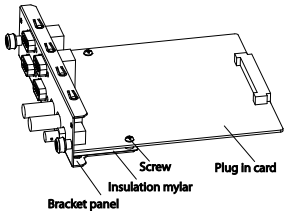
UNOP-1624D

4-port Isolated RS-232/422/485 card with IRIG B

Packing List

Before installation, make sure that you have the UNOP-1624D suit which includes the card and panel as below.



If anything is missing or damaged, contact your distributor or sales representative immediately.

Overview

UNOP-1624D supports the following specifications:

- 4-port RS-232/422/485
- Automatic RS-485 data flow control
- 2,000 V_{DC} Isolation Protection
- IRQ: All COM ports use the same IRQ assigned by PCI Bus
- Data bits: 5, 6, 7, 8
- Stop bits: 1, 1.5, 2
- Parity: None, Even, Odd
- Baud-rate (bps):
  - RS-232: 50~115.2 k
  - RS-422/485: 50~921.6 k
- Data Signals:
  - RS-232: TxD,RxD,RTS,CTS,RI,DSR,DTR,DCD, GND
  - RS-485: Data+, Data-, GND
  - RS-422: Tx+, Tx-, Rx+, Rx- , GND

IRIG Time Code Input

- IRIG Interface: Male 9-pole D-Sub connector (COM4 or IRIG-B); ST Multi-Mode Fiber connector; Female BNC
- Input Signal: RS422 input signal isolated by optocoupler Optical signal @820nm; TTL

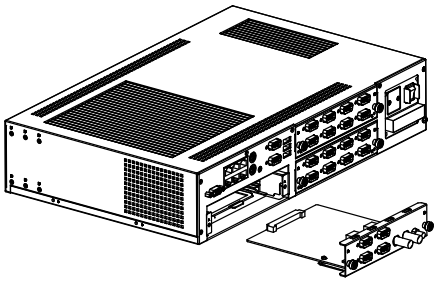
IRIG Time Code Output

- IRIG Interface:Male 9-pole D-Sub connector (COM4 or IRIG-B) ; Female BNC
- Output Signal: RS422 output signal; TTL

IRIG Time Code Decoding

- Message Syntax :YYYYQQQHHMMSS(year, day, hour, minute& second)
- Supported Formats: IRIG-B according to IRIG STANDARD 200-04,200-98
- Resolution of the time: 1S
- Status info: 1status LED for indication

Diagram



Notes

For more information on this and other Advantech products, please visit our websites at:

http://www.advantech.com

http://www.advantech.com/eAutomation

For technical support and service:

http://www.advantech.com.tw/eservice

This manual is for UNOP-1624D

Part No: 2003T62400	1st Edition
	April 2012

Installation

The UNOP-1624D is an expansion card for the UNO-4673A which has 3 expansion slots, the UNOP-1624D can be plugged into any of the 3 slots in the UNO-4673A. Follow these steps to integrate into the UNO-4673A:

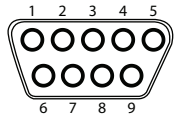
Select one of the slots: unscrew the two screws on the blank panel of the slot then remove the blanking plate.

Plug the UNOP-1624D into the selected slot of the UNO-4673A carefully and fix it by the two screws on the panel.

Note: To avoid an IRIG-B signal error, one platform only supports one UNOP-1624D device.

Pin Assignment

UNOP-1624D serial ports COM1~COM4 and IRIG-B (COM4)



Pin	RS-232	RS-422	RS-485	IRIG-B(COM4)
1	DCD	TX-	Data-	TX-
2	RxD	TX+	Data+	TX+
3	TxD	RX+		RX+
4	DTR	RX-		RX-
5	GND	GND	GND	
6	DSR			
7	RTS			
8	CTS			
9	RI			

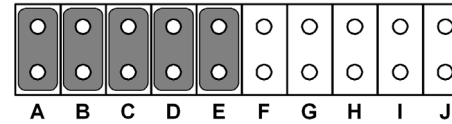
COM Port Configuration

Follow the below description to set the COM ports and IRIG-B interface, please also refer to the UNO-4673's user manual and software manual in the IRIG-B driver for detailed function description:

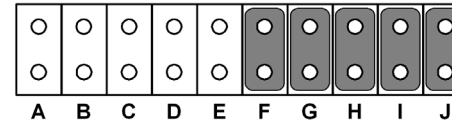
1. Selection of RS-232 or RS-422/485

COM Port	Jumper	COM Port	Jumper
COM1	CN2	COM3	CN4
COM2	CN3	COM4	CN5

RS-232 Jumper Setting (Default)



RS-422/485 Jumper Setting



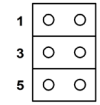
2. Switch the RS-485 auto-flow control or RS-422 Master/Slave mode (SW5)

COM Port	DIP of SW5	COM Port	DIP of SW5
COM1	DIP1	COM3	DIP3
COM2	DIP2	COM4	DIP4

SW5 Status	Description
ON	RS-422: Master mode RS-485: N/A
OFF (Default)	RS-422: Slave mode RS-485: Auto flow control

3. Setting the Terminal Resistor

COM Port	Jumper	COM Port	Jumper
COM1	JP1	COM3	JP3
COM2	JP2	COM4	JP4



Short	Description
1-3	Add 120 Ohm terminal resistor on Tx+/Tx- of RS-422 or Data+/Data- of RS-485
3-5	Add 300 Ohm terminal resistor on Tx+/Tx- of RS-422 or Data+/Data- of RS-485
2-4	Add 120 Ohm terminal resistor on Rx+/Rx- of RS-422
4-6	Add 300 Ohm terminal resistor on Rx+/Rx- of RS-422

IRIG Configuration

1. Selection of COM4 function Jumper JP6

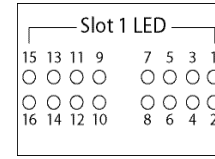
Short	Description	Note
1-2	RS422/485 (default)	Before setting this jumper, you need to set CN5 to RS422/485 mode
2-3	IRIG-B RS422 input/ output	

2.Switch the IRIG PCI input/output (SW6)

DIP of SW6	Status	Description
1	ON	IRIG PCI input enable
	Off (default)	IRIG PCI input disable
2	ON	IRIG PCI output enable
	Off (default)	IRIG PCI output disable

LED Indicators

There are LED indicators on the front panel of UNO-4673A for indicating the system running status. You can know the COM and IRIG status of UNOP-1624D by the consistent slot LED indicators.



LED No.	COM Status	LED No.	COM Status
1	COM1 Tx	ON	Serial port data being transmitted
		Off	No data being transmitted
2	COM1 Rx	ON	Serial port data being received
		Off	No data being received
3	COM2 Tx	ON	Serial port data being transmitted
		Off	No data being transmitted
4	COM2 Rx	ON	Serial port data being received
		Off	No data being received
5	COM3 Tx	ON	Serial port data being transmitted
		Off	No data being transmitted
6	COM3Rx	ON	Serial port data being received
		Off	No data being received
7	COM4 Tx	ON	Serial port data being transmitted
		Off	No data being transmitted
8	COM4 Rx	ON	Serial port data being received
		Off	No data being received
9	N/A		
10	N/A		
11	N/A		
12	N/A		
13	N/A		
14	IRIG Rx	ON	IRIG-B RS422(COM4),Fiber or TTL input signal being received
		Off	No IRIG signal being received
15	N/A		
16	N/A		