

Power

AlphaNet™ DSM2

DOCSIS® Status Monitor



XP-DSM2

- Embedded network management for the Alpha XM2, XM2VP, GMX and VMX Series power supplies.
- Cable modem network data available on power supply display.
- Data accessible from the Cable Modem IP (single-IP mode) or on a separate IP subnet (dual-IP mode).
- Quick access to power supply, battery and generator status from the embedded WEB and SNMP interfaces.
- DOCSIS, EuroDOCSIS and ANSI/SCTE SNMP MIB support.

The AlphaNet family of networking products now includes the next generation of DOCSIS Status Monitor (DSM2) for power supplies. Network enable your power supply and access powerful diagnostic tools using the DSM2 embedded WEB interface and standard SNMP. Poll power supply, battery and generator data in real-time and receive alerts when power system alarms indicate noteworthy events. The DSM2 is completely configurable from the standard cable modem configuration file and can be provisioned using default cable modem settings. Customize your monitored information with configurable CM settings that are used to set alarm thresholds and power supply operating parameters.



AlphaNet DSM2

Technical Specifications

Power Supply Monitored Parameters

Major Alarm:	Aggregate alarm consisting of: test fail, battery fail, line isolation alarm, output overload, inverter over temperature, N+1 active, fuse fail
Minor Alarm:	Aggregate alarm consisting of: temperature probe error, AC line loss, N+1 error
Input Line Voltage:	90-270Vac 50/60Hz measured value
Output Voltage:	60/75/90Vac measured value
Output Current 1:	0 to 25A measured value
Output Current 2,3,4:	0 to 25A measured value (if optional ports installed)
Output Power:	Calculated, reported in AC Watts
UPS Status:	AC line, Standby, Test in-process, Test Alarm
Enclosure Door:	Open/Closed
Battery Voltage:	6V or 12V batteries, up to 16 batteries Individual battery voltages measured reported to ±100mV resolution
Battery Temperature:	Measured, reported in Celsius
Remote Test Control:	Start/Stop XM2 self test cycle

Generator Parameters

Status	Engine off, running, alarm
Generator Alarm	Aggregate alarm consisting of: low oil pressure, engine over-temp, engine over-speed, crank limit, over voltage, low fuel, water intrusion, pad shear, gas hazard, test fail
Gas Hazard	OK, Alarm
Water Intrusion	OK, Alarm
Pad Shear	OK, Alarm
Enclosure Door	Open, Closed
Ignition Battery Voltage	10.2 – 15.5Vdc, 100mV resolution
Enclosure Temperature	-40 to 100° C (-40 to 212° F)
Low Fuel	OK, Alarm
Remote Test	Start and Stop control input

DOCSIS Network

Compliance	DOCSIS 2.0 (EuroDOCSIS 2.0)
Upstream Frequency Range	5 to 42 MHz (5 to 65 MHz EuroDOCSIS)
Downstream Center Frequency Range	91 to 857 MHz (108 to 862 MHz EuroDOCSIS)
Channel Bandwidth	6 MHz (8 MHz EuroDOCSIS)
Receive Power Level	-15 to 15 dBmV
Transmit Power Level	8 to 58 dBmV

Management

Standard Network Protocols
IP, TFTP, DHCP, UDP, HTTP, SNMPv1, v2c
Web interface provides access to common cable modem and power system data with secure access to configurable parameters.

SNMP MIBs	ANSI/SCTE 38-4 2006 HFC Outside Plant Power Supply Status Monitoring MIB ANSI/SCTE 38-6 2006 HFC Outside Plant Generator Monitoring MIB ANSI/SCTE 38-2 2005 HFC Outside Plant Alarms MIB ANSI/SCTE 38-1 2004 HFC Outside Plant Property MIB ANSI/SCTE 38-3 2002 HFC Outside Plant Common MIB ANSI/SCTE 37 2003 HFC Outside plant HMS Roots MIB ANSI/SCTE 36 2002 SCTE Root MIB Alpha Proprietary Broadband Management MIB
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Alpha Approved 3rd Party Management Systems

CheetahXD - Tollgrade Communications
Continuity - Seldon Systems
iGlass - iGlass
Net Informer - Cableware
Netcool - IBM
Omni & BOSS - AM Networks
Power Sense - Auspice
ROSA - Scientific Atlanta
Spectrum - Computer Associates
(Other SNMP compatible management systems integrating HMS MIBs)

User Interface

Power Supply Front Panel Display ¹	Additional parameters shown on XM2 display with DSM2 installed: • Individual battery cell voltage • Cable modem MAC address (plus CPE MAC address in dual-IP mode) • Cable modem IP address (plus CPE IP address in dual-IP mode) • Cable modem receive power level • Cable modem transmit power level • Cable modem & DSM2 firmware version
LED Indicators	Alarm, Ready, Comm, Link, Downstream, Register
Craft Port ²	RS-232 local access to power supply, battery, generator and network parameters. Detailed status and diagnostic information. Full configuration access

Communication Parameters: 19,200 baud, no parity, 8 data bits, 1 stop bit
¹Requires XM2 firmware version 7.1x or greater.
²Requires optional RS-232 interface cable.

Hardware / Environmental Specifications

Power Supplies Supported	Alpha XM2, XM2VP, GMX, VMX Series
RF interface	Female F-connector, 75 Ohm
Tamper	2-pin connector
Battery inputs A/B	Battery strings A and B, 36V or 48V, 8 pin, female, keyed mate and lock Combination A+B configurable for 6V batteries using 6 x 6V = 36V string
Battery inputs C/D	Battery strings C and D, 36V or 48V, 8 pin, female, keyed mate and lock
Multiple XM2 and Generator interface	RJ-12 Offset connector supports RS-485 multi-drop interface for up to 5 XM2 power supplies and an AlphaGen generator. SI interface card required for additional XM2 modules. ECM interface required for AlphaGen.
Operating Temperature	-40 to 65° C (-40 to 149° F)
Storage Temperature	-40 to 85° C (-40 to 185° F)
Humidity	10 to 90% non-condensing
Emissions	EN50022 Class A; FCC Part 15, Class A (installed in power supply system)

Warranty

Two (2) years when installed with approved grounded surge arrester.
Support

For Technical manuals, datasheets, FAQ and other documentation please visit:
http://www.alpha.com/92_254_3622_305/Cable-Broadband/Outside-Plant-Power/Status-Monitoring.aspx
or contact technical support.
Phone: 1-800-863-3364
email: TechnicalSupport@alpha.com

Ordering Information - DSM2 Models

Model Number	Description
XP-DSM2	DSM2 for XM2 Series Power Supplies
XP-DSM2-VP	DSM2 for XM2 VP Series Power Supplies
XP-DSM2-ED	EuroDOCSIS DSM2 for XM2 Series Power Supplies
XP-DSM2-ED-VP	EuroDOCSIS DSM2 for XM2 VP Series Power Supplies
GMX-DSM2	DSM2 for GMX Series Power Supplies
GMX-DSM2-ED	EuroDOCSIS DSM2 for GMX Series Power Supplies
VMX-DSM2	DSM2 for VMX Series Power Supplies
VMX-DSM2-ED	EuroDOCSIS DSM2 for VMX Series Power Supplies
XP-DSM2-CW	DSM2 for XM2 Series with Cableware interface
GMX-DSM2-CW	DSM2 for GMX Series with Cableware interface

Ordering Information - Cables and Accessories

Model Number	Description
XP-BSC-3-6	Wire Kit, Battery Sense, 1x36V, 6'
XP-BSC-3-9	Wire Kit, Battery Sense, 1x36V, 9'
XP-BSC-6-6	Wire Kit, Battery Sense, 2x36V, 6'
XP-BSC-6-9	Wire Kit, Battery Sense, 2x36V, 9'
XP-BSC-4-9	Wire Kit, Battery Sense, 1x48V, 9'
XP-BSC-8-9	Wire Kit, Battery Sense, 2x48V, 9'
DOC-ADPTR-DSM/ESM	Craft Cable Adapter DSM/ESM to RS-232
SRG-GND-BLK	Surge Protector, 75 Ohm Coax, FF with Ground Block
XMS2-SI-Upgrade	XM2 SI Card Upgrade Kit

DSM2 is compatible with AlphaGuard Charge Management System. Contact Alpha for details.

For contact information visit www.alpha.com

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