

#### General

- 12Mbit SRAM Packet Buffer
- Support Jumbo Frame 12KB
- Switching capacity 160Gbps
- Up to 16K MAC Address Table
  - Dynamic Address
  - Static Address
- Support 21 Mac address per interfaces
  - 20 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
  - Supports 8 Subnet
  - Up to 1023 pool of each Subnet
  - Relay
  - Snooping
  - IP Source Guard
  - Option 82,66,67
- Route
  - Static
  - VLAN Route
- Virtual Router Redundancy Protocol (VRRP) \*

#### 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 (PQ2200xb)

- 400 Watt Power Budget
- Port1~4 : 802.3af/at/bt (up to 90Watt per port)
- Port5~16 : 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

PQ2200xb:

- 4 x 10/100/1000/2500Mbps ports, with 4 x PoE++ PSE,RJ-45 (Port1~4)
- 12 x 10/100/1000/2500Mbps ports, with 12 x PoE+ PSE ,RJ-45 (Port5~16)
- 4 x 1000Mbps/10Gbps Fiber ports, SFP+ (P17~20)

Q2200x:

- 16 x 10/100/1000/2500Mbps ports, RJ-45 (Port1~16)
- 4 x 1000Mbps/10Gbps Fiber ports, SFP+ (Port17~20)

- 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)

