

RX-FBPC-1151

14th/13th/12th Gen Intel® Core™



RX-FBPC-1151 is a high-performance AI edge computing device designed to deliver powerful and efficient processing capabilities for advanced applications. Built on the NVIDIA Xavier NX platform, it offers up to 21 TOPS of AI computing power, enabling fast and accurate data processing.

Pre-installed with the Ubuntu 18.04 operating system, the system supports seamless development and deployment of AI-based solutions. It is capable of handling image and video analysis, as well as real-time data processing and inference.

With its compact design and robust performance, the RX-FBPC-1151 is ideal for a wide range of applications including education, robotics, drones, and other intelligent edge computing scenarios.

Technical Specifications

System Configuration:

AI Platform: NVIDIA Jetson Xavier NX

AI Computing Power: Up to 21 TOPS

Processing Units:

GPU: 384-core NVIDIA Volta™

Architecture with 48 Tensor Cores

CPU: 6-core NVIDIA Carmel

ARM®v8.2 64-bit processor with

6MB L2 + 4MB L3 cache

Video Processing

Video Encoding:

Supports 2×4K@60fps / 4×4K@30fps /

10×1080p@60fps

/ 22×1080p@30fps (H.265)

Video Decoding:

Supports 2×8K@30fps / 6×4K@60fps /

12×4K@30fps

/ 22×1080p@60fps / 44×1080p@30fps (H.265)

Memory & Storage:

Memory: 8GB / 16GB 128-bit LPDDR4x

(up to 59.7 GB/s bandwidth)

Storage: 16GB eMMC 5.1

Hardware Interface

Ethernet

Interface: 1 × RJ45 Gigabit Ethernet Port

Ethernet

Interface: 1 × RJ45 Gigabit Ethernet Port

Wireless Network

WiFi: 2.4GHz / 5GHz Dual Band WiFi (Optional)

4G/5G: Not Supported

GNSS: Not Supported

Other: 1 × TF Card Slot

Expansion Ports

M.2 Key E: WiFi Module Support

M.2 Key M: 2280 PCIe SSD (Optional)

Other Features

RTC: Not Available

Synchronous System: Not Supported

GMSL Camera Interface: Not Supported

Electric Source

Power Input: 9V – 19V

Power Interface: DC Connector

Working Environment

Operating Temperature: -20°C to 60°C

Operating Humidity: 5% – 95% (Non-condensing)

Cooling Method: Passive Cooling

I/O Interfaces

USB: 4 × USB 3.0 Type-A, 1 × USB Micro OTG

Serial Port: 1 × UART (TTL)

CAN: Not Available

GPIO: 40-Pin Interface (UART, SPI, I2S, I2C, PWM,

GPIO) 12-Pin Control Signal InterfaceGPIO:Audio: Not

Available

Multimedia

Display: 1 × HDMI, 1 × DP

I/O Interfaces

USB: 4 × USB 3.0 Type-A, 1 × USB Micro OTG

Serial Port: 1 × UART (TTL)

CAN: Not Available

GPIO: 40-Pin Interface (UART, SPI, I2S, I2C, PWM, GPIO)

12-Pin Control Signal InterfaceGPIO:Audio: Not Available

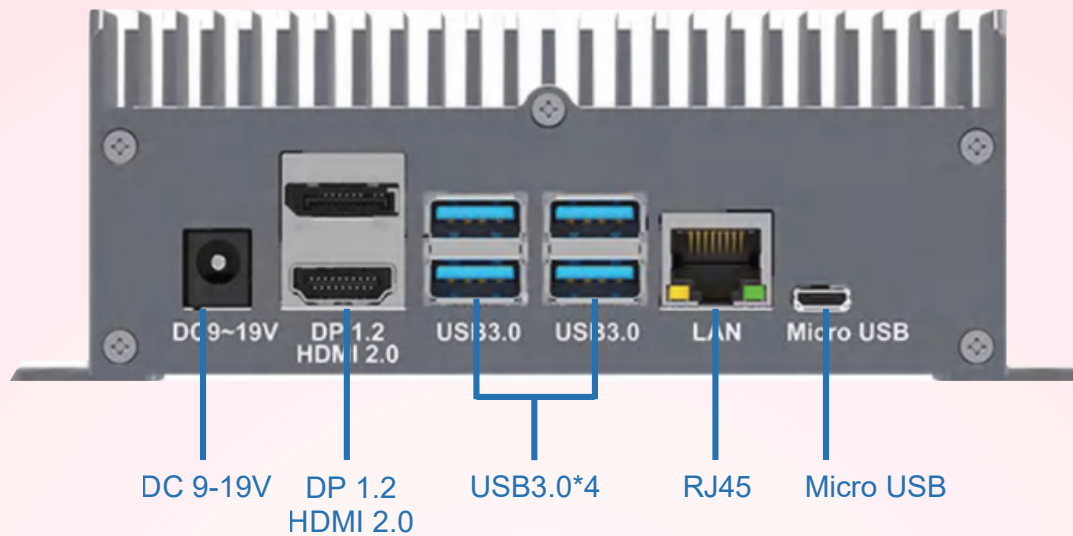
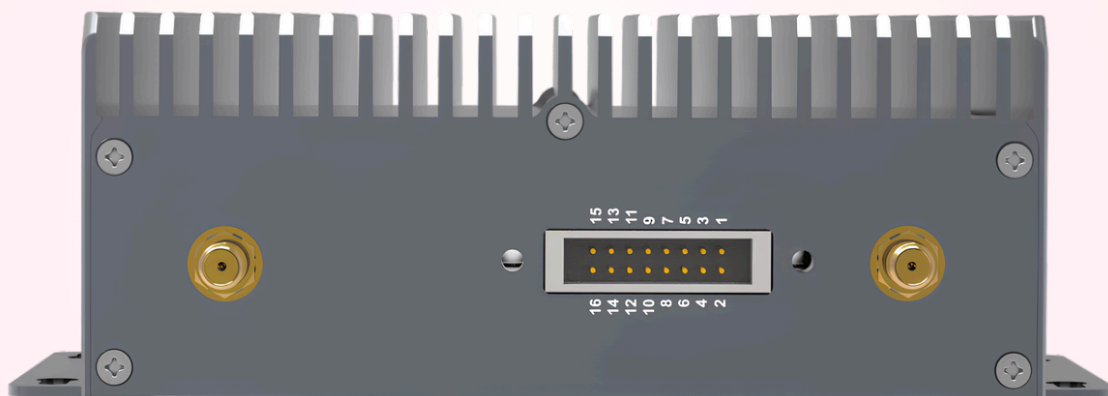
Physical Parameters*

Dimensions: 122 mm × 89 mm × 44.8 mm

Certifications* CE, FCC, ROHS

Disclaimer: As per our company policy one of the constant product improvements the right is there for reserved to modify the product specification on without prior notice and the picture shown in the datasheet is a design base, the actual picture may vary.

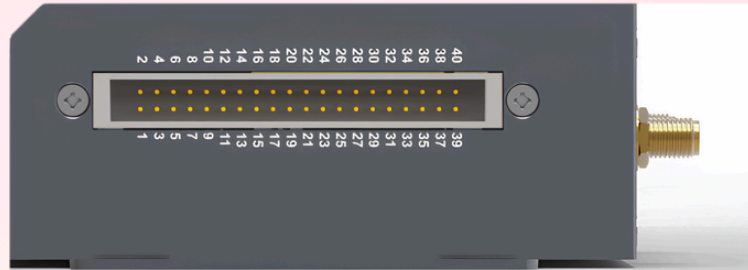
RX-FBPC-1151



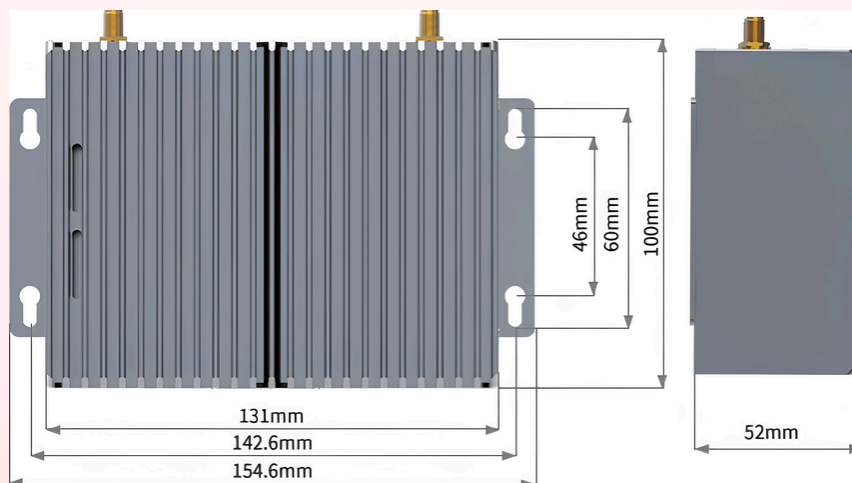
01 PWR BIN	02 GAD	03 REC	04 GND
05 SYS RST	06 GND	07 AUTO ON	08 DISABLE
09 Debug TXD	10 Debug RXD	11 LED+	12 LED-
13 3V3	14 GND	15 CAN RX	16 CAN TX

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01	3.3 VDC	02	5.0 VDC	21	SPI0_MISO	22	SPI1 MISO
03	I2C1 SDA	04	5.0 VDC	23	SPI0_SCK	24	SPI0_CS0
05	I2C1 SCL	06	GND	25	GND	26	SPI0_CS1
07	GPIO 9	08	UART_TX	27	I2C0_SDA	28	I2C0_SCL
09	GND	10	UART_RX	29	GPIO01	30	GND
11	UART1_RIS	12	I2S0_SCLK	31	GPIO11	32	GPIO 07
13	SPI1_SCK	14	GND	33	GPIO 13	34	GND
15	GPIO 12	16	SPI1_CS1	35	I2S0_FS	36	UART1_CTS
17	3.3 VDC	18	SPI1_CS0	37	SPI1_MOSI	38	I2S0_SDIN
19	SPI0_MOSI	20	GND	39	GND	40	I2S0_SDOUT



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