

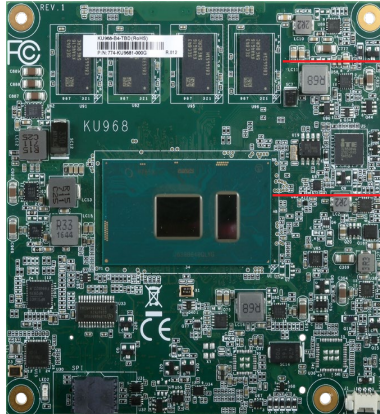


**7th Gen Intel® Core™ Processor
COM Express® Compact**



KU968

ULT



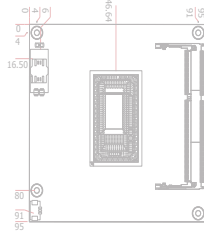
DDR4
Memory
Down

Intel® Celeron®/
Core™ i7/i5/i3

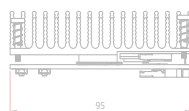
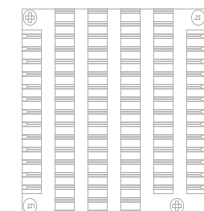
CPU Fan



Mechanical Drawing



Coming Soon



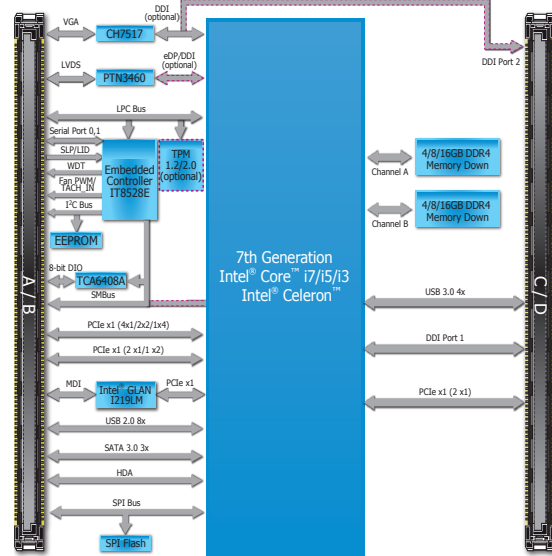
Features

- Dual channel DDR4 2133MHz memory down up to 16GB
- Three independent displays: VGA*/DDI + LVDS*/eDP + DDI
- DP++ supports 4K x 2K resolution
- Multiple expansion: 8 PCIe x1, 1 LPC, 1 I²C, 1 SMBus
- Rich I/O: 1 Intel GbE, 4 USB 3.0, 8 USB 2.0

* Populated by default



Block Diagram



PCIe L0~3				PCIe L4~5		PCIe L6~7	
x4				-		-	
x2		x2		x2		-	
x1	x1	x1	x1	x1	x1	x1	x1

* 5 PCIe x1 or 4 PCIe x1 + 1 PCIe x4 or 3 PCIe x1 + 2 PCIe x2
(support up to 5 devices and 8 lanes)



Specifications

SYSTEM	Processor	7th Generation Intel® Core™ Processors, BGA 1356 Intel® Core™ i7-7600U Processor, Dual Core, 4M Cache, 2.8GHz (3.9GHz), 15W Intel® Core™ i5-7300U Processor, Dual Core, 3M Cache, 2.6GHz (3.5GHz), 15W Intel® Core™ i3-7100U Processor, Dual Core, 3M Cache, 2.4GHz, 15W Intel® Celeron® Processor 3965, Dual Core, 2M Cache, 2.2GHz, 15W	
	Memory	4GB/8GB/16GB DDR4 Memory Down Dual Channel DDR4 2133MHz	
	BIOS	Insyde SPI 128Mbit	
	Controller	Intel® HD Graphics	
GRAPHICS	Feature	OpenGL 5.0, DirectX 12, OpenCL 2.1 HW Decode: AVC/H.264, MPEG2, VC1/WMV9, JPEG/MJPEG, HEVC/H265, VP8, VP9 HW Encode: AVC/H.264, MPEG2, JPEG, HEVC/H265, VP8, VP9	
	Display	1 x VGA/DDI (DDI available upon request) VGA: resolution up to 1920x1200 @ 60Hz 1 x LVDS/eDP (eDP available upon request) LVDS: dual channel 24-bit, resolution up to 1920x1200 @ 60Hz 1 x DDI eDP: resolution up to 4096x2304 @ 60Hz HDMI: resolution up to 4096x2160 @ 30Hz DP++: resolution up to 4096x2304 @ 60Hz	
	Triple Displays	VGA + LVDS + DDI DDI + eDP + DDI	
	Interface	5 PCIe x1 or 4 PCIe x1 + 1 PCIe x4 or 3 PCIe x1 + 2 PCIe x2 (support up to 5 devices and 8 lanes) 1 x LPC 1 x I ² C 1 x SMBus 2 x UART (TX/RX)	
EXPANSION	Interface	HD Audio	
AUDIO	Controller	1 x Intel® I219LM with iAMT11.0 PCIe (10/100/1000Mbps)	
ETHERNET I/O	USB	4 x USB 3.0 8 x USB 2.0	
	SATA	3 x SATA 3.0 (up to 6Gb/s) RAID 0/1/5	
	DIO	1 x 8-bit DIO	
	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds	
WATCHDOG TIMER	TPM	Available Upon Request	
SECURITY POWER	Type	12V, 5VSB, VCC_RTC (ATX mode) 12V, VCC_RTC (AT mode)	
	Consumption	Typical: 3965U: 12V @ 0.2134A (2.5608W) Max.: 3965U: 12V @ 1.3592A (16.3104W)	
OS SUPPORT		Windows: Windows 10 IoT Enterprise 64-bit LINUX: Yocto Project v2.2	
ENVIRONMENT	Temperature	Operating: 0 to 60°C Storage: -40 to 85°C -40 to 85°C (with cooler)	
	Humidity	Operating: 5 to 90% RH Storage: 5 to 90% RH	
	MTBF	866,065 hrs @ 25°C; 422,194 hrs @ 45°C; 238,613 hrs @ 60°C Calculation Model: Telcordia Issue 2 Environment: GB, GC – Ground Benign, Controlled	
MECHANICAL	Dimensions	COM Express® Compact 95mm (3.74") x 95mm (3.74")	
	Compliance	PICMG COM Express® R2.1, Type 6	
STANDARDS AND CERTIFICATIONS	Certification	CE, FCC, RoHS	

Ordering Information

Model Name	P/N	Processor	Memory	VGA/DVI	LVDS/eDP	GbE	USB 3.0	USB 2.0	Power	Temp.
KU968-T8-7600U	770-KU9681-100G	i7-7600U	8G	VGA	LVDS	1	4	8	ATX/AT	-40 to 85°C
KU968-T1-7600U	770-KU9681-200G	i7-7600U	16G	VGA	LVDS	1	4	8	ATX/AT	-40 to 85°C
KU968-B8-7300U	770-KU9681-300G	i5-7300U	8G	VGA	LVDS	1	4	8	ATX/AT	0 to 60°C
KU968-B4-7100U	770-KU9681-400G	i3-7100U	4G	VGA	LVDS	1	4	8	ATX/AT	0 to 60°C
KU968-B4-3965U	770-KU9681-500G	3965U	4G	VGA	LVDS	1	4	8	ATX/AT	0 to 60°C
KU968-B4-7300U	770-KU9681-600G	i5-7300U	4G	VGA	LVDS	1	4	8	ATX/AT	0 to 60°C

Packing List

• 1 KU968 board	
• 1 DVD	
• 1 Heat sink (Height: 23.8mm)	A71-011060-000G

Optional Items

• COM332-B carrier board kit	770-CM3321-000G
• Heat spreader (Height: 11mm)	A71-011070-000G

Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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