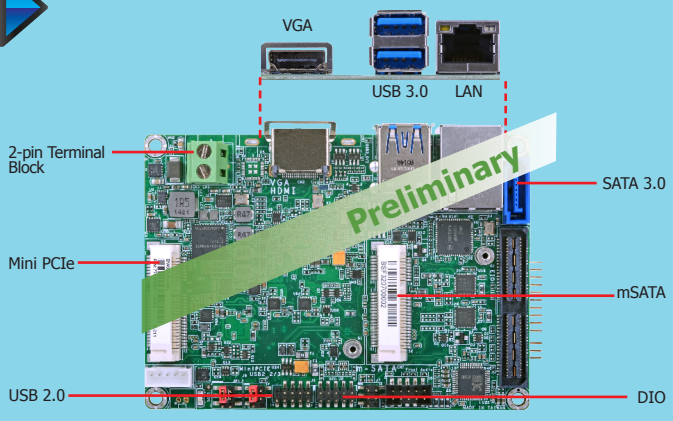
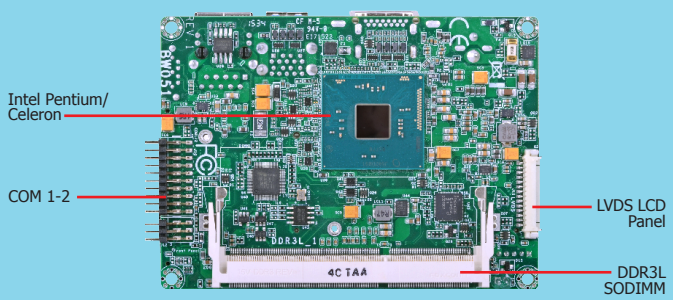
BW051

Atom



Top View



Bottom View

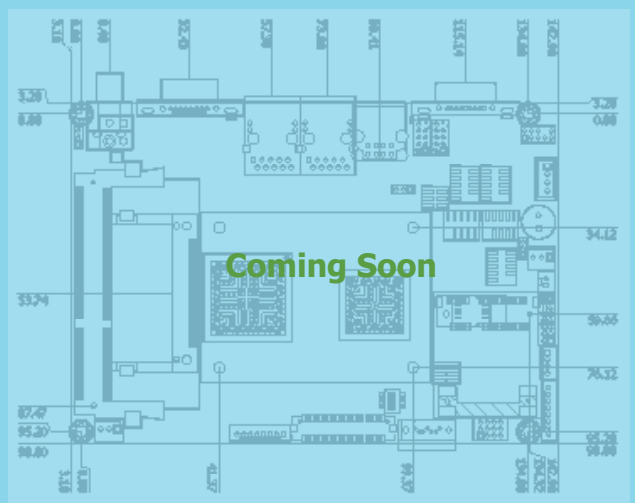
Features

- Small form factor 2.5" Pico-ITX for space-limited applications
- 1 DDR3L SODIMM up to 8GB
- Dual independent displays: VGA*/HDMI + LVDS
- Expansion and Storage: 1 Mini PCIe, 1 mSATA, 1 SATA 3.0
- Rich I/O: 1 Intel GbE, 2 COM, 2 USB 3.0, 2 USB 2.0

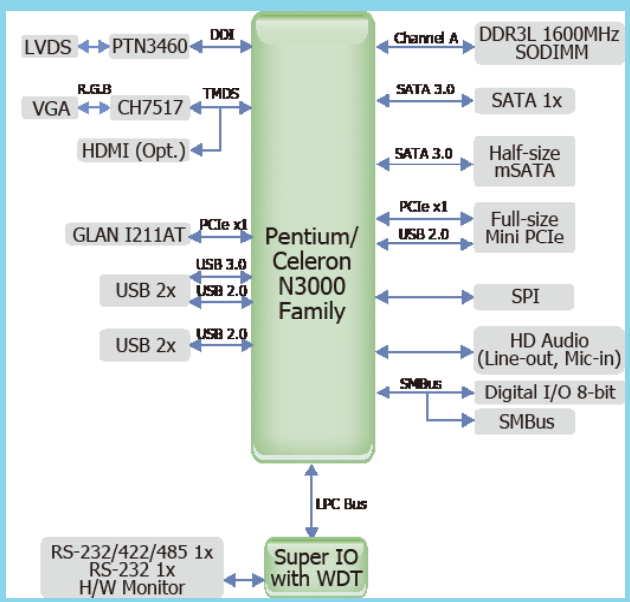
* Populated by default



Mechanical Drawing



Block Diagram



BW051

Specifications

SYSTEM	**Processor**	Intel® Pentium®/Celeron® Processor N3000 Family, BGA 1170	
	Memory	One 204-pin SODIMM up to 8GB	Single Channel DDR3L 1600MHz
	BIOS	Insyde SPI 64Mbit	
GRAPHICS	**Controller**	Intel® HD Graphics	
	Feature	OpenGL 4.2, Direct X 11.1, OpenCL 1.2, OGL ES 3.0 HW Decode: H.264, MPEG2, VC1, VP8, H.265, MPEG4 HW Encode: H.264, MPEG2, MPEG4	
	Display	1 x VGA/HDMI (HDMI available upon request) 1 x LVDS	VGA: resolution up to 1920x1200 @ 60Hz HDMI: resolution up to 1920x1080 @ 60Hz LVDS: single channel 24-bit, resolution up to 1366x768 @ 60Hz
	Dual Displays	VGA + LVDS	HDMI + LVDS
EXPANSION	**Interface**	1 x Half-size mSATA (SATA) 1 x Full-size Mini PCIe (PCIe/USB)	
AUDIO	**Audio Codec**	Realtek ALC888S-VD2-GR	
ETHERNET	**Controller**	1 x Intel® I211AT PCIe (10/100/1000Mbps)	
REAR I/O	**Ethernet**	1 x GbE (RJ-45)	
	USB	2 x USB 3.0	
	Display	1 x VGA/HDMI (HDMI available upon request)	
INTERNAL I/O	**Serial**	1 x RS-232/422/485 (RS-232 w/ power) (2.0mm pitch, right angle type) 1 x RS-232 (2.0mm pitch, right angle type)	
	USB	2 x USB 2.0 (2.0mm pitch)	
	Display	1 x LVDS LCD Panel Connector	
	Audio	1 x Audio (Line-out/Mic-in)	
	SATA	1 x SATA 3.0 (up to 6Gb/s)	
	DIO	1 x 8-bit DIO	
	SMBus	1 x SMBus	
WATCHDOG TIMER	**Output & Interval**	System Reset, Programmable via Software from 1 to 255 Seconds	
SECURITY	**TPM**	Available Upon Request	
POWER	**Type**	Single 12V +/-10% DC	
	Connector	2-pin Terminal Block	
	Consumption	TBD	
	RTC Battery	Lithium 3V (210mAH)	
OS SUPPORT		Windows 7 (32/64-bit) Windows 8.1 (64-bit) Windows 10	WES 7 WE8S
ENVIRONMENT	**Temperature**	Operating: 0 to 60°C	Storage: -40 to 85°C
	Humidity	Operating: 5 to 90% RH	Storage: 5 to 90% RH
MECHANICAL	**Dimensions**	2.5" Pico-ITX Form Factor	100mm (3.94") x 72mm (2.83")
	Height	PCB: TBD	Top Side: TBD, Bottom Side: TBD

Ordering Information

Model Name	P/N	Processor	Memory	VGA/HDMI	GbE	RS-232/422/485	RS-232	USB 3.0	USB 2.0	Power	Thermal	Temp.
BW051-BB	TBD	Celeron	1 SODIMM	VGA	1	1	1	2	2	12V DC	Fanless	0 to 60°C

Packing List

• 1 BW051 board	
• 1 COM port cable (Length: TBD)	TBD
• 1 Serial ATA data cable (Length: 300mm)	332-553001-205G
• 1 Audio cable (Length: TBD)	TBD
• 1 Y cable for SATA and inverter power (Length: TBD)	TBD
• 1 DVD	
• 1 QR (Quick Reference)	
• 1 Heat sink (Height: TBD)	TBD

Optional Items

• USB port cable (Length: 200mm)	332-753059-000G
• Power adapter (60W, 12V) (Length: TBD)	TBD
• Power adapter (120W, 12V) (Length: TBD)	TBD
• Heat spreader (Height: TBD)	TBD