PLink-AI

AIComputing Platform

17F1

Datasheet

Version V1.1

Date 2026-1-19

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17F1 Document History

Version	Date	Description of Change	Hardware Version
V 1.0	2025-5-6	Initial documentation	V 1.0
V 1.1	2026-1-19	Modify Dimension Figure	V 1.0

Hardware Update History

Version	Date	Description of Change
V 1.0	2025-5-6	Initial Version

Electronic components and circuits are very sensitive to electrostatic discharge, although the company will design the main interface on the board card to do anti-static protection design, but it is difficult to do anti-static safety protection for all components and circuits. Therefore, it is recommended that you take ESD safety measures when handling any circuit board component.

ESD safety measures include but are not limited to the following:

1. Put the card in an ESD bag during transportation or storage. Do not take out the card until installation and deployment.
2. Before touching the board, release the static electricity stored in the body: Wear a grounding wrist strap.
3. Operate circuit boards only in electrostatic discharge safe areas.
4. Avoid moving circuit boards in carpeted areas.
5. Avoid direct contact with electronic components on the board through edge contact.

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Introduction

17F1 is an airborne AI computing platform designed for DJI M300, Mavic3, M30 and Matrice 350 series aircraft，Which is based on NVIDIA Jetson Xavier NX/Orin NX/Orin Nano series core modules.

17F1 is Equipped with Automatic dial-up 5G module.5G communication function can be realized by installing SIM card, without driver and manual dialing operation.The 5G antenna is designed with two built-in and two external antennas, and the antenna allocation can be adjusted according to the 5G used frequency band.At the same time, the whole machine can also add WIFI6 function module.

All external interfaces of the whole machine are waterproof design, and the protection level of the whole machine can reach IP66.

Please use the special OSDK cable to connect the DJI aircraft OSDK interface and the 17F1 OSDK interface.An OSDK wire realizes the power supply of 17F1 from the aircraft, and has the communication function between 17F1 and the aircraft.

The PSDK interface provided by the 17F1 airborne computing platform can be used to connect the PSDK standard loudspeaker, searchlight and other functional loads.

The 17F1 airborne computing platform also provides a standard Type-C interface for system debugging.The standard Type-C port contains USB2.0, USB3.0, and Displayport signals. Users can connect the standard Type-C HUB or other functional modules according to their needs.

Technical index

Module	Jetson ORIN NX 16GB	Jetson ORIN NX 8GB	Jetson Orin Nano 8GB	Jetson Orin Nano 4GB
AI Performance	157 TOPS	117 TOPS	67 TOPS	34 TOPS
GPU	1024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores		1024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores	512-core NVIDIA Ampere architecture GPU with 16 Tensor Cores
CPU	8-core Arm® Cortex®-A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3	6-core Arm® Cortex®-A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3	6-core Arm® Cortex®-A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3	
Memory	16GB 128-bit LPDDR5 102.4GB/s	8GB 128-bit LPDDR5 102.4GB/s	8GB 128-bit LPDDR5 68 GB/s	4GB 64-bit LPDDR5 34 GB/s
Storage	Support external NVME			
Video Encode	1x 4K60 (H.265) 3x 4K30 (H.265) 6x 1080p60 (H.265) 12x 1080p30 (H.265)		1080p30 supported by 1-2 CPU cores	
Video Decode	1x 8K30 (H.265) 2x 4K60 (H.265) 4x 4K30 (H.265) 9x 1080p60 (H.265) 18x 1080p30 (H.265)		1x 4K60 (H.265) 2x 4K30 (H.265) 5x 1080p60 (H.265) 11x 1080p30 (H.265)	
Power	10W - 40W		15W - 25W	10W - 25W

Order information

The specific order model please contact the sales according to the function configuration purchase.

Related Accessories

Type of order	Functional Description	manufacturer	Status of shipment
17F1-DJ-Cable	17F1 OSDK cable for connecting to DJI aircraft	Plink Ai Technology	Standard configuration
OSDK-Helper-V1-1	OSDK Signal Separation Board	Plink Ai Technology	Standard configuration
100044187529	5-in-1 TypeC docking station	biaze	Standard configuration
SDK Coaxial Line Kit	17F1 Connect the OSDK cable to the DJI aircraft	DJI	optional configuration
M300- Bracket	17F1 with DJI M300 aircraft mount (including 2 M2.5*4 combination screws, 4 M3*6 screws)	Plink Ai Technology	optional configuration
PSDK Mounting Bracket	17F1 with DJI M30 aircraft mount	DJI	optional configuration

Related Accessories

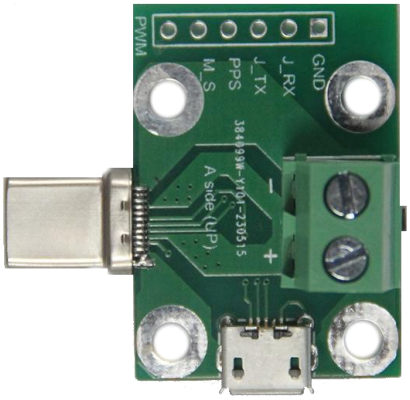
Taobao store address: https://shop333807435.taobao.com/

Jingdong store address: https://mall.jd.com/index-11467104.html?from=pc

Ali International Station Address: https://plink-ai.en.alibaba.com/

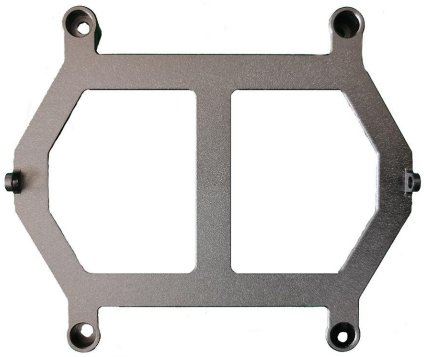
SDK Coaxial Line Kit

17F1-DJ-Cable



OSDK Signal Separation Board

100044187529



M300- Bracket

PSDK Mounting Bracket

Installation and precautions

1.Bracket installation of 17F1 and M300 aircraft

1.1 Fix the mounting bracket M300-Bracket on the M300 aircraft through four M3*6(Flat head hex socket) screws.

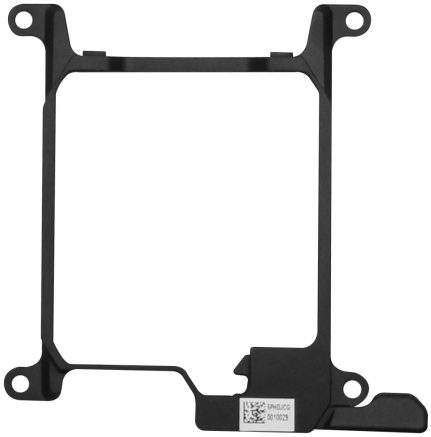
1.2 Lock the 17F1 with the M300-Bracket with two M2.5*4(Cross-round head screw) combination screws.

2.the bracket installation of 17F1 and M30 aircraft

2.1 Detach the M30 quick release frame

2.2 Fix the two parts of the separated M30 quick release frame to the M30 aircraft and 17F1 respectively.

2.3 Quick plug-in insertion flattening



3. Installation of OSDK cables

3.1 When using the 17F1-DJ-Cable cable, install and use it according to the anti-reverse plugging structure of the cable.

3.2 When using a single-ended unglued OSDK coaxial cable purchased from DJI Mall to connect to 17F1, you need to pay attention to the connection direction of the OSDK cable as shown in the figure (side A is facing up):

Operating system burning method and related tools

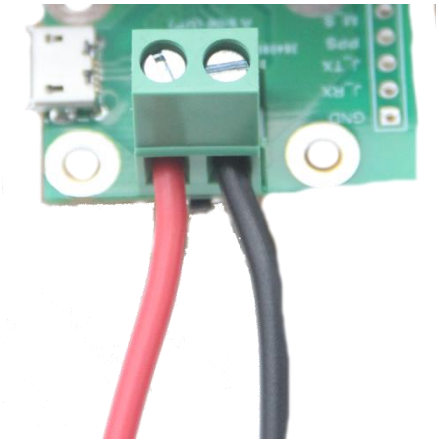
1.17F1 enters Recovery mode

If you need to reflash the operating system of the 17F1, you need to put the NX16-17F1 into Recovery mode first, and perform the following steps:

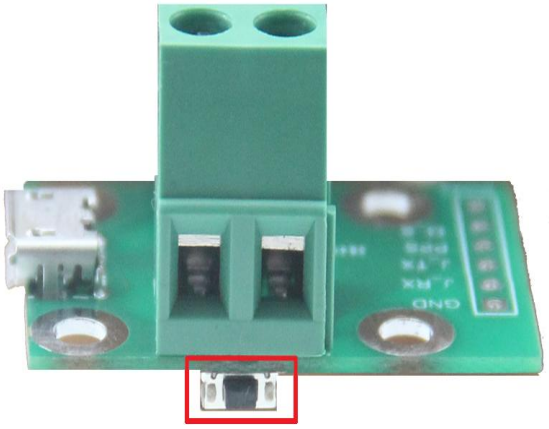
1.1 Insert the OSDK signal separation board into the OSDK interface of 17F1.

1.2 Insert the microUSB plug of the micro-usb cable into the microUSB female connector of the OSDK signal separation board, and insert the USB TYPEA plug at the other end of the micro-USB cable into the USB female connector of the programming host.

1.3 Connect the unpowered 12V DC power cable to the power wiring connector according to the silkscreen polarity mark on the OSDK signal separation board.



1.4 Press and hold the Rec button as shown in the figure below without releasing it, power on the 12V DC power supply, and release the button after the power supply is powered on for 3 seconds. At this point, 17F1 will enter Recovery mode.



2.Set up the system burning environment

For details, please refer to the relevant documents of the download center on the company's official website:

《Jetson System Programming Environment Construction》

3.Related software tools

3.1 If you use user-defined fan control logic, you need to run the following command to disable the default system control logic:

$ sudo systemctl stop nvfancontrol.service

3.2 If you use 17F1 with M3, M30, or M350 aircraft, execute the following commands to enable support services:

$ sudo systemctl enable plink-ai.service

3.3 If you use 17F1 with M300 aircraft, execute the following command to enable M300 support services:

$ sudo systemctl disable plink-ai.service

3.4 The DJI Payload-SDK installation directory that has been compiled and can be run directly:

$ ~/Payload-SDK/

Operating system burning method and related tools

matters need attention

- Please read this manual carefully before using the product and keep it properly for future reference;
- Please pay attention to and follow all warnings and guidance information marked on the product;
- Please use the matching power adapter to ensure the stability of current and voltage;
- Please use this product in a cool, dry and clean place;
- Do not use this product in alternating hot and cold environment to avoid condensation damage to internal components;
- Do not splash any liquid on the product, and do not use organic solvents or corrosive liquids to clean the product;
- Do not use this product in a dusty, dirty environment. If you do not use it for a long time, please pack this product.
- Do not use in the environment with excessive vibration, any drop, knock may damage the line and components;
- Do not plug and unplug the core board and peripheral modules when the power is on;
- Do not repair or disassemble the product by yourself. If the product fails, please contact the company for maintenance in time;
- Do not modify or use unauthorized parts by yourself, the damage caused by this will not be guaranteed.

After-sales repairs

1.Warranty Period

3 years warranty for circuit board related components and the whole machine (non-man-made damage, the whole machine is not guaranteed by private dismantling)

2.Contact

Address: C1108, Jinyu Jiahua Building, Shangdi 3rd Street, Haidian District, Beijing

Attn: RMA

Phone: 010-62962285

Mailing instructions: contact the company's sales in advance, will arrange technical personnel as soon as possible to verify and eliminate the error caused by misoperation, please mail the equipment to the company after verification, please attach a list of items and the cause of the failure when mailing, so as to facilitate verification, so as to avoid loss and loss in the express delivery process.