



Atlas FOX™

M5580M-FSU Subscriber Unit

Next Generation Subscriber Unit

The Atlas FOX Subscriber Unit (SU) represents a breakthrough in price and performance. It currently delivers a robust 10 Mbps, is OFDM-ready and can be upgraded to 30+ Mbps*. The Atlas FOX is the 3rd generation SU to emerge from the highly successful and reliable FOX Series. The Atlas FOX enables WISPs to, for the first time, compete head-to-head against cable and DSL providers, thus eliminating the final obstacle toward nationwide deployments of fixed broadband wireless networks capable of serving millions of users coast to coast.

Product Highlights

- **SPEED**

The M5580M-FSU harnesses the full power of the Access5830™ wireless broadband platform delivering 10 Mbps up to 13 miles.

- **LONG RANGE**

The M5580M-FSU features innovative dual-polarized antenna technology for superior performance and longer range. The 5.8 GHz M5580M-FSU can be deployed up to 3 miles from the access point with 10 dB fade margin to spare, or with an optional external dish antenna provides a range of 13 miles. Reference range chart for more details.

- **FLEXIBILITY**

The SU provides a host of configuration options which are vital for interference mitigation including full control over channels, antenna polarization and power levels. In addition, it offers Automatic Repeat Request (ARQ) feature which automatically retransmits packets to mask RF errors to higher layer protocols.

- **MANAGEABILITY**

The M5580M-FSU is fully manageable locally (via the Ethernet port), or over-the-air via the access point. The FOX supports SNMP and features an easy-to-use browser interface as well as a full command line interface. The FOX's remote manageability reduces the need for costly truck rolls.

- **DURABILITY, EASE OF INSTALLATION**

The M5580M-FSU is a fully weatherized, outdoor unit designed for quick installation. The compact form factor features a universal mounting bracket, a built-in LED alignment tool, and Power-over-Ethernet to minimize deployment costs.

- **AFFORDABILITY**

The M5580M-FSU is priced aggressively to help service providers achieve a quick ROI.



- Industry-leading price point
- Reliable 3rd generation FOX SU
- OFDM-ready
- Up to 10 Mbps, upgradable to 30+ Mbps*

* 30+ Mbps and OFDM mode requires firmware upgrade and forthcoming AP

Atlas FOX™ Specifications

M5580M-FSU SUBSCRIBER UNIT

ANTENNA / RANGE CHART

	SU Model	Part Number	Max Range from AP	User Data Throughput	Antenna Gain	Beamwidth	
						Azimuth	Elevation
	Atlas FOX stand-alone	M5580M-FSU	3 miles (10 dB fade margin)	10 Mbps	8 dBi	60°	60°
	Atlas FOX with optional dish	M5580M-FSU	13 miles (14 dB fade margin) (requires AD5800-25 dish)	10 Mbps	25 dBi	9°	9°

Note: Ranges listed assume line-of-sight. Fade margin is included to account for rain and other conditions. Actual maximum ranges may be greater depending on site conditions.

RADIO PARAMETERS

<i>Frequency of Operations</i>	5725 MHz to 5850 MHz
<i>Channels</i>	6 non-overlapping channels Channel width 20MHz
<i>Antenna Polarizations</i>	Horizontal/Vertical (software switchable)
<i>Antenna Beam Width</i>	60 x 60 degrees
<i>Modulation Format</i>	11 Mbps CCK Spread Spectrum (OFDM Ready)
<i>Certification/Compliance</i>	FCC 15.109, FCC 15.203, FCC 15.205, FCC 15.207, FCC 15.209, FCC 15.247, Class B Digital device verification
<i>Receiver Sensitivity (1E10-6 BER)</i>	-88 dbm (with ARQ enabled)
<i>EIRP Max</i>	+30dBm (8 dBi patch antenna) +46dBm using reflector AD5800-25 (with M5580M-SU only)

DATA AND OPERATIONAL PARAMETERS

<i>Access Point Compatibility</i>	Access5830 AP
<i>User Data Throughput</i>	10 Mbps
<i>Format</i>	10/100 Base T
<i>Network Protocols</i>	All IEEE 802.3/802.3u compliant protocols
<i>Configuration and Management</i>	Telnet, SNMP, TFTP, HTTP
<i>Upstream/Downstream Throughput</i>	Dynamic, automatically adjusts to suit demand
<i>Bandwidth Control</i>	Committed Info Rate (CIR) and Maximum Info Rate (MIR) setting per subscriber unit

PHYSICAL INTERFACES

<i>Ethernet (via shielded RJ45)</i>	10/100 BaseT, auto-sense, auto-negotiate
<i>Reset Switch</i>	Resets radio to factory defaults: IP address, subnet mask, gateway and password
<i>LED Indicators</i>	7 LEDs including 4 RSSI

POWER PARAMETERS

<i>Power Method</i>	Power-over-Ethernet (PoE) via DC voltage injected at PoE J-box
<i>Voltage Input Limits into Radio</i>	10.5 VDC to 20 VDC max
<i>Standard Power supply</i>	90 - 120 VAC
<i>PoE Cat-5 max cable Length</i>	300 feet on 24AWG STP Cat-5 cable
<i>Current Draw/Power</i>	600 mA

PHYSICAL AND ENVIRONMENTAL

<i>Radio enclosure</i>	All-weather, polycarbonate
<i>Mounting Provision</i>	Mounts to wall or pole (1" diameter or greater)
<i>Temperature Range</i>	-40 to 60 deg C (-40 to 140 deg F)
<i>Radio Dimensions</i>	9.2" x 4.25" x 3.1"
<i>Radio Weight</i>	1 lb. (.45 kg)
<i>User Interface</i>	RJ45 (shielded)

All specifications are typical and subject to change without notice.

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