TAU1111

Multi-System GNSS Positioning Module

Standard

PRODUCT DESCRIPTION

TAU1111 is a multi-system GNSS positioning module, which is based on the state of the art CYNOSURE III architecture. It supports BDS-3 (BeiDou Navigation Satellite System 3). Besides, it is capable of tracking all the global civil navigation systems (BDS, GPS, GLONASS, Galileo, QZSS and SBAS).

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.



(TAU1111: 12.2*16*2.4mm)

HIGHLIGHTS

- Concurrent reception of 5 systems (GPS, BDS, GLONASS, Galileo, QZSS and SBAS) 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 Terminals



Fleet Management

Product Selector:

Product	GNSS							Features			Interfaces				Accuracy			Grade		
	Multi-band	GPS	BDS	GLONASS	Galileo	QZSS	IRNSS	Build-in LNA	Data Logging	D-GNSS	USB	UART	I2C	SPI	Meter	Sub-Meter	Centi-Meter	Standard	Professional	Automotive
TAU1111	S	•	•	•	•	•		•	•		•	•	•	•	•			•		

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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
SBAS: L1

**[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
Low voltage 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	18mA@3.3V
	GNSS	24mA@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

Website: www.allystar.com
Email: info.gnss@allystar.com
Address: 5F, Building No. 4, Winlead Intelligent Park, No.3, FaDa road(middle), Bantian Subdistrict, LongGang District, Shenzhen City, Guangdong Province, China.

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