

# 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 Mbps download speeds
- Industrial design - wide operating range (-30 to +60 C)
- 10-30 VDC power
- Class 1/Division 2 Certified
- Modbus compatible
- 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 a 10/100 Ethernet port, USB host port, binary input/output (I/O) port and dual 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".

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	WI-FI	ETHERNET 10/100	USB	I/O	RS-232	RS-422/ RS-485	I/O INPUT/ OUTPUT
RT3G-300-W	✓	1	1	1			
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	1	2		
RT3G-324		1	1	1	1	1	
RT3G-330		1	1	1			1

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

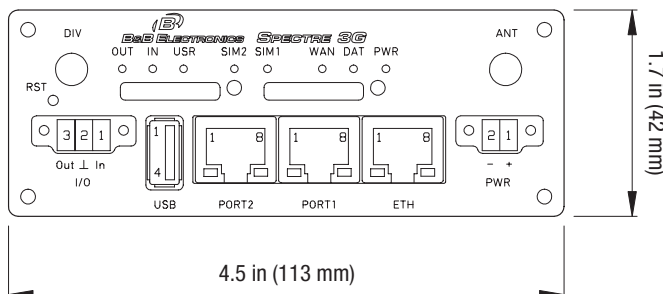
## INCLUDED WITH PRODUCT

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

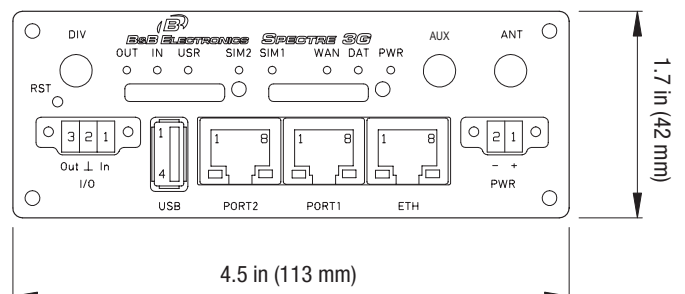
## ACCESSORIES - OPTIONAL

- |                |   |
|----------------|---|
| 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           |
| RT3G-ANT001    | 3G Cellular Antenna, Penta-Band, Right-Angle SMA    |
| RT3G-ANT002    | 3G Cellular Antenna, Penta-Band, Magnetic Mount SMA |

## MECHANICAL DIAGRAM



## MECHANICAL DIAGRAM - WIFI MODELS



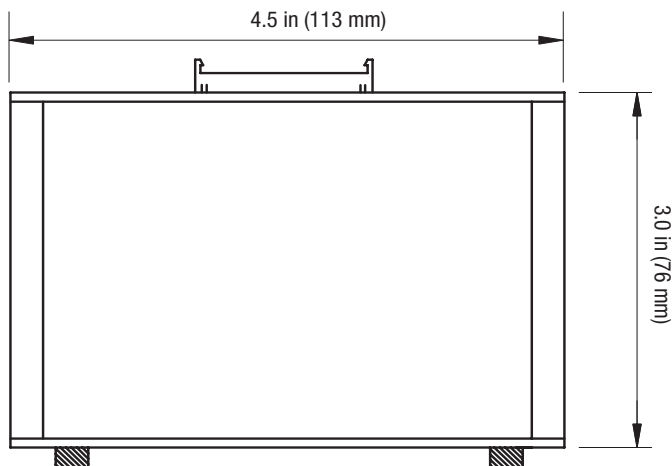
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Spectre RT3G-300-x Series



## 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)	
FREQUENCY BANDS	
Quad Band UMTS (WCDMA): 850, 900, 1900 and 2100 MHz	
Quad-Band GSM/GPRS/EDGE: 850, 900, 1800 and 1900 MHz	
POWER	
Source	10 – 30 VDC
	300 mW receive mode
Consumption	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	-30 to +60°C
Storage Temperature	-40 to +85°C



## FEATURES

WiFi Specifications	802.11 b/g/n - 2.4 GHz		
RX Sensitivity	11b	11 Mbps	-85 dBm
	11g	54 Mbps	-70 dBm
	(HT20) 11n	MSC7	-66 dBm
	(HT20) 11n	MSC7	-62 dBm
TX Output Power	11b	11 Mbps	19 dBm
	11g	54 Mbps	16 dBm
	802.11n	(HT20)	15 dBm
	802.11n	(HT20)	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

Certifications	FCC Part 15, CE
	Class 1/Division 2
	AT&T, Rogers, T-Mobile, Sprint, Verizon, Telus, PTCRB
	EN 301 511, v9.0.2
CE	EN 301 908-1&2, v3.2.1
	ETSI EN 301 489-1 V1.8.1
	EN 60950-1:06 ed.2 + A11:09 + A1:10
Emission	EN 55022/B
Immunity	ETS 300 342 immunity
Safety	EN 60950
Isolation	EN 60747 isolation

# AMEYA360

## Components Supply Platform

Authorized Distribution Brand :



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