

# Remote RMM-1400, RMB-1B, RMB-2, and RMB-3

## General Description

The Remote RMM-1400 is a monitoring and control device that provides IP management to sites and equipment. The RMM-1400 enables site alarm monitoring, protocol conversion, and equipment connectivity and acts as an intelligent extension of your Operations Support Systems (OSS). It is designed to enhance your network management strategy, reduce operational costs, and improve operational efficiency with reduced truck rolls.

The Remote RMM-1400 is a cost-effective site management solution for small sites or locations where a limited number of systems require integration. It provides four serial and four Ethernet ports and supports the Remote RMB-1B, Remote RMB-2, and Remote RMB-3 to provide more than 80 I/O ports. The RMM-1400 includes Ethernet connectivity and is orderable with integrated LTE wireless for data network connectivity. The RMB-1B and RMB-2 (powered via Ethernet) and RMB-3 (powered by +/- 20-60VDC) connect to the RMM-1400 via Ethernet to provide alarm, sensor, and control interfaces for site management. RMB-3 adds surge protection to 16 of its dry contact inputs.

An integral part of the Westell intelligent site management solution, the Remote RMM-1400 resides at your network's locations and connects to each element via a wide variety of interface options. The RMM-1400 performs protocol mediation and interface conversion, collects alarms and monitoring data, and supports bi-directional management control with the Westell Optima Management System via Ethernet or wireless communication options. Together, the Remote RMM-1400 and Optima provide detailed monitoring, remote control, and management for virtually all site devices.



Remote RMM-1400



Remote RMB-1B



Remote RMB-2



Remote RMB-3

The Remote RMM-1400 provides IP network connectivity for site management and alarm monitoring for small sites and focused applications. RMM-1400 highlights include:

- Capacity to support targeted applications at small sites
- Ethernet and wireless connectivity options
- PoE for site security and other applications
- Advanced equipment management and protocol conversion
- Alarm aggregation for reduced network management complexity

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## Application Examples

### Generator and Fuel Management

Monitoring power sources at remote sites is important to ensure a site's availability 24 hours per day, 7 days a week. Service providers and tower operators often utilize generators as a backup power source to maintain site availability when the primary source of power fails.

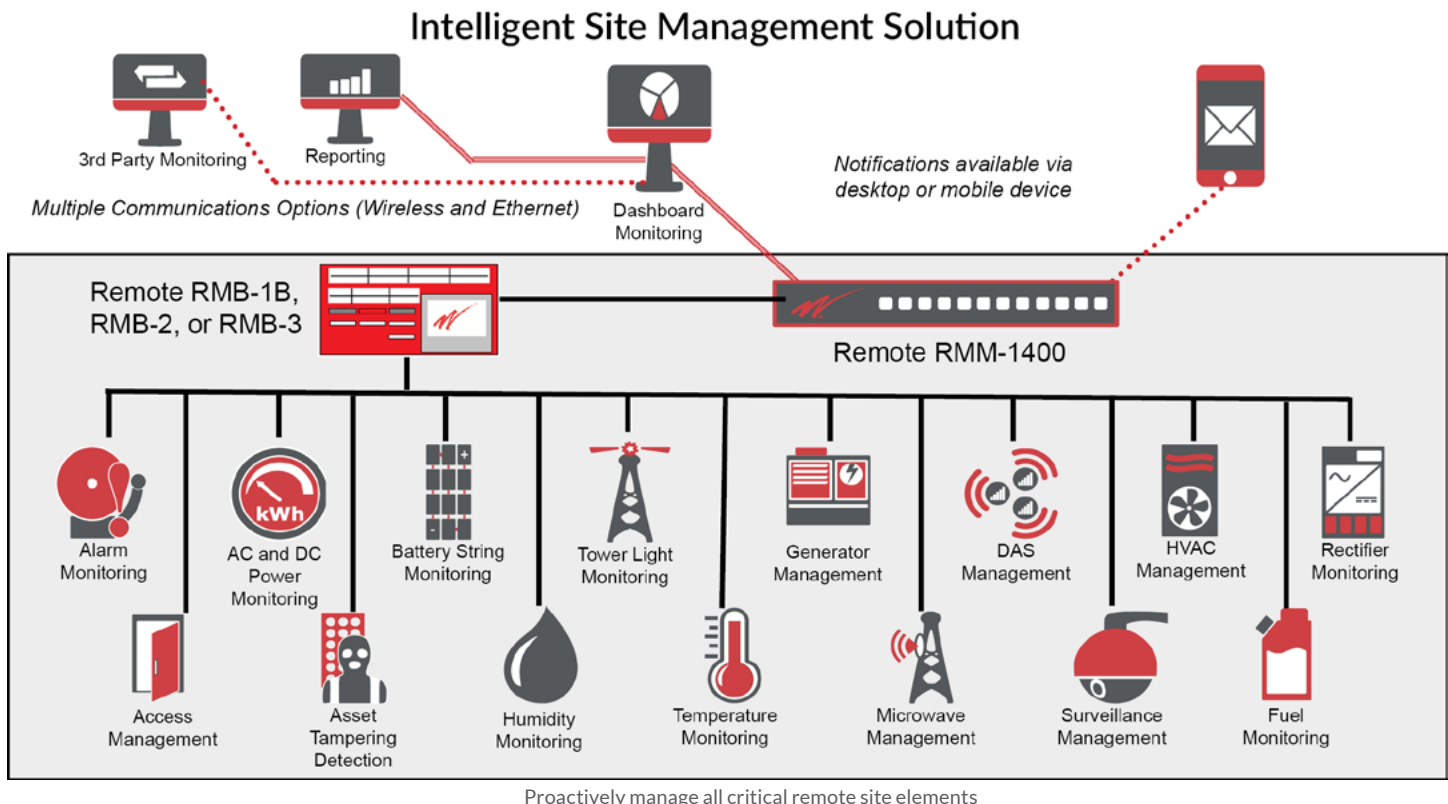
The Remote RMM-1400 can continually monitor a generator's status and its fuel levels. This helps to determine which sites need to be refueled first prior to an outage occurring. This is especially important in emergency situations when the generator is running to understand the amount of runtime remaining. Additionally, the RMM-1400 will generate an alarm to the service provider or tower operator of degraded generator efficiency or potential fuel theft.

### Access and Surveillance Management

Network operations organizations manage thousands of unstaffed sites, and security of these sites has become extremely important to protect site equipment and ensure personnel safety.

The Remote RMM-1400 can be utilized to understand who is entering a site. For example, when a site is accessed (authorized or unauthorized) or motion is detected, an alarm is generated which identifies the specific area accessed (fence, gate, shelter, or door). Video surveillance also is available.

A service provider or tower operator also can review site access logs to determine who visited a site and for how long. This is important when work is completed by outside contractors. Video footage and/or camera images can be reviewed to help determine what work was completed during the visit to validate contractor service claims.



# Remote RMM-1400, RMB-1B, RMB-2, and RMB-3



## Ordering information

Remote RMM-1400	Remote RMM-1400 system
Remote RMM-1444	RMM-1400 with 4G LTE for international WAN
Remote RMM-1447	RMM-1400 with 4G LTE for Americas/EMEA
Remote RMB-1B	RMB-1B alarm collector
Remote RMB-2	RMB-2 rack mounted alarm collector
Remote RMB-3	RMB-3 rack-mounted alarm collector
Remote RMM-1400-A	RMM-1400 with included RMB-1B alarm collector

## RMM-1400 supported protocols

DHCP (server, client, relay) / DNS / NTP v4
FTP / HTTP / HTTPS / SSHv2 / SFTP / Telnet
Internet Protocol version 4 (IPv4) and version 6 (IPv6) / NAT64
IPSec / OpenVPN
Serial protocols: RS232 (two ports), RS485/RS422 (two ports) / TBOS
SNMP (v1, v2c, v3)
TACACS+ AAA / RADIUS

## RMM-1400 management and management access

Command Line Interface (CLI)
Web-based user interface administration
Console port local access via Ethernet
Wizard configuration support
Optima Management System support
Web API

## Environmental

Extended temperature range of -40°C to +65°C (-40°F to 149°F)
Humidity – 0% to 95% (non-condensing)

## Reliability/maintenance

MTBF - 200,000 hours @ 25°C	MTTR - 30 minutes
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## Compliance

CB Scheme, CE Mark, EN 60950, FCC, GR-3108, NEBS Level III, NRTL 60950-1
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## Remote RMM-1400 physical specifications

Depth:	8.6 in. (21.8 cm)
Height:	1.6 in. (4.1 cm)
Width:	11.8 in. (30 cm)
Weight:	3.35 lbs. (1.5 kg)
Mounting:	19 or 23 inch racks (1RU) or wall mount
Power requirements:	Dual input (A/B feed) +/- 20-60 VDC; 40W (max)

## Remote RMB-1B physical specifications

Depth:	1.25 in. (3.2 cm)
Height:	4.8 in. (12.2 cm)
Width:	11 in. (27.9 cm)
Weight:	1.85 lbs. (0.8 kg)
Mounting:	Wall mount hardware included. Available in 19 or 23 inch rack mounting options
Power requirements:	802.3af Power over Ethernet (PoE) Class 4

## Remote RMB-2 physical specifications

Depth:	1.75 in. (4.45 cm)
Height:	3.5 in (8.89 cm)
Width:	17.5 in. (44.45 cm)
Weight:	4 lbs (1.8 kg)
Mounting:	Rack mount hardware included. Supports 19, 21, or 23 inch EIA and ETSI racks
Power requirements:	802.3af Power over Ethernet (PoE) Class 4

## Remote RMB-3 physical specifications

Depth:	3.9 in. (9.75 cm)
Height:	1.67 in (4.175 cm)
Width:	16.952 in. (42.38 cm)
Weight:	2.3 lbs (1.04 kg); with 4 modules 3.3 lbs. (1.5 kg)
Mounting:	19 or 23 inch rack options (1RU)
Power requirements:	+/- 20-60 VDC; ~.35A @ 24V; ~.175A @ 48V 8.3W max while providing 100ma @ 24VDC and 50ma @ 5VDC

## Remote suite of products overview

Product	Async Ports	Ethernet Ports	Discrete Ports	Control Outputs	0-10 VDC Inputs	4-20 mA Inputs	Input Power
Remote RMM-1400	4	4 (2 PoE)	Yes <sup>D</sup>	Yes <sup>D</sup>	Yes <sup>D</sup>	Yes <sup>D</sup>	+/- 20-60 VDC
Remote RMB-1B <sup>A</sup>	--	1B	64	4	4	4	PoE Class 4
Remote RMB-2 <sup>A</sup>	--	1 <sup>B</sup>	64 <sup>C</sup>	4	4	4	PoE Class 4
Remote RMB-3 <sup>A</sup>	--	2 <sup>B</sup>	24	2	1	1	+/- 20-60 VDC

A - Requires a Remote RMM-1400 B - Connection to Remote RMM-1400 C - Supports wet or dry contact inputs and input voltages of 4-72 VDC with positive or negative grounding D - Requires the use of a RMB-1B, RMB-2, or RMB-3 E - Supports multiple sbTemp or sbTempHumidity sensors

