INTREPID™ SYSTEM CONTROLLERS

FLEXIBLE, BROAD-RANGING LOCAL AND REMOTE PERIMETER CONTROL OPTIONS

SOUTHWEST MICROWAVE
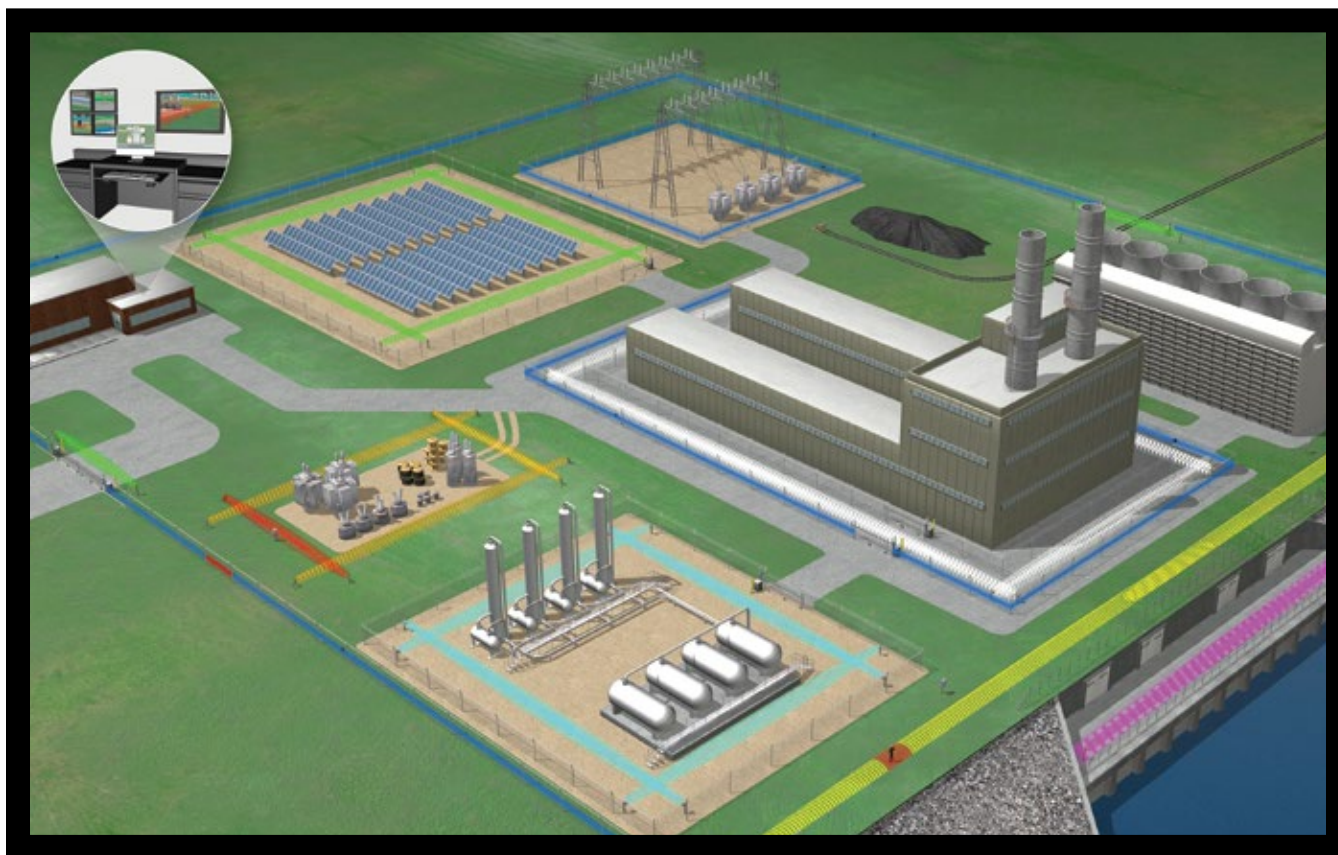
Universal INTREPID™ System Controllers provide extensive perimeter security management options, enabling the development of an alarm monitoring and control program to suit each facility's unique requirements. INTREPID™ System Controllers offer scalable, plug-and-play solutions to suit sites of any size 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, 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 (PSM)

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
- ■ HARDENED ENCLOSURE

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.

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

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

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 (RFI/EMI)
- ■ 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

PERIMETER SECURITY MANAGER (PSM)

Perimeter Security Manager (PSM) 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 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 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
- POWERFUL, REDUNDANT MIGRATING SERVER
- 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.
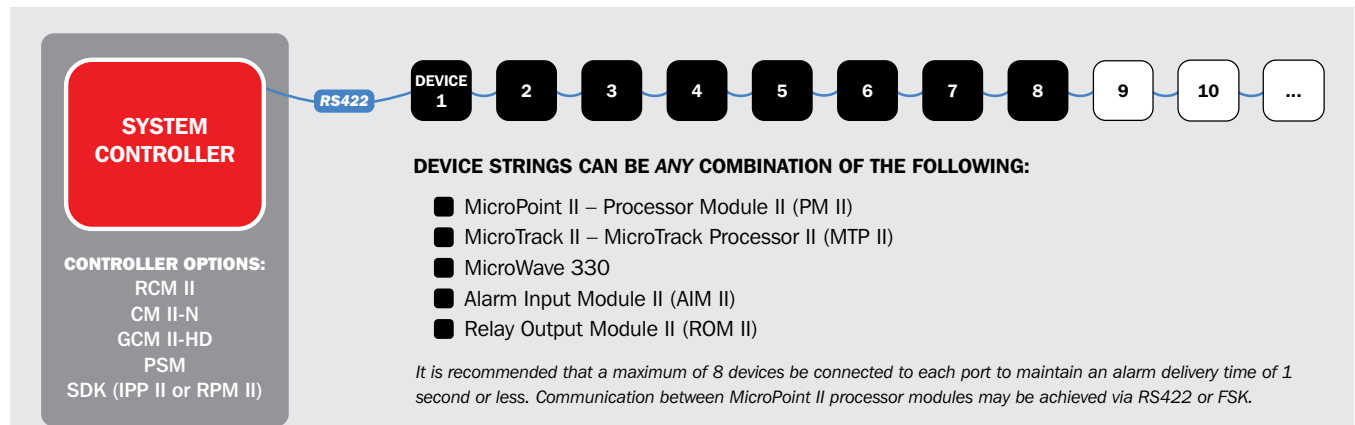
INTREPID Polling Protocol II (IPP II) SDK: With this application-layer protocol, specific to serial line communications, each INTREPID™ module is queried separately by the third-party control or monitoring application.

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.

SYSTEM CONTROLLER

CONTROLLER OPTIONS:
RCM II
CM II-N
GCM II-HD
PSM
SDK (IPP II or RPM II)

RS422 — DEVICE 1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10 — ...

DEVICE STRINGS CAN BE *ANY* COMBINATION OF THE FOLLOWING:

- MicroPoint II – Processor Module II (PM II)
- MicroTrack II – MicroTrack Processor II (MTP II)
- MicroWave 330
- Alarm Input Module II (AIM II)
- Relay Output Module II (ROM II)

It is recommended that a maximum of 8 devices be connected to each port to maintain an alarm delivery time of 1 second or less. Communication between MicroPoint II processor modules may be achieved via RS422 or FSK.

CONTROLLER	COM PORTS	DEVICES	OUTPUTS	ZONES	TCP/IP / ETHERNET	SITES
RCM II	1	8	Relays	32	None	Single
CM II-N	2	16 Local 4 Remote*	Relays	256	Configuration/Maintenance, Alarm Reporting	Single
GCM II-HD	4	32	Graphic Map, Relays, ASCII for CCTV	1024	Maintenance, File Backup	Single
PSM	64	240	Graphic Map, Relays, CCTV Drivers	Unlimited	Alarm Reporting	Multiple
IPP II SDK	Unlimited	Unlimited	High-Level Interface to Third-Party System	Unlimited	Alarm Reporting	Multiple
RPM II SDK	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: -15° C to 55° C (5° F to 131° F)
Size: 9.4 H x 21.4 W x 23.8 D cm (3.7 x 8.4 x 9.4 in)
Weight: 5.6 kg (12.3 lbs)
Input Power: 120/240 VAC
Ports: RS232 [3], RS422 [4], RJ45 [1], USB2 [4]
Language(s): English, Spanish, Chinese, Russian

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

PERIMETER SECURITY MANAGER (PSM)

Refer to Perimeter Security Manager data sheet for Specifications.

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

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

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