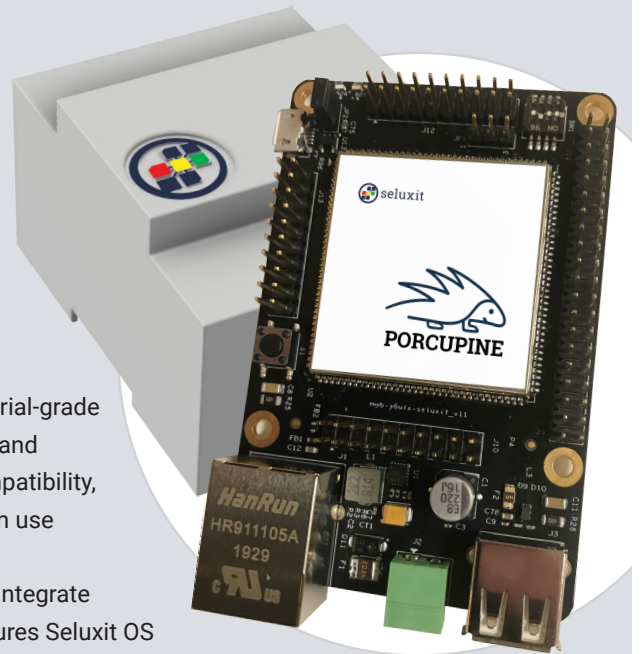# Seluxit Porcupine

Industrial-grade, Raspberry-Pi compatible, secure minicomputer for various IoT applications, edge computing and gateway functionality

Why Porcupine?

There is a need in the market for a versitile, secure, industrial-grade minicomputer. Seluxit Porcupine is built for that purpose, and because of Porcupine's Raspberry Pi form factor and compatibility, you have enormous resources at your disposal, as you can use many Raspberry Pi hats and shields, as well as the series of Seluxit Porcupine connectivity shields, allowing you to integrate with various PLC and other device assets. Porcupine features Seluxit OS with automatic cloud connectivity.

Key Features

- Industrial grade, Raspberry Pi form factor
- 72 GPIOs
- Onboard flash
- Shielded flash and MCU
- Preconfigured OS
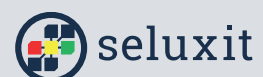- Secure boot
- Direct cloud connection

Benefits

- Quicker development time
  - ▶ *Prototyping and product development in one seamless process*
  - ▶ *Raspberry Pi hardware / software compatible*
  - ▶ *Preconfigured cloud connection*

- Robust industrial-grade operation
  - ▶ *On-board flash*
  - ▶ *Industrial specifications (temperature range, EMC compliance, etc.)*

- Easy maintenance
  - ▶ *Over-the-air firmware updates*
  - ▶ *Automatic provisioning and Seluxit cloud connection*

Key Specifications

OS	SLX OS (Linux kernel 4.1.15) / native version without OS also available
Dimensions	85 x 56 mm (Size and pin layout compatible with Raspberry Pi)
Temperature	-40 to +85°C (industrial grade)
Power supply	+5.0V/3.0A (protected by fuse and transient voltage suppressor)
Processor	NXP MCIMX6G3CVM05AB (MX 32-bit MPU, ARM Cortex-A7 core, 528MHz)
Processor security options	TRNG, Crypto Engine (AES with DPA/TDES/SHA/RSA), Secure Boot, tamper monitor, PCI4.0 pre-certification and on-the-fly (OTF) DRAM encryption
Memory	512 MB DDR3 RAM 4 GB eMMC FLASH
Peripherals	10/100M Ethernet port USB 2.0 host port Micro USB OTG 2.0 SD card interface WiFi & Bluetooth
Pinheaders	Raspberry Pi compatible 40-pin pinheader. Signals routed to pinheaders could be up to: • 8 x serial ports • 4 x I2C • 2 x CAN • 4 x SPI • 8 x ADC - 12 bit • 8 x PWM • 3 x I2S • 1 x parallel camera interface • 1 x 24-bit LCD interface
RTC	Optional CR2032 battery socket for RTC
Shields	ZigBee, Lemonbeat, LoRa®, Z-Wave, NB-IoT / LTE-M, RFID, Spider, PROFIBUS, Modbus, M-Bus, Profi Net, EtherNet/IP, EtherCAT, CANOpen, DMX, OPC UA
Cloud connectivity	Pre-configured to Seluxit IoT Cloud Data forwarding to AWS, Azure, and other enterprise clouds

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NB: This is an initial offering and therefore subject to change.