

## **DG150 Residential Gateway**

# *Dual WAN RGW with VoIP and Wireless 802.11n*

The DG150 is a dual WAN RGW with advanced router and bridge functions. DG150 features one ADSL2+ WAN, One GbE WAN, four LAN ports, one FXS port and Wireless 802.11n.



### **Features**

- Supports ADSL2+ (Annex A, M, B)
- One integrated Gigabit Ethernet WAN port
- Optional one integrated Gigabit Ethernet LAN port
- Four integrated Fast Ethernet ports
- 802.11b/g/n 2x2 WiFi supports up to 300 Mbps transmission rate
- Secure transmitting encryption by either 802.1x; WEP; WEP2; WPA; WPA2; TKIP; AES; 802.11i
- One FXS port for VoIP, optional PSTN voice reinjection
- Supports Networking protocols such as PPP, NAT, Routing, DHCP server / relay / client
- Configuration and management by Web-browser through the Ethernet interface and remotely through WAN interface
- Remote management via IUP/HTTP / TFTP / SNMP/ TR-069



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## Specifications, hardware

### LAN Interfaces

- One 10/100/1000 Ethernet port RJ-45 connector.
- Four 10/100 Ethernet ports RJ-45 connector.
- Integrated 802.11b/g/n 2x2 Wireless Access Point with internal antennas.

### WAN Interface (xDSL)

- 2-wire loop with 100 ohms line impedance in RJ-11 connector
- G.994 compliant
- G.992.1 (G.dmt) – Annex A, B, and C compliant

## Specifications, software

### ATM

- AAL0, AAL5, OAM, RM and Transparent cell types
- Traffic shaper/scheduler: priority scheduling; per-VCC queuing; UBR/CBR/VBR shaping based on Peak Cell Rate (PCR), Sustained Cell Rate (SCR), and Maximum Burst Tolerance; Minimum Cell Rate Shaping; Multi-priority AAL Queuing
- Full 24-bit Virtual Port Identifier (VPI)/ Virtual Circuit Identifier (VCI) support
- 16 Virtual Channel Connections (VCCs)
- Payload Encapsulation:
  - RFC2684 / RFC1483, Multiprotocol Encapsulation over ATM Adaptation Layer 5
  - RFC2225 / RFC1577, Classical IP and ARP over ATM (IPoA)
  - RFC2364, PPP over AAL5 (PPPoA)

### Bridging

- RFC2684 / RFC1483 bridged PDU encapsulation
- Transparent bridging (IEEE 802.1D)
- Bridge filtering with per-port extensions

### Routing

- RFC2684 / RFC1483 bridged and routed PDU encapsulations
- MAC Encapsulated Routing (MER)
- Supports Point-to-Point Protocol (including PPPoA and PPPoE) and user authentication via PAP, CHAP or MS-CHAP
- Routing Information Protocol (RIP) v1 and v2, static route
- DHCP client, server and relay agent
- NAT / PAT – RFC1631 with support for extensive ALGs
- DNS Proxy

- G.992.2 (G.lite) – Annex A and C compliant
- ANSI T1.413 compliant G.992.3 (ADSL2) compliant, supporting Annex A, B, C, L and M
- G.992.5 (ADSL2+) compliant, supporting Annex A, B, C and M
- G.INP
- Supports PhyR (Physical Retransmission)

### Analog Voice Interface

- 1 FXS port with RJ-11 connectors for analog phone set connection

### Firewall

- NAT: Full cone, DMZ and ALGs
- Stateful Packet Inspection (SPI) with DOS protection - Ping of Death, SYN Flood, LAND
- Protection against IP and MAC address spoofing
- UPnP NAT traversal and VPN / IPsec pass-through

### Wireless

- Supports 802.1x; WEP; WEP2; WPA; WPA2; TKIP; AES; 802.11i
- Hidden SSID
- WMM for advanced Quality of Service
- AES in hardware
- 300 High Speed Mode: Standards-plus performance enhancement delivers best real-world performance as the client card uses the same 300 High Speed Mode

### Voice

- Supports voice CODECs like G.711, G.726, G.729AB, G.722, T.38 etc
- G.168 line echo cancellation with programmable tail
- Adaptive jitter buffer, packet loss concealment (PLC), voice activity detection (VAD), comfort noise generation (CNG) and Caller ID
- DTMF tone detection and generation; Fax / Modem detection and pass-through

### VoIP and Telephony Bonus Services

- Supports SIP (RFC3261), SDP (RFC2327, RFC3264) as well as both TCP and UDP transport
- Supports User Agent Client (UAC)- User Agent Server (UAS) call, or proxy call routing
- Supports SIP and telephone URL addressing

### Environment

- Operation Temperature: 0°C ~ 45°C
- Operation Humidity: 5% ~ 95% (non-condensing)
- Storage Temperature: -20°C ~ +85°C
- Storage Humidity: 5% ~ 95% (non-condensing)

### Power

- AC adapter : Input 120 VAC/60Hz or 230VAC/50Hz; Output 12VDC 1.5 A
- Power consumption: Less than 15 watts
- Physical Dimensions 220 mm x 169 mm x 42 mm (W x D x H)

- Supports in-band DTMF tone sending / receiving and out-band DTMF signaling with RTP, as per RFC2833
- Bonus services include:
  - Call Forwarding: Unconditional, No Response, On Busy
  - Call Waiting: Force Busy, Pickup and Release Old, Pickup and Put Old on Hold, Switch between two calls
  - Call Transfer, Call Back busy subscriber, Call Back last number called (call return)
  - Enquiry service
  - Three way conference

### Configuration and Network Management

- SNMP GETs, SETs and TRAPs for four groups in MIB-II
- Embedded syslog; SNMP with DHCP options
- UPnP Internet Gateway Device (IGD) compliance
- Management and configuration via Web/ HTTP
- Firmware upgrade using IUP/ HTTP / TFTP / TR-069
- Supports TR-069, TR-098, TR-104 management and provisioning

### Physical Dimensions

- TBD 218 x 138 x 43 (W x D x H)

**Note:** Not every listed feature will be included in the shipping product. We reserve the right to make changes of technical specifications, housing or design without prior notice.



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