

MBR2000

1.4GHz Point-to-Point E1 Radio

DATA SHEET



Basic Description

Now being installed in networks worldwide, the MBR2000, is the latest addition to range of 1.4GHz radio systems. This point-to-point radio offers the benefits of a full 2Mbit/s payload, coupled with robust and reliable transmission from operation in the international 1.4GHz band.

The MBR2000 is a compact, flexible and feature rich E1 radio system that builds upon the success of well known multi-rate radio providing the user with access to higher capacity. This system is ideally suited to users requiring long range (over 50km), simple installation and set-up and reliable operation over difficult terrain. The MBR2000 uses the latest radio technology to ensure high performance, high reliability and cost effectiveness. Benefits include;

- Compact 1U rack unit requiring front access only
- 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 MBR2000 2Mbit/s radio provides an industry standard G.703 (E1) interface suitable for connection to a wide range of telecommunication and data communication equipment. As the main building block of most network architectures, this E1 traffic channel can be used to carry voice, data, and video signals. Features of this system include;

- Full software control and configuration
- Wholly convection cooled (no onboard fans)
- Robust modulation scheme providing excellent performance over long-haul paths
- Full frequency tuning across a range of 1.4GHz bands

The unit offers 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 system to be performed from a remote control centre, together with monitoring, management and control of the inter-connected systems on the network. An extensive set of alarms, for easy maintenance are provided in the system and the flexible architecture enables a wide range of network topologies, to be configured.

Product Family ...

The MBR2000 is 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 MRR800, MBR1000, MBR2200 and MBR4200 1.4GHz point-to-point radios, MFS2000 protection switch, MRM1500 and MBM2000 multiplexers, Video Codecs, and nx2Mbit/s Cross Connect Switch.

Typical project applications...

- Cell site backhaul for fixed and rapid deployment of mobile networks, e.g. TETRA, Tetrapol, GSM etc
- Replacement of analogue radio links (e.g. 400MHz, 800MHz & 1.5GHz systems)
- 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...

Frequency Range		1350MHz – 1517MHz
		Various including ITU-R 1242, CEPT T/R 13-01 Other frequency plans available upon request
Channel Spacing		2MHz
Occupied Bandwidth		1.75MHz
Receiver	BER 10-3 BER 10-6	Better than -93dBm Better than -90dBm
Transmitter	O/P power	+30dBm
	Software Control Range	From +21 to +30dBm (3dB steps)
Mechanical	Enclosure	1U ventilated enclosure
	Rack Practice	19" and ETSI rack – alternatives available
	Depth	245mm
	Weight	<5kg
Connectors	G703 data port	75ohm or 120ohm via front panel connector
	Alarm port	37-pin D-Type connector
	SNMP Network Management Ports	2off 9 way D-type
	Antenna Connector	N-Type 50Ω, socket
Power Requirements	Power supply	36 to 59VDC positive or negative ground
	Power consumption	20W @ 48V typical
Configuration and set-up		By front panel display From local terminal/LapTop (via RS-232) From NMS system (via RS-232)
Status indications		Incorporated in front panel display Via LED's
Environmental	Operating	ETS 300-319 class 3.2 Temp -5°C to +45°C Humidity up to 90% non condensing
	Storage	Temp -5°C to +45°C
RF Standards		ETSI ETS 300-630 class 2