

Access Points for this Workshop

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For
AIT Wireless and Security Workshop

Ubiquiti

- Off the shelf atheros Mips based SOC
- Atheros Radio (802.11g in this case)
- WRT based Linux distribution
- Better integrated than running DD/Open-WRT
- Integrated antenna
- External antenna jack (sma) or non-integrated AP available.
- Cheap!

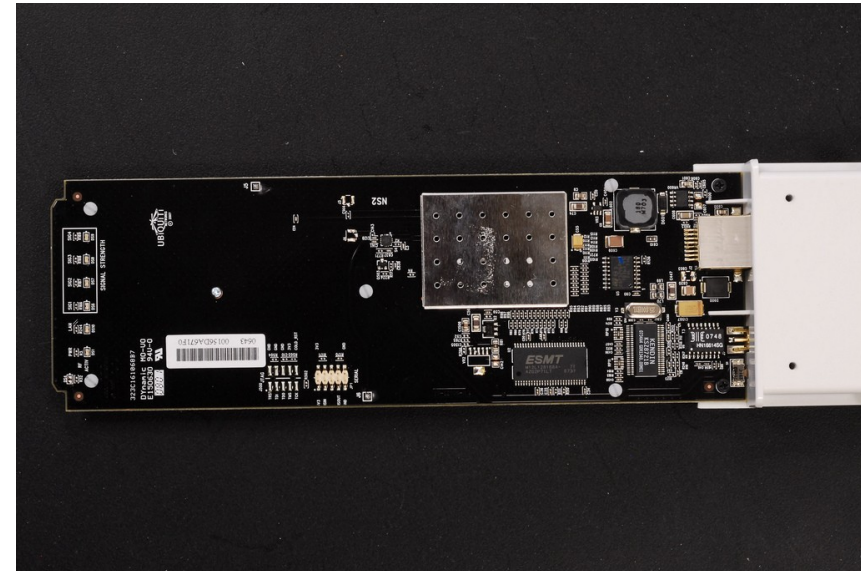
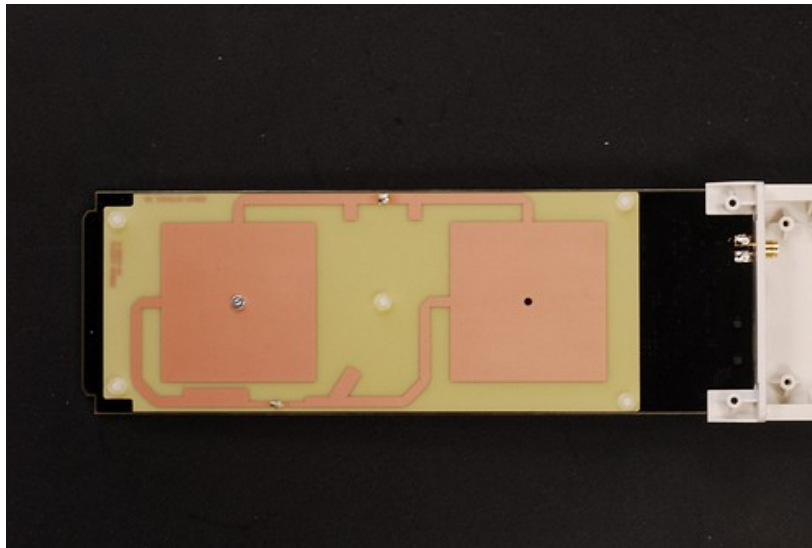
Ubiquiti PowerStation 2

- Big 18 degree 17dB gain panel antenna
- Or diversity N connectors
- Dual 10/100 ethernet
- Weather-tight
- TX power 26dBm
- Retails for \$159
- Windload 185 Km/h



Ubiquiti NanoStation 2

- 10dB gain
- 60 degree beam width
- SMA jack for external Antenna
- \$79



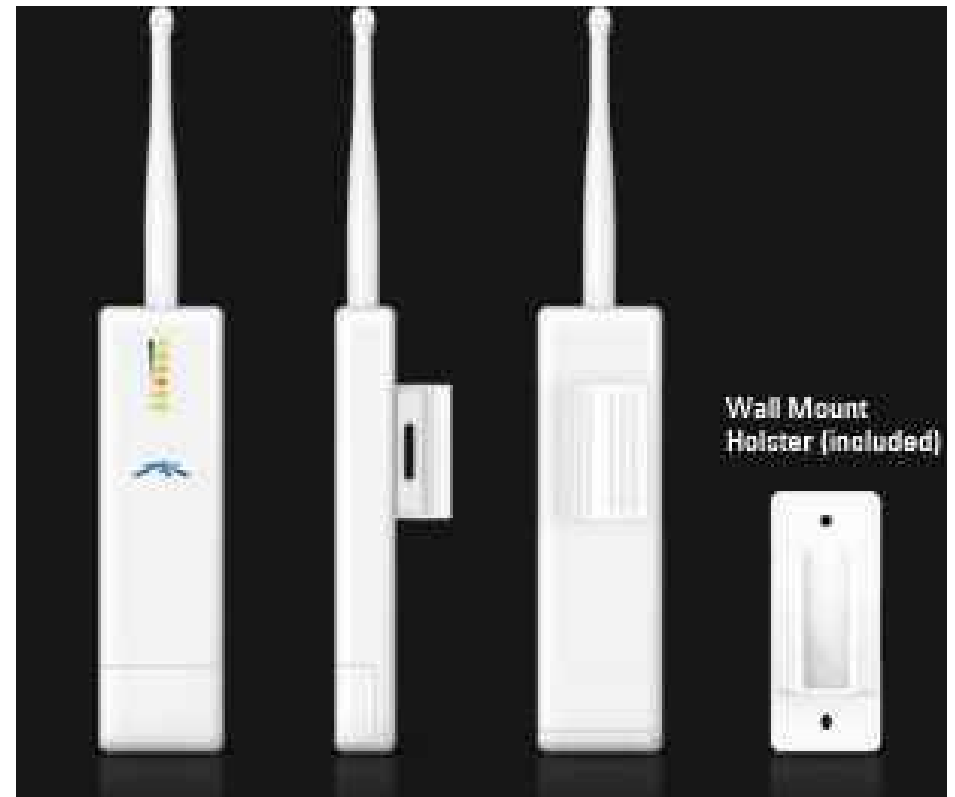
Ubiquiti Bullet

- 20dBm TX
- @11Mb/s -90dBm RX
- @54Mb/s -72dBm RX
- Integrates directly with antenna
- Single port POE
- 16MB ram, 4MB flash
- Comes in regular HP and 5ghz flavors



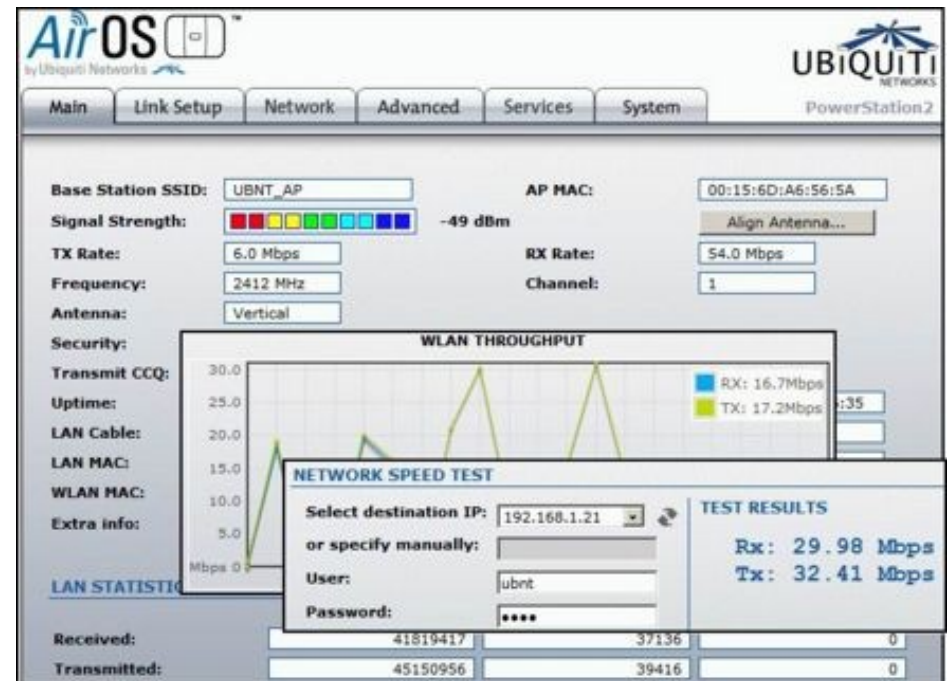
Ubiquiti Pico station

- 32MB of ram 8MB flash
- Same radio performance as a bullet



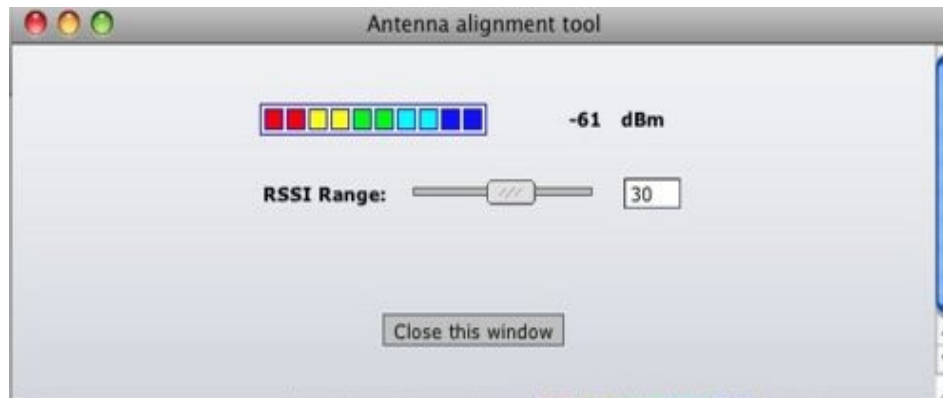
AirOS – Is Linux pure and simple

- Web interface
- CLI



Benifits

- Adjustable channel spectrum width!
 - 5 10 20 40Mhz
- Can run OpenWRT 8
- Adaptive polarization
- Power over ethernet injection
- Built-In antenna alignment applet



Limitations

- Ubiquiti AIRos not really setup for serious routing
- 16MB ram and 4MB of flash (on older models)
- Single radio design
- Power over ethernet-injection is non-standard

Alternative standalone AP

- OpenWRT running on Ubiquiti
- OpenWRT running on commodity AP
- Mikrotik RouterOS or OpenWRT running on routerboard 133 (dual radio is possible)
- *BSD or Linux on soekris or pcengines style embedded system.
- Another AP platform...

Bibliography

- Ubuiquiti Networks - <http://ubnt.com/>
- OpenWRT - <http://openwrt.org/>
- Routerboard - <http://www.routerboard.com/>
- Soekris - <http://www.routerboard.com/>