

EB-570 GPS Engine Board Evaluation Kit User's Manual

AN-01



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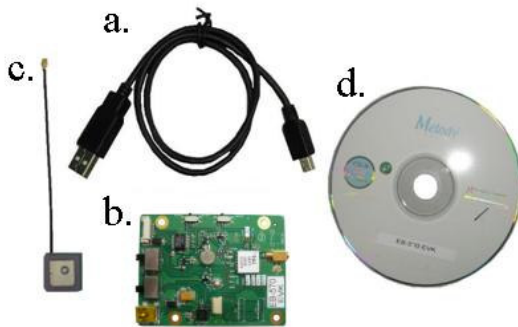
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1 Introduction

EB-570 evaluation kit is an user friendly tool for your evaluation of TSI's EB-570 GPS engine board. With its miniature size, low power consumption and superior performance, EB-570 is your ultimate choice for all embedded applications such as :

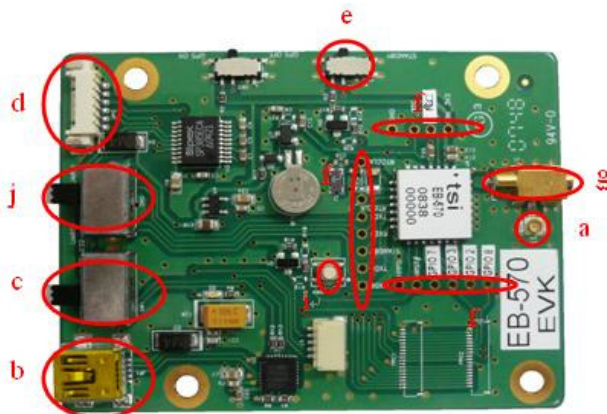
- Handheld devices
- Automotive and Marine Navigation
- Automotive Navigator Tracking
- Emergency Locator
- Geographic Surveying
- Personal Position
- Sporting and Recreation
- Embedded applications : PDA, DSC, Smart phone, UMPC PND MP4

2 When you open it



- a. USB Cable x1
- b. EB-570 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. RF Port 1 JR1 (Ipex)
- b. Mini USB Port
- c. USB/RS232 Select Switch
- d. RS232 Port
- e. GPS On/Off Switch
- f. Test point for EB-570 signals
- g. Aux RF Port 2 J1 (MMCX)
- h. Standby Switch: TBD
- i. Hard Reset Button
- j. UART0/ UART1 Select Switch

2.2 USB Setup



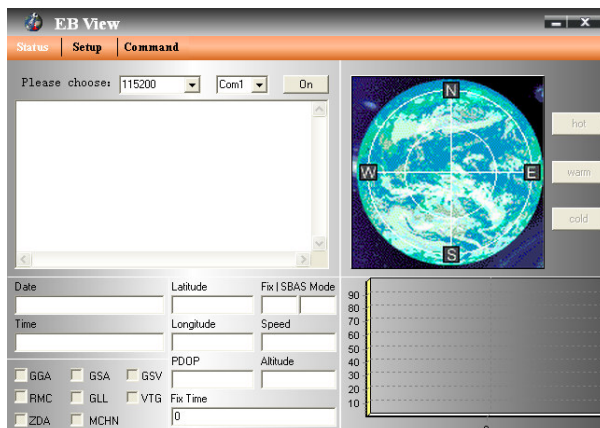
- Plug active antenna into the external antenna connector JR1
- Connect USB cable between EB-570 Evaluation board and PC
- Turn SW1 to " USB " position
- Turn SW5 to " UART " position

3 GPS Testing Software

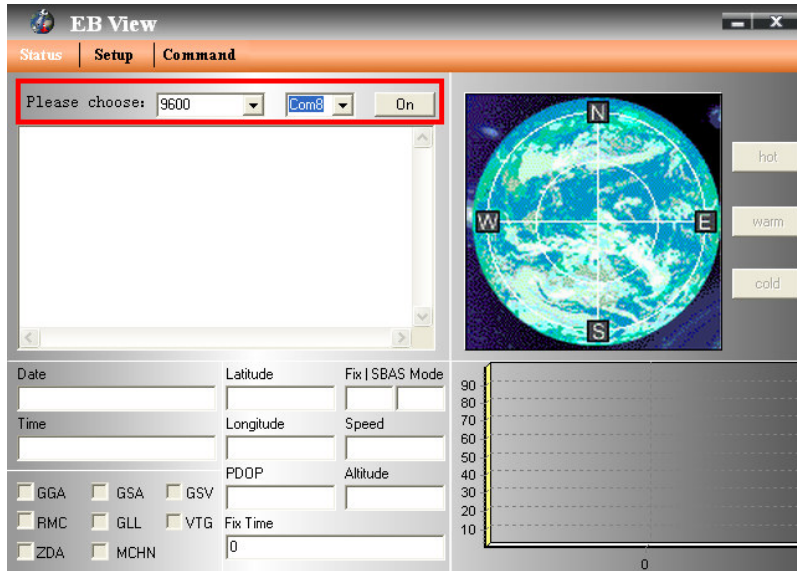
- Check the COM port number from Device Manager in your PC first.
- Place CD-ROM into your CD drive.
- Install CP210X USB driver for USB port from CD-ROM.
- Double click GPSView.exe



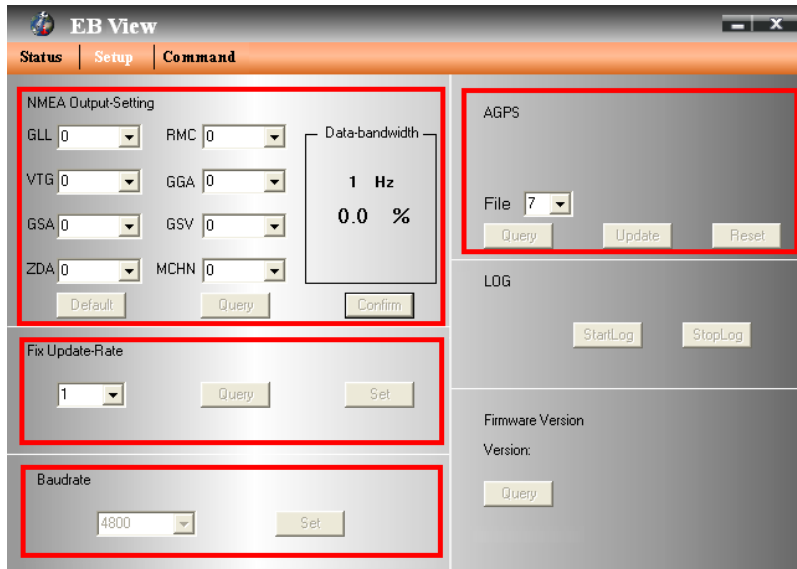
- Following main page will show on your screen.



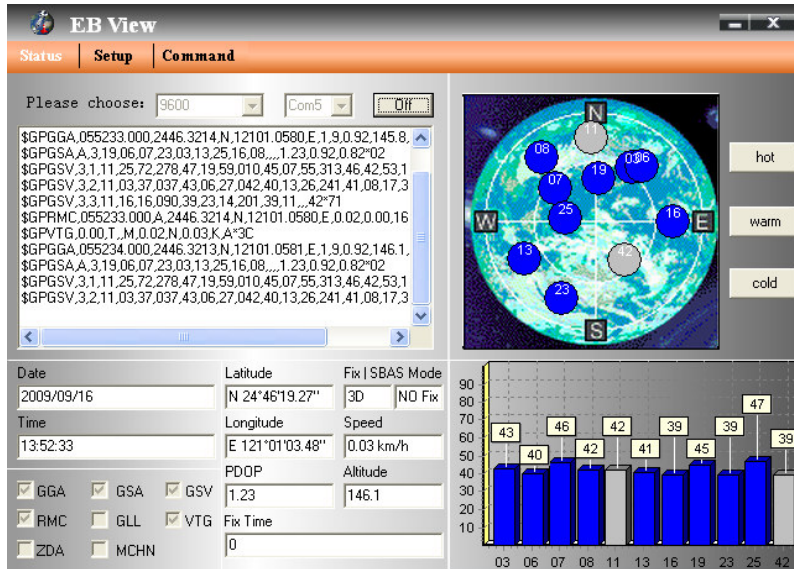
- f. Select baud rate and serial port.
Default setting for EB-500 is 9600bps and COMX.



- g. Click "Setup" tap, more options for your choice of NMEA output, update rate, baud rate, AGPS setting...etc.



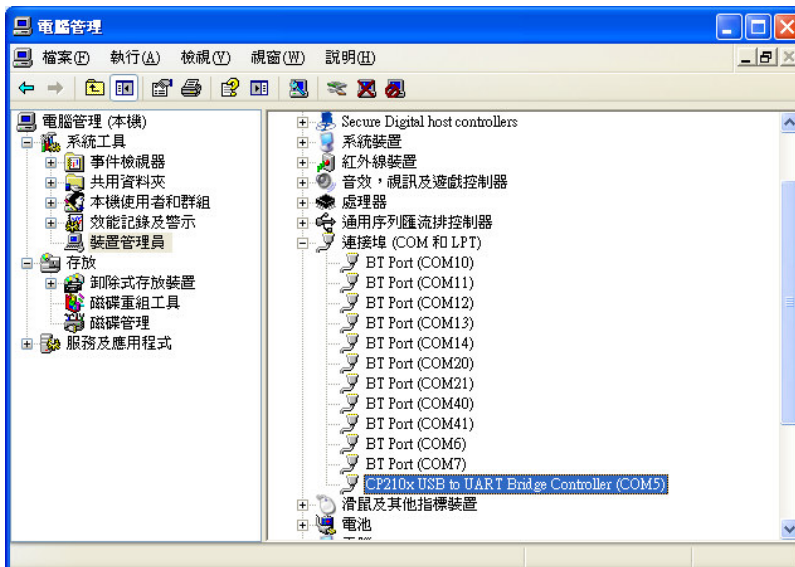
Go back to main page for viewing of life performance information including Date, Time, Latitude, Longitude, Altitude, Speed, Satellite number, SNR...etc.



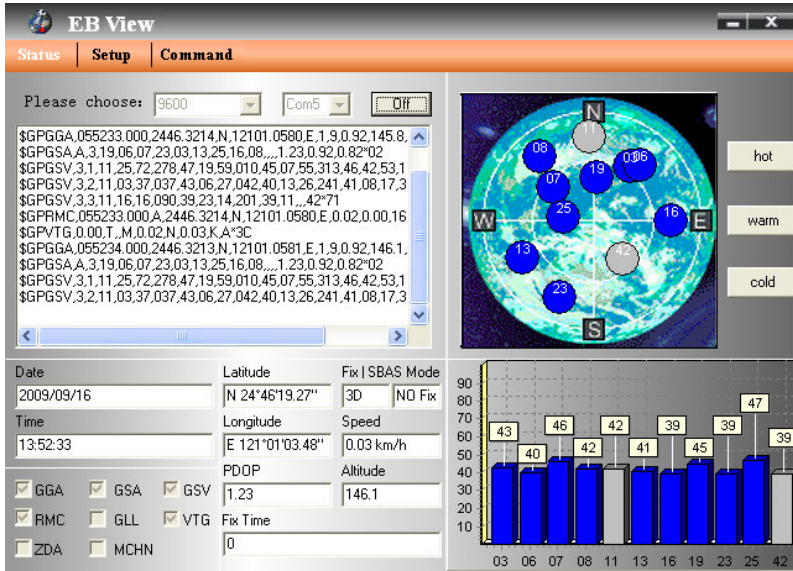
There are still more options for you to click on including: Hot (Hot Start), Warm (Warm Start), Cold (Cold Start).

3.1 Download AGPS

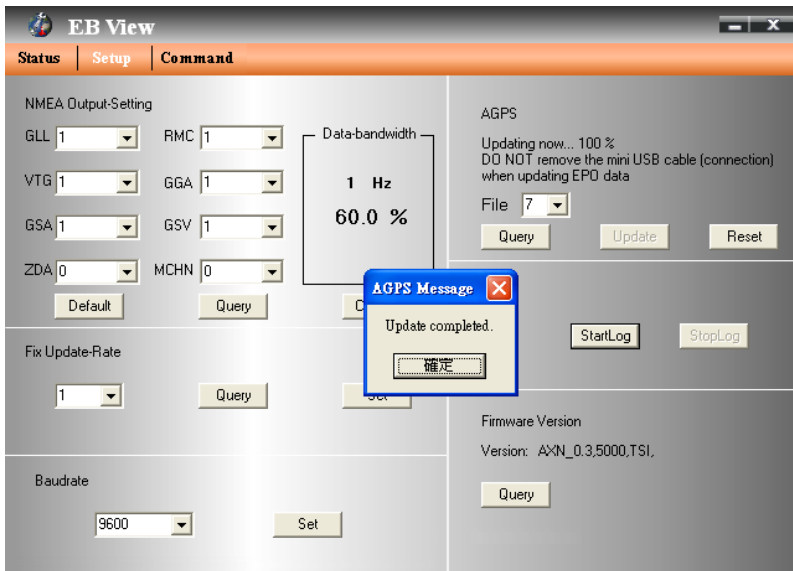
- a. Start > Control Panel > System > Hardware > Device Manager > ports (COM and LPT)
Check Com port position .



b. Open EB View v1.0.2.exe > Check Baud Rate and Com port > Click On

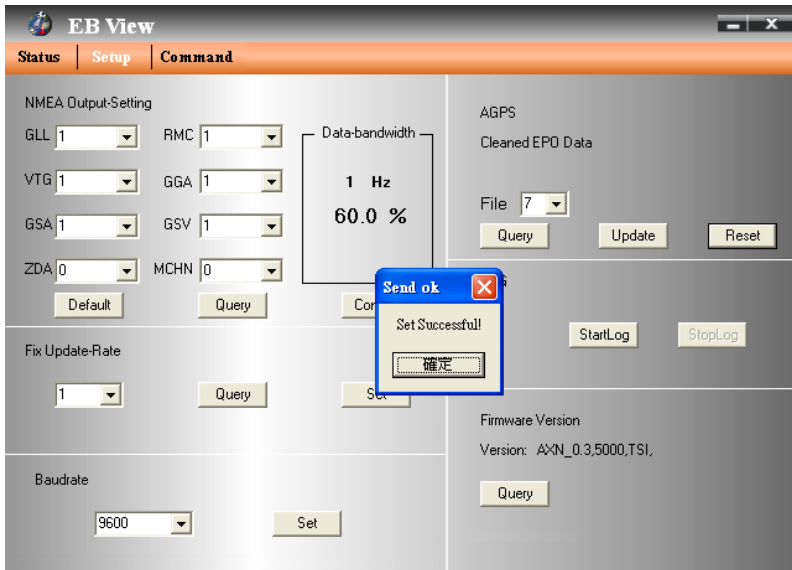


c. Choice "Update" will automatically update to 100%.



3.2 Clean AGPS

- a. Choice "Reset"
- b. After got send back message, choice "Yes". It will clean all AGPS data.

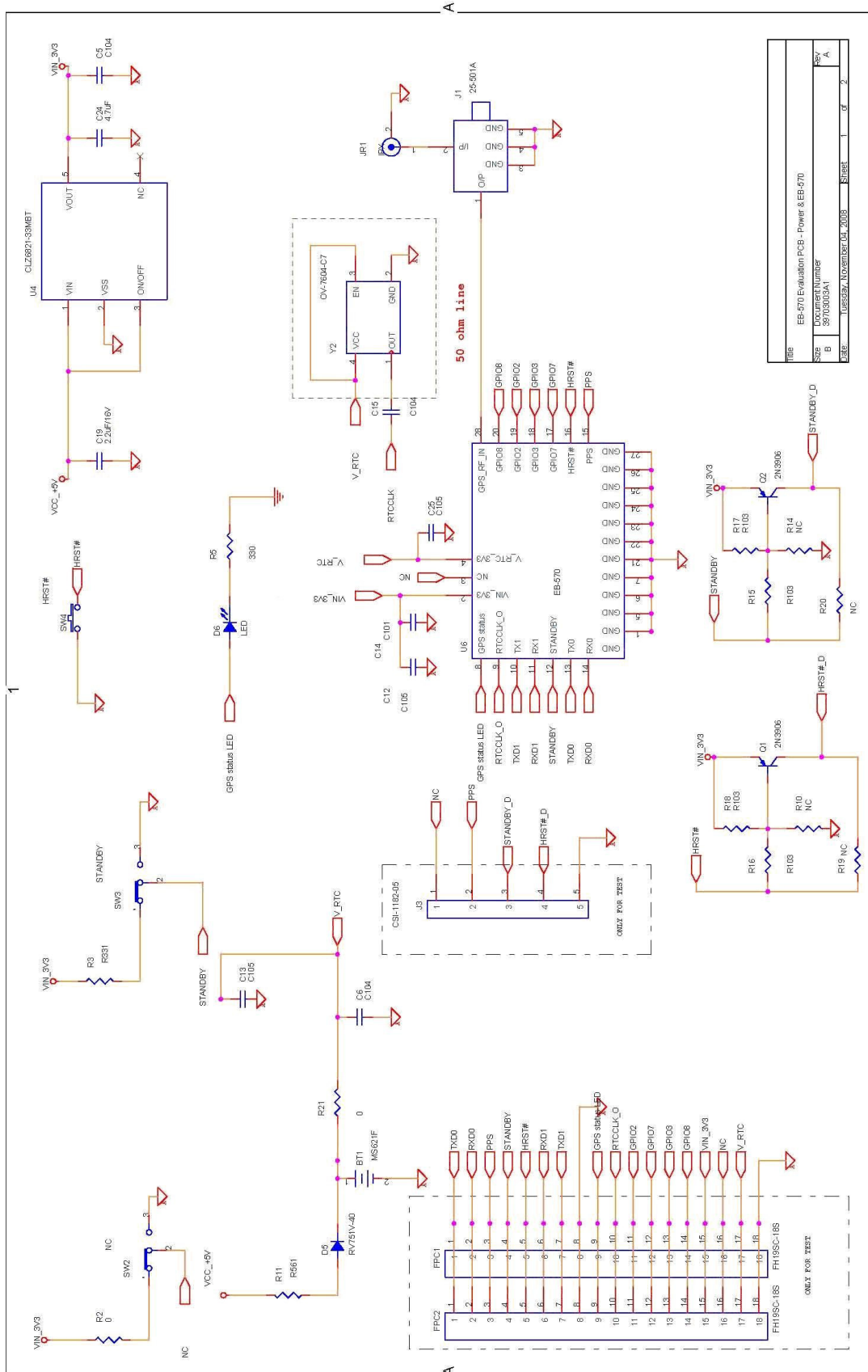


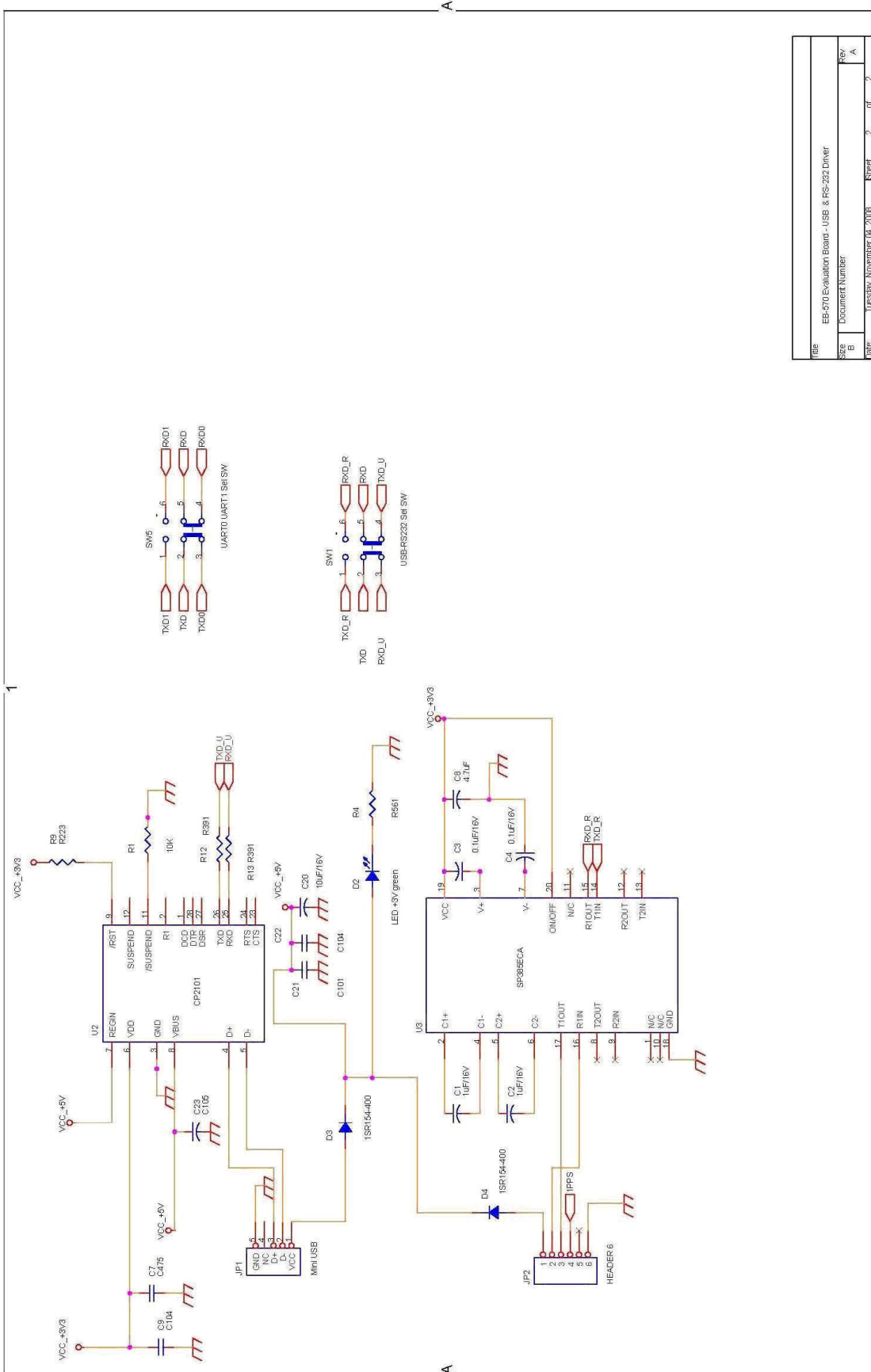
4. Connector Definition

Pin#	Signal Name	Type	Description
1	GND	P	Ground
2	VIN_3V3	P	Power Supply 3.0~4.2V DC
3	NC	NC	NC
4	V_RTC_3V3	P	RTC power 3.0~4.2V Quiescent current 5uA max
5	GND	P	Ground
6	GND	P	Ground
7	GND	P	Ground
8	GPS Status	O	GPS status, blink when GPS has position fix
9	RTCCLK_O	O	(Analog / Output) RTC clock output
10	TX1	O	GPS TX1
11	RX1	I	GPS RX1
12	STANDBY	X	Falling edge trigger
13	TX0	O	GPS TX0
14	RX0	I	GPS RX0
15	PPS	I	PPS
16	HRST#	I	GPS reset, active low. Internal pull high
17	GPIO[7]	I/O*	General input / output
18	GPIO[3]	I/O*	General input / output
19	GPIO[2]	I/O*	General input / output
20	GPIO[8]	I/O*	General input / output
21	GND	P	Ground
22	GND	P	Ground
23	GND	P	Ground
24	GND	P	Ground
25	GND	P	Ground
26	GND	P	Ground
27	GND	P	Ground
28	RF_IN	I	Antenna port, L1, 1575.42MHz, 50 ohm DC O/P : 2.8V Current \leq 25mA

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

5. Evaluation Board Schematics





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