



H520E RTK

One of the fastest RTK systems in the world

The commercial Hexacopter H520E receives one of the fastest and most reliable RTK systems in the world. Fully integrated into the H520E, it ensures the highest precision and the fastest possible operational readiness even under difficult GPS conditions like in cities, canyons or forests. Thanks to Real Time Kinematics satellite navigation the new H520E RTK will be able to stand in the air with centimeter accuracy, enabling extremely precise, repetitive photos, faster 3D mapping and more accurate, even automated, inspection flights.

Centimeter-level positioning

The system works with 2 components, an RTK module on board of the H520E and a base station. In less than 30 seconds it can reach a centimeter-level accuracy, also under challenging GPS conditions (with respect to the base station). For an absolute global centimeter-level accuracy and in case you don't want to use a base station, the system can also be operated with a network RTK reference station (Network RTK through third-party provider, needs an internet connection, additional fees may apply).

FEATURES

- / RTK (Real Time Kinematic) module for high accuracy relative positioning: 1 cm + ppm horizontal / 2 cm + ppm vertical
- / Keep cm precision in even GNSS challenging environment (e.g. between high buildings)
- / For faster and more precise mapping (e.g. complex surveying, inspections, mapping, 3D displays)
- / 5 Hz update rate of position, velocity and time
- / Fully integrated to YUNEEC H520E
- / All data including raw GNSS data and real-time solution can be logged on board - ready for PPK (Post Processed Kinematics)
- / Support signals of up to 3 GNSS constellations among GPS, GLONASS, Galileo and BeiDou
- / Compatible with all existing Yuneec H520E camera payloads
- / Network RTK or Base Station needed



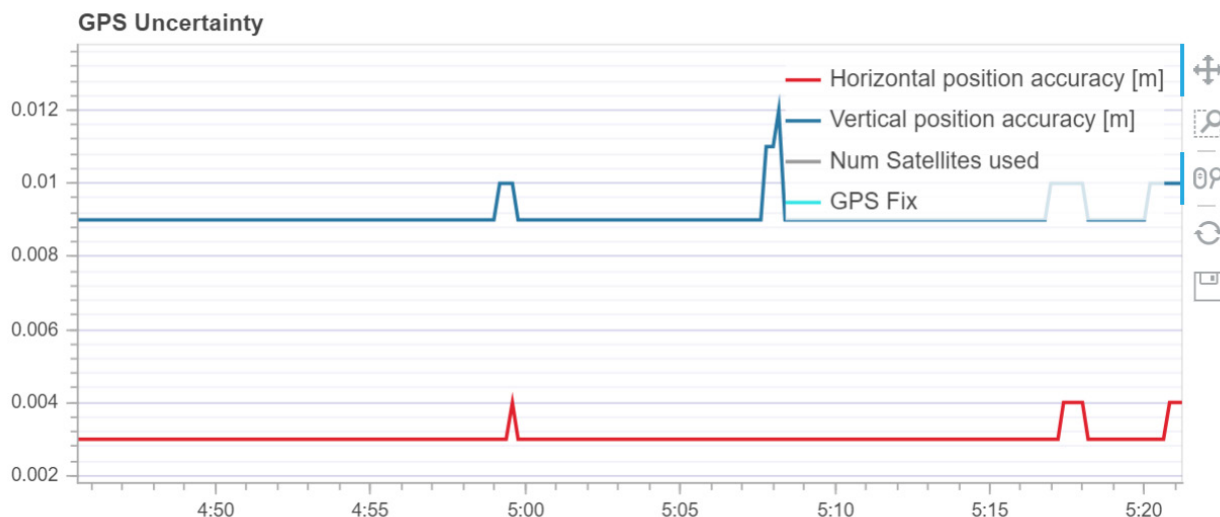
RTK Application areas



The RTK system is an important part of commercial applications where highest precision is required. A classic field of application is 3D mapping, for example with Skyline® PhotoMesh, Dronedeploy, Altizure or Pix4D software. With the help of RTK, there are significantly lower image overlaps which means that less photos and thus a shorter flight and calculation time are necessary. In addition, inspections can be much closer to the desired object because the drone's location will be precise down to the centimeter. This precision is also a great advantage when comparing several images taken on different days, for example to document a construction progress.

Mission ready

The RTK module enables precise positioning even in challenging environments and is fully integrated into the H520E, hardware and software wise. This means that you still have the full range of functions of the award-winning DataPilot software. All data, including raw GNSS data, can be logged on board. Thus, the system is also already for PPK (Post Processed Kinematics).



VERSATILE PAYLOAD OPTIONS WITH X CONNECTOR

Thanks to its multiple load options, the H520E-RTK can be easily adapted to different areas of application. Replace sensors in a matter of seconds, downtime is minimized and productivity is improved. This means that one gimbal-camera combination can be exchanged for another without power cycling the airframe.



E90x

Item No. YUNE90XEU

- / 20 megapixel / 4K resolution at 60 frames per second
- / 1" CMOS sensor
- / Digital zoom up to 8x
- / 23 mm lens with low distortion
- / 30 pin X-connector
- / 330° rotation of the gimbal for perfect image stabilization
- / Ideally suitable for professional film applications, 3D mapping / modeling and search and rescue



E30Zx

Item No. YUNE30ZXEU

- / 30x optical zoom + 6x digital zoom
- / Autofocus
- / Defogging
- / 1080p video resolution
- / 30 pin X-connector
- / 2.55 s zoom speed (from wide to tele)
- / Ideal for law enforcement and inspection tasks



ETx, E20Tvx, E10Tx, E10Tvx

Item. No. YUNEXEU/YUNE20TVX33EU/YUNE10TXEU/YUNE10TVXEU

- / Thermal imaging and residual light camera with FLIR® sensor
- / 160x 120 (ETx), 320 x 256 (E10Tx) or 640 x 512 (E10Tvx and E20Tvx) thermal resolution
- / Supports DataPilot and mission planning
- / Dual video stream
- / 30 pin X-connector
- / 330° rotation of the gimbal for perfect image stabilization
- / High-value for inspection, law enforcement, fire fighting, search & rescue and construction tasks

TECHNICAL SPECIFICATIONS

DRONE

Take Off Weight	1892 g (excl. camera)
Diagonal Length	520 mm (w/o rotor blades)
Dimensions	551x482x309 mm
Flighth Time	Up to 25 min
Max. Speed	20 m/s
Max. Ascent Speed	4 m/s
Max. Descent Speed	2.5 m/s
Max. Flight Height	500 m
Max. Angular Velocity	120°/s
Battery	4S-6200mAh Li-Ion
Motors	730kV
Charger	SC4000-4H
Operating Temperature	0°C - 40°C
Storage Temperature	-10°C - 50°C

OBSTACLE AVOIDANCE

Sensor	Ultrasonic
Flight Speed	4 m/s
Operating Environment	Height > 1.5m Distance to obstacles < 5m

REMOTE CONTROL

Operating System	Android™
Channels	16
Transmission Distance	4km (Europe) / 6km (FCC)
Battery	3.6V 8700mAh 31.32Wh Li-Ion
Frequency	2.4 GHz
Videolink Frequency	2.4 GHz
Videolink Resolution	720 p
Screen	7"
Operating Temperature	0°C - 40°C
Video Outputs	HDMI

COMPATIBLE CAMERAS

E90x (YUNE90XEU)

ETx (YUNETXEU)

E30Zx (YUNE30ZXEU)

E10Tx (YUNE10TXEU)

E10Tv_x (YUNE10TVXEU)

E20Tv_x (YUNE20TVX33EU)

H520E-RTK

YUNH520E-RTKEU

- / H520E Hexacopter with RTK module
- / 2 Batteries 4S-6200mAh
- / EU Charger
- / 12v Charging lead
- / ST16E Transmitter (Touchscreen)
- / 1 ST16E battery
- / USB charging cable
- / Sun Shade Screen cover
- / Neck strap
- / SD Card
- / User manual

