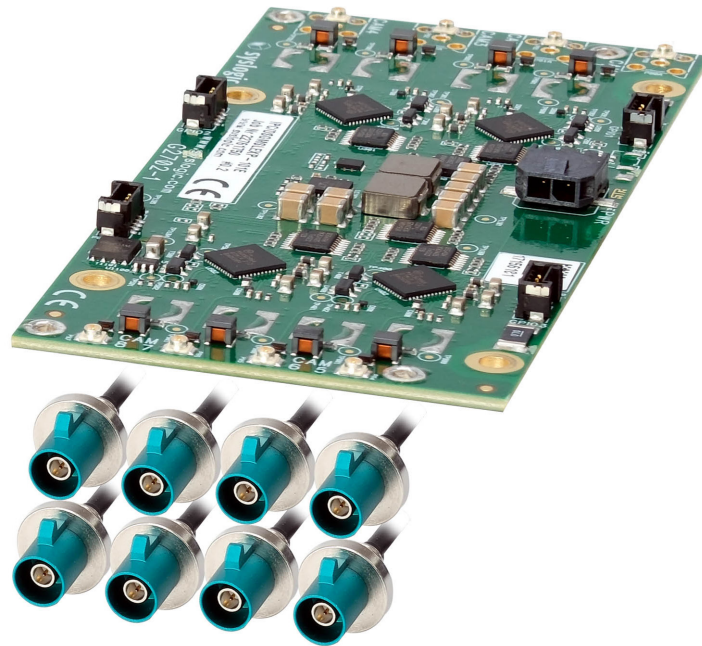


IPC/DSER Series

Industrial Deserializer Board for Syslogic NVIDIA Jetson based AI computers



IPC/DSER Series

The IPC/DSER boards add the capability to use serialized cameras (over GMSL2) to Syslogic Jetson based embedded products. This enables rapid integration into existing products for a fast time to market.

- up to 8 GMSL2 camera inputs (FAKRA-Z)
- Power-over-Coax (PoC)
- Extended temperature range
- 24/7 continuous operation
- Shock- and vibration resistant



Product Highlights

Internally powered by Syslogic host system,
no external power source required for PoC
Shock- and vibration resistant
Operating temperature -40°C to +85°C
Industrial electronics design
Long term availability

Product Features

up to 8x GMSL2 camera inputs
with FAKRA-Z connectors

Markets / Applications

Agriculture
Autonomous Mobile Robots (AMRs)
Automotive
Transportation
Robotics

Computer Vision

Input interfaces

| | | |
|--|-----------|----------|
| GMSL2 camera inputs, with Power over Coax (PoC) ² | (FAKRA-Z) | 8 |
| 2x/4x/6x GMSL2 camera inputs instead of 8x | (FAKRA-Z) | optional |

Technical Data

| | | |
|---|--|-------------------------|
| Deserializer chip ² | | MAX9296A |
| Max. permitted power draw per camera port | | 3W |
| Max. permitted cable length to the camera | | 15 meters |
| Camera synchronization to Jetson module | | GPIO / PWM ³ |
| Internal synchronization between cameras ⁴ | | • |
| Camera triggering supported ⁵ | | • |
| PoC output voltage (gets power internally from mainboard, no separate power input required for PoC) | | 12V ^{+/- 2%} |
| Dimensions [mm] | | w55 x d125 |
| Net weight [gram] | | tbd |

Software support

| | | |
|---|--|---|
| NVIDIA JetPack (L4T - Linux 4 Tegra, ARM64) | | • |
|---|--|---|

Environmental Conditions

| | | |
|---|--|----------------|
| Operating temperature ambient (component level) ⁶ | | -40°C to +85°C |
| Storage temperature | | -40°C to +85°C |
| Ingress protection according to EN60529 ⁷ (to the housing when used in corresponding IP-rated product, and when connector is mated) | | IP67 |
| Conformal coating | | on request |
| Shock: designed to meet EN60068-2-27 | | • |
| Vibration: designed to meet EN60068-2-6 | | • |
| EMI conformity EN55032/55035 | | • |

¹ Please contact factory for minimum order quantities² Recommended serializer chip for cameras: MAX9295A. Make sure that Jetson drivers are available from the camera manufacturer³ External frame sync with GPIO / PWM or MCLK of Jetson module⁴ Internal generated frame sync to cameras (built into the deserializer), multiple deserializers will then be synced via GPIO (Jetson) to time sync all cameras.
If the cameras are to be externally synchronized to e.g. another system, this requires customization!⁵ Triggering of the cameras via GPIO over GMSL2 backchannel, this must be supported by the camera driver and must be checked with the manufacturer!

External trigger is possible via digital I/Os (on M12 connectors on Syslogic device), if this is not fast enough, customization is required to directly use the internal TTL input on the deserializer to trigger the cameras.

⁶ Depending on host system, installation situation and interface connection. Please see user documentation.