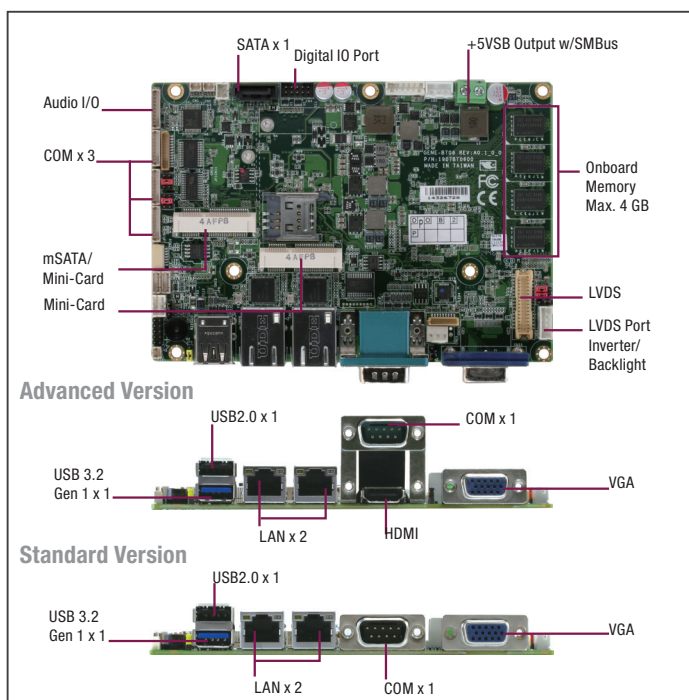


GENE-BT06

3.5" SubCompact Board with Intel® Atom® E3845/ E3825 and Celeron® Processor SoC



Specifications

System	
Form Factor	3.5" SubCompact Board
CPU	Intel® Atom®/ Celeron® Processor: Celeron® J1900 (4C/4T, 2.00GHz, up to 2.42GHz, 10W) Celeron® N2930 (4C/4T, 1.83GHz, up to 2.16GHz, 7.5W) Celeron® N2807 (2C/2T, 1.58GHz, up to 2.16GHz, 4.3W) Atom® E3845 (4C/4T, 1.91 GHz, 10W) Atom® E3825 (2C/2T, 1.33 GHz, 6W)
Chipset	Integrated with Intel® SoC
Memory Type	On Board DDR3L 1066/1333MHz, up to 4GB, Non-ECC
BIOS	UEFI
Wake on LAN	Yes
Watchdog Timer	255 Levels
Security	TPM 2.0 (BOM optional)
RTC Battery	Lithium Battery 3V/240mAh
Dimensions	5.75" x 4" (146mm x 101.7mm)
OS Support	Windows 7/10 (64bit) Linux Ubuntu 20.04.0/Kernel 5.11
Power	
Power Requirement	+9~24V
Power Supply Type	AT/ATX
Connector	Phoenix 2-pin Connector
Power Consumption	Intel® E3845, DDR3L on board RAM 4GB, 2.10A @ +12V(TYPICAL) Intel® E3845, DDR3L on board RAM 4GB, 2.26A @ +12V(MAX)
Display	
Controller	Intel® HD Graphics for Intel Atom® Processor Z3700 Series
LVDS/eDP	LVDS Dual Channel 18/24bit x 1, up to 1920 x 1080
Display Interface	HDMI 1.4a, up to 3840 x 2160 (Optional: DP1.1a) VGA x 1, up to 1920 x 1200
Multiple Display	Up to 3 Simultaneous Displays
Audio	
Codec	Realtek ALC897/892
Audio Interface	Line-In / Line-Out / Mic (Audio function not available for WITAS SKU)
Speaker	2W Amplifier (Optional, audio function not available for WITAS SKU)
External I/O	
Ethernet	Intel® i210, 10/100/1000Base, RJ-45 x 2
USB	USB 3.2 Gen1 x 1, USB2.0 x 1
Serial Port	COM1(RS232)

Features

- Onboard DDR3L Memory Max. 4 GB
- CRT, 18/24-bit Dual-Channel LVDS LCD, HDMI (DP Sharded with HDMI/CRT, Optional)
- Mini-Card Slot x 2 (Full-size x 1, Half-size x 1)
- Wide DC Support 9~24V
- Supports TPM (Optional)
- Solder Design For System Assembly and Thermal



Video	VGA x 1, HDMI 1.4a x 1 (Optional)
Internal I/O	
USB	USB2.0 x 2
Serial Port	COM2, COM3 (RS232/422/485, supports 5V/12V/Ri), COM4 (RS232)
Video	LVDS x1
SATA	SATA II x 1, +5V SATA Power Connector x 1
Audio	Audio Header x 1, (Audio function not available for WITAS SKU)
DIO/GPIO	8-bit
SMBus/I2C	SMBus x 1
Touch	4/5/8 wire Touch Controller x 1 (Optional)
Fan	DC Fan x 1 (optional: Smart Fan)
Sim	SIM x 1
Front Panel	HDD LED, PWR LED, Power Button, Buzzer, Reset
Others	—
Expansion	
Mini PCIe/mSATA	Full-size mPCIe/USB2.0 x 1 Half-size mSATA/mPCIe x 1 (BOM optional)
M.2	—
Others	—
Environment & Certification	
Operating Temp.	32°F ~ 140°F (0°C ~ 60°C) or WITAS 2 -40°F ~ 185°F (-40°C ~ 85°C)
Storage Temp.	-40°F ~ 176°F (-40°C ~ 80°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	403,079
EMC	CE/FCC Class A

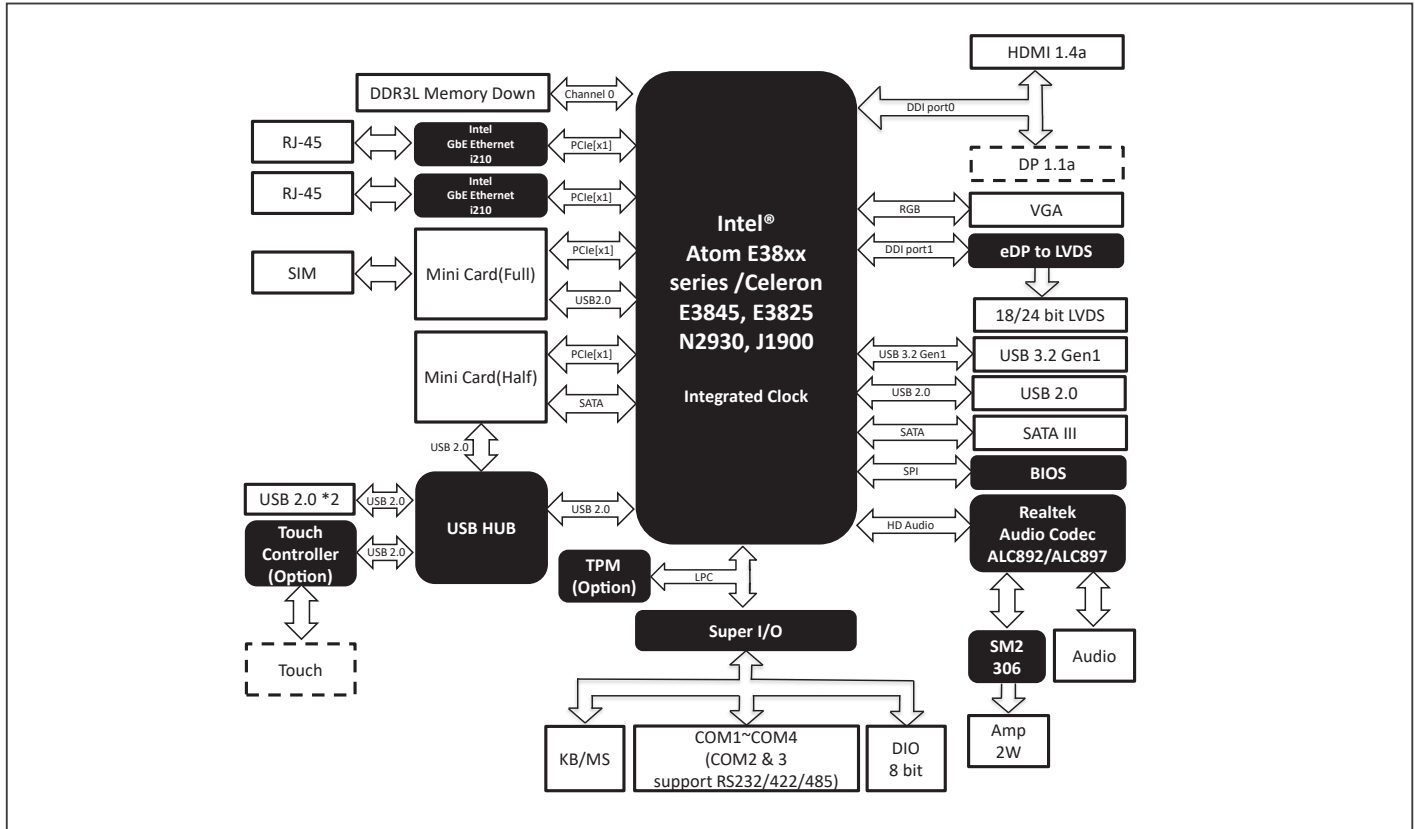
Optional Accessories

Part Number	Description	QTY per Board
1700050207	USB CABLE, 20cm	2
1701090150	COM Cable, 15cm	3
1709100254	Audio Jack Cable, 25cm	1
1702150155	SATA Power Cable, 15cm	1
170220020B	ATX Power Cable, 20cm	1
170204010R	Power Cable, 10cm	1

Packing List

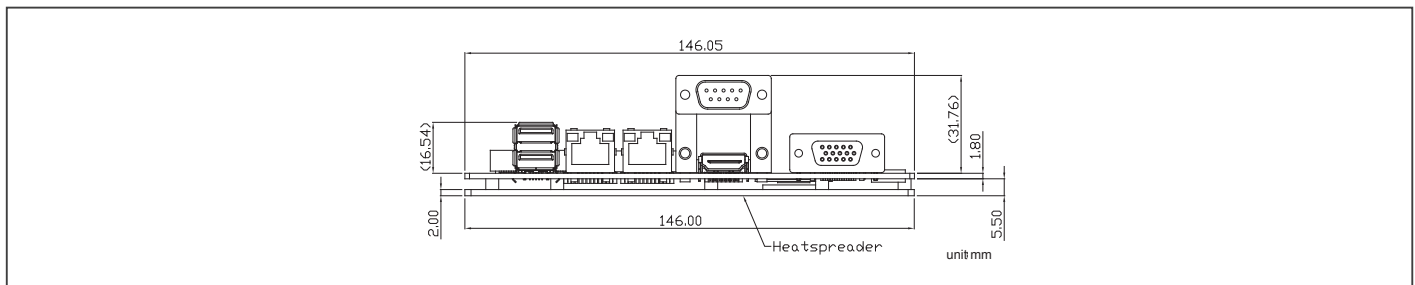
Part Number	Description	QTY
GENE-BT06	GENE-BT06 MB	1
M10BT06010	Heat spreader	1

Block Diagram



Dimension

Unit: mm



Ordering Information

Part Number	CPU	Memory	Display	LAN	USB	RS-232	RS-232/422/485	Storage	Expansion Slot	TPM	Power	Operating Temp	Others
GENE-BT06-A12-0001	Intel® Celeron® N2930	Onboard 4GB	VGA, LVDS, HDMI	GbE x 2	USB3.0 x 1 USB 2.0 x 3	2	2	SATA x 1 mSATA x 1 (half size)	MiniCard x 1 (Full)	-	9~24V	0°C ~ 60°C	DIO x 8
GENE-BT06-A12-0002	Intel® Celeron® J1900	Onboard 4GB	VGA, LVDS, HDMI	GbE x 2	USB3.0 x 1 USB 2.0 x 3	2	2	SATA x 1 mSATA x 1 (half size)	MiniCard x 1 (Full)	2.0	9~24V	0°C ~ 60°C	Touch Controller, SIM, DIO x 8
GENE-BT06-A12-0003	Intel® Atom™ E3825	Onboard 2GB	VGA + LVDS	GbE x 2	USB3.0 x 1 USB 2.0 x 3	2	2	SATA x 1 mSATA x 1 (half size)	MiniCard x 1 (Full)	-	9~24V	0°C ~ 60°C	DIO x 8
GENE-BT06-A12-0004	Intel® Atom™ E3825	Onboard 4GB	VGA, LVDS, HDMI	GbE x 2	USB3.0 x 1 USB 2.0 x 3	2	2	SATA x 1 mSATA x 1 (half size)	MiniCard x 1 (Full)	2.0	9~24V	0°C ~ 60°C	Touch Controller, SIM, DIO x 8
GENE-BT06-A12-0005	Intel® Atom™ E3845	Onboard 2GB	VGA + LVDS	GbE x 2	USB3.0 x 1 USB 2.0 x 3	2	2	SATA x 1 mSATA x 1 (half size)	MiniCard x 1 (Full)	-	9~24V	0°C ~ 60°C	DIO x 8
GENE-BT06-A12-0006	Intel® Atom™ E3845	Onboard 4GB	VGA, LVDS, HDMI	GbE x 2	USB3.0 x 1 USB 2.0 x 3	2	2	SATA x 1 mSATA x 1 (half size)	MiniCard x 1 (Full)	2.0	9~24V	0°C ~ 60°C	Touch Controller, SIM, DIO x 8
GENE-BT06W2-A12-0003	Intel® Atom™ E3825	Onboard 2GB	VGA + LVDS	GbE x 2	USB3.0 x 1 USB 2.0 x 3	2	2	SATA x 1 mSATA x 1 (half size)	MiniCard x 1 (Full)	-	12V	WTAS 2 (-40°C~85°C)	DIO x 8
GENE-BT06W2-A12-0006	Intel® Atom™ E3845	Onboard 4GB	VGA, LVDS, HDMI	GbE x 2	USB3.0 x 1 USB 2.0 x 3	2	2	SATA x 1 mSATA x 1 (half size)	MiniCard x 1 (Full)	2.0	12V	WTAS 2 (-40°C~85°C)	Touch Controller, SIM, DIO x 8