



SANCHIT-210

48P Layer-2/Layer-3 Aggregation Switch



Centre for Development of Telematics

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SANCHIT-210 is a Layer-2/Layer-3 Managed Ethernet Switch/Aggregation Switch, supporting 48 X 10/100/1000 BaseT electrical interfaces for interconnecting servers, clients, RAS, routers and other devices used in the internet or intranet. It combines the power of modular architecture with the flexibility of the packet processing engine.

The SANCHIT-210 L2/L3 switch can handle traffic with up to 48 X 10/100/1000 BaseT ports and up to 4 X 1G/10G optical ports for trunking /cascading. It has an inbuilt CPU which acts as a enterprise Ethernet switch with all the security and configuration features needed in a L2/L3 switch. CLI and GUI can be accessed through out-of-band management interfaces for configuration and monitoring.

Designed as IP Edge demarcation and aggregation equipment, the SANCHIT-210 effectively delivers enterprise connectivity and mobile backhaul services, making it ideal for service providers looking to manage traffic efficiently at the network edge.

PRODUCT FEATURES AND SPECIFICATIONS

General

- ✓ 48 X 10/100/1000 BaseT RJ45 electrical interfaces
- ✓ 4 X 1G/10G optical uplink ports with MACSec support
- ✓ Supports 32K MAC addresses
- ✓ Traffic prioritization (802.1p)
- ✓ Support for IEEE 802.1q priority
- ✓ Rate limiting of bandwidth on the Switch ports
- ✓ Port mirroring / Flow mirroring
- ✓ Traffic shaping
- ✓ Suitable visual indications for healthy/ unhealthy conditions and alarms
- ✓ Network Time Protocol (NTP) for synchronizing with a centralized NTP server.
- ✓ IEEE 802.3x full duplex on 10BaseT and 100BaseT and 1000BaseT ports.
- ✓ Full duplex capabilities on all ports
- ✓ 10Base-T /100 Base-T/1000 Base-T auto sensing ports
- ✓ MAC based VLAN, protocol based VLAN and IP subnet based VLAN
- ✓ Supports Static and LACP Link Aggregation
- ✓ Support for Jumbo frames
- ✓ LED Power Reduction support
- ✓ POE/POE+ on all ports with power budget of 800 Watts.
- ✓ Multiple user based privilege levels supported
- ✓ Supports DHCP Snooping and Relay feature
- ✓ ARP Inspection

Layer-2 switching

- ✓ 802.1Q VLAN switch
- ✓ Push/pop/translate upto two VLAN tags on ingress and/or egress
- ✓ Policing with leaky bucket storm control and protection from broadcast, flooding and multicast
- ✓ Loop Protection
- ✓ Spanning Tree Protocol
 - Rapid Spanning Tree Protocol (RSTP) support
 - Multiple Spanning Tree Protocol (MSTP) support
- ✓ Multiple Registration Protocol (MRP)
- ✓ Multiple VLAN Registration Protocol (MVRP)
- ✓ VLAN Learning
 - Independent VLAN Learning (IVL)
 - Shared VLAN Learning (SVL)
- ✓ Hardware and Software based Learning
- ✓ 512 TCAM-based QoS, VLAN and Security Profile Classification Entries
- ✓ Voice VLAN
- ✓ VLAN Translation
- ✓ VLAN Trunking

Layer-3 Switching and Multicast

- ✓ Static Routing for IPV4 and IPV6
- ✓ DSCP based QoS, Translation and Classification Supported
- ✓ 32K Layer 2 Multicast Groups supporting up to 1K port masks

- ✓ 1K IPv4 Multicast Groups. Security
- ✓ 32K IPv4/IPv6 Multicast Groups
- ✓ Internet Group Management Protocol version 2 and version 3 (IGMPv2/v3) support
- ✓ Multicast Listener Discovery (MLD) version 1 and version 2 support
- ✓ IGMP Snooping
- ✓ MLD Snooping
- ✓ VRRP
- ✓ BGP

- ✓ OSPF v.2/v.3
- ✓ RIPv1, RIPv2
- ✓ RIPng

OAM

- ✓ Software for OAM and protection switching
- ✓ Loop Back
- ✓ Link Trace
- ✓ Alarm Indication Signal (AIS)
- ✓ Continuity Check and Remote Defect Indication (CC and RDI)
- ✓ Automatic Protection Switching (APS)
- ✓ Performance Monitoring

Protection

- ✓ 1:1 port protection G.8031
- ✓ Ethernet Ring Protection G.8032 v2

Security

- ✓ Network Access Server (NAS)
- ✓ Port-based IEEE 802.1X
- ✓ Single and multiple IEEE 802.1X
- ✓ MAC-based authentication
- ✓ Port based VLAN and QoS assignment
- ✓ Guest VLAN
- ✓ RADIUS authentication and accounting
- ✓ MAC address limit

- ✓ TACACS+
- ✓ Web and CLI Authentication
- ✓ Authorization (15 user levels)
- ✓ ACLs for filtering, policing, and port copy
- ✓ IP source guard
- ✓ IP MAC binding
- ✓ IP MAC binding

Management

- ✓ HTTP Server
- ✓ CLI – console port and Telnet
- ✓ Management access filtering HTTPS
- ✓ SSH
- ✓ TFTP
- ✓ IPv6 Management
- ✓ System/syslog
- ✓ Software Upload through Web
- ✓ SNMP v1, v2c, v3 Agent
- ✓ RMON
- ✓ IEEE 802.10AB-2005 Link Layer Discovery – LLDP and LLDP-MED
- ✓ Discovery filtering, CDP
- ✓ Loop detection/ restore to default
- ✓ DNS client, Proxy
- ✓ DHCP server, Client
- ✓ Daylight savings
- ✓ Configuration download and upload: XML format
- ✓ Multiple SNMP trap destinations
- ✓ Software up gradation through CLI/GUI interface
- ✓ Status LEDs for LAN-WAN ports, Board-up and Power
- ✓ Status Monitoring of Power Supplies
- ✓ Fan Status Monitoring
- ✓ Adaptive Fan Control
- ✓ Configuration Rollback

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Quality of Service

- ✓ Traffic classes (8 active priorities)
- ✓ Port default priority
- ✓ User priority
- ✓ Input priority mapping
- ✓ QoS control list (QCL mode)
- ✓ Storm Policing
- ✓ Weighted Random Early Detection (WRED)
- ✓ Policers: port, service, queue, and global/ACL
- ✓ Port and queue egress shaper

Timing and Synchronisation

- ✓ NTPv4 client
- ✓ IEEE 1588v2 PTP

Packaging

- ✓ 19" rack mountable
- ✓ 1 U Height
- ✓ Dimensions (W X D X H):
445.4mm X 615mm X 43.6mm

EMI/EMC

- ✓ CISPR 32 Class A
- ✓ IEC 61000-4-2
- ✓ IEC 61000-4-3
- ✓ IEC 61000-4-4
- ✓ IEC 61000-4-5
- ✓ IEC 61000-4-6
- ✓ IEC 61000-4-11

Environment

- ✓ Operating Temperature: 0°C to +50°C
- ✓ Storage Temperature: -5°C to +60°C
- ✓ Operating Humidity : 5% to 95%

Power Supply

- ✓ Dual redundant 230V AC Input Power Supply
- ✓ Separate 230V AC Power module for PoE/PoE+ power
- ✓ Cooling : Hot-swappable Fan tray with 3 fans, right to left air-flow

Applications

- ✓ Service Provider Networks
- ✓ Mobile Backhaul
- ✓ Enterprise WAN Edge
- ✓ Campus Networks
- ✓ Office LANs
- ✓ Data Centers (Access Layer)

Ordering Information

- ✓ SANCHIT-210 (PoE Version)
- ✓ SANCHIT-210-NP (Non PoE Version)



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