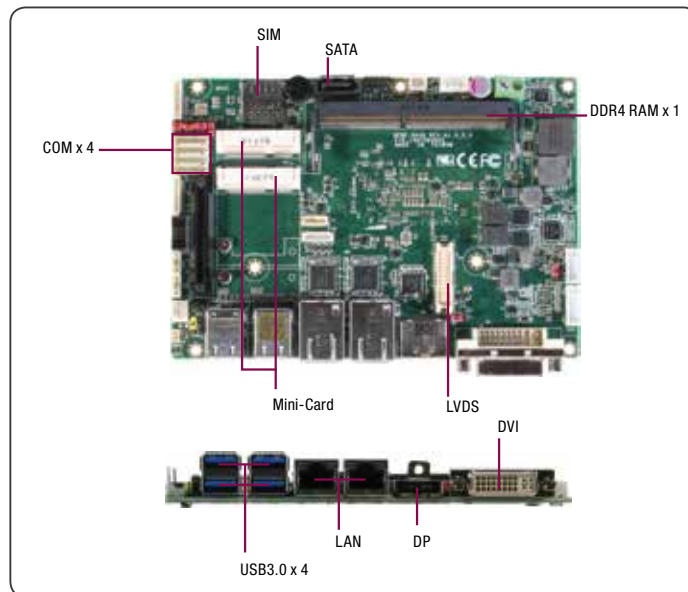


# 03 GENE-KBU6

SubCompact Boards

3.5" SubCompact Board with Intel® 7th Generation U Core™ i7/i5/i3/Celeron® Processor SoC

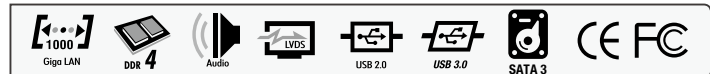


## Features

- Intel® 7th Generation U Core™ i7/i5/i3/Celeron® Processor SoC
- DDR4 1866/2133, SODIMM x 1
- DVI, CRT/DP, 18/24-bit Dual-Channel LVDS
- 2 CH Audio
- SATA III x 1 & mSATA (share with half-size Mini-Card and selective by BIOS)
- Support 8-bit Digital I/O, USB 2.0 x 2, USB 3.0 x 4
- COM x 4 (RS-232 x 1, RS-232/422/485 x 3)
- Mini-Card Slot x 1 (Full size), TPM (Optional), SIM
- Wide DC Support 9~36V, +12V Only (Optional)
- 4/5/8-wire Resistive Touch Screen Controller
- BIO Connector for Daughter Board
- Solder Design for System Assembly and Thermal

## Specifications

System	
Form Factor	3.5" SubCompact Board
CPU	Intel® 7th Generation U Core™ i7-7600U SoC Processor
CPU Frequency	Up to 3.9GHz
Chipset	Intel® 7th Generation U SoC Processor
Memory Type	DDR4 1866/2133, SODIMM x 1
Max. Memory Capacity	Up to 16GB
BIOS	UEFI
Wake on LAN	Yes
Watchdog Timer	255 Levels
Power Requirement	+9 ~ 36V or +12V
Power Supply Type	AT/ ATX
Power Consumption (Typical)	—
Dimension (L x W)	5.75" x 4" (146mm x 101.7mm)
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)
Storage Temperature	-40°F ~ 176°F (-40°C ~ 81°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	—
Certification	CE/FCC
Display	
VGA/LCD Controller	Intel® 7th Generation SoC Processor
Video Output	DVI-I, CRT/DP, LVDS (CRT is shared with DP, and default is DP)
Backlight inverter supply	Yes
I/O	
Ethernet	Intel i210/i211, 10/100/1000Base-TX, RJ 45 x 2 (Support EtherCAT)
Audio	High Definition Audio Interface
USB Port	USB 3.0 x 4, USB 2.0 x 2
Serial Port	RS-232 x 1, RS-232/422/485 x 3
Parallel Port	—
HDD Interface	SATA 3.0 x 1, +5V SATA power connector x 1
FDD Interface	—
SSD	mSATA (share with half-size miniCard and selective by BIOS)
Expansion Slot	1. BIO x 1 2. Mini Card x 2 and default is 2.1. mSATA x 1 (half-size) 2.2. miniCard x 1(Full-size)
DIO	8 Bit
SIM	x 1
TPM	x 1
Touch	x 1
OS	
OS Support	Win 10 (64bit), Win 8.1(64bit), Win 7 (32/64bit), WEC 2013 (32bit), Fedora (64b), Ubuntu/SuSe/Red Hat Enterprise (64b), For Skylake Win 7/8.1 support will EOL on July 17, 2017.



## Packing List

- Product DVD
- GENE-KBU6 with Heatspreader

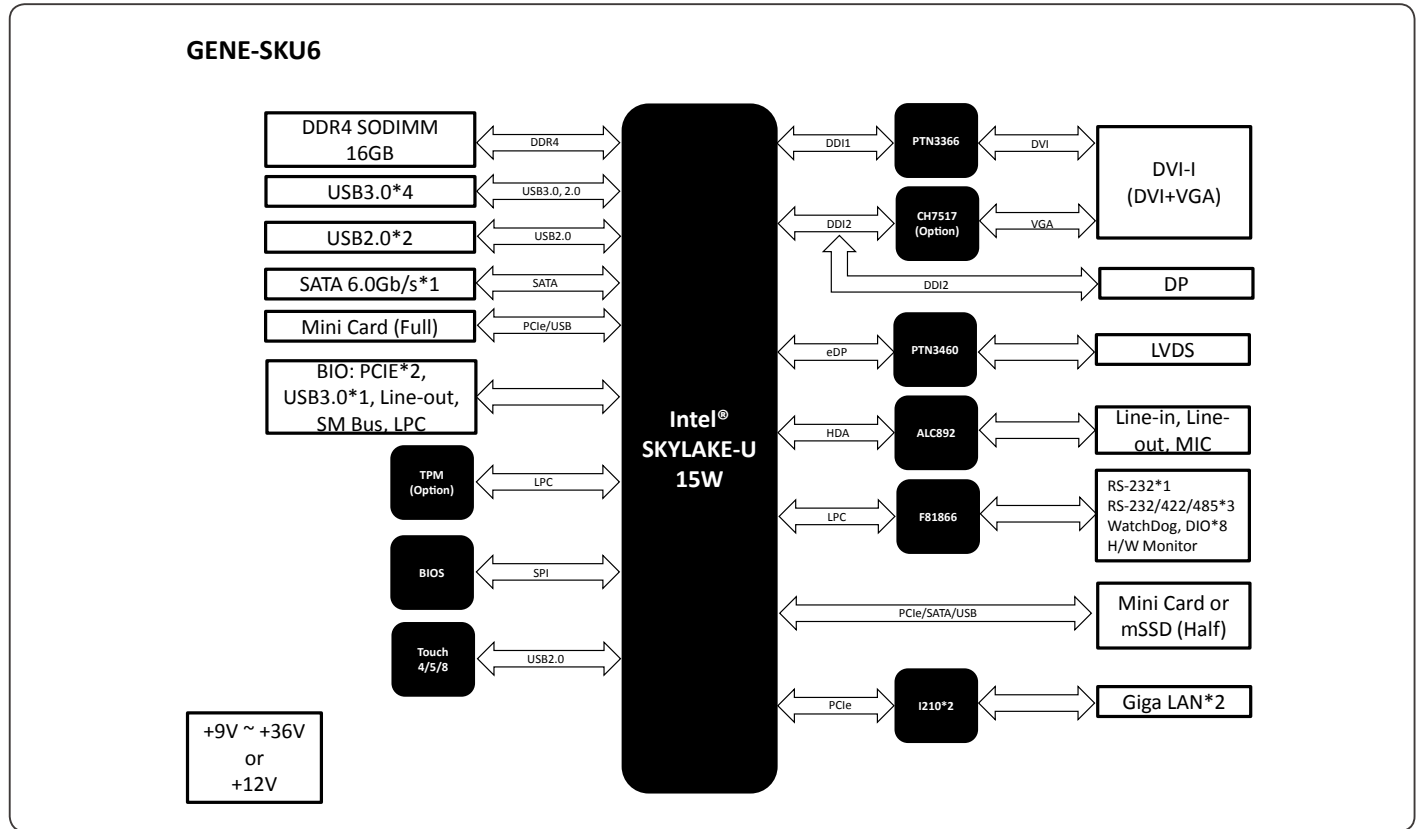
## Optional Accessories

Part Number	Description	QTY
1700050207	(TF)USB CABLE.1*5P Pitch=1.25mm Housinh.20cm.for PFM-945C	2
1701090150	(TF)Flat Cable.D-Sub 9(M).9P Housing.9P 1.25mm pitch Housing.15cm	4
1709100254	(TF)PHONE JACK Cable.3P AUDIO JACK.1*10P 1.25mm HOUSING(F).25cm	1
1702150155	(TF)Power Cable.15P SATA(F).2P 2.0mm Housing(PH).15cm	1
170220020B	(TF)Power Cable.20P ATX(M).4P 5.08mm Housing(F).+3P 2.5mm Housing(XH).20cm	1
1702002010	(TF)Power CABLE.1*2P Pitch=5.0mm Housing.10cm.for PFM-945C.(12V only)	1
GENE-KBU6-FAN01	CPU Cooler, 3P, .5000RPM, A1.0, REV. A1.0	1
GENE-KBU6-HSK01	AI, Heatsink, 146 x 80 x 14mm, Silver, REV. A1.0	1

## CPU Support Chart

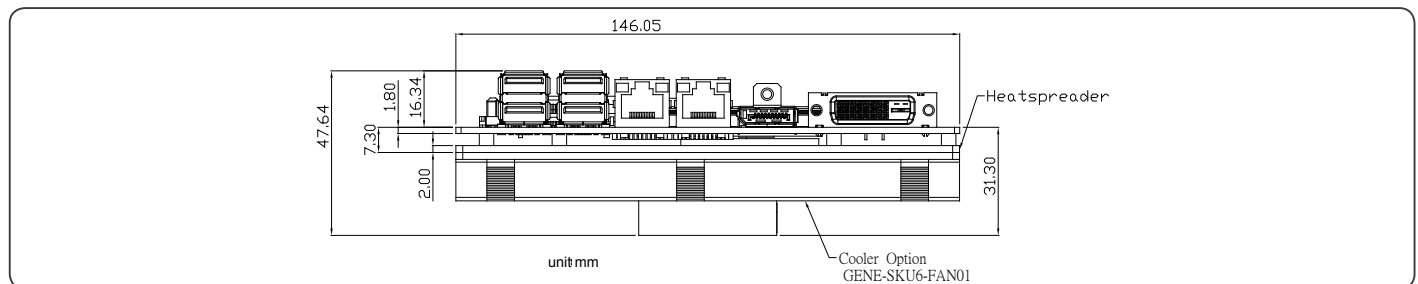
CPU	Base Frequency/ Turbo Boost GHz	Core/ Thread	Last Level Cache	TDP	Graphic
i7-7600U	2.8/3.9	2/4	4M	15W	GT2 - 620
i5-7300U	2.6/3.5	2/4	3M	15W	GT2 - 620
i3-7100U	2.4	2/4	3M	15W	GT2 - 620
C-3965U	2.2	2/2	2M	15W	GT1 - 610

## Block Diagram



## Dimension

Unit: mm



## Ordering Information

Part Number	CPU	Fan/Fanless	Display	LVDS	Storage	LAN	USB	RS-232	RS-232/422/485	Expansion Slot	Power	Power Temp	Others
GENE-KBU6-A10-0001	Intel® i7-7600U	Fan	DVI+LVDS+DP	18/24-bit, 2CH	SATA x 1, mSATA x 1	GbE x 2	USB3.0 x 4, USB 2.0 x 2	1	3	miniCard x 1 (Full-size)	9~36V	0°C ~ 60°C	DIO x 8, SIM, Touch Controller