



- + 4G LTE Cat.4 Cellular connectivity
- + Ethernet, serial RS-232 and I/O for connecting a wide array of field assets with DIN rail or wall mounting
- + Sleep mode for solar and battery power applications
- + Exceptionally resilient wireless and wired connection
- + Enhanced memory to host custom software applications and a wide variety of protocols
- + Easy deployment, mass maintenance and troubleshooting with B+B SmartWorx remote management and monitoring tools
- + Loaded with advanced features to secure your data

The SmartStart™ LTE family of cellular routers and gateways are the perfect way to connect RS-232 and Ethernet devices to a cellular network. Industrial M2M and IoT applications include Ethernet lottery machines, ATM stations, kiosks, gaming terminals along with RS-232 traffic controllers, meters, UPS systems, PLCs and much more.

The processor is powerful enough to handle the full range of LTE communications capabilities, including video streams. The internal memory provides ample storage for custom scripts, software applications and a wide variety of protocols. In addition to its Ethernet and RS-232 ports, SmartStart™ has built-in digital I/O connectivity. Competing routers in the same price range generally provide only Ethernet or RS-232. StartSmart™ provides all three.

SmartStart™ combines best-in-class power consumption with LTE performance and is optimized for solar and battery powered applications. Sleep mode extends battery life by dropping power consumption to 40 mW, and can be triggered by timers, low voltage detection or I/O. SmartStart™ is the industry's only cellular gateway with power

consumption equivalent to 2G devices. It is DIN rail and panel mountable. The router supports VPN tunnel creation using various protocols to ensure safe communications. The router provides diagnostic functions which include automatic monitoring of the wireless and wired connections, automatic restart in case of connection losses, and a hardware watchdog that monitors the router status.

SmartStart™ is an excellent fit for applications that are migrating to LTE technology. SmartStart™ provides fallback to 3G/2G technologies to ensure that connectivity is reliable in areas where LTE is still under development. This futureproofs your existing installations and protects your investment. You can upgrade your systems according to your own schedule, as SmartStart™ will continue to connect your legacy devices, even after the cellular providers sunset their 2G and 3G cellular networks.

SmartStart™ is easy to install using SmartWorx HUB™, a full featured configuration and monitoring tool. Our VPN configuration tool, SmartCluster™, makes it easy to configure multiple routers via the same VPN tunnel.

**ORDERING INFORMATION**

IMAGE	P/N	CELLULAR TECHNOLOGY			PORT CONFIGURATIONS					SW	APPR
		GPRS/EDGE	3G/HSPA+	LTE cat.4	SIM slots [1/2]	WiFi 2.4 GHz	ETH	RS232	I/O 1x IN + 1x OUT	SWH	CCC
	BB-SL30600110-SWH	✓	✓	✓	2	-	✓	✓	✓	✓	✓
	BB-SL30610110-SWH	✓	✓	✓	2	✓	✓	✓	✓	✓	✓

# SmartStart SL306

## INTELLIGENT 4G LTE ROUTER & GATEWAY



### HW SPECIFICATIONS

PORTS, LED, ANTENNAS	
Ethernet	RJ45, 10/100 Mbps, 1.5kV RMS
SIM NAM/EMEA	1/2 Mini SIMs (2FF)
LED indicators	PWR, DAT, WAN, ETH
2x ANT	SMA connectors
WiFi antenna - *optional	R-SMA connector
RS232	DB9 Female
I/O	Integrated in 4 way Molex mini connector Configurable I/O pin on power connector 1x Digital Input : 0 to 36 VDC, logic 0: 0 to 0,7 V, logic 1: 1,6 V to 36 V 1x Digital Open Collector Output > sinking 200 mA/ 36 V DC

POWER, CONSUMPTION, ENVIRONMENTAL, IP COVER	
Power Supply	9-36VDC (4-Way Molex mini-fit connector)
Power Consumption with WiFi - Average/Peak/Sleep Mode	2,7 / 5.5 W / 40 mW
Power Consumption without WiFi - Idle/Average/Peak/Sleep Mode	2,1 / 4.8 W / 40 mW
Current with WiFi	0.65 A Max
Current without WiFi	0.55 A Max
Temperature Range with WiFi – Operating / Storage	-25 to +55 °C / -40 to +85 °C
Temperature Range without WiFi – Operating / Storage	-40 to +75 °C / -40 to +85 °C
Humidity – Operating / Storage (noncondensing)	0 to 95 % / 0 to 95 %
Cold Start	-40 °C
Operating Altitude	2000 m / 70 kPa
Enclosure Rating	IP30

MECHANICAL	
Plastic case with metal DIN rail	Plastic
Enclosure Dimensions	87x30x127mm (150mm including wall month sides)
Weight	187 g

OTHER TECHNICAL PARAMETERS	
CPU power	2 DMIPS per MHz
Enclosure Dimensions	256MB
RAM	512MB
M-RAM	128kB

Wi-Fi *Model SL3061XXXX	
Antenna Connector	R-SMA – 50 Ohms
Supported WiFi Band	2.4 GHz - Number of clients: 55
Standards	802.11b, 802.11g, 802.11n
Encryption	None, WEP, TKIP, AES
Authentication	Open, Shared, WPA-PSK, WPA2-PSK, WPA2-Enterprise, 802.1 - RADIUS
2.4 GHz Supported Channels	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11
RX Sensitivity	11b, 11 Mbps: typ. -85 dBm 11g, 54 Mbps: typ. -70 dBm (HT20) 11n, MSC7: typ. -66 dBm (HT40) 11n, MSC7: typ. -62 dBm
TX Output Power	11b, 11 Mbps: min. 18, typ. 19, max. 20 dBm 11g, 54 Mbps: min. 14.5, typ. 16, max. 17.5 dBm 802.11n (HT20): min. 13.5, typ. 15, max. 16.5 dBm 802.11n (HT40): min. 13.5, typ. 15, max. 16.5 dBm
Type of Device	Access point, Client

# SmartStart SL306

## INTELLIGENT 4G LTE ROUTER & GATEWAY

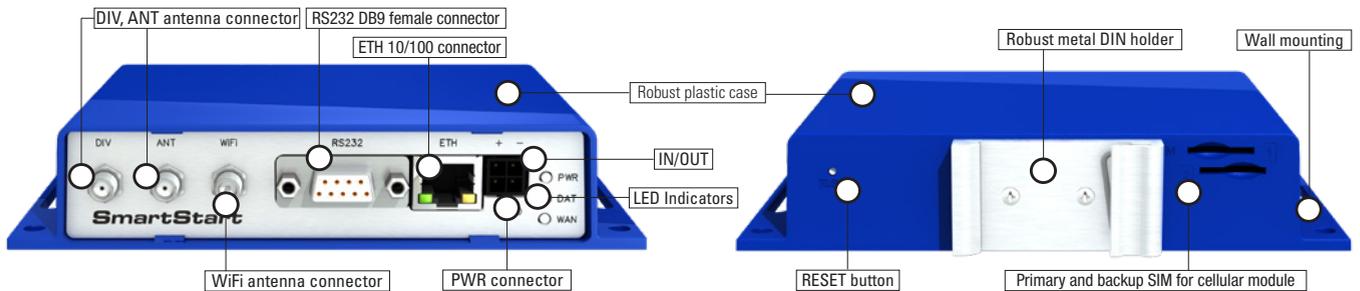


### HW SPECIFICATIONS

LTE CELLULAR MODULE PARAMETERS	
FDD LTE	Bands: 2100 MHz (B1), 1800 MHz (B3), 900 MHz (B8), all bands with diversity Bit rates: UL 50 Mbps; DL 150 Mbps @20M BW cat4
TDD LTE	Bands: 2600 MHz (B38), 1900 MHz (B39), 2300 MHz (B40), 2500 MHz (B41), all bands with diversity Bit rates: UL 10 Mbps; DL 112 Mbps @20M BW cat4
DC-HSPA+/ HSPA+ / HSPA/ WCDMA	Bands: 2100 MHz (B1), 850 MHz (B5), 900 MHz (B8), 1700 MHz (B9), all bands with diversity Bit rates: WCDMA CS: UL 64 kbps; DL 64 kbps WCDMA PS: UL 384 kbps; DL 384 kbps HSPA+: UL 5.76 Mbps; DL 21.6 Mbps DC-HSPA+: UL 5.76 Mbps; DL 42 Mbps TD-HSPA: UL 2.2 Mbps; DL 2.8 Mbps
TD-SCDMA	Bands: 2000 MHz (B34), 1900 MHz (B39) Bit rates: UL 384 kbps; DL 2.8 Mbps
GSM/GPRS/EDGE	Bands: 1800 MHz, 900 MHz Bit rates: GPRS: UL 85.6 kbps; DL 85.6 kbps EDGE: UL 236.8 kbps; DL 236.8 kbps

### STANDARDS AND REGULATIONS

STANDARDS AND REGULATIONS FOR EMEA ROUTERS - SL306XXXXX	
Safety	EN 60950-1, EN 62311:2008
Environmental	China RoHS, RoHS and WEEE compliant
National	CCC compliant (No RED certification)





### SW SPECIFICATIONS

NETWORKING	
Network and Routing	DHCP Server, NAT/PAT, VRRP, Dynamic DNS client, DNS proxy, VLAN, QoS, DMVPN, NTP Client/ Server, IGMP, BGP, OSPF, RIP, SMTP, SMTPS, SNMP v1/v2c/v3, Backup Routers, PPP, PPPoE, SSL, Port Forwarding, Host Port Routing, Ethernet Bridging
Security	HTTPS, SSH, VPN tunnels, SFTP, DMZ, Firewall (IP Filtering, MAC address filtering, Inbound and outbound Port filtering)
VPN Tunnelling	Open VPN client and server and P2P, L2TP, PPTP, GRE, EasyVPN, IPSec with IKEv1 and IKEv2
Configuration	Web server, SSH, Four configuration switchable profiles, Automatic configuration update from server, Backup configuration, Restore configuration
Firmware Management	Automatic firmware update from server, Locally via LAN or remotely OTA (HTTP, HTTPS), Over-the-Air software updates, Over-the-Air cellular module update from FW
Diagnostic	One CLICK report - current configuration / factory identification / system log / kernel log / reboot log / routing table, Remote diagnostics possible via SSH
Status	Network Status, DHCP Status, IPSec Status, Statistics history for last 60days
Log	System Log, Reboot Log, Kernel Log
Controlling and Diagnostic	SMS, SNMP v1/v2c/v3, Statuses
Event Engine	StartUp script & Up/Down script (Bash, Python), Digital Input, Network Parameters, Data Usage, Timer, Power, Device Temperature. Report Types: SMS, email, SNMP Trap
Other	Support of IPv6

### ACCESSORIES

ORDER CODE	DESCRIPTION	INCLUDED IN PACKAGE	SOLD SEPARATELY
BB-KN-M04-1.5	SmartStart PS cable 4-wire, 1.5m	✓	✓
BB-SBD25	SmartStart DIN Clip	✓	✓
BB-TG.10.0113	Antenna LTE/UMTS/GSM, Terminal, SMA-M		✓
BB-GA.110.101111	Antenna LTE, Magnet Mount		✓
BB-AW-A2458G-FSRPK	Antenna Wi-Fi 2.4 & 5.8 GHz		✓
BB-RPS-M04-M	PS, SmartStart, 12V/1A		✓
BB-KD-ETH	Ethernet cable 1.5m		✓
Quick Start Guide		✓	

### R-SEENET™

Router Management Software consisting of two parts:

**R-SeeNet Server** application can be programmed to automatically send SNMP queries (Simple Network Management Protocol) to each router defined in the network. The application retrieves status information from the routers and records it in the SQL database.

**R-SeeNet PHP** is a web-based application that accesses the SQL database and provides the network administrator detailed information on individual routers and network health.

### SMARTWORX HUB™

**SmartWorx HUB** takes management of your devices to new levels of flexibility and efficiency. Giving you a complete view of your installed device population, SmartWorx Hub delivers invaluable configuration, diagnostic and management facilities directly to your desktop, wherever you are.

Manage a single device or your entire device population at the same time. Whether you need to modify configuration parameters, download or upgrade installed firmware and applications or view detailed information regarding network statistics, you can do it all from any location.