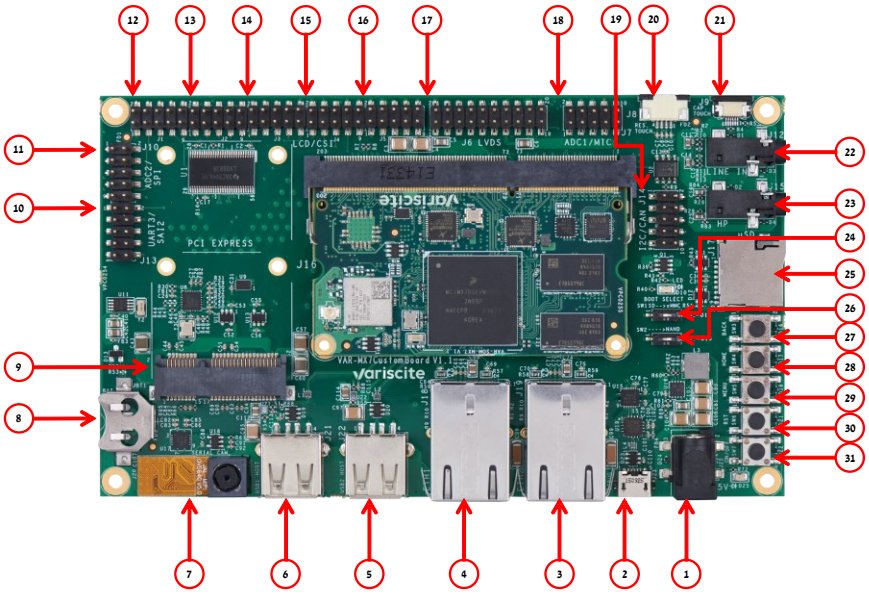
VAR-SOM-MX7 based on NXP/Freescale i.MX7 Evaluation Kit Quick Start Guide



Features

1. 5V DC In Jack (J25)
2. USB Debug (J23)
3. Gigabit Ethernet #2 (J19)
4. Gigabit Ethernet #1 (J18)
5. USB Host #2 (J22)
6. USB Host #1 (J21)
7. MIPI CSI-2 Camera [optional add-on] (J20)
8. RTC Battery Holder (JBT1)
9. Mini PCI Express Connector (J16)
10. UART3/SAI2 Header (J13)
11. ADC2/SPI Header (J10)
12. LCD/CSI Header (J1)
13. LCD/CSI Header (J2)
14. LCD/CSI Header (J3)
15. LCD/CSI Header (J4)
16. CSI/UART2 Header (J5)
17. LVDS Header (J6)
18. ADC1/Analog Mic Header (J7)
19. I2C/CAN Bus Header (J14)
20. Resistive Touch (J8)
21. Capacitive Touch (J9)
22. Line In (J12)
23. Headphones (J15)
24. Boot select switch #1 (SW1)
25. micro SD Card slot (J17)
26. Boot select switch #2 (SW2)
27. User button #3 (SW3)
28. User button #2 (SW4)
29. User button #1 (SW5)
30. Reset Button (SW6)
31. On/Off Button (SW7)

Evaluation kit initial setup

1. Carefully remove the 7" LCD and VAR-MX7CustomBoard board from the package.
2. Connect the 7" LCD Display and Touch cables to the Evaluation Kit connectors J6, J9 respectively.
   Note:
   Display cable connector pins 1, 2 (colored in red) should be connected to J6 pins 1, 2 respectively.
   Touch cable – connect cable with metal contacts facing down.
3. Plug the USB type A to micro B cable between the USB debug connector (J23) and a PC USB port.

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Setting the host PC for debug

1. Download any PC terminal software (e.g. Putty).
2. Set the PC terminal software parameters as follows:
   - Baud Rate: 115200
   - Data bits: 8
   - Stop bits: 1
   - Parity: None
   - Flow Control: None

Using Default file System

1. Depending on your SOM's HW configuration, eMMC or NAND Flash assembled:
   eMMC boot:
   Set Boot select switch #1 (SW1) Rightwards & Boot select switch #2 (SW2) Leftwards to boot from VAR-SOM-MX7 eMMC.
   NAND boot:
   Set Boot select switch #1 (SW1) Leftwards & Boot select switch #2 (SW2) Rightwards to boot from VAR-SOM-MX7 NAND.
2. Power ON the VAR-MX7CustomBoard by plugging the wall adapter's pin into the 5V power jack (J25) and to a 120VAC~240VAC power source.
3. Boot messages will be printed within PC's terminal window.

Booting from a micro SD card

The microSD card is supplied within the package. The image can be also downloaded from Variscite FTP site. Please refer to "Burning Recovery File System" section.

1. Power Off the VAR-MX7CustomBoard by disconnecting the wall adapter's pin from the 5V power jack (J25).
2. Set Boot select switches #1 (SW1) & #2 (SW2) Leftwards to boot from microSD Card.
3. Push microSD card into the microSD card slot (J17) of the VAR-MX7CustomBoard.
4. Power ON the VAR-MX7CustomBoard by plugging the wall adapter's pin into the 5V power jack (J25) and to a 120VAC~240VAC power source.
5. Boot messages will be printed within PC's terminal window.

Burning Recovery File System

Please refer to Variscite's wiki pages for preparing recovery SD card and burning internal storage (NAND/eMCC) at:

Yocto Recovery SD card - Variscite Developer Center

Support

Visit our support center

Thank you for purchasing Variscite's product.

For additional assistance please contact: sales@variscite.com

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