



FBD-25VHD (^{UartOSD}_{DDCCI}) Command List

1 、 Application

An alternate method likes a keypad to adjust the value of each item of OSD menu.

2 、 Features

- The baud rate is 4800/N/8/1.
- 60 byte receive buffer.

3 、 UART1: UART port for OSD menu control.

Pin assignment

Pin NO	Signal	I/O	Description
1	VCC	P	5V ouput
2	TX	O	To the RX signal of Host, UART logical level (0V ~ 5V).
3	RX	I	From the TX signal of Host, UART logical level (0V ~ 5V).
4	GND		

4 、 Connectivity

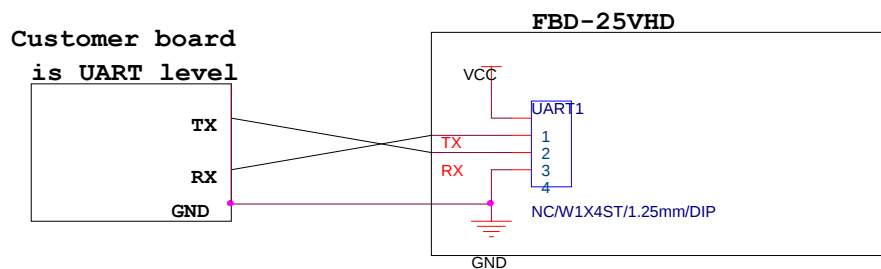


Figure 1). Host provides communication port is an UART logical level.

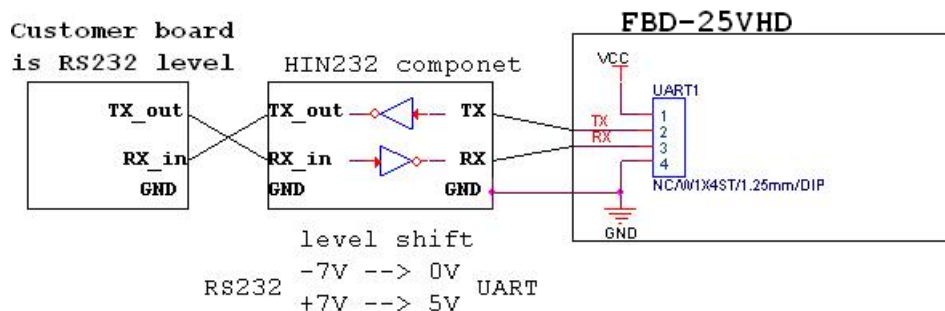
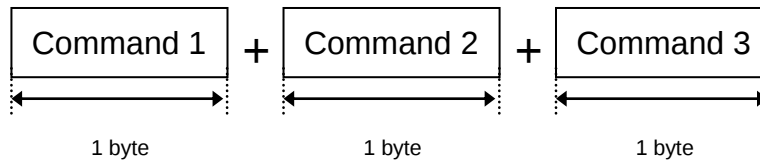


Figure 2). Host provides communication port is an RS232 logical level.



5 、 Command stream

A completed command stream contains three bytes at most.



6 、 Command list

Function	Command_1 Hex number	Command_2 ASCII	Command_3 ASCII or 0x00	Description	NOTE
Brightness	0x80	"0"~"6"	"0"~"9" or "A"~"F"	Direct value	Note2
		"+"	0x00	Increase 1	
		"_"	0x00	Decrease 1	
		"R" or "r"	0x00	Reset value	
		"?"	0x00	Return value	Note 5
Contrast	0x81	"0"~"6"	"0"~"9" or "A"~"F"	Direct value	Note2
		"+"	0x00	Increase 1	
		"_"	0x00	Decrease 1	
		"R" or "r"	0x00	Reset value	
		"?"	0x00	Return value	Note 5
Clock	0x82	"0"~"6"	"0"~"9" or "A"~"F"	Direct value	Note2
		"+"	0x00	Increase 1	
		"_"	0x00	Decrease 1	
		"R" or "r"	0x00	Reset value	
		"?"	0x00	Return value	Note 5
Phase	0x83	"0"~"6"	"0"~"9" or "A"~"F"	Direct value	Note2
		"+"	0x00	Increase 1	
		"_"	0x00	Decrease 1	
		"R" or "r"	0x00	Reset value	
		"?"	0x00	Return value	Note 5
H Position	0x84	"0"~"6"	"0"~"9" or "A"~"F"	Direct value	Note2
		"+"	0x00	Increase 1	
		"_"	0x00	Decrease 1	
		"R" or "r"	0x00	Reset value	
		"?"	0x00	Return value	Note 5



V Position	0x85	"0"~"6"	"0"~"9"or"A"~"F"	Direct value	Note2
		"+"	0x00	Increase 1	
		"_"	0x00	Decrease 1	
		"R"or "r"	0x00	Reset value	
		"?"	0x00	Return value	Note 5
Sharpness	0x86	"1"~"5"	0x00	Direct Level	
		"+"	0x00	Increase 1	
		"_"	0x00	Decrease 1	
		"R"or "r"	0x00	Reset Level	
		"?"	0x00	Return status	Note 5
Audio Mute	0x90	"0"	0x00	Off	
		"1"	0x00	On	
		"R"or "r"	0x00	Reset value	
		"?"	0x00	Return status	Note 5
Audio Volume	0x91	"0"~"6"	"0"~"9"or"A"~"F"	Direct value	Note2
		"+"	0x00	Increase 1	
		"_"	0x00	Decrease 1	
		"R"or "r"	0x00	Reset value	
		"?"	0x00	Return value	
Color Temperature	0x92	"9"	0x00	9300	
		"7"	0x00	7500	
		"6"	0x00	6500	
		"U"	0x00	User	Note 6
		"R"or "r"	0x00	Reset value	
		"?"	0x00	Return value	Note 5
Red	0x93	"0"~"6"	"0"~"9"or"A"~"F"	Direct value	Note2
		"+"	0x00	Increase 1	
		"_"	0x00	Decrease 1	
		"R"or "r"	0x00	Reset value	
		"?"	0x00	Return value	Note 5



Green	0x94	"0"~"6"	"0"~"9"or"A"~"F"	Direct value	Note2
		"+"	0x00	Increase 1	
		"_"	0x00	Decrease 1	
		"R"or "r"	0x00	Reset value	
		"?"	0x00	Return value	Note 5
Blue	0x95	"0"~"6"	"0"~"9"or"A"~"F"	Direct value	Note2
		"+"	0x00	Increase 1	
		"_"	0x00	Decrease 1	
		"R"or "r"	0x00	Reset value	
		"?"	0x00	Return value	Note 5
Light Dark level	0x97	"0"~"6"	"0"~"9"or"A"~"F"	Direct value	Note2
		"+"	0x00	Increase 1	
		"_"	0x00	Decrease 1	
		"R"or "r"	0x00	Reset value	
		"?"	0x00	Return value	Note 5
Light Normal level	0x98	"0"~"6"	"0"~"9"or"A"~"F"	Direct value	Note2
		"+"	0x00	Increase 1	
		"_"	0x00	Decrease 1	
		"R"or "r"	0x00	Reset value	
		"?"	0x00	Return value	Note 5
Light Bright level	0x99	"0"~"6"	"0"~"9"or"A"~"F"	Direct value	Note2
		"+"	0x00	Increase 1	
		"_"	0x00	Decrease 1	
		"R"or "r"	0x00	Reset value	
		"?"	0x00	Return value	Note 5
Reverse ON/OFF	0xA0	"0"	0x00	Off	
		"1"	0x00	On	
		"R"or "r"	0x00	Reset value	
		"?"	0x00	Return status	Note 5
Mirror ON/OFF	0xA1	"0"	0x00	Off	
		"1"	0x00	On	
		"R"or "r"	0x00	Reset value	
		"?"	0x00	Return status	Note 5



Language	0xA2	"0"	0x00	English	
		"1"	0x00	French	
		"2"	0x00	German	
		"3"	0x00	Spanish	
		"4"	0x00	Russian	
		"5"	0x00	Chinese	
		"6"	0x00	Japan	
		"R" or "r"	0x00	Reset value	
		"?"	0x00	Return value	Note 5
Mid key Define	0xA3	"0"	0x00	Off	
		"D"	0x00	Dimming	
		"U"	0x00	Up	
		"R" or "r"	0x00	Reset value	
		"?"	0x00	Return status	Note 5
OSD Time Out	0xA5	"3"~"9" or "A"~"F"	0x00	Direct value	Note4
		"+"	0x00	Increase 1	
		"-"	0x00	Decrease 1	
		"R" or "r"	0x00	Reset value	
		"?"	0x00	Return value	Note 5
Power	0xF0	"0"	0x00	Off	
		"1"	0x00	On	
		"?"	0x00	Return status	Note 5
Channel Switch	0xF1	"V"	0x00	VGA	
		"D"	0x00	DP	
		"H"	0x00	HDMI	
		"?"	0x00	Return status	Note 5
AutoAdjust/Recall	0xF2	"A"	0x00	AutoAdjust	
		"R" or "r"	0x00	Recall	Note 8
KEY	0xF3	"1"	0x00	S2	Note 9
		"2"	0x00	S3	
		"3"	0x00	S4	
		"4"	0x00	S5	



Note 1 : This function just need send one byte only.

Note 2 : The Direct value is consists of command2 and command3.

For instance: set the brightness value to 53(dec).

Command1: the function code of Brightness is 0x80(hex).

Converting the decimal number 53(dec) to a hex number 0x35, Then
separate 0x35(hex) number into command2 and command3 in ASCII code.

Command2: The hex number of ASCII code "3" is 0x33h.

Command3: The hex number of ASCII code "5" is 0x35h.

Therefore the completed Command stream is (0x80h+0x33h+0x35h).

The Direct value rang is 0x00h~0x64h. Any number is out of direct value limit that FBD-25VHD will
return an ASCII code "!"(0x21h) or "x"(0x58h) for error checking.

Note 3 : As same as Note 2, but the Direct value rang is 0x00h~0x3Ch.

Note 4 : As same as Note 2, but the Direct value rang is 0x05h~0x3Ch.

Note 5 : Using ASCII "?" to ask a value return. The host will receive 3 bytes from FBD-25VHD.

For instance: host use ASCII "?" to ask a brightness value return and received

[0x33h(byte_1) +0x35h(byte_2) +0x80h(byte_3)] from FBD-25VHD.

byte_1: The hex number 0x33h is an ASCII code "3".

byte_2: The hex number 0x35h is an ASCII code "5".

Combine ASCII code "3" and ASCII code "5" to be one Hex number 0x35h.

byte_3: The hex number 0x80h is the function code of brightness.

The return value of byte_3 is according to which function be asked.

Note 6 : Red 、 Green and Blue function can be adjusted while Color Temperature function have set in user
mode.

Note 7 : Darklevel 1~4 function only can be adjusted when Light sensor function has set on "ON" status.

Otherwise, FDB4660 will respond a message refer to the processes 4 of section 5.

Note 8 : Reset all value to the default.

Note 9 : S2=MENU key, S3=SEL key, S4=INC key, S5=DEC key.



4 、 Special return code for checking

Return status	ASCII	hex	Description
wrong_code1	"X"	0x58	wrong command1
wrong_code2	"!"	0x21	wrong command2 、 3

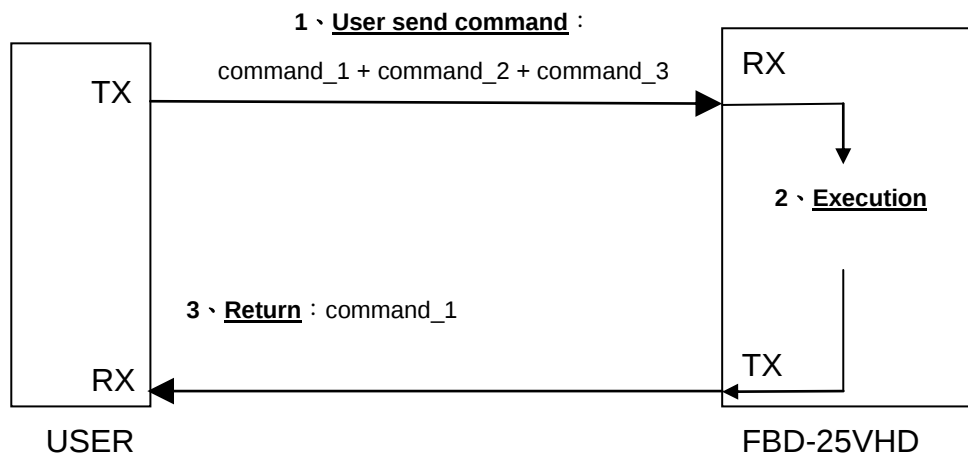
There are any error has encountered during transportation. The FBD-25VHD will return an correspondent error code for checking.

How these return code will react with each command stream have been received.

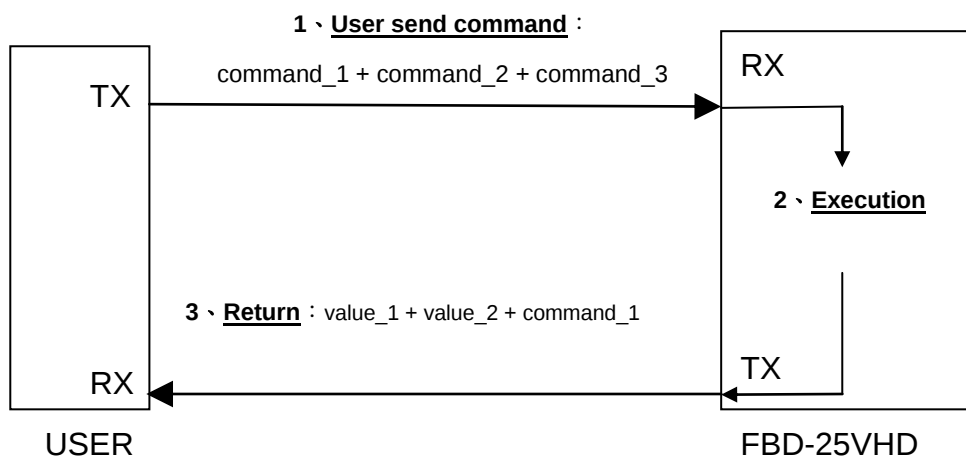
Refer to below section for more detail.

5 、 Operational processes

Processes1 、 A command stream ask for a simple function be completed without an error occurred.

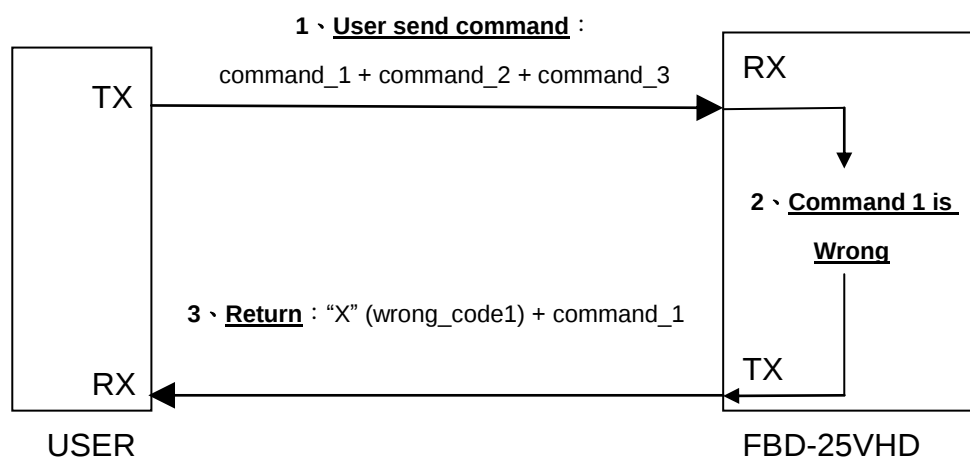


Processes2 、 command stream ask for a value return without an error occurred.





Processes3 、 A command stream has encountered an error of command_1 during transportation.



Processes4 、 A command stream has encountered an error of command_2 or command_3 during transportation.

