

# cPCI-3534/3538 Series

## 4/8-port Asynchronous Serial Communications Modules

### Features

- 3U Eurocard form factor, CompactPCI compliant (PICMG 2.0 Rev2.1)
- 4/8 asynchronous communications ports with intelligent buffer
- Three RS-232 ports and one isolated RS-422/485 port (cPCI-3534 and cPCI-3534R)
- Eight RS-232 ports (cPCI-3538 and cPCI-3538R)
- 2500 VRMS optical isolation for RS-422/485 port (cPCI-3534 and cPCI-3534R)
- Support up to 2 modules per system
- Suitable for modems, data display, data collection, telecommunication
- Surge protector in TXD/RXD signal lines
- Rugged DB-37 connector (cPCI-3534)
- Rugged DB-62 connector (cPCI-3538)
- Rear I/O version available on cPCI-3534R and cPCI-3538R
- **Driver Support**
  - •DOS drivers
  - •Drivers for Windows 95/98/NT/2000/ME/XP
  - •Linux drivers



### Introduction

ADLINK cPCI-3534/3538 series are intelligent serial input/output multi-port controller modules for PXI/CompactPCI form factor. The cPCI-3534 devices feature three RS-232 ports as well as one RS-422/485 port, while the cPCI-3538 devices feature eight RS-232 ports. The modules can reduce the frequency for serial communication controller to interrupt host CPU.

The devices include a programmable gate array (PGA) to support the serial communication controller and a 37-pin/62-pin connector to connect external I/O port from the front panel or using the rear IO transition module. ADLINK cPCI-3534/3538 devices deliver cost-effective and reliable serial communication capabilities, and are ideal for a broad variety of applications, such as factory automation, monitoring systems, telecommunication, POS systems and traffic control systems.

### Specifications

- Serial communications controller
  - •16C550A compatible
- Port capability
  - •independent RS-232 ports (cPCI-3534 and cPCI-3534R)
  - •8 independent RS-232 ports (cPCI-3538 and cPCI-3538R)
  - •1 isolated switch selectable RS-422/485 port (cPCI-3534 and cPCI-3534R)
  - •Convert to 8 ports isolation RS-422/485 through C888XB external box (cPCI-3538 and cPCI-3538R)
  - •RS-485 support auto-direction control (cPCI-3534 and cPCI-3534R)
  - •Maximum two modules (8-port max.) per system (cPCI-3534 and cPCI-3534R)
  - •Maximum two modules (16-port max.) per system (cPCI-3538 and cPCI-3538R)
- Baud rate
  - •Each port can be configured to 50-115,200 bps
- Flow control (for RS-232 ports only)
  - •Xon/Xoff control
  - •RTS/CTS control
- Isolation voltage
  - •2500 VRMS for RS-422/485 port of cPCI-3534

### General Specifications

- I/O connector
  - •DB37 female (cPCI-3534)
  - •DB62 female (cPCI-3538)
- Operating temperature: 0 to 60 °C
- Storage temperature: -20 to 70 °C
- Relative humidity: 5 to 95%, noncondensing
- Power requirements (without external devices)

Device	+5 V
cPCI-3534	1400 mA typical
cPCI-3538	1400 mA typical

- Dimensions (not including connectors)  
160 mm x 100 mm (cPCI-3534 and cPCI-3538)

### Accessories

- **C409M**  
DB-37 to four DB-9 male cable
- **C425M**  
DB-37 to four DB-25 male cable
- **C809M**  
DB-62 to eight DB-9 male cable
- **C825M**  
DB-62 to eight DB-25 male cable
- **C888XB**  
8-port isolated RS-422/485 expansion box for cPCI-3538 / C888 / C588

### Ordering Information

- **cPCI-3534/9**  
4-port async serial communications module with C409M
- **cPCI-3534/25**  
4-port async serial communications module with C425M
- **cPCI-3534R/9**  
4-port async serial communications module with rear I/O support and C409M
- **cPCI-3534R/25**  
4-port async serial communications module with rear I/O support and C425M
- **cPCI-3538/9**  
8-port async serial communications module with C809M
- **cPCI-3538/25**  
8-port async serial communications module with C825M
- **cPCI-3538R/9**  
8-port async serial communications module with rear I/O support and C809M
- **cPCI-3538R/25**  
8-port async serial communications module with rear I/O support and C825M

Note: Rear I/O version can not be used in PXI chassis due to signals conflict with PXI bus

### Pin Assignment

#### cPCI-3538

TXD1(OUT)	1	32	CTS7(IN)
RXD1(IN)	2	33	DSR7(IN)
RTS1(OUT)	3	34	DTR7(OUT)
CTS1(IN)	4	35	DCD7(IN)
DSR1(IN)	5	36	XD6(OUT)
DTR1(OUT)	6	37	RXD6(IN)
DCD1(IN)	7	38	RTS6(OUT)
TXD3(OUT)	8	39	CTS6(IN)
RXD3(IN)	9	40	DSR6(IN)
RTS3(OUT)	10	41	DTR6(OUT)
CTS3(IN)	11	42	DCD6(IN)
DSR3(IN)	12	43	GND
DTR3(OUT)	13	44	GND
DCD3(IN)	14	45	GND
TXD5(OUT)	15	46	TXD4(OUT)
RXD5(IN)	16	47	RXD4(IN)
RTS5(OUT)	17	48	RTS4(OUT)
CTS(IN)	18	49	CTS4(IN)
DSR(IN)	19	50	DSR4(IN)
DTR5(OUT)	20	51	DTR4(OUT)
DCD5(IN)	21	52	DCD4(IN)
TXD2(OUT)	22	53	TXD8(OUT)
RXD2(IN)	23	54	RXD8(IN)
RTS2(OUT)	24	55	RTS8(OUT)
CTS2(IN)	25	56	CTS8(IN)
DSR2(IN)	26	57	DSR8(IN)
DTR2(OUT)	27	58	DTR8(OUT)
DCD2(IN)	28	59	DCD8(IN)
TXD7(OUT)	29	60	GND
RXD7(IN)	30	61	GND
RTS7(OUT)	31	62	GND

### Pin Assignment

#### cPCI-3534

RXD1(IN)	1	20	TXD1(OUT)
CTS1(IN)	2	21	RTS1(OUT)
DSR1(IN)	3	22	DTR1(OUT)
DCD(IN)	4	23	R11(IN)
GND	5	24	RXD29(IN)
TXD2(OUT)	6	25	CTS2(IN)
RTS2(OUT)	7	26	DSR2(IN)
DTR2(OUT)	8	27	DCD2(IN)
GND	9	28	R12(IN)
--	10	29	R13(IN)
GND	11	30	DCD3(IN)
DTR3(OUT)	12	31	DSR3(IN)
RTS3(OUT)	13	32	CTS3(IN)
TXD3(OUT)	14	33	RXD3(IN)
GND	15	34	--
--	16	35	422TXD4-(I/O)
422RXD4-(IN)	17	36	485TRXD4+(I/O)
485TXD4-(I/O)	18	37	422TXD4+(OUT)
422RXD4+(IN)	19		