

SkyTraq Module Selection Guide



Key Features

- Solutions supporting GPS, GLONASS, Beidou, QZSS, SBAS
- -148dBm cold start
- -165dBm tracking sensitivity
- 1sec hot start TTFF
- 29sec cold start TTFF
- 10nsec 1PPS timing accuracy
- High accuracy 0.5ppm TCXO
- Flash-based with latest firmware
- Firmware upgradeable
- 50Hz maximum GPS update rate
- 20Hz concurrent GNSS update rate
- Multipath detection & suppression
- Jamming detection & mitigation
- Self-aided ephemeris prediction
- Available in popular form factors
- Lowest BOM cost

Prefix	
Venus	SiP module
Sxxxx	PCB module

Postfix	
None	GPS module
-GL	GPS/GLONASS module
-BD	GPS/Beidou module

Product Overview

SkyTraq offers high-performance, low-cost GPS/GNSS modules covering standard meter-level precision to centimeter-level high precision, precision timing, and 3-dimensional automotive dead-reckoning applications. The modules are based on our latest generation of Venus 8 chipset technology. The high-performance Venus 8 positioning engine delivers exceptional sensitivity and industry-leading time-to-first-fix performance.

Dedicated massive-correlator signal parameter search engine within the baseband enables rapid search of all the available satellites and acquisition of very weak signal. An advanced track engine allows weak signal tracking and positioning in harsh environments such as urban canyons and under deep foliage.

Stand-alone receiver architecture keeps GPS/GNSS processing off the host, and allows system integration into user application with very little resource needed. The SkyTraq GPS/GNSS modules are very easy to use, require just antenna and power supply to function, enabling very fast time to market.

SkyTraq's GPS/GNSS receiver modules are suitable for industrial vehicle tracking and M2M applications, as well as high-volume cost-sensitive consumer products that require location capability.



Form Factor Selector Guide

Module Family	Size (mm)	Standard Precision	Precision Timing	Dead Reckoning	Raw Measurement	Disciplined Clock	High Precision RTK	Remark
Venus828	7 x 7	Venus828F						
Venus838	10 x 10	Venus838FLPx	Venus838LPx-T					
S1010	9.7 x 10.1	S1010F8						
S1216	12 x 16	S1216F8			S1216F8-RAW			
		S1216F8-GL	S1216F8-GL-T					
		S1216F8-BD	S1216F8-BD-T		S1216F8-BD-RAW			
S1315	13 x 15.8	S1315F8			S1315F8-RAW			
		S1315F8-GL						
		S1315F8-BD						
S1722	17 x 22	S1722F8						
		S1722F8-GL	S1722F8-GL-T	S1722DR8P-GL				
		S1722F8-BD	S1722F8-BD-T	S1722DR8P-BD				
S2525	25 x 25			S2525DR8		S2525DC8		
				S2525DR8-GL			S2525F8-GL-RTK	
				S2525DR8-BD			S2525F8-BD-RTK	
SUP500	22 x 22	SUP500F8						Antenna Module

Reasons to Choose SkyTraQ GPS/GNSS Modules

Module Backward Compatibility

When a new generation of chipset is introduced, new module solutions in existing form factor will be available allowing existing customers to migrate effortlessly.

In-House GPS/GNSS Chipset Technology

SkyTraQ designs GPS/GNSS chipset and uses the chipset in our GPS/GNSS module solutions. Our in-house expertise enables us to respond quickly to technical support inquiries from customers.

Wide Product Range for Every GPS/GNSS Application

Our products are used for standard navigation & tracking, precision timing synchronization, automotive dead-reckoning, and single-frequency carrier-phase centimeter-level RTK positioning. Form factors range from popular 25mm x 25mm to the smallest 7mm x 7mm in size. Areas of applications range from guiding high-altitude space-borne microsatellite to tracking land-based pedestrian.

