

#### VARISCITE LTD.

# VCAM-AR0821B / VCAM-AR0821B-SYM Datasheet i.MX8 Camera Extension Board V 1.x





#### VARISCITE LTD.

## VCAM-AR0821B Datasheet

#### © 2020 Variscite Ltd.

All Rights Reserved. No part of this document may be photocopied, reproduced, stored in a retrieval system, or transmitted, in any form or by any means whether, electronic, mechanical, or otherwise without the prior written permission of Variscite Ltd.

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

Variscite 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.

Variscite Ltd. 4, Hamelacha Street Lod P.O.B 1121 Airport City, 70100 ISRAEL

Tel: +972 (9) 9562910 Fax: +972 (9) 9589477

# **Revision History**

Revision	Date	Notes
1.00	Jan 2021	

VCAM-AR0821B Datasheet Rev 1.0, 01/2021

# **Compatible Products**

PN	Compatible products
VCAM-AR0821B	DART-MX8M-PLUS
VCAIVI-ANUOZID	Add on extension board for the VAR-DT8MCustomBoard
VCANA ADOGRAD CVNA	VAR-SOM-MX8M-PLUS
VCAM-AR0821B-SYM	Add on extension board for the Symphony-Board

VCAM-AR0821B Datasheet Rev 1.0, 01/2021 Variscite Ltd.

### VCAM-AR0821B – Embedded Vision Kits

Development kit with a Basler dart BCON for MIPI camera module and Linux support for NXP's i.MX8M Plus SoC on a Variscite SoM.

This Basler dart BCON for MIPI Development Kit is a kit for integrating a Basler dart camera with a BCON for MIPI interface. It contains a dart camera module, a Variscite SoM with Linux drivers as well as additional accessories and thus offers a complete plug and play design-in package for dart BCON for MIPI camera modules.







## **General Information**

Design-In Sample: January 2021

Components Included Camera model: daA3840-30mc (S-Mount)

**Boards:** 

DART-MX8M-PLUS

Basler BCON for MIPI to VAR M / M Plus

**Lens:** Evetar Lens M13B0618W F1.8 f6mm 1/3"

Cables: FFC cable, 0.2m

daA3840-30mc (S-Mount)

Sensor Vendor	ON Semiconductor
Sensor	AR0821
Shutter	Rolling Shutter
Max. Image Circle	1/1.8"
Sensor Type	CMOS
Resolution (HxV)	3840 px x 2160 px
Resolution	8 MP
Pixel Size (H x V)	2.1 μm x 2.1 μm
Frame Rate	30 fps
Mono/Color	Color
Interface	BCON for MIPI
Pixel Bit Depth	20 bits
Synchronization	free-run
	software trigger
Exposure Control	programmable via the camera API automatic manual

VCAM-AR0821B Datasheet Rev 1.0, 01/2021

#### daA3840-30mc (S-Mount)

Digital Input 2 Digital Output 2 Power Requirements 5V DC (via BCON for MIPI interface) Power Consumption (typical) 0.6 W Housing Type Board Level Housing Size (L x W x H) 29 mm x 29 mm x 17.5 mm Lens Mount S-mount Weight (typical) 15g Conformity RoHS CONFORMITY CO	daA3840-30mc (S-Mount)		
Power Requirements 5V DC (via BCON for MIPI interface) Power Consumption (typical) 0.6 W Housing Type Board Level Housing Size (L x W x H) 29 mm x 29 mm x 17.5 mm  Lens Mount S-mount Weight (typical) 15g Conformity ROHS CE FCC GenlCam MIPI CSI-2 UL EACC DART-MX8M-PLUS  Accessory Type Board Board type Processing Board Size (L x W) 151 mm x 90 mm x 18 mm Processor Manufacturer NXP SoC (system on chip) NXP i.MX 8M Plus Camera Interface BCON for MIPI Ethernet Interface 10/100/1000 Ethernet Other Interface Wi-Fi, Bluetooth, CSI-2, USB 2.0, USB 3.0, Mini PCIe SD Card Slot µSD card Memory 2 GB Flash Memory 16 GB Power Requirements 5V DC Operating System Linux  Basler BCON for MIPI to VAR M PLUS  RACCESSORY Type Board Size (L x W) 55 mm x 31 mm x 12 mm Camera Interface BCON for MIPI Accessory Type Board Size (L x W) 55 mm x 31 mm x 12 mm Accessory Type Board Size (L x W) 55 mm x 31 mm x 12 mm Accessory Type Board Additional Information Single or dual camera support, depending on SoC  Evetar Lens M1380618W F1.8 form 1/3" Order Number 20000035178 Accessory Type Lenses Accessory Type Lenses		Digital Input	2
Power Consumption (typical)   0.6 W     Housing Type   Board Level     Housing Size (L x W x H)   29 mm x 29 mm x 17.5 mm     Lens Mount   S-mount     Weight (typical)   15g     Conformity   RoHS     CE     FCC     Gen Cam     MIPI CSI-2     UL     EAC     DART-MX8M-PLUS     Board type   Processing Board     Size (L x W)   151 mm x 90 mm x 18 mm     Processor Manufacturer   NXP     SoC (system on chip)   NXP I.MX 8M Plus     Camera Interface   BCON for MIPI     Ethernet Interface   BCON for MIPI     Ethernet Interface   Wi-Fi, Bluetooth, CSI-2, USB 2.0, USB 3.0, Min PCIe     Additional Information   Fish Mem x 31 mm x 12 mm     Accessory Type   Board     Saler BCON for MIPI to VAR M PLUS     Flash Memory   16 GB     Power Requirements   5V DC     Operating System   Linux     Basler BCON for MIPI to VAR M PLUS     Accessory Type   Board     Size (L x W)   55 mm x 31 mm x 12 mm     Camera Interface   BCON for MIPI     Additional Information   Single or dual camera support, depending on SoC     Evetar Lens M13B0618W F1.8 f6mm 1/3"     Order Number   2000035178     Accessory Type   Lenses     Accessory Type   Lenses     Accessory Type   Lenses     Accessory Developer   Evetar		Digital Output	2
Housing Type Board Level Housing Size (L x W x H) 29 mm x 29 mm x 17.5 mm Lens Mount S-mount Weight (typical) 15g Conformity ROHS CEFCC GenlCam MIPI CSI-2 UL EAC  DART-MX8M-PLUS  Accessory Type Board Size (L x W) 151 mm x 90 mm x 18 mm Processor Manufacturer NXP SoC (system on chip) NXP i.MX 8M Plus Camera Interface BCON for MIPI Ethernet Interface 10/100/1000 Ethernet Other Interface BCON for MIPI SD Card Slot µSD card Memory 2 GB Flash Memory 2 GB Flash Memory 16 GB Power Requirements 5V DC Operating System 16 GB Power Requirements 5V DC Operating System Board Size (L x W) 55 mm x 31 mm x 12 mm Camera Interface BCON for MIPI Single or dual camera support, depending on SoC Evetar Lens M13B0618W F1.8 f6mm 1/3"  Poder Number 2000035178 Accessory Type Lenses Evetar Lens General Flash Memory 2 Company on SoC Evetar Lens M13B0618W F1.8 f6mm 1/3"  Order Number 2000035178 Accessory Type Lenses Evetar Lenses M13B0618W F1.8 f6mm 1/3"		Power Requirements	5V DC (via BCON for MIPI interface)
Housing Size (L x W x H) 29 mm x 29 mm x 17.5 mm  Lens Mount S-mount  Weight (typical) 15g Conformity RoHS CE FCC GenlCam MiPi CSi-2 UL EAC  DART-MX8M-PLUS  Accessory Type Board Board type Processing Board Size (L x W) 151 mm x 90 mm x 18 mm Processor Manufacturer NXP SoC (system on chip) NXP i.MX 8M Plus Camera Interface BCON for MIPI Ethernet Interface 10/100/1000 Ethernet Other Interfaces Wi-Fi, Bluetooth, CSi-2, USB 2.0, USB 3.0, Minip PCC SD Card Slot µSD card Memory 2 GB Flash Memory 16 GB Power Requirements 5V DC Operating System Linux  Basler BCON for MIPI to VAR M PLUS  Accessory Type Board Size (L x W) 55 mm x 31 mm x 12 mm Camera Interface BCON for MIPI Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 f6mm 1/3" Order Number 2000035178 Accessory Type Lenses Accessory Type Lenses Accessory Type Lenses Linux Lense Coologia Power Coologia Power Sound Camera Support, depending on SoC		Power Consumption (typical)	0.6 W
Lens Mount S-mount Weight (typical) 15g Conformity RoHS CEFFCC GENCA GENCA FCC GENCA MIPI CSI-2 UL EAC  DART-MX8M-PLUS  Accessory Type Board Size (L x W) 151 mm x 90 mm x 18 mm Processor Manufacturer NXP SoC (system on chip) NXP I.MX 8M Plus Camera Interface BCON for MIPI Ethernet Interface 10/100/1000 Ethernet Other Interfaces Wi-Fi, Bluetooth, CSI-2, USB 2.0, USB 3.0, Mini PCle SD Card Slot µSD card Memory 2 GB Flash Memory 16 GB Power Requirements 5V DC Operating System Linux  Basler BCON for MIPI to VAR M PLUS  Accessory Type Board Size (L x W) 55 mm x 31 mm x 12 mm Camera Interface BCON for MIPI Accessory Type Board Size (L x W) 55 mm x 31 mm x 12 mm Size (L x W) 55 mm x 31 mm x 12 mm Size (L x W) 55 mm x 31 mm x 12 mm Size (L x W) 55 mm x 31 mm x 12 mm Size (L x W) 55 mm x 31 mm x 12 mm Camera Interface BCON for MIPI Accessory Type Board Size of dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 f6mm 1/3" Order Number 2000035178 Accessory Type Lenses Accessory Developer Evetar		Housing Type	Board Level
Weight (typical) Conformity Conformity ROHS CE FCC GenlCam MIPI CSI-2 UL EAC  DART-MX8M-PLUS  Accessory Type Board Size (L x W) Processor Manufacturer NXP SoC (system on chip) NXP i.MX 8M Plus Camera Interface BCON for MIPI Ethernet Interface Other Interfaces Wi-Fi, Bluetooth, CSI-2, USB 2.0, USB 3.0, Mini PCle SD Card Slot Memory 2 GB Flash Memory 16 GB Power Requirements Operating System Linux  Basler BCON for MIPI to VAR  Accessory Type Size (L x W) S5 mm x 31 mm x 12 mm Camera Interface BCON for MIPI Accessory Type Board Size (L x W) S5 mm x 31 mm x 12 mm Camera Interface BCON for MIPI Accessory Type Board Size (L x W) S5 mm x 31 mm x 12 mm Camera Interface BCON for MIPI Camera Interface BCON for MIPI Camera Interface BCON for MIPI Accessory Type Board Size (L x W) S5 mm x 31 mm x 12 mm Camera Interface BCON for MIPI Additional Information Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 f6mm 1/3" Accessory Type Accessory Developer Evetar Lens M2-Camera M2-Camera Support, Developer Evetar Lens Evetar Lens M2-Camera		Housing Size (L x W x H)	29 mm x 29 mm x 17.5 mm
Conformity CE FCC FCC GenICam MIPI CSI-2 UL EAC  DART-MX8M-PLUS  Accessory Type Board Board type Processing Board Size (L x W) Processor Manufacturer NXP SoC (system on chip) Camera Interface Dther Interface Other Interface Other Interface Acmory Ethernet Interface Wi-Fi, Bluetooth, CSI-2, USB 2.0, USB 3.0, Mini PCIe SD Card Slot Weborn Memory 2 GB Flash Memory 16 GB SoC (BB Flash Memory 16 GB Flash Memory 18 GB Flash Memory 18 GB Flash Memory 18 GB Flash Memory 19 GB Flash Memory 10 Jonoton MiPl Flash Memory 10 Jonoton MiPl Flash Memory 10 Jonoton Memory 10 Jonoton MiPl Flash Memory 10 Jonoton Memory 10 Jo		Lens Mount	S-mount
CE FCC GenICam MIPI CSI-2 UL EAC  DART-MX8M-PLUS  Accessory Type Board type Processing Board Size (L x W) 151 mm x 90 mm x 18 mm Processor Manufacturer NXP SoC (system on chip) NXP i.MX 8M Plus Camera Interface BCON for MIPI Ethernet Interface Other Interface Other Interface Wi-Fi, Bluetooth, CSI-2, USB 2.0, USB 3.0, Mini PCIe SD Card Slot Memory 2 GB Flash Memory 16 GB Flash Memory 16 GB Power Requirements Operating System Unix  Basler BCON for MIPI to VAR M PLUS  Accessory Type Board Size (L x W) 55 mm x 31 mm x 12 mm Camera Interface BCON for MIPI Additional Information Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 f6mm 1/3" Order Number Accessory Type Lenses Accessory Type Lenses		Weight (typical)	15g
FCC GenlCam MIPI CSI-2 UL EAC  DART-MX8M-PLUS  Accessory Type Board Board type Processing Board Processing Board Size (L x W) Processor Manufacturer NXP SoC (system on chip) NXP i.MX 8M Plus Camera Interface BCON for MIPI Ethernet Interface Other Interface Other Interface DOHER Interface SD Card Slot Memory SD Card Slot Memory SD Card Slot Plash Memory Basler BCON for MIPI to VAR Flash Memory Basler BCON for MIPI to VAR Accessory Type Accessory Type Accessory Type Additional Information Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 f6rm 1/3" Order Number Accessory Type Accessory Developer Board Accessory Type Acce		Conformity	RoHS
GenlCam MIPI CSI-2 UL EACC  DART-MX8M-PLUS  Accessory Type Board Board type Processing Board Size (L x W) 151 mm x 90 mm x 18 mm Processor Manufacturer NXP SoC (system on chip) NXP i.MX 8M Plus Camera Interface BCON for MIPI Ethernet Interface 10/100/1000 Ethernet Other Interfaces Wi-Fi, Bluetooth, CSI-2, USB 2.0, USB 3.0, Mini PCle SD Card Slot µSD card Memory 2 GB Flash Memory 16 GB Power Requirements 5 V DC Operating System inux  Basler BCON for MIPI to VAR M PLUS  Accessory Type Board Size (L x W) 55 mm x 31 mm x 12 mm Camera Interface BCON for MIPI Additional Information Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 f6mm 1/3"  Order Number 2000035178 Accessory Type Lenses Accessory Type Lenses Accessory Developer Evetar			CE
DART-MX8M-PLUS  Accessory Type Board Board type Processing Board Size (L x W) 151 mm x 90 mm x 18 mm Processor Manufacturer NXP SoC (system on chip) NXP i.MX 8M Plus Camera Interface BCON for MIPI Ethernet Interface 10/100/1000 Ethernet Other Interfaces Wi-Fi, Bluetooth, CSI-2, USB 2.0, USB 3.0, Mini PCle SD Card Slot µSD card Memory 2 GB Flash Memory 16 GB Power Requirements 5V DC Operating System Linux  Basler BCON for MIPI to VAR M PLUS  Accessory Type Board Size (L x W) 55 mm x 31 mm x 12 mm Camera Interface BCON for MIPI Additional Information Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 F6mm 1/3"  Order Number 2000035178 Accessory Type Lenses Accessory Developer Evetar			FCC
DART-MX8M-PLUS  Accessory Type Board Board type Processing Board Size (L x W) 151 mm x 90 mm x 18 mm Processor Manufacturer NXP SoC (system on chip) NXP i.MX 8M Plus Camera Interface BCON for MIPI Ethernet Interface 10/100/1000 Ethernet Other Interfaces Wi-Fi, Bluetooth, CSI-2, USB 2.0, USB 3.0, Mini PCle SD Card Slot µSD card Memory 2 GB Flash Memory 16 GB Power Requirements 5V DC Operating System 16 GB Power Requirements 5V DC Operating System Linux  Basler BCON for MIPI to VAR M PLUS  Accessory Type Board Size (L x W) 55 mm x 31 mm x 12 mm Camera Interface BCON for MIPI Additional Information Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 f6mm 1/3" Order Number 2000035178 Accessory Type Lenses Accessory Type Lenses Accessory Type Evetar			
DART-MX8M-PLUS  Accessory Type Board Board type Processing Board Size (L x W) 151 mm x 90 mm x 18 mm Processor Manufacturer NXP SoC (system on chip) NXP i.MX 8M Plus Camera Interface BCON for MIPI Ethernet Interface 10/100/1000 Ethernet Other Interfaces Wi-Fi, Bluetooth, CSI-2, USB 2.0, USB 3.0, Mini PCIe SD Card Slot µSD card Memory 2 GB Flash Memory 2 GB Flash Memory 16 GB Power Requirements 5V DC Operating System Linux  Basler BCON for MIPI to VAR M PLUS  Accessory Type Board Size (L x W) 55 mm x 31 mm x 12 mm Additional Information Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 f6mm 1/3" Order Number 2000035178 Accessory Type Lenses Accessory Type Lenses Accessory Type Lenses			
DART-MX8M-PLUS  Accessory Type Board Board type Processing Board Size (L x W) 151 mm x 90 mm x 18 mm Processor Manufacturer NXP SoC (system on chip) NXP i.MX 8M Plus Camera Interface BCON for MIPI Ethernet Interface 10/10/1000 Ethernet Other Interfaces Wi-Fi, Bluetooth, CSI-2, USB 2.0, USB 3.0, Mini PCIe SD Card Slot			
Accessory Type Board Board type Processing Board Size (L x W) 151 mm x 90 mm x 18 mm Processor Manufacturer NXP SoC (system on chip) NXP i.MX 8M Plus Camera Interface BCON for MIPI Ethernet Interface 10/100/1000 Ethernet Other Interfaces Wi-Fi, Bluetooth, CSI-2, USB 2.0, USB 3.0, Mini PCIe SD Card Slot µSD card Memory 2 GB Flash Memory 16 GB Power Requirements 5V DC Operating System inux  Basler BCON for MIPI to VAR M PLUS Accessory Type Board Size (L x W) 55 mm x 31 mm x 12 mm Camera Interface BCON for MIPI Additional Information Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 f6mm 1/3" Order Number 2000035178 Accessory Type Lenses Accessory Type Lenses Accessory Type Evetar	DART MAYONA DILIC		EAC
Board type Processing Board  Size (L x W) 151 mm x 90 mm x 18 mm  Processor Manufacturer NXP  SoC (system on chip) NXP i.MX 8M Plus  Camera Interface BCON for MIPI  Ethernet Interface 10/100/1000 Ethernet  Other Interfaces Wi-Fi, Bluetooth, CSI-2, USB 2.0, USB 3.0, Mini PCIe  SD Card Slot µSD card  Memory 2 GB  Flash Memory 16 GB  Power Requirements 5V DC  Operating System Linux  Basler BCON for MIPI to VAR M PLUS  Accessory Type Board  Size (L x W) 55 mm x 31 mm x 12 mm  Camera Interface BCON for MIPI  Additional Information Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 f6mm 1/3"  Order Number 2000035178  Accessory Type Lenses  Accessory Type Lenses  Accessory Developer Evetar	DART-MIX8IVI-PLUS	A	Based
Size (L x W) 151 mm x 90 mm x 18 mm Processor Manufacturer NXP SoC (system on chip) NXP i.MX 8M Plus Camera Interface BCON for MIPI Ethernet Interface 10/100/1000 Ethernet Other Interfaces Wi-Fi, Bluetooth, CSI-2, USB 2.0, USB 3.0, Mini PCle SD Card Slot µSD card Memory 2 GB Flash Memory 16 GB Power Requirements 5V DC Operating System Linux  Basler BCON for MIPI to VAR M PLUS  Accessory Type Board Size (L x W) 55 mm x 31 mm x 12 mm Camera Interface BCON for MIPI Additional Information Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 f6mm 1/3" Order Number 2000035178 Accessory Type Lenses Accessory Developer Evetar			
Processor Manufacturer NXP  SoC (system on chip) NXP i.MX 8M Plus  Camera Interface BCON for MIPI  Ethernet Interface 10/100/1000 Ethernet  Other Interfaces Wi-Fi, Bluetooth, CSI-2, USB 2.0, USB 3.0, Mini PCle  SD Card Slot µSD card  Memory 2 GB  Flash Memory 16 GB  Power Requirements 5V DC  Operating System Linux  Basler BCON for MIPI to VAR M PLUS  Accessory Type Board  Size (L x W) 55 mm x 31 mm x 12 mm  Camera Interface BCON for MIPI  Additional Information Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 f6mm 1/3"  Order Number 2000035178  Accessory Type Lenses  Accessory Developer Evetar			-
SoC (system on chip) NXP i.MX 8M Plus Camera Interface BCON for MIPI Ethernet Interface 10/100/1000 Ethernet Other Interfaces Wi-Fi, Bluetooth, CSI-2, USB 2.0, USB 3.0, Mini PCIe SD Card Slot µSD card Memory 2 GB Flash Memory 16 GB Power Requirements 5V DC Operating System Linux  Basler BCON for MIPI to VAR M PLUS  Accessory Type Board Size (L x W) 55 mm x 31 mm x 12 mm Camera Interface BCON for MIPI Additional Information Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 F6mm 1/3" Order Number 2000035178 Accessory Type Lenses Accessory Developer Evetar			
Camera Interface BCON for MIPI Ethernet Interface 10/100/1000 Ethernet Other Interfaces Wi-Fi, Bluetooth, CSI-2, USB 2.0, USB 3.0, Mini PCle SD Card Slot µSD card Memory 2 GB Flash Memory 16 GB Power Requirements 5V DC Operating System Linux  Basler BCON for MIPI to VAR M PLUS  Accessory Type Board Size (L x W) 55 mm x 31 mm x 12 mm Camera Interface BCON for MIPI Additional Information Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 f6mm 1/3" Order Number 2000035178 Accessory Type Lenses Accessory Developer Evetar			
Ethernet Interface 10/100/1000 Ethernet Other Interfaces Wi-Fi, Bluetooth, CSI-2, USB 2.0, USB 3.0, Mini PCIe SD Card Slot µSD card Memory 2 GB Flash Memory 16 GB Power Requirements 5V DC Operating System Linux  Basler BCON for MIPI to VAR M PLUS  Accessory Type Board Size (L x W) 55 mm x 31 mm x 12 mm Camera Interface BCON for MIPI Additional Information Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 f6mm 1/3" Order Number 2000035178 Accessory Type Lenses Accessory Developer Evetar			
Other Interfaces  Wi-Fi, Bluetooth, CSI-2, USB 2.0, USB 3.0, Mini PCle  SD Card Slot  Memory  2 GB  Flash Memory  16 GB  Power Requirements  Operating System  Linux  Basler BCON for MIPI to VAR M PLUS  Accessory Type  Size (L x W)  Camera Interface  Additional Information  Camera Size (L x W)  Camera Interface  Additional Information  Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 f6mm 1/3"  Order Number  Accessory Type  Lenses  Accessory Developer  Evetar			
3.0, Mini PCIe  SD Card Slot   Memory 2 GB  Flash Memory 16 GB  Power Requirements 5V DC  Operating System Linux  Basler BCON for MIPI to VAR M PLUS  Accessory Type Board  Size (L x W) 55 mm x 31 mm x 12 mm  Camera Interface BCON for MIPI  Additional Information Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 f6mm 1/3"  Order Number 2000035178  Accessory Type Lenses  Accessory Developer Evetar			
Memory 2 GB Flash Memory 16 GB Power Requirements 5V DC Operating System Linux  Basler BCON for MIPI to VAR M PLUS  Accessory Type Board Size (L x W) 55 mm x 31 mm x 12 mm Camera Interface BCON for MIPI Additional Information Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 f6mm 1/3" Order Number 2000035178 Accessory Type Lenses Accessory Developer Evetar			
Flash Memory 16 GB Power Requirements 5V DC Operating System Linux  Basler BCON for MIPI to VAR M PLUS  Accessory Type Board Size (L x W) 55 mm x 31 mm x 12 mm Camera Interface BCON for MIPI Additional Information Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 f6mm 1/3" Order Number 2000035178 Accessory Type Lenses Accessory Developer Evetar		SD Card Slot	μSD card
Power Requirements 5V DC Operating System Linux  Basler BCON for MIPI to VAR M PLUS  Accessory Type Board Size (L x W) 55 mm x 31 mm x 12 mm Camera Interface BCON for MIPI Additional Information Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 f6mm 1/3" Order Number 2000035178 Accessory Type Lenses Accessory Developer Evetar		Memory	2 GB
Operating System  Basler BCON for MIPI to VAR M PLUS  Accessory Type Size (L x W) Camera Interface Additional Information Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 f6mm 1/3" Order Number Accessory Type Accessory Type Lenses Accessory Developer Evetar		Flash Memory	16 GB
Basler BCON for MIPI to VAR M PLUS  Accessory Type  Size (L x W)  Camera Interface  Additional Information  Additional Information  Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 f6mm 1/3"  Order Number  Accessory Type  Accessory Type  Accessory Developer  Evetar  Evetar		Power Requirements	5V DC
Accessory Type Size (L x W) Camera Interface Additional Information Evetar Lens M13B0618W F1.8 f6mm 1/3" Order Number Accessory Type Accessory Type Accessory Type Accessory Developer BOON for MIPI Single or dual camera support, depending on SoC Evetar Lens M13B0618W F1.8 f6mm 1/3" Urder Number Accessory Type Lenses Evetar		Operating System	Linux
Size (L x W)  Camera Interface  Additional Information  Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 f6mm 1/3"  Order Number  Accessory Type  Accessory Type  Accessory Developer  Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 f6mm 1/3"	Basler BCON for MIPI to VAR	M PLUS	
Camera Interface BCON for MIPI Additional Information Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 f6mm 1/3" Order Number 2000035178 Accessory Type Lenses Accessory Developer Evetar		Accessory Type	Board
Additional Information Single or dual camera support, depending on SoC  Evetar Lens M13B0618W F1.8 f6mm 1/3" Order Number Accessory Type Lenses Accessory Developer Evetar		Size (L x W)	55 mm x 31 mm x 12 mm
depending on SoC  Evetar Lens M13B0618W F1.8 f6mm 1/3"  Order Number 2000035178  Accessory Type Lenses Accessory Developer Evetar		Camera Interface	BCON for MIPI
Order Number 2000035178  Accessory Type Lenses  Accessory Developer Evetar		Additional Information	,, ,
Order Number 2000035178  Accessory Type Lenses  Accessory Developer Evetar	Evetar Lens M13B0618W F1.8	3 f6mm 1/3"	· -
Accessory Type Lenses Accessory Developer Evetar			2000035178
Accessory Developer Evetar		Accessory Type	
· · · · · · · · · · · · · · · · · · ·			
		·	

VCAM-AR0821B Datasheet

Rev 1.0, 01/2021

#### Evetar Lens M13B0618W F1.8 f6mm 1/3"

Lens Mount	S-mount
Iris	F1.8
Iris Type	fixed
IR Cut Filter	yes
Max. Image Circle	1/3"
Working Distance	200 mm

#### FFC cable, 0.2m

Accessory Type	Data Cables
Accessory Developer	AXON' CABLE S.A.S.
Cable Length	0.2 m
Connector Camera Side	28 pin Hirose ZIF connector
Connector Host Side	28 pin Hirose ZIF connector
Interface	BCON for MIPI

# daA3840-30mci (S-Mount) - Basler dart

The Basler daA3840-30mci (S-Mount) BCON for MIPI camera module with the ON Semiconductor AR1335 CMOS sensor delivers 30 frames per second at 8 MP resolution. This model comes with a S-mount.













VCAM-AR0821B Datasheet

Rev 1.0, 01/2021

# **General Information**

Design-In Sample:	now	
Series Production:	December 2020	
Sensor		
	Sensor Vendor	ON Semiconductor
	Sensor	AR0821
	Shutter	Rolling Shutter
	Max. Image Circle	1/1.8"
	Sensor Type	CMOS
	Sensor Size	4.6 mm x 3.4 mm
	Resolution (HxV)	3840 px x 2160 px
	Resolution	8 MP
	Pixel Size (H x V)	2.1 μm x 2.1 μm
	Frame Rate	30 fps
	Mono/Color	Color
Camera Data		
	Interface	BCON for MIPI
	Pixel Bit Depth	20 bits
	Synchronization	free-run
		software trigger
	Image Processing	In-Camera Processing
	Exposure Control	programmable via the camera API
		automatic
		manual
	Digital Input	2
	Digital Output	2
	Power Requirements	5V DC (via BCON for MIPI interface)
	Power Consumption (typical)	0.6 W
lousing		
	Housing Type	Board Level
	Housing Size (L $\times$ W $\times$ H)	29 mm x 29 mm x 17.5 mm
	Lens Mount	S-mount
	Weight (typical)	15g
Conformity		
	Conformity	RoHS
		CE
		FCC
		GenlCam
		MIPI CSI-2
		UL
		EAC

VCAM-AR0821B Datasheet Rev 1.0, 01/2021

Page 9 Variscite Ltd.

# **Legal Notice**

Variscite LTD ("Variscite") products and services are sold subject to Variscite's terms and conditions of sale, delivery and payment supplied at the time of order acknowledgement.

Variscite warrants performance of its products to the specifications in effect at the date of shipment. Variscite reserves the right to make changes to its products and specifications or to discontinue any product or service without notice. Customers should therefore obtain the latest version of relevant information from Variscite to verify that the information is current.

Testing and other quality control techniques are utilized to the extent Variscite deems necessary to support its warranty.

Specific testing of all parameters of each device is not necessarily performed unless required by law or regulation.

In order to minimize risks associated with customer applications, the customer must use adequate design and operating safeguards to minimize inherent or procedural hazards. Variscite is not liable for applications assistance or customer product design. The customer is solely responsible for its selection and use of Variscite products. Variscite is not liable for such selection or use nor for use of any circuitry other than circuitry entirely embodied in a Variscite product.

Variscite products are not intended for use in life support systems, appliances, nuclear systems or systems where malfunction can reasonably be expected to result in personal injury, death or severe property or environmental damage. Any use of products by the customer for such purposes is at the customer's own risk.

Variscite does not grant any license (express or implied) under any patent right, copyright, mask work right or other intellectual property right of Variscite covering or relating to any combination, machine, or process in which its products or services might be or are used. Any provision or publication of any third party's products or services does not constitute Variscite's approval, license, warranty or endorsement thereof. Any third-party trademarks contained in this document belong to the respective third-party owner.

Reproduction of information from Variscite datasheets is permissible only if reproduction is without alteration and is accompanied by all associated copyright, proprietary and other notices (including this notice) and conditions. Variscite is not liable for any un-authorized alteration of such information or for any reliance placed thereon.

Any representations made, warranties given, and/or liabilities accepted by any person which differ from those contained in this datasheet or in Variscite's standard terms and conditions of sale, delivery and payment are made, given and/or accepted at that person's own risk. Variscite is not liable for any such representations, warranties or liabilities or for any reliance placed thereon by any person.

Page 10 Variscite Ltd.

Rev 1.0, 01/2021

### Warranty Terms

Variscite guarantees hardware products against defects in workmanship and material for a period of one (1) year from the date of shipment. Your sole remedy and Variscite's sole liability shall be for Variscite, at its sole discretion, to either repair or replace the defective hardware product at no charge or to refund the purchase price. Shipment costs in both directions are the responsibility of the customer. This warranty is void if the hardware product has been altered or damaged by accident, misuse or abuse.

#### **Disclaimer of Warranty**

THIS WARRANTY IS MADE IN LIEU OF ANY OTHER WARRANTY, WHETHER EXPRESSED, OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A SPECIFIC PURPOSE, NON-INFRINGEMENT OR THEIR EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION, EXCEPT THE WARRANTY EXPRESSLY STATED HEREIN. THE REMEDIES SET FORTH HEREIN SHALL BE THE SOLE AND EXCLUSIVE REMEDIES OF ANY PURCHASER WITH RESPECT TO ANY DEFECTIVE PRODUCT.

#### **Limitation on Liability**

UNDER NO CIRCUMSTANCES SHALL VARISCITE BE LIABLE FOR ANY LOSS, DAMAGE OR EXPENSE SUFFERED OR INCURRED WITH RESPECT TO ANY DEFECTIVE PRODUCT. IN NO EVENT SHALL VARISCITE BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES THAT YOU MAY SUFFER DIRECTLY OR INDIRECTLY FROM USE OF ANY PRODUCT.

VCAM-AR0821B Datasheet Rev 1.0, 01/2021 Variscite Ltd.

# **Contact Information**

## Headquarters:

#### **Variscite LTD**

4, Hamelacha street Lod. P.O.B 1121 Airport City, 70100 ISRAEL

Tel: +972 (9) 9562910 Fax: +972 (9) 9589477

Sales: <a href="mailto:sales@variscite.com">sales@variscite.com</a>

Technical Support: <a href="mailto:support@variscite.com">support@variscite.com</a>

Corporate Website: <a href="www.variscite.com">www.variscite.com</a>

