

## Product Highlights

### HIGH POWER AND SPEED

New dual core (1GHz),  
Gigabit Ethernet ports,  
total wireless connection rate  
up to 1200Mbps<sup>1</sup>

### FLEXIBLE MOBILE BROADBAND

3G/4G connectivity  
for broadband mobile connection

### EXTREME WI-FI PERFORMANCE

MU-MIMO for best rates, 2 data streams for  
increased throughput

### IPV6 SUPPORT

All needed functions  
for up-to-date networking

### SECURITY

Multiple firewall functions,  
several security standards  
for wireless connection



## DWR-956

### Wireless AC1200 Wave 2 MU-MIMO 4G LTE Router with Gigabit Ethernet Ports and 1 FXS Port

#### Built-in LTE Modem

The router is equipped with a built-in LTE modem which provides 3G/4G mobile connection with fast downlink speeds of up to 150Mbps and uplink speeds of up to 50Mbps.<sup>2</sup>

#### Wireless Interface

Using the DWR-956 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 router 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<sup>1</sup>).

#### Secure Wireless Connection

The router supports multiple functions for the wireless interface: several security standards (WEP, WPA/WPA2/WPA3), 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 router's WLAN by pressing the button, and devices connected to the LAN ports of the router will stay online.

<sup>1</sup> Up to 300Mbps for 2.4GHz and up to 867Mbps for 5GHz.

<sup>2</sup> Data rates are theoretical. Data transfer rate depends on network capacity and signal strength.

### **Advanced Capabilities of Wireless Network**

Multi-user MIMO technology allows to distribute the router's resources to let multiple wireless clients use the Wi-Fi network efficiently, keeping high rates for HD media streaming, lag-free gaming, and fast transfer of large files.

Transmit Beamforming technology allows to flexibly change the antennas' radiation pattern and to redistribute the signal directly to wireless devices connected to the router.

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) 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 router's LAN.

### **Voice**

The device is equipped with an FXS port which allows connection of an analog phone for calls via Internet.

### **Security**

The wireless router DWR-956 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.

The SSH protocol support provides more secure remote configuration and management of the router due to encryption of all transmitted traffic, including passwords.

In addition, the router supports IPsec and allows to create secure VPN tunnels. Support of the IKEv2 protocol allows to provide simplified message exchange and use asymmetric authentication engine upon configuration of an IPsec tunnel.

The router also supports the SkyDNS web content filtering service, which provides more settings and opportunities for safer Internet experience for home users of all ages and for professional activities of corporate users.

Now the schedules are also implemented; they can be applied to the rules and settings of the firewall and used to reboot the router at the specified time or every specified time period, to set rules for limitation of wireless client maximum bandwidth, and to enable/disable the wireless network and the Wi-Fi filter.

### **Easy configuration and update**

You can configure the settings of the wireless router DWR-956 via the user-friendly web-based interface (the interface is available in several languages).

The configuration wizard allows you to quickly switch DWR-956 to one of the following modes: router (for connection to a wired or wireless ISP), access point, repeater, or client, and then configure all needed setting for operation in the selected mode in several simple steps.

Also DWR-956 supports configuration and management via mobile application for Android and iPhone smartphones.

You can simply update the firmware: the router itself finds approved firmware on D-Link update server and notifies when ready to install it.

<b>Hardware</b>	
<b>Processor</b>	<ul style="list-style-type: none"> <li>RTL8685PB (1GHz)</li> </ul>
<b>RAM</b>	<ul style="list-style-type: none"> <li>128MB, DDR2, built in processor</li> </ul>
<b>Flash</b>	<ul style="list-style-type: none"> <li>16MB, SPI</li> </ul>
<b>Built-in modem</b>	<ul style="list-style-type: none"> <li>BroadMobi BM806U-E1</li> </ul>
<b>Interfaces</b>	<ul style="list-style-type: none"> <li>Slot for SIM card (mini-SIM)</li> <li>10/100/1000BASE-T WAN port</li> <li>4 10/100/1000BASE-T LAN ports</li> <li>FXS port</li> </ul>
<b>LEDs</b>	<ul style="list-style-type: none"> <li>POWER</li> <li>INTERNET</li> <li>5GHz</li> <li>2.4GHz</li> <li>4G</li> <li>2G/3G</li> <li>LAN</li> <li>WAN</li> <li>VOICE</li> <li>SMS</li> <li>SIGNAL STRENGTH</li> </ul>
<b>Buttons</b>	<ul style="list-style-type: none"> <li>ON/OFF button to power on/power off</li> <li>RESET button to restore factory default settings</li> <li>WPS button to set up wireless connection</li> <li>WLAN button to enable/disable wireless network</li> </ul>
<b>Antenna</b>	<ul style="list-style-type: none"> <li>Two detachable LTE/3G antennas (3dBi gain)</li> <li>Two SMA Female connectors for LTE/3G antennas</li> <li>Two internal Wi-Fi antennas for 2.4GHz band (3dBi gain)</li> <li>Two internal Wi-Fi antennas for 5GHz band (3dBi gain)</li> </ul>
<b>MIMO</b>	<ul style="list-style-type: none"> <li>2 x 2, MU-MIMO</li> </ul>
<b>Power connector</b>	<ul style="list-style-type: none"> <li>Power input connector (DC)</li> </ul>

<b>Software</b>	
<b>WAN connection types</b>	<ul style="list-style-type: none"> <li>Mobile Internet</li> <li>PPPoE</li> <li>IPv6 PPPoE</li> <li>PPPoE Dual Stack</li> <li>Static IPv4 / Dynamic IPv4</li> <li>Static IPv6 / Dynamic IPv6</li> <li>PPPoE + Static IP</li> <li>PPPoE + Dynamic IP</li> <li>PPTP/L2TP + Static IP</li> <li>PPTP/L2TP + Dynamic IP</li> </ul>
<b>Network functions</b>	<ul style="list-style-type: none"> <li>DHCP server/relay</li> <li>Advanced configuration of built-in DHCP server</li> <li>Stateful/Stateless mode for IPv6 address assignment, IPv6 prefix delegation</li> <li>Automatic obtainment of LAN IP address (for access point/repeater/client modes)</li> <li>DNS relay</li> <li>Dynamic DNS</li> <li>Static IPv4/IPv6 routing</li> <li>IGMP Proxy</li> <li>RIP</li> <li>Support of UPnP</li> <li>Support of VLAN</li> <li>WAN ping respond</li> <li>Support of SIP ALG</li> <li>Support of RTSP</li> <li>WAN failover</li> <li>LAN/WAN conversion</li> <li>Autonegotiation of speed, duplex mode, and flow control / Manual speed and duplex mode setup for each Ethernet port</li> <li>Built-in UDPXY application</li> <li>Equal load distribution while using several WAN connections (traffic balancing)</li> </ul>

Software	
<b>Firewall functions</b>	<ul style="list-style-type: none"> <li>• Network Address Translation (NAT)</li> <li>• Stateful Packet Inspection (SPI)</li> <li>• IPv4/IPv6 filter</li> <li>• MAC filter</li> <li>• URL filter</li> <li>• DMZ</li> <li>• Virtual servers</li> <li>• Built-in SkyDNS web content filtering service</li> </ul>
<b>VPN</b>	<ul style="list-style-type: none"> <li>• IPsec/PPTP/L2TP/PPPoE pass-through</li> <li>• PPTP/L2TP servers</li> <li>• PPTP/L2TP tunnels</li> <li>• L2TP over IPsec client</li> <li>• GRE/EoGRE/EoIP tunnels</li> <li>• IPsec tunnels               <ul style="list-style-type: none"> <li>• Transport/Tunnel mode</li> <li>• IKEv1/IKEv2 support</li> <li>• DES encryption</li> <li>• NAT Traversal</li> <li>• Support of DPD (Keep-alive for VPN tunnels)</li> </ul> </li> </ul>
<b>Management and monitoring</b>	<ul style="list-style-type: none"> <li>• Local and remote access to settings through SSH/TELNET/WEB (HTTP/HTTPS)</li> <li>• Multilingual web-based interface for configuration and management</li> <li>• Support of D-Link Assistant application for Android and iPhone smartphones</li> <li>• Notification on connection problems and auto redirect to settings</li> <li>• Firmware update via web-based interface</li> <li>• Automatic notification on new firmware version</li> <li>• Saving/restoring configuration to/from file</li> <li>• Support of logging to remote host</li> <li>• Automatic synchronization of system time with NTP server and manual time/date setup</li> <li>• Ping utility</li> <li>• Traceroute utility</li> <li>• TR-069 client</li> <li>• Schedules for rules and settings of firewall, automatic reboot, limitation of wireless client maximum bandwidth, and enabling/disabling wireless network and Wi-Fi filter</li> <li>• Automatic upload of configuration file from ISP's server (Auto Provision)</li> <li>• Configuration of action for hardware buttons</li> </ul>

LTE Module Parameters	
<b>LTE connection rate<sup>3</sup></b>	<ul style="list-style-type: none"> <li>• Downlink: up to 150Mbps</li> <li>• Uplink: up to 50Mbps</li> </ul>
<b>Supported frequencies<sup>4</sup></b>	<ul style="list-style-type: none"> <li>• Power Class 3</li> <li>• LTE           <ul style="list-style-type: none"> <li>• Band: TX / RX</li> <li>• B1: 1920~1980MHz / 2110~2170MHz</li> <li>• B2: 1850~1910MHz / 1930~1990MHz</li> <li>• B3: 1710~1785MHz / 1805~1880MHz</li> <li>• B5: 824~849MHz / 869~894MHz</li> <li>• B7: 2500~2570MHz / 2620~2690MHz</li> <li>• B8: 880~915MHz / 925~960MHz</li> <li>• B20: 832~862MHz / 791~821MHz</li> <li>• B38: 2570~2620MHz / 2570~2620MHz</li> <li>• B40: 2300~2400MHz / 2300~2400MHz</li> </ul> </li> <li>• UMTS           <ul style="list-style-type: none"> <li>• B1/2/3/5/8 (2100/1900/1800/850/900MHz)</li> </ul> </li> <li>• GSM/GPRS           <ul style="list-style-type: none"> <li>• 850/900/1800/1900MHz</li> </ul> </li> </ul>
<b>Functions</b>	<ul style="list-style-type: none"> <li>• Auto connection to available type of supported network (4G/3G/2G)</li> <li>• Auto configuration of connection upon plugging in SIM card</li> <li>• Enabling/disabling PIN code check, changing PIN code</li> <li>• Sending/receiving/reading/removing SMS messages</li> <li>• Support of USSD requests (For DWR-956 with the built-in modem FW version M1.4.4_E1.0.3_A1.1.8. See the data on the modem FW version in the web-based interface of the router, on the "LTE Modem" page.)</li> </ul>

<sup>3</sup> Data rates are theoretical. Data transfer rate depends on network capacity and signal strength.

<sup>4</sup> Supported frequency bands are dependent on regional variants.

<b>Wireless Module Parameters</b>	
<b>Standards</b>	<ul style="list-style-type: none"> <li>· IEEE 802.11ac Wave 2</li> <li>· IEEE 802.11a/b/g/n</li> <li>· IEEE 802.11k/v</li> <li>· IEEE 802.11w</li> </ul>
<b>Frequency range</b>  <i>The frequency range depends upon the radio frequency regulations applied in your country</i>	<ul style="list-style-type: none"> <li>· 2400 ~ 2483.5MHz</li> <li>· 5150 ~ 5350MHz</li> <li>· 5650 ~ 5850MHz</li> </ul>
<b>Wireless connection security</b>	<ul style="list-style-type: none"> <li>· WEP</li> <li>· WPA/WPA2 (Personal/Enterprise)</li> <li>· WPA3 (Personal)</li> <li>· MAC filter</li> <li>· WPS (PBC/PIN)</li> </ul>
<b>Advanced functions</b>	<ul style="list-style-type: none"> <li>· Support of client mode</li> <li>· WMM (Wi-Fi QoS)</li> <li>· Information on connected Wi-Fi clients</li> <li>· Advanced settings</li> <li>· Smart adjustment of Wi-Fi clients</li> <li>· Guest Wi-Fi / support of MBSSID</li> <li>· Rate limitation for wireless network/separate MAC addresses</li> <li>· Periodic scan of channels, automatic switch to least loaded channel</li> <li>· Support of 2.4GHz/5GHz TX Beamforming</li> <li>· Autonegotiation of channel bandwidth in accordance with environment conditions (20/40 Coexistence)</li> <li>· Support of STBC</li> </ul>
<b>Wireless connection rate</b>	<ul style="list-style-type: none"> <li>· IEEE 802.11a: 6, 9, 12, 18, 24, 36, 48, and 54Mbps</li> <li>· IEEE 802.11b: 1, 2, 5.5, and 11Mbps</li> <li>· IEEE 802.11g: 6, 9, 12, 18, 24, 36, 48, and 54Mbps</li> <li>· IEEE 802.11n (2.4GHz/5GHz): from 6.5 to 300Mbps (from MCS0 to MCS15)</li> <li>· IEEE 802.11ac (5GHz): from 6.5 to 867Mbps (from MCS0 to MCS9)</li> </ul>
<b>Transmitter output power</b>  <i>The maximum value of the transmitter output power depends upon the radio frequency regulations applied in your country</i>	<ul style="list-style-type: none"> <li>· 802.11b 15dBm (+/-1.5dB)</li> <li>· 802.11g 12dBm (+/-1.5dB)</li> <li>· 802.11n HT20 12dBm (+/-1.5dB) HT40 12dBm (+/-1.5dB)</li> <li>· 802.11ac 14dBm</li> </ul>
<b>Receiver sensitivity</b>	<ul style="list-style-type: none"> <li>· 802.11b -76dBm at 11Mbps</li> <li>· 802.11g -65dBm at 54Mbps</li> <li>· 802.11n HT20 -64dBm at MCS7/15 HT40 -61dBm at MCS7/15</li> <li>· 802.11ac VHT20 -56dBm at MCS8 VHT40 -53dBm at MCS9 VHT80 -51dBm at MCS9</li> </ul>
<b>Modulation schemes</b>	<ul style="list-style-type: none"> <li>· 802.11b: DSSS/BPSK/QPSK/CCK</li> <li>· 802.11g: OFDM/DSSS/BPSK/QPSK/CCK</li> <li>· 802.11n: BPSK/QPSK/16 QAM/64 QAM/DBPSK/DQPSK/CCK</li> <li>· 802.11ac: BPSK/QPSK/16 QAM/64 QAM/256 QAM</li> </ul>

<b>Phone</b>	
<b>General SIP Features</b>	<ul style="list-style-type: none"> <li>· Support of several SIP profiles</li> <li>· Invite with Challenge</li> <li>· Register by IP address or domain name of SIP server</li> <li>· Backup proxy support</li> <li>· Support of DHCP option 120</li> <li>· RFC3986 SIP URI format support</li> <li>· Outbound proxy support</li> <li>· STUN client</li> <li>· NAT public IP address</li> <li>· NAT keep-alive</li> <li>· Session timer (re-invite/update)</li> <li>· Call types: voice/modem/fax</li> <li>· User programmable Dial Plan</li> <li>· Manual peer table (for P2P calls)</li> <li>· Handling numbers in E.164 format</li> </ul>
<b>Call Features</b>	<ul style="list-style-type: none"> <li>· Direct IP-to-IP call without SIP proxy (P2P)</li> <li>· Call hold/retrieve</li> <li>· Call awaiting</li> <li>· Forwarding (unconditional, busy, no answer)</li> <li>· Do Not Disturb</li> <li>· Blocking hidden number calls</li> <li>· CLIR</li> <li>· Speed/abbreviated dialing</li> <li>· PIN code before dialing</li> <li>· Hotline</li> <li>· Vertical service codes</li> <li>· Intercom (internal calls without SIP server)</li> <li>· Filtering SIP packets by IP address/domain name (white/black list)</li> <li>· Alarm clock</li> <li>· Logging calls<sup>5</sup></li> </ul>
<b>Voice Features</b>	<ul style="list-style-type: none"> <li>· Codecs: G.711 a/μ-law, G.729A, G.726, G.722, G.723.1</li> <li>· DTMF detection and generation</li> <li>· In-band DTMF, out-of-band DTMF (RFC2833, SIP-INFO)</li> <li>· Comfort Noise Generation (CNG)</li> <li>· Voice Activity Detection (VAD)</li> <li>· Dynamic Jitter Buffer</li> <li>· Echo Cancellation (LEC/NLP)</li> <li>· Call progress tone generation (FXS)</li> <li>· DTMF/PULSE dial support</li> <li>· Caller ID detection and generation</li> <li>· T.30 FAX bypass to G.711, T.38 Real Time FAX Relay, V.152</li> <li>· Adjustable Flash Time</li> <li>· Advanced call transfer, three-party calls</li> <li>· Volume control (speaker/microphone)</li> </ul>

<b>Physical Parameters</b>	
<b>Dimensions (L x W x H)</b>	· 170 x 80 x 180 mm (6.7 x 3.2 x 7.1 in)
<b>Weight</b>	· 400 g (0.88 lb)

<sup>5</sup> The function will be implemented in the next firmware version.

Operating Environment	
Power	<ul style="list-style-type: none"><li>· Output: 12V DC, 2A</li></ul>
Temperature	<ul style="list-style-type: none"><li>· Operating: from 0 to 40 °C</li><li>· Storage: from -10 to 70 °C</li></ul>
Humidity	<ul style="list-style-type: none"><li>· Operating: from 10% to 90% (non-condensing)</li><li>· Storage: from 0% to 95% (non-condensing)</li></ul>

Delivery Package
<ul style="list-style-type: none"><li>· Router DWR-956</li><li>· Power adapter DC 12V/2A</li><li>· Ethernet cable</li><li>· Two detachable LTE/3G antennas</li><li>· RJ-11 telephone cable</li><li>· "Quick Installation Guide" (brochure)</li></ul>