

Spectrum-DMR310 Digital Radio

PDH, SDH, IP (Ethernet, Gigabit) System

5.8GHz, 7/8GHz, 11GHz, 13GHz, 15GHz, 18GHz, 23GHz, 26GHz, 38GHz

DMR-310 microwave system provides high capacity transmission, flexibility, reliability, rich features and convenience for wireless communications networks.

DMR-310 digital point- to-point radio series represents a new microwave radio product line that is designed to address universal applications for high capacity Ethernet, PDH and SDH platforms. This advanced technology platform is designed to provide high flexibility to operators currently and in the future.

DMR-310 series is based upon a common platform to support a wide range of network interfaces and configurations, including PDH (16×E1s, 32×E1s and 63×E1s*), Ethernet (Gigabit, 1×100Base-T 2×100Base-T), and STM-1(2×STM-1). The radio family is spectrum and data rate scalable.

DMR-310 digital radio series enables network operators (mobile and private), government and access service providers to offer a portfolio of secure and scalable wireless applications for data, video, and voice services.

DMR-310 IDU allows selection from multiple capacity options, modulation types, radio frequency channels and transmitting output power levels to accommodate and adhere to world-wide regulations and spectral efficiency requirements.

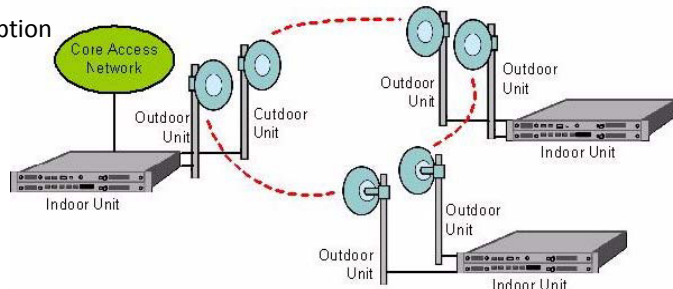
DMR-310 supports 1+0 and 1+1 protection and ring architectures. The modem and power supply functions are provided by applying easily replaceable plug-in modules.

DMR-310 digital radio includes integrated OAM&P (Operations, Administration, Maintenance, and Provisioning) functionality and design features that enable simple commissioning when the radio network is initially set up in the field.



Product Features and Benefits:

- 16/32/63×E1s, Gigabit, 1 or 2×100Base-T, Ethernet, and 2×STM-1**One Platform for Access and Core Networks.**
 - Bandwidth capacity and modulation controlled by software.**Timely Upgrade to meet Network Needs**
 - Support 1+0, 1+1, 2+0, west/east applications (with ADM capability).....**Single Platform Reduces CAPEX**
 - Ring application with cross connect function**Allows Building of Resilient Networks**
 - FEC- Trellis coded modulation concatenated with Reed-Solomon coding...**Improved Link Performance**
 - Field upgradeable by Plug-In assembly **Ease of upgrade/migration from TDM to IP N/W.**
 - RF, IF, digital loopback capability with Built-in BER monitor**Fast Fault Identification**
 - Delay setting for hitless (errorless) switching **Maintain Continuous Service Availability .**
 - Wide operating temperature range **Ideally suited for placement in most Telecom Sites.**
 - SNMP network management protocol **Can be managed by Spectview EMS or Easily integrated into any SNMP based EMS/NMS System.**
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- Up to 300 meters separation between IDU and ODU
 - Wide DC power input range and low power consumption

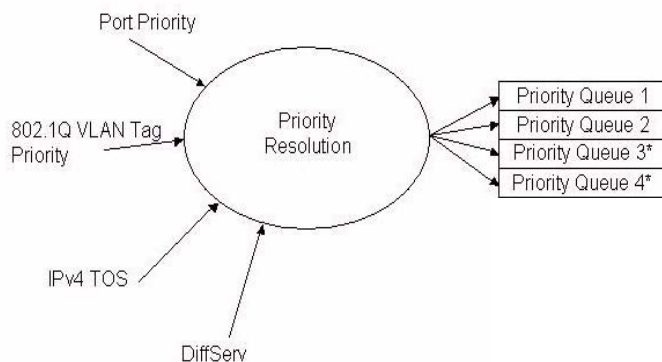


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DMR310 Specifications										
Frequency	5.8GHz	7/8GHz	*11 GHz	13 GHz	15 GHz	18 GHz	23 GHz	*26 GHz	*38 GHz	
Standard	ETSI/ITU/FCC									
RF Output Power (HP)	+5 ~ +24dBm			+5 ~ +20dBm		+5 ~ +19dBm*				
RF Output Power (SP)	0 ~ +17dBm	0 ~ +16dBm			0 ~ +15dBm		0 ~ +13dBm			
Accuracy	+/-2dB									
Tuning Increment	1dB									
RX at BER=10 ⁻³	-73dBm		-72dBm		-71dBm		-70dBm			
RX at BER=10 ⁻⁶	-70dBm		-69dBm		-68dBm		-67dBm			
RF Bandwidth	28MHz									
Max. Power consumption (1+0/1+1)	55W/85W					60W/90W				
Flange	N-type	UBR84	UBR100	UBR140	UBR140	UBR220	UBR220	UBR220	UBR320	
Impedance	E1= 75 Unbalanced or 120 Balanced; Ethernet=100ohm Balanced									
Line Code	E1 = HDB3, STM1 Electrical or Optical Ethernet: Full duplex 100Base-T									
Network Management	SNMP based Spectview EMS System or Telnet									
Optical Interface	Single mode 1310nm									
IF Port: For 50 coaxial ODU N/IDU TNC connector, Female					Elevation:			15,000ft / 4572 meters		
RSSI: Output voltage vs. RSL : 0 ~ 3V vs. -70 ~ -25dBm					Frequency Stability:			±5ppm		
RSL Accuracy : ±2 dB					Max Input Level without Damage:			0dBm		
Ambient Temperature: IDU: -5~ 55C; ODU: -35~ +55C					Frequency Source:			Synthesizer		
Humidity: IDU: 0 ~ 95%, no condensation; ODU: all weather										
Weight & Dimension: IDU: 3.4 kg /445x238.5x44.5 mm ³ ; ODU: 3.0~3.5kg/225x225x90mm ³										
Spurious Emissions: 7 ~ 13 GHz: 5 to 21.2 GHz:<-50 dB, 21.1 to 27 GHz:<-30 dB ,										
	13 ~ 38 GHz: 5 to 21.2:<-50 dB, 21.1 to 79 GHz									
System Configurations: Non-protected (1+0), Protected (1+1), Space Diversity, Frequency Diversity, 2+0 or East-West										
System Capacity	16E1, 32E1, 63E1, STM1 Optical and Electrical, Ethernet (upto 155M) and Gigabit Ethernet (upto 600M)									

All specifications are typical values and subject to change without prior notice.



TYPICAL EXAMPLE OF QOS CAPABILITIES