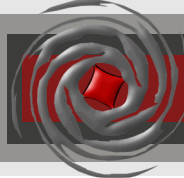


THE I.I.S. SKYCOPTER 2.0 COBRA



Features:

- Fully Integrated Smart Battery System
- Extended Flight Time over 16mins
- High efficiency Aerodynamic NACA profiled cage
- Expanded communications platform to include complex metal environments.
- Digital FPV Vision System – First to market for UAV Caged Drone Inspection platform!
- Enhanced Illumination System
- Plug and play Real Time Environmental Monitoring system (Thermal, Gas, Radiation, etc.)
- Flight training and Pre-Inspection Planning Simulation Software
- Customized platform for adaptive payload and sensor technology



THE I.I.S. SKYCOPTER 2.0 COBRA

TYPE: Quadcopter configuration

DIMENSIONS: 14.5 inches

MOTORS: 4 anti-dust electric brushless motors

PROPELLERS: 4 propellers, 5 inches

TAKE-OFF WEIGHT: 950g including battery

FLIGHT TIME: Up to 16min

FLIGHT SENSORS: IMU, magnetometer, barometer, Gas Detection

MATERIALS: Polycarbonate, Carbon Fiber, F4R

OPERATING TEMP.: -10 to 50°C

FLIGHT MODES: Crawler/Inspection, Normal, Sport

FAIL SAFE: Auto-landing on signal loss

NOISE LEVEL: 75 dB(A) hover; 85 dB(A) max @ 1 meter

RAD TOLERANT: Irradiation Certified to 11,400 REM gamma absorbed dose

GAS DETECTORS/SENSORS: O2, CO, CO2, CH4, H2S, NH3, H2, C2H6OH

Visible Camera:

PHOTO FORMAT: JPG

VIDEO FORMAT: MP4

FPV INSPECTION CAMERA HD 720p, 60fps Digital FPV Vision

VIDEO RECORDING RES.: 4K 60fps Inspection Video Capture and Recording

MOVIE FOV: 165 degree field of view (both FPV and recording)

TOTAL VERTICAL FOV: 165° with 180° vertical camera rotation

LENS: HD Lens: M10, FPV Lens: 1.8mm

CONTROL MODES: Automode with EV compensation

FILE STORAGE: MicroSD card (onboard aircraft), Max Capacity: 128GB

THERMAL CAMERA: 384 x 288 pixel, 6.8mm Lens, 25Hz

Illumination System:

TYPE: High-efficiency LEDs for even lighting in front, top and bottom CONTROL:

CONTROL: From transmitter, dimmable

MODES: On, Off, Dimmable

LIGHT OUTPUT: 5K lumens

Integrated Battery System:

RATED CAPACITY: 6000mAh

NOMINAL VOLTAGE: 14.8/19V

BATTERY TYPE: 4S Lithium Ion Battery System

BATTERY MANAGEMENT: On-Board BMS for Smart, Safe Charging

ENERGY: 80 Wh

CHARGE TIME: 1-2 Hours

BATTERY CHANGE TIME: Less than 1 min.

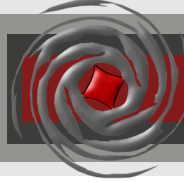
COMPLIANCE: Approved for carry-on luggage

OPERATING TEMP: 0 to 50° C



SkyCopter 2.0 Cobra equipped with Gas Detector





VTX & RX TECHNICAL INFORMATION

Model: **Skycopter 2.0 Cobra (Skypersonic, Inc.)**

On-Board RF Technologies:

915 - 928 MHz. Technology / Modulation: TBS Crossfire – UNIFY DSSS FHSS
PRO325G8 nano

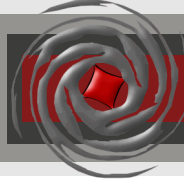
Specifications

	TBS UNIFY PRO32 5G8 nano	TBS UNIFY PRO32 HV (MMCX)
Input voltage:	1S - 3S LiPo 3V - 13V	2S - 6S LiPo 6V - 36V
Power Output	Input Voltage - LC filter - Output voltage (pass through, following input voltage)	Regulated and filtered 5V / 2A
Extra features:	CleanSwipe PitMode (incl. Support for team racing) Full CRSF capability (Serial commands for external control)	
Software protocol	SmartAudio V2.1 CRSF	
Output Power	14dBm (25mW) 20dBm (100mW*) 26dBm (400mW*)	14dBm (25mW) 20dBm (100mW*) 26dBm (400mW*) 30dBm (1000mW*)
Pit mode	Activate: Press power during startup or use Smart Audio V2.1 LED flashes red when enabled	
	Disable / Deactivate: Press power for 5 seconds during runtime Or use Smart Audio V2.1	
Pit mode -> flight mode	On-board button, SmartAudio 2.1 or CRSF Command	
Channels:	Band A (8ch), B (8ch), E (5ch) Fatshark 8ch, Race Band 8ch	
Audio on 6.5MHz	No	Yes, built in Microphone
Power consumption	25mW: 210mA 100mW: 280mA 400mW: 390mA	25mW: 90mA - 130mA (22V - 14.8V) 100mW: 120mA - 170mA (22V - 14.8V) 400mW: 180mA - 270mA (22V - 14.8V) 1000mW+: 300mA - 450mA (22V - 14.8V)
Range:	2km (omni)	6km (omni) 80km+ (directional)
Antenna connector:	u.FL high strength	MMCX
Port connector	Through-holes, 2mm pitch	JST-GH 7 pin
Dimensions:	14.5(L) x 13(W) x 3(H) mm	37(L) x 25(W) x 6(H) mm
Weight:	1g	9.2g
Firmware upgrade	Yes Through CRSF (Crossfire etc)	Yes Through USB via TBS Agent Through CRSF (Crossfire etc)
Kit contents:	TBS UNIFY PRO32 NANO u.FL Antenna Silicon Cables pre-tinned	TBS UNIFY PRO32 MMCX to SMA Pigtail JST-GH 7pin Silicon Cable, ends pre-tinned

Innovative Industrial Solutions, Inc.

2830 Skyline Drive

Russellville, AR 72802



5.725 – 5.850 GHz



Technology / Modulation:

Shark Byte Air VTX



DSSS



FHSS

The Shark Byte Air unit is a digital HD video transmission module that supports 5.8GHz and 720p 60fps. The air unit works with Shark Byte goggle module to transmit video, and a remote controller to control the parameters for transmitter and camera wirelessly. The Shark Byte Air unit consists of a Runcam Nano HD camera and a video transmitter (VTX).



Operating Frequencies:

5.725-5.850GHz

CH	FCC (MHz)	CE (MHz)
1	5660	5735
2	5695	5770
3	5735	5805
4	5770	5839
5	5805	NA
6	5878	NA
7	5914	NA
8	5839	NA

Transmitting Power:

25, 200 and 500mW

Antenna(s) Gain

Number of Antennas TX:	<input checked="" type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
Antenna Gain:	433 MHz:	433 MHz:				
	900 MHz:	2.88db	900 MHz:			
	2.4 GHz:	2.4 GHz:				
	5.8 GHz:	5.8 GHz:	1.5-13db depending on selected antennas			

Accessories

- Headset – Digital FPV Goggles, Dual Receivers (VTX)
- Radio Transmitter/UAV Control (RX)