

SmartFlex SR307

FLEXIBLE, MODULAR LTE 450 ROUTER

ADVANTECH



- + Powerful CPU and enhanced memory
- + LTE 450 MHz bands
- + Extended operational temperature range from -40 °C to +70 °C
- + 10-60 VDC operation with transient and reverse polarity voltage protection
- + Flexible port options – 3-port Switch, Ethernet and RS-232/422/485 serial ports with isolation
- + MicroSD card holder, In/Out, USB Host
- + Low power consumption mode for solar and battery power applications
- + Optional industrial grade Wi-Fi
- + Optional PoE PSE or PoE PD on ETH0 and ETH1
- + Advanced security features

SmartFlex™ cellular router provides secure Internet connectivity for devices and LANs via the cellular networks using 450MHz frequency band. It can provide automatic wireless failover for wired networks, wireless connectivity for devices in remote locations where cable connections are impractical and wireless connectivity for mobile assets. With upload speeds of up to 50 Mbps and download speeds of up to 100 Mbps, SmartFlex provides ample bandwidth, even for applications that require video.

SmartFlex SR307 places intelligence at the network edge with an extremely powerful Cortex A8 CPU at 1GHz, 256 MB flash memory, 512 MB RAM and 128kB M-RAM, providing full support for LTE (Long Term Evolution) speeds and applications. A secure Web interface allows users to configure and manage SmartFlex from remote locations. The router can also upgrade its configuration and firmware from the operator's central server, allowing for simultaneous mass reconfiguration of every router on the network. Users may insert Linux scripts and can create multiple configurations for the same router and switch from one configuration to another at any time. Modular SmartFlex can be configured for any application. Standard configuration includes 2 Ethernet ports with 2 independent LANs/IP addresses and also includes 1 USB host port, 1 microSD card holder, 2 SIM card holders for automatic failover to an alternate service provider, 2 binary inputs(I/O), 1 binary output (I/O).

An optional built-in Wi-Fi module is also available, with industrial grade operating temperature ranges from -40 to +70 °C. Further optional boards include: 3x ETH (the router can be configured with up to 5 total Ethernet ports and 3 independent LANs/IP addresses) or ETH/RS-232/485 or RS-232/485 (isolation strength up to 2.5kV) or RS-232. The SmartFlex supports real time data encryption and the creation of VPN tunnels using IPsec, OpenVPN and L2TP. It supports DHCP, NAT, NAT-T, DynDNS, NTP, VRRP, control by SMS, and numerous other functions, as well as additional software like SmartCluster VPN Server and R-SeeNet.



SmartFlex Family
2x ETH, 1x USB, 2x BI, 1x BO, MicroSD reader, 2x SIM reader

BB - SR307 XXXXX - YYYY

SWH	No SmartWorx HUB SmartWorx HUB
Accessories	
0	No Accessories (DIN holder included)
1	Accessories with EU power supply
5	International Power Supply (EU, US, UK, AUS)
Enclosure	
1	Plastic enclosure
2	Metal enclosure
Interfaces	
0	No optional port
1	3x ETH Switch
3	RS232 (5-pin TB), RS485/422 (4-pin TB)
4	RS232 (4-pin TB), RS485 (3-pin TB), ETH
PoE	
0	No PoE
8	PoE PSE
9	PoE PD
WiFi	
0	No Wi
1	WiFi (Ti 2.4 & 5 GHz)
Router version	
07	LTE 450MHz

ORDERING INFORMATION

Note: Check with your local distributor for availability, options, and HW configuration.
Contact Advantech B+B SmartWorx distributors.

Note: Antennas & Power Supply Sold Separately.

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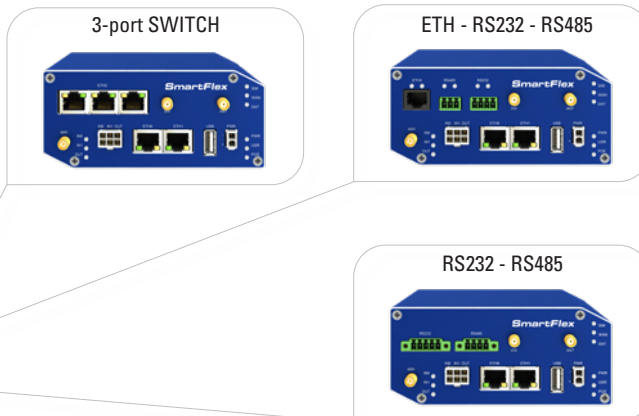
HW SPECIFICATIONS

PORTS, LED, ANTENNAS	
Up to 5x ETH ports	RJ45, 10/100 Mbps
2x SIM	2 Mini SIMs (2FF) (rear panel)
LED Indicators	PWR, DAT, WAN, ETH, SIM, USR, POE, IN0, IN1, OUT
2x ANT - ANT, DIV	SMA connectors
1x Wi-Fi Antenna *Optional	R-SMA connector
1x USB	USB Host connector 2.0
1x SD Card	1x Micro SD Card slot (rear panel)
RST	RESET button (rear panel)
*Optional 3-port SWITCH	3x RJ45, 10/100 Mbps
*Optional ETH - R232 - RS485	RJ45, 4-pin terminal block, 3-pin terminal block connectors – Isolation up to 2.5 kV
*Optional RS232 - RS485	5-pin terminal block, 4-pin terminal block connectors – Isolation up to 2.5 kV

POWER	
Power Supply	10 – 60 VDC (2-Way Molex connector)
Power Consumption	Idle: 2.5 W Average: 4 W Peak: 11 W Sleep Mode: 10mW
ENVIRONMENTAL	
Temperature Range	Operating: -40 to +70 °C Storage: -40 to +85 °C
Humidity	Operating: 0 to 95 % Storage (Non-condensing): 0 to 95 %
Cold Start	-35 °C
Operating Altitude	2000 m / 70 kPa
Ingress Protection Rating	IP30

MECHANICAL	
Plastic or metal case with plastic or metal DIN rail	
Enclosure Dimensions	55x97x125 mm
Weight Plastic	170 g
Weight Metal	375 g

CELLULAR MODULE PARAMETERS	
LTE features	Bit rate 100 Mbps (DL) / 50 Mbps (UL), UE CAT. 3 3GPP rel. 9 standard Supported bandwidths: 5 Mhz, 10 Mhz, 20 Mhz Supported frequencies: B31 (450 MHz) Rated Output Power: B31: CLASS 3 MIMO (Multi-Input Multi-Output) antenna support Max power – typical 23 dBm



WI-FI - 802.11 A/B/G/N, AP OR CLIENT MODES	
Supported Wi-Fi band	2.4 GHz, 5.4 GHz
Encryption	None, WEP, TKIP, AES
5 GHz supported channels	36, 40, 44, 48, 52, 56, 60, 64, 149, 153, 157, 161, 165
2.4 GHz supported channels	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
Number of clients	10
Authentication	Open, Shared, WPA-PSK, WPA2-PSK

POE PARAMETERS	POE PD parameters for opposite PSE	POE PSE
Input voltage range	42.5 – 57 V	44 – 57 V, 65 W
Power available	25.50 W	2x 25.50 W (ETH0, ETH1)
Maximum current	600 mA	
Insul. Strength	1.5 kV from the router	none
Standards IEEE 802.3at-2009 (PoE+) and IEEE 802.3af-2003 (PoE) supported. Cabling needed is Category 5, up to 12.5 Ω. It is possible to use a passive PoE injector		

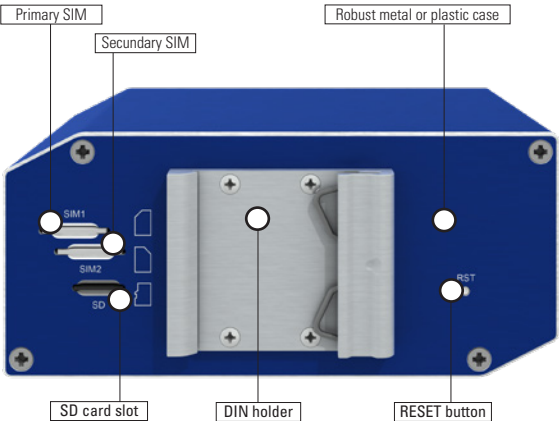
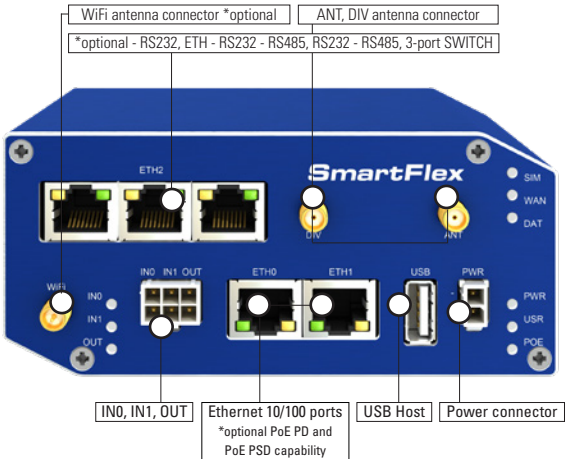
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STANDARDS AND REGULATIONS

INDUSTRY CERTIFICATIONS & APPROVALS	
	SR307 - LTE 450
Radio	ETSI EN 301 908-1 V11.1.1, ETSI EN 301 908-13 V11.1.1, ETSI EN 300 328 V2.1.1, ETSI EN 301 893 V2.1.1
EMC	ETSI EN 301 489-1 v1.9.2, ETSI EN 301 489-1 V2.1.1, Draft ETSI EN 301 489-52 V1.1.0, ETSI EN 301 489-17 V3.1.1
Safety	EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013 + AC:2011, EN 62311:2008
Mark – EMC for devices in transportation	E-Mark homologation number: 10R – 04 7737



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ACCESSORIES		Variant of router without accessories	Accessories included in set	Accessories sold separately
ORDER CODE	DESCRIPTION			
BB-WR-600N	Antenna LTE 450 MHz		✓	✓
BB-AW-A2458G-FSRPK	Antenna Wi-Fi, 2.4 & 5.8 GHz		✓	✓
BB-RPS-v3-M02-M	SmartFlex Power Supply, 12V/1A		✓	✓
BB-RPS-v3-PSE	SmartFlex Power Supply, 48V/1.35A (power cord required)			✓
BB-PWRCORD-US	USA - Power Supply Power Cord			✓
BB-PWRCORD-EU	EU - Power Supply Power Cord			✓
BB-PWRCORD-UK	UK - Power Supply Power Cord			✓
BB-PWRCORD-AUS	AU - Power Supply Power Cord			✓
BB-SBD40	DIN Rail Clip - metal	✓	✓	
BB-CPD3	DIN Rail Clip - plastic	✓	✓	
BB-KN-v3-M02-3	PS Cable 2-wire, M0 2 pins, 3m, v3 routers	✓		✓
BB-KIO-v3-M06-3	IO Cable 6-wire, 3m, v3 routers			✓
BB-CON-SFLEXSET	PWR connector, I/O connector + 8 pins	✓	✓	✓
Quick Start Guide		✓	✓	✓

SW FEATURES

SOFTWARE	
Network and Routing	DHCP Server, , DHCP Client, NAT/PAT, VRRP, Dynamic DNS client, DNS proxy, VLAN, QoS, NTP Client/ Server, IGMP, BGP, OSPF, RIP, SMTP, SMTPS, SNMP v1/ v2c/ v3, Backup routes, PPP, PPPoE, SSL, Port Forwarding, Host Port Routing, Ethernet Bridging
Security	HTTPS, SSH, VPN tunnels, SFTP, Firewall (IP Filtering, MAC address filtering, Inbound and outbound Port filtering), DMZ (via iptables)
VPN Tunnelling	Open VPN client and server and P2P, L2TP, PPTP, GRE, EasyVPN, DMVPN, 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 and USB 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 60 days
Log	System Log, Reboot Log, Kernel Log
Controlling and Diagnostic	SMS, SNMP v1/v2c/v3, Statuses, Log
Event Engine	StartUp script & Up/Down script (Bash), Digital Input, Network Parameters, Data Usage, Timer, Power, Device Temperature Report Types: RAP, SMS, email, SNMP Trap
Other	IPv6 support

WebAccess/VPN

WebAccess/VPN is an advanced VPN management solution for safe interconnection of Advantech routers and LAN networks in public Internet. Connection among devices and networks can be regional or global and can combine different technology platforms and various wireless, LTE, fixed and satellite connectivities.

WebAccess/VPN provides an easy and secure connectivity platform for applications such as branch connection, remote access, machine monitoring in industry sectors like Utilities & Energy, Automation, Predictive maintenance, Industrial IoT for any end device types such as Computers, PLCs, RTUs, Cameras, Terminals...

WebAccess/DMP₂

WebAccess/DMP Generation 2 is an advanced Enterprise-Grade platform solution for provisioning, monitoring, managing and configuring Advantech's routers and IoT gateways. It provides a zero-touch enablement platform for each remote device.

With **WebAccess/DMP**, secure zero-touch pre-provisioning and pre-configuration is simple, regardless of how large your deployment is: from one device to thousands. The platform supports full multi-tenancy, with the possibility of permissions-enabled power-user oversight across tenancies.

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.

Mouser Electronics

Authorized Distributor

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[BB-SR30710421](#) [BB-SR30718325-SWH](#) [BB-SR30710125-SWH](#) [BB-SR30710321](#)