

## Variscite DART-MX8M-MINI Based on NXP i.MX8M Mini Evaluation Kit User Guide

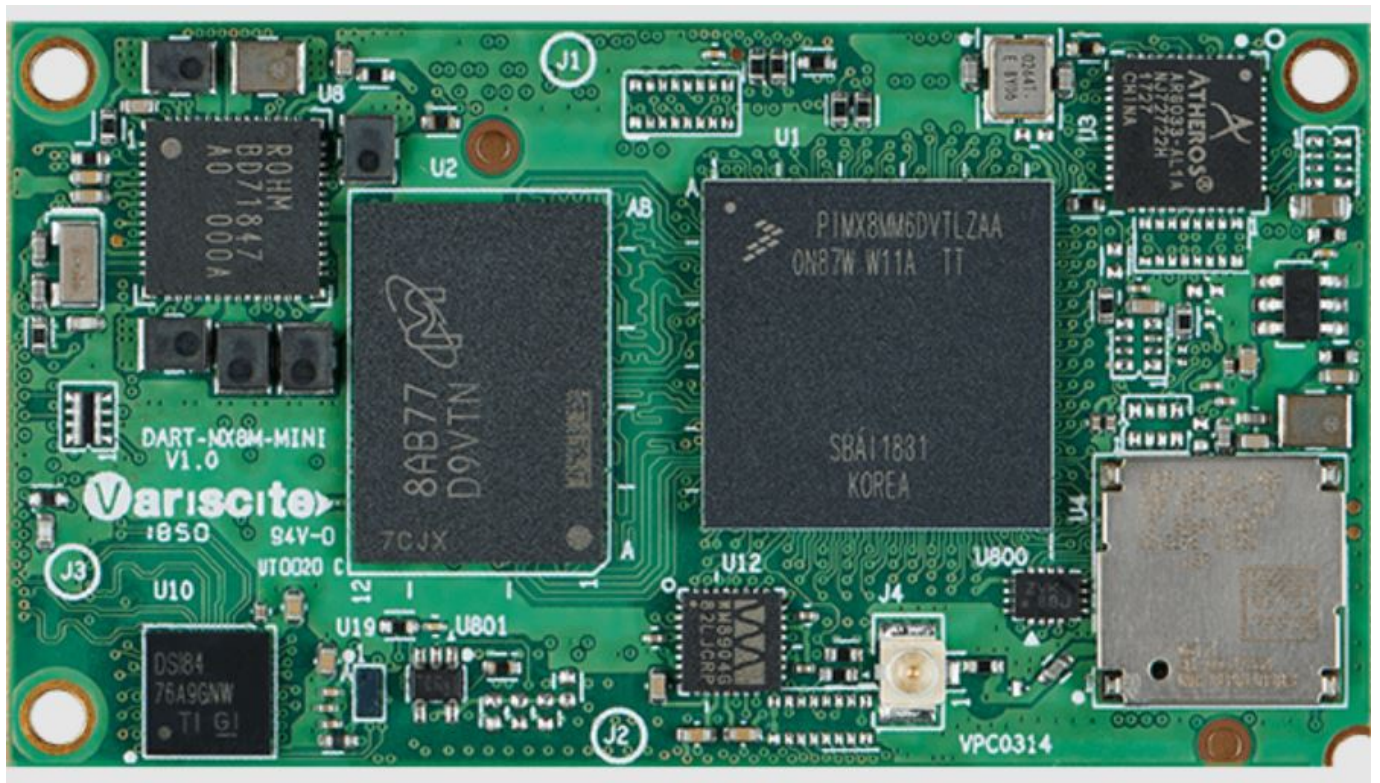
[Home](#) » [Variscite](#) » Variscite DART-MX8M-MINI Based on NXP i.MX8M Mini Evaluation Kit User Guide 

### Contents

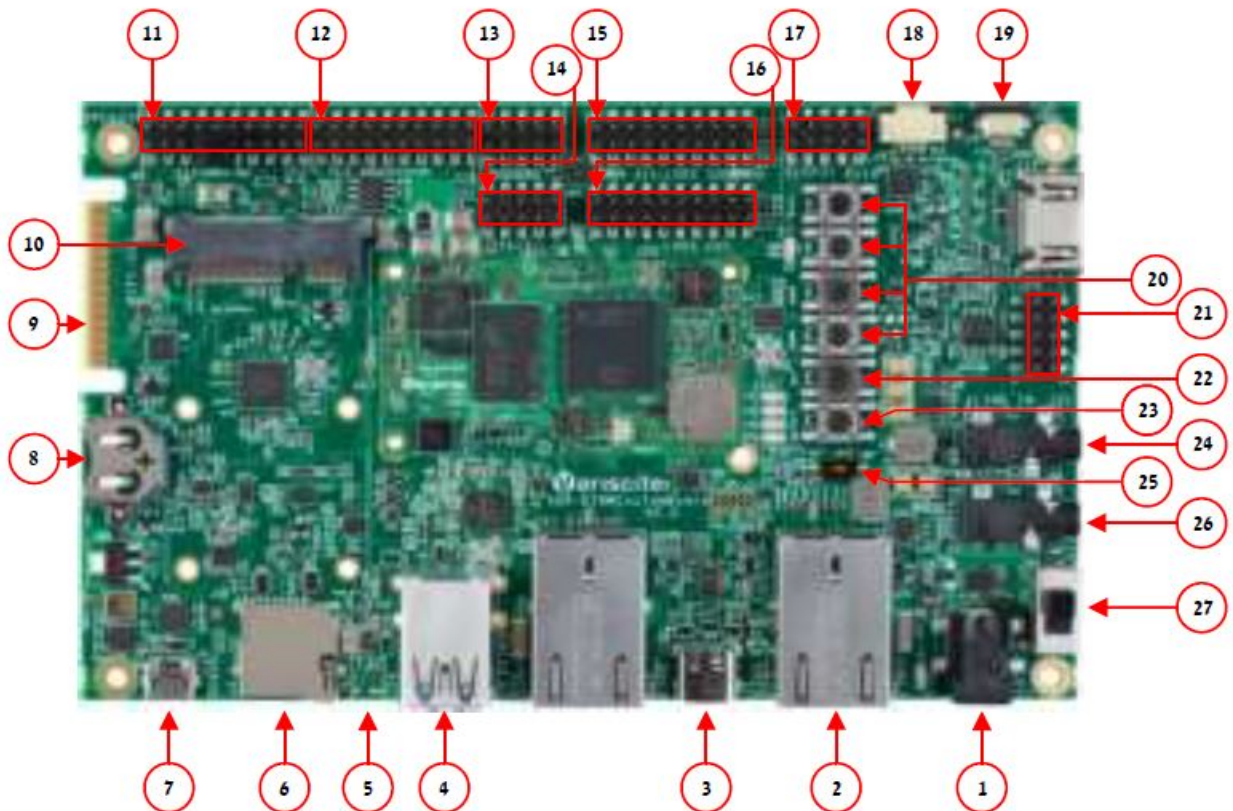
- [1 Variscite DART-MX8M-MINI Based on NXP i.MX8M Mini Evaluation Kit](#)
- [2 Variscite DART-MX8M-MINI Based on NXP i.MX8M Mini Evaluation Kit User Guide](#)
  - [2.1 Features](#)
  - [2.2 Setting the host PC for debug](#)
- [3 Documents / Resources](#)
  - [3.1 References](#)
- [4 Related Posts](#)



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## Features

- 1. 5V PWR IN (J4)
- 2. Gigabit Ethernet #1 (J5)
- 3. USB 2.0 OTG (J6)
- 4. Dual USB 2.0 Host (J7)

- 5. FAN 5V (J24)
- 6. micro SD Card slot (J9)
- 7. USB Debug (J10)
- 8. RTC BAT. Slot (JBT1)
- 9. Single MIPI-CSI (J11)
- 10. Mini PCIe #1 (J23)
- 11. UART, I2C (J12)
- 12. SAI2, SAI5, PDM, 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. User Buttons (SW1-SW4)
- 21. SAI1 (J25)
- 22. Reset Button (SW5)
- 23. ON/OFF Button (SW6)
- 24. Line In (J21)
- 25. Boot Select Switch (SW7)
- 26. Headphones (J22)
- 27. Power ON (SW8)

### Evaluation kit initial Setup

1. Carefully remove the 7" LCD and Symphony-Board from the package.
2. Connect the 7" LCD Display and Touch cables to the Evaluation Kit connectors J7, J11 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 (J29) and a PC USB port.



4. For heatsink assembly instructions, please follow the VHP-VS8M 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. Set Boot select switch (SW3) to “Internal” position to boot from the VAR-SOM-MX8M-PLUS internal storage.
2. Plug the wall adapter into the 12V power jack (J24) and to a 120VAC~240VAC power source.
3. Set Power ON switch (SW7) 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 switch (SW7) to off state.
2. Set Boot select switch (SW3) to “SD” position in order to boot from SD Card.
3. Push microSD card into the microSD card slot (J28) of the Symphony-Board.
4. Set Power ON switch (SW7) to ON state.
5. Boot messages are printed within PC’s 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:**

<https://variwiki.com/index.php?title=VAR-SOM-MX8M-PLUS>

- VAR-SOM-MX8M-PLUS Evaluation kits: <https://www.variscite.com/product/evaluation-kits/var-som-mx8m-plus-evaluation-kits/>
- VAR-SOM-MX8M-PLUS System on Module: <https://www.variscite.com/product/system-on-module-som/cortex-a53-krait/var-som-mx8m-plus-nxp-i-mx-8m-plus/>
- Symphony carrier board:  
<https://www.variscite.com/product/single-board-computers/symphony-board/>
- Customer portal:  
<https://varisciteportal.axosoft.com/login>

Thank you for purchasing Variscite's product.

For additional assistance please contact: [sales@variscite.com](mailto:sales@variscite.com)

## Documents / Resources

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|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p><a href="#">Variscite DART-MX8M-MINI Based on NXP i.MX8M Mini Evaluation Kit</a> [pdf] User Guide<br/>DART-MX8M-MINI Based on NXP i.MX8M Mini Evaluation Kit, DART-MX8M-MINI, Based on NXP i.MX8M Mini Evaluation Kit, Mini Evaluation Kit, Evaluation Kit</p> |
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## References

- [V DART-MX8M-MINI | Variscite Wiki](#)
- [Download PuTTY - a free SSH and telnet client for Windows](#)
- [varisciteportal.axosoft.com/login](#)
- [V Variscite's Products - ARM System on Modules, Single Board Computers & Kits](#)
- [V DART-MX8M-MINI Evaluation Kits based on NXP i.MX8M Mini | Variscite](#)
- [V Variscite's Products - ARM System on Modules, Single Board Computers & Kits](#)
- [V VAR-DT8MCustomBoard ARM Single Board Computer - Variscite](#)
- [V High-Quality System On Module \(SoM\) solutions based on leading SoCs](#)
- [V DART-MX8M-MINI : NXP i.MX8M Mini ARM System on Module \(SoM\)](#)