

TAU1202/TAU1205

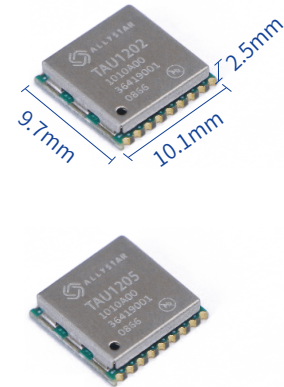
Multi-Band Multi-System GNSS Positioning Module

Standard

PRODUCT DESCRIPTION

TAU1202/TAU1205 is a high-performance dual-band GNSS positioning module, which is based on the state of art CYNOSURE III architecture. It supports BDS-3 (BeiDou Navigation Satellite System 3). Besides, it is capable of tracking all global civil navigation systems (BDS, GPS, GLONASS, Galileo, IRNSS, QZSS and SBAS).

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

APPLICATIONS



Automotive Navigation



Smart Rearview Mirror



Lane-level Navigation



Asset Tracking

Model:

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

GENERAL SPECIFICATIONS

GNSS Engine

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

GNSS Reception

TAU1202	GPS/QZSS	L1C/A, L1C ^[1] , L5C
	BDS	B1I, B1C ^[1] , B2a
	GLONASS	L1OF
	Galileo	E1, E5a
	SBAS	L1
TAU1205	GPS/QZSS	L1C/A, L1C ^[1] , L5C
	BDS	B1I, B1C ^[1] , B2a
	Galileo	E1, E5a
	IRNSS	L5
	SBAS	L1

^[1] Supported by specific firmware upgrade

Position Accuracy

GNSS <1m CEP@ -130dBm

Time to First Fix(TTFF)

Hot start 1s
Cold start 30s

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

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
System clock stop detection
Low voltage detection

Power Consumption

Operating	GPS+QZSS	L1 band: 22mA@3.3V
	GNSS	L1+L5 band: 36mA@3.3V
Standby	12uA	

ENVIRONMENT DATA

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

PACKAGE

Format 18 PIN LCC
Dimensions 10.1x 9.7 x 2.5mm



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