KBox R-101

High-End Industrial Computer Platform for Railway and Harsh Industrial Applications

- Based on Intel Atom® X6000E or 11th Gen Intel® Core™ i7 processors
- Optimized for transportation & harsh industrial applications:
  EN50155 compliant, IP54 protected, M12 connectors, extended temperature range
- Wireless communication capabilities:
  Options for WLAN, LTE, 5G, UMTS, GSM, LPWA, GPS/GLONASS

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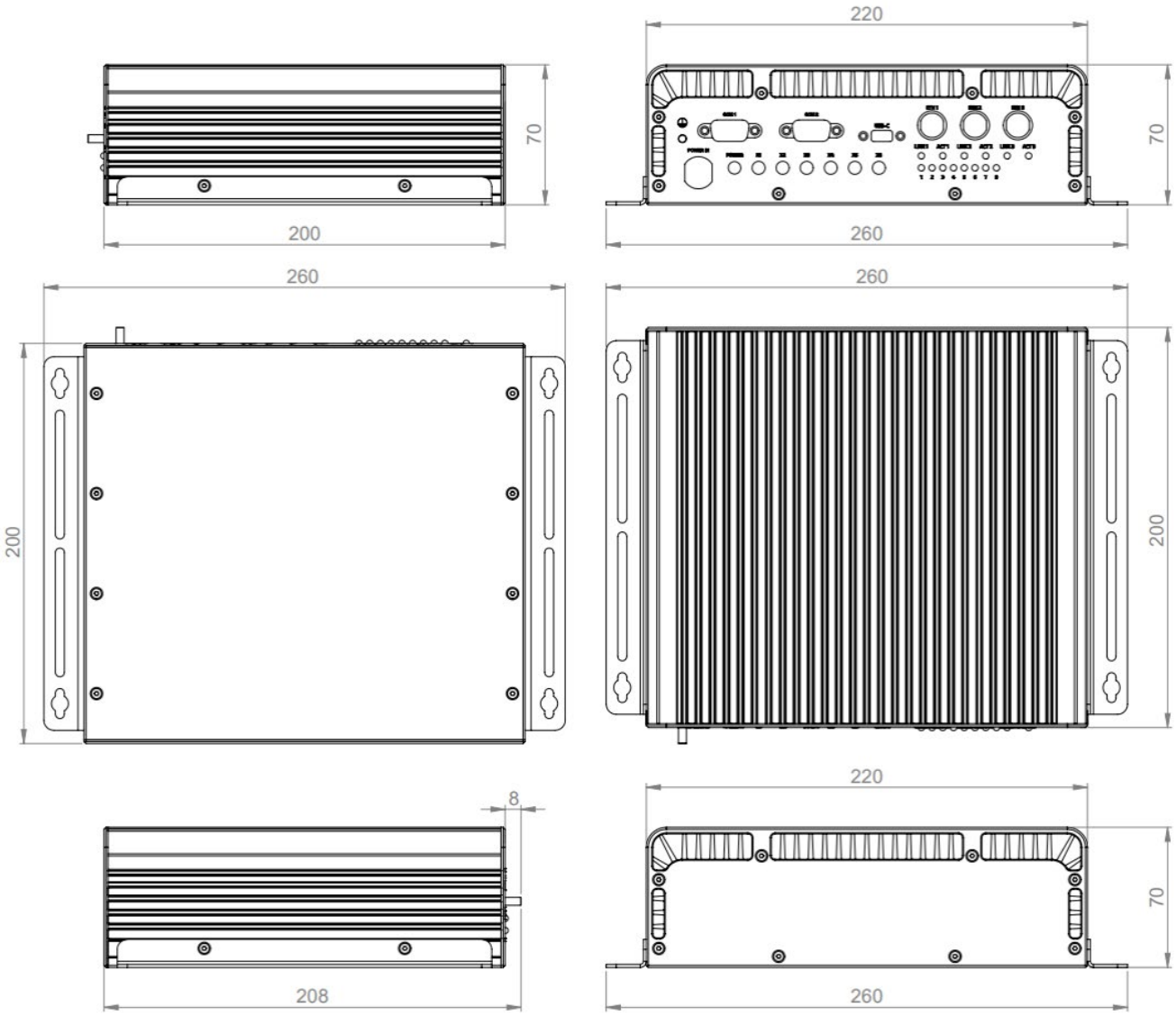
Technical Information

		KBOX R-101-TGL	KBOX R-101-EKL
PROCESSOR	CPU MAX. SPEED SYTEM CHIPSET BIOS	11th Gen. Intel® Core™ Core™ i7-1185GRE or i5-1145GRE Quad-Core 1.8 GHz / 4.4 GHz (Burst) Integrated AMI® Aptio V5	Intel Atom® x6425RE or x6212RE Quad-Core 1.9 GHz Integrated AMI® Aptio V5
MEMORY	TECHNOLOGY MAX. CAPACITY SOCKET	DDR4 3200 MHz, In-band ECC Up to 32 GByte 1x soldered + 1x SODIMM	DDR4 3200MHz Up to 32 GByte 2x SODIMM
GRAPHICS	GRAPHICS CORE MAX. RESOLUTION	Intel® Iris® Xᵉ Graphics 7680 x 4320 @ 60Hz	Intel® UHD Graphics 4096 x 2160 @ 60Hz
INTERFACES FRONT	GRAPHICS PORTS/USB ETHERNET SERIAL PORTS BUTTONS / LED ANTENNAS	1x USB-C 3x 2.5GbE via M12 X-coded 2x isolated COM ports: 1x RS232, 1x RS422/485 1x Power LED, 8x User LEDs, Ethernet LEDs: 3x LAN + 3x ACT 6x cut-outs for antennas SMA/QMA	1x USB-C 2x 2.5GbE, 1x GbE via M12 X-coded 2x isolated COM ports: 1x RS232, 1x RS422/485 1x Power LED, 8x User LEDs, Ethernet LEDs: 3xLAN + 3x ACT 6x cut-outs for antennas SMA/QMA
INTERFACES REAR (BEHIND SERVICE COVER)	GRAPHICS PORTS USB	1x DisplayPort 2x USB 2.0	1x DisplayPort 2x USB 2.0
STORAGE DRIVES	M.2 CFEXPRESS	1x M.2 Key M 2230/2242/2280, PCIe and SATA 1x CFExpress slot, available on the rear, behind cover-plate	1x M.2 Key M 2230/2242/2280, SATA only 1x CFExpress slot, available on the rear, behind cover-plate
EXPANSION SLOTS	M.2	1x M.2 Key E 2230/2242/3030/3042, used for Wi-Fi 1x M.2 Key B 2242/3042/3052 with 2x micro SIM sockets, used for 4G or 5G	1x M.2 Key E 2230/2242/3030/3042, used for Wi-Fi 1x M.2 Key B 2242/3042/3052 with 2x micro SIM sockets, used for 4G or 5G
OPTIONAL INTERFACES	CONNECTIVITY IO CONNECTOR	Wi-Fi 6E/Bluetooth 5.3 5G or 4G/LTE Internal Expansion Connector for custom expansion	Wi-Fi 6E/Bluetooth 5.3 5G or 4G/LTE -
SOFTWARE SUPPORT	OPERATING SYSTEM	Debian Linux	Debian Linux
SECURITY FEATURES	SECURITY CHIP	TPM 2.0	TPM 2.0
POWER	INPUT VOLTAGE RANGE	24V to 110V DC nominal (EN50155), 10ms hold-up time (acc. EN50155, class S2)	24V to 110V DC nominal (EN50155), 10ms hold-up time (acc. EN50155, class S2)
MECHANICAL	CONSTRUCTION MOUNTING DIMENSIONS (W X H X D) WEIGHT	Aluminium, black anodized Wallmount, 19" Mounting as accessory 220 x 70 x 200 mm (8.66" x 2.76" x 7.87") approx. 3.1 kg (6.8 lbs)	Aluminium, black anodized Wallmount, 19" Mounting as accessory 220 x 70 x 200 mm (8.66" x 2.76" x 7.87") approx. 3.1 kg (6.8 lbs)
ENVIRONMENT	COOLING OPERATING TEMPERATURE RELATIVE HUMIDITY VIBRATION SHOCK IP PROTECTION CLASS	Fanless -40 °C to +70 °C, +85°C for 10 min (-40 °F to 158 °F , 185 °F for 10 min) acc. EN50155, class OT4, ST1 +25°C to +55 °C, 95 % (acc. EN50155) 30 ms @ 50 m/s² (acc. EN 61373:2010, cat. 1, class B) 10 min @ 1.01 m/s² (functional) and 5 h @ 5.72 m/s² (long-life) (acc. EN 61373:2010/, cat. 1, class B) IP54	Fanless -40 °C to +70 °C, +85°C for 10 min (-40 °F to 158 °F , 185 °F for 10 min) acc. EN50155, class OT4, ST1 +25°C to +55 °C, 95 % (acc. EN50155) 30 ms @ 50 m/s² (acc. EN 61373:2010, cat. 1, class B) 10 min @ 1.01 m/s² (functional) and 5 h @ 5.72 m/s² (long-life) (acc. EN 61373:2010/, cat. 1, class B) IP54
APPROVALS	CERTIFICATIONS	EN50155 compliant CE, FCC	EN50155 compliant CE, FCC

Dimensions



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