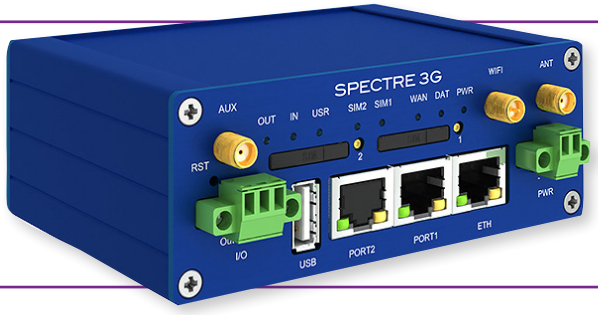
Cellular Router - EVDO/CDMA, UMTS/GSM

Spectre™ RT3G-300-x Series



PRODUCT FEATURES

- EV-DO/CDMA and HSPA+/GPRS/GSM cellular networks in one SKU
- Up to 5.7 Mbps upload and 14.4 Mpbs download speeds
- Industrial design - wide operating temperature (RT3G-3xx-W: -15 to +60 °C; RT3G-3xx: -30 to +60°C)
- GPS supported
- Class 1/Division 2 Certified
- Wi-Fi 802.11 b/g/n access point

Built for plug-and-play simplicity with extensive remote management, deployment and customization options, the Spectre 3G cellular industrial router is used to wirelessly connect Ethernet equipment and other devices to the Internet or intranet. It creates secure connections in locations where cable connections are impractical. The standard configuration includes dual 10/100 Ethernet port, USB host port, a binary input/output (I/O) port and one SIM card holders. Network redundancy is provided by the second SIM card holder. It also has 2 auxiliary ports for connecting to other types of networks such as additional Ethernet switch ports, RS-232, RS-485/422 interfaces and additional Digital/Analog I/O. The function of each port is dependent on the specific router model. An additional option is integrated 802.11b/g/n Wi-Fi technology, which allows the Spectre router to serve as a Wi-Fi access Point (AP) or "Hotspot". All models support GPS. (Note: GPS and diversity antenna cannot be used at same time.)

The router supports the creation of VPN tunnels using IPsec, OpenVPN and L2TP to ensure safe communication. The web interface provides detailed statistics about router activities, signal strength, etc. The router supports DHCP, NAT, NAT-T, DynDNS, NTP, VRRP, control by SMS, and many other functions. The router provides diagnostic functions which include automatically monitoring the PPP connection, automatic restart in case of connection losses, and a hardware watchdog that monitors the router status. The router can automatically upgrade its configuration and firmware from your central server. This allows for mass reconfiguration of numerous routers at the same time. Additional management software, like R-SeeNet, for router monitoring are also supported.

Uniquely designed on an open source LINUX architecture, Spectre products are customizable through installation of software plug-in modules. Users can create their own with common LINUX commands and scripts, or add from B+B's existing library, including Modbus gateway, dynamic routing protocols and secure VPNs.

ORDERING INFORMATION

MODEL NUMBER	10/100	I/O BINARY	RS-232	RS-422/ RS-485	USB	I/O AI/DI/DO	WI-FI
RT3G-310-W	2	1			1		✔
RT3G-320-W	1	1	1		1		✔
RT3G-330-W	1	1			1	1	✔
RT3G-340-W	1	1		1	1		✔
RT3G-300	1	1			1		
RT3G-302	1	1	1		1		
RT3G-304	1	1		1	1		
RT3G-310	2	1			1		
RT3G-311	3	1			1		
RT3G-312	2	1	1		1		
RT3G-314	2	1		1	1		
RT3G-322	1	1	2		1		
RT3G-324	1	1	1	1	1		
RT3G-330	1	1			1	1	

USA, Canada. Check with your local distributor for availability and options.

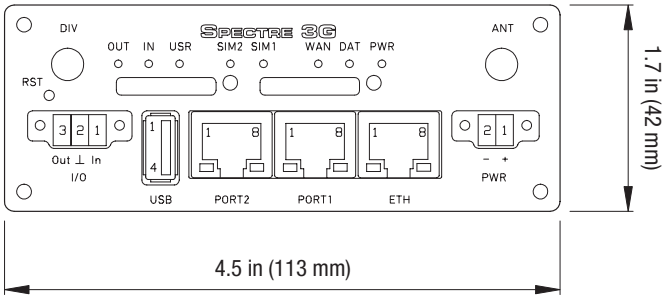
INCLUDED WITH PRODUCT

2	3G right-angle dipole antenna	1	AC power adaptor
1	WiFi right-angle dipole antenna	1	DIN rail clip
1	Ethernet cable		

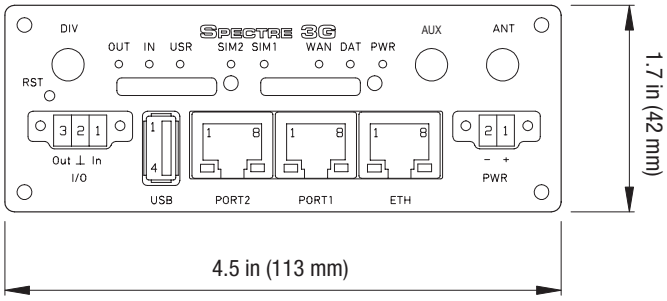
ACCESSORIES - OPTIONAL

MDR-20-24	24VDC, 20W, 1A Power Supply
C5UMB3FBG	Category 5E Cable, UTP, 1 m (3 ft), Beige
C5UMB10FBL	Category 5E Cable, UTP, 3 m (10 ft), Blue
TRAB806/17103P	Cellular Antenna, Multi-Band, Low Profile
TG30	Replacement Antenna - Penta-Band, Right-Angle SMA
GA110	Optional Antenna - Penta-Band, Magnetic Mount SMA

MECHANICAL DIAGRAM



MECHANICAL DIAGRAM - WIFI MODELS



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Spectre RT3G-300-x Series

SPECIFICATIONS

INTERFACES	
Standard	
Ethernet	10/100 Mbps
USB	USB Type A host
Binary I/O	1 input / 1 output
SIM 1	SIM card
SIM 2	SIM card
Expansion Port Options	
	Ethernet 10/100 Mbps RS-232 RS-422/485 I/O CNT: 4 Binary inputs 2 Analog inputs (4-20 mA) 1 Binary output (2 inputs may be configured as counters)

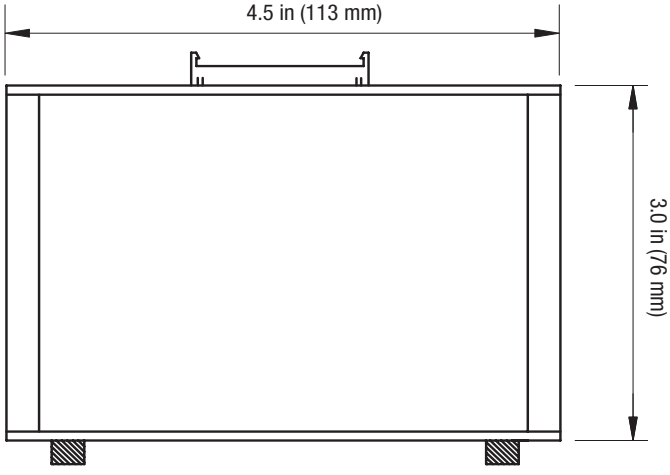
ANTENNA:	CELLULAR & WI-FI
SMA – 50 Ohms	
3G: 2 dBi, penta band, right angle dipole (2)	
WiFi: 1.8 dBi right angle dipole (1)	

TECHNOLOGYBANDS
HSPA+/UMTS 850/900/AWS/1900/2100 MHz
EGPRS 850/900/1800/1900 MHz
CDMA 800/1900 MHz

POWER	
Source	10 – 30 VDC
Consumption	300 mW receive mode Up to 3.5 W (GPRS transmission) Up to 5.5 W (UMTS/HSDPA transmission)

MECHANICAL	
Dimensions	1.7 x 3.0 x 4.5 in (42 x 76 x 113 mm), 35mm DIN rail
Enclosure	Metal
Weight	150 g

ENVIRONMENTAL	
Operating Temperature	
RT3G-3xx-W	-15 to +60°C
RT3G-3xx	-30 to +60°C
Storage Temperature	-40 to +85°C



FEATURES			
WiFi Specifications	802.11 b/g/n - 2.4 GHz		
RX Sensitivity	11b 11g (HT20) 11n (HT20) 11n	11 Mbps 54 Mbps MSC7 MSC7	-85 dBm -70 dBm -66 dBm -62 dBm
TX Output Power	11b 11g 802.11n 802.11n	11 Mbps 54 Mbps (HT20) (HT20)	19 dBm 16 dBm 15 dBm 15 dBm
Security Protocols	WAP-PSK, WAP2-PSK		
Authentication	64/128 WEP, TCIP, AES		

NETWORKING
DHCP – automatic IP addressing in LAN network
NAT – IP address and ports translation between inside/outside network
Firewall – filtering of addresses, ports, protocols
VRRP – virtual backup router function
DynDNS client – access to the router with a dynamic IP address
VLAN 802.11Q – virtual LAN
QoS – quality of service
Dial-in – Communicate via CSD call
PPPoE Bridge – PPP frames encapsulation inside ETH frames

VPN TUNNELING
IPsec, OpenVPN, L2TP – secure encrypted tunnels
GRE tunnel – simple tunnel without security measures

CONFIGURATION AND DIAGNOSTICS
HTTP server – configuration via web server
Telnet – configuration and access to the file system
SNMP – router diagnostics, communication with I/O and M-Bus
Cellular state signalization by LED
On-line info on cellular signal status (level, cell, neighbors)
SMS info – power on, cellular connection or disconnection
SMS control – on/off cellular connection, switch SIM, I/O, etc.
Transferred data counting, one more APN as backup
Remote router group configuration change, switching among configuration profiles
SSH – encrypted configuration and access to the file system

ADDITIONAL FUNCTIONS
Linux based: program your own applications
NTP client, NTP Server – time synchronization
SMS communication – AT commands on RS232, Ethernet and I/O
M-RAM memory inside – router statistic saved into memory

APPROVALS / CERTIFICATIONS	
	FCC Part 15, CE
	Class 1/Division 2
Certifications	Verizon, AT&T, T-Mobile, Rogers, Telus
CE	EN 301 511, v9.0.2 EN 301 908-1&2, v3.2.1 ETSI EN 301 489-1 V1.8.1 EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + AC:2011 + A2:2013
Emission	EN 55022/B
Immunity	ETS 300 342 immunity
Safety	EN 60950
Isolation	EN 60747 isolation

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