NOTOXYTECH

INDIGENOUS UAS
MADE IN INDIA

TACTICAL ISR · 24-INCH CLASS

SHIVNETRA 2.0

A 24-inch tactical ISR platform dedicating its entire capacity to high-endurance loitering and precision target acquisition — with EO/IR and laser rangefinding.



60 min	20 km	1 km	IP54
FLIGHT TIME*	RANGE	LRF RANGE	WEATHER RATED

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OVERVIEW

Why Shivnetra 2.0?

The Shivnetra 2.0 24" Tactical ISR Drone by Delhi-based Notoxytech Technologies Pvt Ltd represents a leap in indigenous tactical aviation, specifically configured for pure Intelligence, Surveillance and Reconnaissance (ISR).

Stripped of auxiliary delivery equipment, the 24-inch platform dedicates its entire operational capacity to high-endurance loitering and precision target acquisition — pairing a 3-axis EO/IR gimbal and laser rangefinder with dual-redundant GNSS, anti-jamming capability and a secure encrypted datalink.





CORE CAPABILITIES

Built for the mission

Failsafe Navigation
Continues safely in GPS-denied conditions

RF-Denied Return to Home
Automatic RTH on loss of link

Precision LRF
5 m – 1 km ranging, ±1 m accuracy

Persistent Standoff
Up to 60 min loiter endurance

Low-Light / Thermal
640 × 512 thermal imaging

Rapid Boot & Acquisition
From power-on to eyes-on in moments

IP54 Weather Protection
Dust and splash resistant

INDIGENOUS ENGINEERING

Designed, built and supported in India.

Configurable navigation modes, failsafes and payloads — tuned to your unit's operational



TECHNICAL DATA

Specifications

60 min	20 km	1 km	IP54
FLIGHT TIME*	RANGE	LRF RANGE	WEATHER RATED

Model	24" Tactical ISR Surveillance Drone with EO/IR & LRF
Size	24" propeller class / heavy-lift frame
Purpose	Persistent surveillance, target acquisition and mission planning
Flight Time	Up to 45 – 60 min (with full ISR/LRF payload, depending on mission profile and wind)
Range	**Tactical deployment – up to 15 – 20 km.** Line of sight, subject to terrain and interference. Maximum altitude restricted to 500 m AGL (software limited).
Payload Capacity	Up to 1 kg – engineered for multi-sensor optical gimbals and laser rangefinders
Speed	Cruise **30 – 45 km/h** · Max dash **60 km/h**
Navigation & Control	Dual-redundant GNSS/GPS with autonomous failsafe and anti-jamming capability
Airframe & Build	Aerospace-grade heavy-duty carbon-fibre composite, high rigidity and vibration dampening
Video Transmission	High-power digital – secure encrypted datalink for long-range video and telemetry
Battery	12S 20,000 mAh high-density Li-ion (45 – 60 min endurance)
Navigation Modes	Loiter – GPS/GNSS-assisted (LRF stability) Auto – waypoint-driven autonomous flight Manual / Angle mode RTH – Return to Home **Parameters and failsafes tunable to user specifications**
Misc. Features	Live telemetry, dynamic LRF target-coordinate mapping and autonomous mission planning via GCS laptop

** Endurance and range depend on payload, mission profile, terrain, weather and RF environment. Specifications may be customised to user requirements.*

PAYLOAD

EO/IR Gimbal with Laser Rangefinder

3-axis stabilised pod combining a 5 MP visible camera, 640 × 512 thermal imager and 905 nm laser rangefinder, with AI target locking and tracking.



GIMBAL – PHYSICAL & GENERAL

Gimbal type	3-axis stabilised (pitch, yaw, roll)
Dimensions	59 × 61 × 92 mm
Weight	176 g
Operating voltage	7.2 V – 72 V
Operating current	334 mA @ 12 V
Operating temperature	-10 °C to +50 °C
Interfaces	Ethernet / LAN (RTSP output)
Features	AI target locking and intelligent tracking

VISIBLE-LIGHT CAMERA

Resolution	5 MP, 1/2.7" CMOS
Video recording	2880 × 1620 @ 30 fps (H.265, 8 Mbps)
Real-time stream	1280 × 720 (H.265, 2 Mbps)
Zoom	30× digital / electronic
Focal length / aperture	3.5 mm / F2.2
FOV	83.4°

THERMAL IMAGING SENSOR

Resolution	640 × 512
Response band	8 – 14 µm
Focal length / aperture	9.1 mm / F1.0
FOV	48.7° × 38.6°
Palettes	White-hot / black-hot + 12 pseudo-colours
Detection distance	Up to 1.1 km

LASER RANGEFINDER (LRF)

Wavelength	905 nm
Measurement range	5 m – 1,000 m
Precision	±1 m
Measurement frequency	1 – 5 Hz

GROUND CONTROL

Smart Controller

An all-in-one ground station with a built-in 7-inch display, Android computer and long-range digital link. It flies the Shivnetra 2.0, steers the EO/IR gimbal and shows live HD video and telemetry in the field.

7"
1920 × 1080 high-brightness touch screen

6 nm
Qualcomm 8-core · Android 13 (64-bit)

30 km
Video & control range (ground-to-air, LOS)

6–8 h
20,000 mAh battery · 3–4 h full charge

AIRCRAFT
EO/IR Gimbal + LRF
Ethernet / RTSP video

›

AIR-SIDE
Air Receiver
SBUS · PWM · telemetry

›

GROUND
Smart Controller
Live video, GCS & control

CONTROLLER FEATURES

- Dual-band 2.4 / 5.8 GHz with automatic frequency hopping
- Runs mainstream ground-station apps for mission planning
- Built-in dual cooling fans for continuous operation
- Rugged, dust-protected shell and interfaces
- Gimbal-pitch wheel, photo button and 3-position mode switch
- Hardware decoding of H.264 / H.265 and 4K video
- SIM-card slot for 4G network connectivity
- Video sharing via Wi-Fi hotspot or Ethernet
- SDK available for custom integration

REMOTE CONTROLLER

Display	7" industrial touch screen, 1920 × 1080
Processor	Qualcomm 6 nm, 8-core
Operating system	Android 13 (64-bit)
Memory / storage	8 GB RAM / 128 GB
Frequency band	2.4 GHz / 5.8 GHz
Channels	16
Frequency hopping	Automatic
RF power	< 23 dBm (CE / FCC)
Control distance	5 – 30 km (ground-to-air, visual)
Battery / endurance	20,000 mAh / 6 – 8 hours
Charging	Type-C, approx. 3 – 4 hours
Interfaces	USB, SIM-card slot, Type-C
Size / weight	277 × 138 × 96 mm / 1.2 kg
Operating temperature	-10 °C to +55 °C

RECEIVER (AIR UNIT)

Frequency band	2.4 GHz / 5.8 GHz
Supply voltage	7.2 – 72 V (XT30)
Operating current	12 V / 300 mA
Air data rate	200 Kbps – 160 Mbps
Channel bandwidth	1.25 / 2.5 / 5 / 10 / 20 / 40 MHz
Serial baud rate	57600 / 115200 / 921600
Interfaces	1 × data, 1 × Ethernet, 1 × SBUS, 3 × PWM
RF power	< 23 dBm (CE / FCC)
Dimensions	45.5 × 60 × 21.5 mm
Weight	37 g
Operating temperature	-10 °C to +60 °C

NOTOXYTECH

Ready when the mission is.

Talk to our team about demonstrations, configurations and field trials for the Shivnetra 2.0.

PRODUCT ENQUIRIES

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DESIGNED & MANUFACTURED IN INDIA