SX3 GNSS R&D Software Receiver Portfolio

2024



www.ifen.com

Specification 2024

SX3 Platform Type	SX3-SF (Silver Edition)	SX3-DF (Black Edition)
RF Front-End	1 RF-input 4 RF bands with L- & S-band RF bandwidth 50 MHz	2 RF-inputs 4 RF bands (2 bands per RF-in), L- & S-band RF bandwidth 50 MHz
Processing Unit	Notebook or 19" workstation with Windows 10 OS (Windows 10 LTSC for CORS operations)	
Signal IF Sample Rates (Bandwidth)	Selectable: 5, 10 (standard), 20, 25, 50, 100 MSamples	
Signal Channels	Depending on selected processing modes and options Reference station mode: up to 150 real-time tracking channels, GPU based signal acquisition Configurable multi-correlator setup (for signal quality monitoring, scintillation,)	
GNSS Signals	Galileo E1, E5ab, E6 GPS L1 CA & L1C, L2P & L2C, L5 BeiDou B11 & B1C, B2I & B2a, B31 GLONASS L1, L2 NavIC L1, L5, S QZSS L1, L2, L5 SBAS L1	
Signal Processing	Real-time Processing, Post-Processing (IF samples from file) Scalar tracking, Vector tracking	Real-time Processing, Post-Processing (IF samples from file) Scalar tracking, Vector tracking, Heading, Reflectometry
Code Accuracy	< 20 cm (typical)	
Carrier Accuracy	< 1 mm	
TTFF	< 1 s (with position and ephemeris), $<$ 10 s (with ephemeris), $<$ 55 s cold start	
Measurement Rate	Up to 25 Hz	
Measurement Latency	< 70 ms	
Acquisition Sensitivity	19 dBHz	
Tracking Sensitivity	10 dBHz	
API	Baseband API, Navigation API, Sensor API, IF Sample API, Assistance API (for integrating own processing algorithms)	
Output Formats	RINEX, NMEA and proprietary ASCII logs	
Interfaces from RFFE to Computer	USB 3.0	
External Connectors	10 MHz in/out, 1-pps out, 1 trigger-in	
Active Antenna Support	5 V / 150 mA per antenna	
Integrated Sensors, External Sensors	Barometer (internal), interface to Xsens IMU, interface to WLAN	
Operating Limits	< 600 m/s velocity < 18.000 m height	
Temperature (Operating)	0° C to + 50° C	

Enclosures







<u>Disclaimer:</u> All specifications subject to change without prior notice

IFEN GmbH www@ifen.com sales@ifen.com