Product Highlights

HIGH SPEED

Broadband access rate up to 2.4Gbps, Gigabit Ethernet LAN ports

SUITABLE 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-124G

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

GPON Technology

DPN-124G 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-124G 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 FXS ports which allow connection of analog phones for calls via Internet.

Ethernet WAN

Any Ethernet port of the device can be configured to connect to a private Ethernet line.

Wireless Interface

Using the DPN-124G device, you are able to quickly create a 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). The gateway can operate as a base station for connecting wireless devices of the standards 802.11b, 802.11g, and 802.11n (at the wireless connection rate up to 300Mbps).

Secure Wireless Connection

DPN-124G 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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Advanced Capabilities of Wireless Network

Smart adjustment of Wi-Fi clients is useful for networks based on several D-Link access points or routers – when the smart adjustment function is configured on each of them, a client always connects to the access point (router, gateway) with the highest signal level.

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-124G 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.

In addition, the gateway supports IPsec and allows to create secure VPN tunnels.

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-124G via the user-friendly web-based interface (the interface is available in two languages – in Russian and in English).

DPN-124G 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.

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Hardware	
Processor	· RTL9607
RAM	· 128MB, DDR3
Flash	· 128MB, NAND
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 · WPS · USB · Internet
Buttons	· POWER 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)
MIMO	· 2 x 2
Power connector	· Power input connector (DC)

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

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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	· Static IPv4 / Dynamic IPv4 · Static IPv6 / Dynamic IPv6 · PPPoE · PPPoE IPv6 · PPPoE Dual Stack · PPTP/L2TP · 3G/LTE[1]
Network functions	· Support of IEEE 802.1X for Internet connection · DHCP server/relay · Stateful/Stateless mode for IPv6 address assignment, IPv6 prefix delegation · DNS relay · 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[2] Auto connection to available type of supported network (4G/3G/2G) Auto configuration of connection upon plugging in USB modem Enabling/disabling PIN code check, changing PIN code[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 logging to remote host/connected USB storage · Automatic synchronization of system time with NTP server and manual time/date setup · Ping utility · Traceroute utility · TR-069 client

1 In the next firmware versions.
2 In the next firmware versions.
3 For GSM USB modems and some models of LTE USB modems.

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Wireless Module Parameters	
Standards	· IEEE 802.11b/g/n
Frequency range	· 2400 ~ 2483.5MHz
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 · Smart adjustment of Wi-Fi clients · Guest Wi-Fi / support of MBSSID · Limitation of wireless network rate · Periodic scan of channels, automatic switch to least loaded channel
Wireless connection rate	· IEEE 802.11b: 1, 2, 5.5, and 11Mbps · IEEE 802.11g: 6, 9, 12, 18, 24, 36, 48, and 54Mbps · IEEE 802.11n: from 6.5 to 300Mbps (from MCS0 to MCS15)

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-124G
- Power adapter DC 12V/2.5A
- “Quick Installation Guide” (brochure)

Supported USB modems[4]	
GSM	· Alcatel X500 · D-Link DWM-152C1 · D-Link DWM-156A6 · D-Link DWM-156A7 · D-Link DWM-156C1 · D-Link DWM-157B1 · D-Link DWM-157B1 (Velcom) · D-Link DWM-158D1 · D-Link DWR-710 · Huawei E150 · Huawei E1550 · Huawei E156G · Huawei E160G · Huawei E169G · Huawei E171 · Huawei E173 (Megafon) · Huawei E220 · Huawei E3131 (MTS 420S) · Huawei E352 (Megafon) · Prolink PHS600 · Prolink PHS901 · ZTE MF112 · ZTE MF192 · ZTE MF626 · ZTE MF627 · ZTE MF652 · ZTE MF667 · ZTE MF668 · ZTE MF752
LTE	· Huawei E3131 · Huawei E3272 · Huawei E3351 · Huawei E3372 · Huawei E367 · Huawei E392 · Megafon M100-1 · Megafon M100-2 · Megafon M100-3 · Megafon M100-4 · Megafon M150-1 · Megafon M150-2 · Quanta 1K6E (Beeline 1K6E) · MTS 824F · MTS 827F · Yota LU-150 · Yota WLTUBA-107 · ZTE MF823 · ZTE MF827
Smartphones in USB tethering mode	· Some models of Android smartphones

4 The manufacturer does not guarantee proper operation of the gateway with every modification of the firmware of USB modems.