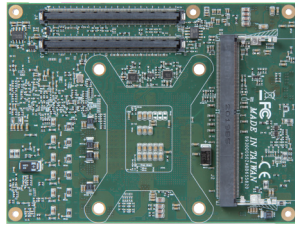
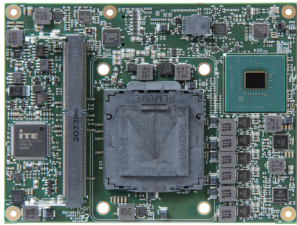


# PCOM-B655VGL

Intel® Comet Lake-S Core™ Processor based on Type VI COM Express module with dual DDR4 SO-DIMM, DDI, LVDS, VGA, Gigabit Ethernet, SATA III, and USB 3.2 Gen2



## FEATURES

- Intel® Core™ i9/i7/i5/i3 14nm process(Comet Lake-S)
- Support 2x DDR4-2933 Non-ECC/ECC SO-DIMMs, up to 2x 32GB (The bottom side SO-DIMM thickness is 5.2mm, no support 5.0mm carrier connector)
- Support USB2.0/3.2 Gen2, 4x SATAIII, 1x PCIe 3.0 x16, and 8x PCIe 3.0 x1
- Support LVDS, VGA, and 3x Display port/HDMI



PCOM-B655VGL is Intel® Comet Lake-S platform COM Express module. It is compatible with COMe 3.0 Type 6 carrier board. The desktop CPU on module offers customer higher computing power but lower cost comparing to mobile solutions. PCOM-B655VGL supports both ECC and Non-ECC DDR4 by different PCH SKUs(Q470E/W480E), which can be adapted to different applications. This module provides one PCIe x16, eight PCIe x1 (Option to one PCIe x4), four USB 3.2 Gen2, and four SATA III.

## General

General				
Product	PCOM-B655VGL			
Form Factor	COM Express Type 6 Basic module (125 X 95mm)			
Processor	Intel® Core™			
	i9-10900TE	i7-10700TE	i5-10500TE	i3-10100TE
Core	10	8	6	4
Freq.	1.80 GHz	2.00 GHz	2.30 GHz	2.30 GHz
Turbo	4.50 GHz	4.40 GHz	3.70 GHz	3.60 GHz
Cache	20 MB Intel® Smart Cache	16 MB Intel® Smart Cache	12 MB Intel® Smart Cache	6 MB Intel® Smart Cache
Processor Graphics	Intel® UHD Graphics 630	Intel® UHD Graphics 630	Intel® UHD Graphics 630	Intel® UHD Graphics 630
Graphics Base Frequency	350 MHz	350 MHz	350 MHz	350 MHz
Graphics Max Dynamic Frequency	1.20 GHz	1.15 GHz	1.15 GHz	1.10 GHz
HW Encoding	H.264/AVC, H.265/HEVC, MPEG2, JPEG, VP8, VP9			
HW Decoding	H.264/AVC, VP8, VP9, H.265/HEVC, MPEG2, JPEG/MJPEG, VC-1/WMV9			
HW Acceleration	DirectX 11/12/OpenGL 4.5/OpenCL 2.1			
Processor TDP/cTDP	35 W	35 W	35 W	35 W
BIOS	AMI BIOS			
ECC Memory Supported	NO			YES(only with W480E PCH)
Memory	DDR 4 SO-DIMM up to 64GB 2933MT/s		DDR 4 SO-DIMM up to 64GB 2666MT/s	

\*PCOM-B655VGL only supports Intel® 10<sup>th</sup> Generation 35W processors

## I/O Interface

SATA	4 x SATA III (Port 0~3)		
USB	4x USB 3.2 Gen2 (Port 0~3) 8x USB 2.0 (Port 0~7)		
Ethernet	Intel® I219LM		
Serial I/O	GPIO	8 bit GPIO (default 4 input/4 output)	
	I <sup>2</sup> C	Baud Rate : 400KHz	
	SMBus	Baud Rate : 100KHz	
	UART	TX/RX signal only	
PEG	1x PCIe Gen3 x16 (can be configured to 2x8, 1x8. 2x4)		
PCI Express	8x PCIe Gen3 x1 (can be configured to x2, x4)		
Display	Default	Options	Resolution
	LVDS	LVDS (24bit, dual channel )	1920 x 1200@60Hz
		eDP	2880 x 1800@60Hz
	DDI	DP 1.2	4096 x 2304@60Hz
HDMI 1.4		4096 x 2160@30Hz	
VGA	VGA	1920 x 1200@60Hz	
Security	TPM 2.0(Infineon SLB9670), Intel® AES		

## MECHANICAL & ENVIRONMENT

Dimension	125 x 95mm
Power DC IN	Normal: +12V DC AT/ATX mode
Storage Temperature	-20°C to 80°C
Operating Temperature	0°C to 60°C
Certification	Contact us
MTBF	TBD
Vibration	TBD
OS	Windows 10 Ubuntu, CentOS

## ORDERING GUIDE

Product	Ordering P/N	Status
PCOM-B655VGL-W480E	AB1-3K44	Contact us
PCOM-B655VGL-Q470E	AB1-3K80	Contact us

Accessory	Ordering P/N	Status
PCOM-C60B (ATX Carrier Board)	AB1-3G22	Contact us
Cooler	B9971951	Contact us

## BLOCK DIAGRAM

### PCOM-B655VGL

