

# TAU1201/TAU1204

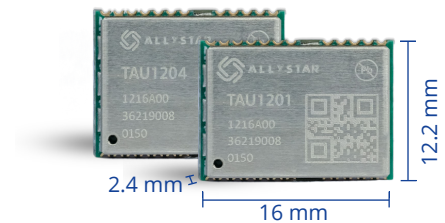
Multi-Band GNSS Standard Precision Positioning Module

Standard

## PRODUCT DESCRIPTION

TAU1201/TAU1204 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, QZSS and SBAS (WAAS, EGNOS, GAGAN and MSAS).

TAU1201/TAU1204 integrates efficient power management architecture, while providing high precision, high sensitivity and low power consumption GNSS solutions which make it suitable for automotive navigation, fleet management, navigation applications on consumer electronics.



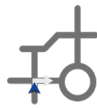
## HIGHLIGHTS

- Supports all civil GNSS systems
- Supports BDS-3 signal: B2a
- Concurrent reception of L1 and L5 band signals
- Sub-meter position accuracy; superior in multi-path mitigation and lower noise in city valley
- Smart jammer detection and suppression
- Highly integrated module, the best cost-effective high precision solution
- Supports single IRNSS mode (TAU1204)

## APPLICATIONS



Automotive Navigation



Lane-level Navigation



Asset Tracking



Fleet Management

### Product Selector:

Product Model	GNSS							Features				Interfaces				Accuracy			Grade			
	Band (S/D/T)	GPS	BDS	GLONASS	Galileo	IRNSS	QZSS	SBAS	Build-in LNA	Data Logging	Programmable(Flash)	D-GNSS	USB	UART	I2C	SPI	Meter	Sub-Meter	Centi-Meter	Standard	Professional	Automotive
TAU1201	D	•	•	•	•	•	•	•	•	•	•	◦	•	◦	◦	•	•	•	•	•	•	•
TAU1204	D	•	•	•	•	•	•	•	•	•	•	◦	•	◦	◦	•	•	•	•	•	•	•

◦ =Supported upon request with special firmware

## GENERAL SPECIFICATIONS

### GNSS Reception

Product Model	GPS/QZSS					BDS					GLONASS		Galileo			IRNSS
	L1C/A	L1C	L2C	L5C	L6	B1I	B1C	B2I	B2a	B3I	L1	L2	E1	E5a	E6	L5
TAU1201	•	-	-	•	-	•	-	-	•	-	•	-	•	•	-	-
TAU1204	•	-	-	•	-	•	-	-	•	-	-	-	•	•	-	•

### GNSS Engine

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

### Position Accuracy

GNSS < 1 m CEP

### Time to First Fix (TTFF)

Hot start 1 s  
Cold start 32 s

### Sensitivity

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

### Velocity & Time Accuracy

GNSS 0.1 m/s CEP  
1PPS 20 ns

### Interfaces

UART 1  
I2C\* 1  
USB\* 1  
SPI\* 1

\*: Supported upon request with special firmware

### Antenna

Active antenna  
Passive antenna

### Operation Limit

Velocity 515 m/s  
Altitude 18,000 m

### Safety Supervision

Antenna short circuit protection and open circuit detection

### Operating Condition

Main voltage 2.0 - 3.6 V  
Digital I/O voltage 1.8 - 3.6 V  
Backup voltage 1.8 - 3.6 V

### Power Consumption

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

## ENVIRONMENT DATA

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

## PACKAGE

Package 24 PIN LCC  
Dimensions 12.2\*16.0\*2.4 mm

