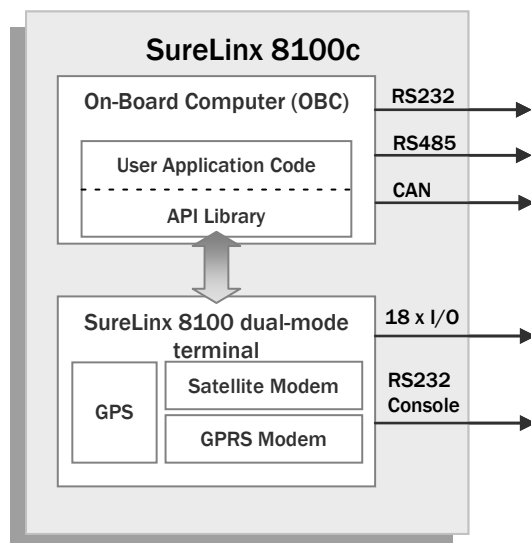


Versatile and customizable, the SureLinx™ 8100c builds on the flexibility and efficiency of the SureLinx 8100 by adding an on-board computer and more industry-standard interfaces to enable new opportunities.



The SureLinx 8100c terminal's integrated on-board computer (OBC) with a C-programming environment and API library allows for rapid development of sophisticated applications that cater to the asset tracking, fleet management, remote surveillance and SCADA markets.

Industry standard RS232, RS485 and CANbus interfaces enable applications where text messaging, connections to sensor networks and on-board vehicle diagnostic capabilities are required – all designed to create a highly responsive and flexible communication platform.



WHY SURELINX 8100c?

- **C-programmable on-board computer** with an operating system supported by feature-rich Integrated Development Environment (IDE) tools and enables creation of customized solutions.
- **Application Framework (API Library)** provides ready-made drivers to access resources such as satellite/cellular modems, GPS and I/O.
- **CANbus interface** supports 3rd party protocol stacks, such as J1939, to support engine monitoring capabilities and on-board diagnostics in fleet management applications.
- **RS485 serial interface** supports 3rd party protocols such as Modbus® for SCADA and other sensor network monitoring applications.
- **RS232 serial interface** supports a variety of generic devices such as text-messaging terminals and barcode readers.

All the features and benefits of the SureLinx 8100 including:

- **Fully-integrated satellite/cellular package** eliminates integration, installation and support issues.
- **Exception-based reporting** based on time, distance, Geofence or other criteria reduces operating costs without sacrificing functionality.
- **Intelligent message routing** increases reliability and lowers networking costs by automatically selecting which network to use.
- **Data Log** maintains detailed information that can be extracted when convenient and cost-effective.
- **Low-profile Inmarsat/GPS antenna** can be installed inconspicuously for security applications.
- **Over-the-air programming** enables remote reconfiguration – anytime, anywhere.

SURELINX™ 8100c SATELLITE/GPRS TERMINAL

PHYSICAL

Size	<ul style="list-style-type: none"> Transceiver: 155 x 124 x 41 mm Satellite antenna: 127 x 93 x 23 mm
Mass	<ul style="list-style-type: none"> Transceiver: ~258 g Satellite antenna: 379 g (with 5 m cable)

ENVIRONMENTAL

Operating Temperature	<ul style="list-style-type: none"> Transceiver: -30°C to +65°C Antenna: -40°C to +85°C
Storage Temperature	<ul style="list-style-type: none"> Transceiver and antennas: -40°C to +85°C
Humidity	<ul style="list-style-type: none"> 95% Relative Humidity at +30°C non-condensing
Dust & Water Ingress	<ul style="list-style-type: none"> Transceiver: IP40/NEMA1 Satellite antenna: IP67/NEMA-4X
Vibration	<ul style="list-style-type: none"> 5-20 Hz; 1.92 m2/s3 random noise 20-500 Hz; -3dB octave random noise
Shock (survival)	<ul style="list-style-type: none"> Half sine 6ms, 300 m/s²

ELECTRICAL

Input Voltage	<ul style="list-style-type: none"> 9 VDC to 32 VDC
Power Consumption (typical @ 12VDC)	<ul style="list-style-type: none"> Transmit mode: 7.8W (satellite) Tracking mode (GPS on, GPRS on): 1.74W Sleep mode: 48mW
Mating Connector	<ul style="list-style-type: none"> Transceiver I/O: JAE IL-AG5-30S-D3C1 Satellite Antenna: Fakra FAI-NARP-PCB-M GPRS Antenna: SMA female

SATELLITE COMMUNICATIONS (D+/ISATM2M)

Frequency	<ul style="list-style-type: none"> Rx: 1525.0 to 1559.0 MHz Tx: 1626.5 to 1660.5 MHz
EIRP	<ul style="list-style-type: none"> 9 dBW max
Elevation Angle	<ul style="list-style-type: none"> 0 to +90 degrees

GSM/GPRS COMMUNICATIONS

Frequency	<ul style="list-style-type: none"> 850/900/1800/1900 MHz
GPRS data	<ul style="list-style-type: none"> Class 12 multislot; Coding scheme 1 to 4 Class B mobile station; Full PBCCH support Supports NMEA formatted output from GPS
Output Power	<ul style="list-style-type: none"> Class 4 – 33dBm ± 2dB for EGSM 850/900 Class 1 – 30dBm ± 2dB for GSM 1800/1900
SIM Card	<ul style="list-style-type: none"> 3.3 V SIM (Customer Supplied)

GPS

Channels	<ul style="list-style-type: none"> 16 channels; 1575.42 MHz
Acquisition	<ul style="list-style-type: none"> Cold-start: 34s SuperSense®: -148dBm
Accuracy	<ul style="list-style-type: none"> 3 m CEP; 5 m SEP

CERTIFICATIONS

Satellite	<ul style="list-style-type: none"> Inmarsat D+/IsatM2m Type Approval
Regulatory	<ul style="list-style-type: none"> FCC, PTCRB, RoHS, CE Mark (R&TTE), Anatel, IC pending

DATA LOG

Capacity	<ul style="list-style-type: none"> 320 kB; Up to 17,200 points
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PROGRAMMING CAPABILITIES

Script Logic	<ul style="list-style-type: none"> 128 Actions; 64 Alarms; 64 Timers; 32 Data transformers 128 Geofences (circular, rectangular, polygons)
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ON-BOARD COMPUTER (BUS APPLICATION CONTROLLER)

Programming	<ul style="list-style-type: none"> C with Application Framework Files Use with Microchip IDE OpenRTOS™
Processor	<ul style="list-style-type: none"> Microchip dsPIC33FJ256GP710-I/PF 256KB program memory; 30KB SRAM; 2MB Flash

EXTERNAL INTERFACES

Serial	<ul style="list-style-type: none"> RS232: 1 console interface, 1 peripheral interface RS232: Supports optional NMEA output RS485: 1 peripheral interface
CANbus	<ul style="list-style-type: none"> Supports CAN 1.2, CAN 2.0A and CAN 2.0B Standard and extended data frames Programmable bit rate up to 1 Mbps
Analog/Digital	<ul style="list-style-type: none"> Up to 18 software configurable inputs or outputs 4 wake-up enabled

FROM-TERMINAL MESSAGING

IsatM2M	<ul style="list-style-type: none"> Up to 25.5-byte payload
GPRS	<ul style="list-style-type: none"> Up to 200-byte payload

TO-TERMINAL MESSAGING

IsatM2M	<ul style="list-style-type: none"> 4 alert codes + Up to 100 bytes
GPRS	<ul style="list-style-type: none"> Up to 200 bytes

ORDERING CODES

SM200254-GS5	<ul style="list-style-type: none"> SureLinX 8100c with CAN/RS485 Bus Application Controller Satellite antenna, side-entry cable (5m cable, Fakra) GPRS antenna (2.5m cable, SMA)
SM200254-GM5	<ul style="list-style-type: none"> SureLinX 8100c with CAN/RS485 Bus Application Controller Satellite antenna, side-entry cable, magnetic base (5m cable, Fakra) GPRS antenna (2.5m cable, SMA)
SM200254-GR5	<ul style="list-style-type: none"> SureLinX 8100c with CAN/RS485 Bus Application Controller Satellite antenna, bottom-mount SMA female GPRS antenna (2.5m cable, SMA)
SM200261	<ul style="list-style-type: none"> SureLinX 8100c Evaluation Kit; includes terminal SM200254-GM5, limited airtime, support, training and MPLAB REAL ICE

Note: Unpackaged antennas, transceivers and variable length cables are available. Contact a SkyWave representative for more information.



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About SkyWave Mobile Communications

SkyWave Mobile Communications designs and manufactures integrated D+/IsatM2M satellite terminals, dual-mode satellite/GPRS terminals and provides network services to enable dependable, low-cost, remote management, security and logistics solutions for fixed and mobile assets. SkyWave's products are designed for a broad range of industries including land mobile, marine, oil & gas, SCADA, government and defence.

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SkyWave