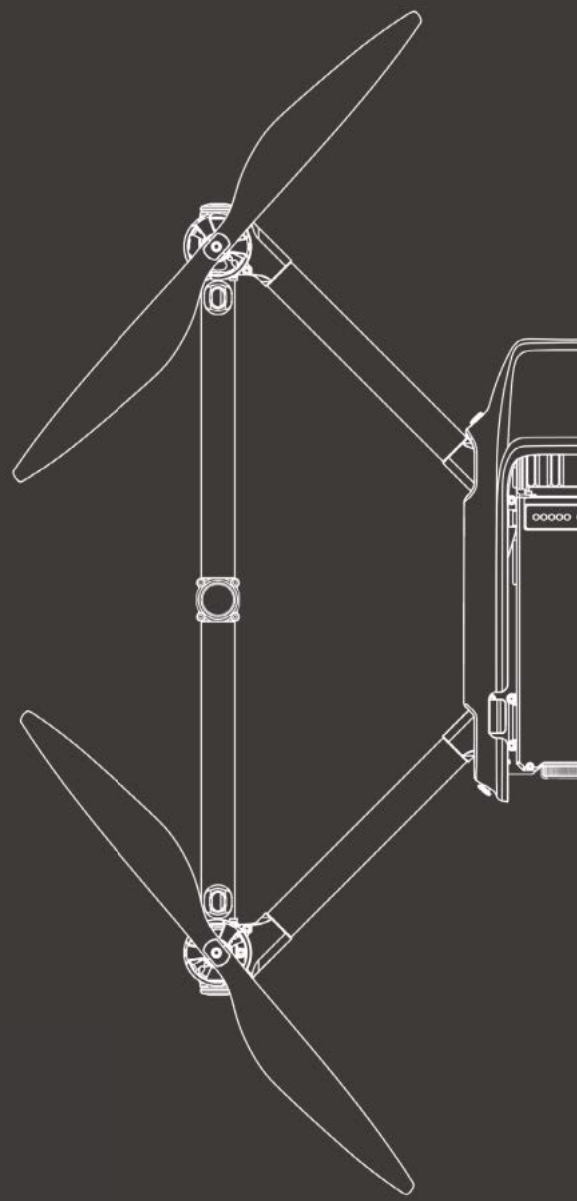
XGEOMATICS

极飞地理

见微知著

EARTH IN DETAIL.



发现每一寸土地的价值

DISCOVER THE LAND

ABOUT XGEOMATICS
关于极飞地理

发展历程

HISTORY

极飞优势

COMPETITIVE ADVANTAGE

解决方案

SOLUTIONS

核心产品

CORE PRODUCTS

极飞地理成立于 2016 年，总部位于浙江德清地理信息小镇。致力于融合无人机、卫星遥感和云计算技术，为用户提供高精度、高性能的地理信息产品，帮助用户提高采集、管理地理数据的效率，更好地了解土地，创造更大的商业价值。

Founded in 2016, XGEOMATICS is located in Deqing County, Zhejiang Province, a town famous for its emerging geographic information industry. XGEOMATICS is dedicated to integrating UAS, satellite remote sensing and cloud computing to provide geographic information products with high precision and outstanding performance. By increasing the efficiency of collecting and managing geographic data, these products can help users to better understand their land and create greater commercial value.

HISTORY
发展历程

2016

极飞地理团队为超过 15 万架次的植保无人机，在新疆、河南、湖北、江苏等地提供 RTK 精准导航服务。

XGEOMATICS provided RTK navigation service for more than 150 thousand UAS in Xinjiang, Henan, Hubei and Jiangsu Province.

2016

极飞地理为黑土地集团的 30 万亩农田测绘提供解决方案。

XGEOMATICS provided professional solutions for Heitudi Group in mapping over 20, 000 hectares of farmland in Northeastern China.

2017

极飞地理在浙江德清地理信息小镇设立总部，团队规模过百人。

XGEOMATICS locates its headquater in Deqing, Zhejiang province.

2017

极飞地理对外发布首款智能地理信息无人机 “XGeomatics C2000”。

XGEOMATICS released the first intelligent mapping UAS, XGeomatics C2000.

OUR ADVANTAGE
我们的优势

研发优势
R&D Advantage

极飞地理依托极飞科技在商用无人机领域十年来积累的研发和制造能力，拥有多项自主知识产权的测绘无人机产品和数据处理平台。

Relying on XAIRCRAFT's ten-year experience in developing and producing commercial UAS, XGEOMATICS has developed multiple UAS products and data processing platforms with independent intellectual property.

数据优势
Data Advantage

极飞地理与阿里云、 航天宏图、 千寻位置等数据服务商合作，共同助力精准农业，助推城市建设，保障公共安全，保护生态环境。

XGEOMATICS cooperates with Alibaba Cloud, PIESAT, and QXWZ in a wide range of fields including precision agriculture, urban construction, public safety and environmental protection.

GEOGRAPHICAL INFORMATION SOLUTION
极飞地理信息解决方案

为符合资质的组织或机构提供地理信息解决方案，快速建设地理信息高精图，帮助更高效地收集和处理地理信息，确保数据的有效利用。

XGEOMATICS provides geographical information solutions for relevant organizations that have demands in this respect . With our solution, users can build high-definition maps with accurate geographical information, as well as collect and process geographical information with high efficiency.

精准时空服务

Precise Space-time Positioning Service

以北斗卫星为基础，兼容 GPS/GLONASS 卫星信号，提供 7*24 小时全天候厘米级差分数据，打造精准时空服务基础设施，完善时空追溯功能。

The XGEOMATICS solution, based on Beidou Satellit and compatible with GPS/GLONASS, can provide 7*24 RTCM data, and build up precise space-time infrastructure.

地理信息大数据

Geographical Information Data

结合高精图、气候、现场监测等各方面手段，组成地理信息大数据，打通行业应用管理环节，减少重复投入，实现数据化智能管理。

By integrating high-definition mapping and climate and field monitoring technologies, XGEOMATICS can build big database of geographic information, thus achieving smart management and reducing unnecessary input.

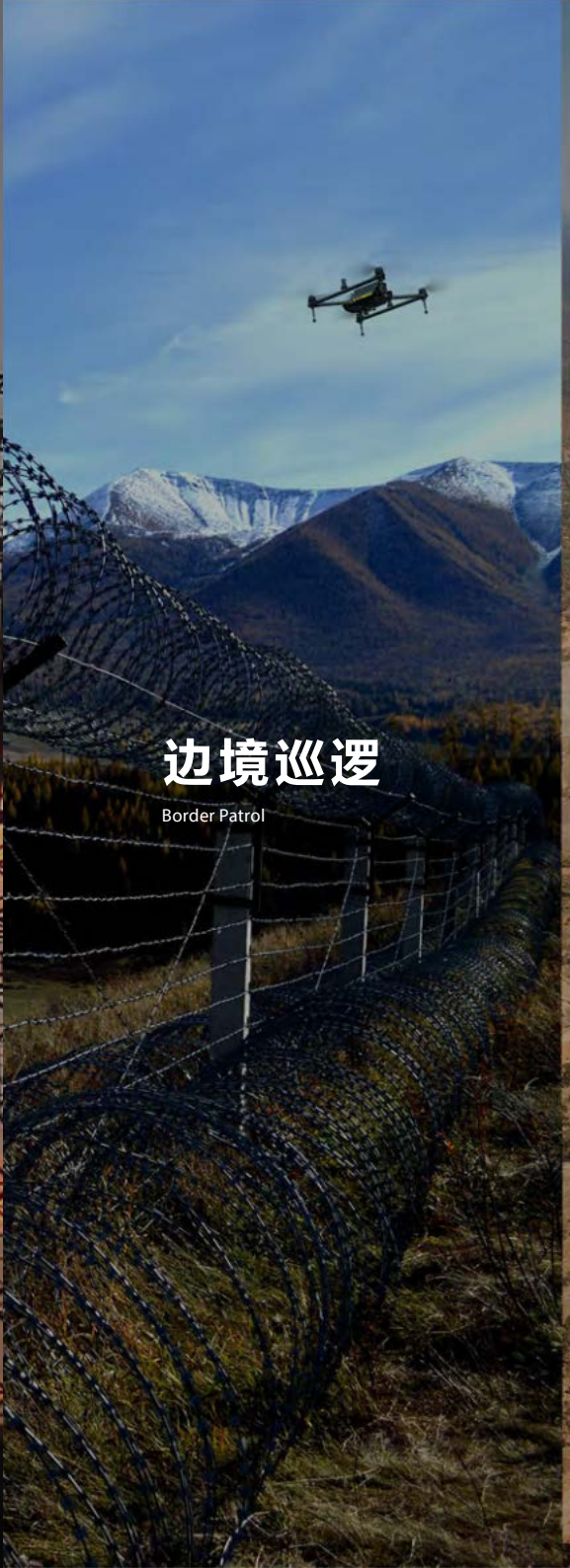
APPLICATION SCENES
应用场景

农田导航
Farmland Navigation

土地确权
Confirmation of Land Right

地形测绘
Terrain Survey

电力巡检
Powerline Inspection



边境巡逻

Border Patrol

矿山调研

Mine Investigation

工程测量

Project Mapping

管道巡检

Channel Inspection

XGEOMATICS C2000 INTELLIGENT MAPPING UAS
极飞地理 C2000 智能测绘无人机系统

C2000 智能测绘无人机
C2000 Intelligent Mapping UAS

智能电池
Smart Battery

GNSS RTK 移动基站
GNSS RTK Portable Launcher

A2 智能手持终端
A2 Pilot Phone

极飞地理 C2000 智能测绘无人机是一款工业级低空四旋翼无人机，采用极飞自主研发的 SUPERX2 飞行控制系统，能实现全自主航线飞行和高精度地图自动采集。利用高性能锂离子电池和极飞 XBMS 电源管理系统，C2000 单次续航时间长达 40 分钟，一次起降可测量的最大面积为 130 万平方米，约 133 公顷。C2000 可以搭载不同相机模块，可采集的信息包括：正射影像、地形、地貌、高精度地理位置信息、高程数据以及多光谱图像等。

XGEOMATICS C2000 is a low-altitude industrial quadcopter UAS. It is equiped with the SUPERX2 flight control system, another independent research product of XAIRCRAFT. It is able to conduct autonomous flight and collects high-definition mapping information. Using lithium battery and XBMS battery management system, the flight time of C2000 is 40 minutes. It can map up to 133 hectares of land in a single flight. C2000, with different camera modules, is capable of collecting orthophoto map, topography, landform, high-definition geographical information, altimetric data, and multispectral images.

全自主飞行
Autonomous Flight

高精度采集
High-precision Data Acquisition

长时间续航
Long Flight Duration

多任务平台
Multi-tasking Platform

TECHNOLOGICAL INNOVATION
技术创新

方寸之间，尽收眼底

Professional Mapping Device

GNSS RTK 定位技术，为极飞地理 C2000 所采集的图像赋予更高精度的坐标。GNSS RTK 技术不仅让测绘无需像控点，颠覆传统测绘作业方式，同时还让 C2000 拥有抗磁干扰能力，在高压线、矿区等复杂地磁环境下也能稳定飞行。

GNSS RTK technology provides more accurate coordinates for the images collected by C2000. With GNSS RTK technology, C2000 is able to conduct mapping without image control points, which transforms the traditional way of mapping. With anti-magnetic interference ability, C2000 can keep a steady flight even in complex geomagnetic environments, for example, areas with high-voltage line or mining areas.

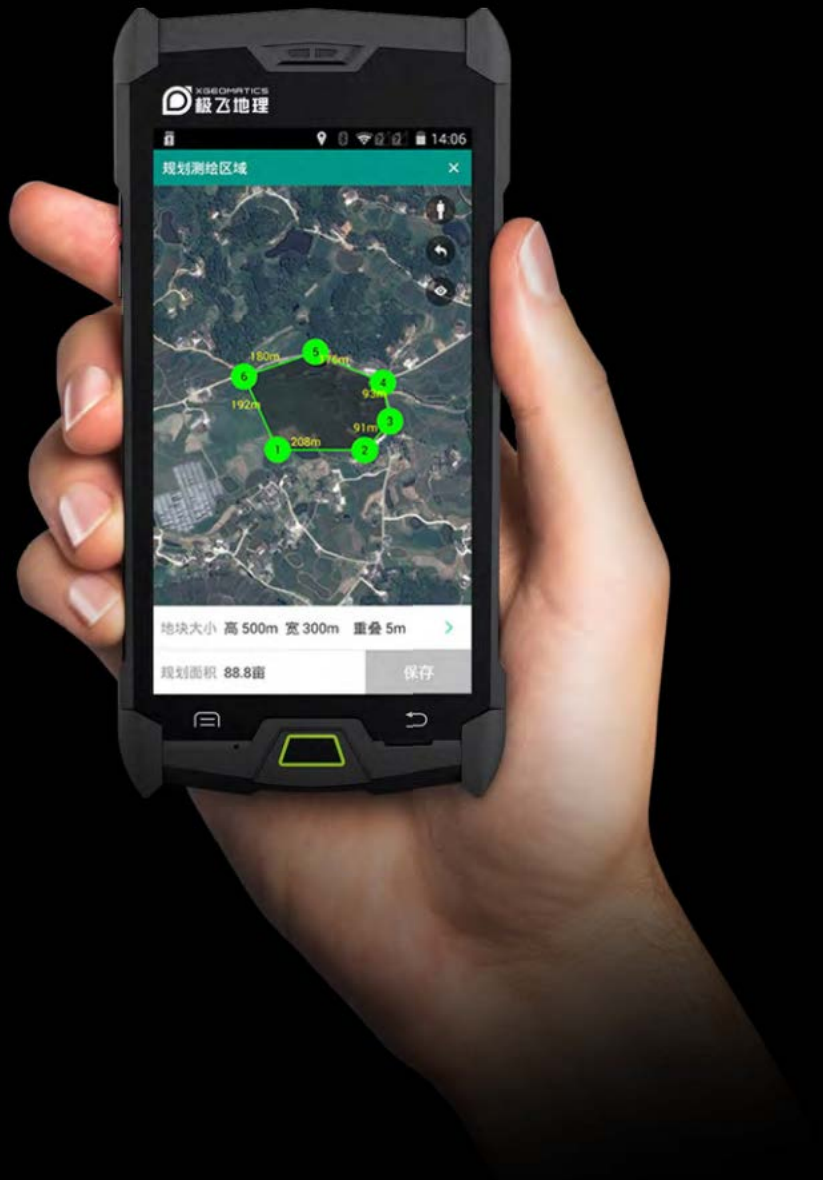
TECHNOLOGICAL INNOVATION
技术创新

点指规划，尽在掌中

Easy to Operate

用户只需通过 A2 智能手持终端选定测绘区域，智能规划飞行航线，实时监控飞行器的飞行情况与信息采集情况。植保无人机用户能随时随地通过 A2 从加密云端直接下载使用农田高清地图，自动生成航线，实现植保无人机精准飞行。

Users can select mapping area, plan flight route and monitor flight situation on the A2 pilot phone, all very simple and easy. Also, users can download high-definition map from the encrypted cloud and the A2 pilote phone will generate flight routes automatically.



TECHNOLOGICAL INNOVATION
技术创新

智能电池，超长续航

Extra-long Duration

单次续航时间长达 40 分钟，一次起降的最大测量面积 130 万平方米（GSD=5cm）。智能电池内置 XBMS 电源管理系统，拥有自平衡功能，大幅提高电池寿命及工作效率。低温环境下，电池会自动加热，确保无人机稳定飞行。

The duration of a sigle flight of C2000 lasts for 40 minutes. It can complete the mapping of an area as large as 1.3 million square meters through one flight. C2000's battery is equipped with the XBMS battery management system which has a self-balance function to increase efficiency and battery life. Under low temperature environment, the battery will heat itself automatically to ensure stable flight.

TECHNOLOGICAL INNOVATION
技术创新

多重设计，安全稳定
Smooth and Stable Flying

横向插拔卡扣式电池装卸结构,模块化机身设计,无工具快速换装。三角硬连接布局,强化机身结构。天线内置设计，数据传输安全、快速。多项冗余设计，确保系统稳定运作，安全飞行。

The horizontal battery loading structure and modular design, allows for easy assembly and disassembly of C2000. The triangle hard handling layout strengthens the UAS's body, while the built-in antenna design makes safe and quick data processing possible. Multiple redundancy designs ensure stable systematical operation and safe flight.

FEATURES
功能特点

全自主飞行 简单易用
Autonomous Flight and Easy to Operate

搭载 SUPERX2 飞行控制系统，全程自主飞行；无需起降跑道，无需专业操作人员，任意复杂地形随时作业。

With SUPERX2 flight control system, C2000 can achieve full autonomous flight. It needs no runway for taking off and landing. It can operate in any complex terrain at any time, no professional operators needed.

RTK 定位 精准采集
RTK Positioning and Precision Data Acquisition

利用 RTK 技术精准导航，厘米级航线飞行，自动采集高清图像，比例尺精度高达 1:300，优于行业标准精度 1:500；无需像控点，颠覆传统 GPS 测绘。

With RTK technology, C2000 can achieve precise navigation and centimeter-grade precise flight. It is able to collect high-definition images automatically, with the scale is up to 1:300, a leading accuracy in the industry. It can conduct mapping without image control points, which transforms the traditional GPS mapping.

FEATURES
功能特点

加密云计算 安全高效

Safe and Efficient Encrypted Could Computing

采用大规模云端加密计算，为每一位用户提供独立加密通道，单任务 500 亩农田的数据信息 1 小时可处理完毕，支持多任务同时处理，迅速生成空三加密、DOM、DSM 等测量成果，加速生成 DRG、DLG 等地图数据，大幅缩短地理信息处理时间。

Based on large-scale cloud computing, the C2000 UAS System can provide independent encrypted channel for each individual client, and greatly increase the efficiency of geographic data processing. It is able to complete the processing of data generated by one single flying task (usually 33 hectares) within 1 hour. It also supports multi-tasking, and can quickly generate aerial triangulation data, DOM, and DSM, as well as DRG and DLG mapping data.

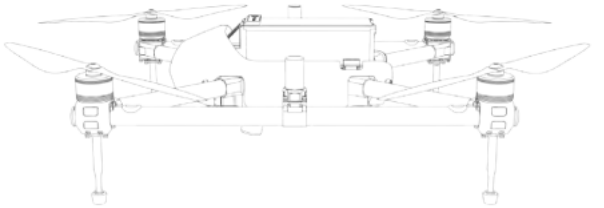
AI 内业处理 降低成本

Indoor Data Processing with AI

一键上传原始数据，加密云计算对其统一进行管理、分析及处理，快速拼接地图，生成空间数据，完成农田边界获取和地面特征识别，无需内业人员，大幅降低成本。

With a simple click, users can upload the raw data and let the encrypted cloud computing system to do the rest—managing, analyzing and processing these data. The system can stitch images and maps and then generate space data in a very quick way. It can also indentify field boundaries and different terrains. As no professional technical staff is needed, the cost of indoor processing would be greatly reduced.

SPECIFICATIONS
技术参数



飞行系统

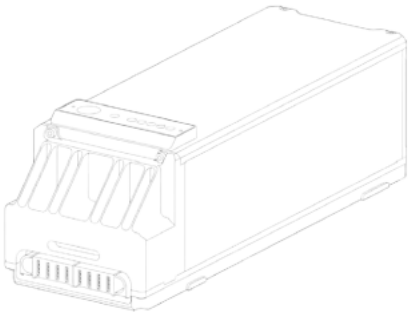
最大起飞重量： 6500g
机身尺寸： 982.2mm*982.2mm*198mm（包含桨）
机身材质： 碳纤维 + 铝合金
续航时间： 标准负载 40min
飞行速度： ≤ 15m/s *
定位精度： 垂直 0.3m，水平 0.1m
抗风性能： ≤ 6 级
工作温度： −10℃至 40℃

* 此为建议不超过的飞行速度，实际情况下的飞行高度与速度限制，请根据当地法律法规执行。

Flight System

Maximum Take-off Weight: 6500g
Size: 982.2mm*982.2mm*198mm (propellers included)
Body Material: Carbon Fiber + Aluminium Alloy
Maximum Flight Time: 40mins Standard Loading
Speed: ≤15m/s *
Positioning Accuracy: Vertical 0.3m, Horizontal 0.1m
Wind Speed Resistance: ≤10.8-13.9m/s
Operating Temperature Range: -10℃ - 40℃

* This is adviced speed limit. The actual flying speed and altitude limits must follow the local law.



电力系统

智能电池
标称电量：16000mAh（360Wh）
额定电压： 22.8V
循环次数：300 次

充电器
额定功率：310W
额定电压：26.1V
额定电流：12A
充电时间：90min

Powering System

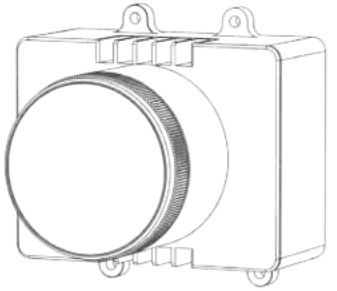
Smart Battery

Capacity: 16000mAh（360Wh）
Rated Voltage: 22.8V
Cycle: 300 times

Charger

Rated Power: 310W
Rated Voltage: 26.1V
Rated Current: 12A
Charging Length: 90 mins

SPECIFICATIONS
技术参数



载荷系统

最大载荷：1500g
相机型号：XCam 1200s
传感器尺寸：1/2.3’’ 有效像素 1200W
镜头 FOV：95°
最大光圈：f/2.8
ISO 范围：320–1600
电子快门速度：8–1/8000s
拍摄模式：等距拍摄、手动单张拍摄
分辨率：4000px x 3000px
镜头焦距：21mm（35mm 格式等效）

Loading System

Maximum Loading: 1500g
Camera Model: XCam 1200s
Sensor Size: 1/2.3”
Effective Pixels: 12 Million
FOV: 95°
Maximum Aperture: f/2.8
ISO: 320-1600
Electronic Shutter Speed: 8-1/8000s
Shooting Mode: Isometric Shooting, Manual
Resolution: 4000px * 3000px
Focal Length: 21mm (35 mm format equivalent)

A2 智能手持终端

重量：261g
防水级别：IP67

A2 Pilot Phone

Weight: 261g
Water Resistance: IP67

GNSS RTK 定位系统

信号跟踪：GPS、GLONASS、北斗
水平定位精度：1cm+1ppm
测向精度：±0.4°
首次定位时间：冷启动小于 50 秒，热启动小于 35 秒
电台 (RF) 覆盖范围：3 km (开阔可视距离)

GNSS RTK Positioning System

Satellite Positioning Systems: Beidou Navigation System, GPS, GLONASS
Horizontal Positioning Accuracy: 1cm+1ppm
Direction Finding Accuracy: ±0.4°
TTFF: ≤50s (Cold Start), ≤35s (Warm Start)
RF Range: 3km (wide-open)

XIOT FIELD MONITOR
极飞物联智能农田监测站

极飞物联智能农田监测站（XIOT Field Monitor，简称 FM1），是极飞研发的全新智能农田气象监测解决方案，通过微信小程序用户可查询监测地的即时气象情况。

XIOT Field Monitor is a smart farmland weather monitoring solution developed by XAIRCRAFT. With FM1, users can check on real-time local weather via WeChat mini program.

TECHNOLOGICAL INNOVATION
技术创新

高清广角图像

160° 高清大画幅图像，清晰监控作物生长情况，在空旷的平原地区，监测范围超过 50 亩。

High-resolution Wide Angle Image

FM1 produces 160°high-res images to help users monitor the growth of plants. Its monitoring range can be up to 3.33 hectares in plain areas .

太阳能供电

使用太阳能供电，不用拉设电线，安装简单；低功耗，高容量，在阴雨天气下，监测站仍能持续工作 7 天。

Solar Power Supply

FM1 uses solar power supply, which is easy to install and no electric wire is needed. With high capacity and low power consumption, FM1 can operate for 7 consecutive days even in cloudy and rainy days.

精准 GPS 定位

定位精准，偏差范围小于 5 米。

Precise GPS Positioning

The deviation range is less than 5 meters.

数据实时同步

数据更新频率灵活，并通过 4G 网络实时同步至云端。使用微信小程序即可查看实时监测数据，快捷，直观。

Real-time Data Synchronisation

FM1 updates data frequently, and transmits them to the cloud in real-time via 4G networks.Users can check on real-time data via WeChat mini program, easy and convenient .

FM1 技术参数

主机尺寸规格： L50*W110*H115mm
太阳能板尺寸规格： L416*W255*H80mm
立杆尺寸规格： L230*W230*H2300mm
太阳能板功率： 6W*2
摄像头： 5M*2

电池容量： 4000mAh/7.4V
光照测量范围： 1~125000Lux
温度测量范围： −40~85
湿度测量范围： 0 ~ 100%
气压测量范围： 300 ~ 1100hPa

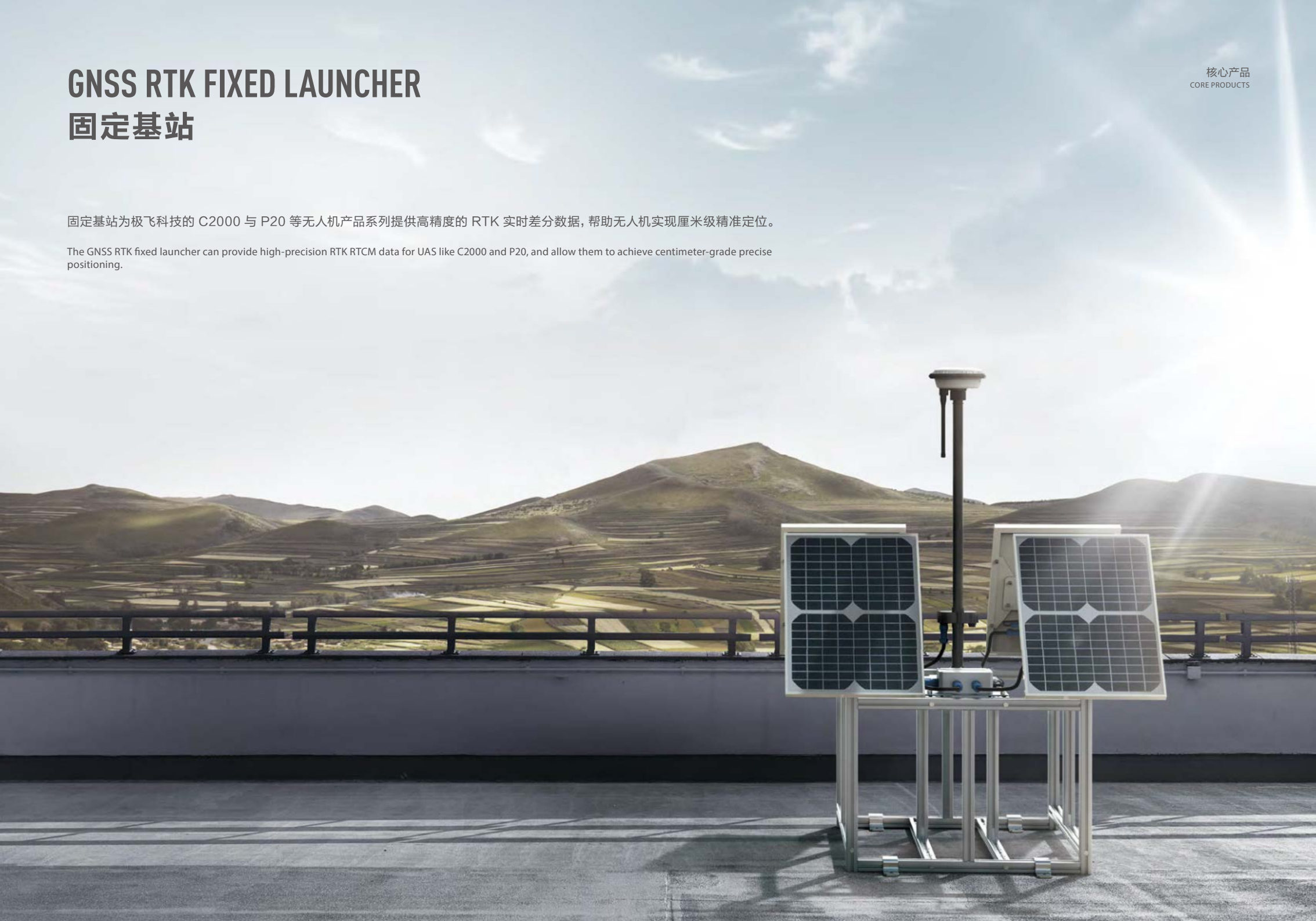
FM1 Specs

Mainframe Dimensions : L50*W110*H115mm
Solar Panel Dimensions : L416*W255*H80mm
Poling Dimensions : L230*W230*H2300mm
Solar Panel Power : 6W*2
Camera: 5M*2
Battery Capacity : 4000mAh/7.4V
Illuminance Measurement Range : 1~125000Lux
Temperature Measurement Range: -40~85
Humidity Measurement Range : 0~100%
Air Pressure Measurement Range : 300~1100hPa

GNSS RTK FIXED LAUNCHER
固定基站

固定基站为极飞科技的 C2000 与 P20 等无人机产品系列提供高精度的 RTK 实时差分数据，帮助无人机实现厘米级精准定位。

The GNSS RTK fixed launcher can provide high-precision RTK RTCM data for UAS like C2000 and P20, and allow them to achieve centimeter-grade precise positioning.



TECHNOLOGICAL INNOVATION
技术创新

双链路通讯

特有的双链路通讯技术，兼容 RF 电台和 2G/3G/4G 网络通讯，覆盖范围可达方圆 60 公里，保证定位通讯持续性，不易中断。

Dual-link Communications

The unique dual-link communications technology, which is compatible with RF radio and 2G/3G/4G networks and covers for a circumference of 60 km, can ensure precise positioning and continuous communication.

云端管理

毋需另安装 APP，通过微信小程序即可远程监控基站状态，检测基站在线异常状况，可在线调整设置、重启。

Cloud Management

The launcher can be monitored through cloud service via WeChat mini program, and no need to install separate mobile application. It can report error and reset the launcher online.

户外抗性强

使用太阳能供电，便于在没有架设供电设备的乡村提供信号覆盖。铝合金机架经久耐用，节省维护成本。

Weather Proof

The launcher is solar powered, making it convenient to ues in the countryside. The aluminium alloy frame can sustain in most weather conditions, reducing the cost to repair.

XAIRCRAFT

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扫描关注极飞农业

服务热线：400 980 3131

官方网站：www.xaircraft.com