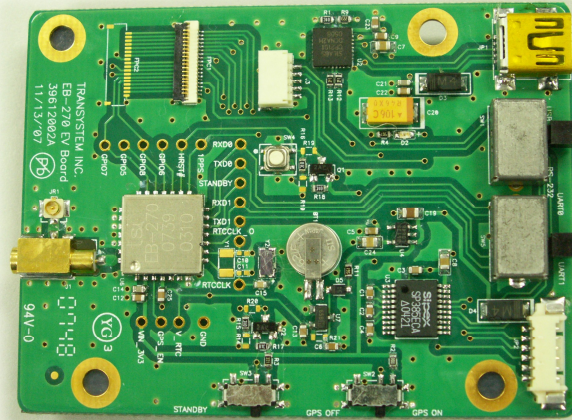


EB-270 GPS Engine Board

Evaluation Kit User's Manual

AN-01



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TRANSYSTEM INC.

No. 1-2 Li-Hsin Rd. I, Science-Based
Industrial Park, Hsinchu, Taiwan

T : +886-3-5780390 / F : +886-3-5784111

www.transystem.com.tw

gps.sales@transystem.com.tw

Ver 1.0

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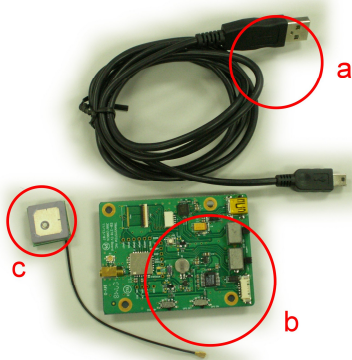
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1 Introduction

EB-270 evaluation kit is an user friendly tool for your evaluation of TSI's EB-270 GPS engine board. With its miniature size, low power consumption and superior performance, EB-270 is your ultimate choice for all embedded applications such as :

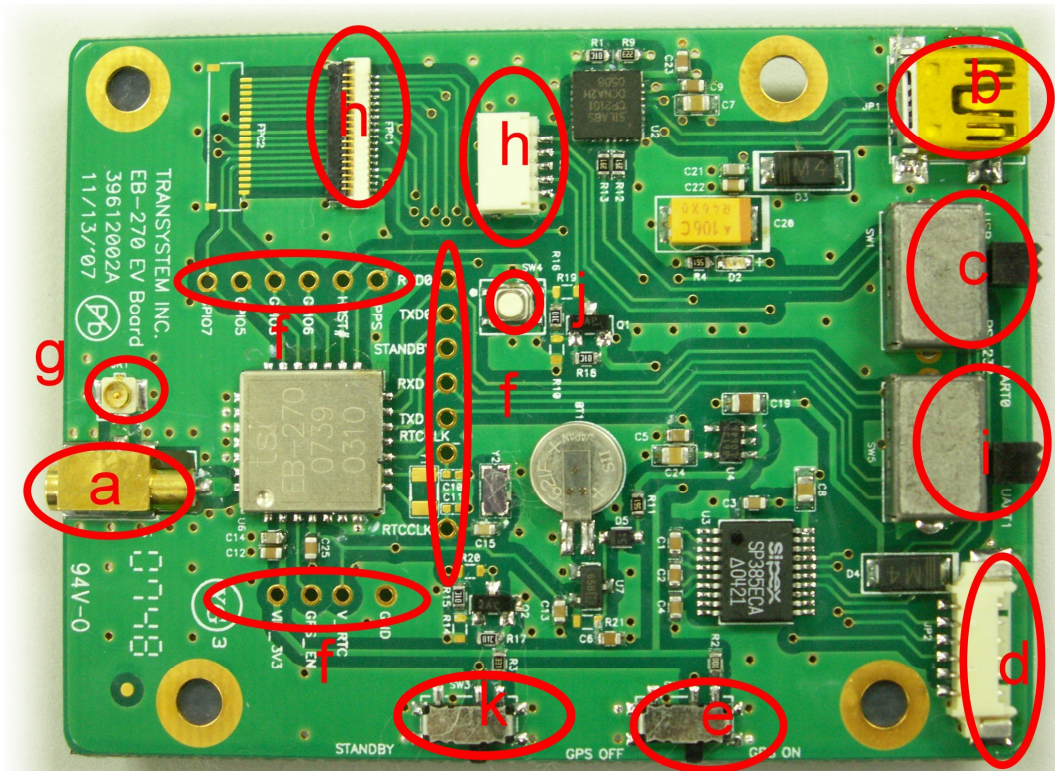
- Handheld devices (PDA, Smart phone...)
- Automotive and Marine Navigation
- Automotive Navigator Tracking
- Emergency Locator
- Geographic Surveying
- Personal Positioning
- Sporting and Recreation

2 When you open it



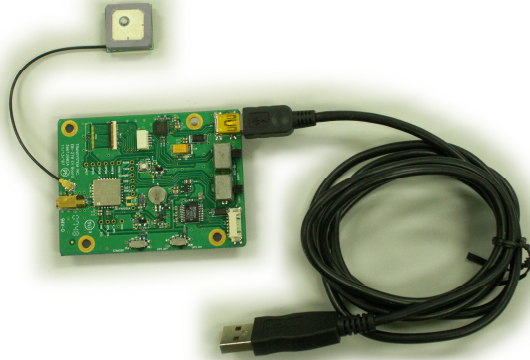
- a. USB Cable x1
- b. EB-270 Evaluation Board x1
- c. GA-232 Active Antenna x1
(IPX Connector)
- d. CD-ROM with technical data
and GPS testing software

2.1 Evaluation Board Picture



- a. Aux RF Port 2 J1 (MMCX)
- b. Mini USB Port
- c. USB/RS232 Select Switch
- d. RS232 Port
- e. GPS On/Off Switch
- f. Test point for EB-270 signals
- g. RF Port 1 JR1 (Ipx)
- h. Test connector (for internal test only)
- i. UART0/ UART1 Select Switch
- j. Hard Reset Button
- k. Standby Switch: TBD

2.2 USB Setup



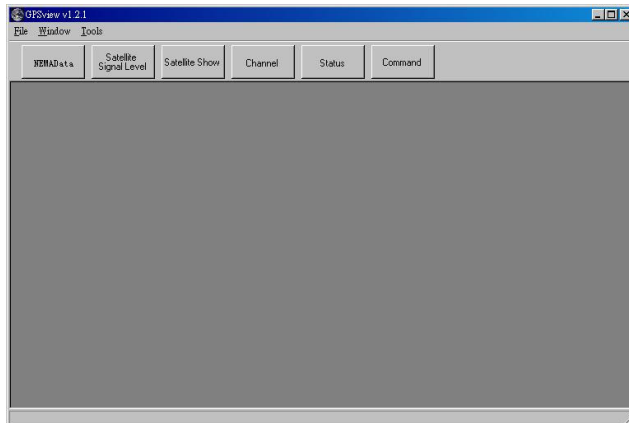
- a. Plug active antenna into the external antenna connector JR1
- b. Connect USB cable between EB-270 Evaluation board and PC
- c. Turn SW1 to “ USB “ position
- d. Turn SW2 to “ GPS On “ position

3 GPS Testing Software

- a. Check the COM port number from Device Manager in your PC first.
- b. Place CD-ROM into your CD drive.
- c. Install CP2101 driver for USB port from CD-ROM.
- d. Double click GPSView.exe

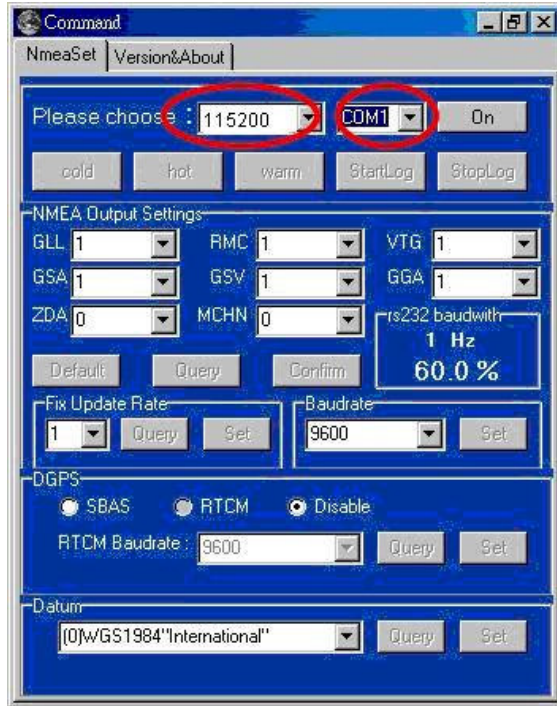


- e. Following main page will show on your screen.

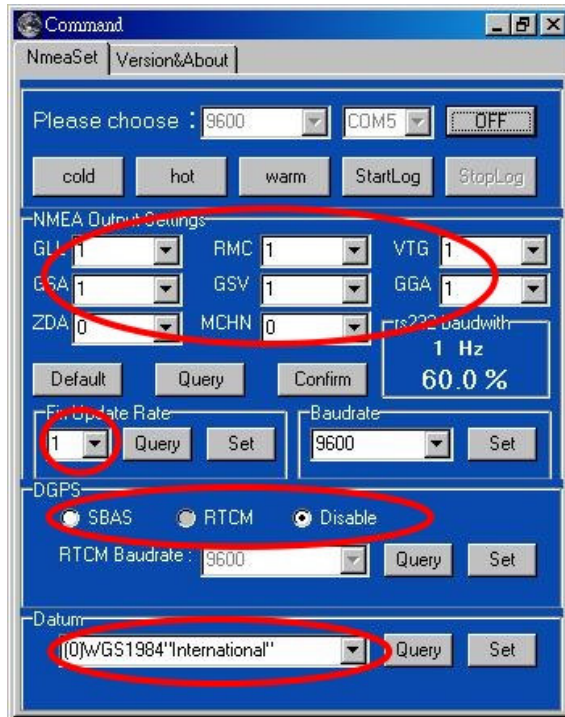


- f. Select baud rate and serial port.

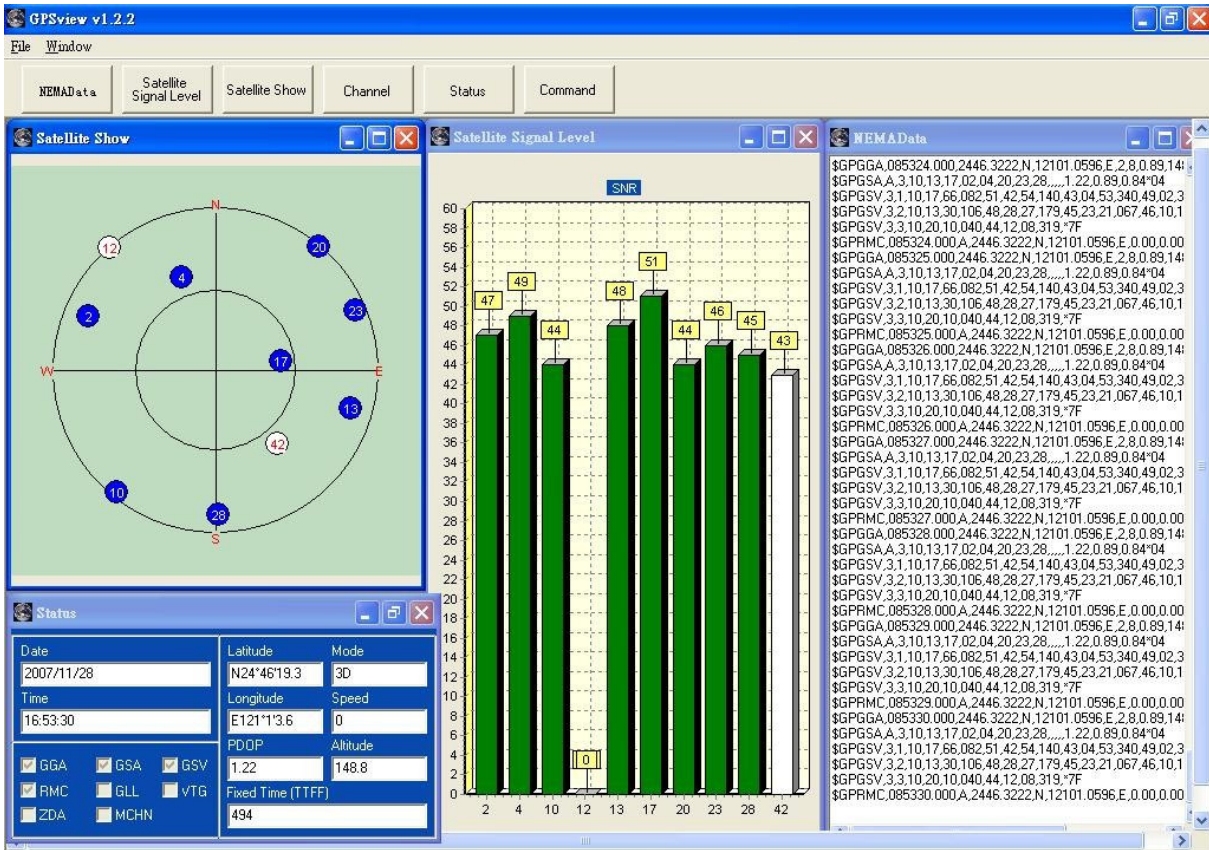
Default setting for EB-270 is 115200bps and COM1.



- g. Click "Setup" tap, more options for your choice of NMEA output, update rate, Datum, DGPS...etc. are available through pull-down menus.



- h. Go back to main page for viewing of life performance information including Date, Time, Latitude, Longitude, Altitude, Speed, Satellite number, SNR...etc.



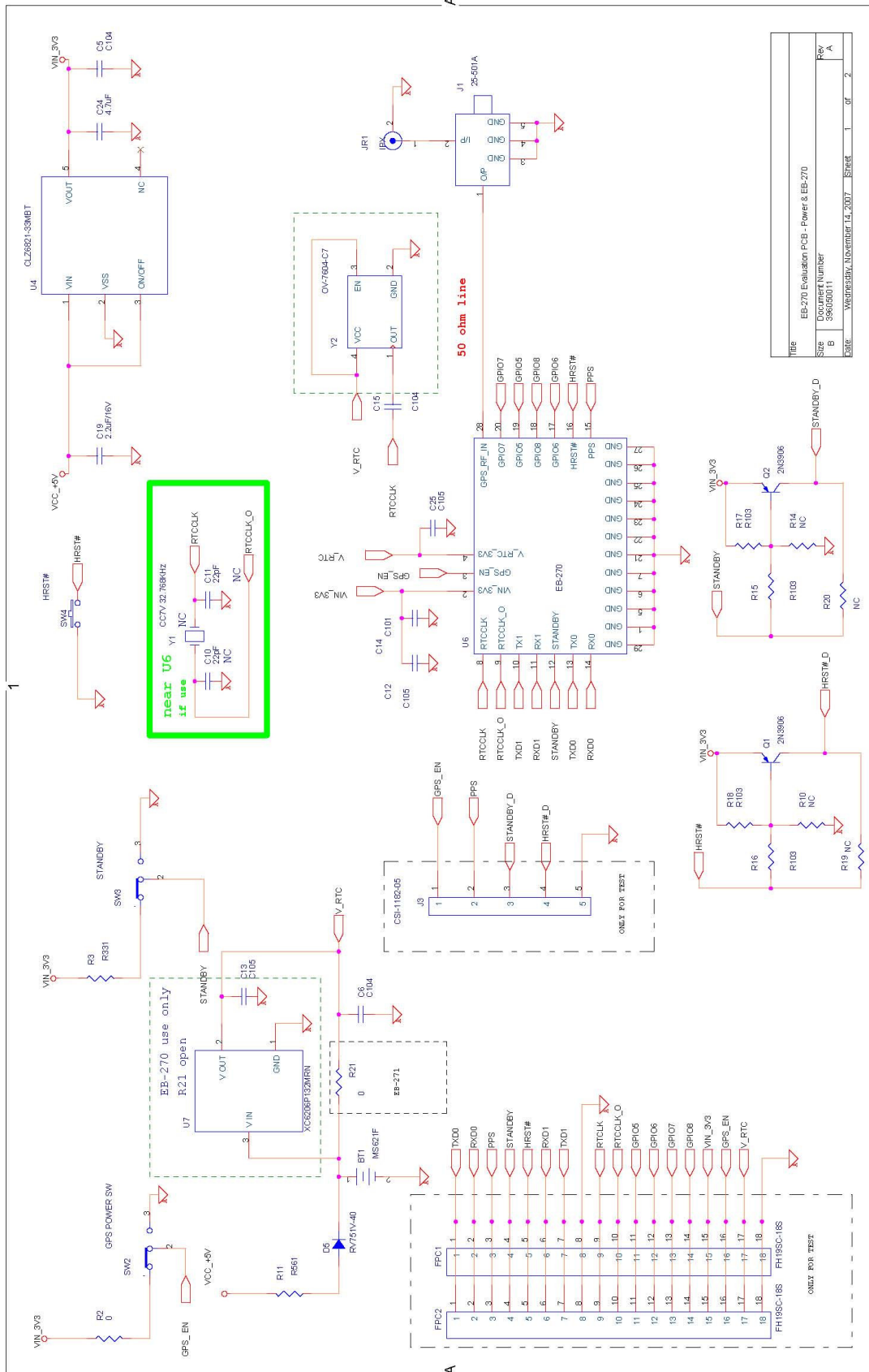
There are still more options for you to click on including : Hot (Hot Start), Warm (Warm Start), Cold (Cold Start), NMEA Log (Log the data as a *.nma file).

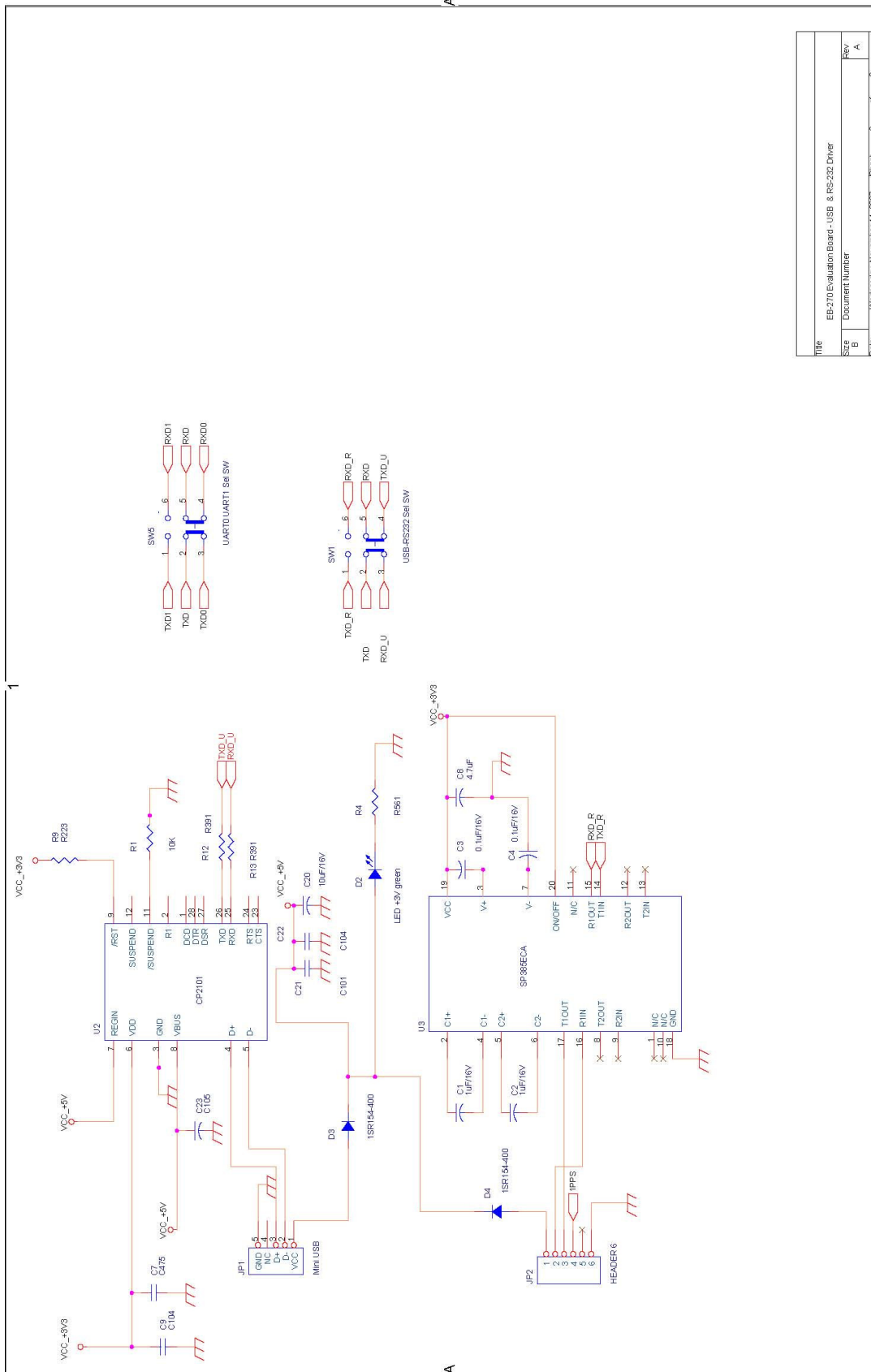
4. Connector Definition

Signal Name	Type	Description
GND	P	Ground
VIN_3V3	P	Power Supply 3.0~6V DC
GPS_EN	I	Low to disable module; High to enable module
V_RTC_1V2; V_RTC_3V3	P	RTC power 1.0~1.5V DC; RTC power 1.5~6.0V DC (EB-271 with on-module LDO to 1.2V)
RTCCLK	I	(Analog/ Input) RTC Xtal connection
RTCCLK_O	O	(Analog/ Output) RTC Xtal connection
TX1	O	GPS TX1
RX1	I	GPS RX1
STANDBY	I	STANDBY/ Interrupt
TX0	O	GPS TX0
RX0	I	GPS RX0
PPS	O	PPS
HRST#	I	GPS reset, active low. Internal pull high
GPIO6	I/O*	GIO or SO
GPIO8	I/O*	GIO or SCK
GPIO5	I/O*	GIO or SCS0#
GPIO7	I/O*	GIO or SIN
RF_IN	I	(Analog) 50-ohm RF signal in, with DC bias to off-module

P: Power I: Input O: Output I/O*: Input or Output, Open if not used

5. Evaluation Board Schematics





FILE	EB-270 Evaluation Board - USB & RS-232 Driver
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Contact Information

Transystem Inc.

No. 1-2 Li-Hsin Rd. I,

Science-Based Industrial Park,

Hsinchu, Taiwan, R.O.C.

T : +886.3.578.0393 / F : +886.3.578.4111

www.transystem.com.tw

gps.sales@transystem.com.tw