Hardware Overview
Aquila SoM Family
System-on-Modules
Carrier Boards
Accessories & Add-ons
Aquila Family Specification
Verdin SoM Family
System-on-Modules
Verdin AM62
Verdin AM62P
Verdin iMX8M Mini
Verdin iMX8M Plus
Verdin iMX95
Carrier Boards
Accessories & Add-ons
Verdin Family Specification
Lino SoM Family
System-on-Modules
Carrier Boards
Accessories & Add-ons
Lino Family Specification
OSM SoM Family
System-on-Modules
Carrier Boards
Accessories & Add-ons
OSM Family Specification
SMARC SoM Family
System-on-Modules
Carrier Boards
Accessories & Add-ons
SMARC Family Specification
Apalis SoM Family
System-on-Modules
«

Hardware > Verdin SoM Family > System-on-Modules > Verdin iMX8M Mini

Verdin iMX8M Mini

e-Toradex
Verdin iMX8MM 2GB WB IT
V1.0A
06535143

NXP i.MX 8M Mini Computer on Module - Verdin iMX8M Mini

(Double-Click to Zoom)

The **Verdin iMX8M Mini** is a Toradex System on Module based on the NXP iMX8M Mini SoC, and a member of the Verdin Family.

This page provides hardware design resources, documentation, revision history, erratas, compatibility details, and getting started guides for developers working with the Verdin iMX8M Mini module.

Getting Started

Recommendation for the first-time order

Toradex recommends ordering the following additional products for your first-time order:

- Verdin Development Board

All products are available for online purchase through the Toradex Webshop.

Quickstart Guide

Check out our guide for detailed instructions on how to get your board up and running with Torizon:

- Quickstart Guide

Having trouble?

Please contact our technical support. Various options of technical support are mentioned below:

- Technical Support Channels

Product Features

Getting Started
Recommendation for the first-time order
Quickstart Guide
Having trouble?
Product Features
Hardware Features
Compatible Products
Block Diagram
Pinout Evaluation & Planning
Power Consumption
Product Documents
Datasheets
Design Resources
Hardware Ecosystem
Carrier Boards
Accessories & Add-ons
Software Ecosystem
Toradex-Supported Linux Platforms
Industry and Partner Software Ecosystem
Development Resources
Installing the Operating System
Connecting to the

Send Feedback!

Hardware Features

- Verdin iMX8M Mini Product Page

Compatible Products

- Verdin Carrier Boards
- Accessories & Add-ons

Block Diagram

Verdin iMX8M Mini V1.1

- Verdin iMX8M Mini Block Diagram

Pinout Evaluation & Planning

- Toradex Pinout Designer

Power Consumption

- Power Consumption Testing Results

Product Documents

Datasheets

Verdin iMX8M Mini V1.1

- Verdin iMX8M Mini V1.1 datasheet

Verdin iMX8M Mini V1.0

- Verdin iMX8M Mini V1.0 datasheet (preliminary)

Design Resources

Toradex provides two different 3D models for Verdin Systems on Module:

- Generic 3D Mechanical Models: This model has the maximum component height for testing the mechanical fit. This ensures the mechanical design fits all current Verdin modules as well as future releases.

- Specific 3D Mechanical Models: These models are simplified models of the respective Verdin module. They contain only the PCB and the CPU and are intended to be used for heat spreader or heat sink designs. The CPU height is a typical value. Due to production tolerances, the actual height of the assembled component can be different.

Generic 3D Mechanical Models

The generic Verdin 3D model contains the PCB and the maximum component height on top and bottom of modules from the Verdin Module Family.

This model should be used to test the mechanical fit, ensuring that the mechanical design fits all current Verdin modules as well as future releases.

- SolidWorks CAD model 3D EASM model
    - You can download the free eDrawings model viewer from SolidWorks here
- 3D STEP model that can be opened and modified in any 3D CAD
- 3D PDF model that can be opened in Adobe Reader

Specific 3D Mechanical Models

The Verdin iMX8M Mini 3D model is simplified and contains only the PCB and the CPU. It is intended to be used for heat spreader or heat sink designs. The CPU height is a typical value. Due to production tolerances, the actual height of the assembled component can be different. Please use the Generic 3D Mechanical Models with the maximum component height for testing the mechanical fit. This ensures the mechanical design fits all current Verdin modules as well as future releases.

- SolidWorks CAD model 3D EASM model
    - You can download the free eDrawings model viewer from SolidWorks here
- 3D STEP model that can be opened and modified in any 3D CAD
- 3D PDF model that can be opened in Adobe Reader

▸ Older Verdin iMX8M Mini V1.0 Models

Hardware Ecosystem

Carrier Boards

Off-the-shelf Carrier Boards

- Verdin Carrier Boards

Learn more on the Verdin Product Family Specification.

Custom Carrier Board Design

Find free reference designs, schematics, 3D designs, and tools to build your carrier board easily in the link below:

- Carrier Board Design Section
- Carrier Board Design Guide

Accessories & Add-ons

- Toradex DSI to HDMI Adapter
- Toradex DSI to LVDS Adapter
- Toradex DSI Display Adapter
- Verdin Industrial Heatsink

- Unictron AA222 MHF4 100mm
- Antenna Cable MHF4 to RP-SMA
- Chang Hong DA-2458-02 RP-SMA
- Antenna Cable U.FL to RP-SMA
- CSI Camera Module 5MP OV5640 [1]
- Capacitive Touch Display 10.1" LVDS (through Toradex DSI to LVDS adapter)
- Capacitive Touch Display 10.1" DSI
- Capacitive Touch Display 7" DSI

[1] This product reached End-of-Life (EOL) and is not available for purchase anymore.

Check other options and compatibility information on the add-ons product pages.

Software Ecosystem

Toradex-Supported Linux Platforms

The following Linux-based offerings are in-house supported - pre-built images available for quick evaluation:

- Torizon OS - open source, easy to use industrial Linux operating system
  - OS Customization Overview
  - Application Development Overview
- Yocto Project Reference Images - reference images for Yocto Project, a great starting point for customized Linux images
  - OS Customization Overview
  - Application Development Overview

Industry and Partner Software Ecosystem

For detailed instructions about software development, including other operating systems for Toradex Computer on Modules **- QNX, Android and more -** check out our software ecosystem page:

- Software Ecosystem Page

Development Resources

Installing the Operating System

Toradex products come with Toradex Easy Installer pre-installed. Once you power-on the board, it will display a list of available images to be installed. Check out how to get started with the Toradex Easy Installer:

- Toradex Easy Installer - Getting Started

You might need to enter recovery mode:

- Recovery Mode Instructions

You can also install the compatible pre-built images available for download:

- Download Links

Connecting to the Board

During development, you will need to communicate the board with your host machine:

- Connect using SSH - network
- Connect using serial

Revision History

- Click to See the Product Numbering Scheme

A specific product revision has a lifecycle defined by the product state. Learn more about it on the Product Change Notifications.

0055 Verdin iMX8M Mini Quad 2GB WB IT

Product #	Product Description	Changes from Previ Version
00551001	Verdin IMX8M Mini Quad 2GB WB IT V1.0B	Initial Release
00551100	Verdin iMX8M Mini Quad 2GB WB IT V1.1A	• Several compone changes due to t new PCB design • Replaced PMIC R BD71847AMWV v NXP PCA9450A • Replaced Etherne Microchip PHY KSZ9031 with Microchip KSZ91 • Replaced ADC M Integrated MAX11607EWC w TLA2024 • Replaced CAN controller Microc MCP2517FDT-H/ with Microchip MCP2518FDT- E/ • Removed Secure Element NXP SE050C1HQ1/Z01 • Removed externa PCIe Reference C

00551101	Verdin iMX8M Mini Quad 2GB WB IT V1.1B	• Fixed PCIe issue not assembling R and R29
00551102	Verdin iMX8M Mini Quad 2GB WB IT V1.1C	Internal version
00551103	Verdin iMX8M Mini Quad 2GB WB IT V1.1D	• Replaced eMMC MTFC16GAPALB with MTFC16GAPALB AAT (using the la as a temporary solution for incre the availability of product)
00551104	Verdin iMX8M Mini Quad 2GB WB IT V1.1E	• The eMMC part Micron MTFC16GAPALB (2D MLC) has be replaced with the Kingston EMMC1 IB29-90F01 (3D • The frequency of CAN clock sourc been changed fr 20MHz to 40MH • Other minor fixes improvements
00551105	Verdin iMX8M Mini Quad 2GB WB IT V1.1F	• The RAM part Mi MT53D512M32D 046 IT:D has bee replaced with the Micron MT53E512M32D 046 IT:B
00551106	Verdin iMX8M Mini Quad 2GB WB IT V1.1G	• The eMMC chan from Kingston EMMC16G-IB29-90F01 to Skyhigh S40FC016C3B1I • C6, D1 and R14 assembly status changed from "assembled" to " assembled" to so issue HAR-1046 • R105 value chan from 100k to 30k solve issue HAR-10650

0059 Verdin iMX8M Mini Quad 2GB IT

Product #	Product Description	Changes from Previ Version
00591100	Verdin IMX8M Mini Quad 2GB IT V1.1A	Initial Release
00591101	Verdin IMX8M Mini Quad 2GB IT V1.1B	• Fixed PCIe issue not assembling R and R29
00591102	Verdin IMX8M Mini Quad 2GB IT V1.1C	• The eMMC part Micron MTFC16GAPALB (2D MLC) has be replaced with the Kingston EMMC1 IB29-90F01 (3D • The frequency of CAN clock sourc been changed fr 20MHz to 40MH • Other minor fixes improvements
00591103	Verdin IMX8M Mini Quad 2GB IT V1.1D	• The RAM part Mi MT53D512M32D 046 IT:D has bee replaced with the Micron MT53E512M32D 046 IT:B
00591104	Verdin iMX8M Mini Quad 2GB IT V1.1E	• The eMMC chan from Kingston EMMC16G-IB29-90F01 to Skyhigh S40FC016C3B1I • C6, D1 and R14 assembly status changed from "assembled" to " assembled" to so issue HAR-1046 • R105 value chan from 100k to 30k solve issue HAR-10650

0060 Verdin iMX8M Mini DualLite 1GB WB IT

Product #	Product Description	Changes from Previ Version
	Verdin iMX8M Mini	

00601100	DualLite 1GB WB IT V1.1A	Initial Release
00601101	Verdin iMX8M Mini DualLite 1GB WB IT V1.1B	- Fixed PCIe issue not assembling R and R29
00601102	Verdin iMX8M Mini DualLite 1GB WB IT V1.1C	- The eMMC part Micron MTFC8GAKAJC 4M IT has been replaced with the Kioxia THGBMJG6C1LB - Other minor fixes and improvemen

0057 Verdin iMX8M Mini DualLite 1GB

Product #	Product Description	Changes from Previ Version
00571100	Verdin iMX8M Mini DualLite 1GB V1.1A	Initial Release
00571101	Verdin iMX8M Mini DualLite 1GB V1.1B	- Fixed PCIe issue not assembling R and R29
00571102	Verdin iMX8M Mini DualLite 1GB V1.1C	- The eMMC part Micron MTFC4GACAJC IT has been repla with the Skyhigh S40FC004C1B1C - The RAM part Mi MT53E256M32D 053 WT:B has be replaced with the Micron MT53E256M32D 046 WT:L

0068 Verdin iMX8M Mini Quad 2GB WB IT (No CAN)

Product #	Product Description	Changes from Previ Version

00681100	Verdin iMX8M Mini Quad 2GB WB IT V1.1A (No CAN)	Initial Release
00681101	Verdin iMX8M Mini Quad 2GB WB IT V1.1B (No CAN)	- The eMMC chang from Kingston EMMC16G-IB29-90F01 to Skyhigh S40FC016C3B1I - C6, D1 and R14 assembly status changed from "assembled" to " assembled" to so issue HAR-1046 - R105 value chang from 100k to 30k solve issue HAR-10650

Errata/Known issues

SoC Errata Document

- Filter by `Errata` on the i.MX 8M Mini Documentation on the NXP website.

SoM Errata Document

- Verdin iMX8M Mini Errata Document

Hardware Issue Tracker

- Hardware Issue Tracker Page

Software Issue Tracker

- Torizon OS
- Linux BSP

Edit this page

Last updated on ***May 20, 2026***

Previous
« Verdin AM62P

Next
Verdin iMX8M Plus »

Copyright © 2026 Toradex. All rights reserved.

Downloaded from Arrow.com.