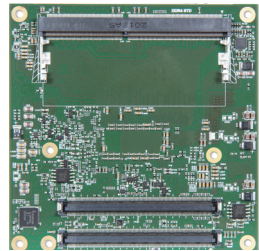
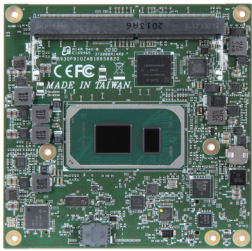


PCOM-B656VGL

11th Generation Intel® Core™ processor (Tiger Lake-UP3) based COM Express® Type VI Compact Module with DDR4 up to 64GB, Four Displays, Gigabit Ethernet, PCIe, SATA 3.0, and USB 3.2 Gen 2



FEATURES

- Intel® Core™ i5/i7/Celeron Processors (Tiger Lake UP3)
- 2x DDR4-3200 Non-ECC SO-DIMMs, up to 64GB
- USB 3.2 Gen 2, 2x SATA III, 1x PCIe 4.0 x4 and 5x PCIe 3.0 ODG
- DisplayPort, HDMI, VGA, and LVDS/eDP



Portwell's PCOM-B656VGL is designed with 11th Generation Intel® Core™ processor (Tiger Lake-UP3) with Type 6 pin definition. It supports three important features including DDR4 memory, PCIe Gen4, and USB 3.2 Gen2. Extended PCIe Gen3 can support high speed IO card for more applications.

General

Product	PCOM-B656VGL			
Form Factor	Type 6, Compact Size Form Factor Express® (95 X 95mm)			
Processor	Intel® Core™			Intel® Celeron®
	i7-1185G7E i7-1185GRE	i5-1145G7E i5-1145GRE	i3-1115G4E i3-1115GRE	6305E
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			
ECC Memory Supported	NO			
Memory	2x SO-DIMM DDR4 0 0 up to 64GB			

I/O Interface

SATA	2 x SATA III (Port 0~1)		
USB	4x USB 3.1 Gen2 (Port 1~4) 8x USB 2.0 (Port 0~7)		
Ethernet	MAXLINEAR® GPY215		
Serial I/O	GPIO	4x GPI & 4x GPO	
	I²C	Baud Rate : 400KHz	
	SMBus	Baud Rate : 100KHz	
	UART	Only RX/TX signal	
PEG	1x PCIe Gen4 x4		
PCI Express	1x PCIe Gen3 x4 / 2x PCIe Gen3 x2 / 4x PCIe Gen3 x1 / 1x PCIe Gen3 x2 + 2x PCIe Gen3 x1 (Port 0~3) 1x PCIe Gen3 x1 (Port 5)		
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
	LVDS	eDP	Up to 4096x2304 @ 60Hz 24 bpp
24bit dual channel LVDS		Up to 1920x1200 @ 60Hz	
VGA	VGA	Up to 1920x1200 @ 60Hz	
Security	TPM 2.0 (Infineon SLB9670), Intel® AES		

PCOM-B656VGL

MECHANICAL & ENVIRONMENT

Dimension	95 x 95mm
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 -40°C to 85°C (Selection Model)
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-B656VGL-1185G7E	TBD	Contact us
PCOM-B656VGL-1185GRE	TBD	Contact us
PCOM-B656VGL-1145G7E	TBD	Contact us
PCOM-B656VGL-1145GRE	TBD	Contact us
PCOM-B656VGL-1115G4E	TBD	Contact us
PCOM-B656VGL-1115GRE	TBD	Contact us
PCOM-B656VGL-6305UE	TBD	Contact us
Accessory	Ordering P/N	Status
PCOM-C60B (ATX Carrier Board)	AB1-3G22Z	Contact us
Cooler	B9971920	Contact us

BLOCK DIAGRAM

PCOM-B656VGL

