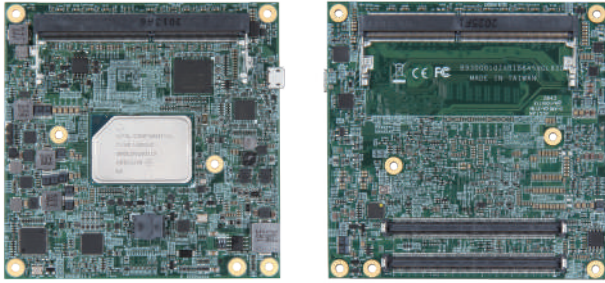


PCOM-B645VGL

Intel® Atom® Elkhart Lake series SoC based on Type 6 Compact COM-Express® module with 2x DDR4 SD-DIMM Socket



FEATURES

- Intel® Atom® Elkhart Lake x6000 series processors
- DDR4 SDRAM up to 32GB 3200 MT/s with IBECC
- Multiple Displays VGA, LVDS/eDP, DP, HDMI
- Support Industrial temperature -40°C to 85°C
- Support Intel® TCC/TSN with 2.5GbE



PCOM-B645VGL, a type 6 compact COM Express® (95 x 95 mm) module which was based on Intel® Atom® Elkhart Lake x6000, Pentium® N, J Series Processors. In this architecture, PCOM-B645VGL could provide VGA, LVDS, and eDP, DP, HDMI with 4K resolution, and three independent displays. And it also provides turbo mode up to 3.0GHz, with extending 6x PCIe 3.0 x 1, 2x USB 3.2 Gen2, 8x USB 2.0, and 2x SATA III devices. With ultra low power consumption(4.5 to 12W), wide-temp support, it could provide very energy saving and high effective performance. Portwell want to promote PCOM-B645VGL as vertical solution to aim in the different versatile applications, such as automation, healthcare, retail, transportation and so on.

General

General					
Product	PCOM-B645VGL				
Form Factor	Type 6, Compact Form Factor COM-Express® (95 x 95 mm)				
Processor	Intel® Pentium	Intel® Atom®			
	J6426	x6211E	x6413E	x6425E	x6425RE
Core	4	2	4	4	4
Freq.	1.8 GHz	1.2 GHz	1.5 GHz	1.8 GHz	1.9 GHz
Turbo	3.0 GHz	3.0 GHz	3.0 GHz	3.0 GHz	N/A
Cache	1.5MB	1.5MB	1.5MB	1.5MB	1.5MB
Processor Graphics	Intel® UHD Graphics for 10 th Gen Intel® Processors				
Graphics Base Frequency	400 MHz	350 MHz	500 MHz	500 MHz	400 MHz
Graphics Max Dynamic Frequency	850 MHz	750 MHz	750 MHz	750 MHz	N/A
HW Encoding	H.264, H.265/HEVC, VP9, JPEG/MPEG				
HW Decoding	H.264, MPEG2, V1-1/WMV9, H.265/HEVC, VP8/9, JPEG/MPEG				
HW Acceleration	Gen 11 LP, DirectX 12, OpenGL4.5, OpenGL ES 3.2, Vulkan				
Processor TDP	10W	6W	9W	12W	12W
BIOS	AMI BIOS				
In-Band ECC	N/A	Yes	Yes	Yes	N/A
Memory	DDR4 SDRAM up to 32GB 3200 MT/s				

I/O Interface

I/O Interface			
SATA	2 x SATA III		
USB	2x USB 3.2 Gen2, 8x USB 2.0		
Ethernet	GPY215 with 2.5 GbE PHY		
Serial I/O	GPIO	8 GPIO	
	I ² C	Baud Rate: 400KHz	
	SMBus	Baud Rate: 100KHz	
	UART	2 Serial Port (Tx/Rx)	
PEG	N/A		
PCI Express	6 x PCIe 3.0 x 1		
Display	Default	Options	Resolution
	DDI0	LVDS(24bit, dual channel)	up to 2560x 1600 @ 60Hz
		eDP	up to 4096x 2160 @ 60Hz
	DDI1	VGA	up to 2560x 1600 @ 60Hz
		DP	up to 4096x 2160 @ 60Hz
		HDMI	up to 4096x 2160 @ 60Hz
DDI2	DP	up to 4096x 2160 @ 60Hz	
	HDMI	up to 4096x 2160 @ 60Hz	
Security	TPM 2.0, Intel®AES		

MECHANICAL & ENVIRONMENT

Dimension	95 x 95 mm
Power DC IN	Normal : +12V Wide range : +9VDC - +18VDC AT/ATX Mode
Storage Temperature	-40°C to 85°C
Operation Temperature	-40°C to 85°C
Certification	Contact us
MTBF	TBD
Vibration	TBD
OS	Windows 10, Android 10 Linux Wind River7/Ubuntu/Yocto RTOS Windriver

ORDERING GUIDE

Product	Ordering P/N	Status
PCOM-B645VGL-J6426	AB1-3L84	Contact us
PCOM-B645VGL-x6211E	AB1-3L83	Contact us
PCOM-B645VGL-x6413E	AB1-3L82	Contact us
PCOM-B645VGL-x6425E	AB1-3K43Z	Contact us
PCOM-B645VGL-x6425RE	AB1-3L81	Contact us

Accessory	Ordering P/N	Status
Heat Sink (J/N-sku)	TBD	Contact us
Heat Sink (X-sku)	TBD	Contact us
Heat Spreader (J/N-sku)	TBD	Contact us
Heat Spreader (X-sku)	TBD	Contact us
PCOM-C605(Min-ITX Carrier board)	AB1-3998	Available
PCOM-C60B(ATX Carrier board)	AB1-3G22Z	Contact us

BLOCK DIAGRAM

PCOM-B645VGL

COM Express® Type 6 Compact Module 95x95mm AT / ATX Mode 12 VDC -40 ~ +85 °C

