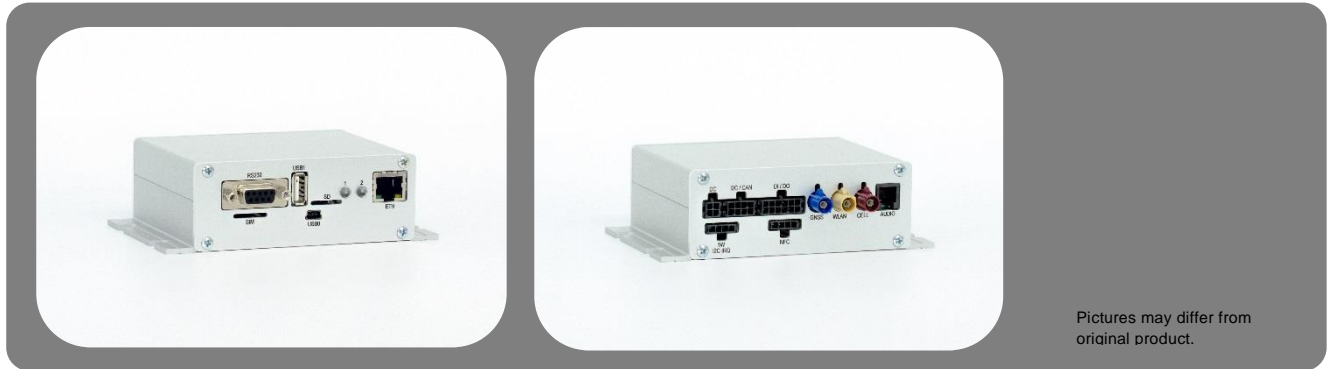


Subject to alterations



Pictures may differ from original product.

CommPro X

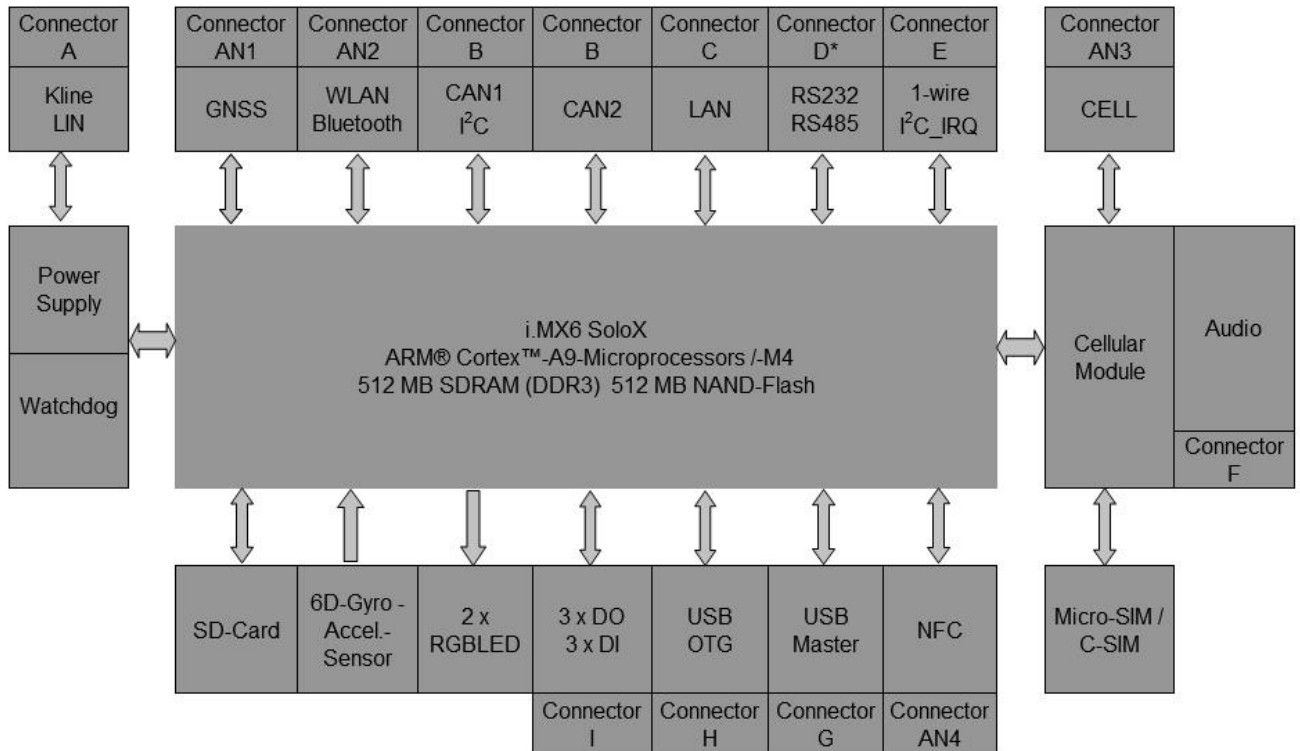
The S4 is a compact LINUX communication and tracking unit. Based on the from sitec systems developed Linux S Core with ARM® Cortex™ A9 and an ARM® M4 a high performance and long term availability is achieved. For the programming Linux typical Open Source Tools are available.

You can choose between the variants with dual band WLAN and the mobile radio standard for the fourth generation. The used GNSS receiver is suitable for GPS, GLONASS, BEIDOU and Galileo. Position data without satellites are available via an integrated dead reckoning.

The equipment offers a wide range of interfaces and builds on the requirements of the automotive and industrial sector.

The second CAN interface is galvanically isolated.

S4 Overview



* Connector D: 2 x DI (not galvanically isolated) / 2 x AI

Subject to alterations

Product codes

S4462 LTE Cat.1, GSM, GPRS, EDGE, WLAN, Bluetooth 4.2, NFC

Characteristics

Bluetooth / NFC	<p>Bluetooth 4.2 classic + LE Antenna-Connector AN2: FAKRA Antenna-Connector AN4: NFC</p>
LTE/GSM Technology 4G LTE	<p>Manufacture / Module type: uBlox AG LARA-R6001D LTE Cat 1 3GPP Release 10 LARA-R6 series modules include a UE Power Class 3 LTE transmitter, with output power and characteristics according to 3GPP TS 36.521-1 [11] Band/Frequency: LTE FDD Band 1, 2, 3, 4, 5, 7, 8, 12, 13, 18, 19, 20, 26, 28 LTE TDD Band 38, 39, 40, 41 Tx Power conducted/EIRP: Power Class 3: 23 dBm / +1.1 dBi Data rates: LTE category 1: up to 10.3 Mb/s DL, 5.2 Mb/s UL</p>
Technology 3G MTS/HSDPA/HSUPA	<p>3GPP Release 8 High Speed Packet Access (HSPA) UMTS Terrestrial Radio Access (UTRA) Frequency Division Duplex (FDD) DL Rx Diversity Band/Frequency: Band 1, 2, 5, 8 Tx Power conducted/EIRP: UMTS/HSDPA/HSUPA Power Class Class 3 (24 dBm) +1.1 dBi Data rates: HSDPA category 8: up to 7.2 Mb/s DL HSUPA category 6: up to 5.76 Mb/s UL</p>
Technology 2G SM/GPRS/EDGE	<p>3GPP Release 9 Enhanced Data rate GSM Evolution (EDGE) GSM EGPRS Radio Access (GERA) Time Division Multiple Access (TDMA) DL Advanced Rx Performance Phase 1 Band/Frequency: Quad Band GSM 850, E-GSM900, DCS 1800, PCS 1900 MHz Tx Power conducted/EIRP: GSM/GPRS (GMSK) Power Class Power Class 4 (33 dBm) for E-GSM / GSM band Power Class 1 (30 dBm) for DCS / PCS band EDGE (8-PSK) Power Class Power Class E2 (27 dBm) for E-GSM / GSM band Power Class E2 (26 dBm) for DCS / PCS band +1.1 dBi Data rates: GPRS multi-slot class 33 , CS1-CS4, up to 107 kb/s DL, up to 85.6 kb/s UL EDGE multi-slot class 33 , MCS1-MCS9, up to 296 kb/s DL, up to 236.8 kb/s UL</p>
	Antenna-Connector AN3: FAKRA

Subject to alterations

Processor	ARM® Cortex™-A9, ARM® M4, i.MX6 SoloX, 800 MHz 512 MB SDRAM (DDR3) / 512 MB NAND-Flash
USB OTG	USB 2.0 high speed, 480 Mbps, Device Connector H: USB Type Mini B
USB Master	USB 2.0 high speed, 480 Mbps, Master Connector G: USB Type A
LAN	Ethernet 100 MB Connector C: RJ45
WLAN	WLAN 5 / 2,4 GHz Band, IEEE 802.11 a/b/g/n
CAN1	CAN 2.0B, 1Mbps Supports socket CAN Software controlled switchable terminating resistor Connector B: Molex Micro-Fit 3.0, 2x4 poles
CAN2	CAN-FD, 5Mbps Galvanically isolated Supports socket CAN Software controlled switchable terminating resistor Connector B: Molex Micro-Fit 3.0, 2x4 poles
I ² C	I ² C 400 kbps, IRQ capability Connector B: Molex Micro-Fit 3.0, 2x4 poles
3 x DO	High-side-switch with a protection circuit Connector I: Molex Micro-Fit 3.0, 2x6 poles
3 x DI	Digital inputs, optical isolated Connector I: Molex Micro-Fit 3.0, 2x6 poles
2 x DI	Digital inputs, galvanically connected Connector D: 9 poles SUB-D (f)
2 x AI	Analogue inputs Connector D: 9 poles SUB-D (f)
RS232	RS232 2-wire Connector D: 9 poles SUB-D (f)
RS485	RS485 2-wire Connector D: 9 poles SUB-D (f)
KLine / LIN	1200, 1195 Baud, 2 Stop bits KLine: 1200, 1195 Baud, 2 Stop bits 9600, 10400, 19200, 28800 Baud, 1 Stop bit Irritation: „near“, 5 Baud Connector A: Molex Micro-Fit 3.0, 2x2 poles <u>OR</u> LIN: LIN 20, 21, 22, 22A und J2602 Up to 20 kBaud Connector A: Molex Micro-Fit 3.0, 2x2 poles
1-wire	Standard and overdrive 1-wire communication Connector E: Molex Micro-Fit 3.0, 2x4 poles
GNSS	72 channel GNSS receiver GPS/QZSS L1 C/A GLONASS L10F BeiDou B1 Galileo Tracking sensitivity -167 dBm Trouble identification Supports A-GPS Supports SBAS (WAAS, EGNOS, MSAS and GAGAN) Horizontal accuracy: 2 m (CEP) Cold start TTFF 26 s Antenna-Connector AN1: FAKRA

Subject to alterations

6D-Gyro-Acceleration-sensor	6-axis MEMS Motion Sensor: 3D-Accelerationsensor: $\pm 2g/\pm 4g/\pm 8g/\pm 16g$ 3D-Gyro: $\pm 250, \pm 500, \pm 1000, \pm 2000^\circ/\text{sec}$ Adjustable thresholds
Real Time Clock (RTC)	Buffered by capacitor Holds time up to two days
LED	2 x RGB
Audio	Microphone- and loudspeaker connection Optimised for hands-free-mode Echo cancellation Noise reduction Connector F: RJ10 (4P4C)
SD card	Micro SD card slot SDHC, SDXC
Dual SIM	Micro SIM (accessible) and Component SIM, software switchable
Power supply	7..42V DC Connector A: Molex Micro-Fit 3.0, 2x2 poles
Temperature range	Operation: -40°C to $+75^\circ\text{C}$ Shutdown at $>80^\circ\text{C}$ Storage: -40°C to $+85^\circ\text{C}$
Housing	Aluminium profile housing black or aluminium colours Size: 105 x 80 x 40 mm Special designs upon request
OS	Linux 4.1
Tests/certifications/compliance	E1 048106, CE EN 55022/9.98+A1/10.00 +A2/1.03 EN 55024/9.98+A1/10.01 +A2/1.03) RoHS, FCC

Antennae and cables

KA001-1030	GSM antenna, dashboard	FAKRA 300cm cable
KA002-1030	GSM antenna, window	FAKRA 300cm cable
KA003-1003	GSM/GNSS antenna, dashboard	FAKRA 30cm cable
KA003-1030	GSM/GNSS antenna, dashboard	FAKRA 300cm cable
KA004-1030	GSM/GNSS antenna, window	FAKRA 300cm cable
KA005-1015	GSM/GNSS/WLAN antenna, roof, IP65	FAKRA 150cm cable
KA005-1050	GSM/GNSS/WLAN antenna, roof, IP65	FAKRA 500cm cable
KA006-1015	GSM/GNSS antenna, roof, IP67	FAKRA 150cm cable
KA006-1030	GSM/GNSS antenna, roof, IP67	FAKRA 300cm cable
KA009-1050	GSM/GNSS/WLAN antenna, dashboard	FAKRA 500cm cable
KA010-1015	WLAN antenna, window	FAKRA 150cm cable
KA011-1003	GSM antenna, IP67	FAKRA 30cm cable
K0001-0000	4 poles cable	Molex, 4 poles → open ends, 150cm cable
K0002-0000	8 poles cable	Molex, 8 poles → open ends, 150cm cable
K0003-0000	12 poles cable	Molex, 12 poles → open ends, 150cm cable
KN001-0000	Power supply	Plug-in power supply, 4 poles, Molex, 150cm cable

Subject to alterations

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