

VC70B-MTH

Intel® Core™ Ultra Processor
In-vehicle System



KEY FEATURES



High Performance Compact in-vehicle system

Core Ultra processor with LPDDR5-6400 soldered memory



Remote Management

Supports Out of band control



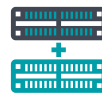
9-axis IMU Sensor

3 Accelerometer + 3 Gyroscope + 3 Magnetometer



Triple Displays

1 HDMI, 1 DP, 1 USB-C DP Alt. mode



Multiple Expansion

1 M.2 M Key, 1 M.2 B Key, 1 M.2 E Key



Rich I/O

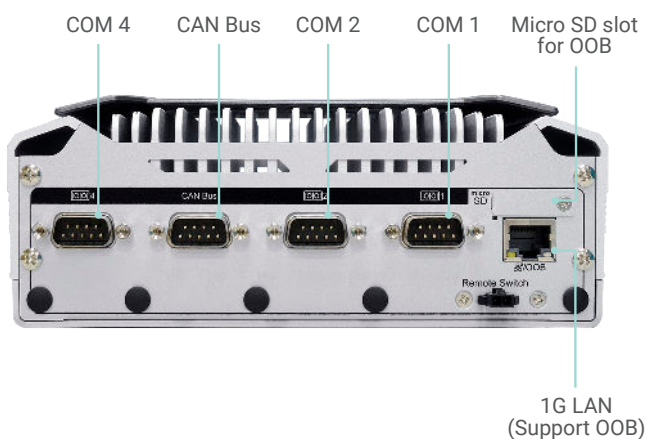
2 2.5GbE, 1 GbE, 5 USB 3.2, 1 USB-C, 2 USB 2.0, 3 COM, 2 CAN FD



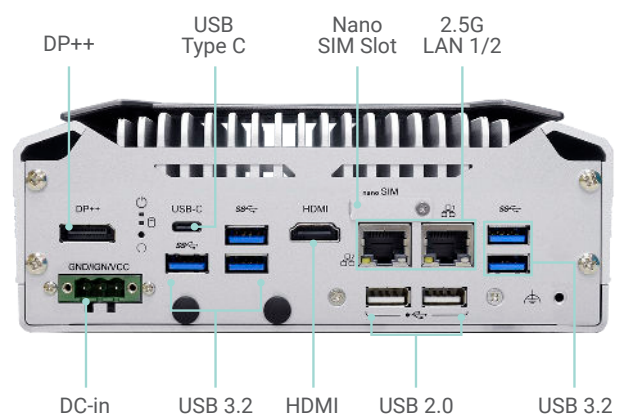
IoT Solutions Alliance



PANEL

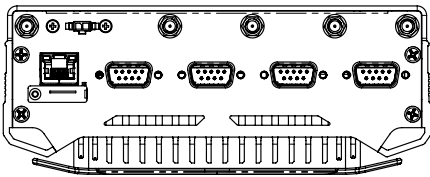


Front View

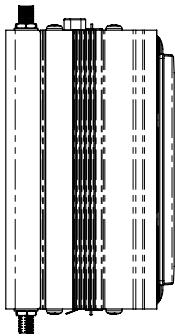


Rear View

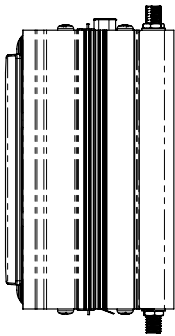
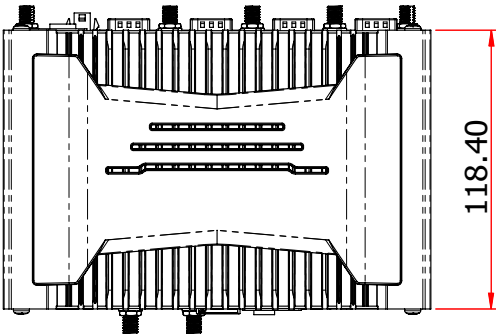
DIMENSIONS



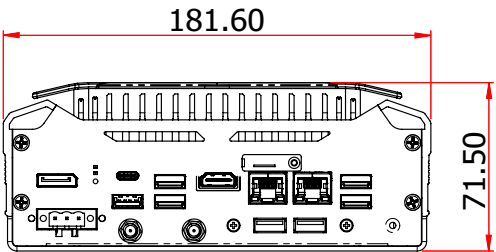
Rear View



Left View



Right View



Front View

SPECIFICATION

SYSTEM	Processor	Intel® Core™ Ultra 7/5 Processors, TDP up to 28W Intel® Core™ Ultra 7 165H, 16C, 24M Cache, 1.4GHz~5.0GHz, 28W Intel® Core™ Ultra 7 155U, 12C, 12M Cache, 1.7GHz~4.8GHz, 15W Intel® Core™ Ultra 5 125U, 12C, 12M Cache, 1.3GHz~4.3GHz, 15W
	Memory	Dual Channel LPDDR5/x 6400MHz memory down Up to 32GB (64GB per request)
	BIOS	AMI SPI 256Mbit
GRAPHICS	Controller	Intel® Arc™ Graphics
	Feature	OpenGL 4.6, Direct X 12.2, OpenCL 3.0 HW Decode: HEVC, VP9, AV1, AVC HW Encode: HEVC, VP9,AV1, AVC
	Display	1 x HDMI 1.4b 1 x DP++ 1 x USB-C DP Alt. mode HDMI: resolution up to 4096x2160@24Hz DP++: resolution up to 4096x2160@24Hz USB-C DP: resolution up to 4096x2304@60Hz
	Triple Displays	HDMI + DP + USB-C DP Alt. mode
EXPANSION	Interface	1 x M.2 M key 2280 (PCIe Gen4 x4) 1 x M.2 B key 3052 (USB 3.0/2.0, PCIe x1, SATA), 1 x SIM slot for 4G/5G 1 x M.2 E key 2230 (USB 2.0/PCIe x1)
ETHERNET	Controller	2 x Intel® I226IT (10/100/1000/2500Mbps) 1 x Intel® i210IT (10/100/1000Mbps)
LED	Indicators	1 x Power LED 1 x HDD LED
FRONT I/O	Ethernet	2 x 2.5GbE @ RJ45 connectors
	USB	5 x USB 3.2 Type A 1 x USB Type C 2 x USB 2.0 Type A
	Display	1 x HDMI 1 x USB-C DP Alt. Mode 1 x DP++
	SIM	1 x Nano SIM slot
REAR I/O	Ethernet	1 x GbE @RJ-45 connector (support OOB)
	Serial	COM 1: RS-232/422/485 COM 2: RS-232 COM 4: RS-232/422/485 or 8-bit DIO by jumper setting
	CANBus	2 x CAN FD (DB9-M)
	SD	1 x Micro SD slot for OOB
WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds
SECURITY	TPM	TPM 2.0
POWER	Type	9~36V DC
	Connector	3-pin terminal block (VCC/IGN/GND)
	Power Management	1. Ignition On/Off control 2. System On delay time 3. OS Protection Time 4. System Off delay time 5. Car Battery Voltage Monitoring 6. Battery Low Voltage Protect
	RTC Battery	CR2032 Coin Cell (Cable type)
OS SUPPORT	Microsoft	Windows 11 & 10 IoT Enterprise 64-bit
	Linux	Linux (by request)
ENVIRONMENT	Temperature	Operating: -20 to 70°C fanless Operating: -20 to 50°C fanless (28W CPU only) Storage: -40 to 85°C
	Humidity	Operating: 5 to 95% RH Storage: 5 to 95% RH
MECHANISM	Mounting	Wall mount
	Dimensions	181.6mm (W) x 71.5mm (H) x 118.4mm (D)
	Weight	< 3KG
STANDARDS AND CERTIFICATIONS	Shock	Operating/non-operating: MIL-STD-810G Method 516.6, Procedure 1
	Vibration	Operating/non-operating: MIL-STD-810G Method 514.6, Category 4
	Certification	CE, FCC Class B, E-Mark (E24), RoHS, UKCA