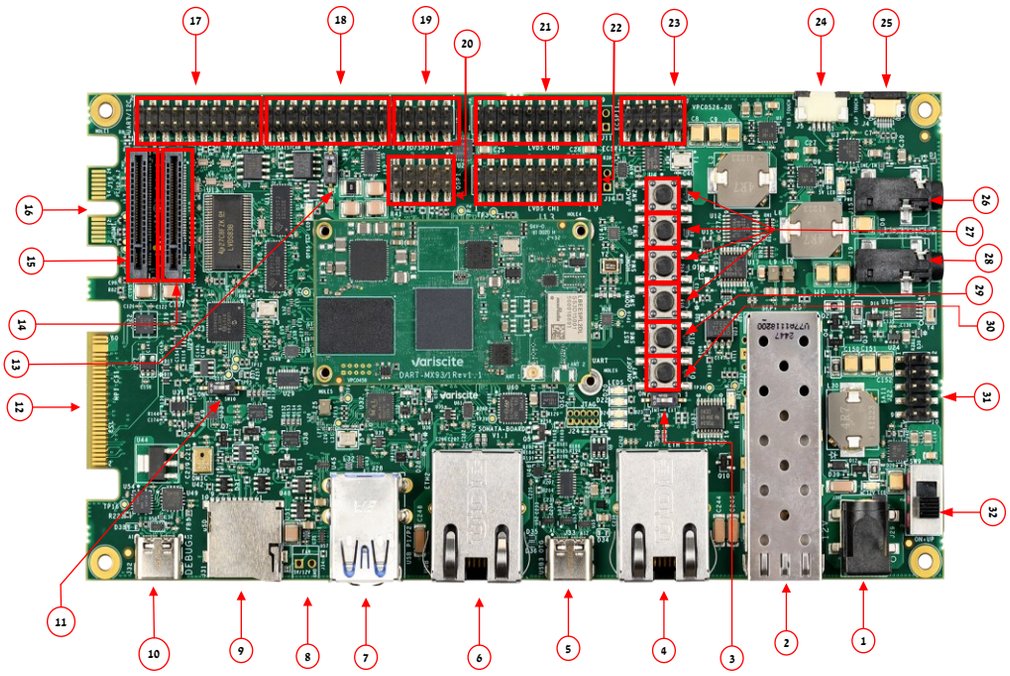
DART-MX8M based on NXP i.MX8M Evaluation Kit Quick Start Guide



Features

1. 12V PWR IN (J30)
2. SFP+ 10Gb ETH (J25) - N/A
3. Boot Select Switch (SW8)
4. Gigabit Ethernet #1 (J27)
5. USB 3.0/2.0 OTG (J33)
6. Gigabit Ethernet #2 (J26) - N/A
7. Dual USB 3.0/2.0 Host (J28)
8. FAN 12/5V (J34)
9. micro SD Card slot (J31)
10. USB Debug (J32)
11. SW10 - N/A, should be OFF
12. Dual MIPI-CSI (J23)
13. SOM extra PWR (SW1) - set to OFF. LD7 should be off.
14. PCIe M.2 M Key #1 (J18)
15. PCIe M.2 M Key #2 (J17)
16. HDMI (J16)
17. UART, I2C (J6)
18. SAI2, SAI5, PDM, CAN (J7)
19. GPIO, SPDIF (J8)
20. QSPI (J12)
21. LVDS CH0 (J9)
22. LVDS CH1 (J13)
23. ECSPI, Host wake (J10)
24. Resistive Touch (J5)
25. Capacitive Touch (J4)
26. Line In (J15)
27. User Buttons (SW2-SW5)
28. Headphones (J19)
29. Reset Button (SW6)
30. ON/OFF Button (SW7)
31. SAI1 (J22)
32. Power ON (SW9)

Evaluation kit initial setup

1. Carefully remove the 7" LCD and Sonata-Board from the package.
2. Connect the 7" LCD display and touch cables to the evaluation kit connectors J9, J4 respectively.

   Note: connect the display cable with the red wire on pin 1. Connect the touch cable with the metal contacts facing down.

3. Plug the USB type A to USB-C cable between the USB debug connector (J32) 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

Booting from eMMC

1. For internal boot:
   Set the Boot select switch (SW8) to INT position to boot from the SOM's internal storage.
2. Plug the wall adapter into the 12V power jack (J30) and to a 120VAC~240VAC power source.
3. Set Power ON switch (SW9) to ON state.
4. Boot messages should be printed within the PC terminal window.

Booting from a micro SD card

The microSD card is supplied within the package. Updated SD card images can also be downloaded from the Variscite FTP server. See more details in the recovery SD card section in the Variscite wiki pages.

1. Set Power ON (SW9) to off state.
2. Set Boot select switch (SW8) to EXT side in order to boot from the SD card.
3. Push microSD card into the microSD card slot (J31) of the Sonata-Board.
4. Set Power ON switch (SW9) to ON state.
5. Boot messages should be printed within the PC terminal window.

(Re-)Installing the file system on the eMMC

Please refer to the recovery SD card section in the Variscite wiki pages.

Support

Visit our support center

Thank you for purchasing Variscite's product.

For additional assistance please contact: sales@variscite.com

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