# SEC3M

# Datasheet



**Edition April 2021**
**Version 0.99**

## Processor / Memory / Mass Storage

| | |
|---|---|
| CPU | ARM Cortex-A8 1 GHz |
| RAM | 256 MB DDR3L |
| Flash | 512 MB SLC NAND |

## Power Supply

| | |
|---|---|
| Voltage | $U_{PWR1/2}$: 12 / 24 / 48 V DC (9 – 60 V DC) |
| Power consumption | Max. 10 W (typ. 4 W without USB) |
| Line cross-section | 0.129 – 3.31 mm² (AWG 26...12, solid or stranded wire) |
| Features | Redundant power feed with fault contact |

## Interfaces

| | |
|---|---|
| Ethernet interface | 2x RJ45 10/100BASE-T |
| Serial interface | 2x RJ45 RS232 / RS422 / RS485<br>Baud Rate: 300 – 115200 Baud |
| USB interface | 1 x USB 2.0 up to 480 Mbps "high speed" |

## Cellular Modem

| | |
|---|---|
| SIM card | Mini SIM 2FF slot (SIM card not included) |
| Antenna interface | 2x SMA female antenna connector for LTE-GSM antennas with flexible joint<br>(Ø 8 mm, 2 dBi, 698-960 MHz / 1710-2700 MHz) |
| Frequency bands LTE modem | **LTE:** 12-band FDD-LTE<br>700, 800, 850, 900, 1700/2100 AWS, 1800, 1900, 2100 and 2600 MHz<br>**3G UMTS/HSPA+:** 7-band UMTS (WCDMA/FDD)<br>800, 850, 900, 1700/2100 AWS, 1800, 1900 and 2100 MHz<br>**2G GSM/GPRS/EDGE:** Quad-band GSM<br>850, 900, 1800 and 1900 MHz |
| Data rates LTE modem | **LTE:** 3GPP Release 9, UE Cat. 1<br>DL: max. 10.2 Mbps, UL: max. 5.2 Mbps<br>**HSPA+:** 3GPP Release 8, HSDPA Cat. 8 / HSUPA Cat. 6<br>DL: max. 7.2 Mbps, UL: max. 5.76 Mbps<br>**UMTS:** 3GPP Release 4<br>DL: max. 384 kbps, UL: max. 384 kbps (PS)<br>DL: max. 64 kbps, UL: max. 64 kbps (CS) |

## Diagnostics (Status LEDs)

| | |
|---|---|
| PWR | Power LED |
| USR | LED freely configurable by software |
| CPU | LED to show different software conditions |
| CELLULAR | LED to indicate the connection status of the cellular network |
| COM1 / COM2 | Send and receive LED for serial interfaces |
| ETH0 / ETH1 | Link and activity LED for Ethernet interfaces |

## Additional Functions and Features

| | |
|---|---|
| Battery buffered real time clock | Supported by a lithium battery (CR2032) |
| State relay "FAIL" | Changeover switch controlled by software |
| Hardware watchdog | |
| Temperature monitoring | |
| Power supply monitoring | |
| Overvoltage protection | The power supply and all interfaces are ESD, surge, and burst protected (see EMC) |

## Housing

| | |
|---|---|
| Body material | Steel chassis |
| Mounting | 35 mm DIN-Rail |
| IP Code | IP30 |
| Rotating parts | None |
| Dimensions (W x H x D) | approx. 65 mm x 124 mm x 132 mm |
| Weight | approx. 0.6 kg (without antennas) |

## Operating Environment

| | |
|---|---|
| Operating temperature | -20 °C to 60 °C |
| Storage temperature | -40 °C to 85 °C |
| Relative humidity | 5% to 95% not condensing |

## Approval, Standards and Conformity

| | |
|---|---|
| Approval | CE (Industrial) |
| Standards | |
| Conformity | RoHS<br>REACH<br>WEEE |