

KBox E-420-R1K/V1K

A VALUE 4K IMAGING SYSTEM



Ordered & Served at
Kontron Asia

FANLESS BOX PC WITH AMD RYZEN™ R1000 / V1000 SERIES PROCESSORS

- ▶ 1x DP, 2x HDMI 2.0 for triple display support
- ▶ 2x GbE LAN for Ethernet
- ▶ 2x USB 3.1, 2x USB 2.0, 2x RS232/422/485 for peripheral connection
- ▶ 1x DIO for device / signal control
- ▶ 1x mPCIe, 1x M.2 Key B, 1x M.2 Key M for SSD and wireless expansion

POSSIBILITIES START HERE



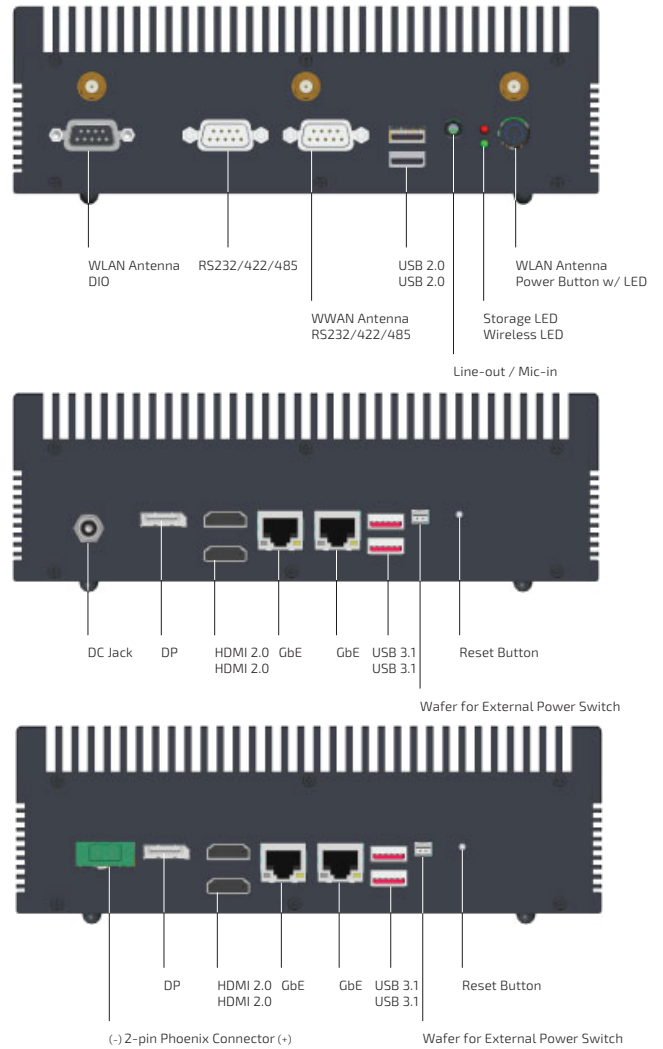
KBox E-420-R1K/V1K

FANLESS BOX PC WITH AMD RYZEN™ R1000 / V1000 SERIES PROCESSORS

Kontron KBox E-420-R1K/V1K is a fanless box PC powered by AMD Ryzen™ R1000 / V1000 Series processors with AMD Radeon™ Vega 3 / 8 Graphics, delivering exceptional graphics performance and optimal power efficiency. Equipped with one DP and two HDMI 2.0 ports, it supports 4K resolutions at 60 FPS. The fully sealed fanless design allows KBox E-420-R1K/V1K to be flexibly used in a wider range of applications.

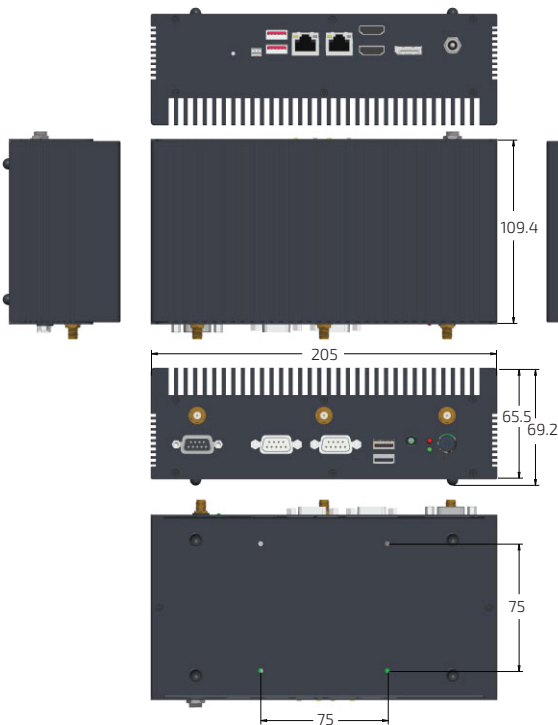
▶ PRODUCT HIGHLIGHTS

- ▶ AMD Ryzen™ R1000 / V1000 Series Processors
- ▶ 2x DDR4 SO-DIMM memory socket
- ▶ 1x DP, 2x HDMI 2.0 for triple display support
- ▶ 2x GbE LAN for Ethernet
- ▶ 2x USB 3.1, 2x USB 2.0 for USB device connection
- ▶ 2x RS232/422/485 for serial device connection
- ▶ 1x DIO for device / signal control
- ▶ 1x mPCIe for WLAN / WWAN
- ▶ 1x M.2 Key B for SSD / WWAN
- ▶ 1x M.2 Key M for SSD
- ▶ Fanless design without fans nor vents

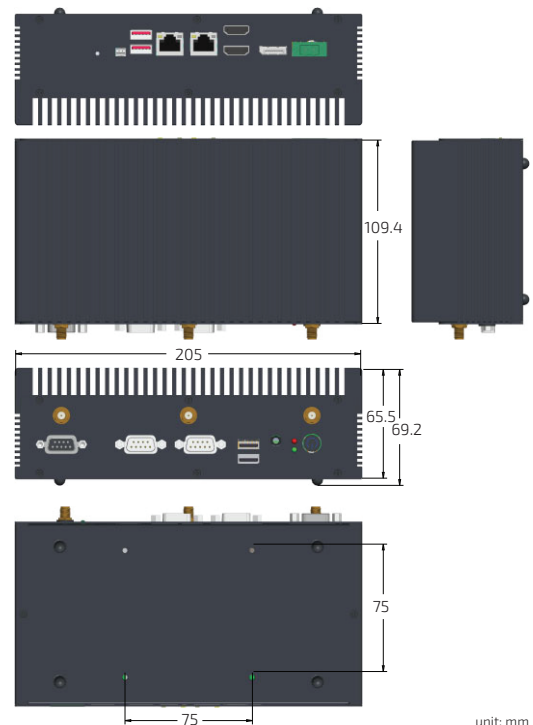


▶ MECHANICAL DIMENSIONS

▶ Model with DC Jack



▶ Model with Phoenix Connector



unit: mm

TECHNICAL INFORMATION

SYSTEM	PROCESSOR	AMD Ryzen™ R1606G (Dual Core, 4M Cache, up to 3.50 GHz, FP5, 15 W TDP) AMD Ryzen™ R1505G (Dual Core, 4M Cache, up to 3.30 GHz, FP5, 15 W TDP) AMD Ryzen™ V1605B (Quad Core, 4M Cache, up to 3.60 GHz, FP5, 15 W TDP) AMD Ryzen™ V1202B (Dual Core, 4M Cache, up to 3.20 GHz, FP5, 15 W TDP) 2x DDR4 2400 SO-DIMM up to 32 GByte
VIDEO	MEMORY	
	GRAPHICS	AMD Radeon™ Vega 8 (V1605B) AMD Radeon™ Vega 3 (R1606G, R1505G & V1202B)
	DISPLAY INTERFACE	1x DP (on rear, 4096 x 2160 @ 60 Hz) 2x HDMI 2.0 (on rear, 4096 x 2160 @ 60Hz)
	MULTIPLE DISPLAY	triple Display
AUDIO	AUDIO CODEC	Realtek ALC662
	AUDIO INTERFACE	1x Line-out / Mic-in (on front)
NETWORK CONNECTION	ETHERNET	2x GbE LAN (RJ45 on rear, Marvell 88E1514)
PERIPHERAL CONNECTION	USB	2x USB 3.1 (Type A on rear) 2x USB 2.0 (Type A on front)
	SERIAL PORT	2x RS232/422/485 (DB9 on front)
	OTHER I/Os	1x DIO (DB9 female on front)
STORAGE & EXPANSION	mPCIe	1x mPCIe (half size, mixed w/ PCIe x1 / USB 2.0)
	M.2	1x M.2 Key B (type 2242, mixed w/ PCIe x1 / USB 2.0 / SATA) 1x M.2 Key M (type 2280, mixed w/ PCIe x4 / SATA)
	SIM CARD HOLDER	1x SIM Cage (Micro type, switchable between mPCIe and M.2 Key B)
POWER	INPUT VOLTAGE & CONNECTOR	DC 12 V (Lockable DC Jack on rear, configuration 1) DC 19 V ~ 36 V (2-pin Phoenix Connector on rear, configuration 2)
FIRMWARE	BIOS	AMI uEFI BIOS w/ 64 Mb SPI Flash
	WATCHDOG	Programmable WDT to generate system reset event
	H/W MONITOR	Voltages, Temperatures
	REAL TIME CLOCK	Processor integrated RTC
	TPM	Optional (Infineon SLB 9665 TPM 2.0)
SYSTEM CONTROL & MONITORING	BUTTON, SWITCH & INDICATOR	1x Power Button w/ LED (on front) 1x Storage LED (on front) 1x Wireless LED (on front) 1x Reset Button (on rear) 1x Wafer for External Power Switch (on rear)
COOLING	COOLING METHOD	Passive
SOFTWARE	OS SUPPORT	Windows 10
MECHANICAL	CONSTRUCTION	Aluminum Chassis
	DIMENSION (W x D x H)	205 mm x 109.4 mm x 65.5 mm / 8.07" x 4.31" x 2.58"
	WEIGHT	1300 g / 2.87 lb
	MOUNTING	VESA Mount (75 mm x 75 mm)
ENVIRONMENTAL	OPERATION TEMPERATURE	0 °C ~ 45 °C / 32 °F ~ 113 °F
	STORAGE TEMPERATURE	-20 °C ~ 80 °C / -4 °F ~ 176 °F
	HUMIDITY	0 % ~ 95 %
CERTIFICATION	EMC & SAFETY	CE Class B, FCC Class B



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▶ ORDERING INFORMATION

ARTICLE	DESCRIPTION
KBox E-420-V1K-V1605B	AMD Ryzen™ V1605B, DC 19 V ~ 36 V Phoenix Connector
KBox E-420-V1K-V1202B	AMD Ryzen™ V1202B, DC 19 V ~ 36 V Phoenix Connector
KBox E-420-R1K-R1606G	AMD Ryzen™ R1606G, DC 19 V ~ 36 V Phoenix Connector
KBox E-420-R1K-R1505G	AMD Ryzen™ R1505G, DC 19 V ~ 36 V Phoenix Connector
KBox E-420-V1K-V1605B-12V	AMD Ryzen™ V1605B, DC 12 V Jack
KBox E-420-V1K-V1202B-12V	AMD Ryzen™ V1202B, DC 12 V Jack
KBox E-420-R1K-R1606G-12V	AMD Ryzen™ R1606G, DC 12 V Jack
KBox E-420-R1K-R1505G-12V	AMD Ryzen™ R1505G, DC 12 V Jack

ACCESSORIES

ARTICLE	PART NO.	DESCRIPTION
POWER ADAPTER #	0I0902GST60A102L	Input: AC 90 V ~ 264 V, Output: 12 V, 60 W (for model with DC Jack)
POWER ADAPTER *	0I0902EA1095305L	Input: AC 120 V ~ 240 V, Output: 24 V, 90 W (for model with Phoenix Connector)
POWER CORD ** (depending on country)	0C5060000000020L	EU type
	0C5060000000030L	US type
	0C5060000000040L	UK type
	0C5060000000070L	JP type
	0C5060000000090L	CN type
	0C5060000000110L	AU type
VESA MOUNTING KIT *		

(* : Optional)

(# : Supplied only for model with DC jack)

(ordered at Kontron Asia and all technical support, RMA and warranty will be provided by Kontron Asia)

▶ PRODUCT CONTACT POINT

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