



# Computer-on-Module Products

## Qseven & COM Express Mini

Updated: July 3, 2015

Form Factor	Qseven	Qseven	Qseven			COM Express Mini		
Application	Industrial Automation, Infotainment	Industrial Automation					Infotainment, Medical	
Chipset	<b>N/A</b>	<b>N/A</b>	<b>EG20T</b>			<b>N/A</b>	<b>NM10</b>	
Platform	ARM	Atom	Atom	Atom	Atom	Atom	Atom	
Model	<b>FS700</b>	<b>BT700</b>	<b>QB702-B</b>	<b>QB701-B</b>	<b>QB700-B</b>	<b>BT9A3</b>	<b>CD9A3</b>	
Processor	Freescal e i.MX6 Series	Intel Atom E3800 Series, Intel Celeron	Intel Atom E600 Series			Intel Atom E3800 Series, Intel Celeron	Intel Atom D2550/N2800/N2600	
Memory	1GB/2GB DDR3 memory down	2GB/4GB DDR3L memory down	1GB DDR2 memory down	512MB/1GB/2GB DDR2 SDRAM memory down	512MB DDR2 SDRAM memory down	2GB/4GB DDR3L ECC memory down	2GB DDR3 memory down	
Display	HDMI, LVDS	LVDS, <b>DDI (HDMI/DVI/DP)</b>	LVDS, SDVO			LVDS, <b>DDI (HDMI/DVI/DP)</b>		
LAN	1	1	1	1	1	1	1	
Expansion	1 PCIe x1 2 I <sup>2</sup> C 1 CAN-bus 1 SDIO 1 RS232 1 microSD	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, 1 serial 1 CAN-bus, 1 SDIO/MMC 1 ExpressCard	3 PCIe x1 1 LPC, 1 SMBus, 1 I <sup>2</sup> C, 1 serial 1 CAN-bus 1 SDIO/MMC	3 PCIe x1 1 LPC, 1 SMBus, 1 I <sup>2</sup> C, 1 CAN-bus 1 SDIO/MMC	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	
SATA	1 SATA 2.0	2 SATA 2.0	2 SATA 2.0	2 SATA 2.0	2 SATA 2.0	2 SATA 2.0	2 SATA 2.0	
USB	4 USB 2.0 1 USB OTG	1 USB 3.0 6 USB 2.0	8 USB 2.0	7 USB Host 1 USB Host/Client	6 USB 2.0 1 USB Client	1 USB 3.0 8 USB 2.0	8 USB 2.0	
COM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Parallel	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
LPC*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
DIO	N/A	8-bit	N/A	N/A	N/A	8-bit	8-bit	
SSD	4GB/8GB/16GB eMMC	N/A	optional	optional	N/A	N/A	optional	
IDE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Audio	I <sup>2</sup> S	HD Audio	HD Audio	HD Audio	HD Audio	HD Audio	HD Audio	
AMT	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
TPM	N/A	optional	optional	optional	N/A	N/A	N/A	
Power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Compliance	Qseven R1.2	Qseven R2.0	Qseven R1.2	Qseven R1.2	Qseven R1.1	Mini R2.1, Type 10	Mini R2.1, Type 10	
Carrier Board	Q7A-551	Q7X-151	Q7-100	Q7-100	Q7-951	COM100-B	COM100-B	

\*LPC connector supports the additional COM/Parallel ports



# Computer-on-Module Products

## COM Express Compact

Form Factor	COM Express Compact				COM Express Compact			COM Express Compact	
Application	Industrial Automation, Transportation, Military, Energy, Medical				Industrial Automation, Transportation, Medical			Industrial Automation, Infotainment	
Chipset	N/A	QM77	QM67	HM55	N/A	NM10	ICH8M	N/A	A55E
Platform	Mobile	Mobile	Mobile	Mobile	Atom	Atom	Atom	AMD G-Series SoC	AMD G-Series
Model	HU968	CR908-B	HR908-B	CP908-B	BT968	CD905-B	LR905-B18D/S/M	KB968	OT905-B
Processor	4th Gen Intel Core	3rd/2nd Gen Intel Core		Intel Core	Intel Atom E3800 Series, Intel Celeron	Intel Atom D2550/N2800/N2600	Intel Atom D525/D425/N455	AMD Embedded G-Series SoC	AMD Embedded G-Series
Memory	2GB/4GB/8GB DDR3L onboard	1 DDR3/DDR3L SODIMM up to 8GB		1 DDR3 SODIMM up to 4GB	2 DDR3L SODIMM up to 8GB/1 DDR3L SODIMM up to 4GB	1 DDR3 SODIMM up to 4GB/1 DDR3 SODIMM up to 2GB		1 DDR3 SODIMM up to 8GB	1 DDR3 SODIMM up to 8GB
Display	VGA, LVDS, DDI (HDMI, DVI, DP)	VGA, LVDS, DDI (HDMI/DVI/DP/SDVO)		VGA, LVDS, DDI (HDMI/SDVO/DP)	VGA, LVDS, DDI (HDMI/DVI/DP)	VGA, LVDS	VGA, LVDS	VGA, DP/LVDS, DP	VGA, LVDS
LAN	1	1	1	1	1	1	1	1	1
Expansion	1 PCIe x4 1 PCIe x2 1 PCIe x1 1 LPC, 1 SMBus, 1 I <sup>2</sup> C, 2 serial	1 PCIe x16 7 PCIe x1 1 LPC, 1 SMBus, 1 I <sup>2</sup> C, 2 serial	1 PCIe x16 1 PCIe x4 3 PCIe x1 1 LPC, 1 SMBus, 1 I <sup>2</sup> C, 2 serial	4 PCIe x1 4 PCI 1 LPC, 1 SMBus	3 PCIe x1 1 LPC, 1 SMBus, 1 I <sup>2</sup> C, 2 serial eMMC (optional)	4 PCIe x1 4 PCI 1 LPC, 1 I <sup>2</sup> C	5 PCIe x1 4 PCI 1 LPC, 1 SMBus	1 PCIe x4 4 PCIe x1 1 LPC, 1 SMBus, 1 I <sup>2</sup> C, 2 serial	6 PCIe x1 4 PCI 1 LPC, 1 SMBus
SATA	3 SATA 3.0	2 SATA 3.0, 2 SATA 2.0 RAID 0/1/5/10		4 SATA 2.0	2 SATA 2.0	2 SATA 2.0	3 SATA 2.0	2 SATA 3.0	4 SATA 3.0
USB	2 USB 3.0 8 USB 2.0	4 USB 3.0 4 USB 2.0	8 USB 2.0	8 USB 2.0	1 USB 3.0 8 USB 2.0	8 USB 2.0	8 USB 2.0	2 USB 3.0 6 USB 2.0	8 USB 2.0
COM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Parallel	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LPC*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DIO	4-bit input and 4-bit output	4-bit input and 4-bit output		8-bit	8-bit	8-bit	8-bit	8-bit	8-bit
SSD	optional	N/A	N/A	N/A	N/A	N/A	N/A	optional	N/A
IDE	N/A	N/A	N/A	1	N/A	1	1	N/A	1
Audio	HD Audio	HD Audio	HD Audio	HD Audio	HD Audio	HD Audio	HD Audio	HD Audio	HD Audio
AMT	AMT 9.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TPM	optional	N/A	N/A	N/A	optional	N/A	N/A	optional	optional
Power	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compliance	Compact R2.1, Type 6	Compact R2.1, Type 6	Compact R2.1, Type 6	Compact R1.0, Type 2	Compact R2.1, Type 6	Compact R2.0 Type 2	Compact R1.0, Type 2	Compact R2.1, Type 6	Compact R2.0, Type 2
Carrier Board	COM331-B	COM331-B	COM331-B	COM630-B	COM331-B	COM330-B COM630-B	COM630-B	COM331-B	COM330-B

\*LPC connector supports the additional COM/Parallel ports



# Computer-on-Module Products

## COM Express Basic (1)

Form Factor	COM Express Basic		COM Express Basic		COM Express Basic		COM Express Basic	
Application	Industrial Automation, Transportation, Military, Energy, Medical							
Chipset	<b>QM87</b>	<b>HM86</b>	<b>QM87</b>	<b>HM86</b>	<b>QM87</b>	<b>HM86</b>	<b>QM77</b>	<b>HM76</b>
Platform	Mobile		Mobile		Mobile		Mobile	
Model	<b>HM961-QM87</b>	<b>HM961-HM86</b>	<b>HM960-QM87</b>	<b>HM960-HM86</b>	<b>HM920-QM87</b>	<b>HM920-HM86</b>	<b>CR960-QM77</b>	<b>CR960-HM76</b>
	same PCB		same PCB		same PCB		same PCB	
Processor	4th Gen Intel Core		4th Gen Intel Core		4th Gen Intel Core		3rd/2nd Gen Intel Core	
Memory	2 DDR3L ECC SODIMM up to 16GB		2 DDR3L SODIMM up to 16GB		2 DDR3L SODIMM up to 16GB		2 DDR3/DDR3L SODIMM up to 16GB	
Display	VGA, LVDS, DDI (HDMI, DVI, DP)		VGA, LVDS, DDI (HDMI, DVI, DP)		VGA, LVDS		VGA, LVDS, DDI (HDMI/ DVI/DP/SDVO)	
LAN	1		1		1		1	
Expansion	1 PCIe x16 7 PCIe x1 1 LPC, 1 SMBus, 1 I <sup>2</sup> C, 2 serial		1 PCIe x16 7 PCIe x1 1 LPC, 1 SMBus, 1 I <sup>2</sup> C, 2 serial		1 PCIe x16 5 PCIe x1 4 PCI 1 LPC, 1 SMBus, 1 I <sup>2</sup> C		1 PCIe x16 7 PCIe x1 1 LPC, 1 SMBus, 1 I <sup>2</sup> C, 2 serial	
SATA	4 SATA 3.0 RAID 0/1/5/10 (Intel SRT)	2 SATA 3.0 2 SATA 2.0	4 SATA 3.0 RAID 0/1/5/10 (Intel SRT)	2 SATA 3.0 2 SATA 2.0	4 SATA 3.0 RAID 0/1/5/10 (Intel SRT)	2 SATA 3.0 2 SATA 2.0	2 SATA 3.0 2 SATA 2.0 RAID 0/1/5/10	2 SATA 3.0 2 SATA 2.0
USB	4 USB 3.0 8 USB 2.0	2 USB 3.0 8 USB 2.0	4 USB 3.0 8 USB 2.0	2 USB 3.0 8 USB 2.0	8 USB 2.0		4 USB 3.0 8 USB 2.0	
COM	N/A		N/A		N/A		N/A	
Parallel	N/A		N/A		N/A		N/A	
LPC*	N/A		N/A		N/A		N/A	
DIO	4-bit input and 4-bit output		4-bit input and 4-bit output		4-bit input and 4-bit output		4-bit input and 4-bit output	
SSD	optional		optional		optional		optional	
IDE	N/A		N/A		1		N/A	
Audio	HD Audio		HD Audio		HD Audio		HD Audio	
AMT	AMT 9.0	N/A	AMT 9.0	N/A	AMT 9.0	N/A	N/A	
TPM	optional		optional		optional		optional	
Power	N/A		N/A		N/A		N/A	
Compliance	Basic R2.1 Type 6		Basic R2.1 Type 6		Basic R2.1 Type 2		Basic R2.1 Type 6	
Carrier Board	COM331-B		COM331-B		COM330-B		COM331-B	

\*LPC connector supports the additional COM/Parallel ports



# Computer-on-Module Products

## COM Express Basic (2)

Form Factor	COM Express Basic		COM Express Basic		COM Express Basic	COM Express Basic		COM Express Basic	COM Express Basic	
Application	Industrial Automation, Transportation, Energy, Medical, Military								Industrial Automation, Military, Infotainment	
Chipset	<b>QM77</b>	<b>QM77</b>	<b>QM77</b>	<b>HM76</b>	<b>QM67</b>	<b>QM67</b>	<b>HM65</b>	<b>HM55</b>	<b>A70M</b>	<b>A70M</b>
Platform	Mobile			Mobile	Mobile	Mobile		Mobile	AMD R-Series	
Model	<b>CR900-B</b>	<b>CR901-B</b>	<b>CR902-B</b>	<b>CR902-BL</b>	<b>HR900-B</b>	<b>HR902-B</b>	<b>HR902-BL</b>	<b>CP900-B</b>	<b>CM960-B</b>	<b>CM901-B</b>
			same PCB			same PCB				
Processor	3rd/2nd Gen Intel Core		3rd/2nd Gen Intel Core		3rd/2nd Gen Intel Core	3rd/2nd Gen Intel Core		Intel Core	AMD Embedded R-Series (BGA)	AMD Embedded R-Series (PGA)
Memory	2 DDR3/DDR3L SODIMM up to 16GB		2 DDR3/DDR3L SODIMM up to 16GB		2 DDR3 SODIMM up to 16GB	2 DDR3 SODIMM up to 16GB		2 DDR3 SODIMM up to 8GB	2 DDR3 SODIMM up to 16GB	
Display	VGA, LVDS	VGA, LVDS, DDI (HDMI/DVI/DP/SDVO)	VGA, LVDS, DDI (HDMI/DVI/DP/SDVO)		VGA, LVDS, DDI (HDMI/DP/SDVO)	VGA, LVDS, DDI (HDMI/DVI/DP/SDVO)		VGA, LVDS, DDI (HDMI/DP/SDVO)	DP, DP/LVDS, DP/VGA	
LAN	1		1		1	1		1	1	
Expansion	1 PCIe x16 5 PCIe x1 4 PCI 1 LPC, 1 SMBus, 1 I <sup>2</sup> C	1 PCIe x16 7 PCIe x1 1 LPC, 1 SMBus, 1 I <sup>2</sup> C, 2 serial	1 PCIe x16 1 PCIe x4 1 PCIe x1 4 PCI 1 LPC, 1 SMBus		1 PCIe x16 5 PCIe x1 4 PCI 1 LPC, 1 SMBus	1 PCIe x16 1 PCIe x4 1 PCIe x1 4 PCI 1 LPC, 1 SMBus		4 PCIe x1 4 PCI 1 LPC, 1 SMBus	1 PCIe x8 7 PCIe x1 1 LPC, 1 SMBus, 1 I <sup>2</sup> C, 2 serial	1 PCIe x16 7 PCIe x1 1 LPC, 1 SMBus, 1 I <sup>2</sup> C, 2 serial
SATA	2 SATA 3.0 2 SATA 2.0 RAID 0/1/5/10		2 SATA 3.0 2 SATA 2.0 RAID 0/1/5/10	2 SATA 3.0 2 SATA 2.0	2 SATA 3.0 2 SATA 2.0	2 SATA 3.0 2 SATA 2.0 RAID 0/1/5/10	2 SATA 3.0 2 SATA 2.0	4 SATA 2.0	4 SATA 3.0	
USB	8 USB 2.0	4 USB 3.0 8 USB 2.0	8 USB 2.0		8 USB 2.0	8 USB 2.0		8 USB 2.0	4 USB 3.0 4 USB 2.0	
COM	N/A		N/A		N/A	N/A		N/A	N/A	
Parallel	N/A		N/A		N/A	N/A		N/A	N/A	
LPC*	N/A		N/A		N/A	N/A		N/A	N/A	
DIO	4-bit input and 4-bit output		8-bit		8-bit	8-bit		8-bit	8-bit	
SSD	optional		N/A		N/A	N/A		N/A	optional	
IDE	1	N/A	1		1	1		1	N/A	
Audio	HD Audio		HD Audio		HD Audio	HD Audio		HD Audio	HD Audio	
AMT	N/A		N/A		N/A	N/A		N/A	N/A	
TPM	optional		N/A		N/A	N/A		N/A	optional	
Power	N/A		N/A		N/A	N/A		N/A	N/A	
Compliance	Basic R2.1 Type 2	Basic R2.1 Type 6	Basic R2.1 Type 2		Basic R1.0 Type 2	Basic R2.1 Type 2		Basic R1.0, Type 2	Basic R2.1, Type 6	
Carrier Board	COM330-B	COM331-B	COM330-B		COM630-B	COM330-B		COM630-B	COM331-B	

\*LPC connector supports the additional COM/Parallel ports