

# Watson NGN

## SHDSL Router Series

Schmid Telecom's Watson SHDSL router series is an innovative Next-Generation DSL solution designed for enabling symmetrical high-speed Internet or point-to-point connectivity to business customers.

Watson SHDSL router uses Ethernet in the First Mile (EFM) technology, which is a transparent extension of Ethernet-based LANs into wide area networks. No conversion of packet formats is required when transiting between the LAN and WAN. This transparency greatly simplifies network operations, reduces deployment costs, and increases service levels. EFM includes maintenance functions that make the operation of large wide-area Ethernets feasible. The Watson

SHDSL router series features either two or four SHDSL ports. Symmetrical data rates up to 5.7Mbit/s are available on each copper pair. Using EFM pair bonding, data rates of 22.8 Mbit/s over 4 copper pairs can be achieved.

The Watson SHDSL router integrates also an eight port Ethernet switch and a VPN gateway, which provides robust Firewall security features and standard IPSec Virtual Private Network tunneling.

Schmid Telecom's long experience in DSL solutions ensures that Watson SHDSL router series delivers longer reach and higher performance.



The Broadband Portfolio for Smart Telecommunication

# Technical Specifications

## DSL Interface

ITU-T G.991.2 G.SHDSL  
Line Code: TC-PAM 16, TC-PAM 32  
IEEE 802.3ah (EFM encapsulation)  
Up to 11.4 Mbps using 2 copper pairs  
Up to 22.8 Mbps using 4 copper pairs  
Line Impedance: 135 Ohm  
Tx Power: up to 16 dBm @ 135 Ohm  
Connector: RJ- 45, 8 pin

## LAN Interface

8 port 10/100 managed Ethernet switch  
Half or full duplex, auto-sensing  
VLAN support: IEEE 802.1P/Q  
Connectors: 8x RJ-45

## Bridging/Routing Features

IP, TCP, UDP, ARP, RARP support  
DHCP server and client  
DNS server and proxy  
Static and dynamic routing (RIPv1/v2)  
IP Multicasting – IGMP  
PPPoE termination  
Network Address Translation (NAT / NAT)

## VPN Features

VPN Pass through (IPsec and PPTP)  
Hardware accelerated IPsec VPN gateway  
Data encryption (DES, 3DES, AES)  
Full mesh, hub & spoke support  
Industry standard PKI - based encryption  
Authentication and key management protocols

## Traffic Management

QoS features with rate limiting  
DiffServ – Differentiated Services  
IEEE 802.1P/Q VLAN Tagging

## Security Features

Statefull Packet Inspection Firewall  
Denial of Service Protection  
DMZ host

## Local and remote management

SNMP (versions 1, 2 and 3)  
Telnet and Web-based management  
Remote firmware upgrade  
Security monitoring and logging

## Power Supply

110~230 VAC

## Environmental Conditions

Operating temperature +5 to +40°C  
Humidity: 5% to 95% R.H.  
Protection: ITU-T K.21  
Safety: EN 60950-1:2006  
EMC: EN 300386 v1.3.1

## Dimensions and weight

43 mm x 220 mm x 195 mm  
(H x W x D)  
Weight: 0.8 kg

## Ordering Information

SZ.441.V400:  
Watson NGN SHDSL Router, 2-pair

SZ.441.V800:  
Watson NGN SHDSL Router, 4-pair

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