DG201 Multi-WAN residential gateway

VDSL2/ADSL2+ RGW with VoIP and wireless 802.11n

COMING SOON!

DG201 is a high-end VDSL2, ADSL2+ fall back residential gateway with advanced router and bridge functions. DG201 is equipped with four 10/100 LAN ports, two Gigabit Ethernet LAN ports (one optional as WAN) and wireless 802.11b/g/n. DG201 may accommodate two wireless AP's, one onboard 2.4GHz internal MIMO antennas and one internal via Mini-PCI on 5GHz on external MIMO antennas. Primarily the 5GHz radio is dedicated for in-home IP-TV distribution.

Features

- Supports VDLS2 data rates up to 17A
- Supports up to ADSL2+ (G.992.5) with 24 Mbps downstream and 1 Mbps upstream rates
- Supports fall back to ADSL2+ if VDSL2 training fails
- Integrated four-port Ethernet switch with automatic speed-sensing and crossover correction
- Integrated two Gigabit Ethernet LAN ports, one may be used as optional WAN.
- 802.11b/g/n WiFi support, optional two WiFi interfaces on 2.4GHz and 5GHz.
- Secure transmitting encryption by either 802.1x; WEP; WEP2; WPA; WPA2; TKIP; AES; 802.11i
- Two FXS ports for VoIP using POTS
- Supports voice CODECs like G.722.2, G.711, G.726, G.729AB, BV16, ILBC, T.38 etc.; programmable G.168 echo cancellation, adaptive jitter buffer and packet loss concealment
- Voice activity detection (VAD), comfort noise genera tion (CNG) and caller ID
- DTMF tone detection and generation; Fax / Modem detection and pass-through
- Supports SIP signaling protocol and bonus services like call forwarding, call waiting, call transfer, call busy, call return, enquiry service, CLIP/CLIR and three way conference
- 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 DSL interface
- Firmware upgradeable through HTTP / TFTP
- Supports TR-069 and TR-104

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Specifications, hardware

LAN Interfaces

- Four 10/100 Base-T Ethernet ports
- Two 10/100/1000 Base-T Ethernet ports
- Integrated 802.11b/g/n WiFi Access Point with external antenna (or internal) Optional 802.11b/g/n WiFi Access Point via Mini-PCI interface with external antenna (or internal)

WAN Interface

- 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
- 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
- I.432 ATM physical layer compliant ANSI T1.424 Trial Use Standard
- ETSI TS101270
- ITU-T G.993.1
- IEEE 802.3ah 10 PASS TS D2.1
- China's National VDSL standards

Analog Voice Interface

- 2 * FXS ports with RJ-11 connectors for analog phone set connection

OAM&P

- Through Web browser, remotely or locally
- One hidden console port (RS-232) for maintenance

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 15VDC 1A
- Power consumption: Less than 15 watts

Physical Dimensions

• 262 mm × 155 mm × 33 mm (W × D × H)

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) with at least 32 MAC addresses
- 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 relay

Firewall

- NAT: 1000 sessions, 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
- 125 High Speed Mode: Standards-plus performance enhancement delivers best real-world performance as the client card use the same 125 High Speed Mode

Voice

- FXO for failsafe lifeline
- Supports voice CODECs like G.722.2, G.711, G.726, G.729AB, BV16, ILBC, T.38 etc
- G.168 line echo cancellation with pro grammable 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
- 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
- Provisioning through TFTP client with configuration profile Configuration and Network Management
- SNMP GETs, SETs and TRAPs for four groups in MIB-II
- Embedded syslog; SNTP with DHCP options
- UPnP Internet Gateway Device (IGD) compliance
- Management and configuration via Web / HTTP
- Firmware upgrade using HTTP or TFTP
- Supports TR-069 and with parameters: DeviceInfo, ManagementServer, Time, IPPingDiagonostic, etc
- Supports TR-104

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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