

# QSM-8Q90

Q7 CPU Module

Quick Installation Guide

Version 1.0

<b>Form Factor</b> <i>Qseven CPU Module</i>	<b>CPU</b> <i>Soldered onboard VIA Nano™ U3500 processor</i>	<b>Chipset</b> <i>VIA VX900</i>
<b>Video</b> <i>24-bit Single Channel</i>	<b>LAN</b> <i>Realtek RTL8111C Gigabit Ethernet</i>	<b>Audio</b> <i>HD Audio Interface</i>
<b>I/O</b> <i>USB/ SATA/ PCIe1/ SDIO/ LPC</i>		

## ◆ Declaration of Conformity

FCC Class A

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions : (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

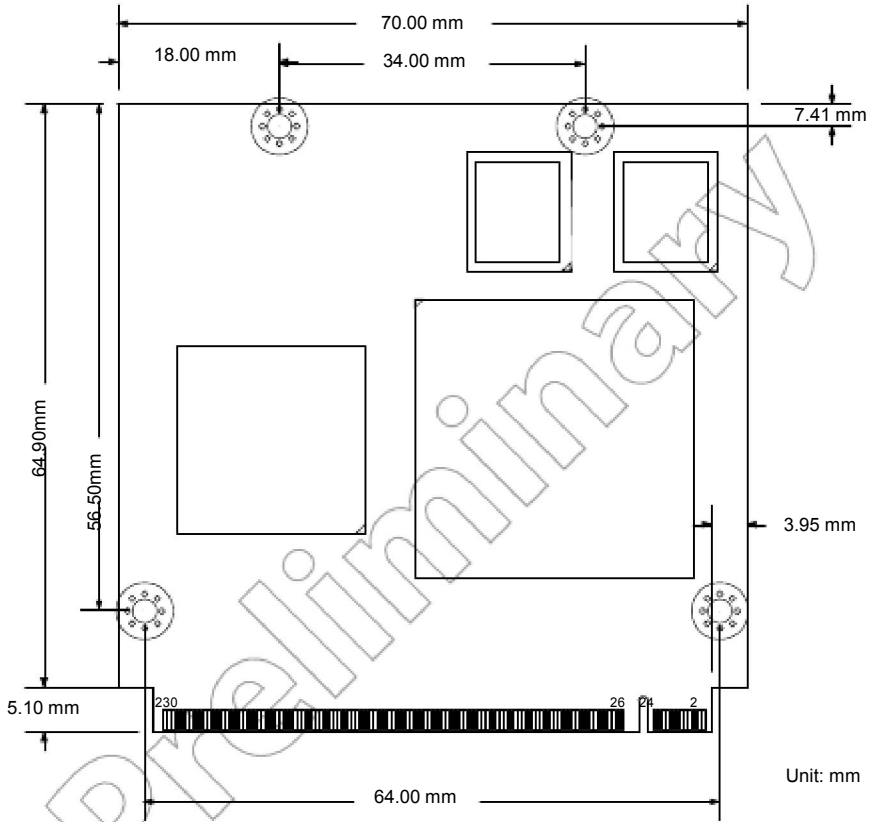
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## Specifications

Form Factor	Qseven CPU Module
CPU	Soldered onboard VIA Nano™ U3500 at 1.0 processor
Chipset	VIA VX900
System Memory	Soldered onboard 1GB DDR3 SDRAM
VGA/ LCD Controller	Integrated Chrome9 DX9 controller
Ethernet controller	1 x Realtek 8111C PCIe Gigabit Ethernet
BIOS	AMI PnP Flash BIOS
Serial ATA	2 x Serial ATA ports w/ 300MB/s HDD transfer rate Support RAID 0, 1
Universal Serial Bus	8 x USB 2.0 host ports 1 x USB 2.0 client port
LCD	Single Channel 24-bit LVDS
Expansion Interface	2 x PCIe x1 lanes LPC interface
Operation Temp.	0°C ~ 60°C (32°F ~ 140°F)
Watchdog Timer	1~ 255 levels Reset
Dimension (L x W)	70 x 70 mm (2.76" x 2.76")

# Board Dimensions



# Connector Pin Assignments

Pin	Signal	Pin	Signal
1	GND	2	GND
3	GBE_MDI3-	4	GBE_MDI2-
5	GBE_MDI3+	6	GBE_MDI2+
7	GBE_LINK100#	8	GBE_LINK1000#
9	GBE_MDI1-	10	GBE_MDI0-
11	GBE_MDI1+	12	GBE_MDI0+
13	GBE_LINK#	14	GBE_ACT#
15	GBE_CTREF	16	SUS_S5#
17	WAKE#	18	SUS_S3#
19	SUS_STAT#	20	PWRBTN#
21	SLP_BTN# (N/C)	22	LID_BTN#
23	GND	24	GND
	KEY		KEY
25	GND	26	PWGIN
27	BATLOW#	28	RSTBTN#
29	SATA0_TX+	30	SATA1_TX+
31	SATA0_TX-	32	SATA1_TX-
33	SATA_ACT#	34	GND
35	SATA0_RX+	36	SATA1_RX+
37	SATA0_RX-	38	SATA1_RX-
39	GND	40	GND
41	BIOS_DISABLE#	42	SDIO_CLK#
43	SDIO_CD#	44	SDIO_LED (N/C)
45	SDIO_CMD	46	SDIO_WP
47	SDIO_PWR#	48	SDIO_DAT1
49	SDIO_DAT0	50	SDIO_DAT3
51	SDIO_DAT2	52	SDIO_DAT5
53	SDIO_DAT4	54	SDIO_DAT7
55	SDIO_DAT6	56	RSVD
57	GND	58	GND
59	HDA_SYNC	60	SMB_CLK
61	HDA_RST#	62	SMB_DAT
63	HDA_BITCLK	64	SMB_ALERT# (N/C)

Pin	Signal	Pin	Signal
65	HDA_SDI	66	I2C_CLK
67	HDA_SDO	68	I2C_DAT
69	THR#	70	WDTRIG#
71	THRMRTRIP#	72	WDOUT (N/C)
73	GND	74	GND
75	USB_P7-	76	USB_P6-
77	USB_P7+	78	USB_P6+
79	USB_6_7_OC#	80	USB_4_5_OC#
81	USB_P5-	82	USB_P4-
83	USB_P5+	84	USB_P4+
85	USB_2_3_OC#	86	USB_0_1_OC#
87	USB_P3-	88	USB_P2-
89	USB_P3+	90	USB_P2+
91	USB_HQST_PRE#	92	USB_HC_SEL (N/C)
93	USB_P1-	94	USB_P0-
95	USB_P1+	96	USB_P0+
97	GND	98	GND
99	LVDS_A0+	100	LVDS_B0+ (N/C)
101	LVDS_A0-	102	LVDS_B0- (N/C)
103	LVDS_A1+	104	LVDS_B1+ (N/C)
105	LVDS_A1-	106	LVDS_B1- (N/C)
107	LVDS_A2+	108	LVDS_B2+ (N/C)
109	LVDS_A2-	110	LVDS_B2- (N/C)
111	LVDS_PPEN	112	LVDS_BPEN
113	LVDS_A3+	114	LVDS_B3+ (N/C)
115	LVDS_A3-	116	LVDS_B3- (N/C)
117	GND	118	GND
119	LVDS_A_CLK+	120	LVDS_B_CLK+ (N/C)
121	LVDS_A_CLK-	122	LVDS_B_CLK- (N/C)
123	LVDS_BLT_CTRL	124	RSVD
125	LVDS_DID_DAT	126	LVDS_BLC_DAT (N/C)
127	LVDS_DID_CLK	128	LVDS_BLC_CLK (N/C)
129	RSVD	130	RSVD

Pin	Signal	Pin	Signal	Pin	Signal	Pin	Signal
131	SDVO_BCLK+	132	SDVO_INT+ (N/C)	197	GND	198	GND
133	SDVO_BCLK-	134	SDVO_INT- (N/C)	199	RSVD	200	RSVD
135	GND	136	GND	201	RSVD	202	RSVD
137	SDVO_GREEN+	138	SDVO_FLDSTALL+	203	RSVD	204	MFG_NC4
139	SDVO_GREEN-	140	SDVO_FLDSTALL-	205	VCC_5V_SB	206	VCC_5V_SB
141	GND	142	GND	207	MFG_NC0 (N/C)	208	MFG_NC2 (N/C)
143	SDVO_BLUE+	144	SDVO_TVCLKN+ (NC)	209	MFG_NC1 (N/C)	210	MFG_NC3 (N/C)
145	SDVO_BLUE-	146	SDVO_TVCLKN- (NC)	211	VCC	212	VCC
147	GND	148	GND	213	VCC	214	VCC
149	SDVO_RED+	150	SDVO_CTRL_DAT (NC)	215	VCC	216	VCC
151	SDVO_RED-	152	SDVO_CTRL_CLK (NC)	217	VCC	218	VCC
153	HDML_HPD# (N/C)	154	DP_HPD#	219	VCC	220	VCC
155	PCIE_CLK_REF+	156	PCIE_WAKE#	221	VCC	222	VCC
157	PCIE_CLK_REF-	158	PCIE_RST#	223	VCC	224	VCC
159	GND	160	GND	225	VCC	226	VCC
161	PCIE3_TX+ (N/C)	162	PCIE3_RX+ (N/C)	227	VCC	228	VCC
163	PCIE3_TX- (N/C)	164	PCIE3_RX- (N/C)	229	VCC	230	VCC
165	GND	166	GND				
167	PCIE2_TX+ (N/C)	168	PCIE2_RX+ (N/C)				
169	PCIE2_TX- (N/C)	170	PCIE2_RX- (N/C)				
171	EXCD0_PERST#	172	EXCD1_PERST#				
173	PCIE1_TX+	174	PCIE1_RX+				
175	PCIE1_TX-	176	PCIE1_RX-				
177	EXCD0_CPPE# (N/C)	178	EXCD1_CPPE# (N/C)				
179	PCIE0_TX+	180	PCIE0_RX+				
181	PCIE0_TX-	182	PCIE0_RX-				
183	GND	184	GND				
185	LPC_AD0	186	LPC_AD1				
187	LPC_AD2	188	LPC_AD3				
189	LPC_CLK	190	LPC_FRAME#				
191	SERIRQ	192	LPC_LDRQ#				
193	VCC_RTC	194	SPKR				
195	FAN_TACHOIN (N/C)	196	FAN_PWMOUT (N/C)				

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