



# APM CO., LTD

## AAWIPH90

### WiFi Phone

AAWIPH90 is a versatile 802.11b/g WiFi Surveillance Phone.

It provides high voice quality with various codes including iLBC. AAWIPH90 can also communicate with Skype users through Atonics eLink software.

Additionally, equipped with MPEG4/JPEG decoder, AAWIPH90 can be used as a handheld IP surveillance terminal.



### Features

- Support Wireless Access Protocol – 802.11b/g
- Direct Sequence with data rates at 1, 2, 5.5, 11, 6, 9, 12, 18, 24, 36, 48, 54Mbps
- Support Site Survey --- scan available APs in handset's environment
- Implementing IETF RFC-3261 SIP Protocols
- ITU-T iLBC, G.729, G.723 and G.711 Voice compression coder-decoder compliant
- VAD (Voice Activity Detection) /CNG (Comfort Noise Generation) Silence
- Compression – Annex B of G.723
- Echo Canceller , Instant Message , Support IP Camera (ISMA)
- Support both DHCP and static IP
- Internet Protocol Support: IP, TCP, UDP, ARP, HTTP 1.0, DHCP, DNS
- Rechargeable Batteries – Li-ion
- Phone keypad and graphic LCD display
- Phone Configuration through handset LCD setup and web
- Time protocol support (SNTP).
- Skype connection (through Atonics proprietary SIP/Skype Gateway)

### Hardware

- Support 8Mbytes flash memory.
- WiFi SoC built in 802.11b/g MAC, two external chips only for WLAN.
- Support 16Mbytes SDRAM
- 70x220 color LCM with backlight control
- Including Li-ion battery charger controller for automatic charging
- GPIO based matrix keypad without glue logics
- Including drivers for vibrator and buzzer control
- Connect receiver (speaker) and microphone to AT76C902 chip directly, no extra amplifier needed.
- Separate several system power block for optimal power management



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### Specifications

#### General

- Complete system solution using Linux operation system
- Handset dimensions:  
125mm x 45mm x 22 mm

#### Wireless

- Wireless Protocol: IEEE 802.11b / g
- Data rate: 1, 2, 5.5 and 11 Mbps~54Mbps
- Frequency band: 2.400 ~ 2.497
- Operating rang: Out-door up to 300m,  
In-door up to 75m
- Channel: FCC Ch1 ~ 11, ETSI Ch1~13,  
Japan Ch1~14
- Output Power: 14+-1 dBm
- Sensitivity: -82dBm@11Mbps
- Site Survey: Scan available APs in  
hand set's environment

#### VoIP Protocol Support

- IETF RFC-3261 SIP Protocols
- SDP (RFC-2327)
- RTP (RFC-1889)
- Support outbound proxy for NAT Traversal
- STUN for NAT Pass-Through
- QoS:ToS/Diff Serv
- RFC-2833 Out-of-Band DTMF Relay
- RFC-4028 Session Timer
- RFC-3323/3325 SIP Privacy
- Instant Message

#### Voice

- ITU-T iLBC, G.729, G.723 and G.711 Voice  
compression coder-decoder compliant
- VAD/CNG Silence Compression
- G.168 Echo Cancellor
- G.711  $\mu$ -Law or A-Law compliant
- Arbitrary Tone Generation
- DTMF Generation
- Acoustic Echo Cancellation

#### Security

- WEP 64-bit and 128-bit
- WPA/WPA2-PSK(TKIP,AES)
- WPA-EAP : EAP-TLS, EAP-TTLS, EAP-PEAP
- Multiple AP Profile
- WMM QoS , WMM Power Save

#### Phone Function Support

- Caller ID
- Keypad lock
- Re-dial
- Call hold/Un Hold/Transfer/ Forward/Waiting
- Missed Call Indicator
- Battery and signal level metering
- Time protocol support (SNTP)
- Phone books, call history for friendly usage
- Phone Books support for editing/deleting  
personal data
- API to support user application development.
- Configurable GPIOs for specific purposes  
such as LCD  
backlight, buzzer, charger and so on.
- Talking time 3-4 hours
- Standby time: (battery capacity: 700 mA/hr)  
Register time  $\geq$  600 sec, up to 130 hours  
Register time = 60 sec, up to 105 hours  
Register time = 30 sec, up to 90 hours  
No Register , > 110 hours
- Polyphony Ring Tone
- Speed Dial
- Speaker Volume Control
- USB Charge
- Support ISMA IP Camera

#### Management

- Auto-provisioning
- WEB Configuration
- HTTP Firmware Update