

# StarPlus 1120

## StarPlus Radio, IP67 enclosure with integrated antenna



### PRODUCT FEATURES

- EION TrustLink™ Technology
- 2 x 2 MIMO
- 5.x GHz extended frequency range from 4.920 to 6.100 GHz
- 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
- Backward compatible with EION LibraPlus 5860 APs
- 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

### OVERVIEW

EION's StarPlus 1120 is a cost effective and high-performance outdoor radio ideally suited for enterprise and residential users. StarPlus 1120 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 is configured for use as a CPE in a point-to-multipoint applicaiton, however, with a license key, the StarPlus 1120 can be upgraded to serve as a master in a point-to-point link.

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.

Product Name	Product Description	Product Code
StarPlus 1120-58	5 GHz StarPlus, IP67 enclosure with integrated antenna	1120-58-10-00
P2P Master Key	Enables P2P Master capability on 1110 and 1120. Require one per PtP link	7900-00-00-01

## STARPLUS 1120

<b>Radio</b>		<b>StarPlus 1120-58</b>					
Topology	Point-to-Multipoint CPE or Point-to-Point Slave (Default) Point-to-Point Master (Requires upgrade key)						
Diversity	2 × 2 MIMO						
Frequency*	4.920 to 6.100 GHz						
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)						
Integrated Antenna	19 dBi panel antenna						
Output Power†	+21 dBm aggregate; 2 × 18 dBm per stream (configurable from 9 dBm up to license key limit in 1 dB steps)						
Receiver Sensitivity (BER = 10 <sup>-6</sup> ) +/- 2dB		<b>Modulation</b>	<b>5 MHz</b>	<b>10 MHz</b>	<b>20 MHz</b>	<b>40 MHz</b>	
	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-QAM2/3	-87 dBm	-84 dBm	-81 dBm	-77 dBm	
	MCS6/14	64-QAM3/4	-85 dBm	-82 dBm	-79 dBm	-76 dBm	
	MCS7/15	64-QAM5/6	-81 dBm	-78 dBm	-75 dBm	-74 dBm	
Duplexing Format	TDD, Half-Duplex						
Radio Feature Support	Dynamic Frequency Selection (DFS)						
Spectral Efficiency	6.5 bits per Hertz						
<b>Network Support</b>							
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						
<b>Wireless Networking</b>							
Output Power Management	Yes						
Data Rate Selection	Yes						
<b>Security</b>							
Management Access	Username and Password						
Encryption	WEP (64, 128, 154), WPA1 (TKIP), WPA2 (CCMP - AES 128, CBC-MAC for headers)						
<b>Management</b>							
Remote Management	Web-GUI, SNMP v2c (Set, Get and Traps with proprietary MIB)						
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						
<b>Physical, Electrical &amp; Environmental</b>							
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.

