

The Microlab SMART (System Monitor, Alarm, Report Technology) Gateway combines public safety radio traffic between 130 and 960 MHz with patented hybrid, passive/active distributed antenna system (DAS) network monitoring and diagnostics.

The SMART Gateway uses an embedded Internet of Things (IoT) engine to continuously monitor the riser and coverage coaxial cabling and antennas of in-building, emergency responder radio communications systems (ERRCS) or public safety DAS.

The SMART Gateway is a critical component within the Microlab SMART Passives System, an innovative solution that, in conjunction with a network of Microlab SMART Couplers, monitors ERRCS in real time. The unit is mounted at an ERRCS head-end's main RF source. After installation, the SMART Gateway provides RSSI and VSWR diagnostics, DC bias, and communications over the DAS coaxial cabling with up to 30 SMART Couplers. Diagnostics and communications take place out of band within the 902-928 MHz ISM radio spectrum. The SMART Passives System ensures mission-critical radio traffic passes reliably throughout a building.

Whether checking for short or open circuits, properly terminated antennas, and other catastrophic DAS failures, the SMART Gateway is an IoT-based, head-end unit that ensures emergency services, building owners, and system integrators can depend on the operation of their public safety networks.



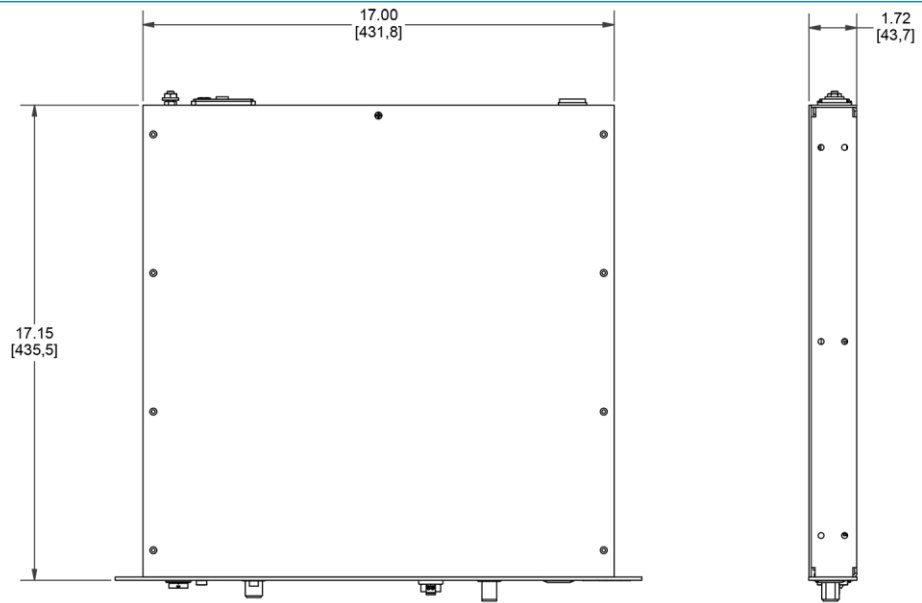
Features

- Monitors DAS infrastructure integrity; including antennas, coaxial cables, and other passive components
- Designed for public safety VHF, UHF, TETRA, 700, 800, 900 MHz bands. FirstNet Band 14 ready
- Diagnostics, DC power, and communications are provided over RF coaxial cabling by the SMART Gateway
- Alarms communicated from the SMART Gateway through the cloud via e-mail, text, and SNMP to your NOC
- The SMART Gateway is operated through a common web browser with a dashboard providing the status of each SMART Coupler's ports
- Options: AC or DC power

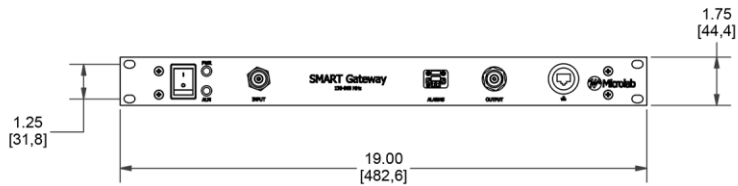
RF Specifications

Frequency:	130 to 960 MHz
Insertion Loss:	~1.5 dB
Diagnostics / RF Signaling (f)	928 MHz
Diagnostic CW Test Tone:	1mW 0dBm
Power Rating	5W avg., 7.07 Pk +37 dBm
Impedance:	50Ω
VSWR	1.25:1 Max.
Power Supply	SCG100-DC +/- 48VDC SCG100-AC 120VAC
Connectors	Type-N (f), Tri-plate
Environment	20°C to +50°C, Indoor
Housing / Finish	Aluminum, Red Powder Coat Front Panel
Weight	11.35 lbs (5.15kg)

Mechanical Outline



Dimensions:
 (L) 17.15in (435.50mm),
 (W) 19.00in (482.60mm),
 (H) 1.75in (44.40mm)



SMART Coupler Passive and Active Architecture

