SKY-DRONES

SMARTAP AIRLINK
Artificial Intelligence Remote LINK

B/E   ACT   I/O   FMU SD

TEL 1   GPS 1   CAN 2   CAMERA   CAN 1   POWER   CPU SD   CPU USB   RC

THE MOST ADVANCED AI DRONE AVIONICS

Autopilot, powerful AI Mission Computer and 4G/5G connectivity in a compact, embedded design for any UAV type.
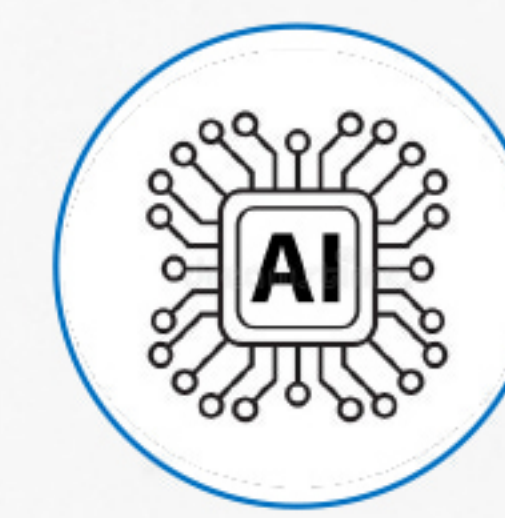
KEY FEATURES

- ✔ Helps to reduce engineering and development costs, reduces time to market and risks

- ✔ Based on open source software (Linux, PX4, Ardupilot) and the latest industry standards

- ✔ Easy scale from prototype to mass production

- ✔ Develop your own apps and integrations

- ✔ Powers any type of UAV including multirotors, fixed wings, VTOLs

- ✔ Aligned with Blue sUAS architecture

- ✔ Designed and manufactured in the UK 🇬🇧

ENTERPRISE DRONE ECOSYSTEM

Access the enterprise drone ecosystem with real time remote workflows, planning, flight analytics, assets management. Connect your apps with API.

IN THE DRONE

ON THE GROUND

IN THE CLOUD

YOUR BUSINESS

SMARTAP AIRLINK

SMARTAP GCS

SKY-DRONES CLOUD

YOUR APPS

GO TO MARKET FASTER

AIRLink stands for Artificial Intelligence & Remote Link. The unit includes cutting-edge drone autopilot, AI Mission Computer and LTE connectivity unit. Start your enterprise drone operations with AIRLink and reduce the time to market from years and months down to weeks.
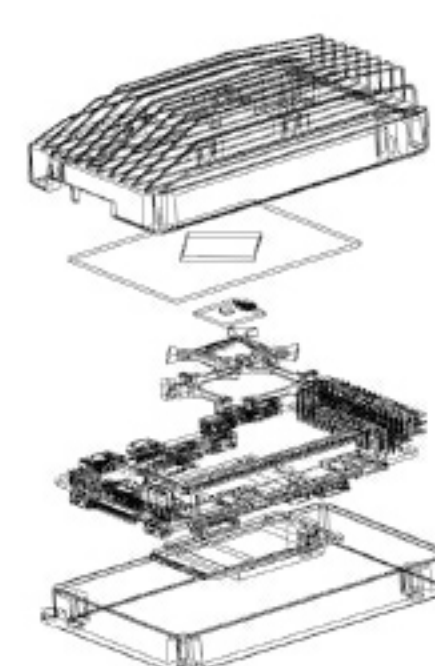
1. START WITH PROTOTYPE

Start with **AIRLink Enterprise**, build a prototype to verify your design and business idea.

2. GO TO MARKET

Roll out to market faster and start scaling up the production with **AIRLink Core**. Deeper integration, custom features and benefit from high volume discounts.
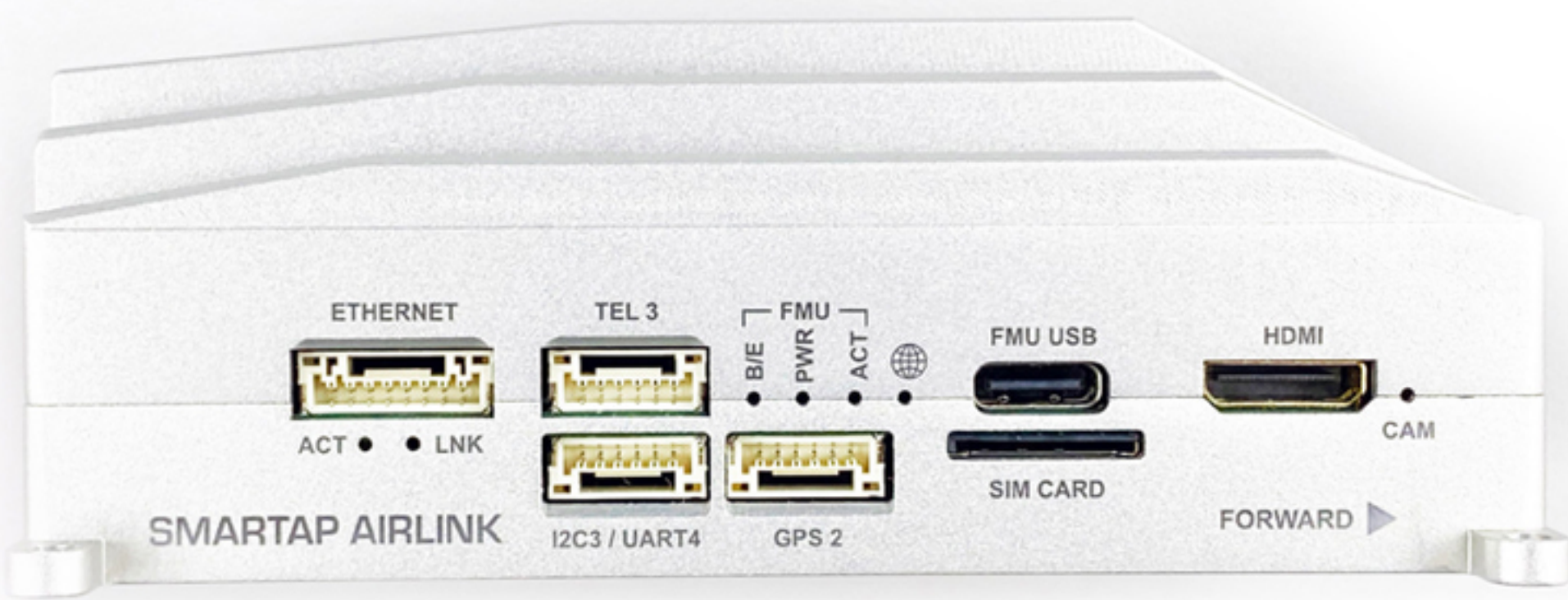
3. SCALE UP

License **AIRLink Reference** Design and manufacture at scale. Maintain the deployment process with the Cloud including deployment on our own server.

See reverse for detailed technical secification

Sky-Drones Technologies Ltd provides the most advanced hardware and software ecosystem for enterprise drone manufacturers and service providers.
www.sky-drones.com

SmartAP AIRLINK - Product specifications | Version1.0

www.sky-drones.com/airlink

SKY-DRONES

INTERFACES

- Ethernet port with power output
- Telemetry port
- Second GPS port
- Spare I2C / UART port
- Flight controller USB Type-C
- Micro SIM Card
- HDMI Input port (Payload camera)

KEY FEATURES

✔ Autopilot + AI Mission Computer + 4G/5G
✔ Vibration-dampened & temperature-stabilized IMU
✔ Open source software (PX4 / APM) + Linux
✔ Multiple cameras support
✔ BVLOS flight ready with UTM support
✔ Real time video streaming with multiple video feeds
✔ Cloud connectivity via WiFi or 4G/5G
✔ Develop and deploy your own apps
✔ Onboard video processing and object tracking
✔ Remote software updates
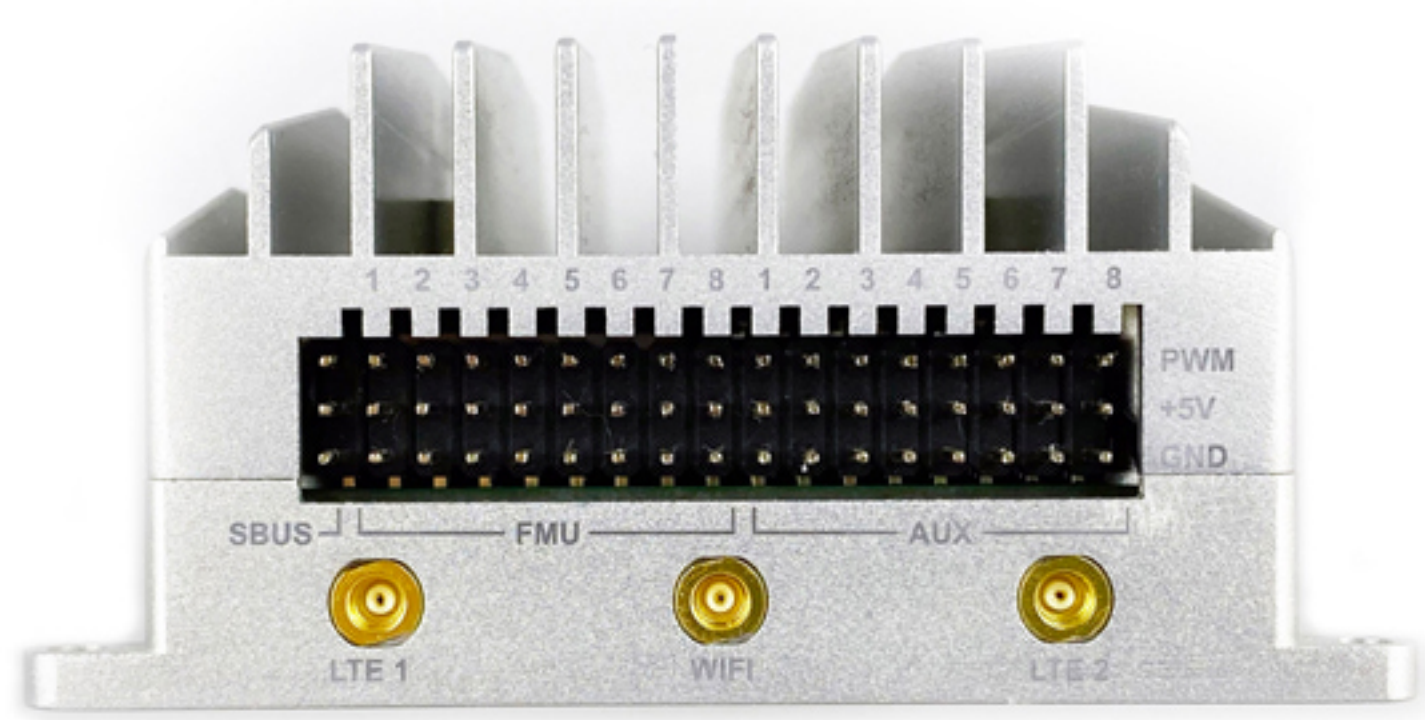
- SBUS input
- 16 PWM output channels
- 2x LTE antenna sockets (MIMO)
- WiFi Antenna socket (AP & Station modes)
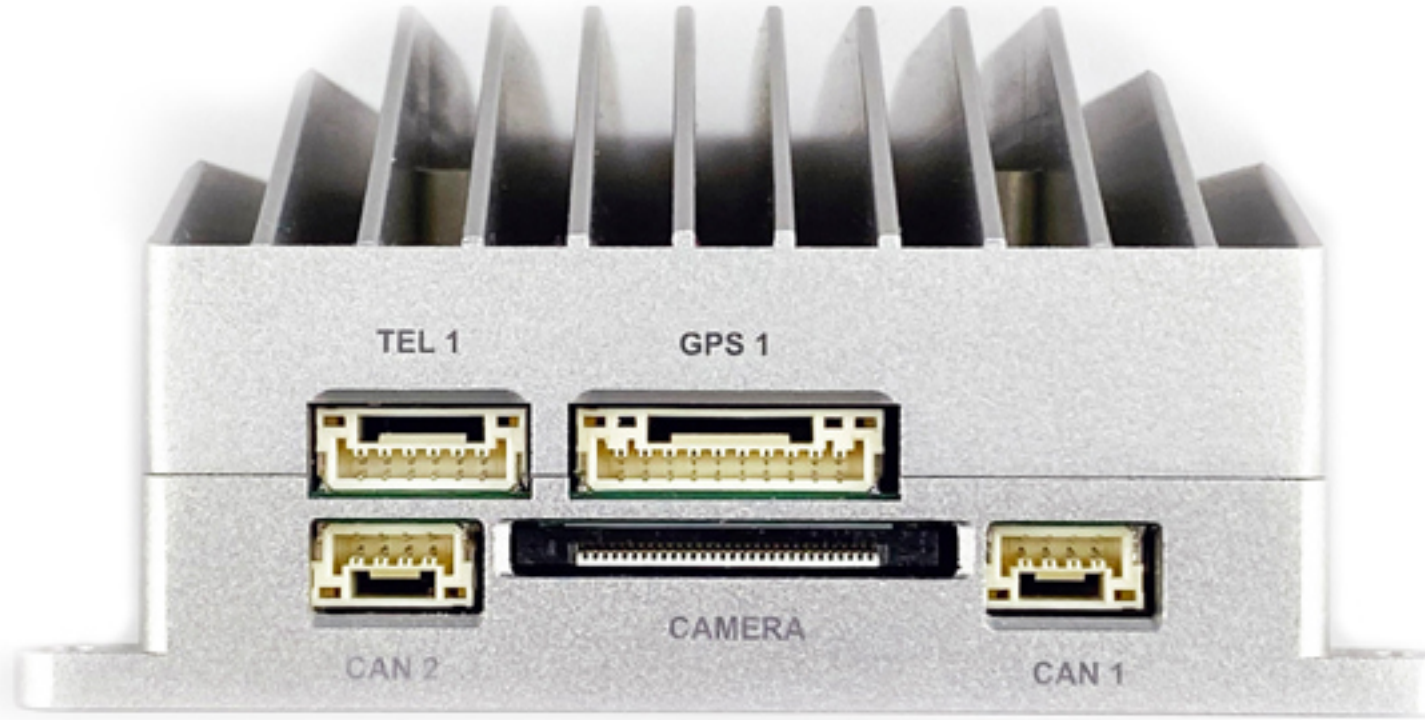
- Main GNSS and compass port
- Main telemetry port
- CSI camera input
- CAN 1
- CAN 2

- Power input w/ voltage & current sensing
- AI Mission Computer micro SD card
- Flight Controller micro SD card
- AI Mission Computer USB Type-C
- PPM Input, SBUS Output, RSSI monitor

TECHNICAL SPECIFICATIONS

GENERAL

Naviagtion	Accelerometers, Gyroscopes, Magnotometer, GNSS, Rangefinders, Lidars, Optical Flow, Visual
IMU	3x-Redundant Vibration Dampened Temperature Stabilized
GNSS	GPS, GLONASS, Galileo, BeiDou, RTK (option)
Flight Modes	Manual, Stabilize, GNSS-Assisted, Autonomous Waypoints, Guided, Terrain Following
Flight Logs	SD Card up to 256GB
Temperature	Operating from -40°C up to +50°C
ECCN	7E994

SUPPORTED VEHICLE TYPES

Multirotor	Quad, Hex, Octo Dodeca, Coaxial, Y
Fixed Wing	Ailerons, Flaps, Elevons V-Tail, H-Tail
VTOL	Tailsitter Multicopter Planes Tiltrotor

WEIGHT AND DIMENSIONS

Module Weight	198g
Module Dimensions	L103 x W61 x H37mm

FLIGHT CONTROLLER

Processor	STM32F765
Frequency	216 MHz
Flash	2MB
RAM	512 kB
IMU	3 Accelerometers, 3 Gyroscopes, 3 Magnetometers, 2 Barometers
Ethernet	10/100 Mbps LAN with AI Missioni Computer
UARTs	Telemetry 1, Telemetry 2 (AI Mission Computer), Telemetry 3, GPS 1, GPS 2, Extra UART, Serial Debug Console
CAN	CAN 1, CAN 2
USB	MAVLink Serial Console
RC Input	SBUS, RSSI, PPM, Spektrum
PWM Out	16 Channels

CONNECTIVITY MODULE

Type	4G UMTS/HSPA(+), GSM/GPRS/EDGE 5G available as an option
SIM Cards	Integrated eSIM External MicroSIM card slot
Antenna	2x2 MIMO
Bands	EMEA, North America, Australia, Japan, Other

DATA TRANSFER

Downlink	150 Mbps
Uplink	50 Mbps

AI MISSION COMPUTER

CPU	6-Core: Dual-Core Cortex-A72 Quad-Core Cortex-A53
GPU	Mali-T864, OpenGL ES1.1/2.0/3.0/3.1
VPU	4K VP8/9 4K 10bits H265/H264 60fps Decoding
Power	Software Reset Power Down RTC Wake-Up Sleep Mode
RAM	Dual-Channel 4GB LPDDR4
Storage	16GB eMMC 5.1 Flash MicroSD up to 256GB
Ethernet	10/100/1000 Native Gigabit
Wireless (WiFi/BT)	802.11a/b/g/n/ac Bluetooth 2x2 MIMO
USB	USB 3.0 Type C
Video	4-Lane MIPI CSI (FPV Camera) 4-Lane MIPI CSI with HMDI Input (Payload Camera)

VIDEO

Camera Interfaces	FPV MIPI-CSI Camera Input (included) Payload HDMI Camera Input Ethernet IP Based Cameras USB Cameras
HDMI Input	Native Support with Integrated FPGA Converter
Video Codec	1080p 60fps H.264/265 VP8/VP9