



## WLP 1100 Pico Cellular-Mesh Wi-Fi Base Station GO Net Systems Mobile Broadband Wireless 1000 Series

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



### Key Features

- Robust weather-proof pico cellular-mesh Wi-Fi base station
- Superior 802.11 b/g access powered by xRFTM smart antenna technology
- Dedicated 802.11a radio for high-performance, reliable mesh networking
- Optional 4.9GHz access for integrated public safety application deployment
- 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) 1000 Series

GO Net Systems is an innovative leader in carrier-class outdoor Wi-Fi solutions. The GO Net Systems MBW 1000 series and companion MBW 2000 and MBW 500 series are the foundation for an innovative set of cellular-mesh Wi-Fi architectures. The MBW 1000 series comprises the WLP 1100 Pico Cellular-Mesh Wi-Fi Base Station (WLP 1100). The WLP 1100 is an omnidirectional multi-radio weatherproof design intended for street-level light pole/utility pole deployments. The WLP 1100 is equipped with one xRFTM powered adaptive beamforming 802.11b/g access radio for high-performance access and coverage, and a separate 802.11a radio for high-performance mesh networking. With xRF adaptive beamforming smart antenna technology, the WLP 1100 delivers unparalleled range, coverage, subscriber access, and performance. Additionally, the WLP 1100 can be outfitted with an optional 4.9GHz access radio for integrated public safety application deployment. And like all of GO Net Systems' products, the WLP 1100 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 1000 series, together with the MBW 2000 and MBW 500 series 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. All the MBW Series systems are equipped with separate radios for mesh-networking enabling simple, dependable, and high-performance internetworking.

### The xRFTM Smart Antenna Advantage

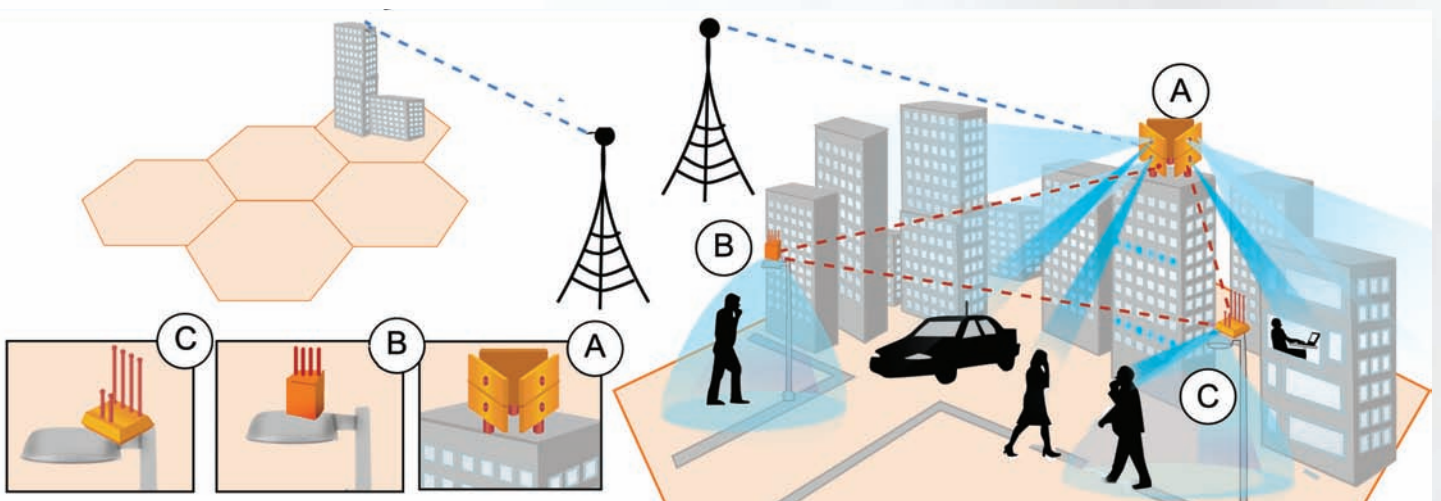
At the heart of the WLP 1100 is GO Net Systems' innovative xRFTM smart antenna technology. xRFTM technology leverages state-of-the-art beamforming RF technology to deliver unmatched subscriber access, performance, coverage, and interference mitigation. With xRFTM technology, the WLP 1100 can overcome irregular interference and adapt to challenging topographies. This means better network performance with fewer access points.

### 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





**Innovative Technology • Scalable Architectures • Proven Experience**

**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: 2.412-2.472, 5.470-5.725, 5.725-5.825 GH
- xRF™ smart antenna technology
- Antennas:
  - detachable omni-directional
  - 2.4GHz: 360° Horizontal 20° Vertical 7.2dBi
  - 5GHz: 360° Horizontal 15° Vertical 10dBi
- 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: 40 dBm @ 2.4GHz, 30dBm @ 5GHz
- Rx Sensitivity (FCC):
  - 802.11b: -102 dBm @ 1 Mbps, -99 dBm @ 2 Mbps, -95 dBm @ 5.5 Mbps, -89 dBm @ 11 Mbps
  - 802.11g: -96 dBm @ 6 Mbps, -94 dBm @ 9 Mbps, -92 dBm @ 12 Mbps, -90 dBm @ 18 Mbps, -88 dBm @ 24 Mbps, -86 dBm @ 36 Mbps, -82 dBm @ 48 Mbps, -80 dBm @ 54 Mbps
  - 802.11a: -92 dBm @ 6 Mbps, -91 dBm @ 9 Mbps, -91 dBm @ 12 Mbps, -89 dBm @ 18 Mbps, -87 dBm @ 24 Mbps, -84 dBm @ 36 Mbps, -80 dBm @ 48 Mbps, -77 dBm @ 54 Mbps

**Networking**

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

**Management**

- GO Net Systems 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: 33 x 24.5 x 12 cm, 13 x 9.6 x 4.7 in (W x H x D)
- Weight: 7 kg, 15.4 lbs
- Power input: 90-240VAC, 36W
- 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 1950
  - 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-WLP-1100F	FCC WLAN Pico Base Station
MBW-WLP-1100E	ETSI WLAN Pico Base Station
MBW-WLP-1100M	MII WLAN Pico Base Station
MBW-CAB-SIR-1100	Console cable
MBW-CAB-PWR-1100	WLP 1.8m US power cable
MBW-WLS-LP-3001	Lightning protector

GO Net Systems, Inc. • 1943 Landings Drive, Mountain View, CA 94043, U.S.A. • 1.650.962.2000 • info@GoNetworks.com • www.gonetworks.com

GO Net Systems, GO Networks, the GO Net Systems logo, Cellular Wi-Fi, MBW, xRF, Wi-Fi Base Station, Wi-Fi Sector Base Station, WLS are trademarks of GO Net Systems. and/or its affiliates in certain other countries. All other trademarks, registered trademarks, service marks or registered service marks are the property of their respective owner/s. Information in this document is subject to change without notice. GO Net Systems assumes no responsibility for any errors that may appear in this document. ©2009 GO Net Systems All rights reserved.