

# Cellular Router - Wi-Fi

## Spectre 3G-W Series



### PRODUCT FEATURES

- Creates a Wi-Fi hotspot for M2M applications
- Modbus compatible
- Modular design to fit application requirements
- Dual SIM Cards for redundant backhaul
- Up to 5.7 Mbps upload/14.4 Mbps download
- LINUX platform & advanced networking functions

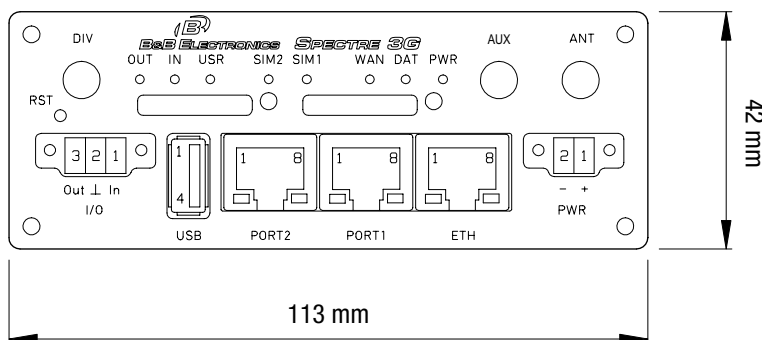
The Spectre 3G-W cellular router is a single box solution that provides local M2M network connectivity via its built-in Wi-Fi hotspot, Ethernet 10/100 and I/O ports and connects to the Internet via CDMA and HSPA+ cellular telephone networks. The Spectre 3G-W also creates reliable mobile Ethernet connections.

With upload speeds of up to 5.7 Mbps and download speeds of up to 14.4 Mbps, the Spectre 3G-W provides ample bandwidth, even for applications that require video. The standard configuration includes multiple 10/100 Ethernet ports, one USB host port, one binary input/output (I/O) port and dual SIM card holders. The second SIM card holder provides network redundancy, as the router can automatically switch between cellular service providers if one connection fails.

The router supports 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. A password-protected Web interface allows users to configure and manage the SPECTRE 3G from remote locations. The router can automatically 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 they can create up to four different configurations for the same router. Examples would include the SMS and binary input configurations. Users may switch from one configuration to another at any time.

### MECHANICAL DIAGRAM



### ORDERING INFORMATION

MODEL NUMBER	ETHERNET 10/100	USB	I/O	RS232	RS422/485	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	

#### USA, Canada.

Check with your local distributor for availability and options.

### ACCESSORIES

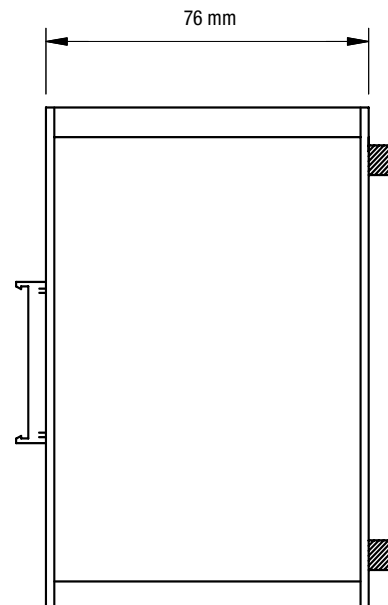
MDR-20-24	24VDC, 20W, 1 A power supply
C5UMB3FBG	Category 5E UTP 3 ft/1 m - Beige
C5UMB10FBL	Category 5E 10 ft/3 m - Blue

Antenna options available

### Certified for use with these networks:

*AT&T, T-Mobile, Rogers, Sprint, Verizon*

Contact B&B Electronics for the latest approvals.



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### SPECIFICATIONS

INTERFACES	
<b>Standard</b>	
Ethernet	10/100 Mbps
USB	USB Type A Host
Binary I/O	1 input / 1 output
SIM 1	SIM Card
SIM 2	SIM Card
<b>Expansion Port Options</b>	
<b>Port 1</b>	Ethernet 10/100 RS-232/422/485 Modbus CNT (I/O)
<b>Port 2</b>	RS-232/422/485 Modbus CNT (I/O)
<b>I/O CNT</b>	4 Binary inputs, 1 Binary output (2 inputs maybe configured as counters) 2 Analog inputs, 1 Binary output
<b>ANTENNA: CELLULAR &amp; WI-FI</b>	
SMA – 50 Ohm	
3G: 2 dBi, penta band, right angle dipole (2). WiFi: 1.8 dBi right angle dipole (1)	
<b>FREQUENCY BANDS</b>	
Quad Band UMTS (WCDMA): 850, 900, 1900 and 2100 MHz+	
Quad-Band GSM/GPRS/EDGE: 850, 900, 1800 and 1900 MHz	
<b>POWER</b>	
Source	10 – 30 VDC
Consumption	300 mW receive mode Up to 3.5 W (GPRS transmission) Up to 5.5 W (UMTS/HSDPA transmission)
<b>MECHANICAL</b>	
Dimensions	42x76x113 mm/1.7x3.0x4.5 in (DIN 35 mm)
Enclosure	Metal
Weight	150 g
<b>ENVIRONMENTAL</b>	
Operating Temperature	-30 to 60°C
Storage Temperature	-40 to 85°C

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

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	
NTP client, NTP Server: time synchronization	
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
	GGSM: AT&T, Rogers, T-Mobile
	CDMA: Sprint, Verizon
CE	EN 301 511, v9.0.2
	EN 301 908-1&2, v3.2.1
	ETSI EN 301 489-1 V1.8.1
	EN 60950-1:06 ed.2 + A11:09 + A1:10
Emission	EN 55022/B
Immunity	ETS 300 342
Safety	EN 60950
Isolation	EN 60747