

# INTREPID™ SYSTEM CONTROLLERS

FLEXIBLE, BROAD-RANGING LOCAL AND REMOTE PERIMETER CONTROL OPTIONS



Universal INTREPID™ System Controllers provide extensive perimeter security management options, enabling the development of an alarm monitoring and control program to suit each facility's unique requirements. INTREPID™ System Controllers offer scalable, plug-and-play solutions to suit sites of any size or configuration, with features ranging from local or remote relay control to centralized, TCP/IP-based management of large or multi-site applications. Network-based control options support remote device configuration and monitoring capabilities for networked applications.

INTREPID™ System Controllers conveniently and reliably manage all INTREPID™ Series II perimeter detection systems - MicroPoint™ II and MicroNet™ II Fence Detection Systems, MicroTrack™ II Buried Cable Detection System and MicroWave 330 Digital Microwave Link. Control modules also incorporate and operate contact-closure auxiliary security devices and interface with assessment equipment (CCTV/DVR) or other system outputs.

INTREPID™ System Controllers facilitate the assignment of alarm inputs to specific perimeter segments - or zones - of desired lengths. For added flexibility, multiple sensor technologies can be assigned to a single zone. Zones may be associated with specific outputs - such as camera presets - so that when a perimeter breach is detected, precise visual assessment is achieved.

INTREPID controllers seamlessly integrate all Series II devices via a common, open architecture communications protocol using standard RS422 serial data interface. Communication connections may be made via copper wire, fiber optic cable or TCP/IP (CM II-N, PSM II, IPP II, RPM II).

Two SDK options are available to developers for high-level interface of INTREPID™ Series II sensors into custom monitoring and control applications: INTREPID™ Polling Protocol II (IPP II) and Remote Polling Module II (RPM II).



Relay Control Module II (RCM II)  
Control Module II-N (CM II-N)  
Remote Polling Module II (RPM II)



Graphic Control Module II-HD (GCM II-HD)



Perimeter Security Manager II (PSM II)



INTREPID™ Polling Protocol II (IPP II) - SDK  
Remote Polling Module II (RPM II) - SDK

## GRAPHIC CONTROL MODULE II-HD (GCM II-HD)

The INTREPID™ Graphic Control Module II-HD (GCM II-HD) is a dedicated, Linux-based graphic system controller designed to provide large or multi-site facilities with local GUI-based alarm monitoring and control of INTREPID™ Series II devices, contact-closure auxiliary security devices and CCTV equipment. The GCM II-HD is supplied as a self-contained module, including system hardware and application software with graphic mapping capabilities for robust system configuration and management.

The GCM II-HD features a user-friendly GUI that allows system operators to efficiently manage their facility's perimeter security program by incorporating a high-resolution site map to display detection zones and active icons representing each system device.

The GCM II-HD functions as system Pollmaster - polling all INTREPID™ devices connected to its Communications port for status. When an intrusion attempt is detected from any INTREPID™ device or auxiliary input, its precise location is displayed on the graphic map and a command is issued to the appropriate output(s).

### KEY FEATURES

- INTUITIVE, ICON-BASED GUI
- USER-FRIENDLY OPERATOR CONTROLS
- GUIDED NAVIGATION
- LOCAL OR REMOTE ADMINISTRATION
- 256 USER ACCOUNTS, 1024 ZONE RECORDS
- CONNECTS UP TO 32 DEVICES
- ALARM TAGGING AND REPORTS
- SUPPORTS MULTIPLE LANGUAGES
- ASCII OUTPUT FOR HIGH LEVEL CCTV INTERFACE
- FULLY HARDENED DESIGN

## REMOTE POLLING MODULE II (RPM II)

The Remote Polling Module II (RPM II) is an INTREPID™ System Controller designed to provide network-based large or multi-site facilities with simplified high-level integration (via SDK) between a third-party control or monitoring systems and INTREPID™ Series II sensors and auxiliary devices.

The RPM II is a self-contained hardware module with accompanying Software Development Kit (SDK) that eliminates the need for direct polling of each INTREPID™ device by the third-party head-end system, reducing time, cost and complexity associated with interface development. The RPM II serves as Pollmaster - polling all INTREPID™ Series II sensors and auxiliary devices connected to its communications port for status, and communicating this information to the third-party control or monitoring system via TCP/IP network connection.

### KEY FEATURES

- PROVIDES INTERFACE VIA SDK TO INTREPID™ SERIES II SYSTEMS
- NETWORK-BASED ALARM REPORTING
- LOCAL OR REMOTE ADMINISTRATION
- SINGLE OR MULTI-SITE MONITORING\*
- CONNECTS UP TO 16 DEVICES
- INTUITIVE SETUP SOFTWARE
- FULLY HARDENED DESIGN
- SECONDARY RELAY OUTPUT INTERFACE (128 ZONES)

\* For multi-site applications using the RPM II SDK, each site requires a unique RPM II System Controller.

## CONTROL MODULE II-N (CM II-N)

The CM II-N is a System Controller designed to provide midsized facilities with robust local or remote control of INTREPID™ Series II sensors, contact-closure auxiliary security devices and CCTV monitoring equipment. It is supplied as a self-contained, fully-hardened module and features intuitive, software-based system configuration, zone assignment and management. The CM II-N supports TCP/IP network connection to enable remote configuration and maintenance of Series II sensors.

The CM II-N functions as system Pollmaster - polling all INTREPID™ devices connected to its Communications port for status. When an intrusion attempt is detected from any INTREPID™ device or auxiliary input, a command is issued to the appropriate local relay output(s). The CM II-N also supports remote alarm monitoring via TCP/IP network connection using ROM II-16-N relay output modules.

### KEY FEATURES

- INTUITIVE SETUP SOFTWARE
- GUIDED NAVIGATION
- 8 ON-BOARD RELAYS
- CONNECTS UP TO 16 LOCAL DEVICES
- CONNECTS UP TO 4 REMOTE RELAY MODULES
- LOCAL OR REMOTE ADMINISTRATION
- LOCAL OR REMOTE ALARM MONITORING
- FULLY HARDENED DESIGN
- SUPPORTS MULTIPLE LANGUAGES

## RELAY CONTROL MODULE II (RCM II)

The Relay Control Module II (RCM II) is a fully-hardened INTREPID™ System Controller designed to provide smaller facilities with cost-effective local control of INTREPID™ Series II devices, contact-closure auxiliary security devices and CCTV equipment. The RCM II functions as system Pollmaster - polling all connected INTREPID™ Series II devices connected to its Communications port for status. When an intrusion attempt is detected from any INTREPID™ device or auxiliary input, a command is issued to the appropriate relay output(s).

### KEY FEATURES

- SIMPLE ZONE RECORD SETUP VIA TERMINAL EMULATOR
- 8 ON-BOARD RELAYS
- GUIDED NAVIGATION
- CONNECTS UP TO 8 DEVICES
- OPERATES FROM 10.5 TO 60 VDC
- FULLY HARDENED DESIGN

## PERIMETER SECURITY MANAGER II (PSM II)

Perimeter Security Manager II (PSM II) is an advanced, Windows®-based security monitoring and control software package designed to provide large or multi-site facilities with local or remote GUI-based alarm monitoring and control of INTREPID™ Series II sensors and contact-closure auxiliary security devices. PSM II also facilitates high level interface to CCTV equipment, incorporating live video and multi-layer graphic maps on a single display.

Refer to Southwest Microwave's Perimeter Security Manager II data sheet for complete system details and features.

## KEY FEATURES

- SINGLE OR MULTI-SITE MONITORING
- PLUG AND PLAY DEVICE INTEGRATION
- LIVE VIDEO, GRAPHIC MAPS ON ONE DISPLAY
- PATENTED **MIGRATING 3+** REDUNDANCY
- CUSTOMIZABLE SCREENS AND EVENT PROCESSES
- SCALABLE TCP/IP ARCHITECTURE

## INTREPID™ SOFTWARE DEVELOPMENT KITS (SDK)

Two Software Development Kits (SDK) are available for high-level integration between INTREPID™ Series II devices and custom monitoring and control applications. Depending on system design parameters, each provides a unique method for third-party systems to interface with INTREPID™ Series II sensors and auxiliary devices.

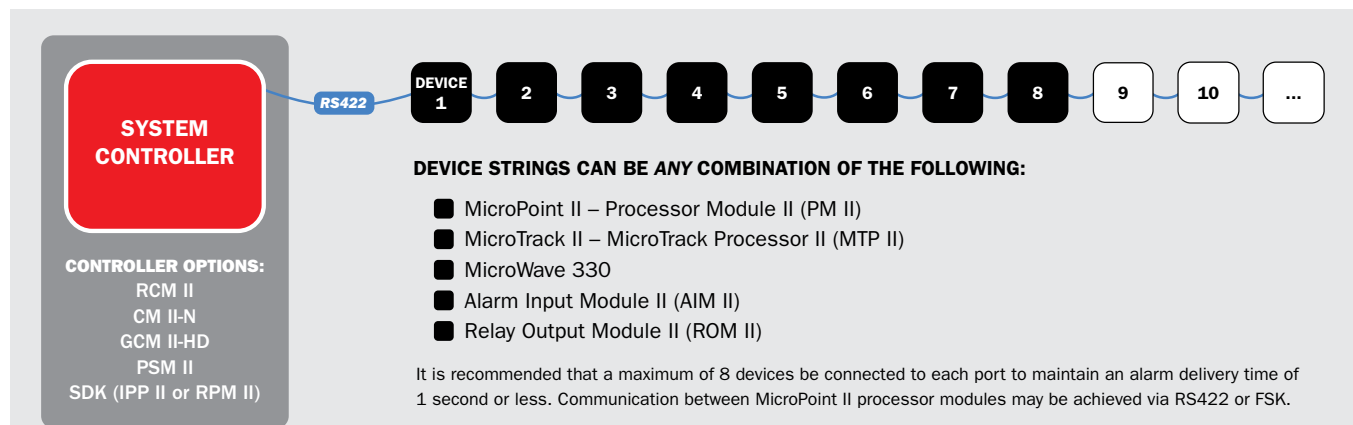
**INTREPID Polling Protocol II (IPP II) SDK:** With this application-layer protocol, specific to serial line communications, each INTREPID™ module is queried separately by the third-party control or monitoring application.

**Remote Polling Module II (RPM II) SDK:** With this application-layer protocol / hardware combination, specific to TCP/IP IPv4 socket communications, an RPM II System Controller is queried by the control or monitoring application. By eliminating the need for direct polling of each INTREPID™ device by the head-end system, the RPM II SDK reduces interface development time, cost and complexity. Requires an RPM II System Controller, which handles polling of individual INTREPID™ Series II sensors and auxiliary devices. Provides secondary relay output interface (128 zones).

Refer to Southwest Microwave's Software Development Kits (SDK) data sheet for complete details.

## SYSTEM CONTROLLER AND DEVICE CONFIGURATION

Each INTREPID™ System controller can communicate with any combination of INTREPID™ Series II devices via an open-architecture communications protocol using standard RS422 serial data interface.



CONTROLLER	COM PORTS	DEVICES	OUTPUTS	ZONES	TCP/IP / ETHERNET	SITES
<b>RCM II</b>	1	8	Relays	32	None	Single
<b>CM II-N</b>	2	16 Local 4 Remote*	Relays	256	Configuration/Maintenance, Alarm Reporting	Single
<b>GCM II-HD</b>	4	32	Graphic Map, Relays, ASCII for CCTV	1024	Maintenance, File Backup	Single
<b>PSM II</b>	99	240	Graphic Map, Relays, CCTV Drivers	Unlimited	Alarm Reporting	Multiple
<b>IPP II SDK</b>	Unlimited	Unlimited	High-Level Interface to Third-Party System	Unlimited	Alarm Reporting	Multiple
<b>RPM II SDK</b>	2	16	High-Level Interface to Third-Party System, Relays	Unlimited (HLI) 128 (Relays)	Configuration/Maintenance, Alarm Reporting	Multiple**

\* ROM II-16-N only.

\*\* RPM II System Controller required at each site.

# INTREPID™ SYSTEM CONTROLLERS SPECIFICATIONS

## GRAPHIC CONTROL MODULE II-HD (GCM II-HD)

**Operating Temperature:** -40° C to 70° C (-40° F to 158°F)  
**Size:** 10.8 H x 22.7 W x 26.1 D cm (4.3 x 8.9 x 10.3 in)  
**Weight:** 5.22 kg (11.5 lbs)  
**Input Power:** 100 to 240 VAC  
**Ports:** RS232 [2], RS422 [4], RJ45 [1], USB2 [2], USB3 [6]  
**Language(s):** English, Spanish, Chinese, Russian, Turkish, Korean

## REMOTE POLLING MODULE II (RPM II)

**Operating Temperature:** -40° C to 70° C (-40° F to 158°F)  
**Size:** 13.9 H x 33.7 W x 12.7 D cm (5.5 x 13.3 x 5 in)  
**Weight:** 1.36 kg (3 lbs)  
**Input Power:** 10.5 to 60 VDC  
**Current Draw:** 12 VDC: 195 mA, 24 VDC: 100 mA, 48 VDC: 65 mA  
**Ports:** RJ45 for network connection (1), USB-B (1), RS422 [2]  
**Language(s):** English

## CONTROL MODULE II-N (CM II-N)

**Operating Temperature:** -40° C to 70° C (-40° F to 158°F)  
**Size:** 13.9 H x 33.7 W x 12.7 D cm (5.5 x 13.3 x 5 in)  
**Weight:** 1.36 kg (3 lbs)  
**Input Power:** 10.5 to 60 VDC  
**Current Draw:** 12 VDC: 350 mA, 24 VDC: 185 mA, 48 VDC: 105 mA  
**Outputs:** 8 Alarm Relays SPDT (Form C), 2 amp @ 28 VDC  
**Ports:** RJ45 for network connection (1), USB-B (1), RS422 [2]  
**Language(s):** English, Spanish, Portuguese, Russian, Chinese, French, German

## RELAY CONTROL MODULE II (RCM II)

**Operating Temperature:** -40° C to 70° C (-40° F to 158° F)  
**Size:** 13.9 H x 33.7 W x 12.7 D cm (5.5 x 13.3 x 5 in)  
**Weight:** 1.36 kg (3 lbs)  
**Input Power:** 10.5 to 60 VDC  
**Current Draw:** 12 VDC: 220 mA, 24 VDC: 125 mA, 48 VDC: 70 mA  
**Outputs:** 8 Alarm Relays SPDT (Form C), 2 amp @ 28 VDC  
**Ports:** RS232 [1], RS422 [1]  
**Language(s):** English

## PERIMETER SECURITY MANAGER II (PSM II)

Refer to Perimeter Security Manager II data sheet for Specifications.

## SOFTWARE DEVELOPMENT KITS (SDK)

**INTREPID Polling Protocol II (IPP II):** Refer to Southwest Microwave Document #57A46504-A01 for Specifications.

**Remote Polling Module II (RPM II):** Refer to Southwest Microwave Document #57A46792-A01 for Specifications. Requires Remote Polling Module II (RPM II) System Controller.

## INTREPID™ INPUT / OUTPUT MODULES

The INTREPID™ Alarm Input Module II (AIM II) and Relay Output Module II (ROM II) provide simple interface to contact-closure controlled alarm inputs or relay outputs that do not communicate on the INTREPID™ IPP II communications protocol.

**Alarm Input Module II (AIM II):** Allows the incorporation of auxiliary devices – such as Southwest Microwave’s conventional sensors, gate and door contacts or other alarm contacts. Provides 8 supervised contact-closure inputs.\*

**Relay Output Module II-8 (ROM II-8) / II-16 (ROM II-16):** Provide simple local interface to CCTV equipment, legacy alarm panels, perimeter lighting or other relays. Provides 8 relay outputs (ROM II-8) or 16 relay outputs (ROM II-16).\*

**Relay Output Module II-16-N (ROM II-16-N):** A network-based output module that provides simple remote interface to CCTV equipment, legacy alarm panels, perimeter lighting or other relays over TCP/IP network. Requires use of CM II-N System Controller\*\*.

\* An INTREPID™ System Controller such as RCM II, CM II-N, GCM II-HD or PSM is required to configure the inputs / outputs of the AIM II / ROM II-8/16.

\*\* CM II-N System Controller is required to configure the outputs of the ROM II-16-N.

## ALARM INPUT MODULE II (AIM II)

**Size:** 13.9 H x 33.7 W x 12.7 D cm (5.5 x 13.3 x 5 in)  
**Weight:** 1.36 kg (3 lbs)  
**Operating Temperature:** -40° C to 70° C (-40° F to 158° F)  
**Input Power:** 10.5 to 60 VDC  
**Current Draw:** 12 VDC: 115 mA, 24 VDC: 65 mA, 48 VDC: 40 mA  
**Inputs:** 8 Dry Contact Inputs  
**Ports:** RS422 (2)  
**Language(s):** English

## RELAY OUTPUT MODULE II (ROM II-8/16/16-N)

**Size:** 13.9 H x 33.7 W x 12.7 D cm (5.5 x 13.3 x 5 in)  
**Weight:** 1.36 kg (3 lbs)  
**Operating Temperature:** -40° C to 70° C (-40° F to 158° F)  
**Input Power:** 10.5 to 60 VDC  
**Current Draw:**  
- ROM II-8: 12 VDC: 205 mA, 24 VDC: 115 mA, 48 VDC: 65 mA  
- ROM II-16: 12 VDC: 360 mA, 24 VDC: 190 mA, 48 VDC: 105 mA  
- ROM II-16-N: 12 VDC: 505 mA, 24 VDC: 255 mA, 48 VDC: 150 mA  
**Ports:**  
- ROM II-8/16: RS422 (2)  
- ROM II-16-N: RJ45 for network connection (1), USB-B (1), RS422 (2)  
**Outputs:** 8 (ROM II-8), 16 (ROM II-16/16-N) Alarm Relays SPDT (Form C), 2 amp @ 28 VDC  
**Language(s):** **ROM II 8/16:** English / **ROM II-16-N:** English, Spanish, Portuguese, Russian, Chinese, French, German



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