

# BreezeACCESS II SU-M Mobile Radio Unit

## Broadband Access for the Moving Mile

The BreezeACCESS II SU-M Mobile Radio Unit is the first wireless Access product designed to provide reliable, easy, and quick access to data for mobile bound services. Featuring robust, frequency-hopping spread-spectrum radio architecture, it operates on 12-volt automotive electrical power and can transfer large amounts of data at speeds of up to 3 Mbps.

The SU-M is the ideal solution for mobile applications serving fast-paced and demanding business, homeland security, and public service organizations, ensuring true mobile broadband capabilities that help to increase the efficiency and effectiveness within these types of environments.

The SU-M can be seen as a compliment to existing mobile data systems that offer less than optimal data capacity and throughput. Indeed, most currently deployed mobile data systems are isolated off the infrastructure LAN, and operate on a slow, shared 28 Kbps connection. As a result, they can generally only handle limited data functions, both in terms of speed and size, which can result in an unnecessary reduction in the content of needed information. But when the SU-M is deployed in concert with existing systems, users enjoy a significant increase in efficiency because the SU-M can transfer large amounts of data at very high capacities.

The SU-M is designed to operate in the unlicensed 2.4 GHz band, which – combined with its easy installation, rapid scalability, and seamless integration into existing Ethernet networks – ensures maximum cost efficiency.

Featuring an Ethernet 10BaseT connection to the mobile computer and SNMP or Telnet remote management, the SU-M is immediately deployed and scales easily to the changing needs of the network environment. In addition, it ensures uncompromising security to prevent hacking, data theft, and hostile intrusions.

### Product Highlights

The SU-M delivers a comprehensive range of product features, ensuring fast, consistent, and reliable mobile networking services, including:

- Design compatibility with Alvarion BreezeACCESS II base stations
- A rugged, trunk-mountable radio unit
- Assured operation using typical automobile power (9-18 VDC)
- A design compliant with EN300 019-2-5 transportation specifications for shock, vibration, and environment
- Support for diversity antennae
- Robust, frequency hopping spread spectrum radio architecture
- A wireless connection to status utility for the PC
- SNMP or Telnet management capabilities
- An Ethernet 10BaseT connection to the PC

### BreezeACCESS II SU-M System Components

Requirements: The SU-M requires Alvarion BreezeACCESS II infrastructure (base stations, access units, or cell extenders), a 12 Volt automotive power source, a 10BaseT Ethernet cable, and a vehicle-mounted PC. The SU-M package includes: One SU-M radio unit, one vehicle-mounted 5 dBi omni antenna, one open-ended 12 Volt power cable assembly, and one mounting hardware pack.



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## Specifications

### Radio and Modem

Frequency	2.400-2.4835 GHz		
Operation Mode	Time Division Duplex		
Radio Access Method	FH-CDMA		
Standard Compliance	FCC Part 15.247, ETS 300 328		
Channel Bandwidth	1 MHz		
Output Power (at antenna port)	25 dBm Typical		
Maximum Input Power (at antenna port)	-20 dBm		
Nominal Receive Sensitivity (at antenna port, BER 10E-6) for each Bit Rate	1 Mbps -84 dBm	2 Mbps -77 dBm	3 Mbps -68 dBm
Modulation	GFSK modulation (1, 2, 3 bits / symbol @ 1 Msymbol/sec)		

### Data Communications

Standard Compliance	IEEE 802.3 CSMA/CD
VLAN support	Based on IEEE 802.1Q
Traffic Prioritization	Layer-2 Based on IEEE 802.1p Layer-3 ToS according to RFC791
MIR (Maximum Information Rate) and CIR (Committed Information Rate)	Programmable for each user, separately for uplink and downlink. Range: 0 2200 Kbps, 1 Kbps resolution.

### Environmental

Operating Temperature	-25°C to 60°C
Operating Humidity	5% - 95% non-condensing, weather protected

### Connectors

Connector	Description
Antenna	2 - N Type female connectors (diversity antenna support)
ETH	10BaseT Ethernet (RJ 45)
DC IN	11 ft., 18 AWG, 2 conductors with fuse and Molex connector.

### Power Supply Requirements

Unit	Details
SU-M unit	External power supply 9-18 VDC or Battery. 2.5 AMPs

### Mechanical

Unit	Structure	Dimensions	Weight
SU-M (excluding antennas and connectors)	Metal box, vehicle mountable	11.5 x 8.75 x 4.5 in 30 x 20 x 12 cm	9.9 lbs 4.5 kg



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