm		
Impedance:	50ohm		Operating at 54Mbps: @ -70dBm		
Size	H390 mm/15.5inch	Operating System Support	Windows 98se, Me, 2000, XP and Vista		
USB cable length	5 meters / 10 feet	Regulation	FCC/CE		



Test Report and Test Procedures of U-Tenna 2.4G OMNI Antenna 8dBi Location: On the top floor of one 12-story building in a city, Taiwan.

Equipment: 1. Laptop - ACER Aspire 5051AWXMi 2. U-Tenna - 2.4G OMNI Antenna 8dBi

Test Procedure: Please refer to the following photos and description.



## Photo 1



**Photo 1**: Test is conducted on the top floor of one 12-story building.

# Photo 2

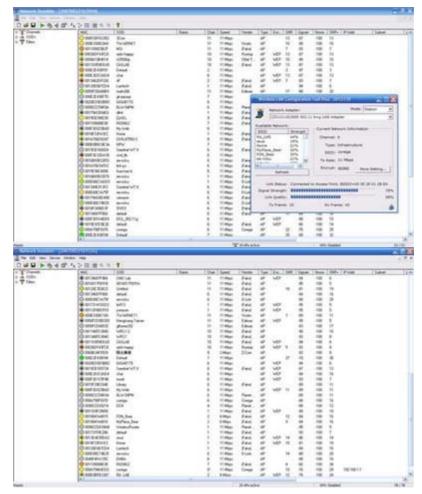


Photo 2: Connect the U-Tenna WL-UTO-2450-08 to the laptop.

# Photo 3

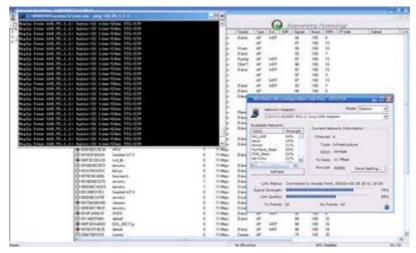


**Photo 3**: Take the antenna to the most remote end of the floor as to receive more WIFI signals. **Photo 4** 



**Photo 4**: When searching for the possible signals with the software (Network Stumbler), we find 31 sources of signal. We have to check which signal is unable. After finding one, we will proceed with the test of traffic flow of packet.

### Photo 5



**Photo 5**: We are connecting to one of those 31 wireless receptions. We open the test packet in order to test the signal quality.

#### Photo 6

🐨 B B A	200K 500K 1M 2M	3M 5M 8M 12M			
<b>9</b> 8 2 8 8	1056 K bps ]	i i ibpa			
	下行维修信车会干值				
	512Kbps	320Khps ~ 512Khps			
	1Mbps	640Kbps ~ 1000Kbps			
	2Mbps	1200Khps ~ 2000Khps			
	8Mbps	1260Kbps ~ 8000Kbps			
	12Mbps	1280Kbps ~ 12000Kbps			
	<b>常</b> 用于41毫无测试				
	了數總度測試,僅當大小 10 MB	Y 軟造閃滑励, 廠業大小 20 MB			
	丁數總度測試,權業大小 40 MB	工机建筑用站,模式大小100 MB			
	實施下動爆突進時級相				

**Photo 6**: We click on the page of the transmission speed. As it shows, the current speed is 1066K bps, which is around 131 K bytes/sec.