

# TAU1202/TAU1205

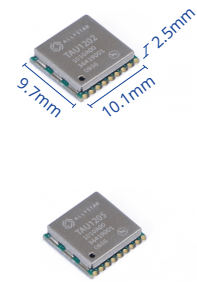
Multi-Band GNSS Positioning Module

Standard

## PRODUCT DESCRIPTION

TAU1202/TAU1205 is a high-performance dual-frequency GNSS positioning module, which is based on the state of art CYNOSURE III architecture. It supports GPS, BeiDou, GLONASS, Galileo, IRNSS, and QZSS.

TAU1202/TAU1205 integrates efficient power management architecture, while providing high precision, high sensitivity and low power GNSS solutions which make it suitable for automotive navigation applications on automotive and consumer electronics, as well as fleet management.



## HIGHLIGHTS

- Supports all civil GNSS systems
- Supports BDS-3 signal: B1C and B2a
- Concurrent reception of L1 and L5 band signals
- Sub-meter position accuracy, superior in multipath mitigation in L5/B2a/E5a signal by higher chip rate in code phase
- Smart jammer detection and suppression
- Highly integrated module, the best cost-effective high precision solution
- Supports single IRNSS mode (TAU1205)

## APPLICATIONS



Automotive Navigation



Smart Rearview Mirror



Lane-level Navigation



Asset Tracking

## 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
TAU1202	D	•	•	•	•	•	•	•	•	•		•	•			•		•			
TAU1205	D	•	•		•	•	•	•	•	•		•	•			•		•			

## GENERAL SPECIFICATIONS

### GNSS Reception

Model	GPS/QZSS					BDS					GLONASS		Galileo			IRNSS
	L1C/A	L1C	L2C	L5C	L6	B1I	B1C	B2I	B2a	B3I	L1	L2	E1	E5a	E6	L5
TAU1202	•	-	-	•	-	•	• <sup>[1]</sup>	-	•	-	•	-	•	•	-	-
TAU1205	•	-	-	•	-	•	-	-	•	-	-	-	•	•	-	•

\*[1] Supported by specific firmware upgrade

### GNSS Engine

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

### Position Accuracy

GNSS <1m CEP

### Time to First Fix(TTFF)

Hot start 1s  
Cold start 24s

### Sensitivity

Cold Start -148dBm  
Hot Start -155dBm  
Reacquisition -158dBm  
Tracking&Navigation -161dBm

### Velocity & Time Accuracy

GNSS 0.1m/s CEP  
1PPS 20ns

### Interfaces

UART 1  
I2C 1

### Antenna

Active antenna  
Passive antenna

### Operating Condition

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

### Operating Limit

Velocity 515 m/s  
Altitude 18,000 m

### Safety Supervision

Antenna short circuit detection and protection  
Antenna open circuit detection

### Power Consumption

Operating	GPS+QZSS	L1: 22mA@3.3V
	GNSS	L1+L5: 41mA@3.3V
Standby	12uA	

## ENVIRONMENT DATA

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

## PACKAGE

Packaging 18 PIN LCC  
Dimensions 10.1x 9.7 x 2.5mm



Website: [www.allystar.com](http://www.allystar.com)

Email: [info.gnss@allystar.com](mailto:info.gnss@allystar.com)

Headquarters: 5F, Building No. 4, Winlead Intelligent Park, No.3, FaDa road(middle), Bantian Subdistrict, LongGang District, Shenzhen City, Guangdong Province, China.

Calgary office: Unit 288, 3553 31 Street NW Calgary, Alberta, Canada T2L 2K7

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