Overview

The SWP1-8MMF L2 Switch has been designed specifically for sound installation and live sound networking, with simple DIP switch Dante optimization and comprehensive graphical interfacing via a Windows application.

Rear Panel

Features

- etherCON Connectors: 4 front / 4 rear
- opticalCON Connector: 1 front
- Optional optical module slot: 1 front
- Dante optimized setups recallable via one DIP switch.
- EXT DC INPUT for power supply redundancy.
- Optical Fiber and Network Redundancy Support (option required for redundancy)
- etherCON Connectors for live sound reliability
- The Yamaha LAN Monitor application for Windows computers provides a comprehensive single-screen view of all necessary parameters.
- Three VLAN presets can be simply selected via a DIP switch (a USER mode allows fully customized VLAN setup).

Specifications

General Specifications

Number of LAN ports (1000BASE-T/100BASE-TX/10BASE-T/etherCON connector)	8
Number of LAN ports (1000BASE-T/100BASE-TX/10BASE-T/RJ-45 connector)	-
Number of SFP ports (1000BASE-SX/opticalCON connector)	2 (1 optical module is installed as standard)
Console port	1 (RJ-45)
Automatic negotiation	Available
Auto MDI/MDI-X	Available
Switching capacity	20 Gbit/s
Throughput	15 Mpps
Maximum number of MAC addresses	16,384
Frame buffer	1024 kB
VLAN	Port VLAN, Tag VLAN (IEEE802.1Q), Private VLAN
Maximum number of VLANs	256 (VLAN ID 1–4,094) *VLAN ID 1 is the default VLAN ID.
IP multicast	IGMP Snooping (v1/v2/v3)
QoS	8 egress queues, Policy-based QoS, Remarking (CoS, ToS, DSCP), Scheduling (SP, WRR)
Flow control	IEEE802.3x (Full-duplex), back pressure (Half-duplex)
Support functions	Storm control, HOL blocking prevention, Loop detection, ACL, SNMP agents, Link aggregation (IEEE 802.3ad LACP, Static), Spanning tree (STP*, RSTP*, MSTP), Port mirroring, Port shutdown, Link speed down shift, Packet counter, Power saving mode (IEEE802.3az EEE; Disabled in DANTE mode), DHCP client, Logging, Firmware download via TFTP/HTTP, Config file download via TFTP *STP and RSTP are supported via downward compatibility of MSTP.
DIP switches	CONFIG, VLAN PRESET
Indicators	Front: POWER, LED MODE×4, PORT×8×2*, SFP×2 *The LED MODE button allows the PORT lamps to be switched between indicating LINK/ACT-SPEED, STATUS, or VLAN.
Operating temperature	0 to 40°C
Storage temperature	–20 to 60°C
Power supply (AC IN inlet)	AC100V-240V, 50/60Hz, Internal power supply (no power switch), Power supply inlet: locking type
Power supply (EXT DC INPUT inlet)	External power supply requirements: 24VDC±2V, 1A, XLR-4-32 type Connector
Maximum power consumption	11 W, 0.21 A
Heat dissipation	9.5 kcal/h
Chassis	Metal case, no fan
Hazardous substances management	RoHS compliant
Dimensions (W x H x D)	480 mm x 44 mm x 362 mm (18.9'' x 1.7'' x 14.25'')
Net weight	4.2 kg (9.3 lbs)
Accessories	Power code, Owner's manual
Options	MMF-SWP1 (Optical expansion unit)

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Interface Specifications

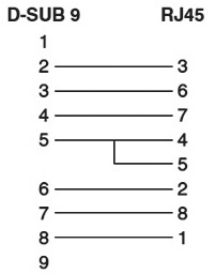
Terminal	Format	Level	Connector
1-8	IEEE802.3	10BASE-T/100BASE-TX/ 1000BASE-T	etherCON CAT5e
9,10*1	IEEE802.3	1000BASE-SX	opticalCON
CONSOLE (RS-232C)	–	RS-232C	RJ-45*2
EXT DC INPUT	-	-	XLR-4-32 type*3

*1 The SWP1-8MMF supports the option for port 10
*2 For the pin assignments, refer to CONNECTOR PIN ASSIGNMENTS
*3 Pin 4=+24VDC, pin 1=GND, pins 2 and 3=N.C.
External power supply requirements: 24VDC±2V, 1A
*4 Conforming cable: GI-type multi-mode fiber cables with a core diameter /cladding diameter of approximately 50 µm/125 µm.
Maximum cable length: 300 m

Connector Pin Assignments

CONSOLE (RS-232C)

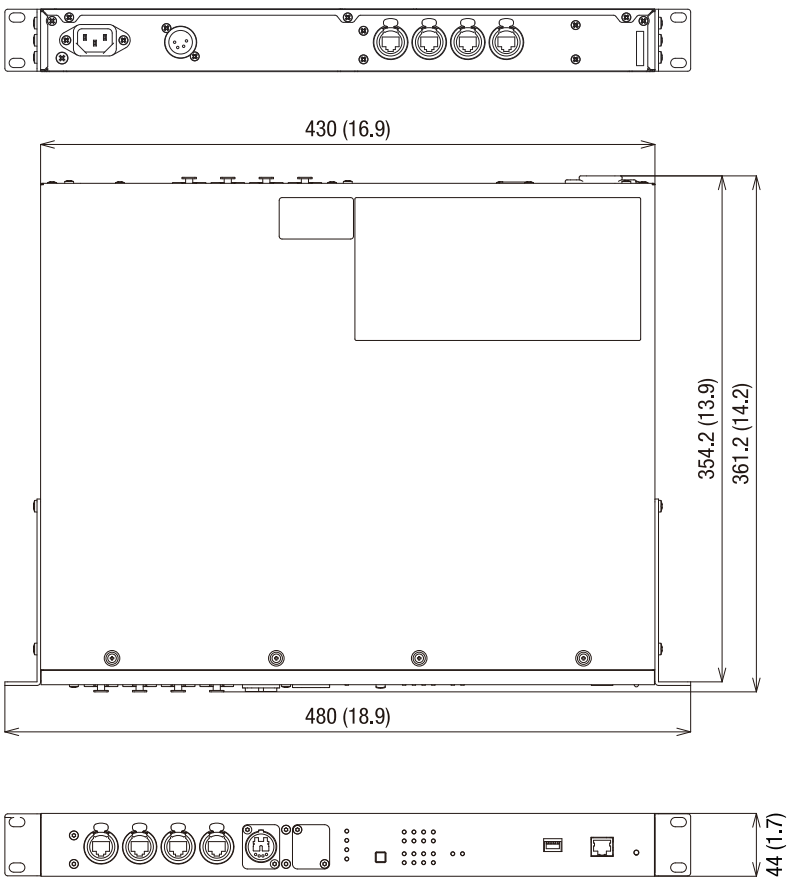
Pin No.	Signal
1	RTS
2	DTR
3	TxD
4	GND
5	GND
6	RxD
7	DSP*9
8	CTS*9



*9 These ports are not used on the SWP1.

Dimensions

Unit: mm (inch)



Options

- Optical Option Unit MMF-SWP1

Software

- Yamaha LAN Monitor

Architectural and Engineering Specifications

The Yamaha SWP1-8MMF shall be a 1U-size L2 switch that is optimized for operation with Dante digital audio networks and provides network visibility. 4 etherCON connectors shall be provided on the front panel, and 4 more etherCON connectors shall be provided on the rear panel. The front panel shall additionally provide one 1 opticalCON connector and an accessory slot for 1 optional optical module. A DIP switch shall be provided for convenient recall of optimized Dante configurations, as well as easy selection of 3 VLAN presets. A dedicated “Yamaha LAN Monitor” software application for Windows operating systems shall allow comprehensive monitoring of SWP1 status as well as the entire network, including connected Dante devices. The power supply shall be built in so that no external AC adapter is required. An EXT DC INPUT shall support redundant power supply input. The device shall feature a quiet, fanless design. Dimensions shall be 480 (W) x 44 (H) x 362 (D) mm. Weight shall be 4.2 kg.

Created in October, 2017

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