

Product External Specification

For

HSPA+ 3G VPN Router

Model Number: DWR-755

Revision: 1.2



Revision History

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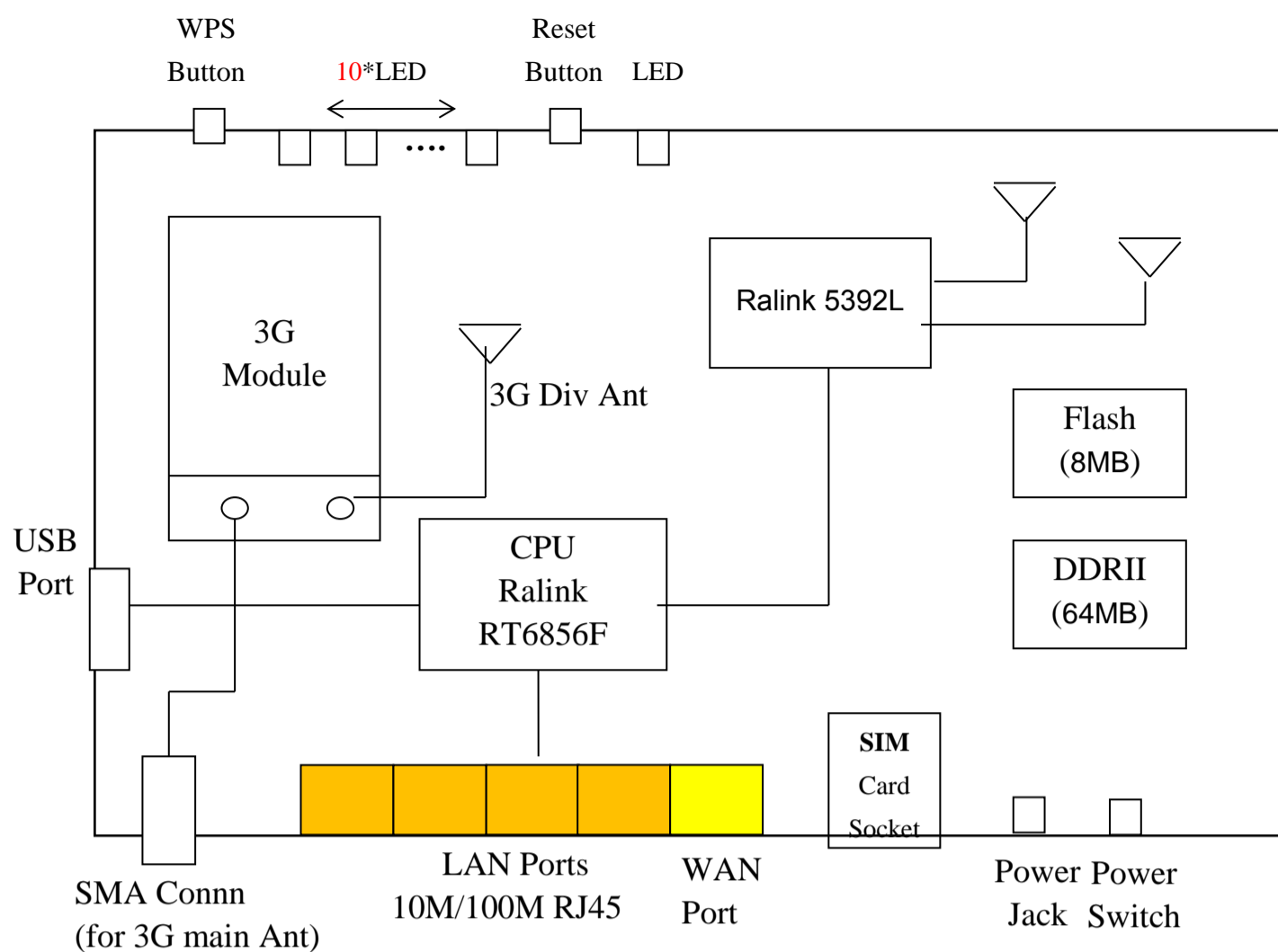
Rev.	Date	Author	Reason for Changes
1.0	2013/9/10	Eric Chang	Initial Draft
1.1	2013/9/17	Eric Chang	Update the spec.
1.2	2013/11/11	Eric Chang	Update the spec.

1. Introduction

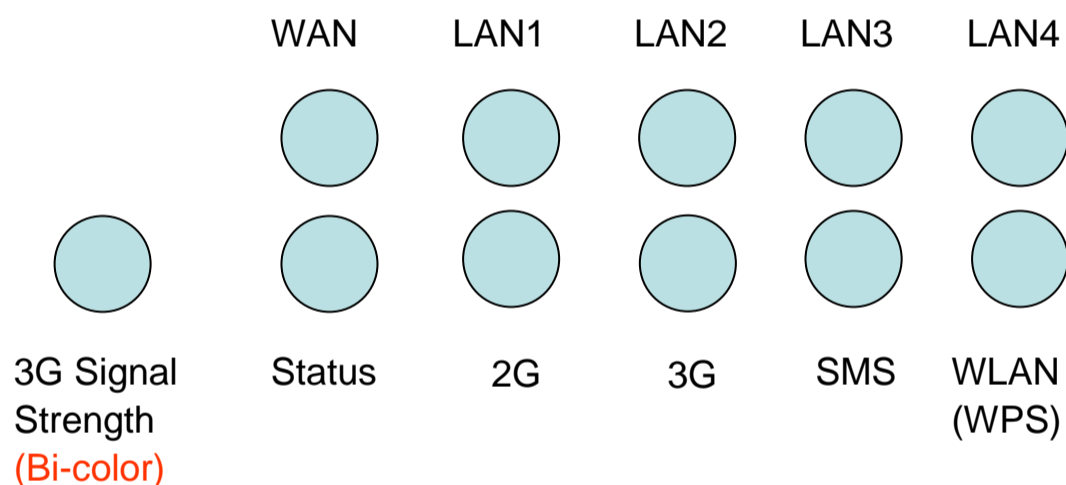
DWR-755 is a 802.11n WiFi HSPA+ VPN router, user can connect to Internet anywhere without hard-wired effort. Besides mobile broadband access, DWR-755 also provides a physical WAN port for fixed-line broadband, and supporting variety of WAN connection types, such as PPPoE, static IP, dynamic IP (DHCP client), PPTP, and L2TP. In order to protect local computers, DWR-755 supports robust SPI firewall and flexible filter rules for your requirements. Users can easily change settings by web-based UI, and backup or restore configuration if required. Speaking of SMS (Short Message Service) feature in every cell phone, you can also send and read SMS with DWR-755.

1. Features

- Mobile Broadband Gateway with Combo WAN Connection
 - Support both mobile broadband and fixed-line broadband
 - Built-in HSPA+ module for high speed 3.75G network access
 - Support various WAN connection types for fixed-line broadband, such as Dynamic IP(DHCP client), Static IP, PPPoE, PPTP, and L2TP
 - Auto-failover between mobile broadband and fixed-line broadband connection
 - Built-in NAT function for many PCs or devices to share Internet access
- 802.11n Compliance with MIMO Technology
 - Max. physical data rate up to 300Mbps
 - Backward compatible to IEEE 802.11b/g standards
 - Support WEP, WPA, WPA2, WPA-PSK, WPA2-PSK encryption
 - Establish secured Wireless Connection via WPS function
- SPI Firewall and Advanced Networking Function
 - Support NAT firewall, protecting from DoS(Deny of Service) attacks
 - Support Internet access control, like URL blocking, MAC filtering
 - Support multiple sessions IPSec, L2TP and PPTP VPN pass-through
 - Support virtual server, ALG, DMZ and UPnP for various networking applications
 - Support QoS mechanism for efficiently prioritizing the various type of traffics
- SMS (Short Message Service) Support
 - New incoming SMS notification
 - SMS compose, send, read, forward, reply, and delete
 - Auto-alert when SMS storage is full thru LED
- Easy Installation & Management
 - Web-based UI management and EzSetup installation wizard
 - Backup/restore device settings, or resetting setting to default
 - Firmware upgrade via web-based UI



LED Array



3. Specification

Hardware Specification

Hardware and Port Characteristic	
Item	Specification
CPU	Ralink RT6856F 700MHz MIPS24KEc
Wireless Solution	Ralink RT5392L
Ethernet Switch	Ralink RT6856F 700MHz MIPS24KEc
Memory	Flash 8MB DDRII 64MB
IC or Module	P300A HSPA+ 21M module x1
Button	Reset Button x1 (Reset setting to factory default) WPS Button x1 (For PBC mode)
Interface Slot	1 x Push-push SIM card slot
Antenna	1 x external detachable 3G main antenna 1 x internal 3G diversity antenna 2 x internal WiFi antenna
Power Switch	Power Switch
LED Indication	1 x Status (Green) 4 x LAN (Green) 1 x WAN (Green) 1 x Wi-Fi/WPS (Green) 1 x SMS (Green) 1.x 2G/2.5G (Green) 1 x 3G/3.5G (Green)

		1 x Signal Strength (Bi-color)
Power Adapter		DC 12V / 1A Switching Power
Mechanical		Same as DWR-555
Hardware IO-Port Set		
RJ45 Port		5 x RJ45
PCI-Express		1 x mini PCI-e for 3G module built-in
SIM Card Slot		1 x SIM slot
Power IO		DC Jack
Module Solution Spec		
Wireless Solution		RT5392L
Standard		IEEE 802.11n 2x2 MIMO IEEE 802.11b/g
Data Rate		Up to 300Mbps in 802.11n mode 6/9/12/18/24/36/48/54Mbps in 802.11g mode 1/2/5.5/11Mbps in 802.11b mode
Frequency		2.4-2.483GHz
Modulation		802.11b: DSSS / BPSK / QPSK / CCK 802.11g: OFDM 802.11n: OFDM
Number of Channels		America/ FCC: 2.412~2.462GHz (11 Channels) Japan/ TELEC: 2.412~2.484GHz (14 Channels) Europe/ ETSI: 2.412~2.472GHz (13 Channels)
Module Solution		P300A 21Mbps HSPA+ module
Chipset		MTK MT6280
Compatible Network		HSPA+/HSUPA/HSDPA/WCDMA EDGE/GPRS/GSM
Frequency		HSPA+/HSUPA/HSDPA/WCDMA: 850/1900/2100MHz or 900/2100MHz MHz EDGE/GPRS/GSM: 850/900/1800/1900MHz
Throughput		HSPA+ mode: DL up to 21.1Mbps; (Category 14) UL up to 5.76Mbps; HSUPA mode: DL up to 7.2Mbps; UL up to 5.76Mbps(Category 6) HSDPA mode: DL up to 7.2Mbps; UL up to 384Kbps(Category 6&8) UMTS mode: DL up to 384Kbps; UL up to 384Kbps; EDGE mode: DL up to 237 Kbps UL up to 118Kbps(3GPP Release 4, class 12) GPRS mode: DL up to 85.6 Kbps UL up to 42.8 Kbps
Software Configuration Setting		
Category		Specification
System Button definition	Reset	Press for 6 seconds to reset router setting to factory default.
	WPS	Press 6 seconds to perform WPS. Support PBC mode.
LED		LED: LAN1 ~ LAN4, Green: Ethernet connection is established Green in flash: data packet transferred via Ethernet
		LED: WLAN (WPS), Green: WLAN is active and available Green in flash: data packet transferred via WLAN Green in fast flash: device is in WPS PBC mode (The LED blinks 3 times per second, approximately 280~340ms.)
		LED : Status, Green: Normal flash per second Green in flash: The device is in recovery mode or abnormal.
		LED : WAN, Green: Ethernet connection is established Green in flash: data packet transferred via Ethernet
		LED: 2G/2.5G, Green: EDGE or GPRS connection is established Green in flash: data packet transferred via 2G/2.5G

		LED: 3G/3.5G, Green: UMTS/HSDPA/HSPA+/HSPA+ connection is established Green in flash: data packet transferred via 3G
		LED: SMS, Green: if SMS storage is full Green in flash: if there is any unread SMS in the storage
		LED: Signal Strength and roaming alert, Red in flash: Disconnected. No SIM card / signal or unverified PIN code Amber in flash: Connecting. Red: Connected. Signal strength in level one (weak) Red in quick flash: roaming alert, and 3G signal is weak Amber: Connected. Signal strength in level two or three (middle) Amber in quick flash: roaming alert, and 3G signal is middle Green: Connected. Signal strength in level four or five (strong) Green in quick flash: roaming alert, and 3G signal is strong

Software Specification

Operational & Functional Characteristic		
Category		Specification
Firmware Platform		Ralink 6856 Turfan Linux 2.6.36
Internet Connection	Ethernet WAN	Static IP Address
		Dynamic IP Address(DHCP Client)
		PPP over Ethernet (PPPoE)
		PPTP WAN type
		L2TP WAN type
	Wireless WAN	PPP for 3G (WCDMA/HSPA+)
	WAN Connection Control	Auto Reconnect (Always on)
		Connect on Demand / Auto-Disconnect
	WAN Connection Auto-failover	Ethernet WAN is primary, Wireless WAN is backup
	Dynamic DNS	DynDNS (dynamic)
DynDNS (custom)		
No-IP.com		
TZO.com		
Dhs.org		
Wireless / LAN	DHCP Setting	DHCP server enable or disable
		Lease time
		Domain Name
		DNS Server Setting
		Gateway
	Wireless	This set supports wireless LAN
		1. This set supports various standard wireless security settings. WEP (64/128 bits), WPA, WPA2, WPA-PSK, WPA2-PSK 2. Wireless Radio Enable/Disable
		Auto channel selection
		SSID stealth
		WPS(Wireless Protection System)
	Routing	Static Routing
		Dynamic Routing RIP1
Dynamic Routing RIP2		
NAT Setup	IP Masquerade	Virtual Server and DMZ Host
		VPN Pass through
		UPnP IGD
		Special AP
		Enable or Disable "NAT"
Security	VPN Security	Tunnels: 5 dedicated tunnels
		Initiator and Responder: IPsec
		Server/Client : PPTP

		Server/Client: L2TP
		Pass Through: IPSec, PPTP, L2TP
		Encryption: Null, AES, DES, 3DES
		Encryption MPPE (PPTP, L2TP)
		Authentication: IPSec - SHA-1 MD5,
		Authentication: PPP - PAP, CHAP, MS-CHAP
		Encapsulation: 1. support Tunnel mode 2. support AH and ESP protocols
		Key Management: 1. Manual Key, 2. IKE - Pre-Shared Key, Xauth, (Xauth : Extended Authentication, for IPSec Authentication)
SPI Firewall	IP Service Filter	IP / Service Filter : LAN to WAN Filter
		IP / Service Filter : WAN to LAN Filter
		MAC Control
		URL Blocking : Key word
		DoS Protection
		Support Stealth Mode
		SPI Mode
QoS	QoS of three-level priority queue	This set can select "Low, Normal and high" according to Source IP or Destination IP or Destination Port
Administration	System Log	IP address for syslogd
		Log E-mail Alert
		System log page in Web management
	FW Upgrade	Firmware Upgrade
	Configuration Backup	Backup
		Reset to Default
		Backup and Restore
	Schedule Rule	Virtual Server
		IP / Server Filter
	Remote Management: SNMP	1.Support V1 version 2.Basic System get or Set Community 3.Deny or allow Outgoing IP access
		V2c
		Support Trap application.
	Toolbox	Reboot
		Deny Ping request from Internet
Ping		
Change Password		
Toolbox: Remote Login	Remote User Login	
	Remote Login Timeout	
Toolbox: System Time	Get Date and Time by Internet Time server	
	Support Daylight Saving	
3G Application	SMS Feature	SMS Notification
		SMS Full Alert
		SMS Read and Send
Environment, Certification and Reliability		
WLAN	Range Coverage	Per cell indoors approx. 30-75 meters Per cell outdoors up to 100-200 meters (Depends on antenna type and actual environment)
	Number of Channels	America/ FCC: 2.412~2.462GHz (11 Channels) Japan/ TELEC: 2.412~2.484GHz (14 Channels) Europe/ ETSI: 2.412~2.472GHz (13 Channels)
Environment	Operating Temperature	Temperature: 0~40°C, Humidity 10%~90% non-condensing
	Storage Temperature	Temperature: -10~70°C, Humidity: 0~95% non-condensing
Certification	RoHS	Compliant
	Wi-Fi Certified	Compliant
	CE	Compliant

4. ID/Mechanical

Item	Specification	Remark
Dimension	190 x 119 x 22 mm	
Weight	265g	

5. Package

Item	Specification	Remark
Carton	TBD	
Accessory	1x Power adaptor	
QIG	Quick Installation Guide	