

# TAU1105

GNSS Positioning Module

Standard

## PRODUCT DESCRIPTION

TAU1105 is a GNSS positioning module, which is based on the state of art CYNOSURE III architecture. It supports GPS, BeiDou, GLONASS, Galileo, and QZSS .

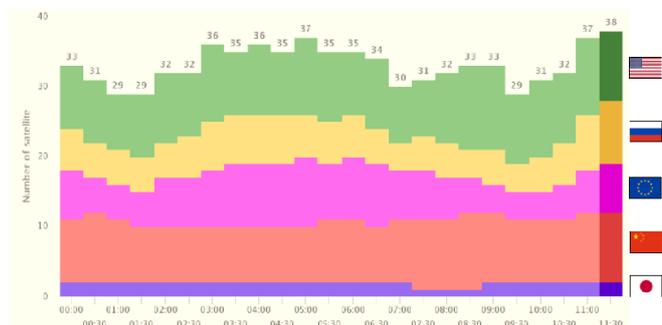
TAU1105 integrates efficient power management architecture, while providing high sensitivity and low power GNSS solutions which make it suitable for automotive navigation, fleet management, navigation applications on consumer electronics.



(10.1mm\*9.7mm\*2.5mm)

## HIGHLIGHTS

- Concurrent reception of 5 systems (GPS+QZS+BDS+GAL+GLO) 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 module with cost-effective antenna (L1 only) design



## APPLICATIONS



Automotive Navigation



Asset Tracking



Fleet Management



Bike Sharing



Battery Sharing

## 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
TAU1105	S	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

## GENERAL SPECIFICATIONS

### GNSS Engine

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

### GNSS Reception

GPS/QZSS: L1C/A, L1C<sup>[1]</sup>  
BDS: B1I, B1C<sup>[1]</sup>  
GLONASS: L1OF  
Galileo: E1

*\*[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 -162dBm

### Velocity & Time Accuracy

GNSS 0.1m/s CEP  
1PPS 20ns

### Interfaces

UART 1  
I2C 1

### Antenna

Active antenna  
Passive antenna

### Safety Supervision

Antenna short circuit protection and open circuit 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	25mA@3.3V
	GNSS	35mA@3.3V
Standby	12uA	

## ENVIRONMENT DATA

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

## PACKAGE

Package 18 PIN LCC  
Dimensions 10.1\*9.7\*2.5mm

