

General

- 12Mbit SRAM Packet Buffer
- Support Jumbo Frame 10KB
- Switching capacity 120Gbps
- Up to 16K MAC Address Table
 - Dynamic Address
 - Static Address
- Support 13 Mac address per interfaces
 - 12 ports + Management

Standard Compliance

- IEEE 802.3 10Base-T
- IEEE 802.3u 100Base-T
- IEEE 802.3ab 1000Base-T
- IEEE 802.3bz 2.5GBase-T
- IEEE802.3ae 10GBase-X
- IEEE 802.3x Flow Control Capability
- IEEE 802.3 Auto-negotiation
- IEEE 802.3ad Port trunk with LACP
- IEEE 802.3az Energy Efficient Ethernet
- IEEE 802.1p/q Class of Service
- IEEE 802.1d Spanning Tree
- IEEE 802.1w Rapid Spanning Tree
- IEEE 802.1s Multiple Spanning Tree
- IEEE 802.1x Port Based Network Access Control
- IEEE 802.1ab Link Layer Discovery Protocol
- IEEE 802.1ad QinQ
- IEEE 802.3af/at/bt

IP Version

- IPv4 / IPv6

VLAN

- IEEE802.3Q Tag-base VLAN
- QinQ (Basic)
- General VLAN Registration Protocol
- Supports Following Types of VLANs
 - Voice VLAN (OUI Mode)
 - Surveillance VLAN (OUI Mode)
 - Protocol/MAC-based/Management VLAN
 - Port Isolation

Network Function

- DHCP Server
 - Will expand to 30 entries
 - Supports 8 Subnet
 - Up to 1021 pool of each Subnet
 - Relay
 - Snooping
 - IP Source Guard
 - Option 82,66,67
- Route
 - Static
 - VLAN Route
- Virtual Router Redundancy Protocol*

Link Aggregation

- Support 8 Link Aggregation Groups with Static & LACP types
 - Up to 8 Ports for Each Group
- Support Traffic Load Balancing

Security

- DoS Defend
- Access Control List
 - MAC/IPv4/IPv6
- Port Security
- IP Source Guard and ARP Inspection
- DHCP Snooping with Option 82
- Loop Protection

PoE (PQ2121x/PQ2121xb)

- PQ2121x
 - 140 Watt Power Budget
 - Port1~8 : 802.3af/at (up to 30Watt per port)
- PQ2121xb
 - 240 Watt Power Budget
 - Port1~4 : 802.3af/at/bt (up to 90Watt per port)
 - Port5~8 : 802.3af/at (up to 30Watt per port)
- PoE Mode: Switch allocates sufficient power the PoE PD asked for, and dynamically distribute power to all devices.
- Status:
 - Current Used/Priority/Port Status
- Support per port PoE scheduling to turn on/off the PDs
- Auto-Checking
 - Check the link status of PDs
 - Reboot PDs if there is no response

Multicast

- Up to 256 Multicast Groups
- IGMP Snooping v2/v3 (BISS)
- MLD Snooping v1/v2 (BISS)
- Multicast VLAN Registration
- 4K Forwarding Table

Diagnostics

- CPU/RAM/Port Utilization
- Port-based Cable Test
- Syslog
 - Volatile/Non-Volatile Memory
 - External Server
 - Mail
- Port Mirroring
- Ping

QoS

- Support 8 Queues
- Class of Service
 - 802.1p CoS
 - DSCP
 - CoS-DSCP
 - IP Precedence
- Priority Queue Schedule
 - Weighted Round-Robin (WRR)
 - Strict Priority
- Rate Limit
 - Port-based (Ingress/Egress)
- Storm Control
 - Broadcast
 - Unknown Multicast
 - Unknown Unicast

Management

- ONVIF
- Access Manager
 - HTTP/HTTPS
 - Telnet
 - SSH
- OpenVPN
- TR069
- sFlow
- Multiple User Account
 - Two-Level Security (Admin/User)
- HTTP(s) Web User Interface
- HTTP(s)/TFTP Upgrade/Backup of
 - Firmware
 - Configuration
- Dual Image
- Running/Startup/Backup Configuration
- Simple Network Time Protocol
- Link Layer Discovery Protocol
 - LLDP-MED, Media Endpoint Discovery Extension
- DrayTek Switch Management
 - VigorConnect/ACS/SWM
- Command Line Interface (CLI) via Telnet/SSH
 - Telnet Timeout
- Simple Network Management Protocol v1/v2c/v3

Hardware Interface

- PQ2121x:
 - 8 x 10/100/1000/2500Mbps ports, with PoE+ PSE, RJ-45 (Port1~8)
- PQ2121xb:
 - 4 x 10/100/1000/2500Mbps ports, with PoE++ PSE, RJ-45 (Port1~4)
 - 4 x 10/100/1000/2500Mbps ports, with PoE+ PSE, RJ-45 (Port5~8)
- Q2121x:
 - 8 x 10/100/1000/2500Mbps ports, RJ-45 (Port1~8)
- 4 x 1000Mbps/10Gbps Fiber ports, SFP+ (Port9~12)
- 1 x Factory Reset Button
- 1 x Console Port, RJ45

Environmental / Physical

- Temperature
 - Operating: 0 ~ 50°C
 - Storage: -20 ~ 70°C
- Humidity
 - Operating: 10 to 90% RH (Non-condensing)
 - Storage: 5 to 90% RH (Non-condensing)

