

ISON iLink Series

Point-to-Point Radio - Data Sheet

IS-LRH550E



Product Description

IS-LRH550E is a carrier-class radio that belongs to the ISON iLink Series and supports 5 to 6 GHz frequency range.

The Radio complies with Universal, FCC/IC, IC, MII, WPC & FCC regulations with a factory default of 5.8 GHz FCC/IC.

IS-LRH550E delivers up to 50 Mbps throughput and up to 8xE1s/T1s over an extended range.

The radio comes with an embedded antenna and connectorized for external antenna (2 x N-type).

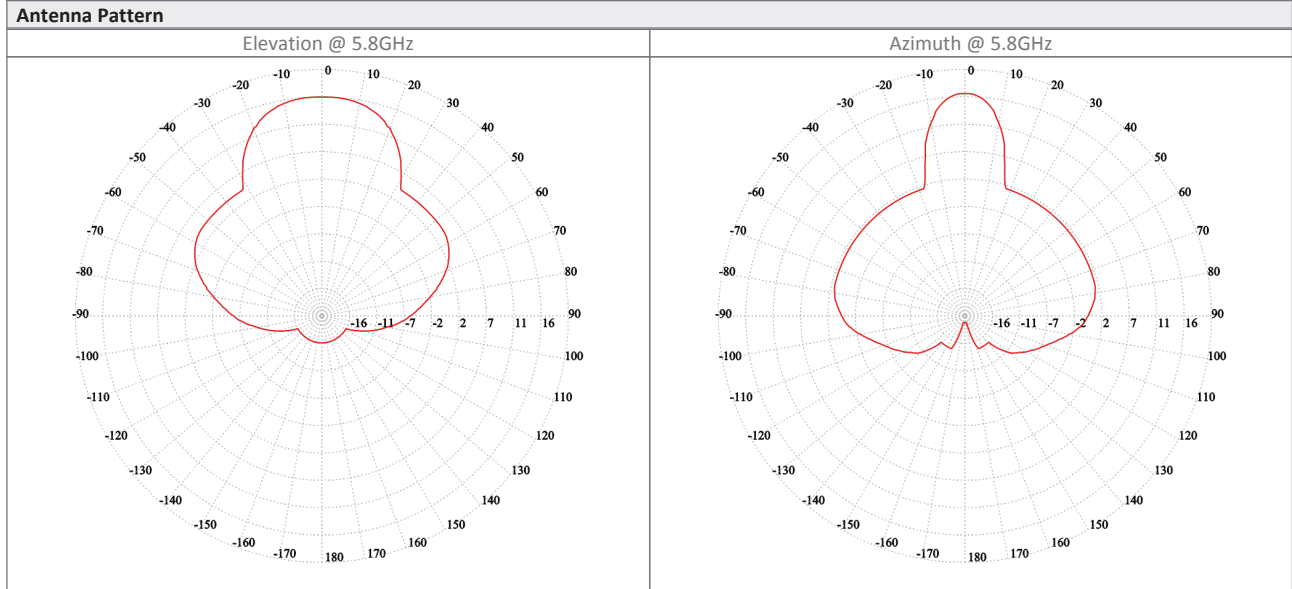
Product Highlights

- 50 Mbps Ethernet net throughput and 8xE1s/T1s Native TDM interfaces
- Long range - Up to 120 km / 75 miles
- Telco-grade, extremely robust in harsh conditions
- Supports intra-site and inter-site synchronization to maximize capacity
- Adaptive asymmetric throughput – dynamic allocation between uplink and downlink
- Advanced OFDM & MIMO technologies for operation in nLOS/NLOS and dense radio environments
- Upgradeable with a license key to 100 and 200Mbps net aggregate throughput

Product Specifications:

Configuration					
Architecture	Outdoor Unit with an embedded antenna and connectorized for external antenna (2 x N-type)				
PoE to ODU Interface	Outdoor CAT-5e; Maximum cable length: 100m for 10/100BaseT and 75m for 1000BaseT				
Radio					
Max Capacity	50 Mbps net aggregate throughput (up to 8xE1s/T1s plus Ethernet); Upgradeable with a license key to 100 and 200Mbps net aggregate throughput				
Range	Up to 120 km / 75 miles				
Channel Bandwidth	Configurable: 5, 10, 20, 40 MHz (for the default band)				
Modulation	2x2 MIMO-OFDM (BPSK/QPSK/16QAM/64QAM)				
Adaptive Modulation & Coding	Supported				
Automatic Channel Selection	Supported				
DFS	Supported (FCC/IC, IC)				
Diversity	Supported				
Spectrum Viewer	Supported				
Max Tx Power	25 dBm				
Duplex Technology	TDD				
Error Correction	FEC k = 1/2, 2/3, 3/4, 5/6				
Encryption	AES 128; FIPS 197				
Support Indoor units	IS-IPU-GBE				
Uplink / Downlink Allocation	Configurable: Symmetric or Asymmetric				
QoS	Packet classification to 4 priority queues according to 802.1P or Diffserv				
VLAN Support	802.1Q, QinQ, 4094 VLANs				
Ethernet Ring Protection	Supported, including Ethernet 1+1				
TDD Intra Site Synchronization	Supported				
TDD Inter Site Synchronization	Supported through common GPS receiver per site				
Monitored Hot Standby	1+1 with Wireless PtP link				
Supported Bands					
Band	CBW 5MHz [GHz]	CBW 10MHz [GHz]	CBW 20MHz [GHz]	CBW 40MHz [GHz]	Radio Compliance
5.0 GHz Universal	4.9975-5.1525	4.995-5.155	4.990-5.160	4.980-5.170	Universal
5.1 GHz Universal	5.1475-5.3375	5.145-5.340	5.140-5.345	5.130-5.355	Universal
5.2 GHz FCC/IC	5.2525-5.3475	5.255-5.345	5.255-5.345	5.255-5.345	FCC 47CFR Part 15.407; IC RSS-210
5.4 GHz FCC/IC	5.4775-5.7175	5.480-5.715	5.480-5.715	5.480-5.715	FCC 47CFR Part 15.407; IC RSS-210
5.4 GHz IC	5.4775-5.7175	5.480-5.715	5.480-5.715	5.480-5.715	IC RSS-210
5.4 GHz Universal	5.4725-5.7225	5.470-5.725	5.465-5.730	5.455-5.740	Universal
5.8 GHz FCC/IC (default)	5.7275-5.8475	5.725-5.850	5.725-5.850	5.725-5.850	FCC 47CFR Part 15.247; IC RSS-210
5.8 GHz MII	5.7375-5.8375	5.735-5.840	5.730-5.845	5.720-5.855	CMIIT RTA
5.9 GHz Universal	5.7275-5.9525	5.725-5.955	5.720-5.960	5.710-5.970	Universal
5.8 GHz WPC	5.8325-5.8675	5.830-5.870	5.825-5.875	5.815-5.885	WPC (India) G.S.R 38(E) dated 19 January, 2007 Notification
6.0 GHz Universal	5.6975-6.0525	5.695-6.055	5.690-6.060	5.680-6.070	Universal
5.160-5.245 GHz FCC	5.1575-5.2475	5.160-5.245	5.160-5.245	5.155-5.250	FCC 47CFR Part 15.407
Mechanical					
ODU Dimensions	28(w) x 19.5(h) x 9(d) cm				
ODU Weight	2.5 kg / 5.51 lbs				
Power					
Power Feeding	Power provided over ODU-IDU cable				
Power Consumption	<20W				
Environmental					
Operating Temperatures	-35°C to 60°C / -31°F to 140°F				
Humidity	100% condensing, IP67 (totally protected against dust and against immersion up to 1m)				
Safety					
FCC/IC (cTUVus)	UL 60950-1, UL 60950-22, CAN/CSA C22.2 60950-1, CAN/CSA C22.2 60950-22				
ETSI	EN/IEC 60950-1, EN/IEC 60950-22				
EMC					
FCC	47 CFR Class B, Part15, Subpart B				
ETSI	EN 300 386, EN 301 489-1, EN 301 489-4				
CAN/CSA-CEI/IEC	CISPR 22-04 Class B				

Integrated Antenna	
Gain	15 dBi
VSWR	1.5 :1 (typ)
3 dB Azimuth Beamwidth	30 Deg. (typ)
Polarization	Dual Linear (Vertical and Horizontal)
Sidelobes Level	ETSI EN 302 326-3 V 1.1.2 (2006-03) DN1
Cross Polarization	ETSI EN 302 326-3 V 1.1.2 (2006-03) DN1
F/B Ratio	-25 dB
Port To Port Isolation	20 dB (typ)
Lightning Protection	DC Grounded



Ordering Info

Part Number: IS-LRH550E

Description: iLink ODU, with an embedded antenna and connectorized for external antenna (2 x N-type), supporting multi frequency bands at 5.x GHz, factory default 5.8 GHz FCC/IC.