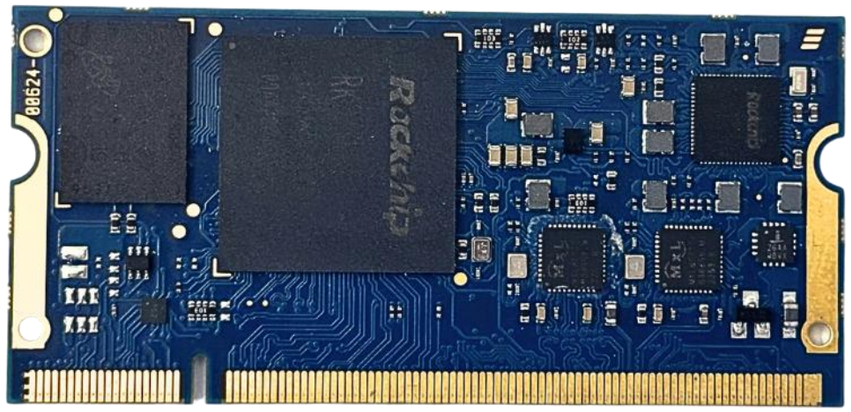
i.Core RK3568

V8/25

New Engicam moule based on RockChip® RK3568 series, for machine learning and IoT, powerful graphics, connectivity and industrial applications, with up to 1 TOPS NPU, GPU and a wide set of peripherals.



HIGHLIGHTS

- CPU RK3568/RK3568J
- Up to 1 TOPS NPU
- CONNECTIVITY 2x GbE
- VIDEO HDMI TX up to 4K@60Hz, MIPI DSI, MIPI DSI/LVDS, MIPI CSI

APPLICATIONS

Artificial Intelligence · Industrial · Digital Signage Infotainment · Transportation · Automotive · Avionics · Surveillance · Robotics · Biomedical/ Medical devices · Gaming · Home Automation

FEATURES

CPU	• RockChip RK3568 CPU, Quad Core ARM Cortex-A55 @ 1.8GHz • RockChip RK3568J CPU, Quad Core ARM Cortex-A55 @ 1.8GHz
CORES	4 Arm Cortex-A55
MEMORY	Up to 8GB LPDDR4 / 3200 MTs
GRAPHICS	• 2D graphics, 3D graphics and General Purpose computing on GPU • The Mali-G52-2EE GPU supports these compute API standards: • OpenCL 2.0 Full Profile • OpenGL ES 1.1, 2.0, and 3.2 • Vulkan 1.0 and 1.1.
VIDEO INTERFACES	• HDMI TX up to 4K @ 60Hz • MIPI DSI • MIPI DSI/LVDS • MIPI CSI
VIDEO PROCESSING	• HEVC/H.265, VP9, AV1 HW decoding, up to 8k @60. • AVC/H.264, HEVC/H.265 encoding
AUDIO	Build in I2S (on PMIC RK809)
NETWORKING	• 2 x Gb Ethernet interface
POWER SUPPLY	• +5V DC
USB	• 1 x USB OTG 3.0 • 1 x USB HOST 2.0
MASS STORAGE	• Starting from 4 GB eMMC soldered on board
PERIPHERAL INTERFACES	SDIO, UART, CAN, PCIe, GPIOs, SPI, I2C
OPERATING SYSTEM	• Linux Yocto • Android
DIMENSIONS	32 x 67,6 mm
OPERATING TEMPERATURE*	Industrial (up to 125°C Tj*)

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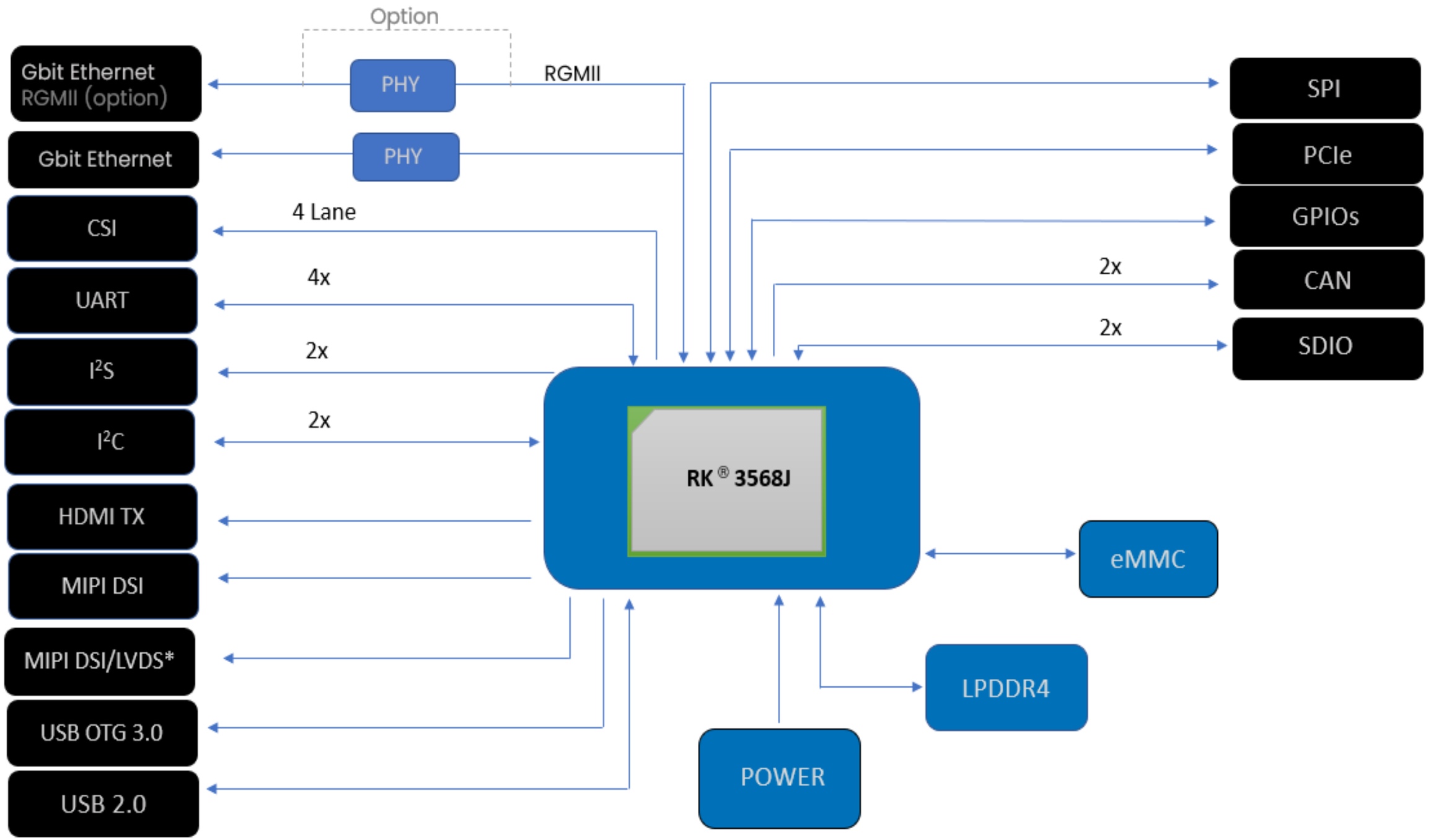
A STELIAU TECHNOLOGY COMPANY
Singel 3 | B-2550 Kontich | Belgium | Tel.+32(0)3 458 30 33
info@alcom.be | www.alcom.be
Rivium 1e straat 52 | 2909 LE Capelle aan den IJssel | The Netherlands
Tel.+31(0)10 288 25 00 | info@alcom.nl | www.alcom.nl

* Valid for all components except CPU. Customer shall consider junction temperature for CPU. Temperature will widely depend on application. Specific cooling solutions could be necessary for the final system.

ENGICAM
EMBEDDED SOLUTIONS

i.Core RK3568

EDIMM2.0



* MIPI DSI0 and LVDS have shared signals, please see related chapters on HW Manua

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Singel 3 | B-2550 Kontich | Belgium| Tel.+32(0)3 458 30 33
info@alcom.be | www.alcom.be
Rivium 1e straat 52 | 2909 LE Capelle aan den IJssel | The Netherlands
Tel.+31(0)10 288 25 00 | info@alcom.nl | www.alcom.nl

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