# 2.4 GHz



## HIGH-PERFORMANCE. RUGGEDNESS. RELIABILITY.

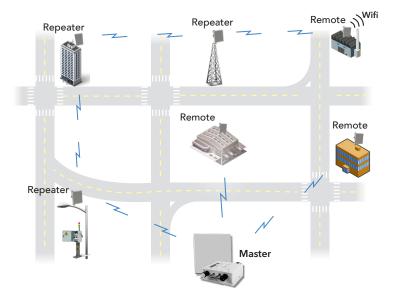
Our E-LITE broadband radios are feature-rich wireless data transmission solutions that deliver outstanding coverage in any outdoor environment. Whether your situation requires operating on licensed or unlicensed radio frequencies, our field-proven equipment performs reliably in a broad range of operational applications and weather conditions. With unmatched customer service and warranty, our radios offer features such as:

- Traffic Prioritization
- Optional Wifi Capability
- Customizable Channel Widths
- Optional Power over Ethernet Dynamic Frequency Selection
  - Received Signal Strength Indicator
  - Built-in Audio Alignment Tool
- Operating Temp. -40°F to +158°F IP67 Weather Protection Rating
  - Works with any Broadband Network

# **KEY BENEFITS**

- ✓ Ideal for a variety of wireless projects and critical high-speed communications
- ✓ Highly resilient to RF interference
- Real-time auto-optimization through smart features like Dynamic Frequency Selection and built-in Spectrum Analyzer
- ✓ Works seamlessly with STRATOS
- ✓ Reliable connectivity no matter the weather!
- ✓ Works with earlier generation equipment to save you time and money!
- ✓ No digging needed! Easy installation gets you up and running faster
- Configurable channel widths
- Easily visible signal strength and power indicator

Visualize, Control and Monitor your **Encom Wireless Network with STRATOS** 









#### **PHYSICAL SPECIFICATIONS**

	NON-INTEGRATED UNIT
Dimensions:	8.6" x 8.6" x 3.17"
Weight:	3 lb.
Environmental:	IP67 Weather Protection Rating
Antenna Type:	External Panel, Sector, Omni
Operating Temperature:	-40°F to +158°F @ 95% humidity RHNC
Number of Radio Units:	1

#### **WIRELESS INTERFACE**

Frequency Range:	2.412 to 2.462 GHz
Peak Transmit Power:	30 dBm (1000 mW)
Receive Sensitivity:	-96 dBm to -73 dBm
Channel Widths:	5 MHz, 10 MHz, 20 MHz, 40 MHz
Modulations:	OFDM, BPSK, QPSK, 16QAM, 64QAM
Protocol:	IEEE 802.11a/n, E-max (proprietary)
Data Rate:	Up to 300 Mbps (MCSO-15)
MIMO:	2x2
Topology:	Point-to-Point, Point-to-Multipoint

#### **GENERAL SPECIFICATIONS**

Consumption	14W (single)
Reset to Default	Built-in button
Alianment	Built-in LED Alianment: 4 Level LED Strip (-60 to -100 dBm)

#### **IEEE WIRELESS NETWORKING & SECURITY FEATURES**

- Bursting
- Compression
- Dynamic Ack Timeout
- TLS EAP Method
- Pass-through EAP Method
- Hardware Retries
- Preamble Mode
- Periodic Calibration
- Disconnect Timeout
- On-fail Retry
- CSMA Disable
- Station Channel Scan List
- EMAX proprietary protocol

- 802.11i-WPA-PSK
- 802.11i-WPA2-PSK
- 802.11i-WPA-EAP
- 802.11i-WPA2-EAP
- 802.11i-TKIP
- 802.11i-AES-CCM
- 802.11i-802.1x
- 802.11i-RSN
- Radius Authentication
- MAC Access Control List
- FCC 15.247
- IC RSS-210
- RoHS Compliant

## **ORDERING OPTIONS**

- E-Lite 2.4 EXT: Single Radio with (2x) External Type-N Female Connectors
- E-Lite HV option: 802.3 af/at capable

#### **NETWORKING FEATURES**

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	802.11e	WMM and QOS
	802.11h	DFS and TPC
	802.1d	Ethernet Bridging
	802.1p	Traffic Prioritization
	802.1q	VLAN
	802.1s	Spanning Tree
	802.1w	Rapid Spanning Tree
	802.3-1998	Ethernet
	802.3ab	Gigabit Ethernet
	802.3ac	Extended Frame Size for 802.1q & 802.1p support
	802.3ad	Link Aggregation/Port Bonding/Port Tracking
	802.3i	10 Mbps Ethernet
	802.3u	100 Mbps Ethernet and Auto-Negotiation
	802.3x	Full Duplex and Flow Control
	802.1ad	Service Tags
	IGMP	Internet Group Management Protocol v1, v2

#### ADDITIONAL NETWORKING FEATURES

- OSPF
   FTP/TFTP
   Routing
   HTTP
   Firewall/NAT
   Telnet
   NTP
   SSH
   VPN
- SNMP DHCP Client/Server

## **ENCOM STRATOS I/O** (free control/monitoring software included)

- Can now access I/O devices from any network
- Works with any broadband network (ENCOM or other)
- Profile-based configurations with SQL database
- Real-time signal strength and connection quality monitoring with user-defined color-coded link status
- Built-in bandwidth test, network traffic monitoring and spectrum scan tools
- Audio antenna alignment tool
- System-wide Ping tool
- Radio Discovery with remote radio IP change capability
- Network mapping with automatic geolocation for GPS enabled units
- User-defined email alerts for changes to online status, decreased signal levels (dBm), connection quality and fluctuations in data rate
- Streamlined device programming and ability to manage all devices from a central location

\*ENCOM Broadband radios require professional installation.

Specifications subject to change without notice. Visit www.encomwireless.com for updates.

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# 4.9 GHz



## HIGH-PERFORMANCE. RUGGEDNESS. RELIABILITY.

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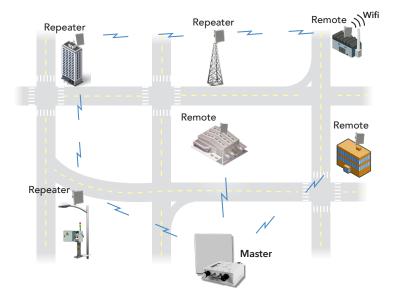
- Power over Ethernet
- Traffic Prioritization
- Optional Wifi Capability
- Operating Temp. -40°F to +176°F
- Customizable Channel Widths
- Dynamic Frequency Selection
- Received Signal Strength Indicator
- Built-in Audio Alignment Tool
- IP67 Weather Protection Rating
- Works with any Broadband Network

# **KEY BENEFITS**

- ✓ Ideal for a variety of wireless projects and critical high-speed communications
- ✓ Highly resilient to RF interference
- Real-time auto-optimization through smart features like Dynamic Frequency Selection and built-in Spectrum Analyzer
- ✓ Works seamlessly with STRATOS
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Visualize, Control and Monitor your Encom Wireless Network with **STRATOS** 

(works with Stratos I/O or Stratos Elite)









#### **PHYSICAL SPECIFICATIONS**

	NON-INTEGRATED UNIT	INTEGRATED ANTENNA UNIT
Dimensions:	8.6" x 8.6" x 3.17"	10.15" x 10.15" x 4.5"
Weight:	3 lb.	5 lb.
Environmental:	IP67 Weather Protection Rating	IP67 Weather Protection Rating
Antenna Type:	2x N-Type connectors for external antenna	19 dBi Dual Polarity Panel Antenna
Operating Temperature:	-40°F to +176°F @ 95% humidity RHNC	-40°F to +176°F @ 95% humidity RHNC
Number of Radio Units:	Up to 2	Up to 2

WIRELESS INTERFACE	
Frequency Range:	4.940 to 4.990 GHz (*Subject to Country Regulation)
Peak Transmit Power:	27 dBm (500mW)
Receive Sensitivity:	-94 dBm to -74 dBm
Channel Widths:	20 MHz
Modulations:	OFDM, BPSK, QPSK, 16QAM, 64QAM
Protocol:	IEEE 802.11a/n, E-max (proprietary)
Data Rate:	Up to 130 Mbps
MIMO:	2x2
Topology:	Point-to-Point, Point-to-Multipoint
GENERAL SPECIFICATIONS	
Power	18-24 VDC Passive PoE
	14W

GENERAL SPECIFICATIONS		
Power	18-24 VDC Passive PoE	
Consumption	14W	
	14W	
	16W	
Reset to Default	Built-in button	
Alignment	Built-in LED Alignment: 4 Level LED Strip (-60 to -100 dBm)	

### **IEEE WIRELESS NETWORKING & SECURITY FEATURES**

•	Compression	'n

- Dynamic Ack Timeout
- TLS EAP Method
- Pass-through EAP Method
- Hardware Retries
- Preamble Mode
- Periodic Calibration
- Disconnect Timeout
- On-fail Retry
- CSMA Disable
- Station Channel Scan List
- EMAX proprietary protocol

- 802.11a/n
- 802.11i-WPA-PSK
- 802.11i-WPA2-PSK
- 802.11i-WPA-EAP
- 802.11i-WPA2-EAP
- 802.11i-TKIP
- 802.11i-AES-CCM
- 802.11i-802.1x
- 802.11i-RSN
- Radius Authentication
- MAC Access Control List
- FCC 15.247
- IC RSS-210
- RoHS Compliant

### **ORDERING OPTIONS**

- E-Lite 4.9 INT: Single Radio with Integrated Dual-Polarity Panel Antenna
- E-Lite 4.9 INT Dual: Dual Radio with (1x) Integrated Dual-Polarity Panel Antenna & (2x) External Type-N Female Connectors
- E-Lite 4.9 EXT: Single Radio with (2x) External Type-N Female Connectors

#### **IEEE STANDARDS**

802.11a/n	WiFi protocols
802.11e	WMM and QOS
802.11h	DFS and TPC
802.1d	Ethernet Bridging
802.1p	Traffic Prioritization
802.1q	VLAN
802.1s	Spanning Tree
802.1w	Rapid Spanning Tree
802.3ab	Gigabit Ethernet
802.3ac	Extended Frame Size for 802.1q & 802.1p support
802.3ad	Link Aggregation/Port Bonding/Port Tracking
802.3i	10 Mbps Ethernet
802.3u	100 Mbps Ethernet and Auto-Negotiation
802.3x	Full Duplex and Flow Control
802.1ad	Service Tags
IGMP	Internet Group Management Protocol v1, v2
ADDITIONAL N	IETWORKING FEATURES

# ADDITIONAL NETWORKING FEATURES Syslog

OSPF

• FTP/TFTP Routing

• HTTP • Firewall/NAT

NTP • Telnet

VPN • SSH

SNMP • DHCP Client/Server

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# 5.8 GHz



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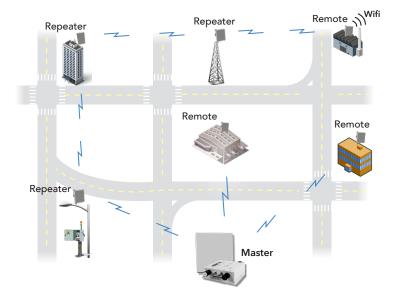
- Power over Ethernet
- Traffic Prioritization
- Optional Wifi Capability
- Customizable Channel Widths
- Dynamic Frequency Selection
- Received Signal Strength Indicator
- Built-in Audio Alignment Tool
- Operating Temp. -40°F to +176°F IP67 Weather Protection Rating
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Number of Radio Units:	1	Up to 2

WIRELESS INTERFACE	
Frequency Range:	4.900- 5.920 GHz (*Subject to Country Regulation)
U.S. Restrictions:	5.250 & 5.720 GHz excluded
Peak Transmit Power:	30 dBm (1W)
Receive Sensitivity:	-96 dBm to -78 dBm
Channel Widths:	5 MHz, 10 MHz, 20 MHz, 40 MHz
Modulations:	OFDM, BPSK, QPSK, 16QAM, 64QAM
Protocol:	IEEE 802.11a/n, E-max (proprietary)
Data Rate:	Up to 300 Mbps
MIMO:	2x2
Topology:	Point-to-Point, Point-to-Multipoint
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- 802.11i-RSN
- Radius Authentication
- MAC Access Control List
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- IC RSS-210
- RoHS Compliant

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- E-Lite 5.8/2.4 INT Dual: Dual Radio with (1x) Integrated Dual-Polarity Panel Antenna & (2x) External Type-N Female Connectors
- E-Lite 5.8 INT: Single Radio with Integrated Dual-Polarity Panel Antenna
- E-Lite 5.8 INT Dual: Dual Radio with (1x) Integrated Dual-Polarity Panel Antenna & (2x) External Type-N Female Connectors
- E-Lite 5.8 EXT: Single Radio with (2x) External Type-N Female Connectors

# **IEEE STANDARDS**

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802.11h	DFS and TPC
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802.3x	Full Duplex and Flow Control
802.1ad	Service Tags
IGMP	Internet Group Management Protocol v1, v2

# **ADDITIONAL NETWORKING FEATURES** Syslog

OSPF

• FTP/TFTP Routing

• HTTP • Firewall/NAT NTP • Telnet

VPN SSH

SNMP • DHCP Client/Server

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