RUBYTECH

Gigabit Switch

GS-2108C

GS-2108C:
8-Port L2 Managed Gigabit Ethernet Switch with 2 SFP Dual Media

Key Features

- **Standard compliance**
  - ---IEEE 802.3x Flow Control capability
  - ---IEEE 802.1q VLAN
  - ---IEEE 802.1p
- **Performance**
  - **Switching capacity:**
  - ---8 Gigabit Ethernet ports with non-blocking wise speed performance.
  - ---8 K MAC addresses
  - ---144KB on-chip frame buffer.
  - ---Supports Jumbo frame support, up to 9K
  - ---Broadcast/Multicast Storm Suppression
  - ---Port Mirroring
  - **VLAN**
  - ---Port-base VLAN
  - ---IEEE802.1q tag-base VLAN, up to 256 active VLANs
  - ---Q-in-Q is an efficient method for enabling Subscriber Aggregation.
  - **Qos**
  - ---Supports Layer 4 TCP/UDP Port and ToS Classification
  - ---Supports 802.1p QoS with two level priority queue
  - ---Supports priority in a Q-in-Q tag
  - **Bandwidth Control**
  - ---Supports bandwidth rating per port ingress and egress rate limit 1000 Mbps with 1Mbps
- **Protocol**
  - **LACP**
  - ---Port trunking with 4 trunking group
  - ---up to 8 ports for each group.
  - **GVRP/GARP**
  - ---802.1q with GVRP/ GARP
  - **Multicasting**
  - ---Supports IGMP snooping including active and passive mode
  - **STP/RSTP**
  - ---802.1d/1w/1s STP
- **Network Security**
  - ---802.1x access control
  - ---Management Access Policy Control (ACL)

Benefits

- **2 Dual Media for Flexible Fiber Connection**
  7, 8 dual media port are provided for flexible fiber connection. You can select to install optional transceiver modules in these slots for short, medium or long distance fiber backbone attachment. Use of the SFP will disable their corresponding built-in 10/100/1000Base-T connections.
- **QoS support layer 4 classification**
  The switch supports not only Layer 2 802.1p Priority Queue control, but also supports programmable higher layer classification and prioritization to enable enhanced Quality of Service (Qos) support for real time applications base on information taken from Layer 2 to Layer 4, such as VoIP.
- **Port Mirroring Helps Supervisor Monitoring Network**
  Port mirroring copies traffic from a specific port to a target port. This mechanism helps track network errors or abnormal packet transmission without interrupting the flow of data.
- **Q-in-Q VLAN for performance & security**
  The VLAN feature in the switch offers the benefits of both security and performance. VLAN is used to isolate traffic between different users and thus provides better security. Limiting the broadcast traffic to within the same VLAN broadcast domain also enhances performance. VLAN support enabling advanced techniques such as "802.1Q-in-1Q" to be deployed.
- **802.3ad Port Trunk for Bandwidth Aggregation**
  The Gigabit ports can be combined together to create a multi-link load-sharing trunk. Up to 4 Gigabit ports can be set up per trunk for bandwidth up to 8Gbps, all traffic is aggregated based on MAC addresses, thus balancing the traffic load. The switch supports up to 4 trunking groups. Port trunks are useful for switch-to-switch cascading, providing very high full-duplex speeds.
- **802.1x Access Control Improve Network Security**
  802.1x features enable user authentication for each network access attempt. Port security features allow you to limit the number of MAC addresses per port in order to control the number of stations for each port. Static MAC addresses can be defined for each port to ensure only registered machines are allowed to access. By enabling both of these features, you can establish an access mechanism based on user and machine identities, as well as control the number of access stations.
- **802.1D Compatible & 802.1w Rapid Spanning Tree**
  For mission critical environments with multiple switches supporting STP, you can configure the switches with a redundant backup bridge path, so transmission and reception of packets can be guaranteed in event of any fail-over switch on the network.
- **Broadcast/Multicast Storm Control**
  To limit too many broadcast/multicast flooding in the network, broadcast/multicast storm control is used to restrict excess traffic. Threshold values are available to control the rate limit for each port. Packets are discarded if the count exceeds the configured upper threshold.

Gigabit Switch

- **Snmpv1,v2c Network Management**
  - ---RFC 1213 MIB (MIB-II)
    - Interface MIB
    - Address Translation MIB
    - IP MIB
    - ICMP MIB
    - TCP MIB
    - UDP MIB
    - SNMP MIB
  - ---RFC 1757 RMON MIB
    - Statistics Group 1
    - History Group 2
    - Alarm Group 3
    - Event Group 9
  - ---RFC 1493 Bridge MIB
  - ---RFC 1643 Ethernet MIB
  - ---Enterprise MIB

Overview

The GS-2108 is a L2 managed Gigabit switch that supports SNMP, Web UI and CLI management interface. It is equipped with 6 Giga TP ports and 2 of which are dual media ports that accommodate optional 10/100/1000Base-T or SFP modules. In addition, the switch implements the QoS (Quality of Service), Mac Filtering Policy, Port Mirror, VLAN and full L2 protocol. It is suitable for workgroups or WAN edge application.

Technical Specifications

- **LED Description**

	LED	Color	Function
Global	POWER	Green	-Lit when +5V power is coming up
Global	CPU ACT	Green	-Blinks when CPU is activity
Port 1-8	LINK/ACT	Green	-Lit when connection with remote device is good -Blinks when any traffic is present
Port 1-8	1000/ 100Mbps	Green /Amber	-Lit Green when TP link on 1000Mbps speed -Lit Amber when TP link on 100Mbps speed -Off when 10Mbps or no link occur
Port 7,8	SFP	Green	-Lit when SFP connection with remote device is good -Blinks when any traffic is present

- **Diagnostic LED**

System LED	Power
10/100/1000M TP Port Per Port LED	Link/Act, 1000/100Mbps
Gigabit SFP Module LED	SFP

- **Network Interface**

Configuration	Connector	Port
10/100Mbps TP Jack (RJ-45)	TP(RJ-45)	1 to 8
1000Mbps SFP Fiber Module Dual Media Auto Detection	SFP	7, 8

- **Cable and Maximum Length:**

TP	Cat. 5 UTP cable, up to 100m
1000Base-SX SC M-M	Up to 220/275/500/550m, which depends on Multi-Mode Fiber type
1000Base-LX SC S-M	Single-Mode Fiber, up to 10/30/50Km
1000Base-LX WDM SC S-M	Single-Mode Single Fiber, Bidi 20Km

- **Hardware Spec.**

Feature	Detailed Description
Voltage	100~240 V
Frequency	50~60 Hz
Consumption	20W
Ambient Temperature	0 to 50℃
Dimensions	132 x 217 x 44 mm
Humidity	5% to 90%
Safety	Comply with FCC Part 15 Class A & CE Mark Approval