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Liberator-E1000e
The future of wireless backhaul

Liberator-E1000e

Applications

Gigabit 3G & LTE Backhaul

Campus & Site Connectivity

Fiber Extension

Wireless Video Surveillance

Highlights

Up to 4 km with 1 Gigabit Full-Duplex

All-Outdoor & Small Form Factor

Optimized for low-profile deployments

Robust Aluminium Housing

SyncE & 1588 Compliant

Optional 256 bit AES encryption

About 70/80 GHz

The 70/80 GHz band is a 10 GHz wide band allowing much higher throughputs than traditional microwave. Compared to the 60 GHz band it offers longer transmission distances under any environmental condition. Multiple channel options in the 70/80 GHz band allow deployments without interference and support high capacity backhaul.

Sub10's combination of innovative design and Carrier Class features, gives the Liberator E-Series outstanding performance in many networks around the world.

Gigabit Full-Duplex over distances up to 4 km

The Liberator E1000e is an easy-to-deploy and cost effective all-outdoor wireless Ethernet link operating in the 70/80 GHz band delivering a Full-Duplex bandwidth of 1 Gigabit over distances of up to 4 km. The Liberator E1000e has been designed to increase the data capacity in the carrier and enterprise sector offering various advanced features like Adaptive Modulation, Multi-Channel, Low Latency and AES 256-bit encryption.

Two antenna options (30 cm and 60 cm dishes), optimization for low profile installations and high net throughput of 1 Gigabit make the E1000e a perfect solution for last mile backhaul applications in metropolitan networks such as Fiber Replacement, Small Cell & Macro Cell Backhaul and Wireless Video Surveillance. The integrated patent-pending „Snapback" SyncE & 1588 help to turn the E1000e into an integrated part of a modern 3G & LTE and Enterprise Network.

For more information please contact us!
www.sub10systems.com

Technical specifications for Liberator-E1000e

Frequency Bands	71-76 / 81-86 GHz paired
Modulation	8-PSK / QPSK / BPSK
Range	up to 4000 Meter
Ethernet throughput	1 Gbps (full duplex, 8-PSK)
Max Tx Power	+6 dBm
Sensitivity	-61 dBm
Channel width	250 MHz / 500 MHz
Antenna gain	45 dBi / 51 dBi
Link adaptation	Adaptive coding & modulation, ATPC
Interference immunity	Channel switch capability
Availability	Up to 99.999% (use Sub10 Link Availability Calculator)
MTBF	25 years
Wind load	160 km/h (operating) and 200 km/h (survival)
Ethernet frame size	64 bytes up to 9,600 bytes
Latency	< 200 microseconds
Synchronisation	SyncE, IEEE 1588v2, patent pending snapback technology
VLAN for management	IEEE 802.1Q
QoS	Flow control, 802.1p, DiffServ, 8 queues
Network management	SNMP v1, v2c, v3
GUI	HTTP web-browser
Encryption	AES 256 bit as an option available
Connector	RJ-45 (outdoor gigabit Ethernet seal kit included)
Voltage alignment port	Waterproofed QMA socket
ODU	Terminal size 182 x 182 x 68mm
Weight	2,5 kg
Power supply	Power Over Ethernet ("Ultra-PoE" / PoE++), consumption 30W
Operating temperature	-40°C to +55°C

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