

Industrial Automation System



Model Name		TANK-871-Q170	TANK-870-Q170	TANK-870e-H110
Chassis	Color	Black C + Silver	Black C + Silver	Dark silver purple + Silver
	Dimensions (WxDxH) (mm)	82.2 x 255.2 x 204	2-slot: 121.5 x 255.2 x 205 4-slot: 154.8 x 255.2 x 205	132.6 x 255.2 x 190
	System Fan	Fanless	Fanless	Fanless
	Chassis Construction	Extruded aluminum alloy	Extruded aluminum alloys	Extruded aluminum alloys
Motherboard	CPU	Intel 7th Gen Core CPU & Intel® Core™ i7-6700TE (2.4 GHz, quad-core, TDP=35) Intel® Core™ i5-6500TE (2.3 GHz, quad-core, TDP=35)		
	Chipset	Intel® Q170	Intel® Q170	Intel® H110
	System Memory	2 x 260 pin DDR4 SO-DIMM, Pre-installed one 4GB (system max:64GB)	2 x 260-pin DDR4 SO-DIMM, one 4 GB pre-installed (system max: 64GB)	2 x 260-pin DDR4 SO-DIMM, one 4 GB pre-installed (system max: 32GB)
IPMI	iRIS Solution	1 x iRIS-2400 (optional)	1 x iRIS-2400 (optional)	N/A
Storage	Hard Drive	2 x 2.5" SATA 6Gb/s HDD/SSD bay (RAID 0/1 support)	2 x 2.5" SATA 6Gb/s HDD/SSD bay (RAID 0/1 support)	1 x 2.5" SATA 6Gb/s HDD/SSD bay
	mSTAT	1 x mSATA	1 x mSATA	N/A
I/O Interfaces	USB 3.1 Gen 1	4	4	4
	USB 2.0	4	4	N/A
	Ethernet	2 x RJ-45 LAN1: Intel® I219LM PCIe controller LAN2 (iRIS): Intel® I210 PCIe controller	2 x RJ-45 LAN1: Intel® I219LM PCIe controller LAN2 (iRIS): Intel® I210 PCIe controller	2 x RJ-45 PCIe GbE by RTL8111G controller
	COM Port	4 x RS-232 (2 x RJ-45, 2 x DB-9 w/ isolation) 2 x RS-232/422/485 (DB-9)	4 x RS-232 (2 x RJ-45, 2 x DB-9 w/ isolation) 2 x RS-232/422/485 (DB-9)	2 x RS-232/422/485 (DB-9, w/ isolation)
	Digital I/O	8 bit Digital I/O , 4 bit input / 4 bit output	8-bit digital I/O , 4-bit input / 4-bit output	N/A
	Display	1 x VGA, 1 x HDMI/DP, 1 x iDP (optional)	1 x VGA, 1 x HDMI/DP, 1 x iDP (optional)	1 x VGA, 1 x HDMI 1.4
	Resolution	1 x VGA (Up to 1920 x 1200@60Hz) 1 x HDMI/DP (Up to 3840x2160@30Hz / 4096x2304@60Hz)	1 x VGA (Up to 1920 x 1200@60Hz) 1 x HDMI/DP (Up to 3840x2160@30Hz / 4096x2304@60Hz)	VGA: Up to 1920 X 1200@60Hz HDMI: up to 3840x2160@30Hz
	Audio	1 x Line-out ; 1 x Mic-in	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in
	Wireless	1 x 802.11 a/b/g/n/ac (optional)	1 x 802.11 a/b/g/n/ac (optional)	1 x 802.11 a/b/g/n/ac (optional)
Expansions	Backplane	N/A	2-slot model: 1 x PCIe x16, 1 x PCI 2-slot model: 2 x PCIe x8 4-slot model: 2 x PCIe x8, 2 x PCI, 1 x Full-size PCIe Mni 4-slot model: 1 x PCIe x16, 3 x PCI, 1 x Full-size PCIe Mni	3A: 1 x PCIe x16 , 2 x PCI 3B: 1 x PCIe x16 , 1 x PCIe x4, 1 x PCI 3C: 3 x PCI
	PCIe Mini	1 x Half-size PCIe Mini slot 1 x Full-size PCIe Mini slot (supports mSATA, colay with SATA)	1 x Half-size PCIe Mini slot 1 x Full-size PCIe Mini slot (supports mSATA, colay with SATA)	1 x Full-size PCIe Mini slot 1 x Full-size PCIe Mini slot (supports mSATA, colay with SATA)
Power	Power Input	DC Jack: 9 V~36 V DC Terminal Block: 9 V~36 V DC	DC Jack: 9 V~36 V DC Terminal Block: 9 V~36 V DC	DC Jack: 9 V~36 V DC Terminal Block: 9 V~36 V DC
	Power Consumption	19 V@3.68 A (Intel® Core™ i7-6700TE with 8 GB memory)	19 V@3.68 A (Intel® Core™ i7-6700TE with 8 GB memory)	19 V@3.44 A (Intel® Core™ i7-6700TE with 8 GB memory)
	Internal Power Connector	5V@3A or 12V@3A	5V@3A or 12V@3A	5V@3A or 12V@3A
Reliability	Mounting	Wall mount	Wall mount	Wall mount & Din Rail
	Operating Temperature	i7-6700TE -20°C ~ 45°C with air flow (SSD), 10% ~ 95%, non-condensing i5-6500TE -20°C ~ 60°C with air flow (SSD), 10% ~ 95%, non-condensing	i7-6700TE *-20°C ~ 45°C with air flow (SSD), 10% ~ 95%, non-condensing i5-6500TE *-20°C ~ 60°C with air flow (SSD), 10% ~ 95%, non-condensing	-20°C ~ 50°C with air flow (SSD), 10% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 5G; 11ms; 100 shocks per axis	Half-sine wave shock 5G, 11ms, 100 shocks per axis	Half-sine wave shock 5G, 11ms, 100 shocks per axis
	Operating Vibration	MIL-STD-810G 514.6 C-1 (with SSD)	MIL-STD-810G 514.6 C-1 (with SSD)	MIL-STD-810G 514.6C-1 (with SSD)
	Weight (Net/Gross)	TBD	2-slot: 4.2 kg/6.3 kg 4-slot: 4.5 kg/6.5 kg	2.8 kg/4.3 kg
	Safety/EMC	CE/FCC	CE/FCC	CE/FCC
OS	Supported OS	Microsoft® Windows® 8 Embedded, Microsoft® Windows® Embedded Standard 7 E, Microsoft® Windows® 10 IoT Enterprise		

Industrial Automation System



Model Name		TANK-860-HM86	TANK-820-H61	TANK-801-BT
Chassis	Color	Black C + Silver	Black C + Silver	Black C + Silver
	Dimensions (WxDxH) (mm)	2-slot: 121.5 x 255.2 x 205 4-slot: 154.8 x 255.2 x 205 6-slot: 195.4 x 255.2 x 205	133 x 269 x 208	136 x 219 x 188
	System Fan	Fanless	Fanless	Fanless
	Chassis Construction	Extruded aluminum alloys	Extruded aluminum alloys	Extruded aluminum alloys
Motherboard	CPU	Intel® Core™ i5-4400E 2.7 GHz Intel® Celeron® 2000E 2.2 GHz	Intel® Core™ i5-2xxT (above 2.7 GHz) Intel® Core™ i3-2xxT (above 2.5 GHz) Intel® Pentium® G6xxT (above 2.2 GHz)	Intel® Celeron® J1900 2 GHz
	Chipset	Intel® HM86	Intel® H61	SoC
	System Memory	2 x 204-pin DDR3 SO-DIMM, one 4GB pre-installed (system max: 16 GB)	On-board DDR3 2 GB memory 1 x 204-pin DDR3 SO-DIMM (system max: 10 GB)	1 x 204-pin DDR3L SO-DIMM, 2GB pre-installed (system max: 8 GB)
IPMI	iRIS Solution	1 x iRIS-2400 (optional)	N/A	1 x iRIS-2400 (optional)
Storage	Hard Drive	2 x 2.5" SATA 6Gb/s HDD/SSD bay	1 x 2.5" SATA 3Gb/s HDD/SSD bay	1 x 2.5" SATA 3Gb/s HDD/SSD bay
	CF Card/CFast	1 x CFast	1 x CF Type II	1 x CFast
I/O Interfaces	USB 3.1 Gen 1	4	2	2
	USB 2.0	2	4	2
	Ethernet	2 x RJ-45 1 x PCIe GbE by Intel® I210 1 x PCIe GbE by Intel® I217LM	2 x RJ-45 PCIe GbE by Realtek 8111E controller	2 x RJ-45 1 x PCIe GbE by Intel® I210 1 x PCIe GbE by Intel® I211
	COM Port	4 x RS-232 (DB-9, two with isolation) 2 x RS-422/485 (RJ-45)	6 x RS-232 (DB-9, two with isolation) 2 x RS-422/485 (RJ-45)	2 x RS-232 (DB-9) 2 x RS-232/422/485 (DB-9, with isolation)
	Digital I/O	8-bit digital I/O, 4-bit input/4-bit output	8-bit digital I/O, 4-bit input/4-bit output	16-bit digital I/O, 8-bit input/8-bit output
	Display	1 x VGA, 1 x DVI-I, 1 x DisplayPort	1 x VGA, 1 x DVI-I	1 x DisplayPort, 1 x DVI-I
	Resolution	VGA: Up to 1920 x 1200@60Hz DVI-I: Up to 2500 x 1600@60Hz Displayport: Up to 2500 x 1600@60Hz	VGA: Up to 2048 x 1536@75Hz DVI-I: Up to 1920 x 1080@60Hz	DisplayPort: Up to 2560 x 1600 MHz DVI-I: Up to 2560 x 1600 MHz
	Audio	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in
	Wireless	1 x 802.11b/g/n (optional)	N/A	1 x 802.11b/g/n (optional)
Expansions	PCI/PCIe	2A: Two PCIe x8 (physical PCIe x16 slot) 4A: Two PCIe x8 (physical PCIe x16 slot) + 2 x PCI 6A: One PCIe x8 (physical PCIe x16 slot) + two PCIe x4 + three PCI	2P1E: Two PCI, One PCIe x8 (physical PCIe x16 slot) 1P2E: One PCI, One PCIe x1 (physical x4 slot), One PCIe x8 (physical x16 slot)	3A: One PCIe x1 + Two x PCI 3B: Two PCIe x1 + One x PCI 3C: Three x PCI
	PCIe Mini	2A: 1 x Full-size (support mSATA) 4A: 1 x Full-size (support mSATA) + 1 x Full-size (on backplane) 6A: 1 x Full-size (support mSATA) + 1 x Full-size (on backplane)	N/A	1 x Full-size PCIe Mini
Power	Power Input	DC Jack: 9 V~36 V DC Terminal Block: 9 V~36 V DC	DC Jack: 9 V~24 V DC Terminal Block: 9 V~24 V DC	DC Jack: 9 V~36 V DC Terminal Block: 9 V~36 V DC
	Power Consumption	19 V@3.34 A (Intel® Core™ i5-4400E with 4 GB memory)	19 V@3.5 A (Intel® Core™ i3-2100 with 6 GB DDR3 memory) w/o add-on card	19 V@1.8 A (Intel® Celeron® J1900 with 2 GB DDR3 memory)
Reliability	Mounting	Wall mount	Wall mount	Wall mount
	Operating Temperature	-20°C ~ 60°C with air flow (SSD), 5% ~ 95%, non-condensing	-20°C ~ 60°C with air flow (SSD), 5% ~ 95%, non-condensing	-20°C ~ 60°C with air flow (SSD), 5% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis	Half-sine wave shock 5G, 11ms, 3 shocks per axis	Half-sine wave shock 5G, 11ms, 3 shocks per axis
	Operating Vibration	MIL-STD-810F 514.5C-2 (with SSD)	MIL-STD-810F 514.5C-2 (with SSD)	MIL-STD-810F 514.5C-2 (with SSD)
	Weight (Net/Gross)	2-slot: 4.2 kg/6.3 kg 4-slot: 4.5 kg/6.5 kg 6-slot: 4.8 kg/6.9 kg	4.2 kg/6.3 kg	2.8 kg/4.3 kg
Safety/EMC	CE/FCC	CE/FCC	CE/FCC	
OS	Supported OS	Microsoft® Windows® 8 Embedded, Microsoft® WES7E, Microsoft® Windows® 10 IoT Enterprise	Microsoft® WES7E, Microsoft® Windows® XP Embedded	Microsoft® Windows® 8 Embedded, Microsoft® WES7E, Microsoft® Windows® 10 IoT Enterprise

*Notes : Power adapter supports 0°C ~ 40°C

Industrial Automation System



New



Model Name		TANK-760-HM86	TANK-620-ULT3	TANK-610-BW
Chassis	Color	Black C + Silver	Black C + Silver	Black C + Silver
	Dimensions (WxDxH) (mm)	310 x 200 x 69.8	184 x 200.6 x 58.2	184 x 200.6 x 58.2
	System Fan	Fanless	Fanless	Fanless
	Chassis Construction	Extruded aluminum alloys	Extruded Aluminum alloy	Extruded Aluminum alloy
Motherboard	CPU	Intel® Core™ i7-4700EQ 2.4 GHz Intel® Core™ i5-4400E 2.7 GHz Intel® Celeron® 2000E 2.2 GHz	Intel® Celeron® 3855U (1.6GHz, TDP=15W)	Intel® Celeron® N3160 processor (up to 2.24GHz, quad-core, 2MB cache, TDP=6W)
	Chipset	Intel® HM86	SoC	SoC
	System Memory	2 x 204-pin DDR3 SO-DIMM, one 4GB pre-installed (system max: 16 GB)	1 x 260-pin DDR4 SO-DIMM 1 x on-board DDR4 4GB pre-installed (system max: 32GB)	2 x 204-pin DDR3L SO-DIMM, one 2GB pre-installed (system max: 8 GB)
IPMI Storage	iRIS Solution	1 x iRIS-2400 (optional)	N/A	N/A
	Hard Drive	2 x 2.5" SATA 6Gb/s HDD/SSD bay	2 x 2.5" SATA 6Gb/s HDD/SSD Bay	1 x 2.5" SATA 6Gb/s HDD/SSD bay
	CF Card/CFast	1 x CFast	1 x CF card (optional*)	N/A
	USB 3.1 Gen 1	4	4	4
out/I/O Interfaces	USB 2.0	2	4	N/A
	Ethernet	2 x RJ-45 1 x PCIe GbE by Intel® I210 1 x PCIe GbE by Intel® I217LM	2 x RJ-45 PCIe GbE by Intel® I211-AT controller	2 x RJ-45 PCIe GbE by Intel® I210-IT controller
	Fiber	N/A	N/A	N/A
	COM Port	4 x RS-232 (DB-9, with isolation) 2 x RS-232/422/485 (DB-9, with isolation)	6 x RS-232 (DB-9) 8 x RS-232/422/485 ports with automatic flow control (DB-9)	6 x RS-232 2 x RS-232/422/485
	Digital I/O	8-bit digital I/O, 4-bit input/4-bit output	1 x 24-bit digital I/O	N/A
	CAN-bus	2 x Phoenix terminal block with isolation	N/A	N/A
	Display	1 x VGA, 1 x HDMI, 1 x DisplayPort	2 x VGA, (1 x LVDS or 1 x VGA optional)	1 x VGA, 1 x HDMI
	Resolution	VGA: Up to 1920 x 1200@60Hz HDMI: Up to 2500 x 1600@60Hz DisplayPort: Up to 2500 x 1600@60Hz	VGA: Up to 1920 x 1200 @60Hz LVDS: Up to 1920 x 1200 @60Hz (optional)	VGA: Up to 1920 x 1200@60HZ HDMI: Up to 3840 x 2160@30Hz
	Audio	1 x Line-out, 1 x Mic-in	1 x Mic in, 1 x Speaker out, 1 x Line out	1 x Line-out, 1 x Mic-in
	Wireless	1 x 802.11b/g/n (optional)	1 x 802.11a/b/g/n/ac (optional)	1 x 802.11b/g/n (optional)
	Other	Reserved IO window for PCIe Mini card expansion	1 x Power Button, 1 x System Reset, 1 x AT/ATX Switch	1 x Power Button, 1 x System Reset, 1 x AT/ATX Switch
	Expansions	PCI	N/A	N/A
PCIe		N/A	N/A	N/A
PCIe Mini		3 x Full-size PCIe Mini (1 x support mSATA, co-lay SATA)	2 x Full-size PCIe mini slot (PCIe by1, USB2.0)	1 x Full-size PCIe Mini (support mSATA, co-lay SATA, w/o USB Signal), 1 x Half-size PCIe Mini
Power	Power Input	DC Jack: 9 V~36 V DC Terminal Block: 9 V~36 V DC	9 ~ 36 V DC +/- 5%	DC Jack: 9 V~36 V DC
	Power Consumption	19 V@3.2 A (Intel® Core™ i5 i5-4400E with 4 GB memory)	12V@2.73A (Intel® Celeron® 3855U with 8GB memory)	12 V@1.49 A (Intel® Celeron® N3160 with 4 GB DDR3L memory)
Reliability	Mounting	Wall mount	Wall Mount	Wall mount, VESA 100
	Operating Temperature	-20°C ~ 70°C with air flow (SSD) for i5-4400E & 2000E -20°C ~ 50°C with air flow (SSD) for i7-4700EQ	-30 ~ 70 °C with air flow (SSD), 10% ~ 95%, non-condensing	-40°C ~ 60°C with air flow (SSD), 10% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 3 shocks per axis	Half-sine wave shock 5G, 11ms, 100 shocks per axis	Half-sine wave shock 5G, 11ms, 100 shocks per axis
	Operating Vibration	MIL-STD-810F 514.5C-2 (with SSD)	MIL-STD-810G 514.6C-1 (with SSD)	MIL-STD-810G 514.6C-1 (with SSD)
	Weight (Net/Gross)	4.2 kg/6.9 kg	4.4 kg/6.5 kg	2.2Kg/3Kg
	Safety/EMC	CE/FCC	CE/FCC	CE/FCC
OS	Supported OS	Microsoft® Windows® 8 Embedded, Microsoft® WESTE, Microsoft® Windows® 10 IoT Enterprise	Microsoft® Windows 8 Embedded, Microsoft® Windows® Embedded Standard 7 E, Microsoft® Windows® 10	Microsoft® Windows 8 Embedded, Microsoft® WESTE, Microsoft® Windows® 10 IoT Enterprise