

SMA26 PRO Survey System

Ideal solution for survey

Overview

The SMA26 PRO survey system is a survey system including Handheld; it integrates the advantages of high precision, low power consumption, small size, convenient and fast portability and operation. It can meet various engineering needs of surveying and mapping industries.

The system consists of two SMA26 PRO GNSS receiver and a Handheld, Handheld with surveying software. The software interface is clear, easy to learn and understand, convenient and practical, making work easier, faster and more efficient. It can be widely used in surveying and mapping industries such as land, construction, forestry, roads, electric power, water conservancy, oil pipelines, etc.

New 4G RTK

Plug in the SIM card and use it immediately. Dual mode integrated design, supporting direct connection to CORS real-time measurement or self built CORS benchmark station networking, efficient and accurate, and flexible adaptation to diverse surveying and mapping scenarios.

NEW LINUX OPERATING SYSTEM

Linux intelligent operating system, supporting voice playback, 4G, WEBUI, and WIFI connection. You can easily access and set up your device by opening a website and viewing its information. Experience hassle-free connectivity with our user-friendly interface. Advanced voice interaction capabilities and a convenient self-test function make device maintenance easy.



ALL-IN-ONE DESIGN

The device has built-in Bluetooth, radio, WIFI, storage, positioning, inertial navigation, and antenna modules. It can switch between base station mode and rover mode for automatic switching between the mobile and base station.

TILT COMPENSATION FOR HARD-TO-REACH MEASUREMENTS

The NebulasIV GNSS SoC integrates RF, baseband, and high-precision algorithms. It can track 40+ satellites for accurate positioning in complex environments. The built-in IMU module doesn't require calibration and achieves a 2.5cm tilt measurement accuracy ($\leq 30^\circ$) with simple initialization.

Technical Specifications

- SMA26 PRO GNSS Receiver



Satellite system	Signal Tracking	BDS: B1I,B2I,B3I,B1C,B2a,B2b GPS: L1C/A,L1C,L2C,L2P(Y),L5 GLONASS: G1,G2,G3 Galileo: E1,E5a,E5b,E6 QZSS: L1C/A,L1C,L2C,L5 SBAS: L1C/A L-Band
	channels number	1408
	Initialization reliability	> 99.9%
	Satellite-based differential	PPK, PPP: B2b-PPP、E6-has
accuracy	Static accuracy	flat: $\pm (2.5+0.5\times 10^{-6}\times D)$ mm Elevation: $\pm (5+0.5\times 10^{-6}\times D)$ mm
	RTK accuracy	flat: $\pm (8+1.0\times 10^{-6}\times D)$ mm Elevation: $\pm (15+1.0\times 10^{-6}\times D)$ mm
	Tilt measurement	Accuracy: 2.5cm (Accuracy within 30°) angle: 0 ~ 60°
User Interaction	Indicator lights	satellite search light, power light, data light, static light
	Buttons	Power button, function button
	WEBUI	supports PC/mobile web page configuration
	Intelligent voice	supports multi-language voice broadcast
Electrical performance	battery	10000mAh
	Charging time	< 4 hours
	working time	≥20h (Rover station) , ≥15h (Base station)
	power suuply	9 ~ 36VDC
	storage	32G
	Power consumption	Rover station≤2.0W , Base station≤2.2W
Physical properties	size	Φ140mm×141mm
	weight	1.03kg
	humidity	95% non-condensing
	Operating temperature	-45℃ ~ +75℃
	Storage temperature	-55℃ ~ +85℃
	Protection level	IP67
	Shock and vibration	2m drop resistance
Data Output	Differential Data	RTCM3.X
	Positioning data	NMEA-0183
	Static Data	Binary
	Data update rate	1-50Hz
Communication	Bluetooth	BT4.1 , compatible with BT2.x
	WIFI	2.4G,802.11b/g/n
	Network Module	Global version: LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B14/B17/B18/B19/B20/B25/B26/B28/B66/B71 LTE-TDD: B34/B38/B39/B40/B41 WCDMA: B1/B2/B4/B5/B6/B8/B19 GSM: GSM850/EGSM900/DCS1800/PCS1900 optional version: LTE-FDD: B1/2/3/4/5/7/8/12/13/17/18/19/20/25/26/28/66 LTE-TDD: B34/38/39/40/41 GSM: B2/3/5/8
	Radio	Capable of sending and receiving signals compatible with CSS (Lora) ,Transparent, TT450S,Trimtalk, TRMMARK3, SOUTH, SATEL standard radio protocols 5-10 km typically;Under ideal conditions, the maximum distance can reach 15km
	Interface	Type-C USB port, SIM slot, TNC connector

Handheld Data collector FP88



Screen	5.45inch high-definition high-brightness screen
	Capacitive screen, 5-point touch;
	HD hard screen, TP high aluminum white glass
	Resolution (720*1440)
SIM card type	Dual Nano Sim
Network communication	FDD-LTE: B1/B2/B3/B4/B5/B7/B8/B12/B17/B20/B28 TDD-LTE: B34/B38/39/40/41(100M) WCDMA: B1/2/5/8 GSM: B2/B3/B5/B8
operating system	Android 11
Main control platform	MT6762/6765, octa-core 2.0GHz
Internal memory	64GB ROM+4GB RAM
Phone size	221*78*16.5mm
Features	IP68 dust and water resistance, 4G full network access smart terminal, industrial appearance design
Navigation	GPS+BDS+GNSS+GLL+AGPS
High precision	Dual-bandRTK
Charging method	TYPE-C direct charging
Fast charging	Support 2A fast charging (9V2A)
Three-proof function	Support IP68 waterproof, IP68 dustproof, professional shockproof
sensor	Gravity accelerometer, gyroscope, distance, light, electronic compass
flashlight	High-brightness professional-grade flash replacement (working current 100-150mAh);
NFC	13.56MHZ (support ID card recognition)
Speaker	8Ω 2W Speaker
Microphone	support
Earphones (optional)	TYPE-C interface intercom headset
Motor	support
Battery	9000 mAh
Operating temperature	-20℃～+50℃
Storage temperature	-40℃～+70℃
Buttons	51-key full keyboard + one custom key on the side
Camera pixels	Rear 1300W HD camera
flash	4*4 high brightness real flash light
Video Recording	Maximum support 1920*1080 pixels, 30 frames
WLAN Function	WIFI 802.11 a/b/g/n/ac, Support 2.4G/5.0G WIFI
Data Interface	Type C USB 2.0
USB interface	TYPE-C standard interface, supports 2A charging, data download, OTG and other functions;
Bluetooth transmission	BT5.0
External interface	Side USB port,
Wristband	support