

DRM3 DOCSIS® 3.0 and EuroDOCSIS Temperature Hardened Cable Modem



Description

The DRM3 series Rugged Cable Modem is DOCSIS® 3.0 and EuroDOCSIS™ 3.0 compliant and specially designed for installations where temperatures can be extreme, uncontrolled, and typical of the outside plant in an HFC cable network. This cable modem is designed to withstand electrical over-voltages and surges commonly experienced in HFC network outside plant. All Electroline DRM products have been designed to pass stringent surge tests specified by the Institute of Electrical and Electronics Engineers.



Application

The DRM provides data communication from an Ethernet network for any devices requiring interactive or backhaul communications. The backhaul is provided by the cable modem over an HFC access network. Common applications for this device may be video surveillance, traffic surveillance, remote telemetry, traffic light control, cell site backhaul, and Wi-Fi AP backhaul, etc.

There are many applications requiring data communication from sites where the environment would cause a consumer-grade cable modem to fail or perform poorly. An Electroline DRM can be used in these applications to generate incremental revenue and provide service that would otherwise go unrealized or be provided by a competing communications provider. The uncertainty of possible interference with other services is a risk for the cable operator if a consumer-grade cable modem is used. The Electroline DRM Series is tested in extreme environments and is a "good neighbor" to all the services that are carried by HFC networks.

Features

- Designed for DOCSIS® & EURODOCSIS™ specifications
- Eight (8) bonded downstream channels with data rates in excess of 340 Mbps.
- Four (4) bonded upstream channels with data rates in excess of 120 Mbps.
- Support for BSOD, L2VPN and extended power option
- Enhanced packet processing technology
- Network monitoring with integrated Spectrum Analyzer application
- Wall adapter powered(12 volt DC output)
- 10/100/1000 BASE-T auto sensing / auto-MDIX Ethernet port
- Temperature Hardened
- LED status indicators
- Operating Temperature Range -40 to +70°C

	DOCSIS®	EURODOCSIS™
RF DOWNSTREAM		
DOCSIS Channel Frequency Range (center)	111 to 999 MHz	112 to 1002MHz
Downstream Frequency Range (edge to edge)	54 to 1002 MHz, 85 to 1002 MHz, 108 to 1002 MHz	85 to 1006 MHz, 108 to 1006MHz
Tuner	Full band capture front end with 8 fully independent digital tuners	
Demodulation	8 demodulators, 64 QAM or 256 QAM	
Maximum (raw) Data Rate	8 downstream channels, each 6 MHz channel: 42.88 Mbps for 256 QAM and 30.34 Mbps for 64 QAM	8 downstream channels, each 8 MHz channel: 55.62 Mbps for 256 QAM and 41.71 Mbps for 64 QAM
Bandwidth per Channel	6MHz	8MHz
Operating Level Range	-15 to +15dBmV	+43 to +73 dBµV for 64 QAM +47 to +77 dBµV for 256 QAM
Input Impedance	75 ohms	
RF UPSTREAM		
Operating Frequency Range (edge to edge)	5 to 42 MHz, 5 to 65 MHz, or 5 to 85 MHz	5 to 65 MHz or 5 to 85 MHz
Upstream Transmission	4 upstream channels	
Modulation	QPSK, 8 QAM, 16 QAM, 32 QAM, 64 QAM at ATDMA Mode QPSK, 8 QAM, 16 QAM, 32 QAM, 64 QAM, 128 QAM at SCDMA mode	QPSK, 8 QAM, 16 QAM, 32 QAM, 64 QAM / ATDMA Mode QPSK, 8 QAM, 16 QAM, 32 QAM, 64 QAM, 128 QAM at SCDMA mode
Maximum (raw) Data Rate per channel	Channel width (MHz) - Raw Data Rate (Mb/s)	Channel width (MHz) - Raw Data Rate (Mb/s)
Modulation		
	QPSK 1.6 2.56	1.6 2.56
	16 QAM 1.6 5.12	1.6 5.12
	QPSK 3.2 5.12	3.2 5.12
	16 QAM 3.2 10.24	3.2 10.24
	32 QAM 3.2 12.8	3.2 12.8
	8 QAM 6.4 15.4	6.4 15.4
	16 QAM 6.4 20.5	6.4 20.5
	32 QAM 6.4 25.6	6.4 25.6
	64 QAM 6.4 30.72	6.4 30.72
ELECTRICAL		
Input Voltage	Wall plug adaptor, Input = 100 to 240 volts Ac, 50/60 Hz, 12 volt DC input to modem without wall adaptor.	
Power Consumption (modem module)	<7 Watts	
Surge Protection (F connector) Ring Wave Combination wave	IEEE C62.41-1991, cat A3 6KV 200A IEEE C62.41-1991, cat B3 6KV 3KA	IEC 61000-4-12, Level 4 (4KV/133A) IEC 61000-4-5, Level 4 (4KV/2KA)
Data Ports	Ethernet 10/100/1000BASE-T (Auto-sensing with Auto-MDIX) RJ-45 Ethernet (1)	
RF Connector	Female "F" type	
MECHANICAL		
Dimension (W x D x H)	Not including "F" connector: 6.84"x6.13"x1.30" (17.4cmx15.6cmx3.3cm)	
Weight	1.33 lbs (0.60 Kg)	
Operating Temperature	-40° to 158°F (-40° to 70°C)	
Operating Humidity	0 to 90% RH non-condensing	
DOCSIS / EuroDOCSIS compatibility	3.0, 2.0, 1.1, 1.0	
Regulatory and Safety Approvals	FCC Part 15 / EN55022 Class A, ROHS directive 2002/95/EC, cULus/TUV/GS/CE (wall adapter)	

Note: Specifications are subject to change without prior notification.

For more information on our products, please visit: www.electroline.com or call: 800-461-3344