

TAU1111

GNSS Positioning Module

Standard

PRODUCT DESCRIPTION

TAU1111 is a GNSS positioning module, which is based on the state of the art CYNOSURE III architecture. It supports GPS, BeiDou, GLONASS, Galileo, and QZSS.

TAU1111 integrates efficient power management architecture, while providing high sensitivity and low power GNSS solutions which make it suitable for navigation applications on automotive and consumer electronics, as well as fleet management.



12.2*16*2.4mm

HIGHLIGHTS

- Concurrent reception of 5 systems (GPS, BDS, GLONASS, Galileo, and QZSS) to maximize satellites visibility in L1 band
- Provides greater accuracy with more available measurements
- High sensitivity design and low power management
- Smart jammer detection and suppression
- Highly integrated SMD module with cost-effective antenna (L1 only) design

APPLICATIONS



Automotive Navigation



Asset Tracking



Fleet Management



Bike Sharing



Battery Sharing

Product Selector:

Model	GNSS						Features			Interfaces				Accuracy			Grade				
	Band (S/D/T)	GPS	BDS	GLONASS	Galileo	QZSS	IRNSS	Build-in LNA	Data Logging	Programmable(Flash)	D-GNSS	USB	UART	I2C	SPI	Meter	Sub-Meter	Centi-Meter	Standard	Professional	Automotive
TAU1111	S	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

GENERAL SPECIFICATIONS

GNSS Engine

Cynosure III GNSS Engine
40 GNSS tracking channels
10Hz maximum update rate

GNSS Reception

GPS/QZSS: L1C/A, L1C^[1]
BDS: B1I, B1C^[1]
GLONASS: L1OF
Galileo: E1

^[1] Supported by specific firmware upgrade

Position Accuracy

GNSS 2.5m CEP

Time to First Fix (TTFF)

Hot start 1s
Cold start 28s

Sensitivity

Cold Start -148dBm
Hot Start -155dBm
Reacquisition -158dBm
Tracking & Navigation -162dBm

Velocity & Time Accuracy

GNSS 0.1m/s CEP
1PPS 20ns

Interfaces

UART 1
I2C 1
USB 1
SPI 1

Antenna

Active antenna
Passive antenna

Safety Supervision

Antenna short circuit protection and open circuit detection

Operation Limit

Velocity 515 m/s
Altitude 18,000 m

Operating Condition

Main voltage 1.8 ~ 3.6V
Digital I/O voltage 1.8 ~ 3.6V
Backup voltage 1.8 ~ 3.6V

Power Consumption

Operating	GPS+QZSS	25mA@3.3V
	GNSS	35mA@3.3V
Standby	12uA	

ENVIRONMENT DATA

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

PACKAGE

Packaging 24 PIN LCC
Dimensions 12.2*16*2.4mm

