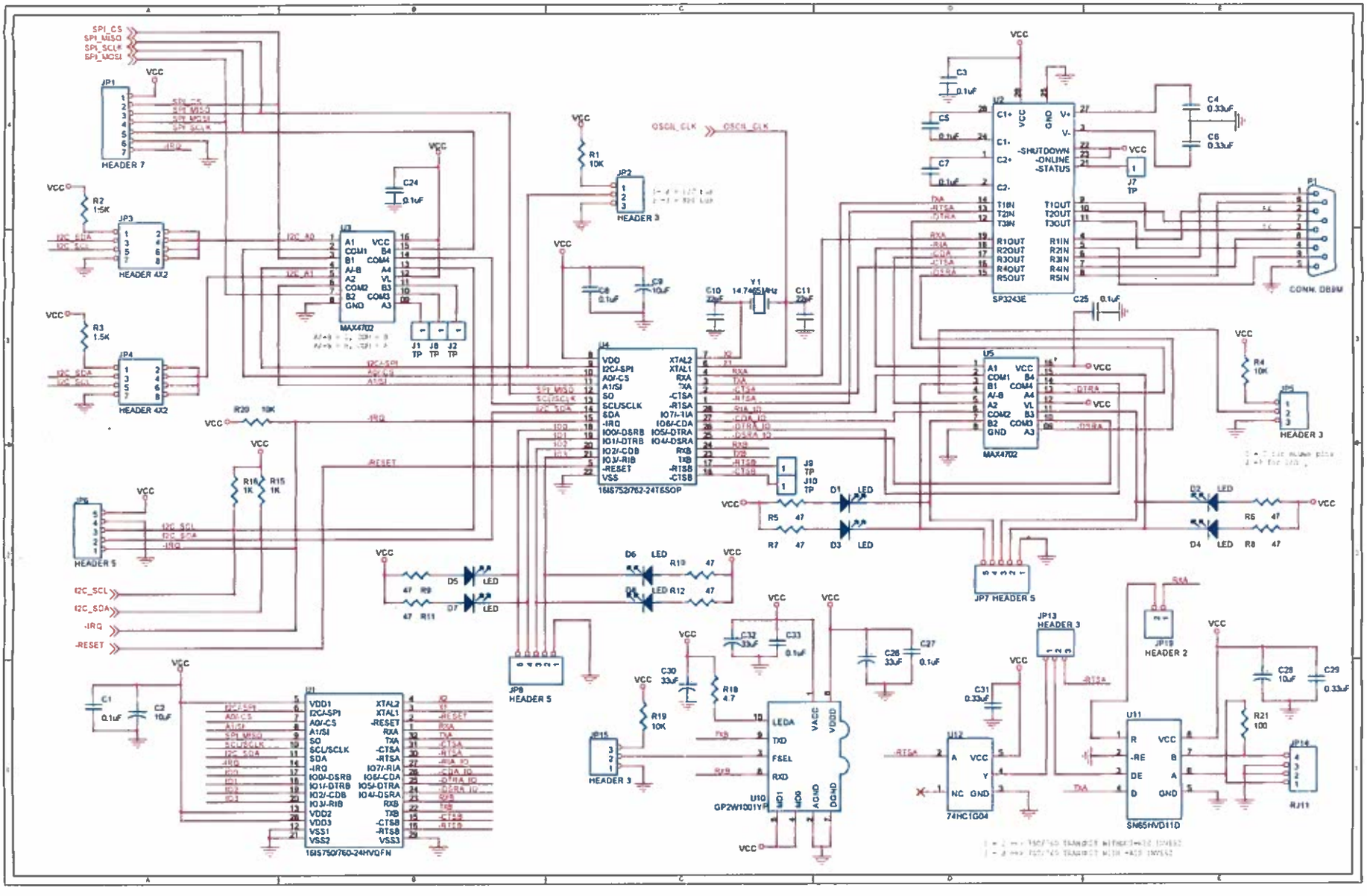
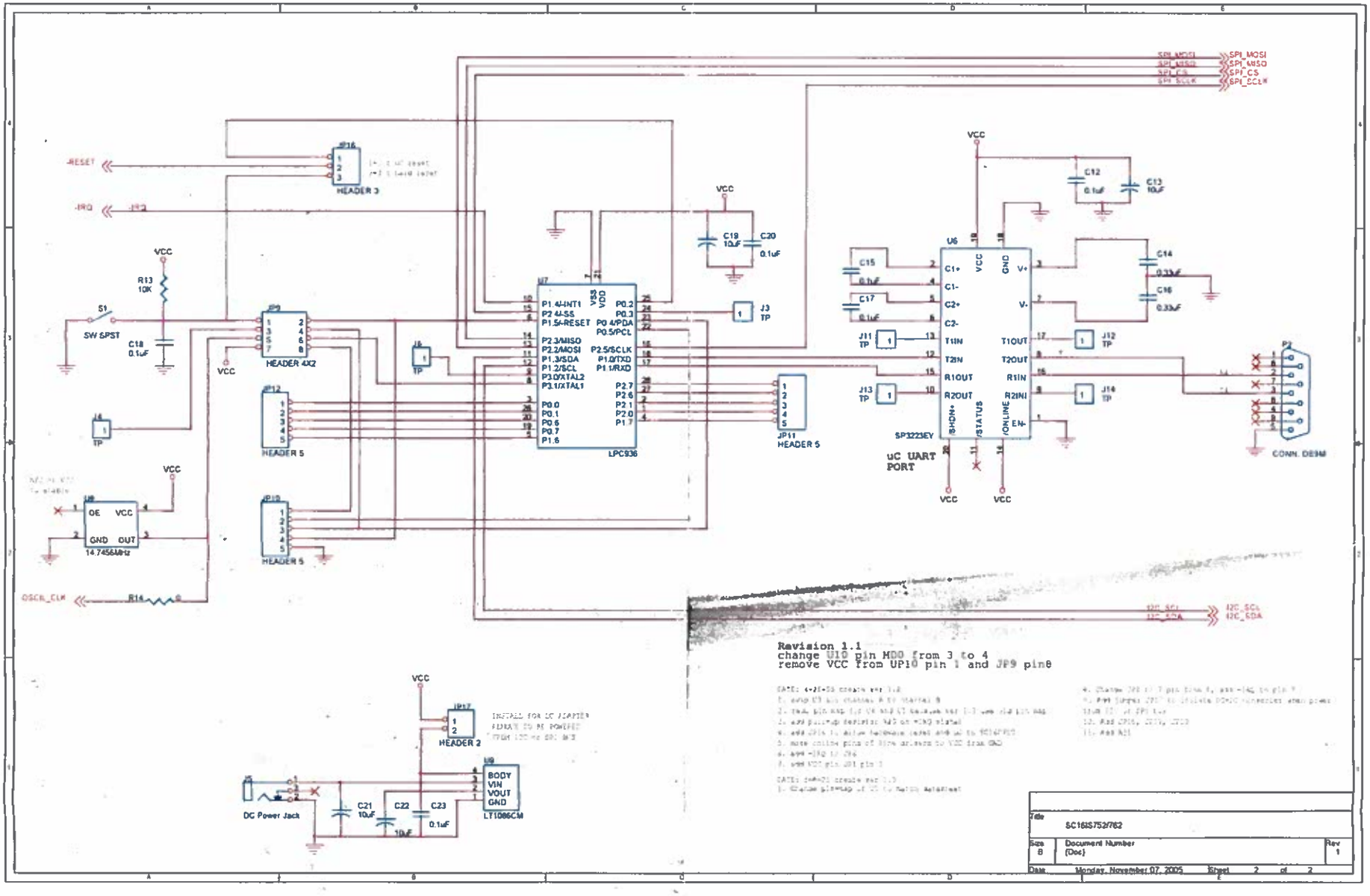

SPI_CS
SPI_MISO
SPI_SCLK
SPI_MOSI
VCC
JP1
HEADER 7
R2
1.5K
JP3
HEADER 4X2
R3
1.5K
JP4
HEADER 4X2
R20 10K
-IRQ
-RESET
R16 1K
R15 1K
JP5
HEADER 5
I2C_SCL
I2C_SDA
-IRQ
-RESET
C1
0.1uF
C2
10uF
U1
16S7502760-24HVQFN
U3
MAX4702
C24
0.1uF
R1
10K
JP2
HEADER 3
OSCIN_CLK
C8
0.1uF
C9
10uF
C10
22pF
Y1
14.7456MHz
C11
22pF
U4
16S7522762-24T6SOP
J1 TP
J8 TP
J2 TP
J9 TP
J10 TP
D1 LED
D2 LED
D3 LED
D4 LED
R5 47
R6 47
R7 47
R8 47
D5 LED
D6 LED
D7 LED
R9 47
R10 47
R11 47
R12 47
JP6
HEADER 5
JP7 HEADER 5
U2
SP3243E
C3
0.1uF
C4
0.33uF
C5
0.1uF
C6
0.33uF
C7
0.1uF
J7 TP
P1
CONN. DB9M
C25 0.1uF
U5
MAX4702
R4
10K
JP8
HEADER 3
C26
33uF
C27
0.1uF
C30
33uF
C32
33uF
C33
0.1uF
R18
4.7
R19
10K
JP15
HEADER 3
U10
GP2W1001YP
JP13
HEADER 3
JP18
HEADER 2
C31
0.33uF
U12
74HC1G04
U11
SN65HVD11D
C28
10uF
C29
0.33uF
R21
100
JP14
RJ11


SPI_MOSI
SPI_MISO
SPI_CS
SPI_SCLK
RESET
IRQ
HEADER 3
HEADER 4X2
HEADER 5
HEADER 5
HEADER 2
LPC936
SP3223EY
uC UART PORT
CONN. DB9M
JP11 HEADER 5
LT1086CM
DC Power Jack
14.7456MHz
I2C_SCL
I2C_SDA
OSCIN_CLK
VCC
Revision 1.1
change U10 pin MDO from 3 to 4
remove VCC from UP10 pin 1 and JP9 pin8
Title
SC16IS752/762
Size B
Document Number (Doc)
Rev 1
Date Monday, November 07, 2005
Sheet 2 of 2

SC16IS752/762 DEMO BOARD USER'S MANUAL

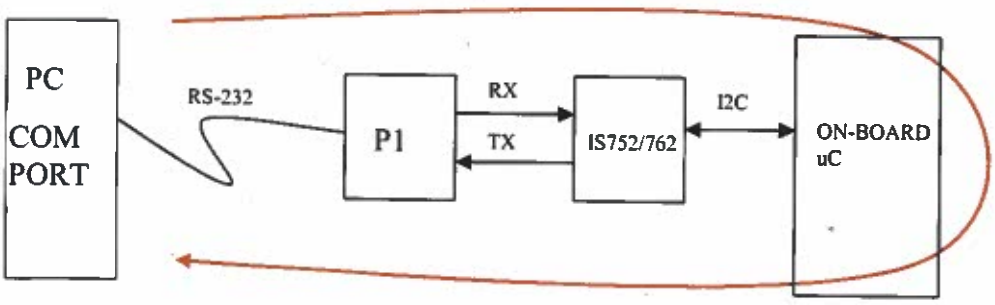
The demo board has an on board microcontroller (U7) which is used to control the SC16IS752/762 through the microcontroller's I2C bus. The on-board microcontroller can be removed from its socket; this allows the SC16IS752/762 to be controlled through the SPI header (JP1) or the I2C header (JP6). Please refer to the schematics for more detail of the headers' pin map.

When the external controller is selected (U7 is removed), a ribbon cable can be made to connect the external controller's I2C or SPI bus to the demo board. This option allows the user to control the SC16IS752/762 directly with the external controller, and it also allows the user to quickly develop his software without modify his system to add the 16IS752/762 and the necessary components.

DEMO MOES

The demo modes can be chosen by the jumper on JP8 pin 1 and 2 (IO3). If the jumper is missing the datapath is between IrDA port and uC serial port. In this mode if any data received by SC16IS752/762 through the IrDA port will be send out to P2.

If the jumper is installed between JP8 pin 1 and 2, the SC16IS752/762 demo board is in software loop back mode. Any data receives by SC16IS752/762 through port P1 will be read by the on-board uC, the on-board uC then automatically sends the data back to port P1 through SC16IS752/762.
(See the file SC16IS752/762 Demo Board User Guide for setup instruction)



SC16IS752/762 ADDRESS SECTION

This device can be configured as any of the following 16 I2C addresses by installing the jumpers on JP4 and JP3:

JP4 (A1)	JP3 (A0)	SC16IS752/762 I2C ADDRESS
VCC (label pin 1)	VCC (label pin 1)	0x90
VCC (label pin 1)	GND (not label)	0x92
VCC (label pin 1)	SCL	0x94
VCC (label pin 1)	SDA	0x96
GND (not label)	VCC (label pin 1)	0x98
GND (not label)	GND (not label)	0x9A (factory default)
GND (not label)	SCL	0x9C
GND (not label)	SDA	0x9E
SCL	VCC (label pin 1)	0xA0
SCL	GND (not label)	0xA2
SCL	SCL	0xA4
SCL	SDA	0xA6
SDA	VCC (label pin 1)	0xA8
SDA	GND (not label)	0xAA
SDA	SCL	0xAC
SDA	SDA	0xAE

I2C OR SPI CONFIGURATION

The on-board microcontroller is programmed to control the SC16IS752/762 through I2C bus. But if the 16IS752/762 is to be controlled by an external controller through either JP1 (SPI) or JP6 (I2C) then the controlled bus is selectable by JP2.

I2C bus is selected by installing the jumper on pin 1 and 2 of JP2, and SPI bus is selected by installing the jumper on pin 2 and 3 of JP2.

MODEM PINS OR I/O PINS

Four of the 16IS752/762 I/O pins can also be programmed as normal I/O pins. When these pins are programmed as modem pins, they are routed to the serial port. This case requires the jumper to be on pin 1 and 2 of JP5. When these four pins are programmed as I/O pins, they are routed to JP7. This case requires the jumper to be on pin 2 and 3 of JP5.

In addition, there are 8 LEDs on boards and can be turned on or off by the SC16IS752/762 I/O pins when programmed as outputs.

IrDA, SERIAL PORT OR RS-485 PORT

On this board the SC16C752/762 receiver pin of channel A can be routed from one of these two sources: Serial Port (P1) or RS-485 Port (JP14). Please see the table below:

JP19	
OFF	Receive from Serial Port
ON	Receive from RS-485 Port (see note 1)

Note 1: when the IrDA transceiver (U11) is installed, the RS-232 transceiver (U2) must be removed.

POWER SUPPLY OPTIONS

The demo board is normally powered from a 5V-7.5V DC adapter which plugs into the power jack J5. This option requires the jumper JP17 to be installed.

Additionally a 3.3V external power source can be used to supply power to the demo board. This option requires the jumper on JP17 to be removed and the external 3.3V power is connected to JP17 pin 1.

SC16IS752/762 HARDWARE RESET OPTIONS

SC16C752/762 can be manually reset with the push switch (S1) or through the on-board uC (U7 pin25). The factory default is S1, therefore, JP16 jumper is installed on pin 2 and 3.