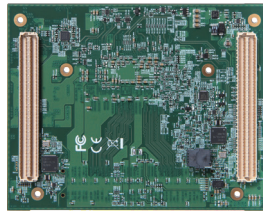
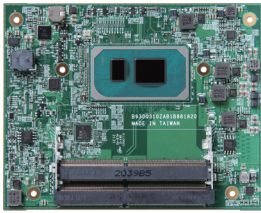


PCOM-B881VG2

COM-HPC® Client Size A Module powered by 11th Gen Intel® Core™ Processor (Tiger Lake-UP3) with 4x PCIe Gen 4, up to 10x PCIe Gen 3 lanes, and 2x 2.5GbE Base-T with vPro (Industrial SKUs)



FEATURES

- 11th Gen Intel® Core™ i3/i5/i7/Celeron® Processors (Tiger Lake UP3)
- 2x DDR4-3200 Non-ECC SO-DIMMs, up to 64GB
- 1x PCIe 4.0 x4, up to 10x PCIe 3.0 lanes, 2x 2.5GbE with vPro (industrial SKUs), USB2.0/3.2 Gen2x1 and 2x SATAIII
- Support DisplayPort, HDMI, and eDP



Portwell PCOM-B881VG2 is COM-HPC® Client size A module designed with 11th Gen Intel® Core™ Tiger Lake-UP3 processors. The platform supports DDR4 SO-DIMM 3200 MT/s memory up to 64GB, 4x PCIe Gen 4 and up to 10x PCIe Gen 3 lanes, 2x 2.5GbE Base-T Ethernet, and up to 4x USB 3.2 Gen 2 ports. PCOM-B881VG2 also provides multimedia interfaces including 3x DDI and 1x eDP for display, 2x Soundwire and 1x I2S for audio, and 2x MIPI-CSI for camera. PCOM-B881VG2 featuring comprehensive media I/Os and data transmission interfaces with extended temperature support is ideal for a wide range of industrial applications.

General

General				
Product	PCOM-B881VG2			
Form Factor	COM-HPC® Client, Size A (95mm X 120mm)			
Processor	Intel® Core™			Intel® Celeron®
	i7-1185G7E i7-1185GRE	i5-1145G7E i5-1145GRE	i3-1115G4E i3-1115GRE	6305UE
Core	4	4	2	2
Base Freq. @ TDP/cTDP	2.8/1.8/1.2 GHz	2.6/1.5/1.1 GHz	3.0/2.2/1.7 GHz	1.80 GHz
Turbo	4.4 GHz	4.1 GHz	3.9 GHz	N/A
Cache	12MB	8MB	6MB	4MB
Processor Graphics	Intel® Iris® Xe Graphics	Intel® Iris® Xe Graphics	Intel® Iris® Xe Graphics	Intel® UHD Graphics
Graphics Max Dynamic Frequency	1.35 GHz	1.30 GHz	1.25 GHz	1.25 GHz
HW Encoding	VP9 8/10 bit, H.265/HEVC 8/10 bit, H.264/AVC, MPEG2			
HW Decoding	AV1, VP9 8/10/12 bit, H.265/HEVC 8/10/12 bit, H.264/AVC, MPEG2			
Processor TDP/cTDP	28/15/12W	28/15/12W	28/15/12W	15W
BIOS	AMI BIOS			
InBand ECC Support	Industrial SKU Support (i7-1185GRE / i5-1145GRE / i3-1115GRE)			
Memory	2x SO-DIMM DDR4 up to 64GB 3200MT/s			

I/O Interface

SATA	2 x SATA III (Port 0 ~ 1), BOM Default			
USB	2x USB 3.2 Gen2 x1 (Port 0, 1), BOM Default 8x USB 2.0 (Port 0~7)			
Ethernet	Intel® I225LM (0°C ~ 60°C) / I225IT (-40°C ~ 85°C)			
Low Speed I/O	GPIO			4x GPI & 4x GPO
	I ² C			Baud Rate : 400KHz
	SMBus			Baud Rate : 100KHz
	UART			Only RX/TX signal
PEG	1x PCIe Gen4 x4			
PCI Express	1x PCIe Gen3 x2 / 2x PCIe Gen3 x1 (Group 0 Low, #0, #1)			
	1x PCIe Gen3 x2 / 2x PCIe Gen3 x1 (Group 0 Low, #4, #5)			
	1x PCIe Gen3 x2 / 2x PCIe Gen3 x1 (Group 0 High, #8, #9)			
	1x PCIe Gen3 x2 / 2x PCIe Gen3 x1 (Group 0 Low, #6, #7), BOM Option			
	1x PCIe Gen3 x2 / 2x PCIe Gen3 x1 (Group 0 High, #10, #11), BOM Option Maximum PCIe root Port Qty =4			
Display	Default	Options		Resolution
	DDI1	DP1.4		Up to 5120x3200 @ 60Hz 24 bpp
		HDMI		Up to 4096x2304 @ 60Hz 24 bpp
	DDI2	DP1.4		Up to 5120x3200 @ 60Hz 24 bpp
		HDMI		Up to 4096x2304 @ 60Hz 24 bpp
	DDI2	DP1.4		Up to 5120x3200 @ 60Hz 24 bpp
HDMI		Up to 4096x2304 @ 60Hz 24 bpp		
eDP	VGA		Up to 4096x2304 @ 60Hz 24 bpp	
Security	TPM 2.0 (Infineon SLB9670), Intel® AES			

PCOM-B881VG2

MECHANICAL & ENVIRONMENT

Dimension	95mm x 120mm COM-HPC® Client, Size A
Power DC IN	Normal: +12V DC, +5VSB DC AT/ATX mode
Storage Temperature	-40°C to 85°C
Operating Temperature	0°C to 60°C (General Embedded) -40°C to 85°C (Industrial)
Certification	Contact us
MTBF	Over 100,000 hours at 40°C
Vibration	Contact us
OS	Windows 10 Red Hat, Ubuntu, CentOS

ORDERING GUIDE

Product	Ordering P/N	Status
PCOM-B881VG2-1185G7E	TBD	In Development
PCOM-B881VG2-1145G7E	TBD	In Development
PCOM-B881VG2-1115G4E	TBD	In Development
PCOM-B881VG2-6305UE	TBD	In Development
PCOM-B881VG2-1185GRE	TBD	In Development
PCOM-B881VG2-1145GRE	TBD	In Development
PCOM-B881VG2-1115GRE	TBD	In Development
Accessory	Ordering P/N	Status
PCOM-C880 carrier board	TBD	In Development
Cooler	TBD	In Development
Cooler	TBD	In Development
Heat Spreader	TBD	In Development

BLOCK DIAGRAM

PCOM-B881VG2

COM-HPC® Client Size A 95 x 120mm +12VDC +5VSB -40° C ~ +85° C (Select SKUs)

