

OptiQwave 8310 5.8GHz ISM Band STM-1 Digital Microwave Radio



The OptiQwave 8310 is a license-exempt digital microwave in 5.8GHz ISM band that provides STM-1 wireless connections at the range of 1-35 km at a significantly lower cost than leasing dedicated STM-1 lines.

In addition, OptiQwave 8310 utilizes unlicensed frequency, so you can easily install it whenever & wherever you need it. It eliminates regulatory delays and is a lot faster than traditional wired networks.

Network management and maintenance features such as various local and remote loopbacks, built-in PRBS, LED Status Alarms, LCD display, menu-driven console port, SNMP, and engineering order-wire help network providers maintain their networks for maximum quality service levels.

Easy installation and operation allow you to quickly deploy STM-1 capacity to your networks between locations. The OptiQwave 8310 is ideal for:

- Cost-effective, rapid broadband deployment
- Mountain area and/or environmental limitation
- Temporary traffic demand
- Redundant backup channel
- Disaster Recovery

Key Features

- High speed STM-1 link with 99.999% availability
- Built in Adaptive equalizer to solve multi-path fading
- Support both optical and electrical interface
* Optical: S1.1, Optional for S1.2, L1.1 and L1.2
- Rugged size, built in LED status indicators & LCD panel for ease of configuration and maintenance
- Modem port supports Alarm auto dial out and Trap IP for Ethernet
- FEC(Forward Error Correction Coding) for Superb system gain
- Test jack for TX & RX signal power level and Auto Gain Control, AGC.
- Single-ended maintenance capability
- Support Menu-driven for console port and PPP for modem port
- SNMP management & SNMP based GUI that runs in MS Windows 95 or above in PC CPU Pentium III or above
- Enhanced performance monitoring for STM-1
- Built-in PRBS, local and remote loopbacks for ease of trouble shooting

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STM-1 Digital Microwave Radio**

FiberLogic
Broader, Smarter Managed Access

SPECIFICATIONS

System

Frequency Range	5725~5850 MHz
RF Channel Bandwidth	32 or 39 MHz
Modulation	32 or 64 QAM
System Capacity	
Digital Capacity	1x STM-1
Antenna Connector	N-Type female
RF Output Power	+17 dBm typical Optional +20 dBm
RF Attenuation Range	24 dB, minimum (S/W adjustable)
TX Frequency Stability	±10 ppm
RX Sensitivity	-74 dBm (BER=1 x 10 ⁻⁶)
Maximum RX Level	-15 dBm with Error Free
System Gain	≥91 dB
Application Distance	1 to 45 Km
Residual BER	≤10 ⁻¹⁰
Channel Allocation	A1 : 5725 – 5765 MHz A2 : 5811– 5850 MHz

Auxiliary Connections

Orderwire Handset	2-wire, RJ-11
Test Points	Near End Tx & Rx Signal Level Voltage and AGC
Auxiliary Data Port	RS-232, Clear Service Channel
Console Port	RJ45, up to 38.4 Kbps
Network	RJ45, 10/100 BaseT
Management Port	Ethernet
SNMP Database	MIB II in UDP based
Modem Port	RS-232 for External MODEM
Office Alarm Port	DB-9, Dry contact relay

Performance Monitoring

Data Collection	STM-1: CV, ES, SES, UAS
Data Storage	15-minute, 95 15-minute day and 7 days
Data Reporting	LCD, Console & Ethernet
Threshold Crossing Notificatio	Automatically generated and reported to Console and OS

Power/Environment

Power	DC : -36 ~ -72VDC AC : 90~260 VAC, 47~63 Hz With auto-sensing
Power Consumption	< 80 Watts
Operating Temperature	0 ~ +50°C
Humidity	0~95%, non-condensing
Physical size(WxDxH)	445 x 326 x 88mm
Weight	7.5 kg
Mounting	19 and 23 inch EIA rack mount
Regulatory	FCC Part 15, Class A
Compliance	CISPR EN55022
Reliability	> 40,000 hours, FITs

STM-1 Interface

Line Rate	155.52 Mbps
Frame Structure	Complied with ITU-T G.707
Jitter Generation	< 0.01 UIrms
Jitter Tolerance	Complied with ITU-T G.825
Connector	Optical: SC or PC Electrical: BNC or IEC 169-13

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