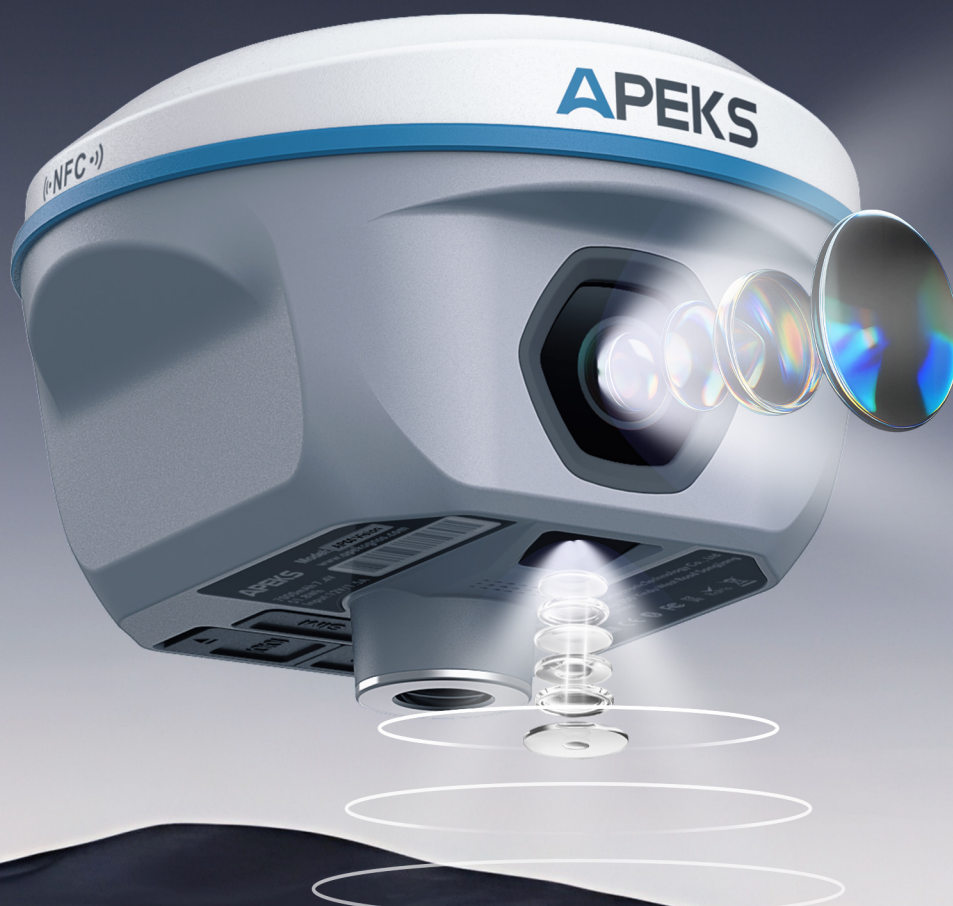


AD60 Vision



Where Vision Meets centimeter Accuracy



Visual surveying



AR stakeout



3D modeling



Up to 120° IMU



OLED color screen



Physical buttons

AP60 Vision

AP60 Vision RTK integrates GNSS, IMU, and dual cameras for precise positioning. The front camera measures hard-to-reach areas; the bottom camera enables AR stakeout. Compatible with 3D software, it streamlines field work with intuitive operation.



VISUAL SURVEYING

AP60 Vision utilizes advanced photogrammetry to rapidly capture 3D coordinates for hundreds of points in minutes. Simply record a video or take photos with the front camera to easily survey hard-to-reach, obstructed, or hazardous field points—such as beneath overpasses, under eaves, or near power poles.



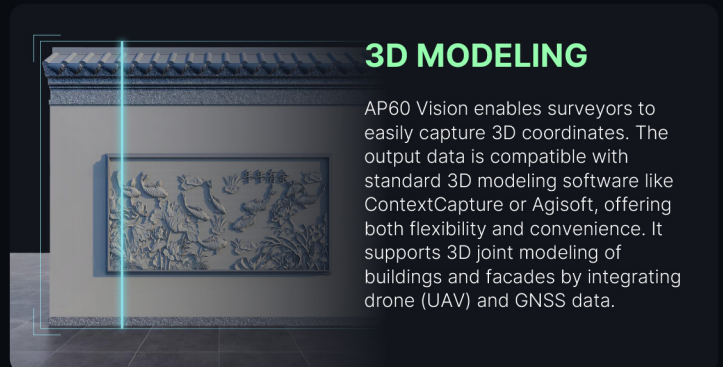
VISUAL STAKEOUT

The dual cameras deliver an immersive visual stakeout experience. Using both the front and bottom cameras alongside GNSS, ApekSurv software overlays real-time directional arrows, distances to points, and lines directly onto the ground for precise guidance.



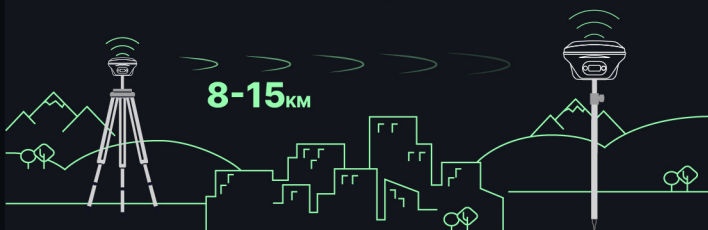
3D MODELING

AP60 Vision enables surveyors to easily capture 3D coordinates. The output data is compatible with standard 3D modeling software like ContextCapture or Agisoft, offering both flexibility and convenience. It supports 3D joint modeling of buildings and facades by integrating drone (UAV) and GNSS data.



2W UHF RX/TX RADIO

AP60 Vision's built-in UHF radio delivers 8–15 km LoRa range, matching external stations, and operates as base, rover, or NTRIP rover.



AUTO IMU TECHNOLOGY

With Auto IMU technology, combining satellite navigation, IMU, and vision to resist magnetic interference and provide precise orientation. Without calibration or initialization, it boosts measurement accuracy by up to 50%. The IMU 4.0 allows tilt compensation up to 120°, adapting to complex environments.



DATA CONTROLLER

CS5i



SUPPORT

Google System, Google Maps



5.55" inch
large screen
sunlight
readable



9000mAh

9000mAh battery for
all day operating



IP68



Android 14 OS



SIM CARD

4G WiFi Bluetooth

Communication

4GB RAM + 64GB ROM + Extend TF



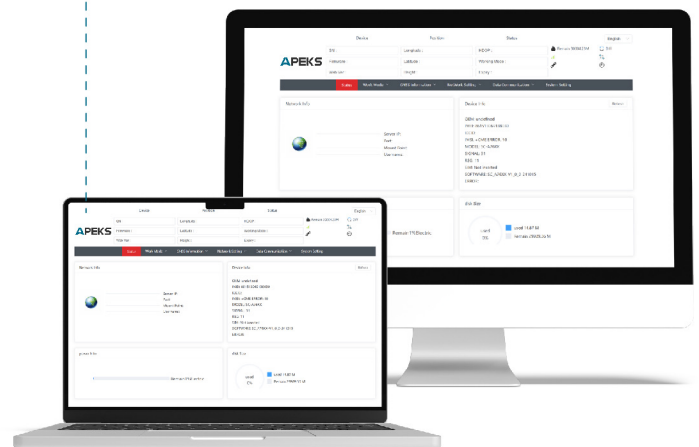
ApekSurv Field Software

- Compatible Android controller, phone and tablet.
- Support all kinds of language from the world.
- Support multiple base map, Googlemap, WMS map.
- Support all survey modes, including Static, PPK and RTK.
- Support CAD import and directly use for stake out.
- Support TXT, CSV, AutoCAD DXF DWG SHP data formats.
- Support GNSS, GIS and Total Station



Web UI Management

By connection through WiFi, APEKS gnss can be managed on your PC browser or smartphone easily. You can monitor check the status, configure, register, upgrade firmware, download data, etc.



SATELLITES TRACKING

Channels	1408
GPS	L1C/A, L2C, L2P(Y), L5
GLONASS	L1, L2, L3*
Galileo	E1, E5a, E5b, E6
BDS	B1I, B2I, B3I, B1C, B2a, B2b*
QZSS	L1C/A, L1C, L2C, L5
NavIC/IRNSS	L5
SBAS	L1, L5*
L-Band	B2B-PPP&E6-HAS

ACCURACY

Real time kinematics (RTK)	H: 8mm ± 1 ppm RMS V: 15mm ± 1 ppm RMS Initialization time:<5s(typical) Initialization reliability:>99.9%
Post-processing kinematics (PPK)	H: 2.5mm ± 0.5ppm RMS V: 5mm ± 0.5ppm RMS
Static	H: 2.5 mm ± 0.5 ppm RMS V: 5mm ± 0.5 ppm RMS
PPP	H: 10cm RMS V: 20cm RMS
DGPS	H: 0.4m RMS V: 0.8m RMS
Single Point	H: 1.5m RMS V: 2.5m RMS
Visual stakeout	H: 8 mm ± 1 ppm RMS V: 15 mm ± 1 ppm RMS
Visual survey	Typical 2~4 cm, range 2~15 m (normal lighting conditions)
Position Frequency	1Hz 2Hz 5Hz 10Hz 20Hz 50Hz
Time to first fix	Cold start<45s Hot start<10s Signal re-acquisition<1s
IMU tilt angle	0-120°
IMU tilt survey accuracy	≤2cm within 60° tilt angle

ELECTRICAL

Battery	Internal Li-ion Battery 7.4V 7000mAh
Charging specs	USB Type-C fast charging
Operation time	Rover mode:18 hours Base mode:7 hours Static mode:20 hours

HARDWARE

Size	125mm(W) 88mm (H) 4.92inch(W) 3.46inch(H)
Weight	750g(1.65lb)
Front panel	0.96" OLED color screen display 2LED physical buttons (switchable mode, data link)

COMMUNICATION

UHF radio	2W Tx/Rx, 450-470 MHz Working range is 8-15km in ideal environments
Protocol	TT450, TRIMMARK3, SOUTH, LORA Link rate :9600bps to 19200bps
Wifi	802.11b/g/n/ac Hotspot/Data Link
Bluetooth	Bluetooth 5.2 classical/ BLE proprietary dual-mode
NFC	NFC touch pairing
WebUI	Accessible via Wi-Fi
4G Cellular	• Integrated full frequency multi band 4G modem • Supports LTE-TDD/LTEFDD/WCDMA/CDMA2000/UMTS/HSPA+/GSM/GPRS/EDGE
I/O port	• 1xUSB Type-C port (Data download / Charging) • 1xAntenna port(UHF antenna interface) • 1xSim card slot (Supports Nano-sim) • 1x5-pin Lemo port (RS-232)
Data formats	RTCM 2.X, RTCM 3.X, RINEX, NMEA 0183 output, VRS, NTRIP
Data storage	32GB high speed memory

CAMERA

Number of cameras	2
Pixel	Global shutter 2MP & 5MP
Frame rate	30fps
Field of view	84°
Features	• 2MP front camera achieve visual measurements • 5MP bottom camera achieve AR stakeout

ENVIRONMENTS

Working temperature	-45°C to + 75°C
Storage temperature	-55°C to + 85°C
Humidity	100% Non-condensing
Waterproof & Dustproof	IP67
Drop	Survive a 2-meter pole-drop
Vibration	IK08



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