# UT

# MSR29-12L

## MULTISERVICE ROUTER

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## Features

### High-performance Integrated Multiservice Router
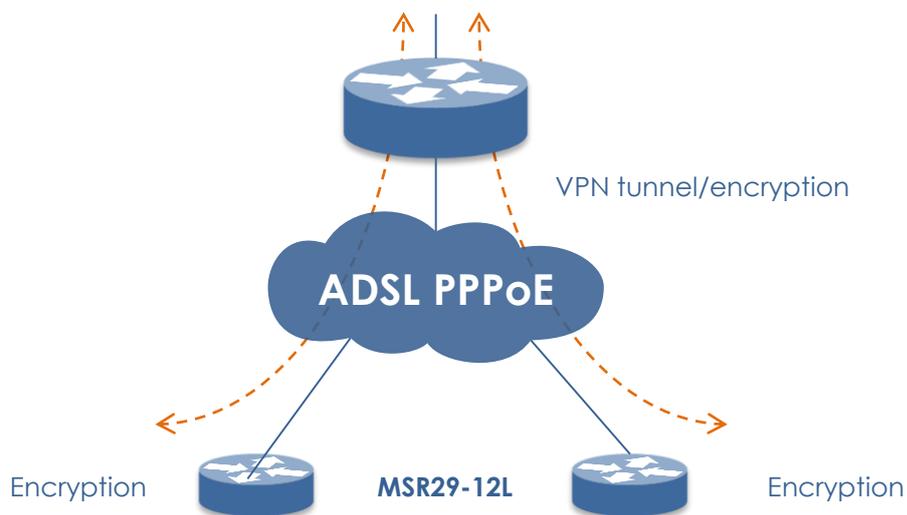
o **HIGH PERFORMANCE**

o **64-BIT DUAL-CORE CPU**

o **WIDE RANGE OF PROTOCOLS**

o **MPLS-BASED L2/L3 VPN**

o **SECURE ACCESS WITH FIREWALL, NAT, VPN, ENCRYPTION, AAA, RADIUS**

o **STRONG TRAFFIC MANAGEMENT CAPABILITIES**

o **ENERGY EFFICIENCY**

o **FLEXIBLE MANAGEMENT**



VPN tunnel/encryption

ADSL PPPoE

Encryption    **MSR29-12L**    Encryption

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## Description

The UTStarcom's MSR29-12L is a next-generation multi-functional switching router based on a 64-bit multi-core processor and FPGA components that offers high-speed switching engine, built-in 3G/4G wireless module, and rich feature set.

The MSR29-12L represents a real multiservice broadband platform providing strong software functions such as routing, switching, safety, VPN and LTE that can meet networking requirements of governments, financial institutions, defense organizations, operators and enterprises.

The MSR29-12L supports L2 link protocols including HDLC, PPP, and dot1q; static routing; policy routing; and dynamic routing such as RIP, OSPF, BGP and BEIGRP. These routing protocols are compatible with devices manufactured by mainstream vendors in the industry. Besides, MSR29-12L supports integration of multiple services such as routing, switching, security, and wireless access, which can meet requirements of sophisticated network applications. On top of that, the product supports MPLS functionality and MPLS-based L2/L3VPN technology suitable for enterprise services. The MSR29-12L supports IPv6 data forwarding, routing protocols and multicast routing protocols. With support of IPv4/IPv6 protocol stack and the interconnection technology, the product enables smooth migration of existing networks to IPv6.

TheMSR29-12L supports strong security feature set offering selective ACL firewall filtration technology, NAT, VPNs including IPSec/L2TP/PPTP/GRE, and security technologies such as AAA, Radius and PAP/CHAP.

Combining 4G wireless access capabilities and VPN encryption techniques, the MSR29-12L provides an excellent solution for convenient and safe connectivity of off-bank ATMs, outdoor sites, and cars.

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**UTSTARCOM**

A global telecom infrastructure provider of innovative carrier-class broadband transport and access solutions.

# MSR29-12L

## MULTISERVICE ROUTER



## System Specifications

### SYSTEM CHASSIS

| | |
|---|---|
| Dimensions | 300 x 200 x 44mm WxDxH |
| Operation temperature | 0℃ to 50 ℃ |
| Operation humidity | 5% to 95% non-condensing |
| Power supply | Built-in 220VAC on-off power supply |
| Power consumption | ≤36W |

### INTERFACES

| | |
|---|---|
| CON | 1 Mini USB |
| USB | 1 USB2.0 |
| WAN | 2 GE Combo |
| | 2 GE-TX |
| LAN | 8 GELAN |
| 3G4G | LTE universal |
| Encryption engine | CPU integration |

### PERFORMANCE

| | |
|---|---|
| PPS | 3Mpps |
| NORFLASH | 32M+16M |
| DRAM | 1G+128M |

## Software Features

### LINK PROTOCOLS

| | |
|---|---|
| LAN | ARP, ARP proxy, Gratuitous ARP |
| WAN | PPP, PPPoE (Client/Serv) |

### NETWORK PROTOCOLS

| | |
|---|---|
| Routing | Routing table:10K |
| | Static routing,default routing |
| | RIPv1/v2, OSPFv2, BGPv4, BEIGRP (compatible with CISCO) |
| | PBR |
| | FastSwitch, Load-Balance |
| Multicast | IGMP |
| | PIM-DM, PIM-SM, DVMRP |
| IP Service | ICMP, TCP, UDP, IP Option |
| | NAT, PAT, Port-MAP, Private-Service, ALG |
| | Ping, TraceRoute, |
| | IP ACL, IMP filter, Fast-Access |
| | DHCP Client/Serv/Relay |
| | DNS, DNS host, DNS Proxy, DDNS |
| | Helper-Address, UDP Helper |
| | IP unnumber, DDR |
| | Keepalive, PDP（compatible with CISCO） |
| | NetFlow, IP Accounting |
| | TFTP Client/Server, FTP Client |
| | SNTP |
| | Reserve telnet, VTY binding |
| MPLS | VPLS, MP-BGP, VRF |
| | L2VPN, L3VPN |
| | MPLS TE |
| IPv6 | IPv6 routing table:5K |
| | IPv6 ND, IPv6 PMTU, IPv6 FIB, IPv6 ACL |
| | IPv6 QoS |
| | IPv6 transition: NAT-PT, IPv6 tunnel, 4over6 |
| | IPv6 tunnel: IPSec v6, GRE, 6to4, ISATAP |
| | IPv6 route: IPv6 static route, RIPng, OSPFv3, BGP4+ |

### 3G/4G WIRELESS

| | |
|---|---|
| Type | LTE-TDD/LTE-FDD/TD-SCDMA/ UMTS/EVDO/EDGE/GPRS/GSM/ CDMA |

### MANAGEMENT AND MAINTENANCE

| | |
|---|---|
| Network management | SNMP, MIB, SYSLOG, RMON, HTTP management |
| Local management | CLI management and file system management |
| Log-on | Console/Telnet/VTY/SSH |
| TR069 | Support TR069 |

### RELIABILITY

| | |
|---|---|
| Backup function | Interface backup |
| | Floating route backup |
| | E-Backup, Keep alive Ethernet remote monitoring |
| | VRRP, HSRP |
| | Bandwidth based load sharing and backup |
| | Traffic based load balancing and backup |
| BFD | BFD for RIP, OSPF, BGP, MPLS and VRRP |

### QoS

| | |
|---|---|
| Congestion management | FIFO, PQ, CQ, WFQ, CBWFQ |
| Congestion avoidance | WRED/RED |
| Traffic shaping | GTS |
| Resource reservation | RSVP |
| Features | GBSC, Layer7filter |
| Traffic classification | ACL Flow Classification |
| | IP Precedence Flow Classification |
| | DSCP flow classification |
| | MAC address classification |
| | 802.1P classification |

### SWITCHING FUNCTION

| | |
|---|---|
| Switching | Support 4K vlan |
| | 802.1p CoS, 802.1Q VLAN, 802.1x authentication |
| | STP, RSTP, PVST |
| | Keep alive, port mirror, broadcast/multicast storm control |

### NETWORK SAFETY

| | |
|---|---|
| AAA | Authentication, Authorization, Accouting |
| | enable, local, Radius, Tacacs+ |
| | PAP, CHAP, MS-CHAP |
| Firewall | ASPF state detection |
| | SYN flood, UDP flood or ICMP flood protection |
| | ARP attack protection, ARP-SCAN and DHCP-Snooping |
| | Prevention of Ping of Death, Tear-drop, Land-Based, Win Nuke, Ping Sweep, ARP attack and IP-Spoofing |
| VPN | IKE, IPSec, DMVPN, EZVPN |
| | L2TP, PPTP, GRE, SSL VPN |
| | VPN nesting |