TAU1302/TAU1303

Multi-Band Multi-System GNSS Positioning Module

Professional

PRODUCT DESCRIPTION

TAU1302/TAU1303 is a high-performance dual-band GNSS positioning module, which is based on the state of art CYNOSURE III architecture.

TAU1302/TAU1303 integrates efficient power management architecture, while providing high precision, high sensitivity and low power GNSS solutions which make it suitable for navigation applications on automotive and consumer electronics, as well as fleet management.



(TAU1302: 16 x12.2 x2.5mm)



(TAU1303: 7.6 x7.6 x1.9mm)

HIGHLIGHTS

- Compact size for high precision industry
- Concurrent reception of multi-band multi-system GNSS signals by three RF settings:
  - Option A: L1 & L5;
  - Option B: L1 & L2;
  - Option C: L1 & L6;
- State-of-art low power consumption
- Supports multi-band multi-system high-precision raw data output, easy for 3rd party integration
- Highly integrated module, the best cost-effective high precision GNSS solution

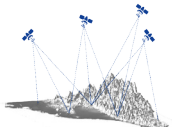
APPLICATIONS



Precision Agriculture



UAV



Deformation Monitoring



Surveying and Mapping

Model:

Product	GNSS							Features							Interfaces				Accuracy			Grade		
	Multi-band	GPS	BDS	GLONASS	Galileo	QZSS	IRNSS	Build-in LNA	Data Logging	D-GNSS	Raw Data	RTK Base	RTK Rover	Heading	USB	UART	I2C	SPI	Meter	Sub-Meter	Centi-Meter	Standard	Professional	Automotive
TAU1302	D	•	•	•	•	•	•[1]				•	•			•	•	•	•			•		•	
TAU1303	D	•	•	•	•	•	•[1]				•	•			•	•	•	•			•		•	

*[1] Supported by specific firmware upgrade

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GENERAL SPECIFICATIONS

GNSS Reception

P/N	RF mode	GPS/QZSS					BDS					GLONASS		Galileo			IRNSS	SBAS
		L1C/A	L1C	L2C	L5	L6	B1I	B1C	B2I	B2a	B3I	L1	L2	E1	E5	E6	L5	L1
TAU1302/TAU1303	A(L1+L5)	•	•[4]	-	•	-	•	•[4]	-	•	-	•	-	•	•[2]	-	•[4]	•
	B(L1+L2)	•	•[4]	•[3]	-	-	•	•[4]	•	-	-	•	•	•	-	-	-	•
	C(L1+L6)	•	•[4]	-	-	•	•	•[4]	-	-	•	•	-	•	-	-	-	•

* *[2] Supports E5a and pilot channel only*
* *[3] Supports L2CM*
* *[4] Supported by specific firmware upgrade*

GNSS Engine

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

Position Accuracy

GNSS	<1m CEP @-130dBm

Time to First Fix(TTFF)

Hot start	1s
Cold start	24s

Sensitivity

Cold Start	-148dBm
Hot Start	-158dBm
Reacquisition	-160dBm
Tracking&Navigation	-162dBm

Velocity & Time Accuracy

GNSS	0.1m/s CEP
1PPS	20ns

Interfaces

USB	1
UART	1
SPI	1
I2C	1

Antenna

Active antenna

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

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: 34mA@3.3V
	GNSS	L1+L2 band: 34mA@3.3V
	GNSS	L1+L6 band: 34mA@3.3V
Standby	12uA	

ENVIRONMENT DATA

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

PACKAGE

TAU1302	Format: 24 PIN LCC
	Dimensions: 16 x 12.2 x 2.5mm
TAU1303	Format: 22 PIN LCC
	Dimensions: 7.6 x 7.6 x 1.9mm

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