

Spectrum-DMR IP

DMR IP Radio

High Capacity Microwave Radio Links

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

DMR IP Microwave System provides high capacity transmission, flexibility, reliability, rich features and convenience for wireless communications networks.

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

DMR IP 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 in Ethernet.

DMR IP supports 1+0, 2+0, 1+1, East/West and ring architectures. Both modem and radio apply full outdoor mode.

DMR IP 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.



Applications

- Wideband wireless access, wireless local loop (WLL) and access market
- Mobile cellular network, which require higher capacity due to an increase in subscriber, cell sites and data application
- Back up network for fiber optic trunk links
- Private and Enterprises network such as educational institutions, financial institution and utility companies providing voice ATM & IP private networks

Product features

- Fully outdoor Ethernet radio
- Gigabit Ethernet, and 1 ×STM-1 interface
- Bandwidth capacity and modulation controlled by software Support 1+0, 1+1, 2+0, and East/West applications Ring application for IP application FEC- TPC-TCM with RS code Adaptive modulation from QPSK to 128QAM
- Wide operating temperature range
- Wide DC power input range and low power consumption SNMP network management protocol Small and attractive profile



Technical Specifications

155Mbps, 128QAM, Single Carrier Specifications									
Frequency	5.8GHz	7/8GHz	11 GHz	13 GHz	15 GHz	18 GHz	23 GHz	26* GHz	38* GHz
Standards Compliance	ETSI/ITU/FCC								
RF Output Power @32QAM (dBm)	+0 ~ +24	+0 ~ +24	+0 ~ +19	+0 ~ +19	+0 ~ +19	+0 ~ +18	+0 ~ +18	+0 ~ +18*	+0 ~ +15*
RF Output Power @128QAM (dBm)	0 ~ +20	0 ~ +20	0 ~ +16	0 ~ +16	0 ~ +16	0 ~ +15	0 ~ +15	0 ~ +15	0 ~ +12
Accuracy (dB)	+/-2								
Tuning Increment (dB)	1								
RX at BER=10 ⁻³ (dBm) @32/128QAM	-79/72	-79/72	-78/71	-78/71	-78/71	-77/70	-77/70	-77/70	-76/69
RX at BER=10 ⁻⁶ (dBm) @32/128 QAM	-76/69	-76/69	-75/68	-75/68	-75/68	-74/67	-74/67	-74/67	-73/66
RF Bandwidth (MHz)	28								
Max Throughput	110/160Mbps (Ethernet Full Duplex or GE)								
Max. Power									
Consumption (1+0) (Watts)	35	35	35	35	35	35	35	35	35
Flange	N-type	UBR84	UBR100	UBR140	UBR140	UBR220	UBR220	UBR220	UBR320
Interfaces	STM1 Optical Single Mode 1310nm Ethernet RJ45 x 2 (one for Payload plus inband NMS and one for NMS)								
Network Management	SNMP or Telnet.								
						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: : -35 ~ +55C						Frequency Source: Synthesizer			
Humidity: ODU: all weather									
Weight(kg) & Dimension(mm): 4//225x225x90									
Spurious Emissions: 7 ~ 13 GHz: 5 to 21.2 GHz:<-50 dBm, 21.1 to 27 GHz:<-30 dBm 13 ~ 38 GHz: 5 to 21.2 GHz:<-50 dBm, 21.1 to 79 GHz:<-30 dBm									
System Configurations: 1+0, 1+1, Space Diversity, Frequency Diversity, 2+0, East/West									

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