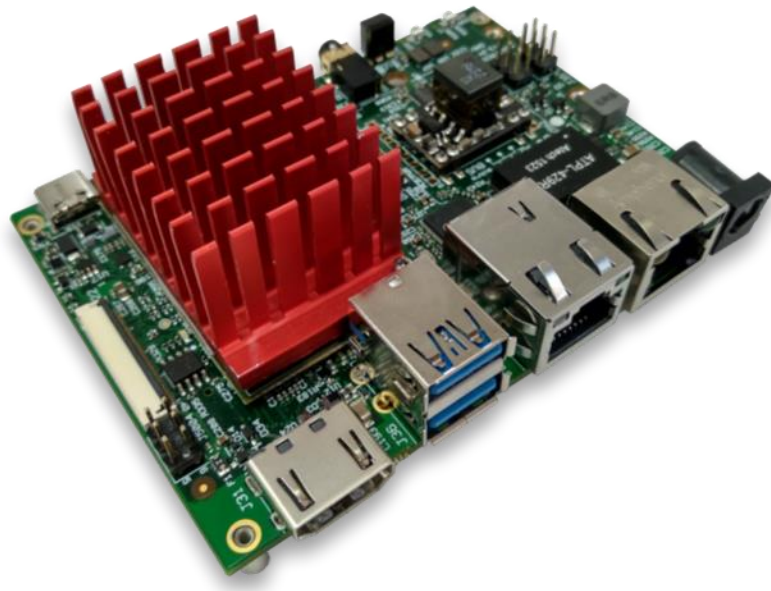


# HummingBoard Pulse

## Datasheet

NXP i.MX 8M™ based SBC



## Overview

Take your imagination to the next level with HummingBoard Pulse. Whatever your dream is, the HummingBoard Pulse will help make it happen – the possibilities for creating the next great IoT innovation are truly limitless. It's the perfect single board computer for a wide variety of "smart" IoT solutions, ranging from multimedia, digital signage, home entertainment, autonomous cars all the way to smart cities and security networks.

## HummingBoard Pulse Highlighted Features

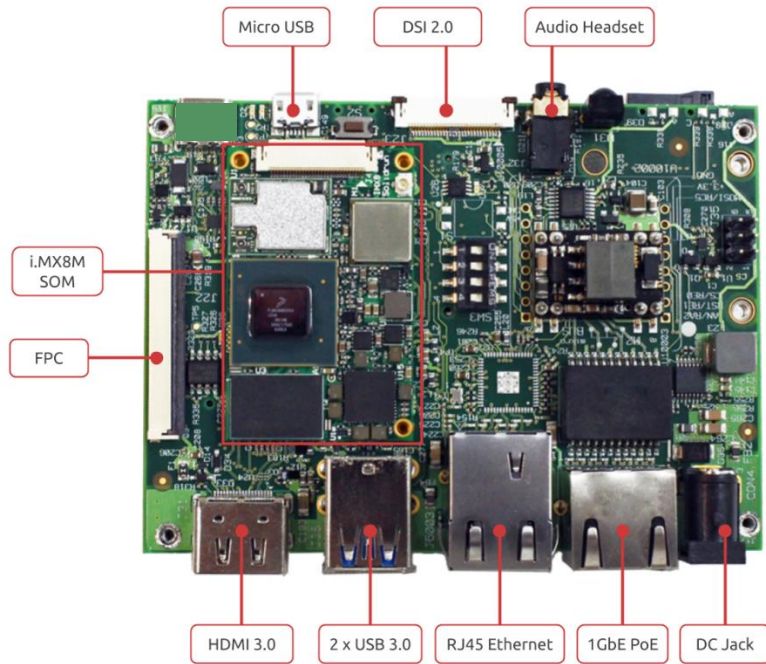
- ✿ Based on NXP's iMX8M Dual / Quad Core
- ✿ Arm Cortex A53 processor (up to 1.5Ghz),
- ✿ Arm M4 General Purpose Processor
- ✿ Up to 4GB LPDDR4
- ✿ 4K UltraHD full HDR support (HDMI 2.0)
- ✿ Feature rich

## System Specifications

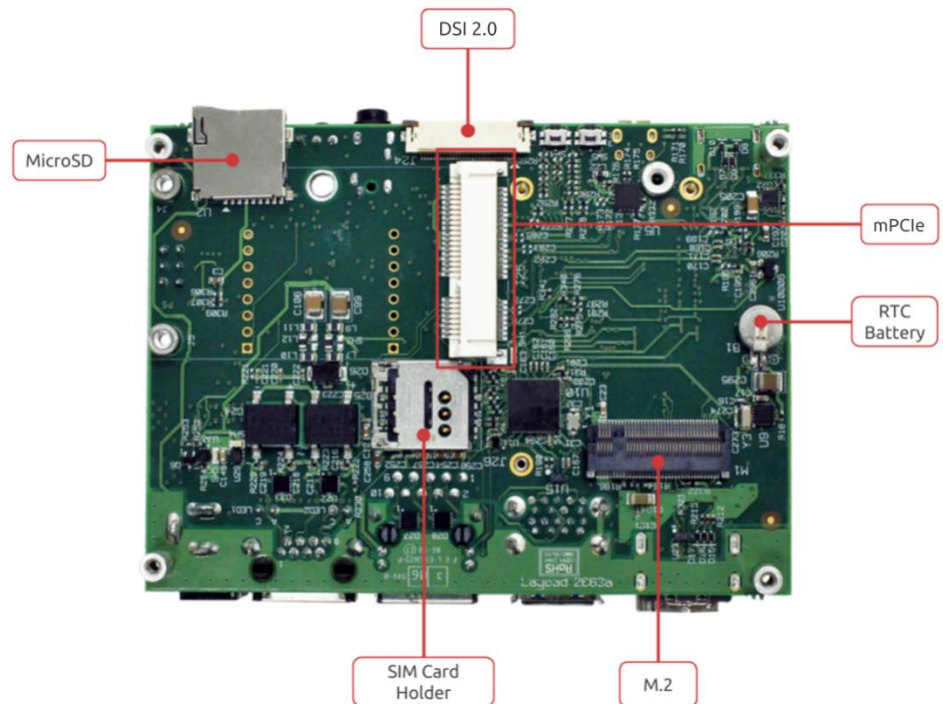
HummingBoard Pulse															
<b>SOM Model</b>	SOM i.MX8M Dual / Quad Lite / Quad														
<b>Memory and Storage</b>	Up to 4GB LPDDR4 eMMC MicroSD														
<b>Connectivity</b>	2 x RJ-45 2 x USB 3.0 Mini PCIe M.2 SIM card slot														
<b>Media</b>	HDMI 2.0 out MIPI-DSI 2 x MIPI-CSI Digital audio (Riser interface FPC connector) Onboard audio codec														
<b>I/O</b>	1 x Reset button 1 x Configurable push button MikroBus click interface 3 x LED indicators RTC														
<b>Power</b>	7V – 36V wide range PoE sink support 802.3af Class 0														
<b>Software</b>	Linux 4.4x														
<b>Environment</b>	<table border="1"> <tbody> <tr> <td>Ambient temp. (commercial):</td> <td>0°C to 70°C</td> </tr> <tr> <td>Enclosed ambient temp. (commercial):</td> <td>0°C to 40°C</td> </tr> <tr> <td>CPU die temp. (commercial):</td> <td>0°C to 105°C</td> </tr> <tr> <td>Ambient temp. (industrial):</td> <td>-40°C to 85°C</td> </tr> <tr> <td>Enclosed Ambient temp. (industrial):</td> <td>-25°C to 65°C</td> </tr> <tr> <td>CPU die temp. (industrial):</td> <td>-40°C to 105°C</td> </tr> <tr> <td>Humidity (non-condensing):</td> <td>10% - 90%</td> </tr> </tbody> </table>	Ambient temp. (commercial):	0°C to 70°C	Enclosed ambient temp. (commercial):	0°C to 40°C	CPU die temp. (commercial):	0°C to 105°C	Ambient temp. (industrial):	-40°C to 85°C	Enclosed Ambient temp. (industrial):	-25°C to 65°C	CPU die temp. (industrial):	-40°C to 105°C	Humidity (non-condensing):	10% - 90%
Ambient temp. (commercial):	0°C to 70°C														
Enclosed ambient temp. (commercial):	0°C to 40°C														
CPU die temp. (commercial):	0°C to 105°C														
Ambient temp. (industrial):	-40°C to 85°C														
Enclosed Ambient temp. (industrial):	-25°C to 65°C														
CPU die temp. (industrial):	-40°C to 105°C														
Humidity (non-condensing):	10% - 90%														
<b>Dimensions (WxL)</b>	102mm x 69mm														
<b>Enclosure</b>	Optional Industrial Metal Enclosure														

## HummingBoard Pulse Layout

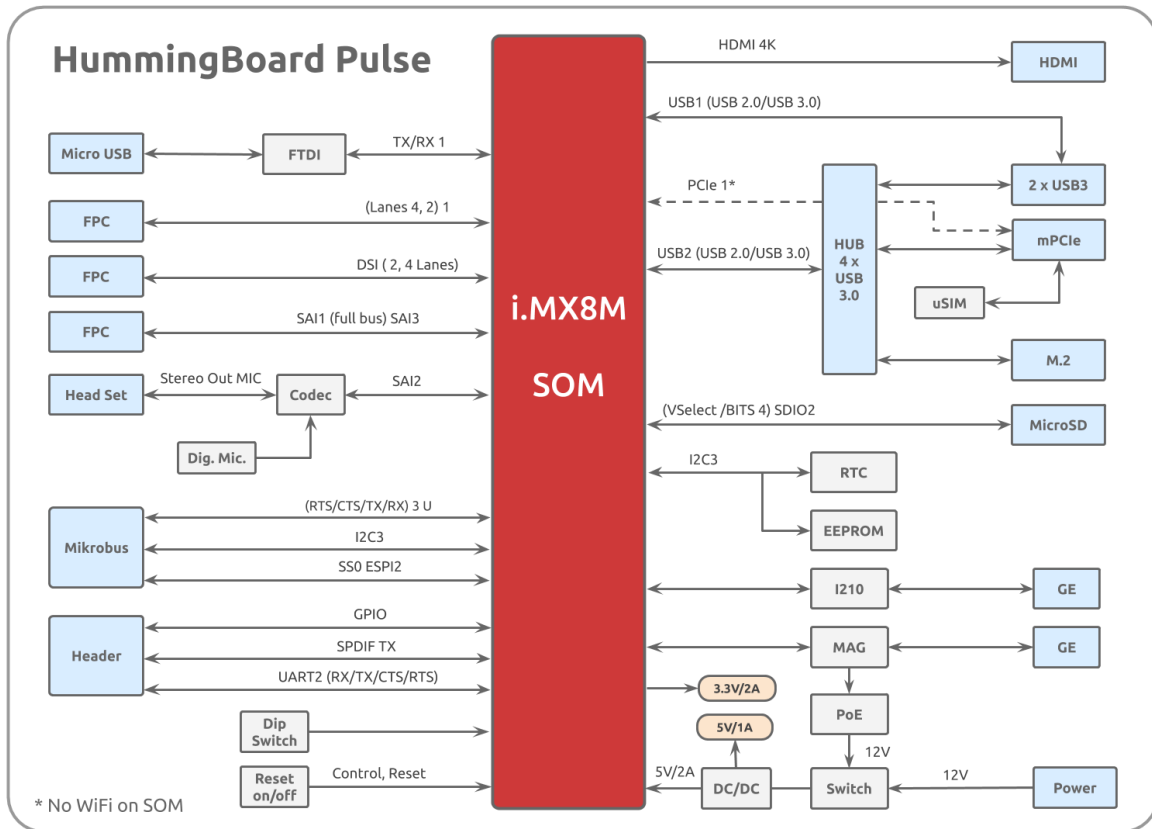
Top View:



Bottom View:



## Block Diagram



## Available SKUs for HummingBoard Pulse

SKU	Description
SRMX8DUW00D01GE008U00CH	HummingBoard Pulse Dual core Comm. Temp 1GB RAM 8GB eMMC
SRMX8QDW00D02GE008U00CH	HummingBoard Pulse Dual core Comm. Temp 2GB RAM 8GB eMMC
SRMX8DUWB1D01GE008U00CH	HummingBoard Pulse Dual core Comm. Temp WiFi/BT 1GB RAM 8GB eMMC
SRMX8QDW00D03GE008U00CH	HummingBoard Pulse Quad core Comm. Temp 3GB RAM 8GB eMMC
SRMX8QDWB1D02GE008U00CH	HummingBoard Pulse Quad core Comm. Temp WiFi/BT 2GB RAM 8GB eMMC
SRMX8QDWB1D03GE008U00CH	HummingBoard Pulse Quad core Comm. Temp WiFi/BT 3GB RAM 8GB eMMC

## Safety Notice

- a. This device is to be used with Certified Power adaptor with output rated 12VDC, 1.5A. Power adapter must meet Limited power source (LPS) requirements.
- b. Power adapter must meet local safety standards and requirements based on product intended use.
- c. Power adapter must meet Operating environment conditions as specified above.

## Disposal

Follow local regulations regarding disposal of the product. Dispose of your product in accordance with local regulations. In some areas, the disposal of these items in household or business trash may be prohibited.

Help us protect the environment- recycle!

## IMPORTANT NOTICE – Please Read Carefully

No warranty of accuracy is given concerning the contents of the information contained in this document. To the extent permitted by law no liability (including liability to any person by reason of negligence) will be accepted by SolidRun Ltd. or its employees for any direct or indirect loss or damage caused by omissions from or inaccuracies in this document.

SolidRun Ltd. Reserves the right to change details in this publication without notice product and company names herein may be the trademarks of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

## Support

For technical support please visit:

Our developer resources – <https://developer.solid-run.com/>

For direct support please contact us at: [support@solid-run.com](mailto:support@solid-run.com)

## Documentation

Additional documentation available at:

<https://developer.solid-run.com/products/hummingboard-pulse/>