

# Lantech Multifunction Routers

Industrial / EN50155 Multifunction VPN Routers w/ Load Balancing, VPN, Protocol Gateway, Storage, etc.



## OVERVIEW

Lantech's next generation industrial / EN50155 multi-function VPN router supports advanced function of VPN, Load-Balancing, EMMC Flash Storage\*\*, Protocol gateway (Modbus), Storage\*\*, Wi-Fi roaming and LTE quad SIM fail-over for industrial applications.

### Load Balancing with 5 mechanisms for multi-WANs

The router supports Load Balancing for LTE/WAN connections. There are five schemes for Load Balancing function:

Pack	Algorithm	Description
Basic	Fixed	All traffic will be distributed to a single WAN.
	Failover	Routes connections through preferred WAN link while others stand-by. Sequentially activating another link if the preferred link fails.
	Priority	Select the active WAN according to priority.
	Weighted Round-Robin	Evenly distribute the traffic over all working WAN links in circular order according to the specified weights.
	Custom Route	Routing through the selected WAN for each specific traffic, ex: TCP/UDP port number and IP address.

### Serial ports connection with Modbus gateway

For the router that builds in serial ports connection, the built-in Modbus gateway can convert Modbus RTU/ASCII to Modbus TCP for device control.

### VPN and firewall

Besides traditional VPN peer to peer tunneling, the router supports latest Multi-Site VPN function that is an efficient way for Mesh tunneling. The registration is under cloud service and encrypted by SSH makes the connection easy and safe. It supports Multi-Site VPN, OpenVPN, L2TP over IPsec, IPsec, L2 over GRE, IPGRE, and NAT for various VPN applications. The built-in Layer-4 firewall includes DDoS, IP address filter / Mac address filter / TCP / UDP port number.

### Support routing protocol: Static route / RIPv2 / OSPF / BGP / EIGRP

Lantech router series supports two routing methods: static routing and dynamic routing. Dynamic routing makes use of RIPv2, OSPF, EIGRP and BGP. The user can either choose one routing method to establish the routing table.

**Remote Web control**

When the router is at remote area with limited access, Web control can help to get router status or remotely reboot.

**Environmental monitoring for inside router info& alerting; Graphic WIFI & LTE signal strength**

The built-in environmental monitoring can detect router ambient temperature, voltage, current and total PoE load where can send the SNMP traps Syslog and email when abnormal. The graphic WIFI & LTE signal strength shows connection status at a glance

**Built-in managed switch function**

Managed switch function is built-in and provides various L2+ functions for network aggregation deployment. It delivers ports and PoE management, VLAN, QoS, multicast, redundant ring, and security functions.

**USB port for back up, restore configuration and upgrade firmware; Dual image firmware**

The built-in USB port can upload/download the firmware through USB dongle for router replacement. It support dual-image firmware to choose which one to start.

**Editable login page of captive portal**

The router supports editable captive portal function that allows administrator to force end-users redirect to authentication page.

**Optional EMMC flash storage\*\***

The optional EMMC flash storage on the router can offer 8G/16G/32G capacity.

**Support AP/Bridge/Client mode, Mesh roaming (Wi-Fi-supported models)**

The router supports AP/Bridge/Client mode for different applications. It also supports client-base roaming to swap between the APs in a network.

**Built-in wireless Mesh network (WMN) (Wi-Fi-supported models)**

The router supports Mesh network composed of different nodes. The set of SSIDs allow the wireless client to roam freely without the need for complicated account management. With Mesh protocol, it can provide a reliable, scalable, stable and seamless network topology.

**IEEE 802.11ac dual band radio up to 2.6Gbps bandwidth (Wi-Fi-supported models)**

With IEEE 802.11ac capability, the router can operate either 5GHz or 2.4GHz bands, offering the maximum speed of 2.6Gbps bandwidth (1.3Gbps per 1AC). It is also compatible with 802.11b/g/n that can work with 2.4GHz for longer range transmission. The Wi-Fi 11ac supports AP/ Bridge/ AP Client modes can be diverse for most of wireless application. Working with load-Balancing "Priority" mode, the AP client can enable router to transmit on Wi-Fi with first priority.

**Wireless WMM QoS (Wi-Fi-supported models)**

The router supports 802.11e standard which defines a set of Quality of Service for wireless LAN applications as well as WMM (WIFI multimedia).

**Advanced security & 16 SSIDs (Wi-Fi-supported models)**

The security support standards including 64/128bits WEP, WPA/WPA2 PSK (TKIP, AES), 802.1x ensures the best security and active defense against security threats. The router supports up to 16 SSIDs, each SSID has its

independent security and encryption.

### Optional eSIM\*\* (LTE-supported models)

By replacing physical SIM, optional eSIM chip will allow users to purchase data plans at low prices from local carriers in the world.

## SPECIFICATIONS

WLAN Interface			
<b>(Wi-Fi-supported models)</b>			
Wireless Standard	IEEE 802.11ac/n/a 5GHz IEEE 802.11b/g/n 2.4GHz		
Operation Mode	Supports AP/ Bridge/ Client/ MESH modes		
Wireless bandwidth	5GHz: Up to 1300Mbps 2.4GHz: Up to 450Mbps		
Bandwidths	20MHz, 40MHz, 80MHz		
Encryption Security	WEP : (64-bit ,128-bit key supported) WPA /WPA2 : IEEE802.11i(WEP and AES encryption) WPA-PSK (256-bit key pre-shared key supported) EAP-TLS,EAP-TTLS, and PEAP		
Wireless Security	SSID broadcast disable		
MESH	Support 802.11s Wireless Mesh Network		
Authentication	Radius Authentication, EAP-TLS, EAP-TTLS, PEAP; SSID broadcast disable supported		
SSID	16 sets		
Login Security	Supports IEEE802.1x Authentication/RADIUS		
Roaming	Client-base roaming		
WAN Interface			
Option Interface	PPPoE, Wi-Fi WAN (Wi-Fi-supported models), LTE (LTE-supported models), Eth WAN		
WAN Settings	WAN 1-5		
Cellular (LTE-supported models)	Select SIM 1/2, Alive Detect Condition auto/ping/signal, 3G/4G, Cellular History log		
Software			
Internet Protocol	IPv6, IPv4		
WMM	WIFI multimedia and 802.11e traffic prioritization (Wi-Fi-supported models)		
VPN	Multi-site VPN, Open VPN, L2TP over IPSec, IPSec, L2 over GRE, IPGRE and NAT		
Firewall	DDoS, IP address filter / Mac address		
		filter / TCP/UDP port number.	
Access Security		HTTP/HTTPS/Telnet/SSH & Administration; SNMP v1/v2/v3 access for authentication via MD5/SHA(v3) and Encryption via DES/AES(v3)	
Protocol		DHCP server/client, Adjustable MTU, Port forwarding , DMZ; NAT, SNTP, VRRP, DDNS	
Routing		Static route / RIPv2 / OSPF / BGP / EIGRP	
Switching Function		Port Rate Limiting, Power over Ethernet, 802.1Q VLAN, IEEE 802.1p QoS, IGMP, RSTP, MSTP, G.8032 ERPS, MAC Address Tables	
Protocol Gateway		Modbus on serial ports (Built-in serial ports models)	
Management		SNMP v1,v2c,v3/ Web/Telnet/CLI	
Environmental Monitoring		System status for input voltage, current , ambient temperature to be shown in GUI and sent alerting if any abnormal status	
Graphic signal display		Graphic WIFI & LTE signal strength & TX/RX rate display	
Timer		Built-in Real Time Clock to keep track of time always(RTC)	
Discovery		IEEE 802.1ab Link Layer Discovery Protocol (LLDP)	
SNMP trap		Device cold / warm start Port link up / link down DI/DO high / low	
Remote Web control		To reboot or get status of router by Web UI	
Captive portal		Editable captive portal login page	
Maintenance		Firmware upgradeable through TFTP/ HTTP	
Configuration backup & restore		Supports text configuration file for system quick installation USB port to upload/download firmware by USB dongle	
Load Balancing (Basic)			
Fixed		All traffic will be distributed to a single WAN.	
Failover		Routes connections through preferred WAN link while others stand-by. Sequentially activating another link if the	

	preferred link fails.
Priority	Select the active WAN according to priority.
Weighted Round-Robin	Evenly distribute the traffic over all working WAN links in circular order according to the specified weights

Custom Route	Routing through the selected WAN for each specific traffic ex: TCP/UDP port number and IP address.
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\*Future release  
\*\*Optional

## OPTIONAL ACCESSORIES

### Management System

- **InstaAir.....P/N: 9000-121**  
Cloud Based Fleet Management System for Routers

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