

Westica MRR800

1.4GHz Multi-rate Radio



Overview

An established solution for both public and private network operators, Westica's range of 1.4GHz radio systems have been proven to offer excellent performance in difficult environments. The multi-rate system enables data rate to be optimised for individual applications to ensure spectral efficiency and lowest installed cost, coupled with robust and reliable transmission from operation in the 1.4GHz band.

The MMR800 is a compact, flexible and feature rich fractional rate radio system that offers up to 800kbit/s data rates. This system is ideally suited to users requiring long range (over 50km), simple installation and set-up and reliable operation over difficult terrain. The MRR800 uses the latest radio technology to ensure high performance, high reliability and cost effectiveness.

- Compact 1U rack unit requiring front access only
- International standard traffic interfaces
- User control of all setup and operation parameters from front panel
- Management system for monitoring and control
- Whole band tuning across international frequency bands
- 1+1 protected options

Optimum Solution

The Westica MRR800 multi-rate radio provides an industry standard G.703/G.704 fractional rate interface suitable for connection to a wide range of telecommunication and data communication equipment. In addition the option for X.21 interfaces enables the radio to carry voice, data, and video signals via a range of network terminal equipments. Applications include:

- Cost effective alternative to leased lines and private circuits
- Connection to rural mobile cell sites
- Providing POTS services from a central office switch or via PABX

The unit offers a simple front panel control and set-up system to allow operation with the minimum of additional equipment. Also, a network management port is 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.

Typical project applications

- Cell site backhaul for mobile networks, e.g. TETRA, GSM
- 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.



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About Westica

Westica provides robust and cost effective radio communications solutions for difficult terrains over distances between 250m to 60km, using digital point-to-point, wireless networks.

Currently focused on providing solutions at 1.4GHz which enables rapid deployment using simple antennas in adverse environments; Westica's solutions allow clients to quickly adopt affordable and reliable communications solutions that would otherwise be cost prohibitive due to terrain related infrastructure issues. Delivering innovative solutions that work in situations that would otherwise require expensive infrastructure investment, Westica enables clients to quickly achieve new revenue streams in situations that would be otherwise difficult to justify the capital investment.

For more information

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Product Family

The Westica MRR800 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 Westica's MRM1000 and 2000 Access Multiplexers, 2Mbit/s Protection Switch, Video Codecs and nx2Mbit/s Cross Connect Switch. Contact Westica for more information and application guides.

Specifications

Frequency Range		TX Lo 1350 - 1375MHz TX Hi 1492-1517MHz
		TX Lo 1375 - 1400MHz TX Hi 1427-1452MHz
Channel Spacing		Various according to frequency plan
Occupied Bandwidth		75 to 500kHz dependent upon data rate
Frequency Plans		CEPT T/R 13-01 Annex A and B
Receiver	Receiver Sensitivity BER 10-6	From -104dBm to -95dBm dependent upon rate
Transmitter	O/P Power	+24dBm
Power Control		From -6dBm to +24dBm 1dB steps
Mechanical	Enclosure	1U ventilated enclosure
	Rack Practice	19" and ETSI rack – alternatives available
	Depth	245mm
	Weight	<5kg
	Interfaces	G703/G704 fractional rate, X.21
Connectors	G703 Data Port	75ohm or 120ohm
	SNMP Network Management Ports	2off 9 way D-type
	RF Antenna Port	50Ω N-Type
Power Requirements	Power Supply	24V and 48V options
	Power Consumption	40W @ 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 LED status
Environmental	Operation	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

As an ongoing process of research and development, Westica Limited reserve the right to change the specifications outlined above without notice.