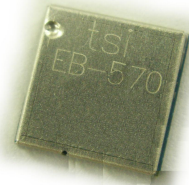


GPS Engine Board

EB-570

EB-570 is an ultra miniature 10.5 x10.4 mm² GPS engine board. It provides superior navigation performance under dynamic conditions in areas with limited sky view like urban canyons. High sensitivity up to **-165dBm** for weak signal operation without compromising accuracy. EB-570 series is your best choice for embedded applications.



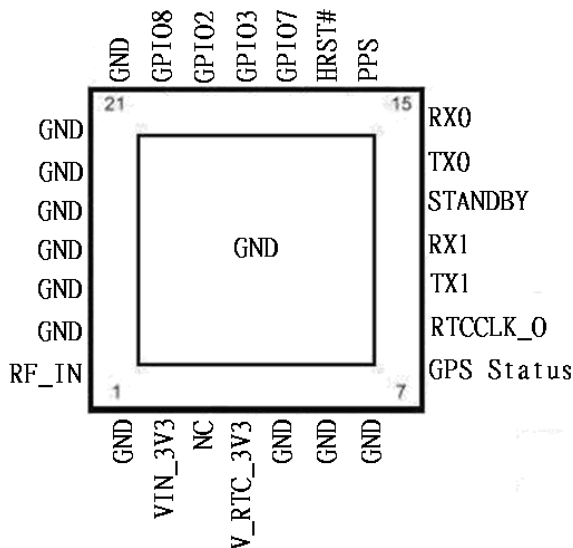
Key Features :

- Small form factor: 10.5 x 10.4 x 2.0 mm
- Lead-Free – RoHS/WEEE compliant
- High sensitivity -165dBm (With external LNA)
- Tracks 66-Channel of satellites
- Fast Position Fix
- Low power consumption
- Support A-GPS

Applications :

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

PIN Definition :



TRANSYSTEM INC.

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Ultimate

EB

EB-570 Specifications

<i>Specification</i>	<i>Description</i>
General	L1 frequency, C/A code (SPS) 66 independent tracking channels
Sensitivity	-165dBm /Tracking; -148dBm /Acquisition
Update Rate	Up to 5Hz
Accuracy	Without aid: 3.0m 2D-RMS <3m CEP (50%) without SA (horizontal) DGPS (WAAS, EGNOS, MSAS, RTCM): 2.5m
Acquisition (open sky)	Cold Start: <35sec Warm Start: <34sec Hot Start: <1.5sec
Reacquisition	< 1sec
Dynamics	Altitude : 18000m (max.) Velocity : 515m/sec (max.) Vibration : 4G (max.)
Supply Voltage	DC 3.0~4.2 V
Power Consumption	< 35mA @ 3.3V (w/o Active ANT) / Tracking
Backup Battery	DC 2.0~4.2V Quiescent current 5uA max
NMEA Message	NMEA0183 v3.1 baud rate 4800/9600/.../115200, default 9600 Selectable Output: GGA, GLL, GSA, GSV, RMC, and VTG
Datum	Default WGS-84
Antenna	External Active Antenna Output Voltage: 2.8 VDC or Passive Antenna
Serial Interface	UART
Operating Temperature	-30°C to 85°C
Storage Temperature	-40°C to 85°C
Operating Humidity	≤95%, non condensing
Mounting	SMT Type, 28 Pin
Dimension	10.5 x 10.4 x 2.0(H) mm

Pin 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 2.0~4.2V 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	I	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	GPIO7	I/O*	General input / output
18	GPIO3	I/O*	General input / output
19	GPIO2	I/O*	General input / output
20	GPIO8	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

*Specifications subject to change without prior notice.
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