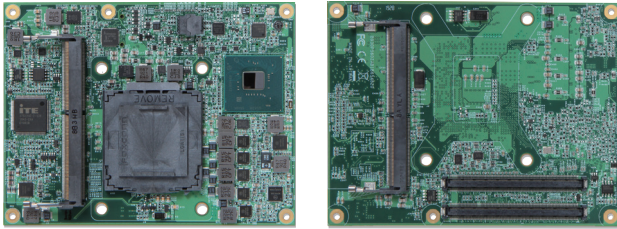


# PCOM-B654GL

Intel® Coffee Lake-S Core™ Processor based on Type VI COM Express module with dual DDR4 SO-DIMM, DDI, LVDS, Gigabit Ethernet, SATA III, and USB 3.1 Gen2



## FEATURES

- Intel® Core™ i7/i5/i3/Celeron 14nm process(Coffee Lake-S)
- Support 2x DDR4-2400 Non-ECC/ECC SO-DIMMs, up to 2x 16GB
- Support USB2.0/3.1 Gen2, 4x SATAIII, 1x PCIe 3.0 x16, and 8x PCIe 3.0 x1
- Support LVDS, and 3x Display port/HDMI



PCOM-B654GL is Intel® Coffee 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-B654GL supports both ECC and Non-ECC DDR4 by different PCH SKUs(Q370/C246), which can be adapted to different applications. This module provides one PCIe x16, eight PCIe x1 (Option to one PCIe x4), four USB 3.1 Gen2, and four SATA III.

## General

General				
Product	PCOM-B654GL			
Form Factor	COM Express Type 6 Basic module (125 X 95mm)			
Processor	Intel® Core™			Intel® Celeron®
	i7-8700T	i5-8500T	i3-8100T	G4900T
Core	6	6	4	2
Freq.	2.40 GHz	2.10 GHz	3.10 GHz	2.90 GHz
Turbo	4.00 GHz	3.50 GHz	--	--
Cache	12MB	9MB	6MB	2MB
Processor Graphics	Intel® UHD Graphics 630	Intel® UHD Graphics 630	Intel® UHD Graphics 630	Intel® UHD Graphics 610
Graphics Base Frequency	350 MHz	350 MHz	350 MHz	350 MHz
Graphics Max Dynamic Frequency	1.20 GHz	1.10 GHz	1.10 GHz	1.00 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	35 W	35 W	35 W	35 W
BIOS	AMI BIOS			
ECC Memory Supported	NO		YES(only with C246 PCH)	
Memory	2x SO-DIMM DDR4 up to 32GB 2400MT/s			

\*PCOM-B654GL only supports Intel® 8<sup>th</sup> Generation 35W processors

## I/O Interface

SATA	4 x SATA III (Port 0~3)		
USB	4x USB 3.1 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 )	up to 1920x1200@60Hz
	DDI	DP 1.2	up to 4096x2304@60Hz
HDMI 1.4		up to 4096x2304@24Hz	
Security	TPM 2.0(Infineon SLB9670), Intel® AES		

## MECHANICAL & ENVIRONMENT

Dimension	125 x 95mm
Power DC IN	Normal: +12V DC Wide range: +9VDC~ +18VDC AT/ATX mode
Storage Temperature	-20°C to 80°C
Operation Temperature	0°C to 60°C
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-B654GL-C246	AB1-3J46	Available
PCOM-B654GL-Q370	AB1-3J47	Available
Accessory	Ordering P/N	Status
PCOM-C605 (Mini-ITX Carrier Board)	AB1-3998	Available
PCOM-C60B (ATX Carrier Board)	AB1-3G22Z	Contact us
Cooler	B9971811	Available

## BLOCK DIAGRAM

### PCOM-B654VGL

COM Express® Type 6 Basic Module 125x95mm    AT / ATX Mode    12 VDC    0 ~ +60° C

