

Affordable Connectivity

TP-Link TL-WR642G Wireless Router



BY ANDY SIM

If tinkering with Wi-Fi hardware gets you excited, you ought to be aware of an onslaught of consumer-based routers from the likes of D-Link, SMC or Linksys in the running? Conversely, allow us to review an installment that's strangely a sizeable winner from the land of fabled Chinese dragons - TP-Link, a company claiming the crown (or so they say) of being China's leading SOHO and SMB networking product manufacturer. We take the TL-WR642G for a test run, which is fundamentally a router which exploits Atheros' Super G technology to push the limits of 802.11g's throughput.

For its design, the TL-WR642G is a pleasing individual for the most part, made up of a white chassis with black vents at its sides. All of the LEDs are situated in front of the router and conspicuously labeled, though they are packed a little close in proximity. A single 3dBi Dipole antenna is located behind, and is expediently detachable should you wish to remove it. Behind, the TL-WR642G's Ethernet ports are a no-nonsense package consisting of four LAN ports and a single WAN port. As usual, expect a jack for its power adaptor and a Reset pinhole. A plastic clip is provided should

you wish to mount the device vertically.

The TL-WR642G, like most routers, has an upgradeable firmware which we've patched (to V3) before hooking the router up to our test rig. One advantage of the TL-WR642G is that TP-Link has designed an easy to use web-based interface. The management screen may not be the most lavish interface around, but its straightforward design, and most importantly, a description of each possible setting is well described in the green portion on the right of the screen. This is especially useful for novices who are still finding their way around in configuring the router for their homes.

Features wise, this router offers similar offerings as other G-routers in the market. As mentioned earlier, the TL-WR642G is engineered with Super G WLAN technology which enhances the router's throughput to a maximum possible rate of 108Mbps. It also features an extended range transmission to expand the device's range, with claims of an 855.36m distance covered, as tested by TP-Link's engineers in China. For added security, expect to find a Firewall option which allows conventional IP filtering as well as an

added MAC address filter. Similarly, it also has a built-in DHCP server to cater for IP address distribution.

We have derived some conclusions from the Chariot and QCheck tests results. Real-life average data speeds hovered between the 10 to 20Mbps range for most distances. UDP streaming suffered a slight loss of 5.5% at the 2m mark without any encryption. Another impressive aspect is the router's performance at longer distances, say at the 35m range, clocking a stable throughput of 14.214Mbps from AP to client. We often see a sharp decline in speed levels at this distance. Oddly though, the router's uplink performance seemed to outshine its downlink's in most instances.

Irrevocably, there isn't much about the TL-WR642G to blast you off your seat, but it makes a nice alternative if you want an unwavering G-router to cover the basics at an inexpensive price we all can afford.



The TL-WR642G's DNS feature will be useful for hosting sites or servers behind the router.

SPECIFICATIONS

Features	Processor	Memory	Ports	Price
3x10/100Mbps Ethernet 100Mbps Super G	256MB	32MB	4 x LAN, 1 x WAN	55/2

Protocols and Standards: IEEE 802.11g, IEEE 802.11b, IEEE 802.11e, IEEE 802.3u, IEEE 802.3x, IEEE 802.1x, CSMA/CA, CSMA/CD, 10/100/1000, IEEE 802.3af, PPPoE
Antenna: 3dBi Dipole Antenna (detachable reverse SMA connector)
Receiving Sensitivity: 17dBm (Typical)
Encryption: WEP, WPA, WPA2, WPA-PSK, WPA2-PSK, TKIP/AES
Firmware: 1.1.1 Build 070906, 06.000906
Dimensions: 174 x 111 x 38 mm
Warranty: 5 years
Website: www.tp-link.com

HWM'S VERDICT

Physique: **8.0**
 Features: **8.5**
 Performance: **8.0**
 User-friendliness: **8.5**
 Value: **8.5**

8.0
Out of 10

Decent performance, great value and a strong feature set makes this router worth considering.



Table Of Results

Average Combined Downlink Throughput (Mbps)	Average Downlink Throughput (Mbps)	Average Uplink Throughput (Mbps)	UDP Streaming (Mbps) (Data Loss %)	Time to transfer 1GB Zip file
2m				
15.413	12.800	18.957	948.889 (5.59%)	9 min 38 sec
10m				
10.949	7.428	19.270	939.759 (6.89%)	
20m				
14.214	13.746	19.948	981.274 (2.29%)	
35m				
12.917	17.429	15.066	999.963 (0.19%)	
2m with WEP				
14.408	20.513	13.699	907.243 (10.0%)	
2m with WPA2-PSK				
17.070	20.803	13.371	999.836 (0.89%)	

*The TP-Link router was set to "108Mbps Dynamic" mode. Downlink refers to data packets being transferred from access point to client; Uplink refers to packets being transferred from client to access point. *Throughput.scn was used for the Chariot test program.