

TAU1202/TAU1205

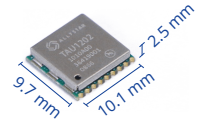
Multi-Band GNSS Standard Precision Positioning Module

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, NAVIC/IRNSS, QZSS and SBAS (WAAS, EGNOS, GAGAN and MSAS).

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: 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

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
TAU1202	D	•	•	•	•	•	•	•	•	•	•		•	◦			•		•		
TAU1205	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
TAU1202	•	-	-	•	-	•	-	-	•	-	•	-	•	•	-	-
TAU1205	•	-	-	•	-	•	-	-	•	-	-	-	•	•	-	•

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 24 s

Sensitivity

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

Velocity & Time Accuracy

GNSS 0.1 m/s CEP
1PPS 20 ns

Interfaces

UART 1
I2C* 1

*: Supported upon request with special firmware

Antenna

Active antenna
Passive antenna

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

Operating Limit

Velocity 515 m/s
Altitude 18,000 m

Safety Supervision

Antenna short circuit protection and open circuit detection

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 18 PIN LCC
Dimensions 10.1x 9.7 x 2.5 mm

