SmartStart SL305

Entry-Level Router

Features

- LTE Category 4 (Cat.4) Cellular Connectivity
- Powerful CPU with 1.3 GB storage to host customer SW applications
- 2× SIM for cellular failover
- 1× ETH, 1× RS232 (DB9 Female)
- 1× Digital Input, 1× Digital Output
- Plastic cover with wall and DIN rail mount options
- Wide operational temperature range
- Sleep mode & Power ignition
- Router App Software customization

Introduction

The SmartStart SL305 is the latest version of cellular router from SmartStart family routers. The router uses the newest Cat.4 LTE services. SL305 models from the SmartStart line is a cellular router equipped with an extended eMMC storage with 1.3 GB assigned for software customization. The new size of internal memory provides ample storage for custom scripts, software applications, and a wide variety of protocols using Router Apps, Node-RED or Docker.

Due to the high speed of data transfer up to 150 Mbps (download) and up to 50 Mbs (upload) is an ideal solution for the wireless connection of traffic and security camera systems, individual computers, LAN networks, automatic teller machines (ATM), and other self-service terminals.

SmartStart SL305 is equipped with a powerful microprocessor ARM Cortex-A8 at 1000 MHz. As a standard, SL305 is equipped with one Ethernet 10/100 Mbps port, with one RS232 a port using 9 wires (DB9 Female), with one digital input and one digital output. This router contains two SIMs readers, which are placed on the rear side of the device. The device is placed in an original robust plastic case. Customers can use wall mounting or use the supplied DIN holder.

The router can be easily installed, monitored, maintained, and VPN-enabled using the cloud-based WebAccess/DMP for centralized management.

Ordering Information

Order Code	Region	LTE	1× Ethernet	1× RS232	I/O	2× SIM
BB-SL30500110	*EMEA	✓	✓	✓	✓	✓

* - The router is compatible with cellular networks in the indicated region. The importer/operator needs to check locale legislation (standards, national Telecom approvals, etc.) and compare with standards available for the product if possible to operate the router in the target region legally.

Accessories

Order Code	Description	Included in the package	Sold Separately
BB-KN-MO4-1.5	Power cable 4-wire, 1.35m	✓	✓
BB-SBD25	DIN Clip	✓	✓
*ANT-LTE5G-025	Antenna 5G/LTE, Terminal, SMA		✓
*ANT-LTEMG3-150	Cellular Magnetic Mount Antenna, 1,5m cable, SMA		✓
BB-RPS-MO4-EU	Power Supply, 12V/1A, EU plug		✓
BB-RPS-MO4-M	Power Supply, 12V/1A, EU,UK,US,AUS plugs		✓

For more Antenna accessories visit www.advantech.com   *2 antennas are required for optimal LTE performance

Specifications

System	
CPU	ARM Cortex-A8, 1000 MHz
Memory	RAM - 512 MB eMMC - 4096 MB (838 MB for Router App, 512 MB for customer data)
Watchdog	HW Watchdog
RTC	Battery backup RTC

Interfaces	
Ethernet	1× Ethernet, RJ45, 10/100 Mbps, 1.5 kV
Serial Lines	1× RS232 (DCD, RxD, TxD, DTR, GND, RTS, CTS) DB9 Female
I / O	1× Digital Input (0 to 0.7 log 0, 1.6 V to 36 VDC log 1) 1× Digital Output (max current 200 mA) (4-Way Molex Micro-Fit connector)
Reset Button	Factory reset
LED Indicators	Power, Data activity, Signal strength, Ethernet activity

Environmental	
Power Supply	9 – 36 V DC (4-Way Molex Micro-Fit connector)
Consuption	Average 2.1 W / Maximum 4.8 W
Sleep Mode	Yes, 50 mW
Operating Temperature	-40 to +75 °C
Storage Temperature	-40 to +85 °C
Humidity	0 to 95 %
IP Cover	IP30

Physical Characteristics	
Dimensions	30 × 87 × 150 mm
Enclosure	Plastic Case
Mounting	Wall Mounting, DIN Rail
Weight	200 g

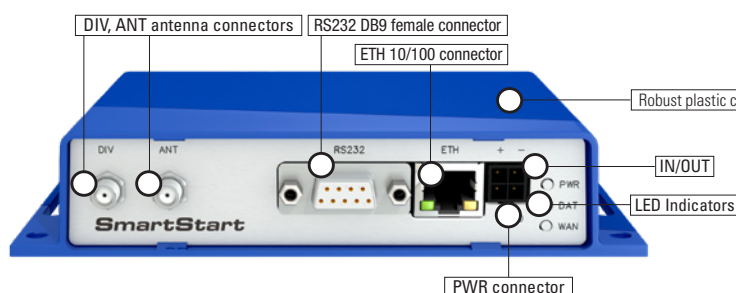| Cellular Interface	
SIM Slots	2× SIM (Mini SIMs – 2FF)
Antennas	2× SMA connector (1× Main, 1× Diversity)
LTE Parameters	Supported FDD frequencies: B1 (2100 MHz), B3 (1800 MHz), B7 (2600 MHz), B8 (900 MHz), B20 (800 MHz), B28A (700 MHz) Supported TDD frequencies: B38 (2600 MHz), B40 (2300 MHz), B41 (2500 MHz) Transfer rate: 150 Mbps (DL), 50 Mbps (UL)
HSPA+ Parameters	Supported frequencies: B1 (2100 MHz), B8 (900 MHz) Transfer rate: 42 Mbps (DL), 5.76 Mbps (UL)
UMTS Parameters	Supported frequencies: B1 (2100 MHz), B8 (900 MHz) Transfer rate: 384 kbps (DL), 384 kbps (UL)
EDGE/GPRS Parameters	Supported frequencies: B3 (1800 MHz), B8 (900 MHz) Transfer rate: 296 kbps (DL), 236.8 kbps (UL)

Standards & Regulations	
Radio	EN 301 511, EN 301 908-1, EN 301 908-2, EN 301 908-13, EN 300 328
EMC	EN 301 489-1, EN 301 489-17, EN 301 489-52, EN 55032 class B, EN 61000-6-2, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6
Safety	EN 62368-1
Cybersecurity	EN 18031-1
Transportation	E-Mark E8 homologation number: 10R – 04 8634
National	CE, UKCA
Mechanical	EN 60068-2-27, EN 60068-2-64, EN 60529
Climatic	EN 60068-2-1, EN 60068-2-2, EN 60068-2-14, EN 60068-2-30
Environmental	REACH, RoHS3, WEEE

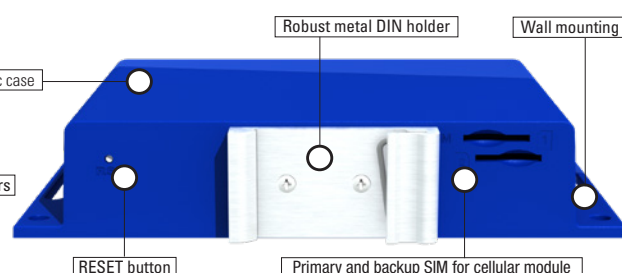| Software	
Operating System	ICR-OS (Linux based)
SW Customization	Router App*
Application Development	Open Linux, *Python, BASH, C/C++, *Node-RED, *Docker
Networking Features and Protocols	DHCP, NAT/PAT, SSH, VRRP, PPPoE, SNMP, SMTP, Dynamic DNS client, DNS proxy, VLAN, QoS, *DMVPN, NTP Client/Server, *Routing protocols RIP, BGP, OSPF, IS-IS, NHRP, Backup Routes, Port Forwarding, Host Port Routing, Ethernet Bridging, Load Balancing, IPv6 Dual Stack
Industrial Protocolsand IoT	*Modbus RTU/TCP gateway, *IEC 60870-5-101 to 104 gateway, *DF1, *DNP3, *MQTT, *LWM2M
Networking Features	DHCP, NAT/PAT, VRRP, Dynamic DNS client, DNS proxy, VLAN, QoS, *DMVPN, *WOL, NTP Client/Server, Backup Routes, Port Forwarding, Host Port Routing, Ethernet Bridging, Load Balancing, IPv6 Dual Stack
Security	HTTPS, SSH, SFTP, DMZ, Firewall (IP Filtering, MAC address filtering, Inbound and outbound Port filtering) VPN Tunneling – WireGuard, OpenVPN, IPsec with IKEv1 and IKEv2, GRE, L2TP, PPTP Authentication – RADIUS, TACACS+, 2FA, *SCEP Encryption – DES, 3DES, AES, RSA up to 4096, Ed25519, MD5, SHA
Firmware Management	Automatic firmware updates – server, locally via LAN or remotely via WAN
Diagnostic/Log	Status – Data Usage, Detailed Long Term Statistics One CLICK report – Current Configuration, Factory Identification, Routing Table Log – System Log, Reboot Log, Kernel Log Remote Diagnostics (via SSH)
Event Engine	StartUp script & Up/Down script (Own rules based on Digital Inputs, Network Parameters, Data Usage, Timer, Power, Device Temperature) Report Types: Email, SNMP Trap
Configuration	Web server, SSH, Four configuration switchable profiles, Automatic configuration update from server, Backup & Restore configuration
Advanced Software Tools	WebAccess/DMP – Remote Monitoring, Management & VPN Platform

*Functionality is available with installed Router App
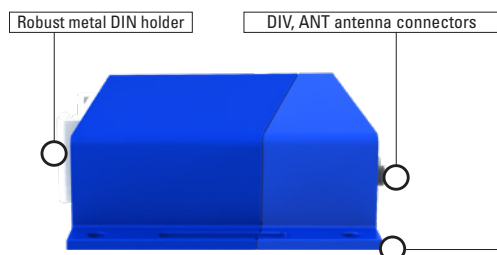
Views

FRONT VIEW

REAR VIEW

DIV, ANT antenna connectors
RS232 DB9 female connector
ETH 10/100 connector
Robust plastic case
IN/OUT
LED Indicators
PWR connector

Robust metal DIN holder
Wall mounting
RESET button
Primary and backup SIM for cellular module

LEFT SIDE VIEW

RIGHT SIDE VIEW

Robust metal DIN holder
DIV, ANT antenna connectors
Wall mounting

Dimensions - Technical Drawing

Unit: mm