

Subject to alterations



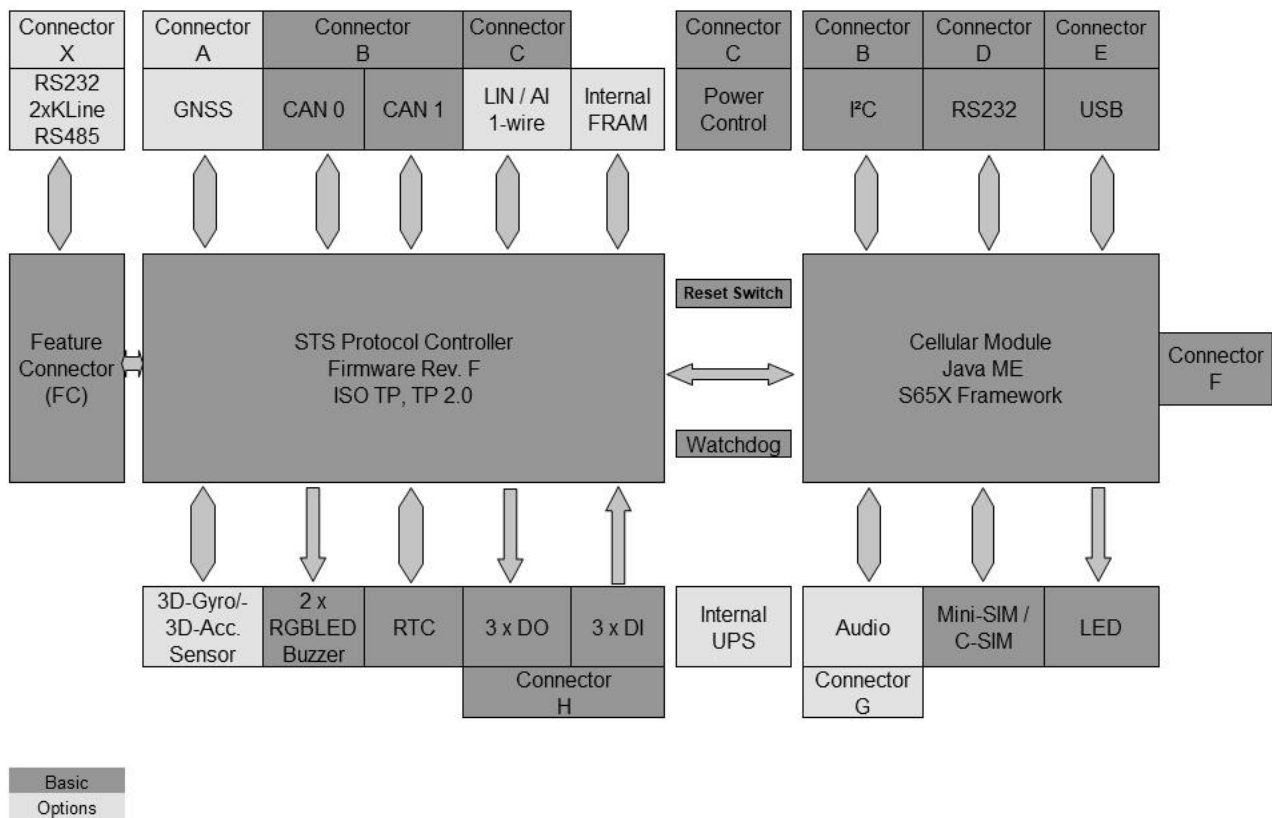
Pictures may differ from original product.

## TrackPro

The S6 TrackPro/CommPro characterises a high flexibility through the choice of the cellular radio options and the free programmability. Programming is simplified by using open source tools such as Eclipse or Netbeans, and by using sitec systems' S65X Framework, various software tools and training courses. The S6 is E1 and CE certified, and it forms the basis for many mobile applications.

There is a wide range of standard equipment, such as GSM/GPRS/LTE, GNSS (GPS, GLONASS, Galileo), 3-axis acceleration sensor, 3-axis gyro sensor, dual CAN, optically isolated digital inputs/outputs, RS232 interface, I<sup>2</sup>C, 1-wire/LIN, KLine, USB. This predestines the S6 for vehicle applications. Additional, optional interfaces can be added if required using the internal Feature Connector (FC).

## S6 Overview



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### Product codes

<b>S624xx</b>	GNSS, GPRS, EDGE, GSM, 10 MB Flash, 5 MB RAM
<b>S6400</b>	LTE, GPRS, 30 MB Flash, 18 MB RAM
<b>S6401</b>	GNSS, LTE, GPRS, 30 MB Flash, 18 MB RAM

### Characteristics

GPRS, EDGE, GSM	<p>GSM 850/900/1800/1900 MHz EDGE Class 12 data rates, DL: max. 237 kbps, UL: max. 237 kbps GPRS Class 12 data rates, DL: max. 85.6 kbps, UL: max. 85.6 kbps CSD Data: up to 9.6 kbps V.110</p>
LTE, GPRS, EDGE	<p>LTE 700/800/900/1800/2100, Cat. 1 supported, DL: max. 10.2 Mbps, UL max. 5.2 Mbps GSM 900/1800 MHz EDGE Class 12 data rates, DL: max. 237 kbps, UL: max. 237 kbps GPRS Class 12 data rates, DL: max. 85.6 kbps, UL: max. 85.6 kbps CSD Data: up to 9.6 kbps V.110</p>
General	<p>SMS Point-to-point MO &amp; MT, cell broadcast, Text/PDU mode Fax Group 3, class 2 / class 1 Control via AT commands TCP/IP stack access via AT commands Internet services: TCP Server/Client, UDP, HTTP, FTP, SMTP, POP3 RLS Monitoring (Jamming Detection)</p>
SIM	<p>SIM 1.8 V, 3 V – Mini SIM (accessible) or Component SIM</p>
RS232	<p>RS232 4-wire Usable as application interface, as programming interface and for updates Connector D: 9 poles SUB-D (f)</p>
2 x CAN	<p>CAN 2.0B, 1Mbps 2 receive buffers with priority message stores 6 29-bit filter 2 29-bit masks Connector B: Molex Micro-Fit 3.0, 2x4 pole</p>
I <sup>2</sup> C	<p>I<sup>2</sup>C 400 kbps Line driver up to 15 meter cable length Connector B: Molex Micro-Fit 3.0, 2x4 pole</p>
DI/DO	<p>3 digital inputs, optical isolated 3 digital outputs, optical isolated Internal signal transmitter 4 KHz Connector H: Molex Micro-Fit 3.0, 2x6 pole</p>
LED	<p>1 x GSM green (can be switched off) 2 x application RGB (programmable)</p>
Protected key	<p>Reset, on/off, factory default</p>
Real Time Clock (RTC)	<p>Buffered via accumulator or capacitor Holds time up to one year</p>
USB	<p>USB 2.0 full speed, 12 Mbps Connector E: USB Mini-B</p>
Switch on via	<p>Ignition input, RS232, USB, power supply, digital input, acceleration sensor, timer, button, CAN, FC add-ons</p>
Power supply	<p>7..42V DC (undervoltage protection: switch off at 6,8VDC / switch on at 8,6VDC) Optional: integrated accumulator Connector C: Molex Micro-Fit 3.0, 2x2 pole</p>

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Temperature range	Operation: -40°C to +75°C Switching of automatically at > 80°C Storage: -40°C to +85°C
Housing	Aluminium profile housing, black or aluminium colours Size: 105 x 60 x 25 mm Special designs upon request
Software / driver	Hard- and software watchdog Update via air interface for firmware and application S65X Framework
Tests/certifications/compliance	E1 046047, CE EN 55022/9.98+A1/10.00 +A2/1.03; RoHS FCC

## Options

GNSS	GPS (L1), Glonass (L1, FDMA), Galileo (E1) NMEA, RTCM 32 Channel GPS architecture Optional with dead reckoning function Sensitivity: Acquisition: -146 dBm Navigation: -160 dBm Tracking: -162 dBm Positional accuracy: Position: (CEP50): 2.0 m Speed: < 0.05 m/s Heading: <0.3 deg Time to first fix (@ - 130 dBm) Hot start: 1 s Cold start: < 35 s EGNOS, WAAs and MSAS support A-GPS: Ephemeris file injection Jammer rejection Connector A: GNSS FAKRA blue or internal antenna
3-axis acceleration sensor	Acceleration sensor: ±2g/±4g/±8g/±16g Adjustable thresholds Integrated self-test 10-13 bit resolution
3-axis gyro sensor	Beat and double beat recognition Motion detection and detection of standstill Detection of free fall  Gyro sensor: 250/500/2000 degrees per second detection range 16 bit resolution
Accumulator	1.000..20.000 mAh charging connection with battery monitoring
FRAM	Up to 2048 kbit FRAM Non-volatile intermediate memory
Audio	Microphone and loudspeaker connection Basic hands-free operation Echo cancellation Noise reduction Connector G: RJ10 (4P4C)

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LIN 2.0/SAE J2602 compatible  
 Master (default)  
 (EME) max. 20 kbaud  
 TXD Dominant Timeout Function  
 LIN Bus Dominant Management

LIN / 1-wire / AI

1-wire Master IO with active or passive 1-wire preload  
 Standard- and overdrive 1-wire communication speed

Analogue Input  
 AD converter 12bit  
 Voltage measuring range is configurable unipolar up to 12,288V, bipolar up to ±12,288V  
 Voltage proof up to ±30V  
 Than no FC extensions usable

Connector C: Molex Micro-Fit 3.0, 2x2 pole

## Antennae and cables

FC101	FC COMM 485	RS485, I <sup>2</sup> C
FC102	FC COMM ETH	100 Mbit Ethernet
FC103	FC FDR 2	8x AI, 4x DI, 1x RS232
FC104	FC KLINE	2x KLine

## Extensions

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
KA006-1015	GSM/GNSS antenna, roof, IP67	FAKRA 150cm cable
KA006-1030	GSM/GNSS antenna, roof, IP67	FAKRA 300cm 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, Molex, 4 poles, 150cm cable

## Information and contact

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