

TAU1102

GNSS Positioning Module

Industrial

PRODUCT DESCRIPTION

TAU1102 is a cost-effective dual-system positioning module which is based on CYNOSURE II GNSS SoC chip. It is capable of tracking GPS/QZSS, BDS, Galileo, GLONASS and SBAS signals. With the highly integrated design, TAU1102 is applied to navigation applications, especially friendly to solutions requiring a strict cost.



HIGHLIGHTS

- Support GPS/QZSS, BDS, Galileo, GLONASS and SBAS
- Cost-efficient design
- Compatible with mainstream GPS modules
- Support active antenna short circuit protection and open circuit detection
- Support A-GNSS feature

APPLICATIONS



Automotive Navigation



Asset Tracking



Fleet Management



Telematics

Product Selector:

Product model	GNSS							Feature					Interface				Accuracy			Grade		
	GNSS system mode	Band (S/D/T)	GPS/QZSS	BDS	GLONASS	Galileo	SBAS	NavIC	Built-in LNA	Data Logging	Programmable (Flash)	D-GNSS	Oscillator	USB	UART	I2C	SPI	Meter	Sub-Meter	Centi-Meter	Industrial	Automotive
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T = TCXO

GENERAL SPECIFICATIONS

GNSS Engine

Cynosure II GNSS Engine
Total 72 GNSS channels
5 Hz maximum update rate

GNSS Reception

GPS/QZSS: L1C/A
BDS: B1I
Galileo: E1
GLONASS: G1
SBAS: L1

Position Accuracy

GNSS 2.5m CEP

Sensitivity

Cold Start -148 dBm
Hot Start -158 dBm
Reacquisition -159 dBm
Navigation -162 dBm

Velocity & Time Accuracy

GNSS 0.1 m/s CEP
1PPS 25 ns

Interfaces

UART 1

Antenna

Active antenna
Passive antenna

Time to First Fix (TTFF)

Hot start 1s
Cold start 28s

Operation Limit

Velocity 515 m/s
Altitude 18,000m

Operating Condition

Main voltage 3.0-3.6 V
Digital I/O voltage 3.0-3.6 V
Backup voltage 1.6-3.6 V

Antenna Supervision

Antenna short circuit protection and open circuit detection

Power Consumption

Tracking	GPS/QZSS+GLONASS+SBAS	32 mA @ 3.3V
	GPS/QZSS+BDS+Galileo+SBAS	32 mA @ 3.3V
	GPS/QZSS+GLONASS+Galileo+SBAS	33 mA @ 3.3V
Acquisition	GPS/QZSS+GLONASS+SBAS	32 mA @ 3.3V
	GPS/QZSS+BDS+Galileo+SBAS	39 mA @ 3.3V
	GPS/QZSS+GLONASS+Galileo+SBAS	38 mA @ 3.3V
Standby	14 uA	

ENVIRONMENT DATA

Operation temperature -40°C to +85°C
Storage temperature -40°C to +85°C
Certification RoHS & REACH

PACKAGE

Packaging 24 PIN LCC
Dimensions 12.2*16*2.4 mm

