

AR6MX- Series

Quick Start Guide

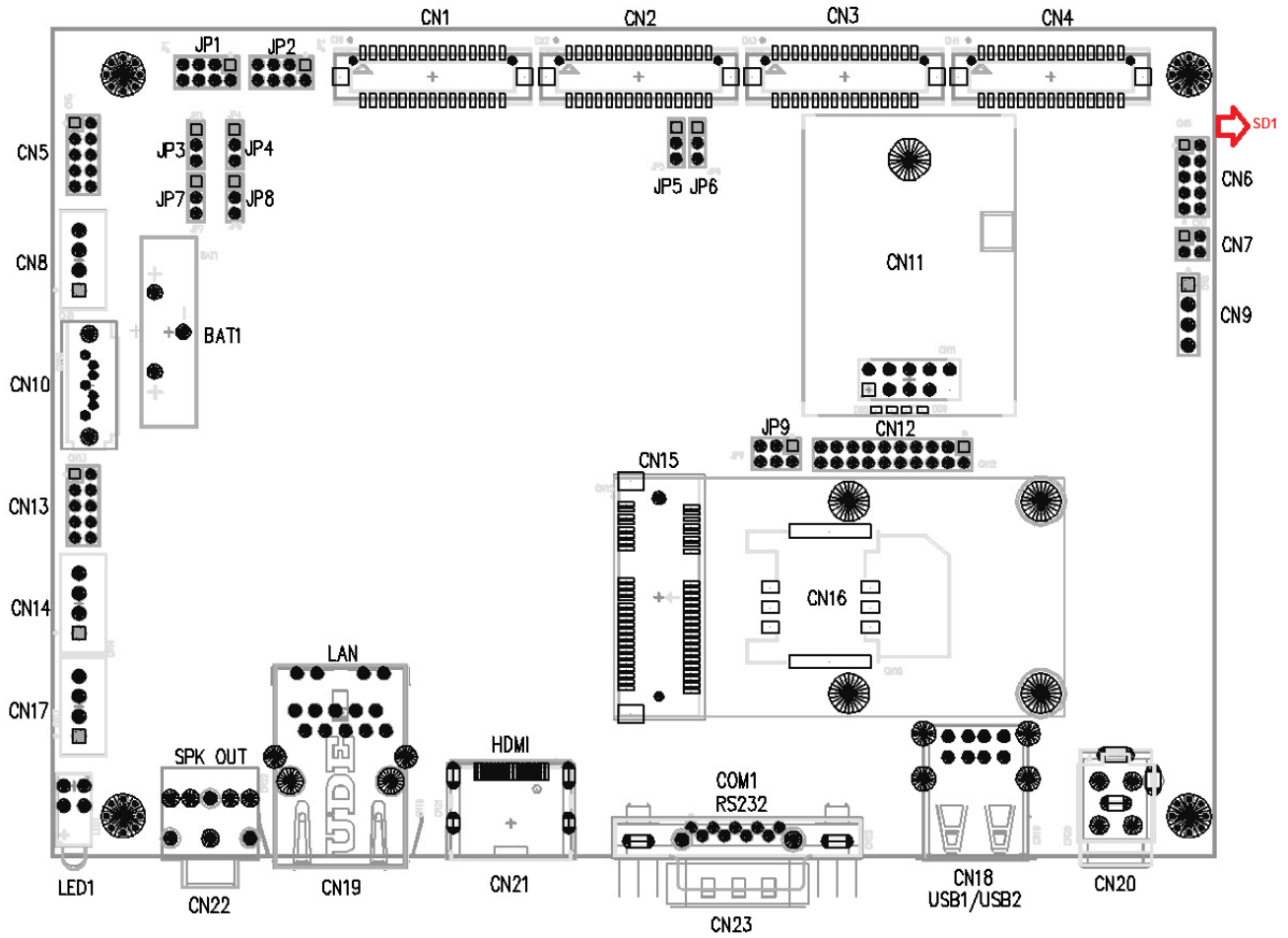
Ver 0.2

This Quick Start Guide is for BCM AR6MXQ (Quad Core) and AR6MXS (Solo Core) ARM motherboards based on Freescale i.MX6 Cortex A9 platform.



1. Mainboard illustration: Locations of IO ports & Jumper settings definition

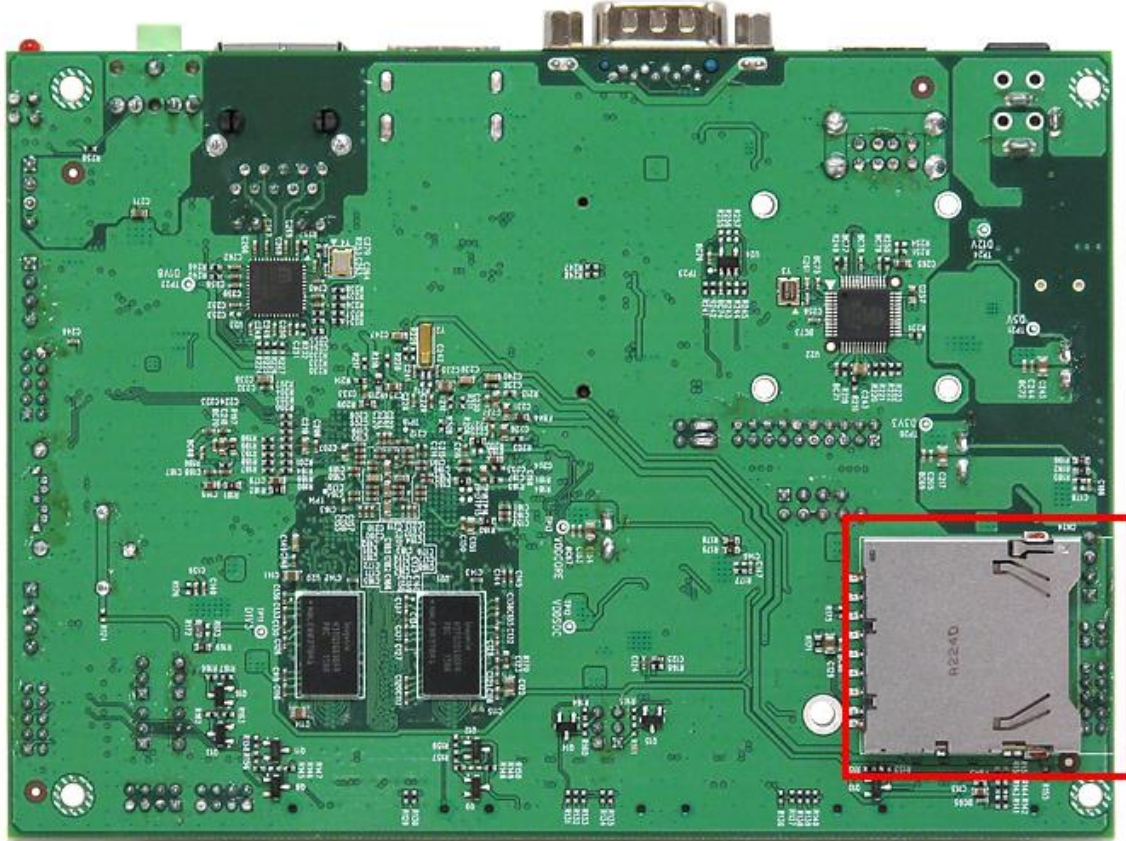
Board Top view :



1.1 Getting started

1. Insert the SD card into slot CN24.

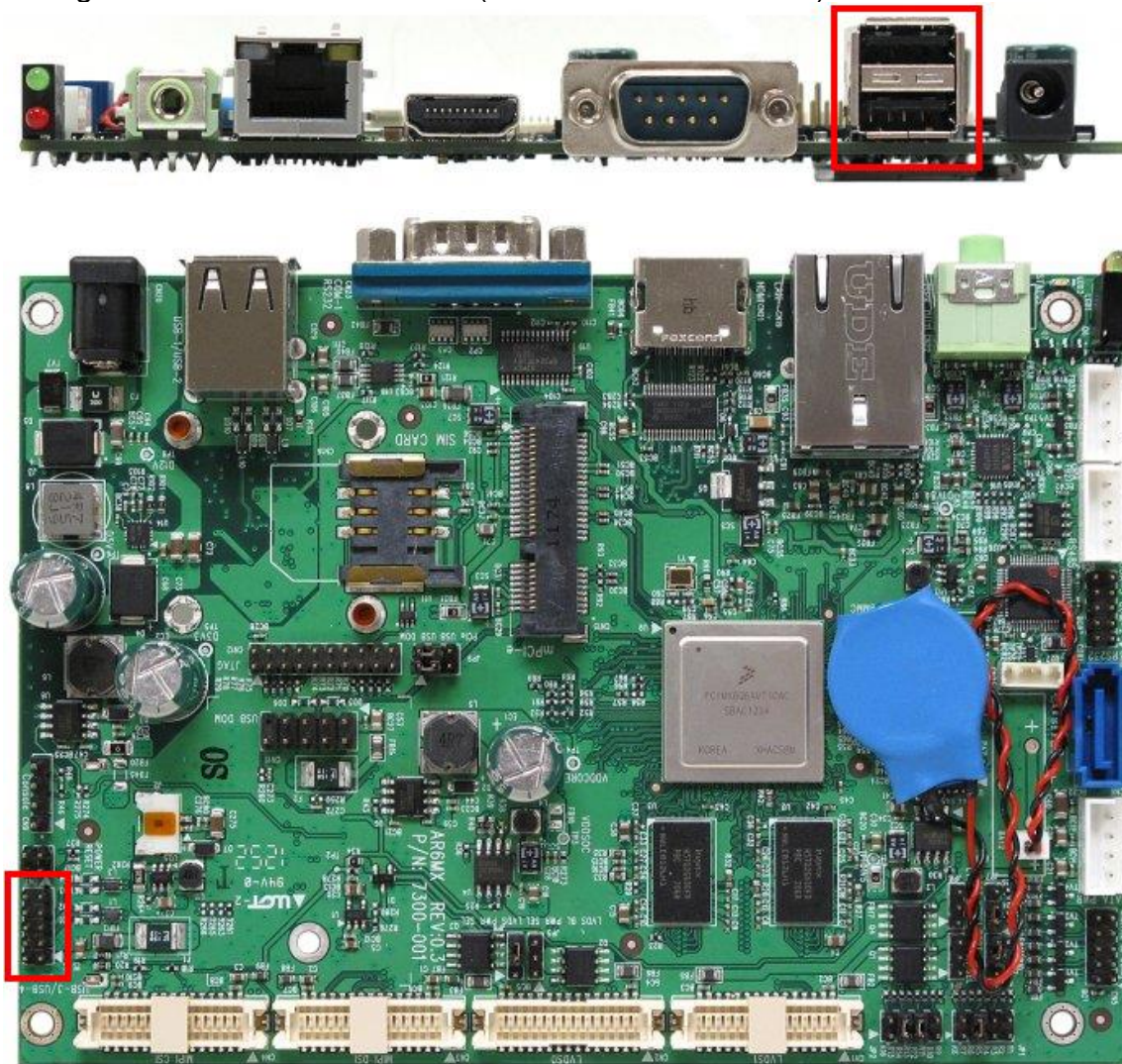
Note: do not force the card into the slot; it should go in with moderate pressure



2. Connect an HDMI monitor to CN21



3. Connect a USB mouse/keyboard either to the rear I/O USB connectors (CN18), or through the onboard header CN6 (USB cable not included)



4. If you need console access, connect a null-modem serial cable (included) to COM-1 (CN23) to your workstation.

4.1 Set your terminal settings to the following: 115200 bps, 8bits, no parity, 1 stop bit, and no flow control










5. Connect the power adapter to CN20

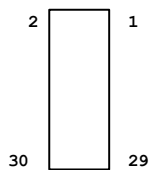
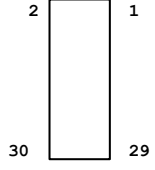
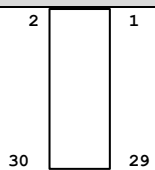




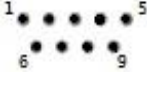
6. Plug in the power adapter to an outlet and the board will boot up

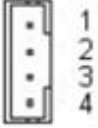

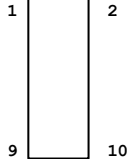

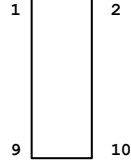
1.2 Jumper Settings and Pin Definition



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		3	GND	13	LVDS0_TX3_N	23	LVDS0_SDA
		4	GND	14	LVDS0_TX2_N	24	LVDS0_TX0_P
		5	BL0EN	15	CAP_TCH_INT0	25	LVDS_SCL
		6	LVD_0_CLK_P	16	GND	26	LVDS0_TX0_N
		7	LBL0_PWM	17	LV S0_TH_SCL	27	GND
		8	LVDS0_CLK_N	18	LVDS0_TX1_P	28	GND
		9	GND	19	LVDS0_TH_SDA	29	LCD0_PWR
		10	GND	20	LVDS0_TX1_N	30	LCD0_PWR
11. CN3 : MIPI DSI Conn							
		Connector type : HIROSE DF13A-30DP-1.25					
		Pin	efinition	Pin	Definition	Pin	Definition
		1	CSO_PWR1	11	NC	21	GND
		2	CSO_PWR1	12	NC	22	GND
		3	GND	13	NC	23	DSI0_SDA
		4	GND	14	NC	24	DSI_D0P
		5	DISP_PWR_EN	15	GND	25	DSI0_SCL
		6	DSI_CLK0P	16	GND	26	DSI_D0P
		7	DSI_PWM	17	DISP_RST_B	27	GND
		8	DSI_CLK0M	18	DSI_D1P	28	GND
		9	GND	19	DSI_MCLK	29	CSO_PWR2
		10	GND	20	DSI_D1M	30	CSO_PWR2
12. CN4 : MIPI CSI Conn							
		Connector type : HIROSE DF13A-30DP-1.25					
		Pin	Definition	Pin	Definition	Pin	Definition
		1	CSI_PWR1	11	CSI_D3M	21	CSI_PWR3
		2	CSI_PWR1	12	CSI_D2P	22	GND
		3	GND	13	CSI_D3P	23	CSI0_SDA
		4	GND	14	CSI_D2M	24	CSI_D0P
		5	BL3EN#	15	GND	25	CS_0_SCL
		6	CSI_CLK0P	16	GND	26	CSI_D0M

		7	CSI_PWN	17	CSI_RST_B	27	GND																																																																												
		8	CSI_CLK0M	18	CSI_D1P	28	GND																																																																												
		9	GND	19	CSI_MCLK	29	CSI_PWR2																																																																												
		10	GND	20	CSI_D1M	30	CSI_PWR2																																																																												
13.	CN6 : USB-3/USB-4	14. CN9 : Console																																																																																	
	 <p>Connector type : HDR 2x5 2.0mm DIP</p> <table border="1"> <thead> <tr> <th>Pin</th> <th>Definition</th> <th>Pin</th> <th>Definit on</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>U BV3</td> <td>6</td> <td>USB4P+</td> </tr> <tr> <td>2</td> <td>USBV3</td> <td>7</td> <td>GND</td> </tr> <tr> <td>3</td> <td>USB3P-</td> <td>8</td> <td>GND</td> </tr> <tr> <td>4</td> <td>USB4P-</td> <td>9</td> <td>GND</td> </tr> <tr> <td>5</td> <td>USB3P+</td> <td>10</td> <td>GND</td> </tr> </tbody> </table>	Pin	Definition	Pin	Definit on	1	U BV3	6	USB4P+	2	USBV3	7	GND	3	USB3P-	8	GND	4	USB4P-	9	GND	5	USB3P+	10	GND		 <p>Connector type : Header 1X4 2.54</p> <table border="1"> <thead> <tr> <th>Pin</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>D3V3</td> </tr> <tr> <td>2</td> <td>GND</td> </tr> <tr> <td>3</td> <td>CON_T D</td> </tr> <tr> <td>4</td> <td>CON_RXD</td> </tr> </tbody> </table>	Pin	Definition	1	D3V3	2	GND	3	CON_T D	4	CON_RXD																																														
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15.	CN20 : POWER JACK	16. CN18 : USB-1/USB-2																																																																																	
	<p>Connector type : DC-JACK 6.5/2.0mm</p> <table border="1"> <thead> <tr> <th>Pin</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>VIN</td> </tr> <tr> <td>2</td> <td>GND</td> </tr> <tr> <td>3</td> <td>GND</td> </tr> </tbody> </table>	Pin	Definition	1	VIN	2	GND	3	GND		<p>Connector type : USAF-8D-HNR0SPJ</p> <table border="1"> <thead> <tr> <th>Pin</th> <th>Definition</th> <th>Pin</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>USBV1</td> <td>5</td> <td>USBV2</td> </tr> <tr> <td>2</td> <td>USB1P-</td> <td>6</td> <td>USB2P-</td> </tr> <tr> <td>3</td> <td>USB1P+</td> <td>7</td> <td>USB2P+</td> </tr> <tr> <td>4</td> <td>GND</td> <td>8</td> <td>GND</td> </tr> </tbody> </table>	Pin	Definition	Pin	Definition	1	USBV1	5	USBV2	2	USB1P-	6	USB2P-	3	USB1P+	7	USB2P+	4	GND	8	GND																																																				
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17.	CN23 : COM-1 RS232	18. CN21 : HDMI Conn																																																																																	
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19.	CN19 : LAN Conn	20. CN22 : SPK OUT																																																																																	
	<p>Connector type : RTA-164AAK1A</p> <table border="1"> <thead> <tr> <th>Pin</th> <th>Definition</th> <th>Pin</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Pin	Definition	Pin	Definition						<p>Connector type : 3.5mm Phone Jack Green</p> <table border="1"> <thead> <tr> <th>Pin</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table>	Pin	Definition																																																																						
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21.	CN17 : MIC IN		22.	CN14 : COM-3 RS485																																												
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23.	CN13 : COM-2 RS232		24.	CN10 : SATA CONN																																												
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25.	CN8 : SATA-POWER CONN		26.	CN5 : DIGITAL IO CONN																																												
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27.	CN11 : USB-0 FOR USB DOM		28.	CN16 : SIM Card Slot																																												

		<p>Connector type : Header_2X5_K9</p> <table border="1"> <thead> <tr> <th>Pin</th> <th>Definition</th> <th>Pin</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>USBV0</td> <td>6</td> <td>NC</td> </tr> <tr> <td>2</td> <td>OTG_ID</td> <td>7</td> <td>GND</td> </tr> <tr> <td>3</td> <td>USBDOM_D-</td> <td>8</td> <td>NC</td> </tr> <tr> <td>4</td> <td>NC</td> <td></td> <td></td> </tr> <tr> <td>5</td> <td>USBDOM_D+</td> <td>10</td> <td>USB_RESET</td> </tr> </tbody> </table>	Pin	Definition	Pin	Definition	1	USBV0	6	NC	2	OTG_ID	7	GND	3	USBDOM_D-	8	NC	4	NC			5	USBDOM_D+	10	USB_RESET		<p>Connector type : SIM_Socket</p> <table border="1"> <thead> <tr> <th>Pin</th> <th>Definition</th> </tr> </thead> <tbody> <tr> <td>C1</td> <td>CCVCC</td> </tr> <tr> <td>C2</td> <td>CCRST</td> </tr> <tr> <td>C3</td> <td>CCCLK</td> </tr> <tr> <td>C5</td> <td>GND</td> </tr> <tr> <td>C6</td> <td>NC</td> </tr> <tr> <td>C7</td> <td>CCIO</td> </tr> </tbody> </table>	Pin	Definition	C1	CCVCC	C2	CCRST	C3	CCCLK	C5	GND	C6	NC	C7	CCIO																																																																																									
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29. CN15 : mPCI-e Port 1																																																																																																																																			
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