E band communications

E-Link 10000

Macro and Small Cell Backhaul Links

The E-Link 10000 radio provides a low cost high capacity backhaul solution for Macro and Small Cell mobile network architectures. The E-Link 10000 operates in the lightly licensed 71-86 GHz frequency band using 500/1000/2000 MHz channels. The radio provides up to 9.7 Gbps full duplex throughput using 128QAM modulation and includes an advanced Carrier Grade L2 Ethernet switch.

The E-Link 10000 is capable of operating network topologies including 1+0, 2+0, 1+1 Hot Standby, and Ethernet ring configurations. The E-Link 10000 features Adaptive Modulation, Coding, and Rate, which allows operators to maintain, prioritize, and confirm service levels in all weather conditions.

Applications

- 4G/5G/LTE/Macro and Small Cell backhaul for accesss and aggregation
- "Last Mile" fiber extension for enterprises
- Front Haul for CPRI
- Local Area Network (LAN) Extensions

Features & Performance

- Up to 9.7 Gbps throughput, full duplex upstream and downstream
- Hitless and Errorless Adaptive Modulation, Coding and Rate change
- Internal Carrier Grade L2 Switch
- SyncE and IEEE1588v2 compliant
- Optional CPRI and SONET/SDH Interfaces
- Comprehensive OA&M support (Y.1731, 802.3ah, 802.1ag)
- Small Form Factor & lightweight
- Quick and simple deployment
- Slip-fit mount for use with 1 or 2 ft antennas

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Connecting a Digital World®

E-Link 10000 Technical Specifications

Applications

MOBILE BACKHAUL
Future-proof multi-gigabit backhaul for next generation networks.

SERVICE PROVIDER
High Capacity business services, fiber extensions, 4G/5G/LTE Wi-Fi backhaul, and redundant fiber overlays.

EDUCATION
High-performance seamless campus connectivity, for Wi-Fi and security camera backbone networks.

GOVERNMENT/ MUNICIPALITIES
Inter-building connections, Video surveillance systems, traffic control and monitoring, 4G/5G/ LTE GHz backhaul.

HEALTHCARE
Secure, HIPAA-compliant medical office, lab network access, real-time imaging & records, application connectivity.

ENTERPRISE
Leased line replacement, LAN extensions, server centralization, remote data storage and backup.

Data Throughput Rate	Up to 9.7Gbps in 1+0 Configurtions				
Frequency Range	71-76 GHz / 81-86 GHz				
Air Interface	FDD				
RF Channel Tuning	Frequency Agile in 250 MHz steps, per ITU-R F.2006				
Channel Bandwidth	500 / 1000 / 2000 MHz				
Antenna Diameter	30 cm	60 cm			
Minimum gain	43 dBi	51 dBi			
3 dB Beamwidth	0.8°	0.4°			
Management	In-Band, Web Interface, Console Interface (CLI/SSH) SNMPv2/v3				
Latency	<12µs dependent upon configuration				
Modulation	QPSK/16QAM/32QAM/64/128/256QAM				
Modulation	**Channel BW**		**Throughput**	**System Gain 43 dBi Antenna**	**System Gain 51 dBi Antenna**
QPSK	500 MHz		752 Mbps	173 dB	189 dB
	1000 MHz		1504 Mbps	170 dB	186 dB
	2000 MHz		2765 Mbps	167 dB	183 dB
16 QAM	500 MHz		1504 Mbps	163 dB	179 dB
	1000 MHz		3008 Mbps	160 dB	176 dB
	2000 MHz		5531 Mbps	159 dB	173 dB
32 QAM	500 MHz		1880 Mbps	159 dB	175 dB
	1000 MHz		3761 Mbps	156 dB	172 dB
	2000 MHz		6914 Mbps	153 dB	169 dB
64 QAM	500 MHz		2257 Mbps	155 dB	171 dB
	1000 MHz		4513 Mbps	152 dB	168 dB
	2000 MHz		8297 Mbps	149 dB	165 dB
128 QAM	500 MHz		2633 Mbps	151 dB	167 dB
	1000 MHz		5265 Mbps	146 dB	162 dB
	2000 MHz		9680 Mbps	142 dB	158 dB
256 QAM	500 MHz		3009 Mbps	144 dB	160 dB
CPRI	Option 1 through 7 (614.4 to 9830.4 Mbps)				
Ethernet					
Ethernet Interfaces	1x10G/2.5G/1G SFP+, 2x2.5G/1G SFP+, and 2x1G RJ-45				
Max Packet Size	10,000B				
Ethernet Timing and Synchronization	SyncE (ITU-T G.8262 & ITU-T G.8261), IEEE 1588v2 TC, BC, & OC				
Features	• IPv4 / IPv6 • 4096 VLAN (IEEE 802.1Q) • Link Aggregation (IEEE 802.3ad) • Provider Bridging (IEEE 802.1ad, Q-in-Q) • VLAN tag translation on ingress or egress			• Link State Propagation • RSTP / MSTP • CM with tail drop	
Ethernet QoS					
Classification	• 8 QoS queues per port with Strict, SDWRR scheduling • MEF compliant traffic policing (one, two or three color) • DSCP translation, ingress and egress • Per Queue and Per Port policing and shaping • Priority based Full Duplex Flow control				
Protection	Linear Protection per G.8031, Ring G. 8032, 1+1				
OAM	Y.1731, Y.1564, IEEE 802.1ag				
Mechanical and Environmental					
Input Power Requirements	Direct DC-48VDC / PoE @ 48W				
Size	334 x 295 x 102 mm /13.1 x 11.6 x 4 in				
Weight	4.4 kg / 9.6 lbs				
Temperature Range	-50°C to +55°C / -58°F to +131°F				
Weather	IP66 / All Weather				
Safety	IEC 60950-1, -22				
Regulatory RF Certification	US FCC Part 101, FCC Part 15B; ETSI EN 302 217-3				

Note: All Specifications are typical and subject to change without notice.

Have Questions? Contact Us:

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