B&B ELECTRONICS

PRODUCT INFORMATION

SPECTRE RT
ERT310 & ERT312
Industrial Router

✓ **VPN security**

✓ **Firewall support**

✓ **NAT/PAT address & port translation**

✓ **SNMP management**

✓ **Wide temperature range -40 to 75°C**

✓ **Complies with NEMA TS1 & TS2 Environmental requirements for Traffic Control Equipment**

The SPECTRE RT industrial router connects Ethernet equipment in tough environments where office-grade equipment can't handle the job. With Ethernet, USB, I/O and auxiliary ports it's a flexible device with the built-in ability to handle multiple data communications protocols and to fit into virtually any network topology.

The SPECTRE RT 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 RT 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.

Specifications	
Interfaces	
Standard	
Ethernet	10/100 Mbits
USB	USB Type A Host
Binary I/O	1 input / 1 output
Port Options	
Port 1	Ethernet 10/100, RS-232, RS-422/485, Modbus, CNT (I/O)
Port 2	RS-232, RS-422/485, Modbus, CNT (I/O)
I/O CNT	4 Binary inputs, 1 Binary output (2 inputs maybe configured as counters)
	2 analog inputs, I Binary output
Internal	
32b ARM microprocessor	
512 Mb DDR SDRAM	
128 Mb Flash	
1 Mb MRAM	
Power	
Source	10 – 30 VDC
Consumption	Max. 200 mA (12 VDC)
Mechanical	
Dimensions	42x76x113 mm (DIN 35mm)
Enclosure	Metal
Weight	150 g
Environmental	
Operating Temperature	-40 to 75°C
Storage Temperature	-40 to 85°C
Ordering Information	
ERT310	Two Ethernet ports
ERT312	Two Ethernet ports, one RS-232 port

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Features	
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
	GPRS state signalization by LED
	On-line info on GSM signal status (level, cell, neighbors)
	SMS info – power on, GPRS connection or disconnection
	SMS control – on/off GPRS 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	
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

Mechanical Diagram