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MANN-DMR-104-1
5.8 GHz CarrierGrade Radio Backhaul Family

Telco grade 300Mbps transport radio

The DMR104-1 product family is a wireless Customer Edge solution for Communication Service Providers (CSP) to establish cost effective Radio Access Networks capable of delivering IP based video, voice and data services. The DMR104-1 family of radios creates a new benchmark for wireless equipment using architecture based on the state-of-the-art: OFDM Technology.

The DMR 104-1 is a carrier class broadband radio supports data rate up to 300 Mbps by using the license free frequency bands. System caters for large bandwidth back haul transportation. Surge protected PoE and harden casing design enables the system for long distance transmission and working under extreme environment.

State-of-the-art technology
By using the global innovative technology leader, the Atheros chip sets that enable advanced OFDM ensure the system capable for the LOS and NLOS, long haul point-to-point and Point-to-Multipoint applications. Spaces diversify technology with spatial multiplexing increases throughput without using additional spectral bandwidth.

Advance feature with super performance
System design with many advance features like CSW (Configurable Channel Spectrum Width) and MCS (Modulation Coding Scheme) that enable system can work under interfering environment. TPC (Transmit Power Control) and DFS (Dynamic Frequency Selection) are also supported to provide additional flexibility.

High reliability and sophisticate features
To enhance the system security and privacy, the DMR104-1 is protected by different wireless security features such as WPA (Wi-Fi Protected Access), WPA2 (WPA with advance encryption), 64-bit / 128-bit WEP (Wired Equivalent Privacy) and IEEE 802.1X authentication. It also provides sophisticated IP features, such as STP, NAT, DDNS, DHCP server, SPI firewall, packet and URL filtering. The system management control can be achieved locally and remotely via the user friendly web page, SNMP or telnet. The DMR104-1 is the most cost-effective, high speed and high reliable solution.

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Specifications of DMR104-1:

Wireless Radio Frequency (RF)	
Chip set	Atheros AR9220
Frequency Range	5.180 ~ 5.825 GHz
Data Rate	54 ~ 300 Mbps
Transmitter Output Power	16 ~ 26 dBm
Receiver Sensitivity	- 90 dBm @ 6 Mbps, - 70 dBm @ 300 Mbps
Antenna Gain (Built-in)	26 dBi / 19 dBi
Modulation	OFDM: 64QAM, 16QAM, QPSK, BPSK DSSS: DBPSK, DQPSK, CCK
Wireless Security	64-bit / 128-bit WEP WPA-EAP / WPA-PSK / WPA2-EAP / WPA2-PSK IEEE 802.1X – TLS, TTLS, PEAP, EAP-SIM
Special Features	
Wireless	Long Distance Parameters Setup Wireless Pseudo VLAN CSW (Configurable RF Channel Spectrum Width) MCS (Modulation Coding Scheme) TPC (Transmit Power Control)
IP Services	STP (Spanning Tree Protocol) SAT (Static Address Translation) DNS Redirection, DDNS,NAT， DHCP Server SPI Firewall, Packet Filtering, URL Filtering
Management	HTTP Web， SNMP (RFC 1157 / RFC 1213) Telnet / SSH (Secure Shell)
Certificate	
Safety / EMC	FCC Part 15 CE EN 60950
Power Supply	
Standard Input	- 48VDC / 100~240VAC / 802.3af PoE
Consumption	15 Watts
Operation Environment	
Working Temperature Range	-35 ~ +70 ^{o}C
Relative Humidity	5 ~ 95 % (non-condensing)
Storage Temperature Range	-40 ~ +80 ^{o}C
Mechanical	
Dimension	370x370x35mm (26dBi)/220x220x18mm (19dBi)
Weight	5.5Kg (26dBi) / 2.5Kg (19dBi)