

GPS Engine Board

EB-230

EB-230 is an ultra miniature 12 x 12 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 **-158dBm** for weak signal operation without compromising accuracy. EB-230 is your best choice for embedded applications.

Key Features :

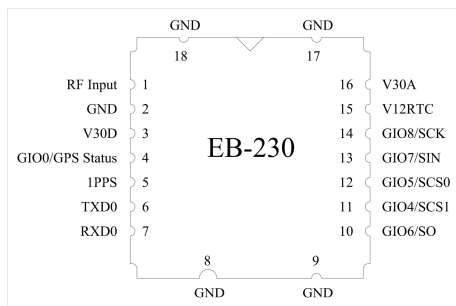
- Small form factor: 12 x 12 x 2.4 mm
- Lead-Free – RoHS/WEEE compliant
- High sensitivity -158dBm
- Tracks 51-Channel of satellites
- Fast Position Fix
- Low power consumption

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 :



PIN Coordinates

Unit:mm

Pin #	X	Y	Pin #	X	Y
1	0.00	0.00	10	12.50	7.62
2	0.00	1.27	11	12.50	6.35
3	0.00	2.54	12	12.50	5.08
4	0.00	3.81	13	12.50	3.81
5	0.00	5.08	14	12.50	2.54
6	0.00	6.35	15	12.50	1.27
7	0.00	7.62	16	12.50	0.00
8	4.06	10.06	17	9.71	-2.44
9	9.71	10.06	18	2.79	-2.44



TRANSYSTEM INC.

An A⁺ supplier of RF microwave & GPS products

Ultimate

EB

EB-230 Specifications

Specification	Description
General	L1 frequency, C/A code (SPS) 51 independent tracking channels
Sensitivity	-158dBm /Tracking; -146dBm /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: 36sec Warm Start: 33sec Hot Start: 1sec
Reacquisition	< 1sec
Dynamics	Altitude: 18000m (max.) Velocity: 515m/sec (max.) Vibration: 4G (max.)
Supply Voltage	DC 2.8~3.3V
Power Consumption	< 30mA @ 3.0V (w/o Active ANT) / Tracking
Backup Battery	DC 1.2V (RTC Vcc)
NMEA Message	NMEA0183 v3.1 baud rate 4800/9600/.../57600, default 9600 Protocol: 3V CMOS/TTL Selectable Output: GGA, GLL, GSA, GSV, RMC, and VTG
Datum	Default WGS-84
Antenna	External Active Antenna Output Voltage: 2.8~3.3 VDC
Serial Interface	RS-232
Operating Temperature	-30°C to 85°C
Storage Temperature	-40°C to 125°C
Operating Humidity	≤ 95%, non condensing
Mounting	SMT Type, 18 Pin
Dimension	12 x 12 x 2.4(H) mm

*Specifications subject to change without prior notice.

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