MDR 5800 SR

5.8 GHz
Spread Spectrum
Digital Radio Link

www.pulsewan.com

Minimize expenditure - Maximize return on network connectivity

Network providers wanting to minimize time and cost to market without compromising on Quality of Service need look no further than the license exempt MDR 5800 SR.

This carrier class, 1 to 4 x T1/E1 system provides performance and reliability comparable with licensed band radios but without the regulatory time and cost penalties.

Add to this the fact that it can be deployed and operational in one day, and it is easy to see how the MDR 5800 SR could be earning a Return On Investment (ROI) while other solutions remain on the drawing board.

Certified and field proven to US, Canadian and international standards, the MDR 5800 SR incorporates advanced proprietary technologies such as software driven configuration and capacity scalability, a spectrum analyzer and an advanced network management system.

So, if you're looking to minimize capital and operating expenditure while maximizing market reach and revenue, take a closer look at the MDR 5800 SR - and find out for yourself why leading Mobile and Access networks in more than 25 countries worldwide are tuned into Plessey BBW license exempt wireless solutions.

Feature Overview

The MDR5800 SR offers full duplex, point-to-point T1/E1 and 10BaseT Ethernet wireless connectivity in the license exempt 5.8 GHz band. Software-driven scalability allows capacity (voice/data) to be configured as 1, 2 or 4 x T1/E1 with no physical intervention or new hardware. An SNMP compliant NMS with an easy to operate Graphical User Interface is standard, while split configuration (indoor/outdoor units) affords greater transmission range and significant installation cost savings.

Key Features	Core Benefits
Software driven 1 to 2 or 4 x T1/E1 scalability and frequency selection (point and click to change channels)	Unique on-demand capacity scalability (field upgrade), no hardware or physical intervention required
Embedded SNMP with optimized Graphical User Interface	Easy, efficient, accessible Network Management
Onboard Spectrum Analyzer	Effective interference detection
Split configuration indoor/outdoor unit	Optimized long range performance
License exempt	No license related costs and delays
Quick and easy installation and configuration (typically one day)	Swift network rollout capability, immediate usage and revenue generation
Low capital, installation and operating cost	Rapid ROI versus fixed line or licensed solutions
'Five Nines' carrier class reliability	Near zero downtime, outstanding availability
Voice (T1 or E1) and Bridged Ethernet	One platform, multiple uses
Internationally field proven	Peace of mind from worldwide track record

Minimize capital and operating costs while maximizing market reach and revenue.

Key Applications

- Cellular/PCS backhaul
- Wireline replacement
- High speed LAN/WAN/Internet connection
- Corporate, civil utilities/services and campus networks
- Service provider network extension
- Rural telecom infrastructure
- Redundant link and disaster recovery

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MDR 5800 SR

Technical Data

Features

- Fully Scalable between voice AND data
- Direct Sequence Spread Spectrum technology
- Scalable between 10BaseT Ethernet, 9.5 Mb/s aggregate and up to 4 T1 or E1 tributaries
- Transparent Ethernet bridging (learning - “store and forward”)
- Available with 1-to-4 T1 and 1-to-4 E1 data interfaces
- G.826 compliant-based error reporting for RF Link and Line-interface data
- Low cost IU to OU interconnect cables (Cat5 & 2 cond. DC power)
- Multiple software-selectable frequency channel plans
- Management Software provided allows control/management
- SNMP support for open network management (Enterprise and MIB-II)

General Characteristics

Frequency Range:	5725 to 5850 MHz
Data Capacity:	Scalable between 10BaseT Ethernet, 9.5 Mb/s aggregate and up to 4 T1 or E1 tributaries
RF Channel Bandwidth:	18 MHz
Modulation Method:	CCK
Processing:	Direct Sequence Spread Spectrum
Frequency Plan A:	5735 and 5840 MHz
Frequency Plan B:	5753 and 5822 MHz
Frequency Plan C:	5771 and 5804 MHz
Frequency Plan D: (for interference avoidance)	Low and High Band frequencies independently adjustable
Transmission Delay:	0.6 ms maximum for radio only
Compliance:	FCC Part 15.247 Canada: IC RSS 139 ISS 5

Transceiver Characteristics

Power Output:	Software adjustable +24 dBm maximum
Receiver Sensitivity:	-88 dBm for BER=1x10^{-6} (Typical)
Maximum Receive Level:	-30 dBm

www.pulsewan.com
sales@pulsewan.com
Toll Free: 888-785-7393
International: 1-909-699-3891

Data Interfaces

nT1/nE1:	
· Data Rate	1-to-4 T1 or 1-to-4 E1 Software-selectable
· Digital Interface	ITU-T G.703, CEPT-1, DSX-1
· Connectors	25-Way D (Balanced) or BNCs (Unbalanced)
· Line Code	B8ZS (T1), HDB3 (E1) or AMI (nE1, nT1) selectable
10BaseT Interface:	
· Compliance	IEEE 802.3
· Connector	RJ-45

IU Control Panel

Front Panel LED’s:	System, Payload and RF Link summary LED’s
Auxiliary User I/O:	2 In (Contact closure), 2 out (Relays)
Wayside Service Channel:	RS-232; 115.2 Kb/s maximum
Element Manager	RS-232; 115.2 Kb/s fixed

Power Supply and Environment

Power:	
· DC Power	21 to 56 VDC
· Power Consumption	35 W Max
· AC Power Supply (Optional)	110V-240V (External PSU)
Temperature:	
· OU Temperature	Operation: -30°C to +60°C
· IU Temperature	Operation: 0°C to +50°C
Size:	
· Outdoor Unit	335 x 232 x 125mm, 6.0 kg
· Indoor Unit	1U 19 housing, Table top or Rack mounting, 3.5 kg
Lightning Protection:	
· Integral Protection	IU and OU

Consideration should be given to customer provided surge protection at N female ODU connector from coax cable or jumper to antenna.

Ordering Information

Model Number:	MDR 5800 SR
Description:	Fully Scalable Radio between 1-to-4 T1 or 1-to-4 E1 and 9.5 Mb/s Ethernet

Included with an MDR 5800 SR radio:

- 1 x Outdoor Unit
- 1 x Indoor Unit
- Manual
- RSSI Cable
- Pole mounting kit
- NMS Software for system configuration and management

To ascertain correct order numbers, please visit www.plesseybbw.com/download.htm

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