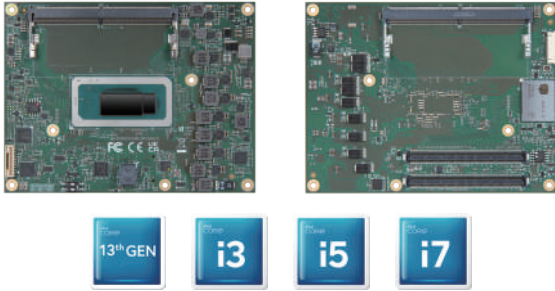


PCOM-B658VGL

COM Express Type6 Basic size模块计算机搭载
Intel® 12th / 13th Gen H/P/U处理器
DDR5 SO-DIMM, DDI, PCIe Gen 4, USB 3.2 Gen2, 2.5Gb
以太网网络, discrete TPM 2.0, eDP, SATA



特点

- 12th / 13th Gen Intel® Core™, Celeron®系列处理器与Intel® 7 lithography
- 最多6x performance core + 8x efficient core与最多96x graphic execution units
- 2x DDR5-4800 non-ECC SO-DIMMs最多64GB, 1x PCIe Gen4 x8(H series), 2x Gen4 x4
- 4x USB3.2 Gen2, 2x SATA, 3x DDI, VGA, eDP/LVDS
- Options for Industrial Temperature Range -40°C up to +85°C
Options for onboard PCIe NVMe SSD



COM Express模块计算机搭载Intel® 12th / 13th Gen H/P/U平台。与标准COM Express Rev3.1兼容。平台采用Intel 7 lithography与VNNI指令集。提供先进运算能力与 15~45W热能符合广大情境领域应用。PCOM-B658VGL支持PCIe Gen4 lanes与2x Non-ECC DDR5 SO-DIMM适合重要任务应用与人工智能边缘运算。它也提供最高7x PCIe Gen3 x1 lanes, 2x optional USB4(alternative with DDI), 4x USB 3.2 Gen 2与2x SATA III。完整且弹性的I/O容量也满足广泛的工业/嵌入式应用

General

产品	PCOM-B658VGL		
尺寸	COM Express Type6 Basic Size (125 X 95mm)		
CPU系列	H series	P series	U series
核心P+E/线程	Up to 6P + 8E/20T	Up to 6P + 8E/16T	Up to 2P + 8E/12T
频率	2.1 ~ 2.7 GHz	1.7 ~ 1.9 GHz	1.1 ~ 1.7 GHz
Turbo频率	Up to 5.0 GHz	Up to 4.8 GHz	Up to 4.9 GHz
Intel® 智能快取	Up to 24 MB	Up to 24 MB	Up to 12 MB
Intel® Gfx EU	Up to 96 EU	Up to 96 EU	Up to 96 EU
图形最大频率	Up to 1.40 GHz	Up to 1.40 GHz	Up to 1.30 GHz
处理器TDP (Up / Nominal / Down)	65W / 45 W / 35 W	35W / 28 W / 20W	28W / 15 W / 12W
平台路径控制器	SoC		
内存种类/速度	DDR5 SO-DIMM up to 64GB 4800MT/s		
ECC内存支持	Non-ECC SO-DIMM (Support IBEC on industrial SKU)		

I/O界面

SATA	2x SATA III share with PCIe lane		
USB	2x USB4 (option) 4x USB 3.2 Gen2 8x USB 2.0		
以太网网络	Intel® I226 series (Support TSN/TCC on industrial SKU)		
Serial I/O	GPIO	8 bit GPIO (default 4 input/4 output)	
	I ² C	Baud Rate: 400KHz	
	SMBus	Baud Rate: 100KHz	
	UART	TX/RX signal only	
PCI Express Gen4	1x Gen4 x8 (only H series), 2x Gen4 x4 (all series)		
PCI Express Gen3	7x Gen 3.0 x1 (2 lanes share with SATA)		
储存	Up to 1TB onboard NVMe SSD (share with PCIe Gen4 x4 lanes)		
显示器	模块显示器接口	输出选项	解析
		eDP up to HBR3	3840x2160@120Hz
	eDP / LVDS (default eDP)	LVDS (24bit, dual channel)	1920 x 1200@60Hz
		DDI	DP up to HBR3
	VGA	HDMI 2.1	3840x2160@120Hz
VGA		VGA	1920 x 1200@60Hz
安全	TPM 2.0		

CPU SKU清单

中央处理器系列	H 系列嵌入式			H 系列工业用		
	i7-13800HE	i5-13600HE	i3-13300HE	i7-13800HRE	i5-13600HRE	i3-13300HRE
核心P+E/线程	6P + 8E/20T	4P + 8E/16T	4P + 4E/12T	6P + 8E/20T	4P + 8E/16T	4P + 4E/12T
频率	2.5 GHz	2.7 GHz	2.1 GHz	2.5 GHz	2.7 GHz	2.1 GHz
Turbo频率	5.0 GHz	4.8 GHz	4.6 GHz	5.0 GHz	4.8 GHz	4.6 GHz
Intel® 智能快取	24 MB	18 MB	12 MB	24 MB	18 MB	12 MB
Intel® Gfx EU	96 EU	80 EU	48 EU	96 EU	80 EU	48 EU
图形最大频率	1.40 GHz	1.40 GHz	1.30 GHz	1.40 GHz	1.40 GHz	1.30 GHz
影像译码盒	2	2	1	2	2	1
处理器TDP (最高/名义上/最低)	65W / 45 W / 35 W			65W / 45 W / 35 W		
频内错误修正代码	No			Yes		
TSN/TCC	No			Yes		
支持温度	0°C to 60°C			-40°C to 85°C		

中央处理器系列	P 系列嵌入式				P 系列工业用		
	i7-1370PE	i5-1350PE	i5-1340PE	i3-1320PE	i7-1370PRE	i5-1350PRE	i3-1320PRE
核心P+E/线程	6P + 8E/16T	4P + 8E/16T	4P + 8E/16T	4P + 4E/12T	6P + 8E/16T	4P + 8E/16T	4P + 4E/12T
频率	1.9 GHz	1.8 GHz	1.8 GHz	1.7 GHz	1.9 GHz	1.8 GHz	1.7 GHz
Turbo频率	4.8 GHz	4.6 GHz	4.5 GHz	4.5 GHz	4.8 GHz	4.6 GHz	4.5 GHz
Intel® 智能快取	24 MB	12 MB	12 MB	12 MB	24 MB	12 MB	12 MB
Intel® Gfx EU	96 EU	80 EU	80 EU	48 EU	96 EU	80 EU	48 EU
图形最大频率	1.40 GHz	1.40 GHz	1.35 GHz	1.35 GHz	1.40 GHz	1.40 GHz	1.35 GHz
影像译码盒	2	2	2	1	2	2	1
处理器TDP (最高/名义上/最低)	35W / 28 W / 20W				35W / 28 W / 20W		
频内错误修正代码	No				Yes		
TSN/TCC	No				Yes		
支持温度	0°C to 60°C				-40°C to 85°C		

中央处理器系列	U 系列嵌入式					U 系列工业用		
	i7-1365UE	i5-1345UE	i5-1335UE	i3-1315UE	U300E	i7-1365URE	i5-1345URE	i3-1315URE
核心P+E/线程	2P + 8E/12T	2P + 8E/12T	2P + 8E/12T	2P + 4E/8T	1P + 4E/5T	2P + 8E/12T	2P + 8E/12T	2P + 4E/8T
频率	1.7 GHz	1.4 GHz	1.3 GHz	1.2 GHz	1.1 GHz	1.7 GHz	1.4 GHz	1.2 GHz
Turbo频率	4.9 GHz	4.6 GHz	4.5 GHz	4.5 GHz	4.3 GHz	4.9 GHz	4.6 GHz	4.5 GHz
Intel® 智能快取	12 MB	12 MB	12 MB	10 MB	8 MB	12 MB	12 MB	10 MB
Intel® Gfx EU	96 EU	80 EU	80 EU	64 EU	48 EU	96 EU	80 EU	64 EU
图形最大频率	1.30 GHz	1.25 GHz	1.25 GHz	1.20 GHz	1.10 GHz	1.30 GHz	1.25 GHz	1.20 GHz
影像译码盒	2	2	2	1	1	2	2	1
处理器TDP (最高/名义上/最低)	28W / 15 W / 12W					28W / 15 W / 12W		
频内错误修正代码	No					Yes		
TSN/TCC	No					Yes		
支持温度	0°C to 60°C					-40°C to 85°C		

PCOM-B658VGL

机构与环境

尺寸	125 x 95mm
直流电输入	Normal: +12V DC AT/ATX mode
储存温度	-40°C to 85°C
运作温度	0°C to 60°C -40°C to 85°C(Industrial SKU)
认证	Contact us
MTBF	TBD
震动	TBD
操作系统	Windows 10/11 Ubuntu

订购指南

Product	Ordering P/N	Status
PCOM-B658VGL-13800HE	AB1-3R24	Available
PCOM-B658VGL-13600HE	AB1-3R52	Available
PCOM-B658VGL-1330 OHE	AB1-3R51	Available
PCOM-B658VGL-1370PE	AB1-3R50	Available
PCOM-B658VGL-1350PE	AB1-3R49	Available
PCOM-B658VGL-1340PE	AB1-3R63	Available
PCOM-B658VGL-1320PE	AB1-3R48	Available
PCOM-B658VGL-1365UE	AB1-3R47	Available

产品 订购P/N 状态

PCOM-B658VGL-1345UE	AB1-3R46	Available
PCOM-B658VGL-1335UE	AB1-3R64	Available
PCOM-B658VGL-1315UE	AB1-3R45	Available
PCOM-B658VGL-U300E	AB1-3R44	Available
PCOM-B658VGL-13800HRE	TBD	In Development
PCOM-B658VGL-13600HRE	TBD	In Development
PCOM-B658VGL-13300HRE	TBD	In Development
PCOM-B658VGL-1370PRE	TBD	In Development
PCOM-B658VGL-1350PRE	TBD	In Development
PCOM-B658VGL-1320PRE	TBD	In Development
PCOM-B658VGL-1365URE	TBD	In Development
PCOM-B658VGL-1345URE	TBD	In Development
PCOM-B658VGL-1315URE	TBD	In Development

配件 订购P/N 状态

冷却	B9972160	Available
散热槽	B830B940	Available
散热槽	B830B950	Available
PCOM-C605R Mini-ITX Carrier	AB1-3P78	Available
PCOM-C60B ATX Evaluation Carrier	AB1-3G22	Available

BLOCK DIAGRAM

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