

i3TOUCH V-SENSE

8403T10

RS232 COMMUNICATION PROTOCOL



1. Introduction

This document describes the hardware interface spec and software protocols of RS232 interface communication between PC and MONITOR(LCD INTERACTIVE)

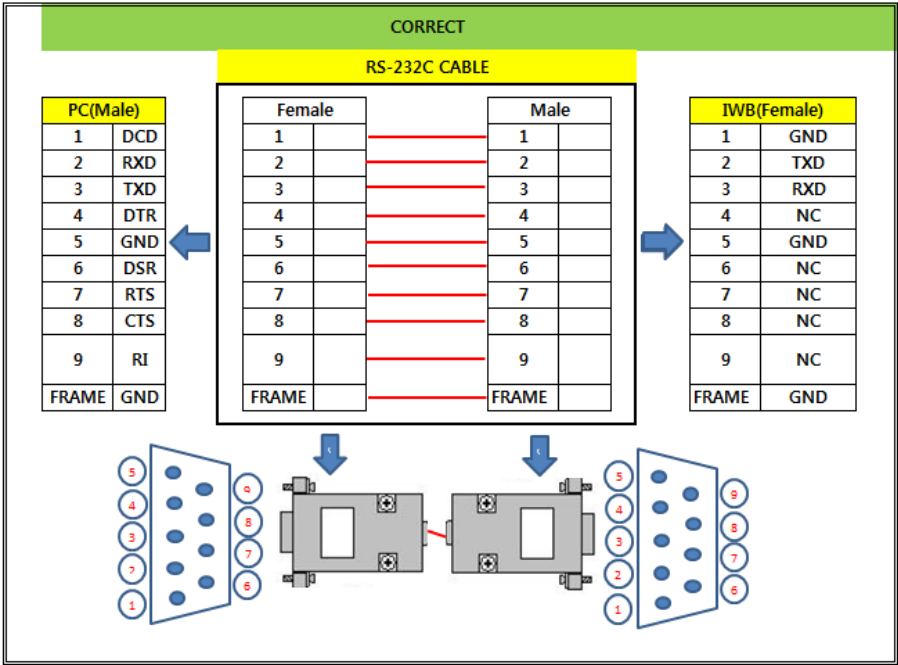


Please take into account that i3 learning likewise all display brands is not responsible for incompatibility of third party controller hardware and software. We advise the use of Extron MediaLink controllers

Communication Protocol

Hardware Specification

- Connector type : DSUB 9 Pin Male and Female
- Pin Assignment



Communication Setting

- Port : COM1~COM5
- Baud Rate : 9600 bps
- Data Bit : 8 Bit
- Stop Bit : 1 Bit
- Parity Bit : No Parity

Command Message Reference

The commands consist of 8 bits, space breaks included. For example to turn on the display, the command is ka_00_01 (with _ here referring to one space break).

Transmission format:

CMD1	CMD2	Space	SetID1	SetID2	Space	Data1	Data2
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For turning the display on this would mean:

Command1	Command2	Space	SetID1	SetID2	Space	Data1	Data2
k	a		0	0		0	1

- CMD1 and CMD2 : Function command value, see the below command list
- Space : 1 space break in your command
- Set ID1 and Set ID2 : These 2 bits form the ID of the TV (0 up to 99). The ID 00 (Set ID1= 0 and set ID2 = 0) is a standard global ID. Please use this standard since it's applicable in 99% of the cases! (Background information: The ID 00 works on all displays. The ID 01 up to 99 are specific ID's used if you want communication with one display when various displays are connected with RS232 in the same setting. This display then ofcourse needs to have this ID assigned in its menu settings).
- These ID combinations will result in communication with only the screen that got this special ID set. Since this is only necessary all displays react on comSet ID Normally, unless you have changed the ID of your i3TOUCH, these are both 0.
- Data1 and Data2 : Function data value, see the below command list

Command list:

- power control (full example)

Command1	Command2	Data	Remark
'k'	'a'	00 : Power Off 01 : Power On	

So putting this information in the transmission format, we get for power off the command "ka 00 00" and for power on "ka 00 01"

Command1	Command2	Space	SetID1	SetID2	Space	Data1	Data2
k	a		0	0		0	0
k	a		0	0		0	1

- Input Source Control

Command1	Command2	Data	Remark
'k'	'b'	02 : AV(Optional) 04 : COMPONENT (Optional) 07 : PC 09 : HDMI1 0a : HDMI2 0b : HDMI3	Source Mode is different by System

• ARC Control

Command1	Command2	Data	Remark
'k'	'c'	01 : 4 :3 02 : 16 :9 04 : Zoom1(4 :3) 05 : Zoom2(16 :9)	ARC Mode is different by Input mode

• Picture Control

Command1	Commands	Data	Remark
'k'	'u' : Color Temp.	00 : Normal 01 : Cool 02 : Warm	
	'g' : Contrast	00 ~ 100	
	'h' : Brightness		
	'k' : Sharpness		
	'i' : Color		
	'j' : Tint		R50 ~ G50

• Sound Control

Command1	Command2	Data	Remark
'k'	'e' : Mute	00 : Mute On 01 : Mute Off	
	'f' : Volume	00 ~ 100	
	't' : Balance		L50 ~ R50

• Remote Control

Command1	Command2	Data	Remark
'k'	'm'	00 : Remocon On 01 : Remocon Off	

• Remote Control Key Command

Command1	Command2	Data	Remark
'm'	'c'	80 : POWER	
		95 : MENU	
		8f : ◀	
		8d : ▲	
		8c : ENTER	
		90 : ▶	
		8e : ▼	
		96 : EXIT	
		ac : SOURCE	

Application for below A/D board

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