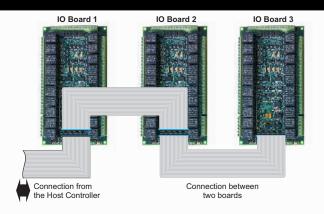
# XPIP EXPANSION BOARD AMTEL 10 Expansion Boards



I/O expansion board also known as Input-Output expansion board consists of 20 relays and 8 opto-isolated inputs. It works on 12 VDC supply. Each of the relay consist of three terminals on the board namely N.O. (Normally Open), N.C. (Normally Closed), and CM. (Common). All the relays give out dry contacts on the board. In total there are 60 terminals on the panel for 20 relays.

### **CONFIGURATIONS**

## CS1, CS2, CS3

Maximum three I/O boards can be connected to a single Host Controller using CS1, CS2 and CS3. These chip selects can be selected using jumper JP5. CS1 will be selected if jumper is on 1 and 2. Similarly CS2 and CS3 will be selected if the jumper is on 2 and 3, and, 5 and 6 respectively.

#### **TECHNICAL SPECIFICATIONS**

I/O Board Power : 12V DC

Nominal Coil Voltage : 12 VDC (Must operate Voltage 9 VDC)

**Operational Temperature** : - 40°C to 85°C.

Power Connection : Power can be connected to panel at either PWRT1 or PWRT2. PWRT1 is a two terminal block where Pin1 is 12V DC

and Pin2 is Ground. PWRT2 is a two pin header where Pin1 is 12V DC and Pin2 is Ground

**Dimension** : 7.5" x 4.5" x 0.062"

Weight : 0.78 Lbs.

#### IP8 GND7 GND6 GND6 GND6 GND7 GND7 GND7 GND3 GND3 GND7 GND7 GND7 GND7 GND7 GND7 NO • NC • c K9 С NC • • NO NO • • c K10 K2 NO NO NC • c K11 С • NO NC • NC NO 🗪 С • NO NC NO • c K13 **K5** c • NO NO NC ● c K14 K6 C • NC • ● NO NO NC С **K**7 ● C K15 NC • ● NO NO ● NC ● C K16 K8 C NC • NO ● NC ● c K19 K17 ℃ • • NO NC • NO • NC ● c K20 K18 ⊂ NC • T2B1 T1B1 PWRT2 IOEX1 1 2 GND GND

#### PINOUTS FOR INPUT/OUTPUT EXPANSION BOARD

PINS	NAME	DESCRIPTION	<b>ACTIVE STATE</b>
1	GND	Ground	-
2	NC	Not Connected	-
3	CS1	Chip Select 1	Low
4	GND	Ground	-
5	CS2	Chip Select 2	Low
6	NC	Not Connected	-
7	CS3	Chip Select 3	Low
8-10	NC	Not Connected	-
11	GND	Ground	-
12	NC	Not Connected	-
13	NC	Not Connected	-
14	IOWR	Write	Rising Edge
15-21	NC	Not Connected	-
22	IORD	Read	Rising Edge
23	A2	Address line 2	High
24	NC	Not Connected	-
25	A1	Address line 1	High
26	NC	Not Connected	-
27	A0	Address line 0	High
28	D7	Data line 7	High
29	D0	Data line 0	High
30	D6	Data line 6	High
31	D1	Data line 1	High
32	D5	Data line 5	High
33	D2	Data line 2	High
34	D4	Data line 4	High
35	NC	Not Connected	-
36	D3	Data line 3	High