



Variscite DART-MX8M Based On NXP i.MX8M Evaluation Kit User Guide

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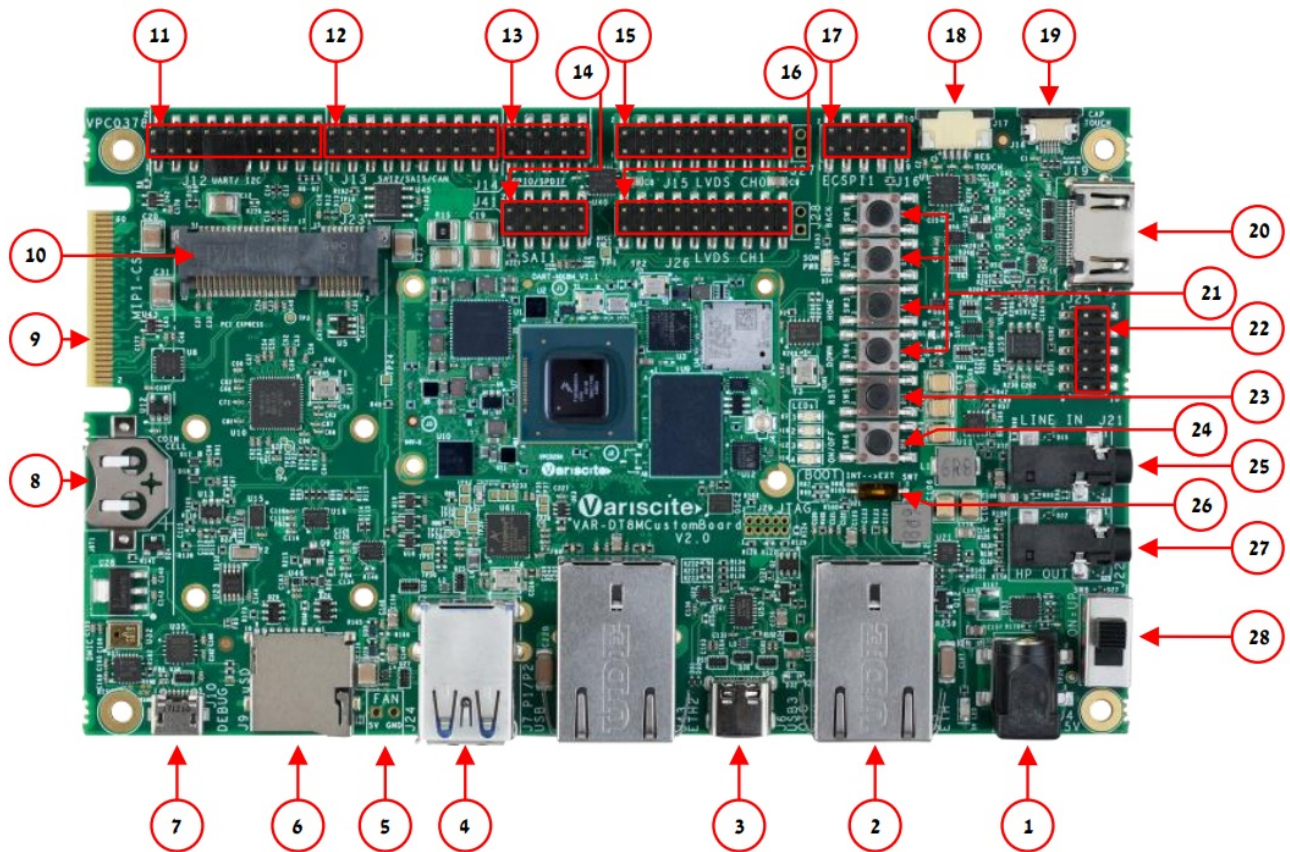
Variscite DART-MX8M Based On NXP i.MX8M Evaluation Kit



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Overview



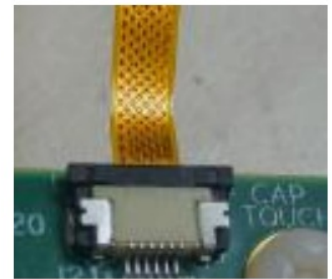
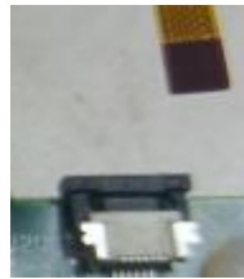
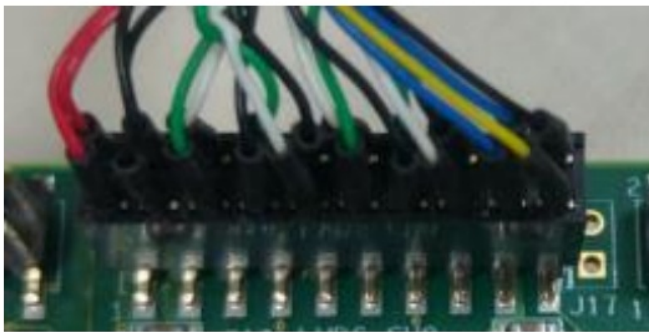
Features

1. 5V PWR IN (J4)
2. Gigabit Ethernet #1 (J5)
3. USB 3.0 OTG (J6)
4. Dual USB 3.0 Host (J7)
5. FAN 5V (J24)
6. micro SD Card slot (J9)
7. USB Debug (J10)
8. RTC BAT. Slot (JBT1)
9. Dual MIPI-CSI (J11)
10. Mini PCIe #1 (J23)
11. UART, I2C (J12)
12. SAI2, SAI5, CAN (J13)
13. GPIO, SPDIF (J14)
14. QSPI (J41)
15. LVDS CH0 (J15)
16. LVDS CH1 (J26)
17. ECSPI, Host wake (J16)
18. Resistive Touch (J17)
19. Capacitive Touch (J18)
20. HDMI(J19)
21. User Buttons (SW1-SW4)
22. SAI1 (J25)

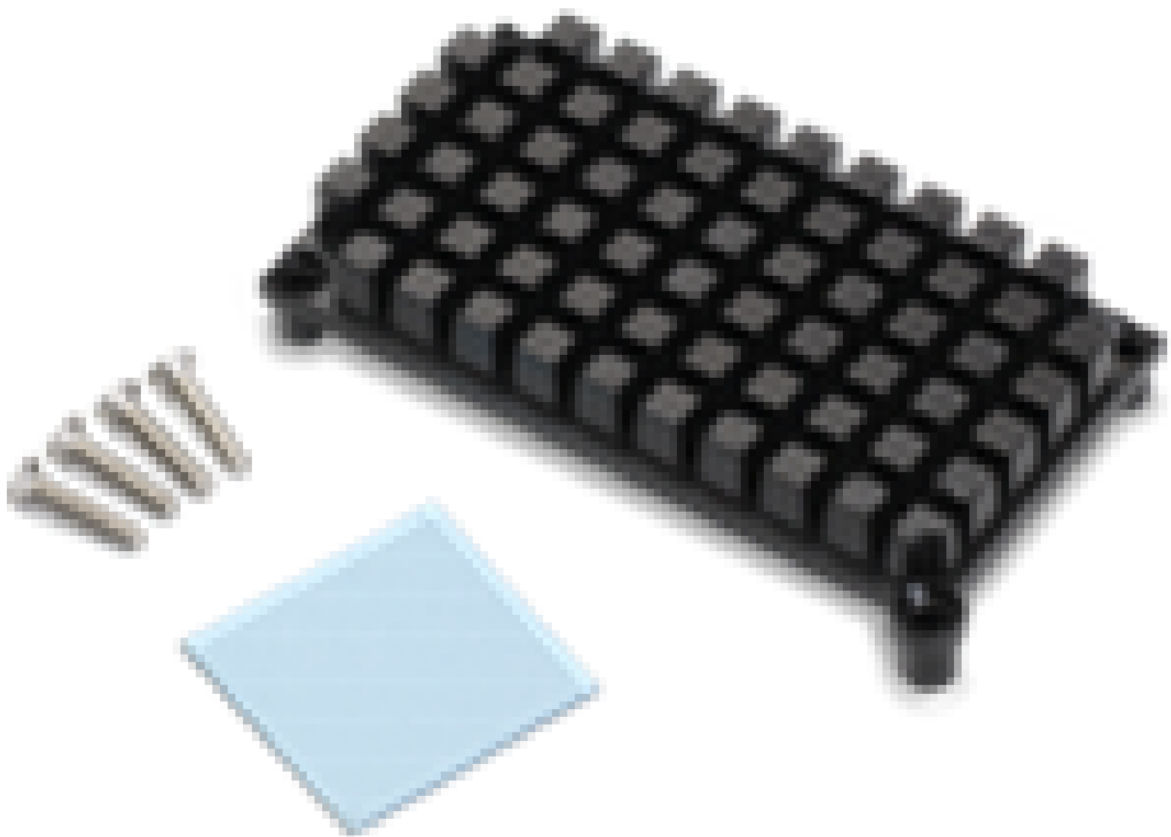
- 23. Reset Button (SW5)
- 24. ON/OFF Button (SW6)
- 25. Line In (J21)
- 26. Boot Select Switch (SW7)
- 27. Headphones (J22)
- 28. Power ON (SW8)

Evaluation kit initial Setup

1. Carefully remove the 7" LCD and VAR-DT8MCustomBoard from the package.
2. Connect the 7" LCD Display and Touch cables to the Evaluation Kit connectors J15, J18 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 micro B cable between the USB debug connector (J10) and a PC USB port.
4. For heatsink assembly instructions, please follow the VHP-DT8M documentation. Please note that the heatsink is mainly used for CPU/GPU intensive applications and may be required per your specific use case.



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 Boot select switch (SW7) to INT position to boot from the SOM's internal storage.
2. Plug the wall adapter into the 5V power jack (J4) and to a 120VAC~240VAC power source.
3. Set Power ON switch (SW8) to ON state.
4. Boot messages are 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 (SW4) to off state.
2. Set Boot select switch (SW7) to EXT side in order to boot from the SD card.
3. Push microSD card into the microSD card slot (J9) of the VAR-DT8MCustomBoard.
4. Set Power ON switch (SW8) to ON state.
5. Boot messages should be printed within the PC terminal window.

Re-)Installing the file system to eMMC

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

Links

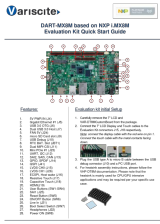
- Wiki page:
<http://variwiki.com/index.php?title=DARTMX8M>
- DART-MX8M Evaluation kits:
<https://www.variscite.com/products/evaluationkits/dart-mx8m-kits/>
- DART-MX8M System on Module:
<https://www.variscite.com/products/system-onmodule-som/cortex-a53-krait/dart-mx8m-nxpimx-8m/>
- VAR-DT8MCustomBoard:
<https://www.variscite.com/products/singleboard-computers/var-dt8mcustomboard/>
- Customer portal:
<https://varisciteportal.axosoft.com/login>

Thank you for purchasing Variscite's product.

For additional assistance please contact: sales@variscite.com



Documents / Resources

	<p>Variscite DART-MX8M Based On NXP i.MX8M Evaluation Kit [pdf] User Guide DART-MX8M Based On NXP i.MX8M Evaluation Kit, DART-MX8M, Based On NXP i.MX8M Evaluation Kit, Evaluation Kit</p>
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References

- [V DART-MX8M | Variscite Wiki](#)
- [Download PuTTY - a free SSH and telnet client for Windows](#)
- [varisciteportal.axosoft.com/login](#)
- [V DART-MX8M Evaluation Kits based on NXP i.MX 8M processor | Variscite](#)
- [V Variscite's Products - ARM System on Modules, Single Board Computers & Kits](#)
- [V VAR-DT8MCustomBoard ARM Single Board Computer - Variscite](#)
- [V DART-MX8M : NXP i.MX 8M System on Module / Computer on Module](#)

Manuals+.