D-Link®
Building Networks for People

Product Highlights

HIGH SPEED
Broadband access rate up to 2.4Gbps, Gigabit Ethernet LAN ports, total wireless connection rate up to 1200Mbps

SUTABLE FOR TRIPLE PLAY
Perfect solution for simultaneous use of HD IPTV, VoIP services, and Internet access

REMOTE MANAGEMENT
Configuration and FW update independently from customers

DPN-144DG

GPON ONT Dual Band Wireless AC1200 VoIP Gateway with 1 GPON Port, 4 10/100/1000Base-T Ports, 2 FXS Ports, and 1 USB Port

GPON Technology

DPN-144DG provides an optical line connection to a GPON OLT device. The key advantage of GPON technology is extraordinary bandwidth of the channel. This helps to deliver the next generation of high-speed Internet services to home and office users. DPN-144DG helps to provide a reliable, long-reaching last-mile connection by extending the high-bandwidth public network to people living and working in remote multi-unit buildings.

Triple Play Services

High-speed broadband access with the rate up to 2.4Gbps allows to provide customers with all high-demand services (such as HD IPTV, VoIP, Internet connection) simultaneously.

Voice

The device is equipped with two FSX ports which allow connection of analog phones for calls via Internet.

Wireless Interface

Using the DPN-144DG device, you are able to quickly create a high-speed wireless network at home or in your office, which lets computers and mobile devices access the Internet virtually anywhere (within the operational range of your wireless network). Simultaneous activity of 2.4GHz band and 5GHz band allows performing a wide range of tasks. The gateway can operate as a base station for connecting wireless devices of the standards 802.11a, 802.11b, 802.11g, 802.11n, and 802.11ac (at the wireless connection rate up to 1167Mbps).[1]

Secure Wireless Connection

DPN-144DG supports multiple functions for the wireless interface: several security standards (WEP, WPA/WPA2), MAC address filtering, WPS, WMM.

In addition, the device is equipped with a button for switching the Wi-Fi network off/on. If needed, for example, when you leave home, you can easily switch the gateway's WLAN by pressing the button, and devices connected to the LAN ports of the gateway will stay online.

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1 Up to 300Mbps for 2.4GHz and up to 867Mbps for 5GHz.

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Advanced Capabilities of Wireless Network

Support of guest Wi-Fi network allows you to create a separate wireless network with individual security settings and maximum rate limitation. Devices connected to the guest network will be able to access the Internet, but will be isolated from the devices and resources of the gateway's LAN.

USB Port

The device is equipped with a USB port for connecting a USB modem, which can be used to establish connection to the Internet. In addition, to the USB port of the gateway you can connect a USB storage device, which will be used as a network drive, or a printer.

Security

The VoIP gateway DPN-144DG includes a built-in firewall. The advanced security functions minimize threats of hacker attacks, prevent unwanted intrusions to your network, and block access to unwanted websites for users of your LAN.

Built-in Yandex.DNS service protects against malicious and fraudulent web sites and helps to block access to adult content on children's devices.

Easy Configuration and Update

You can configure the settings of DPN-144DG via the user-friendly web-based interface (the interface is available in two languages – in Russian and in English).

DPN-144DG itself checks the D-Link update server. If a new approved firmware is available, a notification will appear in the web-based interface of the device.

The built-in TR-069 client allows to perform remote configuration and diagnostics of the device independently from the customer.

Hardware	
Interfaces	· GPON port (SC/APC connector) · 4 10/100/1000BASE-T LAN ports · 2 RJ-11 FXS ports · USB 2.0 port
LEDs	· POWER · PON · LOS · 4 LAN LEDs · 2 PHONE LEDs · WIFI 2.4GHz · WIFI 5GHz · WPS · USB · INTERNET
Buttons	· ON/OFF button to power on/power off · RESET button to restore factory default settings · WPS button to set up wireless connection and enable/disable wireless network
Antenna	· Two internal antennas (3.5dBi gain for 2.4GHz and 5GHz)
MIMO	· 2 x 2
Power connector	· Power input connector (DC)

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PON

GPON features	
	· Class B+ GPON optical transceiver
	· Upstream (transmitter): 1310nm ± 50nm, 1.244Gbps upstream burst data rate
	· Downstream (digital receiver): 1490nm ± 10nm, 2.488Gbit/s downstream continuous data rate
	· Single mode fiber cable
	· AES encryption
	· Support of IGMP v1/v2 Snooping, 16 entries, enable/disable, Fast leaving
	· MAC learning
	· UNI port configuration (rate, duplex mode, flow control, disable/enable, auto mode)
	· Maximum frame length to 1522 bytes
	· Compliance to ONT dying gasp
	· ONT authentication

Phone

General SIP features	
	· Individual account per port
	· Invite with Challenge
	· Register by IP address or domain name of SIP server
	· Backup proxy support
	· Support of DHCP option 120
	· RFC3986 SIP URI format support
	· Outbound proxy support
	· STUN client
	· NAT keep-alive
	· Call types: voice/modem/fax
	· User programmable Dial Plan
	· Manual peer table (P2P)
	· E.164 Numbering, ENUM support
Call features	· Direct IP-to-IP call without SIP proxy
	· Call hold/retrieve
	· Call awaiting
	· Forwarding (unconditional, busy, no answer)
	· Do Not Disturb
	· Blocking hidden number calls
	· Speed dialing
	· Phone book
	· Hotline
	· Vertical service codes
	· Filtering by IP address (white/black list)
	· Alarm clock
Voice features	· Codecs: G.711 a/µ-law, G.729A, G.726, G.722, G.723.1
	· DTMF detection and generation
	· In-band DTMF, out-of-band DTMF (RFC2833, SIP-INFO)
	· Comfort Noise Generation (CNG)
	· Voice Activity Detection (VAD)
	· Dynamic Jitter Buffer
	· Call progress tone generation (FXS)
	· DTMF/PULSE dial support
	· Caller ID detection and generation
	· T.30 FAX bypass to G.711, T.38 Real Time FAX Relay
	· Adjustable Flash Time
	· Volume control (speaker/microphone)

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Software	
WAN connection types	· 3G/LTE[2] · PPPoE · IPv6 PPPoE · PPPoE Dual Stack · Static IP / Dynamic IP · Static IPv6 / Dynamic IPv6 · PPTP/L2TP
Network functions	· Support of IEEE 802.1X for Internet connection · DHCP server/relay · DHCPv6 server (Stateful/Stateless), IPv6 prefix delegation · DNS relay · Support of DNSv6 AAAA records · Dynamic DNS · Static IP routing · Static IPv6 routing · IGMP Proxy · RIP · Support of UPnP IGD · Support of VLAN · Support of MVR · WAN ping respond · Support of SIP ALG · Support of RTSP · Autonegotiation of speed, duplex mode, and flow control/Manual speed and duplex mode setup for each Ethernet port
Firewall functions	· Network Address Translation (NAT) · Stateful Packet Inspection (SPI) · IP filter · IPv6 filter · MAC filter · URL filter · DMZ · Prevention of ARP and DDoS attacks · Virtual servers · Built-in Yandex.DNS web content filtering service
VPN	· IPSec/PPTP/L2TP/PPPoE pass-through · IPSec tunnels
USB interface functions	· USB modem[3] · USB storage File browser Print server Access to storage via accounts Built-in Samba server Built-in FTP server Built-in DLNA server Built-in Transmission torrent client; uploading/downloading files from/to USB storage
Management	· Local and remote access to settings through TELNET/WEB (HTTP/HTTPS) · Bilingual web-based interface for configuration and management (Russian/English) · Notification on connection problems and auto redirect to settings · Firmware update via web-based interface · Automatic notification on new firmware version · Saving/restoring configuration to/from file · Support of remote logging · Automatic synchronization of system time with NTP server and manual time/date setup · Ping function · Traceroute utility · TR-069 client

Wireless Module Parameters	
Standards	· IEEE 802.11a/n/ac · IEEE 802.11b/g/n
Frequency range	· 2400 ~ 2483.5MHz · 5150 ~ 5350MHz · 5650 ~ 5725MHz

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2   In the next firmware versions.
3   In the next firmware versions.

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Wireless Module Parameters	
Wireless connection security	· WEP · WPA/WPA2 (Personal/Enterprise) · MAC filter · WPS (PBC/PIN)
Advanced functions	· Support of client mode · WMM (Wi-Fi QoS) · Information on connected Wi-Fi clients · Advanced settings · Guest Wi-Fi / support of MBSSID · Limitation of wireless network rate
Wireless connection rate	· IEEE 802.11a: 6, 9, 12, 18, 24, 36, 48, and 54Mbps · IEEE 802.11b: 1, 2, 5.5, and 11Mbps · IEEE 802.11g: 6, 9, 12, 18, 24, 36, 48, and 54Mbps · IEEE 802.11n (2.4GHz/5GHz): from 6.5 to 300Mbps (from MCS0 to MCS15) · IEEE 802.11ac (5GHz): from 6.5 to 867Mbps (from MCS0 to MSC9)

Physical Parameters	
Dimensions (L x W x H)	· 228 x 160 x 41 mm (9 x 6.3 x 1.6 in)

Operating Environment	
Power	· Output: 12V DC, 2.5A
Temperature	· Operating: from 0 to 40 °C · Storage: from -40 to 70 °C
Humidity	· Operating: from 10% to 90% (non-condensing) · Storage: from 5% to 95% (non-condensing)

Delivery Package
· GPON ONT VoIP gateway DPN-144DG · Power adapter DC 12V/2.5A · "Quick Installation Guide" (brochure)