

L3 Managed Multi Giga Switch with 10G uplink

30-Port Multi Giga + 6 Ports 10G SFP+

L3-2TX2406

airlive®



Rich L3
Features

24 Port RJ45
2500Mbps

L3 DHCP
Server/Relay

L3 OSPF Routes
Support

L3 DHCP
Snooping

IPv4/v6 L3
Static Route

ACL, ERPS

10G SFP+
Uplink

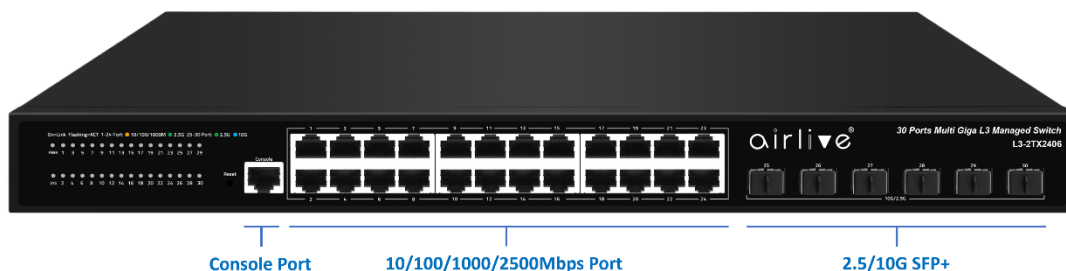
Overview

Rich L3 Features with Super High Speed

L3-2TX2406 series offers high performance full 24 port 2.5G RJ-45 and 6 10G SFP+ ports hardware IP routing. Static route, OSPF, and RIP provide dynamic routing by exchanging routing information with other Layer 3 switches and routers. With L3-2TX2406 series, customers could easily achieve a Policy-based Route (PBR), which is important when they need Switch to switch application and short network heal time.

What Is a Layer 3 Switch?

A Layer 3 switch is a specialized hardware device used in network routing. Layer 3 switches technically have a lot in common with typical routers, and not only in physical appearance. Both can support the same routing protocols, inspect incoming packets, and make dynamic routing decisions based on the source and destination addresses inside. One of the main advantages of a Layer 3 switch over a router is in the way routing decisions are performed. Layer 3 switches are much low network latency since packets don't have to take additional steps through a router.



Features

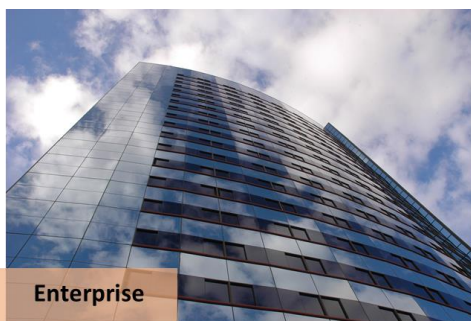
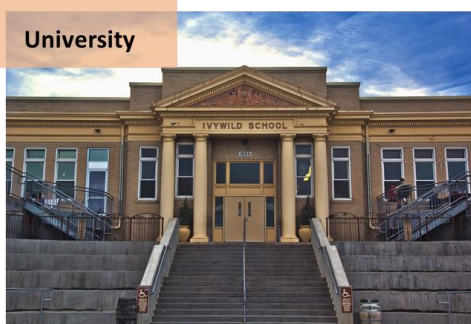
- Rich Layer 3 Features
- Fully L2 features provide easier manageability, security and QoS
- ITU-T G.8032 Ethernet Ring Protection Switching (ERPS)
- SNMP, WEB, CLI, SSH2.0, Telnet
- VLAN Division Voice
- IPv4/IPv6 L3 static route
- OSPF Routes dynamic routing
- SFP+ 10Gbps Fiber Long Distance
- Voice Vlan Support
- Clear Statues display including traffic, CPU, per-port status
- Web-UI for easy management; CLI and Command Script for advance setting; SNMP used for popular network tools management.

Major Specifications

- 24 x 10/100/1000/2500Mbps
- 6 x 2.5/10G SFP+
- Rich Layer 3 Features
- L3 DHCP Server/Relay
- L3 DHCP Snooping
- IPv4/IPv6 L3 static route
- OSPF Routes dynamic routing
- Surge Protection 6KV · ESD Protection 8KV
- Authentication: 802.1x, AAA
- DHCP Snooping prevents unauthorized router installed

Applications of Layer-3 Switches

- Layer3 Switch is widely used in data centers and universities, factory, enterprise where there is a very big setup of computer networking. Owing to its features like static and dynamic routing and its fast-switching speed than a router, it is used in LAN connectivity for interconnection of several VLAN and LAN networks.
- L3-2TX2406 have the skills to offload the overloaded routers. This can be done by configuring a layer-3 switch, each with a main router in a wide area networking scenario so that the switch can manage all the local level VLAN routing.
- The layer-3 switch in combination with a number of layer-2 switches supports more users to connect on the network without the need for implementation of an extra layer-3 switch and more bandwidth. Thus, it is widely implemented in universities and small-scale industries. In case if the number of end users on a network platform increases, then without any enhancement of the network, it can be accommodated in the same running scenario easily.
- A layer-3 switch is smart enough to handle and manage the routing and traffic controlling of locally connected servers and end devices utilizing its high bandwidth.

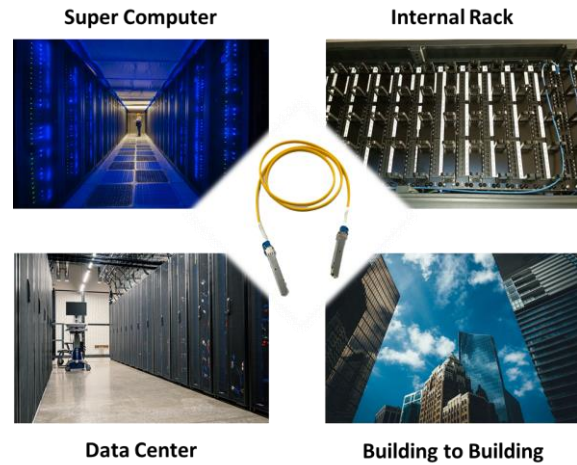
**Factory****Enterprise****Data Center****University**

10G Performance and Scalability

With high switching capacity, L3-2TX2406 support wire-speed L2/L3 forwarding and high routing performance for IPv4 and IPv6 protocols.

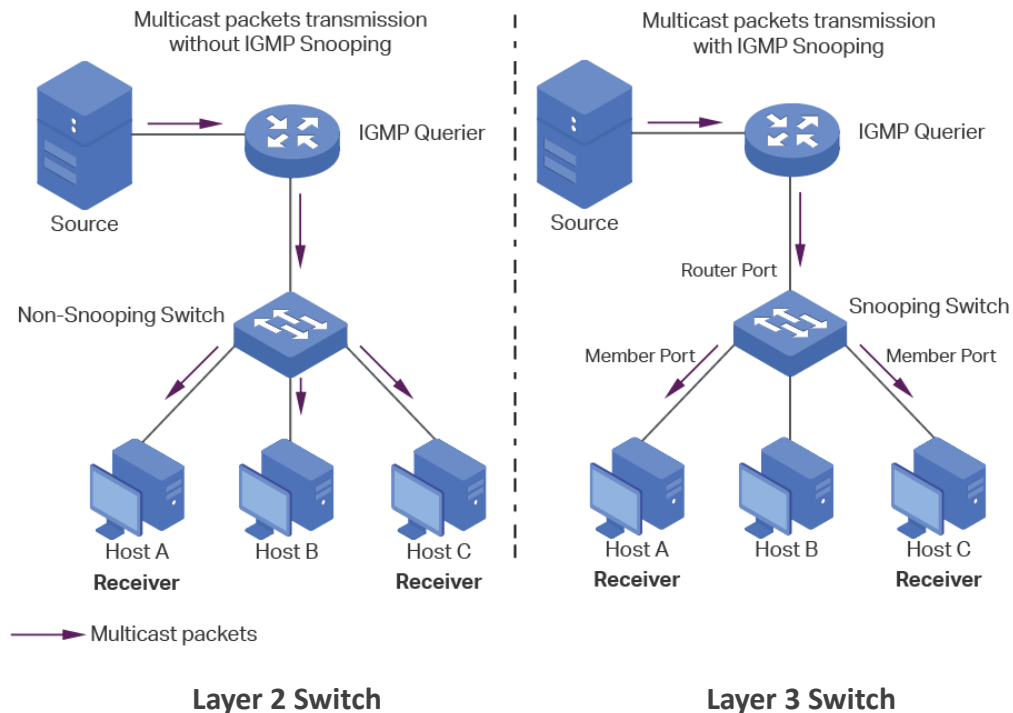
The 10 Gigabit connectivity of L3-2TX2406 is accomplished via a hot-pluggable 10 Gigabit SFP+ transceiver which supports distance up to 300 meters over multimode fiber and 10 to 40km over single-mode fiber (The distance depends on the optical module chosen).

10G SFP+ Connect Applications



Strong L3 IGMP Snooping Multicast

L3 multicast protocols is compliant with IGMPv1/v2/v3 and supports abundant multicast features such as IGMP v2/v3 snooping and fast leave. With Multicast VLAN Register (MVR), multicast receiver/sender control and illegal multicast source detect functions; L3-2TX2406 fiber series provides a great application experience for the customer.



L3 OSPF Routes Management

Open shortest path first (OSPF) is a link-state routing protocol that is used to find the best path between the source, which is generally used in the same routing domain. Here, routing domain refers to an autonomous system (as), which refers to a group of networks that exchange routing information through a unified routing policy or routing protocol. In this as, all OSPF routers maintain the same database describing the as structure, which stores the state information of the corresponding links in the routing domain. It is through this database that OSPF routers calculate their OSPF routing tables.

As a link state routing protocol, OSPF transmits link state multicast data LSA (link state advertisement) to all routers in a certain area, which is different from distance vector routing protocol. The router running distance vector routing protocol passes part or all of the routing tables to its neighboring routers.

OSPF Routes Info

OSPF Routes status ☐ Enable

Apply

Area Network Setting table

Showing All entries Showing 0 to 0 of 0 entries

Area Id	Network Ipv4 Address	Network Mask
0 results found.		

Add Delete First Previous 1 Next Last

Area Network Setting table

Area Id A.B.C.D

Network Ipv4 Address

Network Mask

Apply Close

L3 DHCP Snooping Support

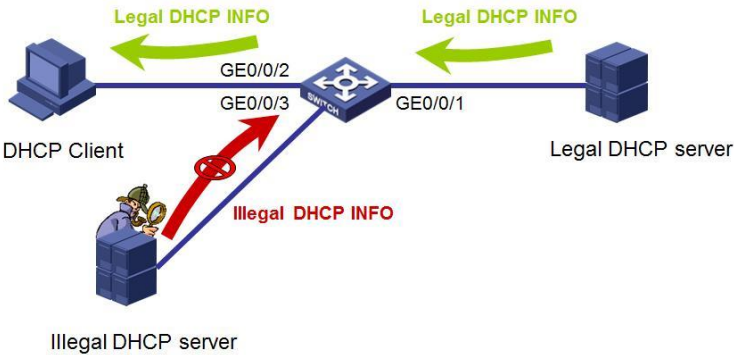
Prevention against illegal Router(DHCP Server) attacks or sending DHCP information.

DHCP Snooping Configuration

Snooping Mode Enabled

Port Mode Configuration

Port	Mode
*	<>
1	Trusted
2	Untrusted
3	Trusted
4	Trusted
5	Trusted
6	Untrusted
7	Trusted
8	Trusted
9	Trusted
10	Trusted



L3 VLAN IP Routing Interface Management

The L3-2TX2406 provides 3 layers of VLAN interface, which is used to communicate with network layer devices. VLAN interface is a network layer interface, which can be configured with IP address. Before creating VLAN interface, the corresponding VLAN should be created first. With the help of VLAN interface, switches can communicate with other network layer devices.

IPv4 Interface Table

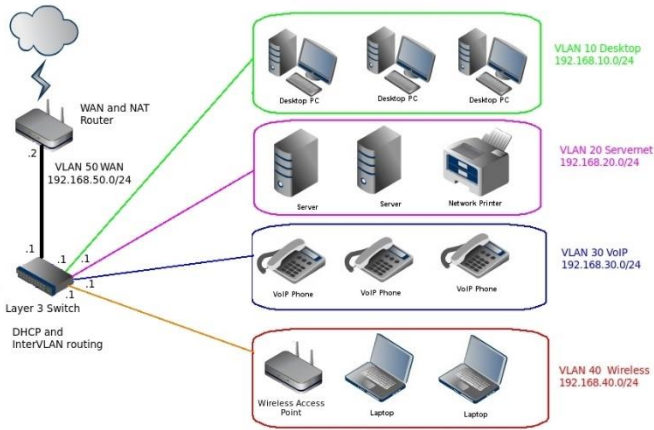
Interface	IP Address Type	IP Address	Mask	Status
VLAN 1	Static	192.168.2.1	255.255.255.0	Valid

Add Delete

IPv4 Routing Table

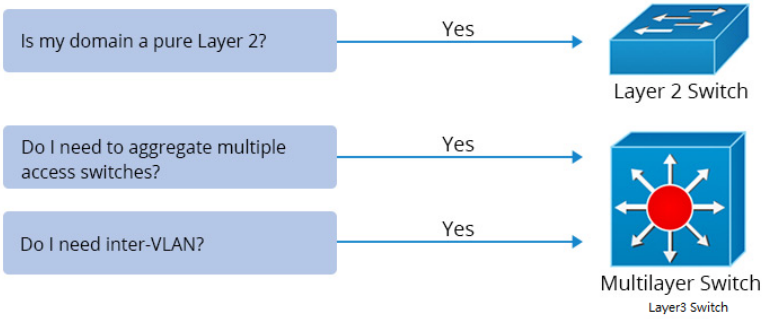
Destination IP Prefix	Prefix Length	Route Type	Next Hop Router IP Address	Metric	Administrative Distance	Outgoing Interface
192.168.2.0	24	Directly Connected				MGMT VLAN

Add Edit Delete



Layer 2 vs Layer 3 Switch

The layer 2 and Layer 3 differs mainly in the routing function. A Layer 2 switch works with MAC addresses only and does not care about IP address or any items of higher layers. Layer 3 switch, or multilayer switch, can do all the job of a layer 2 switch and additional static routing and dynamic routing as well. That means, a Layer 3 switch has both MAC address table and IP routing table and handles intra-VLAN communication and packets routing between different VLANs. There is also layer 2+ (layer 3 Lite) switch that adds only static routing. Other than routing packets, layer 3 switches also include functions that require to understand the IP address information of data entering the switch, such as tagging VLAN traffic based on IP address instead of manually configuring a port. Layer 3 switches are increased in power and security as demanded.



Item	Layer 2 Switch	Layer 3 Switch
Routing Function	Mac address only	Supports higher routing such as static routing and dynamic routing
VLAN Tagging Based on IP Address	No	Yes
Inter-VLAN	No	Yes
Using Scenario	Pure Layer 2 domain	Aggregate multiple access switches

Model	AirLive L3-2TX2406
Hardware <ul style="list-style-type: none">Device Interface: 24 x 10/100/1000/2500M Ports 6 x 10G SFP+ Ports 1 x RJ45 Console Port 30 Port Totally Standard <ul style="list-style-type: none">IEEE 802.3 : Ethernet MAC ProtocolIEEE 802.3i : 10BASE-T EthernetIEEE 802.3u : 100BASE-TX Fast EthernetIEEE 802.3ab : 1000BASE-T Gigabit EthernetIEEE 802.3z : 1000BASE-X Gigabit Ethernet (optical fiber)IEEE 802.3ae : 10G Ethernet (optical fiber)IEEE 802.3az : Energy Efficient EthernetIEEE 802.3ad : Standard method for performing link aggregationIEEE 802.3bz : 2.5GBASE-TIEEE 802.3x : Flow controlIEEE 802.1ab : LLDP/LLDP-MED (Link Layer Discovery Protocol)IEEE 802.1p : LAN Layer QoS/CoS Protocol Traffic Prioritization(Multicast filtering function)IEEE 802.1q : VLAN Bridge OperationIEEE 802.1x : Client/Server Access Control and Authentication ProtocolIEEE 802.1d : STPIEEE 802.1s : MSTPIEEE 802.1w : RSTP <ul style="list-style-type: none">LED Indicators: PWR(Power indicator),SYS(System lights), Warning Light Temp/Voltage), Link RJ-45 port: Green 2.5G, Yellow 100/1000Mbps, Link SFP+ port: Blue 10G, Green 2.5G <ul style="list-style-type: none">Lighting Surge Protection: Support Port Surge Protection: Common Mode 6KV, Differential Mode 2KV; ESD: Contact 6KV, Air 8KV <ul style="list-style-type: none">Mechanical Solid metal 19" 1U rack-mountable Power <ul style="list-style-type: none">Power Input: AC100~240VAC Switch Architecture Performance <ul style="list-style-type: none">Switching Performance Bandwidth: 240Gbps Packet Forwarding Rate: 178.56Mpps DDR SDRAM: 512MB Flash Memory: 32MB Package cache: 16Mbit MAC Address: 32K Jumbo frame: 10Kbyte VLANs: 4096 MTBF: 100000 hour	Fiber Medium: Multi-mode Fiber: 50/125 、 62.5/125 、 100/140um Single-mode Fiber: 8/125 、 8.7/125 、 9/125 、 10/125um ERPS Ethernet Ring Protection <ul style="list-style-type: none">Support G.8032 (ERPS), support 255 loops at most, and supports 1024 devices per ring.The self-healing time of the ring network is less than 12ms Software Function <ul style="list-style-type: none">Basic function: Support hardware watchdog, factory reset, system and port LED Support global information, statistical information, log information Support User management, alarm management, configuration management Support Port rate, duplex, flow control, maximum frame length configuration Support Port mirroring, port speed limit, port energy savingLayer 3 Interface: Support Layer 3 interface Support IPv4, IPv6 VLAN Interface Support ARP configuration Support ND configurationLayer 3 Routing: Support IPv4 static routing Support IPv6 static routing Support RIP V1/V2 Support OSPFDHCP: Support DHCP server Support DHCP relay Support DHCP SnoopingVLAN: Support 4K VLAN Support 802.1Q VLAN 、 based on port VLAN Support Access 、 Trunk 、 Hybrid VLAN mode Support GVRP (VLAN registration protocol) Support MAC VLAN 、 IP VLAN Support Voice VLANMAC Address: Support MAC address automatic learning and aging Support Static, dynamic, filtered address table

* Specification will be changed without prior notice

AirLive

Model	AirLive L3-2TX2406
<ul style="list-style-type: none">Security features:<ul style="list-style-type: none">Password protectionSupport Restrict user access based on port number, IP address, MAC addressSupport HTTPS 、SSH V1/V2Support VLAN-IP-MAC-PORT bindingSupport ARP detection, IP source protection, DoS protectionSupport DHCP Snooping 、DHCP Attack protectionSupport 802.1X CertificationSupport AAA (Authentication, Authorization, Accounting),Support RADIUS protocolSupport Port security, port isolationAccess control:<ul style="list-style-type: none">Support L2(Layer 2)~L4(Layer 4) Packet filtering functionSupport Port mirroring, flow rate limiting, QoS remarkingQoS:<ul style="list-style-type: none">Support 8 port queuesSupport Port priority, 802.1P priority, DSCP prioritySupport SP, WRR Priority scheduling algorithmSpanning tree:<ul style="list-style-type: none">Support STP(IEEE 802.1d), RSTP(IEEE 802.1w) and MSTP(IEEE 802.1s) protocolSupport Multi-instance, Support Aggregate interfaceSupport BPDU protectionMulticast:<ul style="list-style-type: none">Support IGMP v1/v2/v3 SnoopingSupport MLD v1/v2 SnoopingSupport Layer 2 multicast fast leave mechanism, querierSupport Layer 2 IPv4 static multicastSupport Layer 2 IPv6 static multicastSupport IGMP v1/v2/v3 Layer 3 multicastStorm Suppression:<ul style="list-style-type: none">Support multicast suppressionSupport broadcast storm suppressionSupport unknown unicast suppressionRing protection<ul style="list-style-type: none">Support Ring protectionLink Aggregation<ul style="list-style-type: none">Support Static AggregationSupport LACP Dynamic AggregationSupport based on IP, MAC, mixed load-balancing modesMaximum support 8 aggregation groups (8 ports per aggregation group)IPv6<ul style="list-style-type: none">Support IPv6 Ping 、IPv6 Traceroute 、IPv6 TelnetSupport IPv6 SSHSupport IPv6 HTTP 、IPv6 HTTPS	Management and Maintenance <ul style="list-style-type: none">Support WEB Management (HTTP 、HTTPS)Support CLI (Telnet, SSH V1/V2, Local serial port)Support SNMP V1/V2/V3/MIBSupport RMON V2Support LLDP Device discoverySupport SNTP Time synchronizationSupport CPU Monitoring, Memory MonitoringSupport System log, classification warningSupport Ping, Traceroute detection, cable detection Environment <ul style="list-style-type: none">Operating Temperature: -10°C to +50°CStorage Temperature: -45°C to +70°CWorking Humidity: 10%~90%, non-condensingStorage Humidity: 5%~95%, non-condensing Standard package of switch <ul style="list-style-type: none">Product size: 44x36x4.45 cmPackage Dimensions: 58x44x12 cmPackage Weight: N.W: 5.49KG/ G.W: 6.85KGPackage content: Switch x 1, QIG x 1, Power cord x 1, Serial cable x 1, Rack ear x 1 Standard carton package <ul style="list-style-type: none">Carton Dimensions: 60x46x27.8 cmPacking QTY: 2 PCSPacking weight: 14.7 KGS Ordering Information <ul style="list-style-type: none">Model: L3-2TX2406Name: L3 Managed Multi Giga switch, 24-Port including 6x 10G SFP+ Fiber ports.

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