

# MBR3500

3.5GHz Point-to-Point Radios

DATA SHEET



## Basic Description

Now being installed in networks worldwide, the MBR 3.5GHz series radios are the latest additions to range of radio systems. This point-to-point radio offers the benefits of full 2x2Mbit/s up to 16x2Mb/s payloads, dependant on the model selected, coupled with robust and reliable transmission from operation in the 3.5GHz band.

The MBR 3500 range are compact, modular, flexible and feature rich n x E1 3.5GHz radio systems which build upon the success of other industry-leading radio systems. The systems are ideally suited to users requiring long range, simple installation and set-up and reliable operation over difficult terrain. The MBR 3.5GHz n x E1 radios uses the latest radio technology to ensure high performance, high reliability and cost effectiveness. Benefits include;

- Modular IDU and ODU units for easy installation and maintenance.
- International standard traffic interfaces
- User control of setup and operation parameters from front panel
- Management system for monitoring and control
- 1+1 protected options

## The Optimum Solution...

The MBR 3.5GHz radios provides either two, four, eight or sixteen industry standard G.703 (E1) interfaces suitable for connection to a wide range of telecommunication and data communication equipment. As the main building block of most network architectures, the E1 traffic channels can be used to carry voice, data, and video signals. Features of this system include;

- Software control and configuration
- Robust modulation scheme providing excellent performance over long-haul paths
- Full frequency tuning across the full 3.5GHz band

The units offer a simple front panel control and set-up system to allow operation with the minimum of additional equipment. Also, network management ports are provided to allow configuration by local terminal or connection to an SNMP network management control system. This enables configuration of the systems to be performed from a remote control centre, together with monitoring, management and control of the inter-connected systems on the network. A comprehensive set of alarms, for easy maintenance are provided in the systems and the flexible architecture enables a wide range of network topologies, to be configured.

## Product Family ...

The MBR 3.5GHz range of radios are part of a growing family of communications products designed to serve the needs of public network and commercial users. Other important network elements that are available include MFS2000 protection switch, MRM1500 and MBM2000 multiplexers, in addition to extensive range of 1.4GHz and 2.0GHz products.

## Typical project applications...

- Cell site backhaul for fixed and rapid deployment of mobile networks, e.g. GSM etc
- Replacement of analogue radio links
- Cost effective private networks for enterprise, e.g. Oil & gas platforms
- Expedient provision of business services e.g. private circuits, leased lines
- Reliable and secure data networks for utilities, public service organisations and military users. e.g. Airfield Security, coastguards, electricity supply companies
- Low cost transmission of video information for broadcast and surveillance, e.g. border control, video conference, road traffic monitoring
- Provision of telephony, ISDN and data services to remote sites

SPECIFICATIONS					
		2E1	4E1	8E1	16E1
<b>Frequency Range</b>		3400MHz – 3600MHz			
		Various including CEPT T/R 14-03 Other frequency plans available upon request			
<b>Channel Spacing</b>		2MHz	4MHz	4MHz	8MHz
<b>Occupied Bandwidth</b>		1.75MHz	3.5MHz	3.5MHz	7MHz
<b>Receiver</b>	BER 10-6	-88dBm	-85dBm	-82dBm	-79dBm
	BER 10-3	-89dBm	-86dBm	-83dBm	-80dBm
<b>Transmitter</b>	ODU O/P power	+27dBm	+27dBm	+27dBm	+27dBm
<b>Mechanical</b>	IDU Enclosure	1U ventilated enclosure			
	IDU Rack Practice	19" and ETSI rack – alternatives available			
	IDU Dimensions	482mm x 245mm x 90mm			
	ODU Dimensions	240mm x 120mm x 370mm			
<b>Connectors</b>	G703 data ports	75ohm or 120ohm via front panel connectors			
	Alarm port	37-pin D-Type connector			
	SNMP Network Management Ports	2 off 9 way D-type			
	Antenna Connector	N-Type 50Ω, socket			
<b>Power Requirement</b>	Power supply	36 to 72VDC			
	Power consumption	50W @ 48V typical			
<b>Configuration and set-up</b>		By front panel display From local terminal/LapTop (via RS-232) From NMS system (via RS-232)			
<b>Status indications</b>		Incorporated in front panel display Via LED's			
<b>Environmental</b>	Operating Range IDU	Temp -5°C to +45°C Humidity up to 90% non condensing			
	ODU	-33°C to +50°C			
	IDU Storage	Temp -5°C to +45°C			