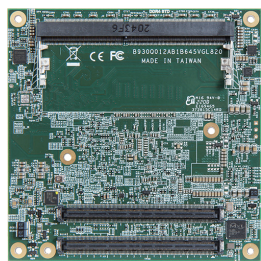
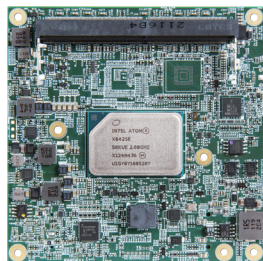


PCOM-B645VGL

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



FEATURES

- Intel Atom® Elkhart Lake x6000 series processors
- DDR4 SO-DIMM up to 32GB 3200 MT/s with In-Band ECC
- 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 is based on Intel Atom® Elkhart Lake x6000, Pentium® N, J Series processors. In this architecture, PCOM-B645VGL provides VGA, LVDS, and eDP, DP, HDMI with 4K resolution, and supports three independent displays. And it also provides turbo mode up to 3.0GHz, with extending 6x PCIe 3.0, 2x USB 3.2 Gen2, 8x USB 2.0, and 2x SATA III. With ultra low power consumption(4.5 to 12W), wide-temp support, it could provide very energy saving and high efficient performance. PCOM-B645VGL aims in different versatile applications, such as automation, healthcare, retail, transportation.

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.	2.0 GHz	1.3 GHz	1.5 GHz	2.0 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 11 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	No	Yes	Yes	Yes	Yes
Memory	2x DDR4 SO-DIMM 3200 MT/s up to 32GB in total				

I/O Interface

SATA	2 x SATA III		
USB	2x USB 3.2 Gen2(optional up to 4x), 8x USB 2.0		
Ethernet	GPY215		
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	6x PCIe 3.0 (2x PCIe 3.0 x 1 can be configure to 2x USB 3.2 Gen2)		
Display	Default		Options
	DDI0		Resolution
			LVDS(24bit, dual channel)
	DDI1		eDP
			up to 4096x 2160 @ 60Hz
	DDI2		DP
			up to 4096x 2160 @ 60Hz
Security			HDMI
			up to 4096x 2160 @ 60Hz
			VGA
			up to 1920x 1200 @ 60Hz
Security			DP
			up to 4096x 2160 @ 60Hz
Security			HDMI
			up to 4096x 2160 @ 60Hz
Security	TPM 2.0, Intel®AES		

MECHANICAL & ENVIRONMENT

Dimension	95 x 95 mm
Power DC IN	Normal : +12V 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/Windows 10 IoT Enterprise Linux/Yocto/Android

ORDERING GUIDE

Product	Ordering P/N	Status
PCOM-B645VGL-J6426	AB1-3L84	Available
PCOM-B645VGL-x6211E	AB1-3L83	Available
PCOM-B645VGL-x6413E	AB1-3L82	Available
PCOM-B645VGL-x6425E	AB1-3K43	Available
PCOM-B645VGL-x6425RE	AB1-3L81	Available

Accessory	Ordering P/N	Status
Heat Sink (J/N-sku)	B830B390	Available
Heat Sink (X-sku)	B830B380	Available
Heat Spreader (J/N-sku)	B830B460	Available
Heat Spreader (X-sku)	B830B470	Available
PCOM-C60B(ATX Carrier board)	AB1-3G22Z	Contact us

BLOCK DIAGRAM

PCOM-B645VGL

COM Express® Type 6
Compact Module 95x95mm

ATX Mode

12V DC

-40 ~ +85° C

