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≡ Title	TH-U20 VTOL Reconnaissance & Inspection UAV
≡ Description	For power utilities, energy companies, forestry, environmental monitoring, and emergency response

🌐 TH-U20 VTOL Reconnaissance & Inspection UAV — One-Pager (English

Version)

Professional Sales Copy — Ready for Brochure / Proposal / Distributor Training

TH-U20 — Long-Endurance VTOL UAV for Industrial Inspection

Vertical Takeoff · 3.5-Hour Endurance · High Stability · Foldable Design

Optimized for power utilities, energy companies, forestry, environmental monitoring, and emergency response.

CORE HIGHLIGHTS

- **Fully VTOL takeoff and landing** — operates anywhere without runway
- **Up to 210 min endurance**, one of the longest in the VTOL category
- **30× optical zoom EO/IR gimbal**, high-precision day/night inspection
- **Multi-target automatic recognition** (people, vehicles, hotspots)
- **80 km digital video link** with ATS auto-tracking
- **Foldable wings**, portable, rapid deployment

APPLICATION SCENARIOS

1. Mountainous Transmission Line Inspection

Ideal for high-voltage lines crossing mountains, valleys, and forests.

- Identify insulator defects, conductor wear, foreign object intrusion
- Real-time streaming to central control room

  Customer Benefit: Replace dangerous manual patrols; increase inspection frequency at low cost.

2. Forest Fire Early Warning & Patrol

- Detect smoke, hotspots, and illegal fire sources

- Long endurance enables continuous patrol of large forest areas

  Customer Benefit: Early response saves millions in potential fire damage.

3. River, Coastline, Reservoir & Border Environment Monitoring

- Detect illegal fishing, shoreline erosion, unauthorized crossings

- Automatic target classification

  Customer Benefit: Aerial coverage far exceeds ground teams with lower recurring costs.

4. Disaster Assessment & Emergency Response

- Rapid assessment of flood, landslide, or earthquake damage

- Identify blocked roads, trapped individuals, structural failures

  Customer Benefit: Provides situational awareness within minutes.

5. Industrial Facility & Renewable Energy Site Surveillance

- Large-scale solar/wind farms

- Petrochemical plants

- Water treatment and power stations

  Customer Benefit: High-altitude overview + telephoto detail, enabling fewer on-site personnel.

KEY SPECIFICATIONS

Item	Specification
Maximum Takeoff Weight	~17 kg
Endurance	Up to 210 min
Cruise Speed	70–115 km/h
Wind Resistance	≤ Level 7

Item	Specification
Image Transmission Distance	80 km (ATS auto-tracking supported)
Operating Temperature	−20°C to +50°C
Practical Ceiling	5500 m
Optical Zoom	30× EO/IR
Payload Options	EO/IR, wide-angle, laser ranging
Takeoff & Landing	Fully automatic VTOL
Wingspan	3.0 m
Fuselage Length	1.55 m

Full technical datasheet available upon request.

TYPICAL INDUSTRIAL PACKAGE CONFIGURATION

TH-U20 Long-Endurance VTOL Inspection Package

- 1× TH-U20 VTOL Aircraft
- 1× 30× EO/IR gimbal camera
- 1× Long-range digital video link (80 km)
- 1× Mission planning & ground control software
- Optional: AI-powered detection (smoke/hotspot/person/vehicle)
- Optional: Real-time command center integration SDK
- 3-day On-site Training + Flight Certification

🇨🇳 TH-U20 垂直起降长航时巡检无人机 — 一页纸（中文正式版）

TH-U20 — 工业级长航时 VTOL 垂直起降无人机

垂直起降 · 3.5 小时长航时 · 稳定可靠 · 可折叠设计

专为电力、林业、环保、水利、应急等行业打造的专业巡检平台。

核心亮点

- **垂直起降（VTOL）**：无需跑道，任何空地即可作业
- **210 分钟超长航时**：同级 VTOL 产品中处于领先水平
- **30× 光学变焦双光吊舱**：昼夜高清巡检，识别细节能力强
- **多目标自动识别**：人、车、烟点、热源等自动识别
- **80 km 图传距离 + 自动跟踪 ATS**
- **折叠式机翼，携带方便**，快速部署，适合野外复杂环境

典型应用场景

1. 山区输电线路巡检

适用于跨山谷、跨林区的高压输电线路：

- 绝缘子破损、导线磨损、异物挂线检测
- 全过程视频回传至调控中心

  客户收益：替代人工登山巡检，安全性和频次全面提升。

2. 森林防火巡护

- 烟点识别
- 热源异常预警
- 非法用火监控

  客户收益：长航时 + 大范围覆盖，极大提升早期发现能力。

3. 河道、湖泊、海岸线与边境环保监控

- 非法活动监测
- 水体污染追踪

- 海岸侵蚀与设施状态查看

  客户收益：覆盖面积远超地面巡逻队伍，显著降低运维成本。

4. 灾害评估 / 应急指挥

- 洪水、泥石流、地震灾后侦察
- 关键道路、桥梁、堤坝的快速成像
- 搜救辅助

  客户收益：为应急部门提供第一时间的空中态势感知。

5. 工业设施 & 新能源场站巡检

- 风电场、光伏大区
- 水电站、变电站、输水管网
- 石化园区外围巡逻

  客户收益：高空总览 + 光学细节检查，实现更低成本、更高频率的巡检。

关键参数

项目	参数
最大起飞重量	~17 kg
航时	最长 210 分钟
巡航速度	70–115 km/h
抗风等级	≤ 7 级
图传距离	80 km（支持自动跟踪 ATS）
工作温度	−20°C 至 +50°C
实用升限	5500 m
光学变焦	30× 双光吊舱
可选载荷	可见光、红外、广角、激光测距
起降方式	全自动垂直起降（VTOL）

项目	参数
翼展	3.0 m
机身长度	1.55 m

可提供详细技术规格书。

典型行业套装（示例）

TH-U20 长航时巡检套装

- TH-U20 一体化 VTOL 无人机 ×1

- 30× 光学变焦双光吊舱 ×1

- 1 套 80 km 数字图传系统

- 1 套任务规划与地面站软件

- 可选 AI 分析模块（烟点/热源/人车目标识别）

- 可选指挥系统 API/SDK 对接

- 3 天现场培训 + 试运行服务