



# Intel Atom Processor E3800 SoC-based Products

Mini-ITX & 3.5"

Updated: July 3, 2015

Form Factor	Mini-ITX				4"	3.5"			
Application	Infotainment, Medical								
Platform	Atom		Atom			Atom	Atom		
Model	BT160	BT161	BT100	BT101	BT103	BT253	BT551	BT553	
	same PCB			same PCB				same PCB	
Processor	Intel Atom E3800 Series, Intel Celeron								
Memory	2 DDR3L SODIMM up to 8GB / 1 DDR3L SODIMM up to 4GB					2GB/4GB DDR3L ECC memory down	2GB/4GB DDR3L memory down		
Display	VGA, LVDS		VGA, LVDS, DVI-I (DVI-D signal)	LVDS, DVI-I		VGA, LVDS, HDMI	VGA, LVDS, DP		
LAN	2		2	2		2	2		
Expansion	1 PCIe x1 1 Mini PCIe (USB, PCIe, mSATA) 1 DFI Proprietary Extension Bus for PCIe/PCI expansion		1 PCIe x4 (1 x1 signal) 1 Mini PCIe (USB, PCIe, mSATA)	1 PCIe x1 1 Mini PCIe (USB, PCIe, mSATA, 3G) 1 SIM		3 Mini PCIe (USB, PCIe, mSATA, LPC, 3G) 1 SIM	1 Mini PCIe (USB, PCIe)		
SATA	2 SATA 2.0		2 SATA 2.0	2 SATA 2.0		1 SATA 2.0 eMMC (optional)	1 SATA 2.0 eMMC (optional)		
USB	1 USB 3.0 3 USB 2.0 1 vertical USB 2.0		1 USB 3.0 6 USB 2.0	1 USB 3.0 6 USB 2.0		1 USB 3.0 5 USB 2.0	1 USB 3.0 5 USB 2.0		
COM	4		6	4		6	3		
Parallel	N/A		N/A	N/A		N/A	N/A		
LPC*	N/A		N/A	N/A		N/A	N/A		
DIO	8-bit		8-bit	8-bit		N/A	8-bit		
SSD	N/A		N/A	N/A		N/A	N/A		
IDE	N/A		N/A	N/A		N/A	N/A		
Audio	N/A		5.1-channel	5.1-channel		HD Audio	HD Audio		
AMT	N/A		N/A	N/A		N/A	N/A		
TPM	optional		optional	optional		optional	optional		
Power	ATX	12V DC-in / 4-pin power	ATX	12V DC-in/ 4-pin power	19~24V DC-in/ 4-pin power	9~36V DC-in	12V DC-in/ 4-pin power	15~36V DC-in/ 4-pin power	
Compliance	N/A		N/A	N/A		N/A	N/A		
Carrier Board	N/A		N/A	N/A		N/A	N/A		
Operating Temp.	0°C to 60°C		0°C to 60°C (Atom, Celeron) -20°C to 70°C (Atom) -40°C to 85°C (Atom)	0°C to 60°C (Atom, Celeron) -20°C to 70°C (Atom) -40°C to 85°C (Atom)		0°C to 60°C (Atom, Celeron) 0°C to 85°C (Celeron) -20°C to 85°C (Atom)	0°C to 60°C (Atom, Celeron) -20°C to 70°C (Celeron) -40°C to 85°C (Atom)		
DVT Sample	Released		Released	Released		Released	May-2015		
MVT Sample							Jul-2015		

\* Planning Products  
\*LPC connector supports the additional COM/Parallel ports



# Intel Atom Processor E3800 SoC-based Products

## Qseven & COM Express

Form Factor	Qseven	COM Express Compact	COM Express Mini
Application	Industrial Automation	Industrial Automation, Transportation, Medical	
Platform	Atom	Atom	Atom
Model	<b>BT700</b>	<b>BT968</b>	<b>BT9A3</b>
Processor	Intel Atom E3800 Series	Intel Atom E3800 Series, Intel Celeron	
Memory	2GB/4GB DDR3L memory down (single channel)	2 DDR3L SODIMM up to 8GB / 1 DDR3L SODIMM up to 4GB	2GB/4GB DDR3L ECC memory down
Display	LVDS, DDI (HDMI/DVI/DP)	VGA, LVDS, DDI (HDMI/DVI/DP)	LVDS, DDI (HDMI/DVI/DP)
LAN	1	1	1
Expansion	3 PCIe x1 1 LPC, 1 SMBus, 1 I <sup>2</sup> C, 1 UART 1 SDIO eMMC (optional)	3 PCIe x1 1 LPC, 1 SMBus, 1 I <sup>2</sup> C, 2 serial eMMC (optional)	3 PCIe x1 1 LPC, 1 SMBus, 1 I <sup>2</sup> C, 2 serial eMMC (optional)
SATA	2 SATA 2.0	2 SATA 2.0	2 SATA 2.0
USB	1 USB 3.0 6 USB 2.0	1 USB 3.0 8 USB 2.0	1 USB 3.0 8 USB 2.0
COM	N/A	N/A	N/A
Parallel	N/A	N/A	N/A
LPC*	N/A	N/A	N/A
DIO	N/A	8-bit	8-bit
SSD	N/A	N/A	N/A
IDE	N/A	N/A	N/A
Audio	HD Audio	HD Audio	HD Audio
AMT	N/A	N/A	N/A
TPM	optional	optional	N/A
Power	N/A	N/A	N/A
Compliance	Qseven R2.0	Comapct R2.1, Type 6	Mini R2.1, Type 10
Carrier Board	Q7X-151	COM331-B COM101-BAT	COM100-B
Operating Temp.	0°C to 60°C (Atom) -20°C to 70°C (Atom) -40°C to 85°C (Atom)	0°C to 60°C (Atom, Celeron) -20°C to 70°C (Atom) -40°C to 85°C (Atom)	0°C to 60°C (Atom, Celeron) -20°C to 70°C (Atom) -40°C to 85°C (Atom)
DVT Sample	Released	Released	Released
MVT Sample			

\* Planning Products

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# Intel Atom Processor E3800 SoC-based Products

## Carrier Board

Form Factor	Mini-ITX	microATX	Mini-ITX
Application	Carrier Board		
Model	<b>COM100-B</b>	<b>COM331-B</b>	<b>Q7X-151</b>
Display	DP, LVDS	DP, VGA, LVDS	LVDS, DP
LAN	1	1	1
Expansion	1 PCIe x1 3 Mini PCIe (USB, PCIe, mSATA, 3G) 1 SIM	1 PCIe x16 1 PCIe x4 2 PCIe x1 1 Mini PCIe	1 PCIe x4 1 SDIO
SATA	1 SATA 3.0	2 SATA 3.0 2 SATA 2.0 1 SDIO	1 SATA 3.0 1 mSATA
USB	2 USB 3.0 4 USB 2.0	4 USB 3.0 4 USB 2.0	1 USB 3.0 6 USB 2.0
COM	2	2	2
Parallel	N/A	N/A	N/A
LPC*	N/A	N/A	N/A
DIO	8-bit	8-bit	N/A
SSD	N/A	N/A	N/A
IDE	N/A	N/A	N/A
Audio	HD Audio	HD Audio	HD Audio
Power	5~19V DC-in	ATX	12V DC-in
Compliance	COM Express R2.1, Type 10	COM Express R2.0, Type 6	Qseven R2.0
Applied Module	Mini	Compact, Basic	Qseven
Applied Model	BT9A3	BT968	BT700

\* Planning Products

\*LPC connector supports the additional COM/Parallel ports