

**Gemtek Systems**  
**P-720**  
**Dual Radio 2.4GHz/5GHz Access Point**

**August , 2006**

**Version 1.0**

- P-720 Product Overview
- P-720 Customer Type
- P-720 Application
- Competition

# P-720 Product Overview



- Low cost, high-performance, ease of management and maintenance
- Strong robust, stable performance
- Integrated two dual-band (2.4GHz/5GHz) radios, which makes P-720 more flexible for coverage or bridge link applications.
  - AP (2.4GHz) accessing for compatibility and latency
  - Bridge (5GHz) for less interference and high performance
- Multiple BSSID (Virtual AP) technology
- S/W watchdog
- Wi-Fi, FCC, CE and SRRC certification

# P-720 Product Specification



<b>Standard</b>	IEEE 802.11b(DSSS), IEEE 802.11g(OFDM) and IEEE 802.11a(OFDM)
<b>Ethernet</b>	10/100Mb Ethernet, auto sensing, RJ-45
<b>Wireless</b>	Two integrated dual-band(2.4GHz/5GHz) radio
<b>Transmit Power</b>	Max 17dBm $\pm$ 1.5dBm @6~24Mbps Max 13dBm $\pm$ 1.5dBm @54 Mbps (Adjustable transmit power )
<b>Data Rate</b>	6/9/12/18/24/36/48/54 Mbps 108Mbps (Turbo mode)
<b>Sensitivity</b>	-70dBm @54Mbps    -90dBm @6Mbps
<b>Antenna</b>	2 Dual-band Dipole Antenna with TNC plug connector
<b>Power</b>	IEEE 802.3af compliance Power adapter support, 100-230V AC, 50-60 Hz
<b>Encryption</b>	WPA2, WPA, dynamic/static 64bit/128bit WEP
<b>Management</b>	Secure WEB based HTTPs, Secure Telnet based SSHv2, NMS
<b>Upgrade</b>	Secure remote firmware upgrade based HTTPs
<b>Reset</b>	SW/HW restore to factory default and S/W watchdog

- Multiple BSSID (Virtual AP) technology
  - Support up to 16 BSSID (Virtual AP)
  - Each BSSID can act as a virtual AP
    - Each BSSID can have its own SSID
    - Each BSSID can have unique VLAN partition
    - Different BSSID can have different traffic priority
    - Each BSSID can have its own security/authentication policy
      - 802.1x, WPA, WPA2 or MAC auth and WEB Login coexist
    - Each BSSID can have its own IP subnet settings (under AP router mode)(\*\*\* new in V3)
    - Each BSSID can have its own DHCP server settings (under AP router mode)(\*\*\* new in V3)

- Strong anti-interference
  - Good performance under heavy noise environment
  - DCA( Dynamic Channel Allocation) Solution
    - Auto Site Survey to change better channel based on RF environment
- QoS support
  - Traffic priority based on BSSID
  - Traffic priority based on 802.1p/1q tag

# P-720 Advantages – Super AP



- Enhanced security
  - WPA2 ( AES encryption by H/W )
  - WPA ( TKIP&CCMP-AES, encryption by H/W )
  - 802.1x + dynamic WEP, MAC authentication
  - Web Login authentication (under AP router mode) ( \*\*\* new in V3 )
    - UAM login/logout page customized
  
- Ease of management and maintenance
  - Secure Web configuration, remote firmware upgrade based on HTTPS
  - NMS management and upgrading remotely
  - Configuration file backup and restore
  - System Log (Send Log messages to remote server or/and shown locally)  
(\*\*\* new in V3)

- **Management Tool**

- Client Diagnostic Tool

- Supply accessing client SNR status based on client's MAC address for better monitoring
    - Friendly UI, similar windows style

- KickStart Tool

- Auto discovery AP device
    - Friendly UI, similar windows style

# P-720 Advantage – Super Bridge



- PtP and PtMP wireless bridge
  - One RF radio support up to 8 egress bridge links simultaneously
  - Support 3Km to 5Km wireless bridging with high throughput
  - Private ranging protocol to detect bridge distance automatically
  - Private rate selection protocol supplying optimizing performance
  - Manually setting MAC parameters under longer distance
  - WDS interoperability
  
- Dynamic Bridge solution (\*\*\*\*\* new in V3)
  - Auto discovery the potential root AP
  - Auto configuration for its own ingress bridge link
  - Auto recovery whenever bridge link is failover

- Super Encryption
  - WPA-PSK (TKIP/AES) per bridge link
- Super Data Rate
  - Turbo 11a: 108Mbps raw data rate
- AP + wireless Bridge ( simultaneous operation )
  - Two integrated radio make sure high performance

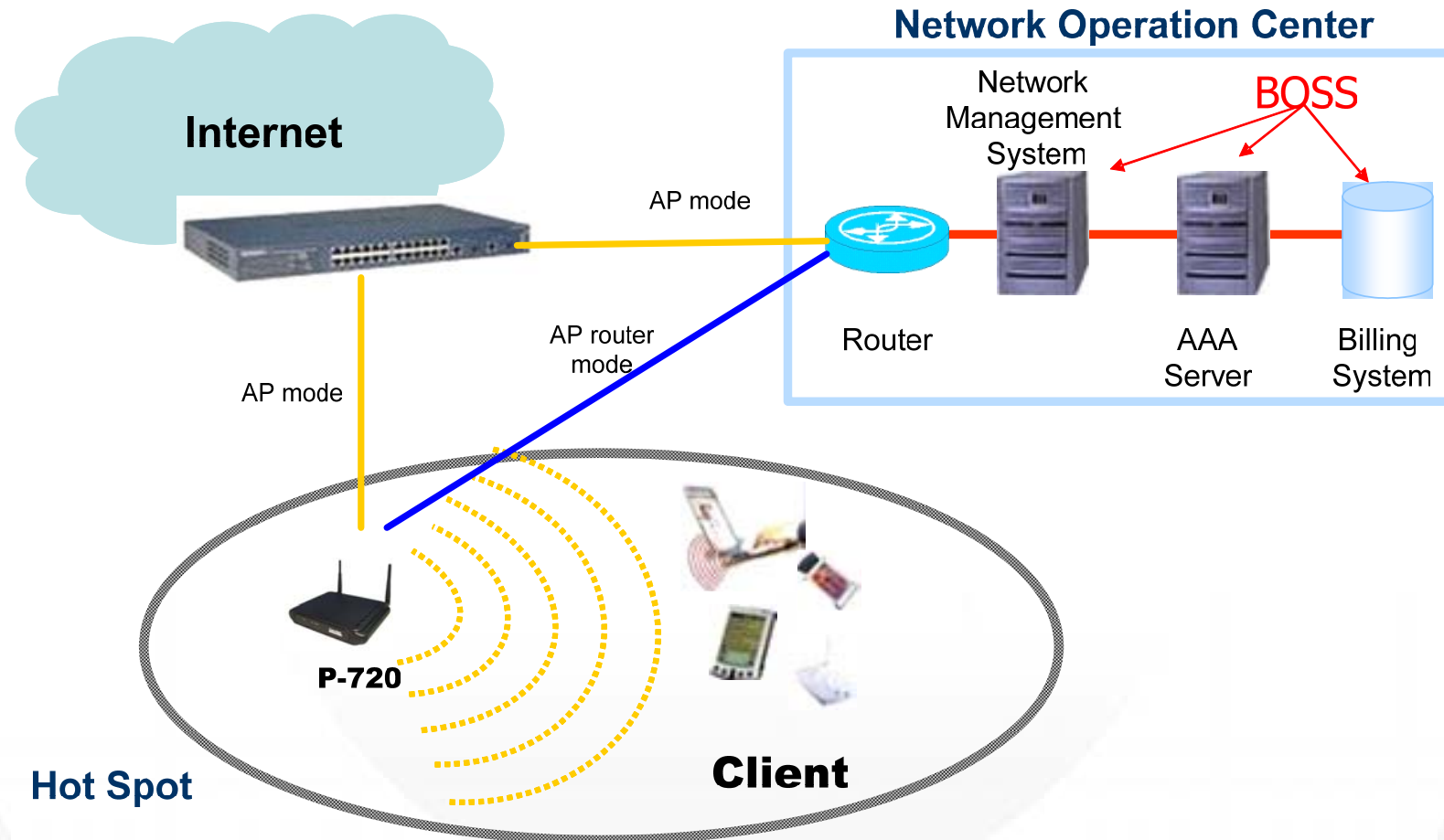
- P-720 Product Overview
- P-720 Customer Type
- P-720 Application
- Competition

- **Customer type**
  - Fix operator: Telcom
  - Wireless operator
  - ISP
  - SI
  - Enterprise
  - Government
  - Education
  - Hospital
  - Public HotSpot Supplier

- P-720 Product Overview
- P-720 Customer Type
- P-720 Application
- Competition

- HotSpot: Airpot, Hotel, Enterprise and Hospital
  - Supply high throughput, full coverage network connection
  - Setup mixed network, supporting 11a/b/g clients
  - AP router mode for Hotspot without Access Controller
- Recommend configuration
  - 11g AP router mode for HotSpot

# Application – AP access + AP access



- HotSpot Application
- Campus, Enterprise and Hospital

# Application – AP access + AP access

## Campus, Enterprise and Hospital

- Simultaneously supports 802.11a/b/g clients
- Virtual AP: provide different access services for different kind of users

