



IACA BOX - Technical Specifications

January 2026

Revision B

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 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 30 mm
Board 105 mm x 130 mm

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, 2.4GHz and 5.0GHz IEEE 802.11b/g/n/ac wireless
- Optional Bluetooth 5.0, BLE with onboard and external antenna option
- Gigabit Ethernet PHY supporting IEEE1588
- 3x USB 2.0
 - 2x external
 - 1x internal
- PCIe Gen 3 (1-lane) x2 interfaces
 - 1x mPCIe interface
 - 1x NVMe M Key interface
- 40 pins standard Raspberry connector
- 1x RS 485
- 1x CAN
- 1x 2 pins optically isolated input
- 1x 2 pins optically isolated output

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

Operating 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 30 mm
Board 105 mm x 130 mm

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, 2.4GHz and 5.0GHz IEEE 802.11b/g/n/ac wireless
- Optional Bluetooth 5.0, BLE with onboard and external antenna option
- Gigabit Ethernet PHY supporting IEEE1588
- 2x USB 3.0
- 1x USB 2.0 (internal)
- PCIe Gen 3 (1-lane) x2 interfaces
 - 1x mPCIe interface
 - 1x NVMe M Key interface
- 40 pins standard Raspberry connector
- 1x RS 485
- 1x CAN
- 1x 2 pins optically isolated input
- 1x 2 pins optically isolated output

Video:

- 1x standard HDMI connector (supports up to 4Kp60)
- 1x ZIF 20 points HDMI (supports up to 4Kp60)
- 1x ZIF 22 points 4-lane MIPI (supporting both DSI and CSI-2)
- 1x ZIF 22 points 4-lane MIPI (supporting both DSI and CSI-2)

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

Operating temperature:

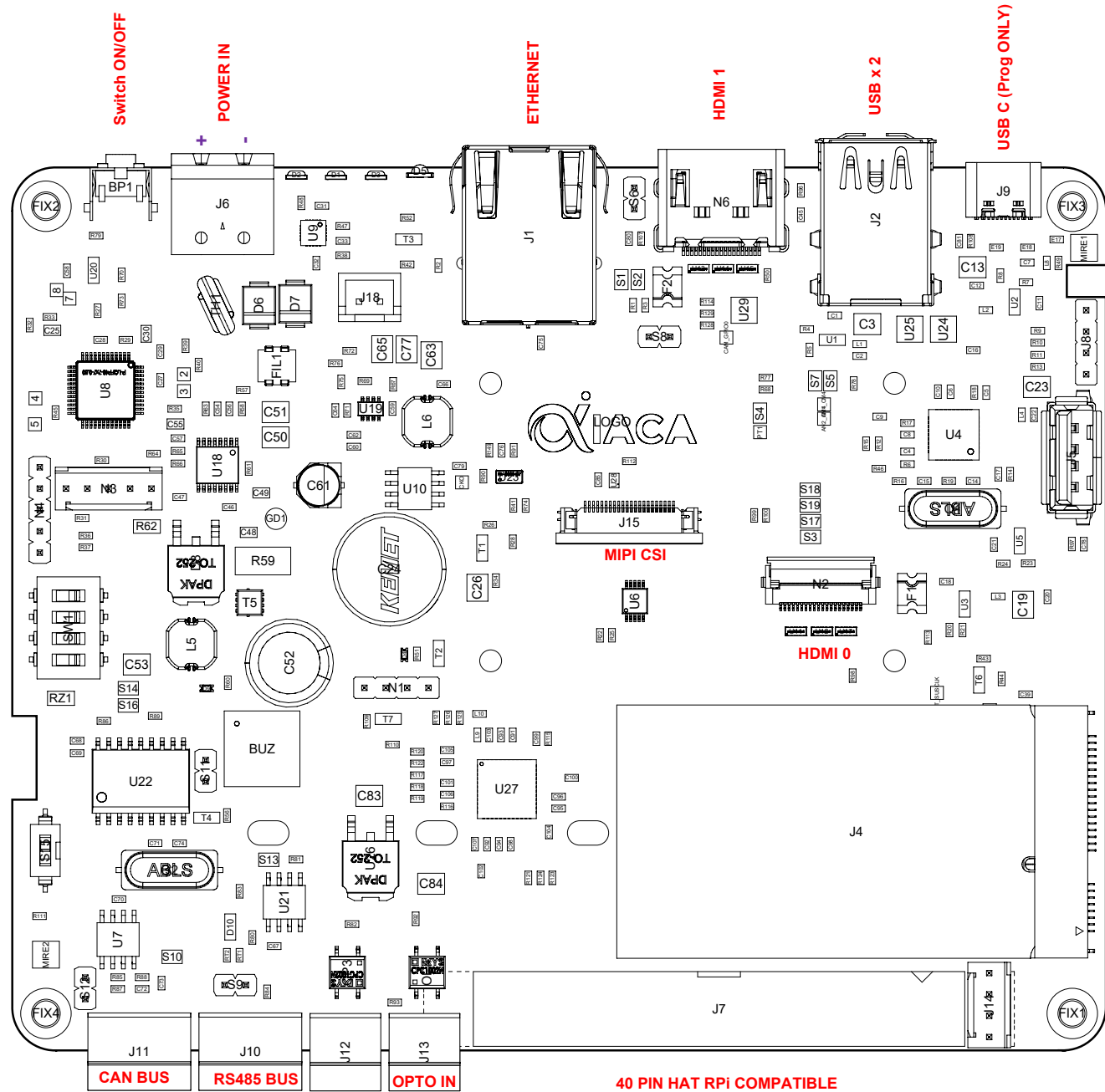
-20°C to +60°C

Product lifetime:

IACA Box rev B with CM4 will remain in production until at least January 2036

TOP VIEW

CM4/5 SELECTION



Switch ON/OFF

POWER IN

ETHERNET

HDMI 1

USB x 2

USB C (Prog ONLY)

USB 2.0

MIPI CSI

HDMI 0

MPCIe X1

40 PIN HAT RPi COMPATIBLE

J11 CAN BUS
GD CANL CANH

J10 RS485 BUS
GD RS485B RS485A

J12 OPTO OUT
REF OUT

J13 OPTO IN
IN REF

BOTTOM
VIEW

