

VN-UAV-Y731

Quadrotor UAV



Product Introduction

Equipped with SONY 20 megapixel super-sensitive CMOS sensor, supporting the shooting of 6K/30FPS video quality, with greater dynamic range, stronger noise suppression ability, higher frame rate, outsole high image quality, achievement of extraordinary images. Support Autoback Home features, Route and waypoint planning, one click takeoff, Route and waypoint planning, one click takeoff, Six way binocular omnidirectional obstacle avoidance, supports optional RTK.

Features

- The super sensitive algorithm is better for night photography

Based on the super sensitive algorithm, VN-UAV-Y731 will automatically significantly increase the ISO (up to 44,000) when shooting night scene videos, while reducing the noise processing of the screen, users do not need to move to set the shutter speed upto 8-1/8000 s, you can straight out clean, bright, noise-free night video. Achieve 4K HDR video shooting, when shooting scenes with strong contrast between light and dark, automatically balance overexposure or underexposure, complete light and dark details, and restore the real world.

- Rich smart photography features

Whether using time-lapse photography to record the changes of time and space; Or take a panoramic photo to capture the surrounding scene. In addition, there are intelligent tracking and intelligent surround functions, which greatly improve the freedom of creation.

- 15 km HD remote photo transmission

Adopt high-precision image transmission technology, support the transmission of 2.4GHz/5.8GHz/900MHz in three frequency bands, bring the image transmission distance up to 15km, and the image transmission quality can reach 2.7K within 1 km; And according to the actual environment can adapt to switch the transmission frequency band, to ensure the signal transmission is stable and smooth for the shooting operation escort. Support being viewed in the remote controller.

Parameter

Aircraft/Body	Net weight	1136g(with battery and gimbal)
	Max. takeoff weight	1999g
	Flight Distance	15km
	Diagonal Distance	390mm
	Size	506*620*111mm (unfolded with propeller) 245*130*111mm (folding with propeller)
	Color	Dark Color /Black
	Type	Enterprise Grade
	Wheelbase	427mm
	Max. ascent speed	8m/s
	Max. descent speed	4m/s
	Max. horizontal speed	20m/s
	Max. takeoff altitude	7000m
	Max. flight time	42mins(no wind)
	Max. operation radius	7km
	Max. hovering time	38mins(no wind)
	Max. wind resistance speed	10.7 m/s
	IP	IP43
	Max. tilt angle	33°
	Max. angular velocity	120°/s
	Operating temperature	-10°C ~ 50°C
	Internal storage	8GB
	External SD card	Standard with 64G SD card, up to 256GB
	Max. transmission distance	FCC: ≥15km CE/SRRC: ≥8km
	Operating frequency	2.4G, 5.7G Within: 2.400 GHz - 2.4835 GHz; 5.725 GHz - 5.850 GHz
	GNSS	GPS+Galileo+BeiDou+GLONASS
	Hovering accuracy	Vertically: ±0.1 m (vision systems); ±0.5 m (GNSS); Horizontally: ±0.3 m (vision systems); ±1.5 m (GNSS)

	Transmission power	@ 2.4 GHz: FCC ≤ 32 dBm; ≤20 dBm; CE/SRRC/MIC) @ 5.8 GHz: FCC ≤ 33 dBm; SRRC ≤ 33 dBm; CE ≤ 14 dBm
Remote Controller	Size	269×189×87 mm(L×W×H) (Antennas folded and controller sticks unmounted) 302×269×87 mm(L×W×H) (Antennas unfolded and controller sticks mounted)
	Compatibility	1 grade/model backward compatible
	Weight	1194 g (protective case excluded) 1365 g (protective case included)
	Operating Temperature	-20°C to 40°C
	Storage Temperature	>3 months: within -20°C ~ 25°C 1-3 months: within -20°C ~ 45°C <1 month: within -20°C ~ 60°C
	Ingress Protection Rating	IP43
	Internal Storage	128GB
	MicroSD Extension	Not supported
	Operating System	Based on Android 11
	Application Installation	Supports the installation of third-party Android apps
	Video Performance	4K@24FPS H.264/H.265 video smooth play
	HDMI	Outputs up to 1080P@60FPS video
	USB-C	Charging: supports PD 60W fast charging and QC 18W fast charging. Data: USB3.1 Gen2
	USB-A	Charging: 5V/2A Data: USB2.0
	GNSS	GPS+Galileo+BeiDou+GLONASS
	Wi-Fi Protocol	802.11a/b/g/n/ac Supports 2×2 MIMO Wi-Fi
	Wi-Fi Operating Frequency	2.4G: 2.400–2.4835GHz 5.8G: 5.725–5.850GHz
	Transmitter Power of Wi-Fi	@2.4 GHz: FCC ≤ 33 dBm; CE ≤ 20 dBm; SRRC ≤ 20dBm @5.8 GHz: FCC ≤ 33 dBm; CE ≤ 20 dBm; SRRC ≤ 30 dBm
	Bluetooth	Bluetooth 5.0
	Bluetooth Operating Frequency	2.400 - 2.4835 GHz
	Transmitter Power of Bluetooth	≤11dBm

	Display	Type: 7.9inches TFT LCD
		Maximum Brightness: 2000nits
		Resolution: 2048x1536
		Refresh Rate: 60fps
		Touch Control: Support 10-point multi-touch
Remote Controller(RC) Battery	Battery type	LiPo
	Battery capacity	≥ 5000mAh
	Nominal voltage	7.2V – 11.55V
	Power	≥ 36 Wh
	Battery life	Approx. 3 hours
	Charging time	≤ 120 minutes
	Charging temperature	Within 5°C ~ 40°C
Visible Zoom Camera	Sensor	1 inch CMOS, 20MP
	Lens	FOV: 82° Equivalent focal length: 29mm Aperture: f/2.8~ f/4.8 Focus Range: 0.5m ~∞
	ISO range	Photo: ISO100 ~ ISO6400 Video: ISO100 ~ ISO44000
	Photo mode	Single Shot / Continuous Shot / Timed shot / HDR Shot
	Video format	MOV / MP4
	Zoom	16X
	Max bitrate	60Mbps
	Max.photo resolution	5472*3648
	Image format	JPEG or JPG
	Supported file system	FAT32/exFAT
	Max.video resolution	H.264 / H.265 ≥ 4K Resolution
VisualSensing System	Sensing System Type	Omnidirectional sensing system
	Forward	Measurement Range: at least 0.5 to 15m Effective Sensing Speed: Flight Speed at least 10m/s
	Backward	Measurement Range: at least 0.5 to 15m Effective Sensing Speed: Flight Speed at least 10m/s
	Upward	Measurement Range: at least 0.5 to 10m Effective Sensing Speed: Flight Speed at least 5 m/s
	Downward	Measurement Range: at least 0.5 to 10m Effective Sensing Speed: Flight Speed at least 5 m/s
	Left and right	Measurement Range: at least 0.5 to 10m Effective Sensing Speed: Flight Speed at least 5 m/s
	Operating environment	Forward, Backward, Lateral, and Upward: Surface with a clear or sufficient lighting (lux > 15); clear or normal pattern Downward: Diffuse reflectivity > 20% (e.g. walls, trees, people) and adequate lighting (lux >15)

Intelligent Flight Battery	Capacity	7100 mAh
	Voltage	11.55V
	Energy	82 Wh
	Battery type	LiPo 3S
	Charging temperature	5°C ~ 45°C
	Net weight	365g
	Charging time	90min
	Power adapter	Input: 100-240 V~50/60Hz
Image Transmission	Default RC	With brand controller
	Antennas	2 antennas
	Transmitter Power (EIRP)	@ 2.4 GHz: FCC ≤ 33 dBm; CE/SRRC/MIC ≤ 20 dBm @ 5.8 GHz: FCC/CE ≤ 33 dBm; CE ≤ 14 dBm; CE/SRRC ≤ 30 dBm
Beacon	Size	39*72*34 mm
	Weight	19.5g
	Power	1.6W
	Working range	5000m
	Light intensity	An average of 290cd
Charger	Input	100-240V,50-60Hz,1.5A
	Output	13.2@5 A 5V@3A;9V@2A <u>12V@1.5A</u>
	Voltage	13.2±0.1V
	Rated Power	66W
Multi Channel Charger	Voltage	13.2V
	Number of batteries connected	4
	Charging time	5 hours
	Operating Environment Temperature	5°C~45°C
Speaker	Size	46*80*77 mm
	Weight	98.5g
	Power	18W
	Decibel (65db ambient noise)	Within 120dB @ 1m; 88dB@60m; 70dB @ 110m
	Stream	36kbps
	Adjustable Angle	0°~45°
Spotlight	Size	48.5*72*63 mm
	Weight	77g
	Power	35W
	Working range	30m
	Adjustable Angle	0°~90°
	Illuminance	FOV14°, Max: 11lux @ 30 m direct

Gimbal	Mechanical range	Within: Tilt: -135° to 45°; Roll: -45° to 45°; Pan: -100° to 100°
	Controllable range	Within -90° to 35°
	Gimbal	3-axis (tilt, roll, pan)
	Angular Vibration Range	<±0.007°
	Max. controlspeed	300°/s(tilt)

Application Scenarios

It is widely used in power inspection , emergency search and rescue , police law enforcement , geographical surveying and mapping , fire rescue and other industry scenarios.