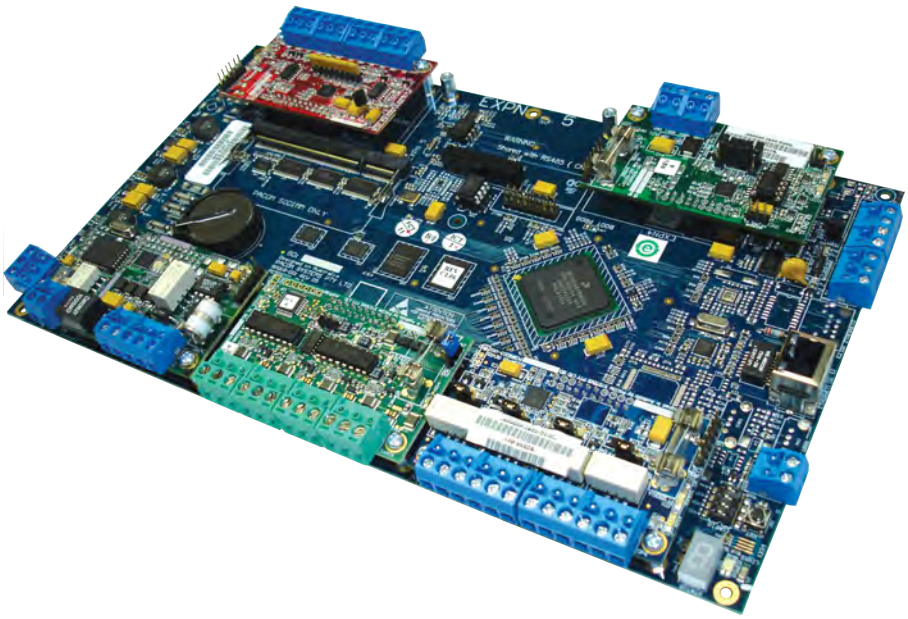
8000 SERIES EXPANSION MODULES

FEATURES

- Boost the capabilities of PACOM 8000 Series Controllers and peripheral devices
- Easily add support for new features
- Automatically configure when fitted on the controller/peripheral device

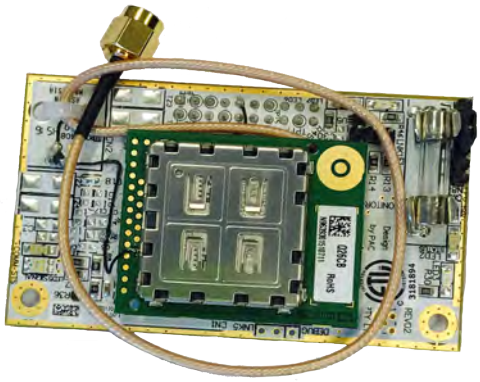


The PACOM 8000 Series Expansion Cards conveniently plug into the controller as 'piggy-back' modules and use the controller as their power source. The modules are automatically configured and the firmware is updated when fitted on the controller or the peripheral device.

Most expansion modules feature a number of diagnostic LEDs for simplified troubleshooting.

The PACOM 8000 Series Expansion Cards provide additional features and capabilities for PACOM 8000 Series Controllers (8002 and 8003) and other peripheral devices (8501, 8602 and 8603).

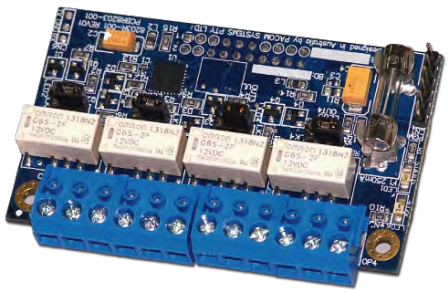
8201 3G EXPANSION MODULE



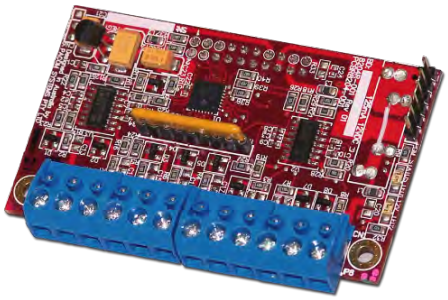
The PACOM 8201 3G Expansion Module enables bi-directional communication between PACOM security software and PACOM Controllers across 3G mobile networks. It provides wireless communications for alarm monitoring, access control operations and system management.
The 8201 is suitable for both primary and secondary communications, automatically switching to 2G mode should 3G mode become unavailable. The enclosure mountable antenna can be oriented for best possible signal strength.
The 8201 is ideal for remote sites where a physical telephone line connection is expensive or not feasible. It allows the security communications infrastructure to be independent of other business critical functions.

8203 4-OUTPUT EXPANSION MODULE

The PACOM 8203 4-Output Expansion Module is used to extend the number of alarm output points of the controllers and other compatible devices. It provides 4 relay controlled outputs that can be used to control external devices such as sirens and lights (maximum 2A @ 12VDC).



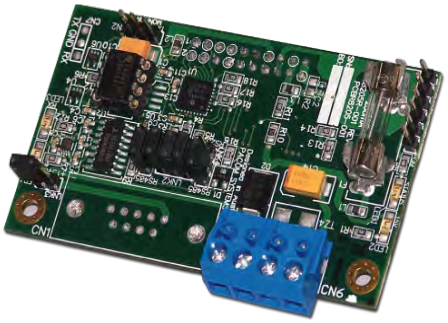
8204 8-INPUT EXPANSION MODULE



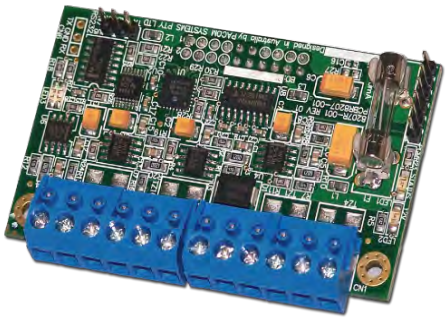
The PACOM 8204 8-Input Expansion Module is used to extend the number of alarm input points to provide 8 supervised alarm inputs. All inputs can be configured for analog operation (0 to 8VDC) when used with the 8002 Controller. The inputs can report the following states: alarm, open circuit, secure/reset (normal), short circuit, trouble/tamper, masking alarm and range reduction.
The EOL resistance is 10kΩ standard, however, can be altered by physically changing the on-board SIP resistor pack (from 1kΩ to 25.4kΩ) or programmatically through PACOM security software.

8205 RS232/RS485 EXPANSION MODULE

The PACOM 8205 RS232/RS485 Expansion Module is used to add an additional RS232 or RS485 device lines to PACOM 8002 and 8003 Controllers.
It can also be used as an interface to third-party systems, such as Inovonics wireless, DVRs and Elevator Management Systems or on the 8603 to support OSDP.



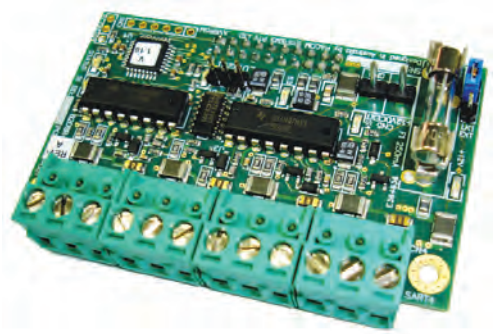
8207 RS485 STAR COUPLER EXPANSION MODULE



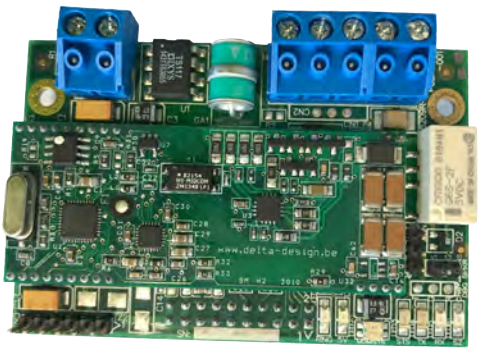
The PACOM 8207 RS485 Star Coupler Expansion Module enables RS485 cabling in a 'star' configuration with up to 4 paths, allowing a maximum of 32 devices to be connected.
It is used to add an additional RS485 device line to PACOM 8002 and 8003 Controllers or for OSDP support on the 8603.

8208 (S-ART) EXPANSION MODULE

The PACOM 8208 Expansion Module is used to connect Serial-Addressable Receiver/Transmitter (S-ART) compatible devices (generally detectors) to PACOM 8002 Controllers. The card has 4 S-ART interfaces, each of which can have up to 30 devices connected in a daisy-chain fashion, and supports a total of 120 inputs and 60 outputs per card.
The S-ART interface on security systems is designed specially for data transmission on a simple cable where it is desired to individually identify each detector on the interface. The cable transmits both DC power to the S-ART and information to/from the S-ART.
Communication works on the principle by which an address is sent and the S-ART that recognizes the address then carries out the instruction.
The line signal is divided into 3 levels in order to give a time signal for synchronizing and a data signal containing addresses, instructions, etc.
Typical signal voltages for the 3 levels are 15V, 7.5V and 0V.



8209 PSTN MODEM EXPANSION MODULE

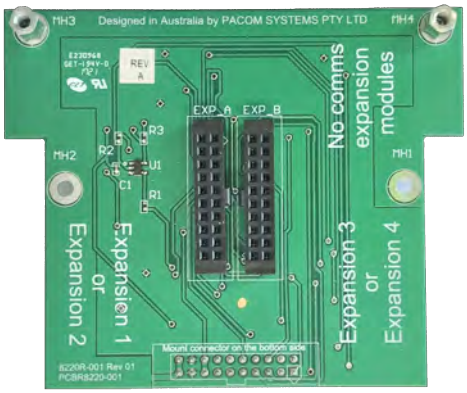


The PACOM 8209 PSTN Modem Expansion Module is designed to provide a backup communications option for PACOM Controllers across a PSTN line. This ensures important alarms, card activity and other status changes are reported even if other forms of communication are not available.
The 8209 supports voice listen-in operation, where the controller initiates a connection on alarm over the PSTN line, to an operator or digital receiver who can immediately listen to live sounds coming from the microphone connected to the 8209 Modem and then quickly verify the severity within seconds.
The 8209 also supports a number of dial-up features including support for:

- mode 3 telephone line sharing to support phone calls and fax transmissions on the same line as the security controller,
- Contact ID (CID) and SIA alarm messaging formats, and
- line detection to determine if the telephone line is active and ready to be used for backup purposes.

8220 DUAL EXPANSION MODULE

The 8220 Dual Expansion Module is designed to increase the available functionality of the PACOM 8003, 8501 and 8603, connecting up to 4 expansion cards to a single controller/device.



8403 MEMORY EXPANSION MODULE

The PACOM 8403 Memory Expansion expands the on-board data storage capacity of PACOM 8002 Controller by 64MB. It increases the number of access card data (users/cardholders) stored by the controller to 256,000/*200,000 and offline event details to 128000. The 8403 includes a battery back-up to prevent data loss in the case of power failure.

* Limitations when using the PACOM Unison security management system.

8404 MICRO SD CARD

The PACOM 8404 is an "industrial grade" micro SD memory card used to expand the on-board data storage capacity of PACOM 8003 Controllers and 8603 devices by 1GB. It increases the number of access card data (users/cardholders) stored by the controller/device to 500000 and offline event details (controllers only) to 50000.

CONTROLLER / EXPANSION COMPATIBILITY

CONTROLLER / EXPANSION MODULE	8002	8003	8501	8602	8603
8201 3G GPRS Expansion Module	✓	✓			
8203 4-Output Expansion Module	✓	✓	✓	✓	✓
8204 8-Input Expansion Module	✓	✓	✓	✓	✓
8205 Comms Expansion Module	✓	✓			✓
8207 Star Coupler Expansion Module	✓	✓			✓
8208 S-ART Expansion Module	✓				
8209 Modem Expansion Module	✓	✓			
8220 Dual Expansion Module		✓	✓		✓
8403 SODIMM (64MB) Memory Expansion Module	✓				
8404 Micro SD Card (1Gb)		✓			✓

TECHNICAL SPECIFICATIONS

	8201	8203	8204	8205	8207	8208	8209	8220	8403	8404
Input Voltage	3.6VDC from controller	12 to 15VDC								3.3VDC
Power Consumption	425mA max	40mA	30mA	10mA	25mA	22mA; 25mA per input; 12mA per output	40mA	10mA @ 3.3VDC typical		60mA @ 3.3VDC typical during data transfer
Fuse	slow blow glass type 5 x 20 mm (0.2 x 0.8")						-	-	-	-
	2.5A	F1: 250mA				F1: 500mA				
Operating environment	Temperature: EU: -10 to 55°C (14 to 131°F)/UL: 0 to 50°C (32 to 122°F) Humidity: 20 - 85% maximum humidity (non-condensing) @30°C (86°F)									
Dimensions	76x45x18mm (3.0x1.8x0.7")						76x50x 18mm (3.0x2.0x 0.7")	90x75mm (3.5x3.0")	67.5x32.5 x15mm (2.7x1.3 x0.6")	15x11x 1mm (0.6x0.4x 0.04")
Packed Weight	100g (3.5oz)	80g (2.8oz)						60g (2.1oz)		10g (0.3oz)
Signaling		4 x relay controlled outputs[1]	8x5-state supervised input[2]			4 x S-ART interface [3]				
Comms	Network Connectivity: Quad-band GSM (850/900/1800/ 1900MHz) GPRS EDGE/E-GPRS 3G				4 x RS485 ports, individually terminated		Modem: V.21, Bell 212A/Bell 103, 1200bps with touch-tone and pulse dialing Messaging: SIA and Contact ID protocols, PACOM Proprietary Protocol, PACOM Open Protocol			
Status Indicator	colored LED display	6 LEDs	2 LEDs	4 LEDs	3 LEDs	6 LEDs	7 LEDs	-	-	-
Other							Listen-in operation 3kV isolation		Internal memory battery: CR2450 3V lithium type	

[1].Relay contact rating: 2.0A @12VDC maximum

[2].10kΩ EOL resistance standard. Can accept resistance between 3.3kΩ and 25.4kΩ

[3].Each S-ART interface has 120mA self resetting fuse circuitry for over current protection without affecting other interfaces.

COMPLIANCE & ACCREDITATION

	8201	8203	8204	8205	8207	8208	8209	8220	8403
A-Tick							●		
ANSI/SIA CP-01		●	●	●	●				●
AS/NZS 60950.1		●	●	●	●				
AS/NZS CISPR22 Class B/A		●	●	●	●				
C-Tick	●						●		
CE	●								
China RoHS	●							●	●
EMC	●								
EN 50130-4	●	●	●	●	●	●	●	●	●
EN 50130-5	●	●	●	●	●		●	●	●
EN 50131-1	●	●	●	●	●		●	●	●
EN 50131-3	●	●	●	●	●		●	●	●
EN 50131-6	●	●	●	●			●		
EN 50131-10	●								
EN 55032		●	●	●	●	●		●	●
EN 60950-1		●	●	●	●	●			●
EN 61000-3-2		●	●	●	●				●
EN 61000-3-3		●	●	●	●				●
FCC 47 CFR Part 68							●		
FCC 47 Part 15/B Class A/B		●	●	●	●		●		
GCF-CC (V3.38.0 Partial)	●								
NF&A2P 3 Shields ECll, SG3		●	●						
OTA (US)	●								
PTCRB - NAPRD03 V5.4	●								
RoHS	●							●	●
SSF 1014 Ver 3		●	●	●	●				
UL 294		●	●	●	●				●
UL 1076/ULC/ORD-C1076		●	●	●	●				●
UL 1610		●	●	●	●				●
UL 2017		●	●	●	●				●
ULC-S304		●	●	●	●				●
ULC-S319		●	●	●	●				●

ORDERING INFORMATION

PART NUMBER	TYPE CODE	DESCRIPTION
300 041 111	8201R-001-3G	8201 3G GPRS Expansion Module
300 041 103	8203R-001-UL	8203 4-Output Expansion Module
300 041 104	8204R-001-UL	8204 8-Input Expansion Module
300 041 105	8205R-001-UL	8205 Comms Expansion Module
300 041 107	8207R-001-UL	8207 Star Coupler Expansion Module
300 041 008	8208R-001	8208 S-ART Expansion Module
300 041 110	8209R-001-UL	8209 Modem Expansion Module
300 041 120	8220R-001	8220 Dual Expansion Module
300 044 103	8403R-001-UL	SODIMM (64MB) Memory Expansion Module
300 044 104	8404R-001-UL	Micro 1GB SD Card