



Comparisons between Edge-V, VIM3 and VIM4

Model	Edge-V Pro	VIM3 Pro	VIM4
SoC Process	28nm	12nm	12nm
CPU	Rockchip RK3399 x2 A72 at 1.8GHz + x4 A53 at 1.4GHz	Amlogic A311D x4 A73 at 2.2GHz + x2 A53 at 1.8GHz	Amlogic A311D2 x4 A73 at 2.2GHz + x4 A53 at 2.0GHz
GPU	Mali T860 MP4	Mali G52 MP4(6EE) at 800MHz	Mali G52 MP8(8EE) at 800MHz
NPU	-	5 TOPS	3.2 TOPS
RAM	4GB LPDDR4 800MHz, 64bit	4GB LPDDR4/X 1608MHz, 32bit	8GB LPDDR4X 2016MHz, 64bit
eMMC	Onboard, 32GB	Onboard, 32GB	Onboard, 32GB
SPI Flash	16MB	16MB	32MB
Wi-Fi	2T2R 802.11 ac with RSDB	2T2R 802.11 ac with RSDB	2T2R Wi-Fi 6
Bluetooth	V5.0	V5.0	V5.1
M.2 Socket	4-lane PCIe	1-lane PCIe [1]	1-lane PCIe
Wake-on-Lan	✓	✓	✓
Timer on [2]	✓	✓	✓
USB-C DP Display	✓	-	-
HDMI Display	x1 Type-A	x1 Type-A	x1 Type-A
eDP Display	✓	-	✓
VB1 Display	-	-	✓
MIPI-DSI Display	2 [3]	1	1
MIPI-CSI Camera	4-lane x2 with dual 14MP ISP	4-lane x1 with 8MP ISP	4-lane x2 with 16MP ISP
HDMI INPUT	-	-	4K@60fps, Micro HDMI
IR Receiver	Dual Channels	Dual Channels	-
DMIC	-	-	Stereo Digital Microphones
Gesture Control	✓	-	-
Motion Tracking	Tri-axis Gyroscope Tri-axis Accelerometer	Tri-axis Accelerometer	Tri-axis Accelerometer
Battery	✓ [4]	-	-
User Buttons	Reset, Power, Function	Reset, Power, Function	Reset, Power, Function
LED	R/G/B	R/G/B	R/W
Power Supply	USB-C x2	USB-C, VIN	USB-C, VIN(90° Rotated)
USB Host	x1 USB 3.0 + x1 USB 2.0	x1 USB 3.0 + x1 USB 2.0	x1 USB 3.0 + x1 USB 2.0
USB OTG Port	USB-C	USB-C	USB-C

Board Dimensions	82.0 x 58.0 x 13.0 mm	82.0 x 58.0 x 13.0 mm	82.0 x 58.0 x 13.0 mm
Decoding	H.265 4K@60fps	Multi-video decoder up to 4Kx2K@60fps + 1x1080P@60fps	Multi-video decoder up to 4Kx2K@60fps + 1x1080P@60fps
Encoding	H.264 at 1080P@30fps	H.265 & H.264 at 1080P@60fps	H.265 & H.264 at 4K@50fps
4K UI	-	-	√

- [1] Switch between 1-lane PCIe or USB 3.0.
- [2] The RTC timer can power on the SBC at a preset time which can be used applied to occasions like digital signage.
- [3] Need to setup one of the MIPI-TX/RX interface(MIPI-CSI as default configuration) as MIPI-DSI interface.
- [4] The Battery module requires a built-in charging circuit.