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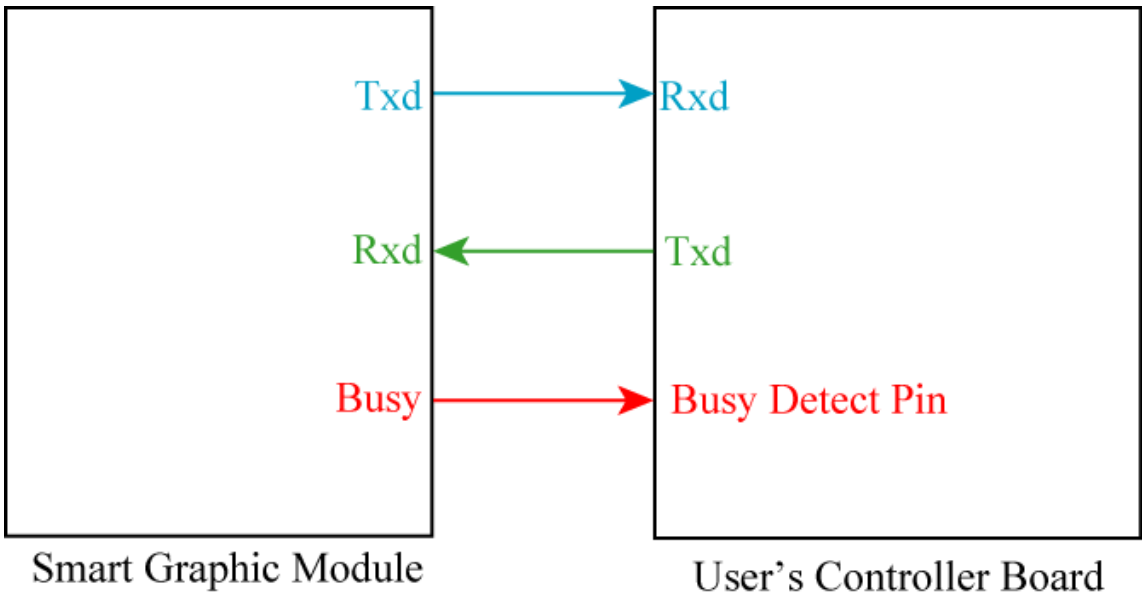
FLAT DISPLAY TECHNOLOGY CORPORATION

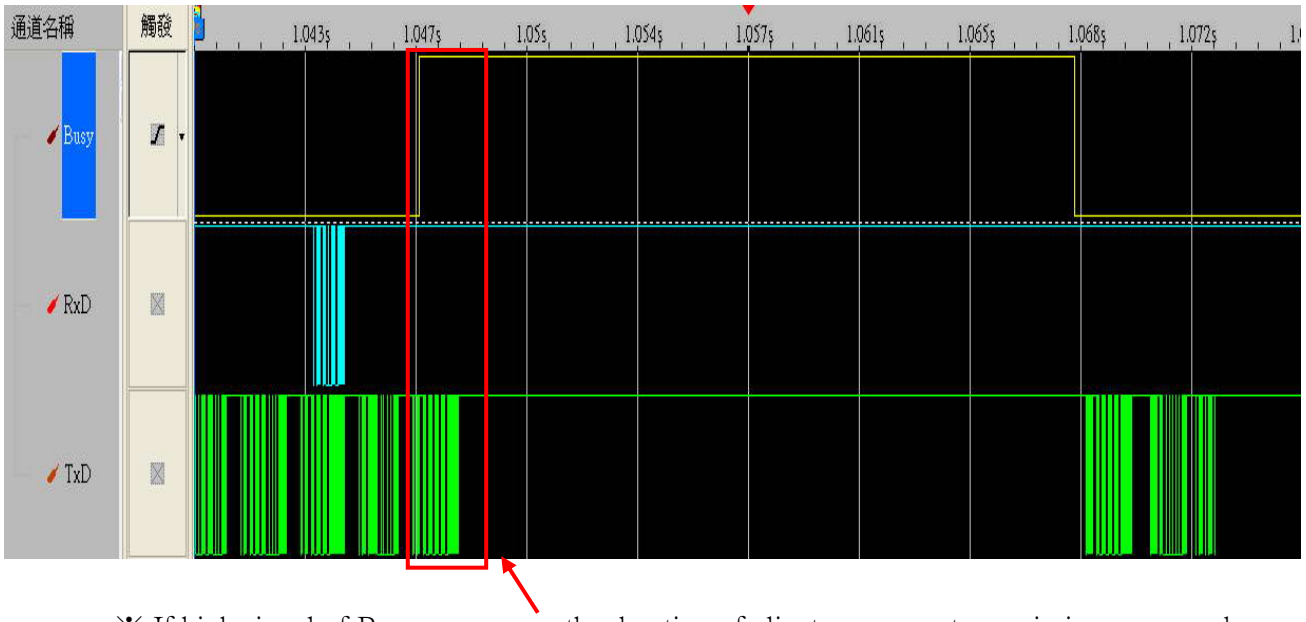
Smart Graphic Module

UART Timing Chart
&
Busy Pin Description

1.UART Mode Communication Block

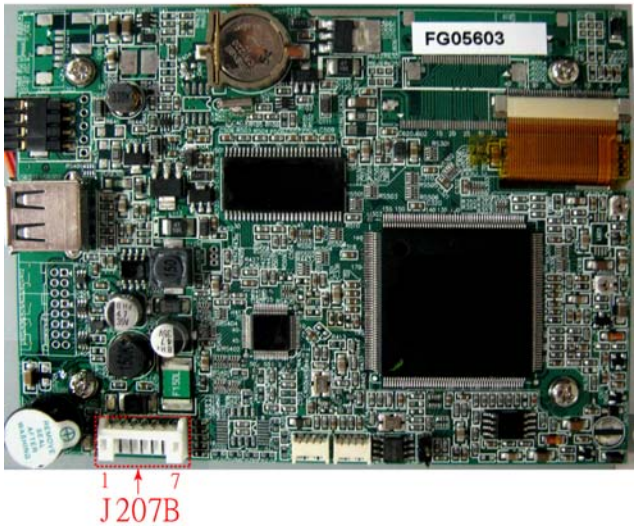


2. UART Timing Chart (Client Side)



※ If high signal of Busy appears on the duration of client processor transmission command. Please don't worry this situation and goes on last command

3. Pin Description



3.1 Pin Assignment of Signal Input (Pitch 2.0mm 7Pin, Side Entry Type)

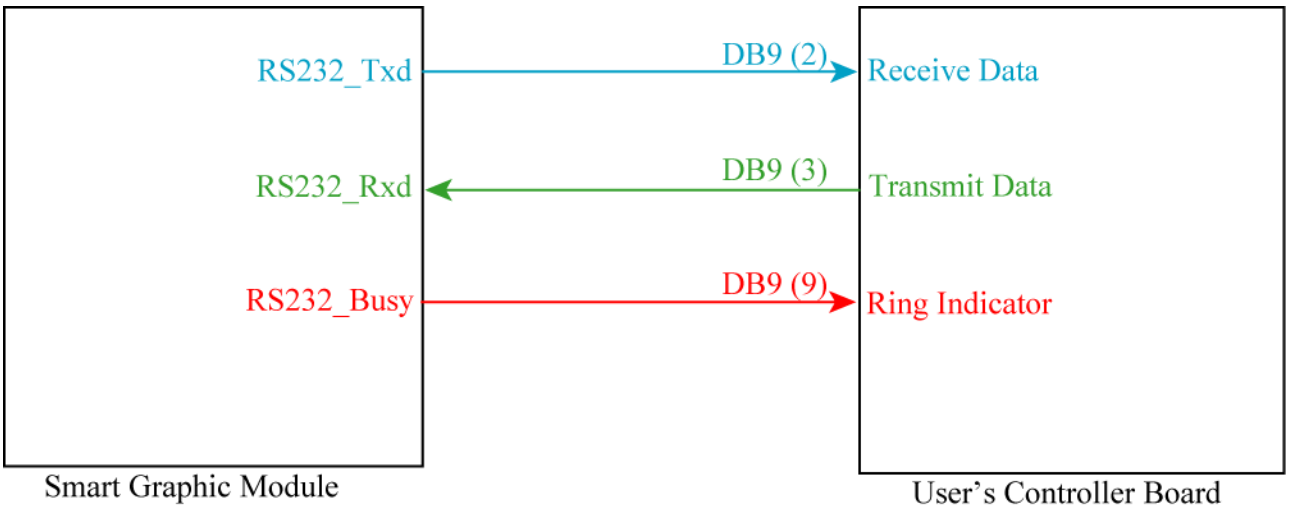
Pin No	Symbol	I/O	Description	Remark
1	VCC12V	-	+12V Input Voltage	DC
2	VCC12V	-	+12V Input Voltage	DC
3	GND	-	Ground	
4	GND	-	Ground	
5	BUSY	O	Busy status (Internal pull high)	High: Busy (3.3V) Low: Normal
6	RXD	I	Receive Data (UART)	TTL Level RS-232 (3.3V)
7	TXD	O	Transmit Data (UART)	TTL Level RS-232 (3.3V)

4. Example code for detection busy pin of SGM

```
#define BusyPin    P3_2;          // define Busy pin of MCU

main( )
{
            .
            .
      sendPastePicture( );         // call send UART command to SGM for paste picture on screen
            .
            .
}
void sendPastePicture(void)
{
            .
            .
      while(BusyPin);       // waiting Busy status is low
      commandSendToTx( );       // Busy is low , So call command sending function
            .
            .
}
```

5、 RS232 mode Communication Block



Note : RS232 mode is option