ORiNOCO AP-700
Technical Specifications

APPLICATIONS
• Small and medium corporations
  Mobile access to improve employee, contractor and customer efficiency
• Universities
  Flexible, immediate, mobile faculty and student connectivity in dorms, classrooms, libraries and campus quads
• Hospitals and medical clinics
  Real time information system wide for better patient care and reduced errors
• Local, state and federal agencies
  Fast access to information to serve constituencies better
• Public hotspots
  Robust, secure, Wi-Fi connectivity for airports, convention centers, hotels

RADIO
Single Radio Access Point with integrated 802.11b/g/a radio mode; selectable by user

DATA RATES SUPPORTED
802.11b: 1, 2, 5.5, 11 Mbps
802.11g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, and 54 Mbps
802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps

NETWORK STANDARD
IEEE 802.11b or IEEE 802.11g or IEEE 802.11a

FREQUENCY BAND
802.11b/g
2.412 to 2.462 GHz (FCC)
2.412 to 2.472 GHz (ETSI)
2.412 to 2.484 GHz (TELEC)
2.412 to 2.462 GHz (Taiwan)
2.412 to 2.462 GHz (Singapore)
2.412 to 2.462 GHz (S. Korea)

802.11a
5.15 to 5.35 GHz (FCC UNII 1 and UNII 2), 5.725 to 5.85 GHz (FCC UNII 3/ISM)
5.15 to 5.35 GHz and 5.47 to 5.725 GHz (ETSI)
5.15 to 5.25 GHz (TELEC)
5.15 to 5.25 GHz and 5.725 to 5.825 GHz (Singapore)
5.25 to 5.35 GHz and 5.725 to 5.85 GHz (Taiwan)
5.725 to 5.825 GHz (S. Korea)

NETWORK ARCHITECTURE TYPE
Infrastructure

WIRELESS MEDIUM
802.11b or 802.11g: Direct sequence spread spectrum (DSSS); Orthogonal Frequency Division Multiplexing (OFDM)
802.11a: Orthogonal Frequency Division Multiplexing (OFDM)

MEDIA ACCESS PROTOCOL
Carrier sense multiple access with collision avoidance (CSMA/CA)

MODULATION
OFDM
BPSK @ 6 and 9 Mbps
QPSK @ 12 and 18 Mbps
16-QAM @ 24 and 36 Mbps
64-QAM @ 48 and 54 Mbps

DSSS
DBPSK @ 1 Mbps
DQPSK @ 2 Mbps
CCK @ 5.5 and 11 Mbps

OPERATING CHANNELS
2.4 GHz Band
802.11b: ETSI: 13; Americas: 11; TELEC (Japan): 14
802.11g: ETSI: 13; Americas: 11; Japan (TELEC): 14 CCK, 13 OFDM

5 GHz Band
FCC: 12
ETSI: 19
Japan (TELEC): 4
Singapore: 9
Taiwan: 8
S. Korea: 4

NON-OVERLAPPING CHANNELS
Fifteen (FCC only)

RECEIVE SENSITIVITY
802.11b
5.5 Mbps: -89 dBm
11 Mbps: -89 dBm

802.11g
5.5 Mbps: -89 dBm
11 Mbps: -89 dBm
36 Mbps: -82 dBm
54 Mbps: -76 dBm

802.11a
36 Mbps: -83 dBm
54 Mbps: -77 dBm

AVAILABLE TRANSMIT POWER SETTINGS
802.11b
100 mW (20 dBm)
50 mW (17 dBm)
25 mW (14 dBm)
12.5 mW (11 dBm)

Maximum power setting will vary according to individual country regulations.
802.11g: 63 mW (18 dBm)
32 mW (15 dBm)
16 mW (12 dBm)
8 mW (9 dBm)

Maximum power setting will vary according to individual country regulations.

802.11a: 63 mW (18 dBm)
32 mW (15 dBm)
16 mW (12 dBm)
8 mW (9 dBm)

Maximum power setting will vary according to individual country regulations.

Standards

Safety: UL 60950, CSA 22.2 No. 60950-00, IEC 60950 3rd Ed (1999)


Antenna Approvals: EN 301.893, EN300.328, EN301.489-1, EN301.489-17, EN50371, ARIB STD-T71, ARIB-STD 33, ARIB-STD 66, FCC 15.247, RSS-210

EMI and Susceptibility: FCC Part 15.107, ICES-003 (Canada)

Security: AES and 802.11i, WPA and WPA2, WEP and TKIP

Network Standard: IEEE 802.11b, IEEE 802.11g, IEEE 802.11a

Other: FCC Bulletin OET-65C, WiFi Certification, RSS-102, IEEE 802.3af

Authentication: 802.11v802.1x including support for PEAP, EAP-TLS, EAP-TTLS EAP-SIM, and other EAP methods that conform to RFC 3748[1] to yield mutual authentication and dynamic per-user, per-session encryption keys

RADIUS-based MAC address

MAC address control list

Encryption: 802.11i support for CCMP/AES keys of 128 bits (WPA2)

TKIP encryption enhancements (for WEP) with key hashing (per-packet keying) and broadcast key rotation (WPA)

Support for WEP keys of 64 and 128 bits

Snmp compliance

Orinoco, rfc1213, rfc1643, SNMPv2, 802.11i-03, IANAIfType-MIB, MIIB802

2.4 GHz

Dual on-board antennas to support antenna and polarization diversity:

One 3dBi vertically polarized omni antenna, 360° horizontal and 40° vertical beamwidths

One 2dBi horizontally polarized omni antenna, 360° horizontal and 30° vertical beamwidths

Certified with: Proxim 1086-REA

Proxim 1086-DA2-4

Proxim 1086-DA2-5

Proxim 1086-PDA2-8.5

Proxim 1086-PDA2-9.5

5 GHz

Dual on-board antennas to support antenna and polarization diversity:

One 3dBi vertically polarized omni antenna, 360° horizontal and 40° vertical beamwidths

One 2dBi horizontally polarized omni antenna, 360° horizontal and 30° vertical beamwidths

Certified with: Proxim 1086-REA

Proxim 1086-PDA2-7

2.4 and 5 GHz

Dual band (2.4 and 5GHz) external Range Extender Antenna for optimum antenna placement, 1086-REA

Authentication: 802.11w802.1x including support for PEAP, EAP-TLS, EAP-TTLS EAP-SIM, and other EAP methods that conform to RFC 3748[1] to yield mutual authentication and dynamic per-user, per-session encryption keys

RADIUS-based MAC address

MAC address control list

Encryption: 802.11i support for CCMP/AES keys of 128 bits (WPA2)

TKIP encryption enhancements (for WEP) with key hashing (per-packet keying) and broadcast key rotation (WPA)

Support for WEP keys of 64 and 128 bits
### ORiNOCO AP-700 Technical Specifications

| SECURITY ARCHITECTURE | CLIENT AUTHENTICATION AND ENCRYPTION (CONT'D) | Message Authentication | 802.11i: AES message authentication with 128 bit keys  
TKIP with 128 bit Michael Message Integrity Check |
|-----------------------|-------------------------------------------------|------------------------|
| INTRUSION DETECTION   | Rogue AP and client detection                   | Detect switch port of rogue access point when used in conjunction with Wavelink Mobile Manager  
Detect MIC intrusion attacks |
| STATUS LEDS           | Four indicators on the top panel indicate power, wireless traffic, Ethernet traffic, and error conditions |
| REMOTE CONFIGURATION SUPPORT | DHCP, Telnet, HTTP, TFTP, Boot P, and SNMP |
| LOCAL CONFIGURATION   | RS-232 Serial port, DB9 Female |
| DIMENSIONS            | Packaged 11.375 x 9.25 x 2.75 inches (289 mm x 235 mm x 70mm)  
Unpackaged 7.8 x 4.75 x 1 inches (198 mm x 121 mm x 25 mm) |
| WEIGHT                | Packaged weight 2.05 lbs (0.92 kg)  
Unpackaged weight .65 lbs (.29 kg) AP-only, .45 lbs (.20 kg) for power supply |
| ENVIRONMENTAL         | Operating 0° to 55°C, 5-95% humidity non-condensing @ 5° to 55°C  
Storage -20° to 85°C, 5-95% humidity non-condensing @ 5° to 85°C |
| PROCESSOR             | 220MHz MIPS 700 processor |
| SYSTEM MEMORY         | 16 Mbytes RAM  
8 Mbytes FLASH |
| INPUT POWER REQUIREMENTS | 90 to 240 VAC ±10% (power supply)  
48 VDC ±10% (device) |
| POWER DRAW            | 10 watts, RMS |
| WARRANTY              | One year |
| Wi-Fi CERTIFICATION   | View Wi-Fi Interoperability Certificate for ORiNOCO AP-700 |
| PART NUMBERS          | 8675-US ORiNOCO AP-700 FCC-MU; with Middle and Upper Bands only for 802.11a, with antenna connectors  
8675-US2 ORiNOCO AP-700 FCC-LMU; with Lower, Middle and Upper Bands, no antenna connectors  
8675-AU ORiNOCO AP-700 AU FCC-LMU; certified for Australia; Lower, Middle and Upper Bands for 802.11a; no antenna connectors  
8675-AU2 ORiNOCO AP-700 AU FCC-MU; certified for Australia; Middle and Upper Bands for 802.11a; with antenna connectors  
8675-BR ORiNOCO AP-700 BRAZIL-LU; certified for Brazil, with antenna connectors  
8675-JP ORiNOCO AP-700 JP-L; certified for Japan, with antenna connectors  
8675-SG ORiNOCO AP-700 UK SG-U; certified for Singapore, with antenna connectors  
8675-CN ORiNOCO AP-700 CN-U; certified for China, with antenna connectors  
8675-SK ORiNOCO AP-700 ASIA-L; certified for South Korea, with antenna connectors  
8675-TW ORiNOCO AP-700 TW-MU; certified for Taiwan, with antenna connectors  
8675-EU ORiNOCO AP-700 EU ETS-L; with Lower Band only for 802.11a, with antenna connectors  
8675-EU2 ORiNOCO AP-700 EU ETS-LM with Lower and Middle Bands for 802.11a, with antenna connectors, certified for Finland, Germany and Netherlands only  
8675-UK ORiNOCO AP-700 UK ETSI-LM, with Lower and Middle bands, with antenna connectors |

1 To achieve 802.11i security, the EAP method that is used must conform to both RFC 3748 and IETF draft-walker-ieee802-req-07 (Submitted as an Informational RFC). In RFC 3748, EAP-MD5-Challenge (Section 5.4), One-Time Password (Section 5.5) and Generic Token Card (Section 5.6), are non-compliant with the requirements specified in IETF draft-walker-ieee802-req-07 and thus do not support the 802.11i security claims when used with 802.11i.

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