



IACA BOX- Technical Specifications

January 2026



Overview



IACA BOX is an industrial-grade carrier board compatible with Raspberry Pi Compute Module 4 and 5.

IACA BOX is an innovative modular platform designed to empower users—especially creatives, designers, and small-to-medium enterprises (SMEs) to build custom digital solutions without extensive programming knowledge. Rooted in the principles of accessibility, flexibility, and creative freedom, IACA BOX bridges the gap between technical and non-technical users, enabling rapid prototyping, iterative development, and seamless collaboration.

IACA BOX is engineered with industrial-grade quality in mind, ensuring reliability, performance, and adaptability for both individual creators and professional environments.

It benefits from the backing of an experienced Montpellier-based SME with over 25 years of experience in digital innovation and design. This ensures users have access to dedicated support for seamless project development, whether for creative exploration or professional applications

Specification with **CM4**

Form factor

- In default box 107.5 mm x 140 mm x 30mm
- Board 105 mm x 130mm

Input power

12V to 24V DC

Processor

Broadcom BCM2711 quad-core 64-bit Arm Cortex-A72(ARM V8) SoC @1.5GHz

RAM

1GB, 2GB, 4GB LPDDR4

Storage

0GB, 8GB, 16GB, 32GB eMMC

Connectivity

Optional Wireless LAN :

- Dual-band (2.4GHz / 5.0GHz)
- IEEE 802.11b/g/n/ac

Optional Bluetooth 5.0, BLE :

Support for onboard or external antenna

Gigabit Ethernet :

Integrated PHY supporting IEEE 1588 (PTP)

3x USB2.0

- 2xexternal
- 1xinternal

PCIe Interfaces :

- 2x PCIe Gen 3 (1-lane) interfaces :
 - 1x mPCIe interface
 - 1x NVMe M.2 (M-Key) interface

40-pin standard **Raspberry Pi** connector

1x **RS485** interface

1x **CAN** Bus interface

1x Optically isolated **input** (2-pin)

1x Optically isolated **output** (2-pin)

Video

1x standard HDMI connector (supports up to 4Kp60)
1x ZIF 20 points HDMI
1x ZIF 22 points 4-lane MIPI DSI
1x ZIF 22 points 4-lane MIPI CSI

Multimedia

H.265 (4Kp60 decode)
H.264 (1080p60 decode, 1080p30 encode)
OpenGL ES 3.0 graphics

Extra

1x ATECC608 I2C Crypto module
1x RV3028 I2C RTC
1x MXC4005XC I2C Accelerometer

RAM

1GB, 2GB, 4GB LPDDR4

Temperature

-20°C to +60°C

Product lifetime:

IACA Box rev B with CM4 will remain in production
until at least **January 2034**



Specification with **CM5**

Form factor

- In default box 107.5 mm x 140 mm x 30mm
- Board 105 mm x 130mm

Input power

12V to 24V DC

Processor

Broadcom BCM2712 quad-core 64-bit Arm Cortex-A77(ARM V8) SoC @2.4GHz

RAM

1GB, 2GB, 4GB, 8GB and 16GB LPDDR4

Storage

0GB, 8GB, 16GB, 32GB, 64GB eMMC

Connectivity

Optional Wireless LAN :

- Dual-band (2.4GHz / 5.0GHz)
- IEEE 802.11b/g/n/ac

Optional Bluetooth 5.0, BLE :

Support for onboard or external antenna

Gigabit Ethernet :

Integrated PHY supporting IEEE 1588 (PTP)

2x **USB 3.0**

1x **USB2.0 (internal)**

PCIe Interfaces :

- 2x PCIe Gen 3 (1-lane) interfaces :
 - 1x mPCIe interface
 - 1x NVMe M.2 (M-Key) interface

40-pin standard **Raspberry Pi** connector

1x **RS485** interface

1x **CAN** Bus interface

- 1x Optically isolated **input** (2-pin)
- 1x Optically isolated **output** (2-pin)

Video

1x standard HDMI connector (supports up to 4Kp60)
1x ZIF 20 points HDMI
1x ZIF 22 points 4-lane MIPI DSI
1x ZIF 22 points 4-lane MIPI CSI

Multimedia

4Kp60 HEVC decoder
OpenGL ES 3.1 graphics, Vulkan 1.2

Extra

1x ATECC608 I2C Crypto module
1x RV3028 I2C RTC
1x MXC4005XC I2C Accelerometer

RAM

1GB, 2GB, 4GB LPDDR4

Temperature

-20°C to +60°C

Product lifetime:

IACA Box rev B with CM5 will remain in production
until at least **January 2036**

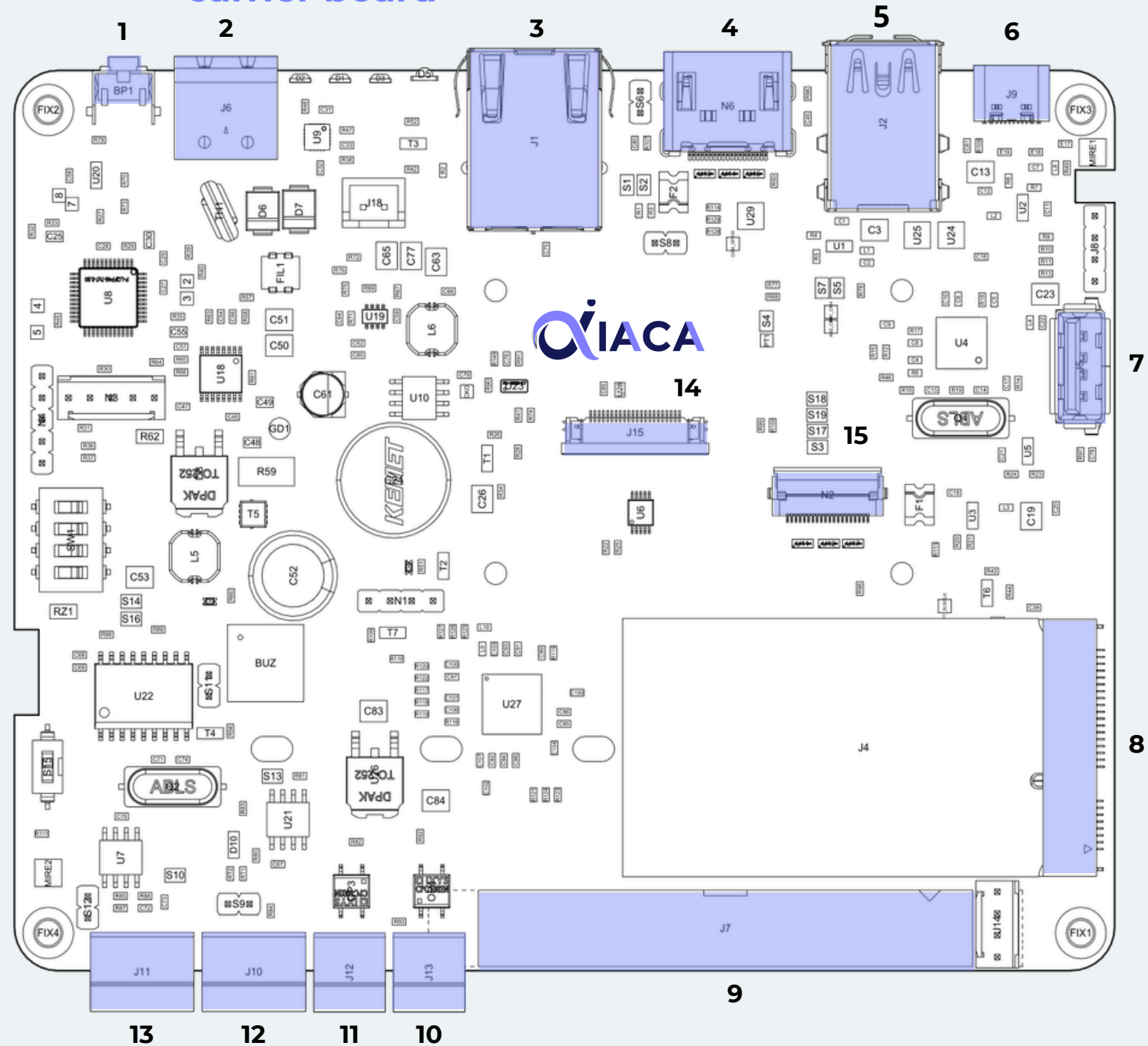


TOP VIEW

carrier board

Components

- 1 Switch ON / OFF
- 2 Power IN
- 3 Ethernet
- 4 HDMI
- 5 USB x2
- 6 USB C (prog only)
- 7 USB 2.0
- 8 MPCle x1
- 9 40 pin HAT rpi compatible
- 10 Opto In
- 11 Opto Out
- 12 RS485 Bus
- 13 CAN Bus
- 14 MIPI CSI
- 15 HDMI Interne



BOTTOM VIEW

carrier board

Components

- 16 Compute module
- 17 MIPI DSI 22 pin (default)
- 18 MIPI DSI 15 pin (option)
- 19 NVME M.2 KEY

