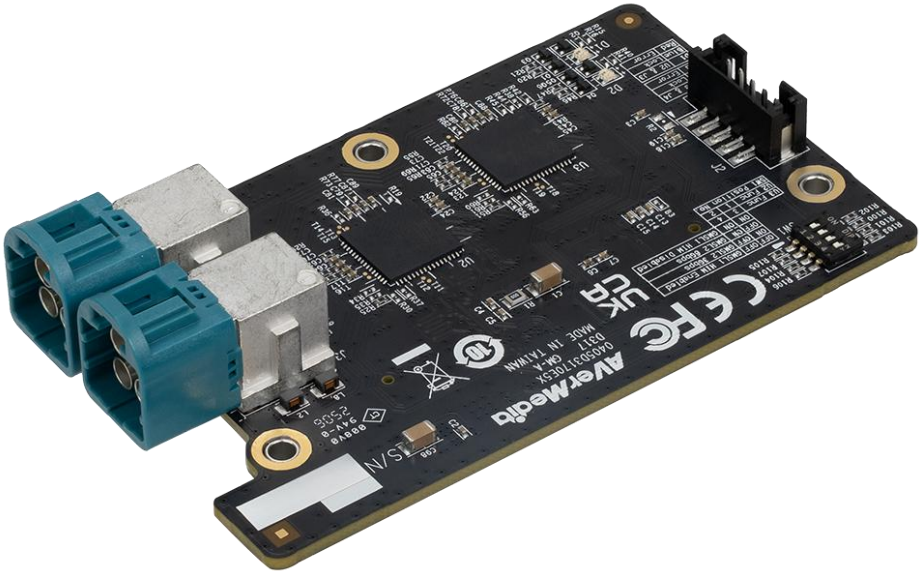
AVerMedia GMSL Daughter Board



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Preface

Disclaimer

The information contained in this user manual, including but not limited to any product specification, is subject to change without notice. AVerMedia assumes no liability for any damages incurred directly or indirectly from any technical or typographical errors or omissions contained herein or for discrepancies between the product and the user manual.

Technical Support

If you experience difficulty after reading this manual and/or using the product, please contact the reseller from which you purchased the product. In most cases, the reseller can help you with the product installation and the difficulty you encounter.

In case the reseller is not able to resolve your problem, our highly capable global technical support team can certainly assist you. Our technical support section is available 24 hours a day and 7 days a week through our website, with the click here. For more contact information, you may find it in the AVerMedia Global Offices section.

Contact Enquiry

For more information about our products, pricing, and order placement, please fill in our inquiry form here, we will contact you within 24 hours.

Download User Manual

Please click the link here to download the file of this user manual from AVerMedia website.

Revision History

Revision	Date	Updates
Version 0.1	May 4, 2026	1st Released
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Limited Product Warranty

AVerMedia provides product warranty. Should this product, in AVerMedia's opinion, fail to be in the good working order during the warranty period, AVerMedia will, at its option, repair or replace it at no charge, provided that the product has not been subjected to abuse, misuse, accident, disaster, or non-AVerMedia authorized modification or repair.

You may obtain the warranty service by delivering this product to an authorized AVerMedia business partner or to AVerMedia along with the proof of purchase. Product returned to AVerMedia must be pre-authorized by AVerMedia with an RMA (Return Material Authorization) number marked on the outside of the package and sent prepaid, insured, and packaged for safe shipment. AVerMedia will return the product by prepaid shipment service.

It is not recommended to disassemble the box PC, which will impact the warranty. The limited product warranty is only valid over the serviceable life of the product. This is defined as the period during which all components are available. Should the product prove to be irreparable, AVerMedia reserves the right to substitute an equivalent product if available or to retract the product warranty if no replacement is available.

The above product warranty is the only warranty authorized by AVerMedia. Under no circumstances will AVerMedia be liable in any way for any damages, including any lost profits, lost savings, or other incidental or consequential damages arising out of the use of, or inability to use, such product.

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ESD Warning

Electronic components and circuits are sensitive to Electrostatic Discharge (ESD). When handling any circuit board assemblies including AVerMedia AVerMedia products, it is highly recommended that ESD safety precautions be observed. ESD safe best practices can include but are not limited to the following ones.

1. Leave the circuit board in the antistatic package until it is ready to be installed.
2. Use a grounded wrist strap when handling the circuit board. At a minimum, you need to touch a grounded metal object to dissipate any static charge, which may be present on you.
3. Avoid handling the circuit board in carpeted areas.
4. Handle the board by the edges and avoid the contact with the components.
5. Only handle the circuit boards in ESD safe areas, which may include ESD floor and/or table mats, wrist strap stations, and ESD safe lab coats.

Safety Precaution:

1. All caution and warnings on the device should be noted.
2. For safety consideration, do NOT open the device if not qualified service staff.
3. Place the device on a solid surface during installation to prevent falls.
4. Keep the device away from humidity.
5. Do NOT leave this device in an un-controlled environment with temperatures beyond the device's permitted storage temperature to avoid damage.
6. All adaptors and cables supplied by AVerMedia are verified. Do NOT use any others not supplied by AVerMedia to avoid any malfunction or fires.
7. Make sure the power source matches the power rating of the device.
8. Place the power cord where people cannot step on it. Do not put anything on the power cord.
9. Always completely disconnect the power while the device is not in use or idle for a long time.

10. Disconnect the device from any AC supply before cleaning. While cleaning, use a damp cloth instead of liquid or spray detergent.
11. Make sure the device is installed near a power outlet and easy to access.
12. Do not cover the openings on the device to ensure optimal heat dissipation.
13. Watch out for the heatsink or heat spreader of the device when the system is running.
14. Never pour any liquid into the openings. This could cause fire or electric shock.
15. Static electricity should be noted while installing any internal components. Consider using a grounding wrist strap and putting all electronic parts in static-shielded containers.

If the following situations occur, please contact our service personnel:

(1) The device is dropped or damaged

(2) Damaged power cord or plug

(3) Exposure to moisture

(4) Liquid intrusion into the device

(5) Any obvious signs of damage displayed on the device

(6) Device is not working as expected or in a manner as described in this manual

1.0 Introduction

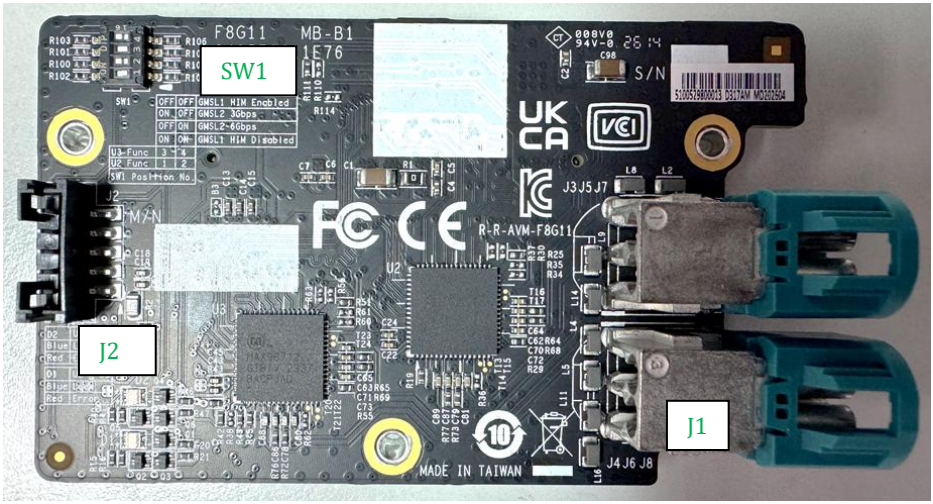
The AVerMedia GMSL Daughter Board is a camera expansion module that provides multicamera GMSL input capability over the connected D317 and D315 edge AI platforms.

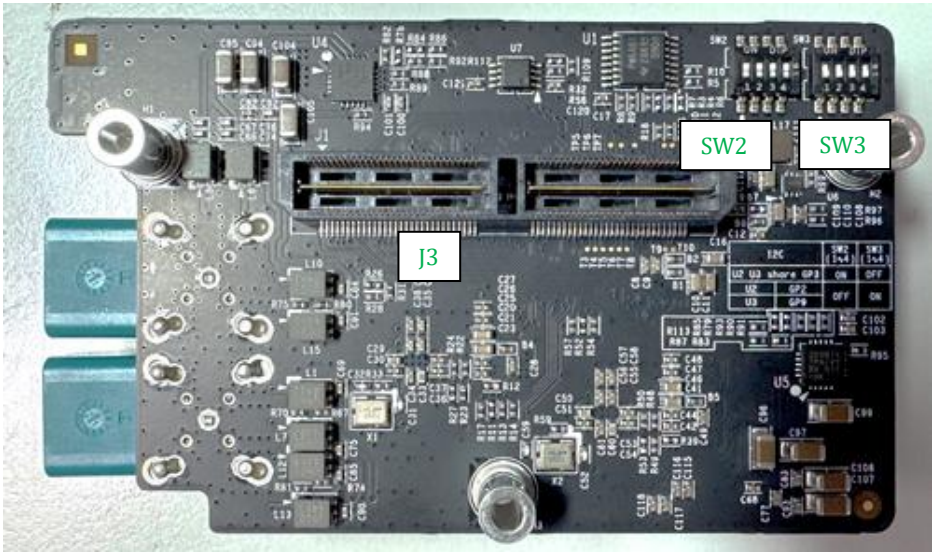
1.1 Product Specifications

Applicable product	D317 D315
Deserializer	Maxim 96712
Product Type MIPI Output	- 120pin Camera Expansion Header Board to Board daughter board - 1 x 4-lane MIPI CSI-2 v1.3 output from each Deserializer (16-lanes total) Via 120pin camera expansion board to board connector
Camera Input Connectors	- 2x Mini FAKRA A Type (We will support this feature upon customer request) - Option: Breakout cables to FAKRA available (MKA4FZ-174U-FKMZ1-23-01)
POC (Power-Over-COAX)	- All 8 cameras will be sourced Power-Over-COAX from D317
Power	1. can be directly powered from Camera Expansion Header 2. External +12V Input
Mechanical	- Dimensions: 80.8mm x 49mm
Temperature	Operating temperature: -40°C to 85°C (TBD) Storage temperature -40°C ~ 85°C (TBD) Relative humidity 40 °C @ 95%, Non-Condensing

2.0 Product Overview

2.1 Top View and Bot View of GMSL Daughter Board





2.2 Connector Summary

J1	JACK_MINI FAKRA_AM2*2(Z)_90°_PIP-L1.7 ㎜
J2	WAFER_1*5PIN_2 ㎜_180°_SMD
J3	WAFER_2*60PIN_0.5 ㎜_180°_SMD
SW1	SW_SLIDE DIP_DHN-04F-T-Q-T/R_SMD8

3.0 Feature Description

3.1 1x4-lane GMSL Mini FAKRA connector

Function	GMSL mini FAKRA cable connector	
Location	J1	
Type Description	JACK_MINI FAKRA_AM2*2(Z)_90°_PIP-L1.7 ㎜	
Manufacturer and Part Number	詮欣_5420102001Z_12 O'CLOCK-WATER BLUE	
Mating Connector	Any GMSL standard interface device.	
Pinout	Please refer to GMSL standard for the pinout details.	
Remarks	N/A	

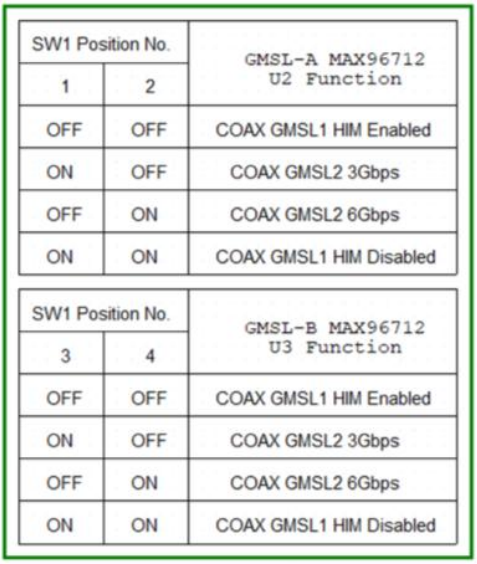
3.2 12V power connector

Function	12V power input connector	
Location	J2	
Type Description	WAFER_1*5PIN_2 ㎜ _180°_SMD	
Manufacturer and Part Number	宏致_50310-0057N-001_WTB HEADER-H6.5 ㎜	
Mating Connector		
Pinout	PIN / Definition: 1 / N/A 2 / GND 3 / GND 4 / +12V_Wafer 5 / +12V_Wafer	
Remarks	N/A	

3.3 Board to board connector (to Camera board)

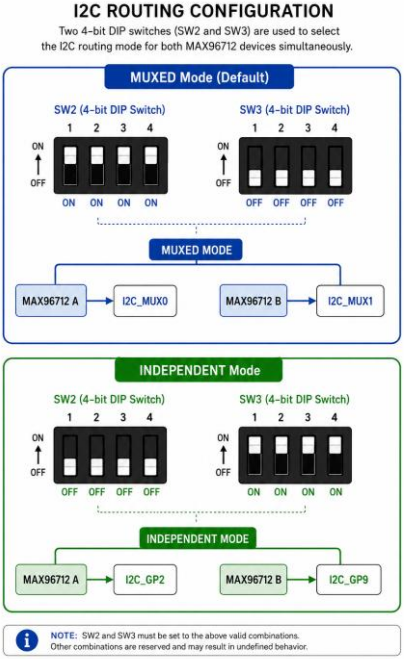
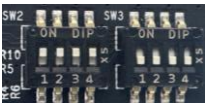
Function	Board to board connector	
Location	J3	
Type Description	WAFER_2*60PIN_0.5 ㎜ _180°_SMD	
Manufacturer and Part Number	WAFER_SAMTEC_QTH-060-02-L-D-A-K-TR_BTB-PLUG(H7.26 ㎜)	
Mating Connector		
Pinout	Comply with NVIDIA Devkit pinout.	
Remarks	N/A	

3.4 DIP Switch Setting

Function	Switch Button
Location	SW1
Type Description	SW_SLIDE DIP_DHN-04F-T-Q-T/R_SMD8
Manufacturer and Part Number	圜達_IN OFF-SWITCHING 0.025A/24VDC
Mating Connector	N/A
Pinout	
Remarks	N/A



3.5 DIP Switch Setting

Function	Switch Button	
Location	SW2/SW3	
Type Description	SW_SLIDE DIP_DHN-04F-T-Q-T/R_SMD8	
Manufacturer and Part Number	圜達_IN OFF-SWITCHING 0.025A/24VDC	
Mating Connector	N/A	
Pinout		
Remarks	N/A	