



MBW 510 Femto Cellular-Mesh Wi-Fi Base Station GO Net Systems' Mobile Broadband Wireless 500 Series

Rural - Suburban - Metropolitan Scale Superior
Wi-Fi Performance, Coverage, and Economics



Key Features

- Cost-effective femto cellular-mesh Wi-Fi base station
- Designed for simple, fast and economical deployments
- Dual-radio design- 802.11b/g access; 802.11a for mesh networking
- Multiple virtual APs with multiple BSSIDs
- MBW EMS/NMS for real-time Element, Network and RF Optimization

The MBW Advantage

- Superior range and coverage
- Maximum subscriber access and performance
- Reduce wireless networking equipment requirements
- Realize immediate upfront CAPEX savings and recurring OPEX savings

The Mobile Broadband Wireless (MBW) 500 Series

GO Net Systems is an innovative leader in carrier-class outdoor Wi-Fi solutions. The GO Net Systems MBW 500 series complements GO Net Systems MBW 2000 series and 1000 series products by offering femto cell Wi-Fi coverage. This is ideal to provide fill-in coverage in conjunction with micro and pico level coverage the MBW 2000 series and MBW 1000 series offers. The MBW 500 series comprises the MBW 510 Femto Cellular-Mesh Wi-Fi Base Station with an omni-directional multi-radio weather-proof design optimized for street-level light pole/utility pole Wi-Fi applications. The MBW 510 is equipped with one 802.11b/g access radio for femto cell access and coverage and a separate 802.11a channel for high-performance mesh networking. Together with the MBW 2000 series and/or MBW 1000 series, the GO Net Systems' solutions provide a high-performing, cost-effective Wi-Fi solution. And like all of our products, the MBW 510 is fully manageable by GO Net Systems' MBW EMS/NMS platform. With the MBW management tools, operators can perform device management as well as perform advanced system-wide network and RF optimization in real-time.

Cellular-Mesh Wi-Fi

The MBW 500 series, together with the MBW 1000 and MBW 2000 family of cellular-mesh Wi-Fi products, form the foundation for an innovative, high-performance set of architectures for Wi-Fi networking and service delivery. Combining the performance and scale of cellular-style wireless networking architectures with the flexibility and installability of Wi-Fi mesh-networking, the GO Net Systems solution delivers superior performance, coverage, and economics for networks of any size. The MBW 2000 series serve as micro sector base stations ideal for providing top-down Wi-Fi coverage. The MBW 1000 series is designed for pico base station applications ideal for cost-effective street-level coverage; while the MBW 500 series is purpose-built for simple, economical femto cell deployments ideal for ad hoc networks

and other on-demand capacity needs. The MBW Series systems are equipped with separate radios for mesh-networking enabling simple, dependable, and high-performance internetworking.

Cost-Effective, Plug, and Play Coverage

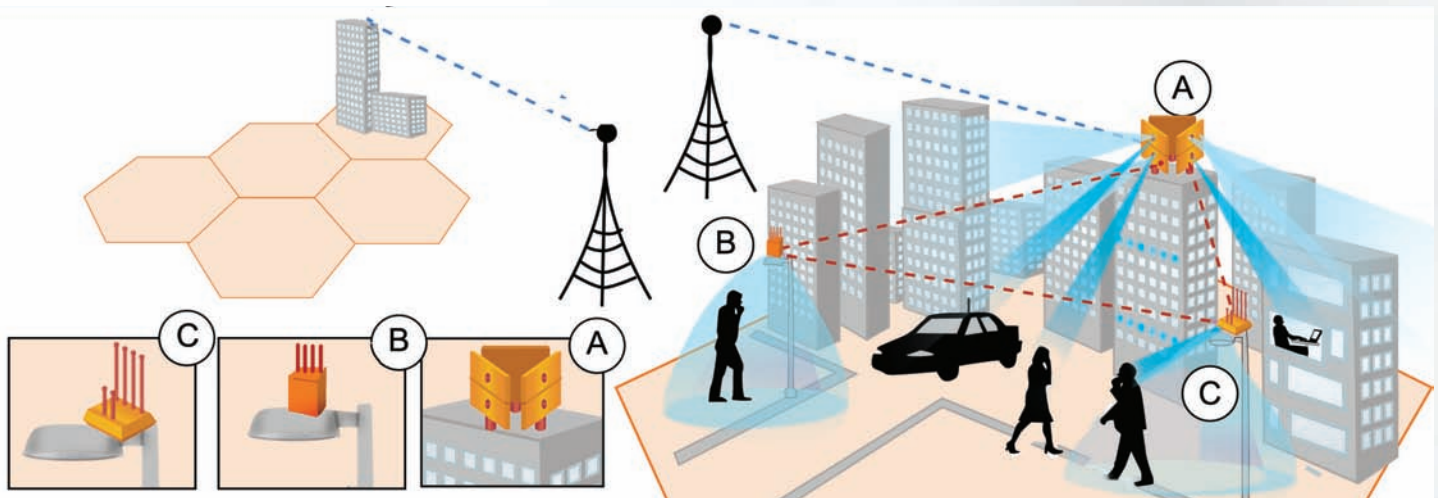
At the heart of the MBW 500 series is an innovative new design purpose-built for light pole deployments. The new design significantly reduces the equipment footprint, providing an integrated easy-to-install solution in conjunction with existing photo-switch elements. With this design, the MBW 500 can be installed in minutes and connected to the mesh network in seconds. This means networks can be deployed fast and capacity delivered even faster.

Superior Performance, Coverage, and Economics

GO Net Systems' innovative cellular-mesh Wi-Fi solutions based on the MBW 2000, 1000, 500 series products and xRF smart antenna technology deliver superior performance, coverage, and economics. With GO Net Systems' solution, Wi-Fi networking equipment requirements can be reduced, translating into real savings today and into the future. For any size deployment — rural, suburban, or metropolitan, GO Net Systems' solutions can deliver immediate upfront CAPEX savings and recurring OPEX savings. See the difference GO Net Systems can make with your network.



GO Net Cellular-Mesh Wi-Fi Solution





About GO Net Systems

GO Net Systems provides cost-effective carrier-class Mobile Broadband Wireless (MBW) solutions for rural, suburban and metropolitan scale deployments based on 802.11 (Wi-Fi) standards. GO Net Systems' MBW solutions comprise products and services aimed at delivering superior wireless performance, coverage, and economics for service providers, mobile operators and municipalities worldwide. With GO Net Systems' innovative xRF™ adaptive beamforming smart antenna technology coupled with highly-scalable broadband architectures, wireless networking infrastructure requirements can be reduced delivering immediate upfront CAPEX and recurring OPEX savings. And with GO Net Systems' comprehensive design and deployment services, customers can deploy wireless IP networks of any size with ease and confidence.

Wireless

- Wireless Network Standards: IEEE 802.11a/b/g
- Radio Interfaces:
 - Access: 802.11b/g
 - Mesh: 802.11a
- Frequency bands:
 - 802.11b/g: 2.412-2.472 GHz
 - 802.11a: 5.250-5.350, 5.470-5.725, 5.725-5.825 GHz
- Antennas:
 - Detachable omni-directional
 - 2.4GHz/5GHz: 360° Horizontal 20° Vertical 5dBi
- Modulation:
 - 802.11b – DSSS (DBPSK, DQPSK, CCK):
 - 802.11a/g – OFDM (BPSK, QPSK, 16-QAM, 64-QAM):
- Tx Power (typical EIRP)
 - ETSI: 20 dBm @ 2.4GHz, 30dBm @ 5Ghz
 - FCC: 30 dBm @ 2.4GHz, 30dBm @ 5Ghz
- Rx Sensitivity:
 - 802.11b: -96 dBm @ 1 Mbps, -91 dBm @ 2 Mbps, -95 dBm @ 5.5 Mbps, -90 dBm @ 11 Mbps
 - 802.11g: -94 dBm @ 6 Mbps, -94 dBm @ 9 Mbps, -94 dBm @ 12 Mbps, -93 dBm @ 18 Mbps, -90 dBm @ 24 Mbps, -87 dBm @ 36 Mbps, -83 dBm @ 48 Mbps, -81 dBm @ 54 Mbps
 - 802.11a: -94 dBm @ 6 Mbps, -93 dBm @ 9 Mbps, -91 dBm @ 12 Mbps, -90 dBm @ 18 Mbps, -86 dBm @ 24 Mbps, -83 dBm @ 36 Mbps, -77 dBm @ 48 Mbps, -74 dBm @ 54 Mbps

Networking

- 802.11s draft compatible meshing
- Multiple ESSIDs' & BSSIDs'
- QoS, statistical traffic classification
- WME
- 802.11q VLAN
- Layer 2, 3 support
- DHCP Client

Management

- GO Networks private, standard MIBs
- Local CLI via serial port
- Management
 - SNMP v2 (NMS)
 - Telnet/SSH CLI (configuration, statistics and alarms)
- Remote software upgrade
 - FTP, TFTP, Web

Authentication & Security

- WPA/WPA2 (WPA-PSK, WPA-EAP)
- WEP 40/128 bit encryption
- MAC filtering
- Standard RADIUS server interface
- AES mesh encryption

Interfaces

- IP67 Weatherproof RJ-45 100Base-T Ethernet with auto cross over
- IP67 Weatherproof RJ-45 Serial port (configurations)

Hardware

- Dimensions: 17.2 x 16.5 x 23 cm, 7 x 6.5 x 9 in (W x H x D)
- Weight: 3.5 kg, 7.7 lbs
- Power input: 90-240VAC, 22W
- Installation: Generic mount for Lamppost, pole and wall installations.
- Operating Temperature: -40° to 55°C, -40° to 131°F
- Storage Temperature: -40° to 60°C, -40° to 140°F
- Operating relative humidity (non-condensing): 15% - 100%
- Non-operating relative humidity (non-condensing): 5% - 95%

Standards Compliance

- EMC Standards
 - US: FCC Part 15.107 and 15.109
 - Europe: EN 301.489-1 and -17
- EMI and Susceptibility (Class B)
 - US: FCC Part 15.107 and 15.109
 - Europe: EN 301.489-1 and -17
- Safety
 - US, Canada: UL 60950-1
 - Europe: EN 60950-1
- Environmental
 - Wind survivability: >165 mph (Up to 100 mph sustaining, up to 165 mph gusts)
 - Europe: EN 300.019-2-4 class 4.1 and EN 300.019-2-2 class 2.3

Ordering Information

| Part Number | Item |
|-----------------|------------------------------|
| MBW-510F | FCC WLAN Femto Base Station |
| MBW-510E | ETSI WLAN Femto Base Station |
| MBW-510M | MII WLAN Femto Base Station |
| MBW-CAB-SIR-510 | Console cable |
| MBW-CAB-PWR-510 | US power cable |
| MBW-LP-3001 | Lightning Protector |