

StarPlus 1120-24

StarPlus Radio, IP67 enclosure



IP67
enclosure

PRODUCT FEATURES

- EION TrustLink™ Technology
- 2 x 2 MIMO
- 2.4 GHz extended frequency range and support for 2.4 GHz applications
- High spectral efficiency and robust RF network performance
- Point-to-Point or Point-to-Multipoint topologies supported
- Real Time RSSI alignment indicator
- Built-in spectrum analyzer & audible antenna alignment beeper and LEDs
- Auto Output Power Management (Optional)
- Support 512 Subscribers
- Up to 300 Mbps data rate over the air, maximum ethernet throughput is 100 Mbps
- OFDM technology provides NLOS coverage in urban environments
- User friendly web-based GUI
- SNMP v2c and enterprise MIB for advanced network management
- 40 MHz Turbo channel size
- 20 MHz Normal channel size
- 5 & 10 MHz Narrow band channel sizes
- 19 dBi integrated panel antenna
- External antenna option available for base station and extended range applications

Overview

EION's StarPlus 1120-24 is a cost effective and high-performance outdoor radio ideally suited for enterprise and residential users. StarPlus 1120-24 uses EION's proprietary TrustLink technology, which is built on more than a decade of OFDM experience, to reduce interference and increase throughput.

By default, StarPlus 1120-24 is configured for use as a CPE in a point-to-multipoint application, however, with a license key, the StarPlus 1120-24 can be upgraded to serve as a master in a point-to-point link, or as a StarPlus base station.

With its high spectral efficiency, large capacity, user friendly GUI and rich feature set, StarPlus is the ideal unlicensed wireless solution for rural and metropolitan broadband requirements.

TRUSTLINK ADVANTAGE

TrustLink™ technology ensures equitable distribution of traffic to all subscriber stations and uses intelligence to determine the number of polling cycles every user gets depending on the level of its activity. This way the network resources are not wasted during the polling of inactive users due to no user data transmission. TrustLink can be employed in both point-to-point and point-to-multipoint networks and dramatically reduces the effects of unwanted interference on the wireless link.

STARPLUS 1120-24

Radio						
Topology	Point-to-Multipoint CPE or Point-to-Point Slave (Default) Point-to-Point Master (Requires upgrade key) Point-Multipoint Base Station (Requires upgrade key)					
Diversity	2 × 2 MIMO					
Frequency*	2.400 to 2480 GHz (StarPlus 5300-24)					
Channel Size*	Quarter: 5 MHz; Half: 10 MHz; Normal: 20 MHz; Turbo: 40 MHz					
Channel Spacing	5 MHz × channel number for CF					
Modulation	MCS 0 to 15 (6.5 to 300 Mbps); BPSK, QPSK, 16-QAM and 64-QAM for LibraPlus mode (6Mbps - 54Mbps) , 256 QAM (Optional)					
Antenna	Integrated 19 dBi panel antenna or 2x N-type					
Output Power†	+29 dBm aggregate; 2 × 26 dBm per stream (configurable from 9 dBm up to license key limit in 1 dB steps)					
Receiver Sensitivity (BER = 10 ⁻⁶) +/- 2dB		modulation	5 mHz	10 mHz	20 mHz	40 mHz
	MCS0/8	BPSK	-101 dBm	-98 dBm	-95 dBm	-92 dBm
	MCS1/9	QPSK1/2	-99 dBm	-96 dBm	-93 dBm	-90 dBm
	MCS2/10	QPSK3/4	-96 dBm	-93 dBm	-90 dBm	-87 dBm
	MCS3/11	16-QAM1/2	-95 dBm	-92 dBm	-89 dBm	-84 dBm
	MCS4/12	16-QAM2/3	-91 dBm	-88 dBm	-85 dBm	-81 dBm
	MCS5/13	64-QAM5/6	-81 dBm	-78 dBm	-75 dBm	-74 dBm
	MCS6/14	256-QAM3/4	-74 dBm	-71 dBm	-69 dBm	-66 dBm
MCS7/15	256-QAM5/6	-71 dBm	-69 dBm	-66 dBm	-64 dBm	
Duplexing Format	TDD, Half-Duplex					
Radio Feature Support	Dynamic Frequency Selection (DFS)					
Spectral Efficiency	6.5 bits per Hertz					
network support						
Medium Access Control	Proprietary MAC, TrustLink™					
Network Connection	10/100 Base T Auto-negotiation or configurable for full/half duplex					
Operational Mode	Transparent Bridging, Multicast					
Traffic Management	Advanced QoS with multiple service flows and classifier priorities - VLAN ID (802.1q), VLAN Priority (802.1p) and DSCP/ToS					
Fast Frame Aggregation	Yes					
Sector Locking	Yes, configurable black or white Access Control Lists					
VLAN	Data Tagging/Untagging, 802.1q transparency, VLAN Management, QinQ					
Intra-sector Bridging	Yes					
NAT	1:N NAT configurable through CPE GUI					
DHCP	DHCP server for LAN devices when in NAT mode					
IPv6	IPv6 pass through enabled when CPE works in bridge mode, Tunneling in NAT mode					
wireless networking						
Output Power Management	Yes - Manual / Auto					
Data Rate Selection	Yes					
Security						
Management Access	Username & Password					
Encryption headers)	WEP (64, 128, 154), WPA1 (TKIP), WPA2 (CCMP - AES 128, CBC-MAC for					
management						
Remote Management	Web-GUI, SNMP v2c (Set, Get and Traps with proprietary MIB) , SSH					
Management IP	DHCP client or static IP					
Installation Management	RSSI Indicator, Wireless Link Monitor, Audible Antenna Alignment Beeper, Built-in Spectrum Analyzer and Visual LED					
Backup Configuration	Save Radio Configuration to local PC					
Software Upgrade	Over the Air or local, Web-based upgrade, Dual bank to allow rollback					
Ease of Use	Single management view of all deployed products in EION Constellation centralized management system					
Physical, Electrical & Environmental						
Power Consumption	Typ. < 6 Watts					
Input Voltage	100-240V, 50/60 Hz AC; UL/CSA approved 24 Volt POE system; DC power option available					
Temperature Range	Operating: -25° C to +70° C during transience; Storage: -40° C to +90° C					
Relative Humidity	Operating: 5% to 95% (non-condensing); Storage: Max. 90% (non-condensing)					
Mounting Bracket	L-Bracket, Pole Mount or Wall Mount					
Enclosure	White All-Outdoor ABS/PC, Flame Retardant, UV resistant, IP67					
Weight	1.2 kg					
Dimensions	257mm x 257mm x 86mm					
Certifications	FCC, IC, WPC, RoHS and WEEE					

† Maximum power output is set by country specific licensing key. The operator of this product must ensure compliance when selecting external antennas with the limits specified by local regulation prior to deployment

* Frequency bands that are available to the operator are determined by country specific licensing key.