

## Overview

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L3 Standard switch



## Features

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- Available ports: 12 multi-gigabit (100M/1G/2.5G/5G/10G) ports and 4 SFP+ slots
- In-built RADIUS server\* for advanced security management
- Yamaha LAN Monitor supported
- PTPv2 TC (Transparent Clock) supported

# Specifications

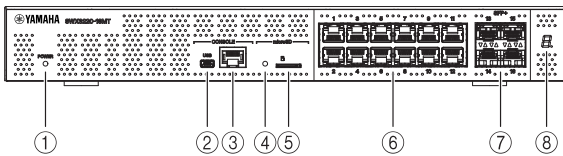
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## General Specifications

LAN Ports	Standard	IEEE 802.3 (100BASE-TX/1000BASE-T/2.5GBASE-T/5GBASE-T/10GBASE-T)
	Number of Ports	12
	Communication Mode	Auto negotiation
	Connector Type	RJ-45
	Polarity	Automatic detection of straight/cross, or fixed at straight
SFP+ Ports	Standard	IEEE 802.3z (1000BASE-SX/1000BASE-LX), IEEE 802.3ae (10GBASE-SR/10GBASE-LR)
	Number of Ports	4
Console Ports	Standard	RS-232C, USB 2.0
	Connector Type	RJ-45, USB mini-B (5-pin)
	Data Transmission Speed	9600 (initial value)/19200/38400/57600/115200 bit/s
Performance	Switching Bandwidth	320 Gbit/s
	Forwarding Rate	238.10 Mpps
	Flame Buffer	3 MB
microSD Slot	Standard	microSD/microSDHC
	File System	FAT/FAT32
Indicators	POWER, microSD, LINK/ACT, SPEED, Stack ID	
MAC Address	Indicated in product label on top panel of unit	
Operating Environment	Ambient temperature: 0 – 50°C, Ambient humidity 15 – 80% (non-condensing)	
Storage Environment	Ambient temperature: -20 – 60°C, Ambient humidity 10 – 90% (non-condensing)	
Power Supply Voltage, Frequency	AC 100 – 240 V, 50/60 Hz	
Maximum Power Consumption	84 W	
Dimensions (W x H x D)	330 mm x 44 mm x 250 mm (13.0" x 1.7" x 9.8")	
Weight	2.7 kg (6.0 lbs)	
Accessories	Owner's manual, power cord, power cord clamp, legs, 19-inch rack mount hardware and screws, Wall mount hardware and screws	

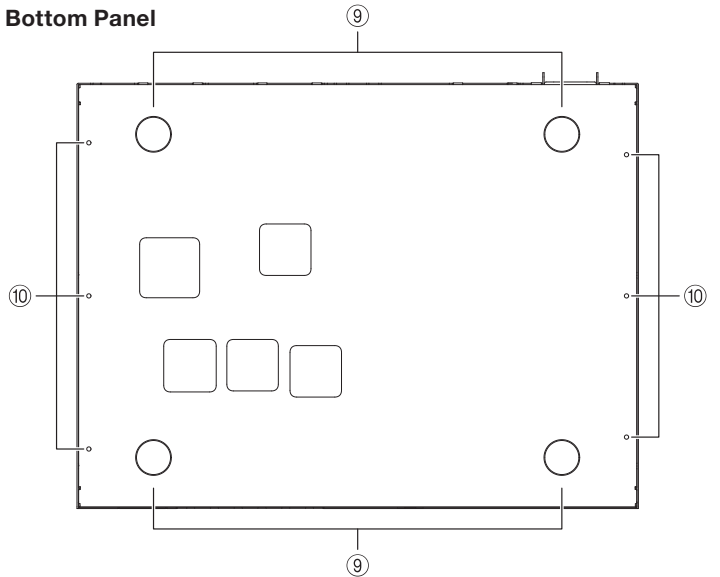
## Controls and Connectors

### Front Panel



- 1. POWER indicator
- 2. mini-USB CONSOLE port
- 3. RJ-45 CONSOLE port
- 4. microSD indicator
- 5. microSD slot
- 6. LAN ports
- 7. SFP+ ports
- 8. Stack ID indicator

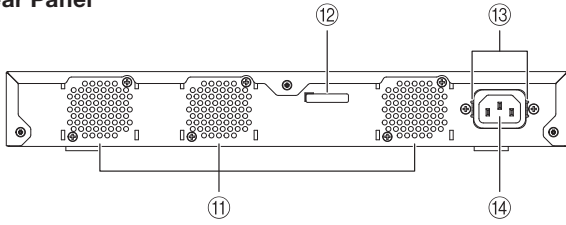
### Bottom Panel



- 9. Rubber foot attachment guides
- 10. Wall mount accessory attachment holes

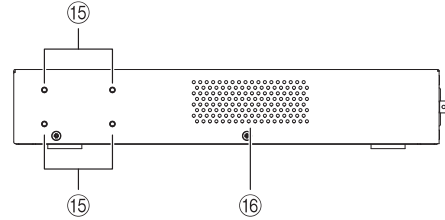
## Specifications

### Rear Panel



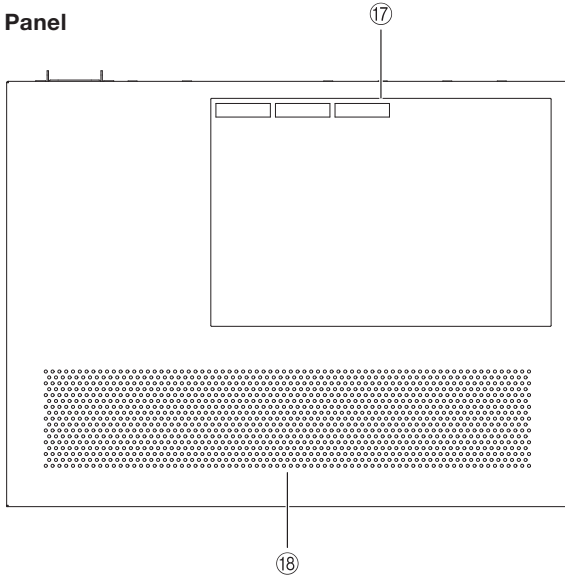
- 11. Ventilation holes
- 12. Serial number
- 13. Power cord clamp attachment holes
- 14. Power supply inlet (three-pin connector, C14 type)

### Side Panel



- 15. Rack mount accessory attachment holes
- 16. Cooling vents

### Top Panel



- 17. Product label
- 18. Cooling vents

### RJ-45/DB-9 Console Cable Pin Configuration

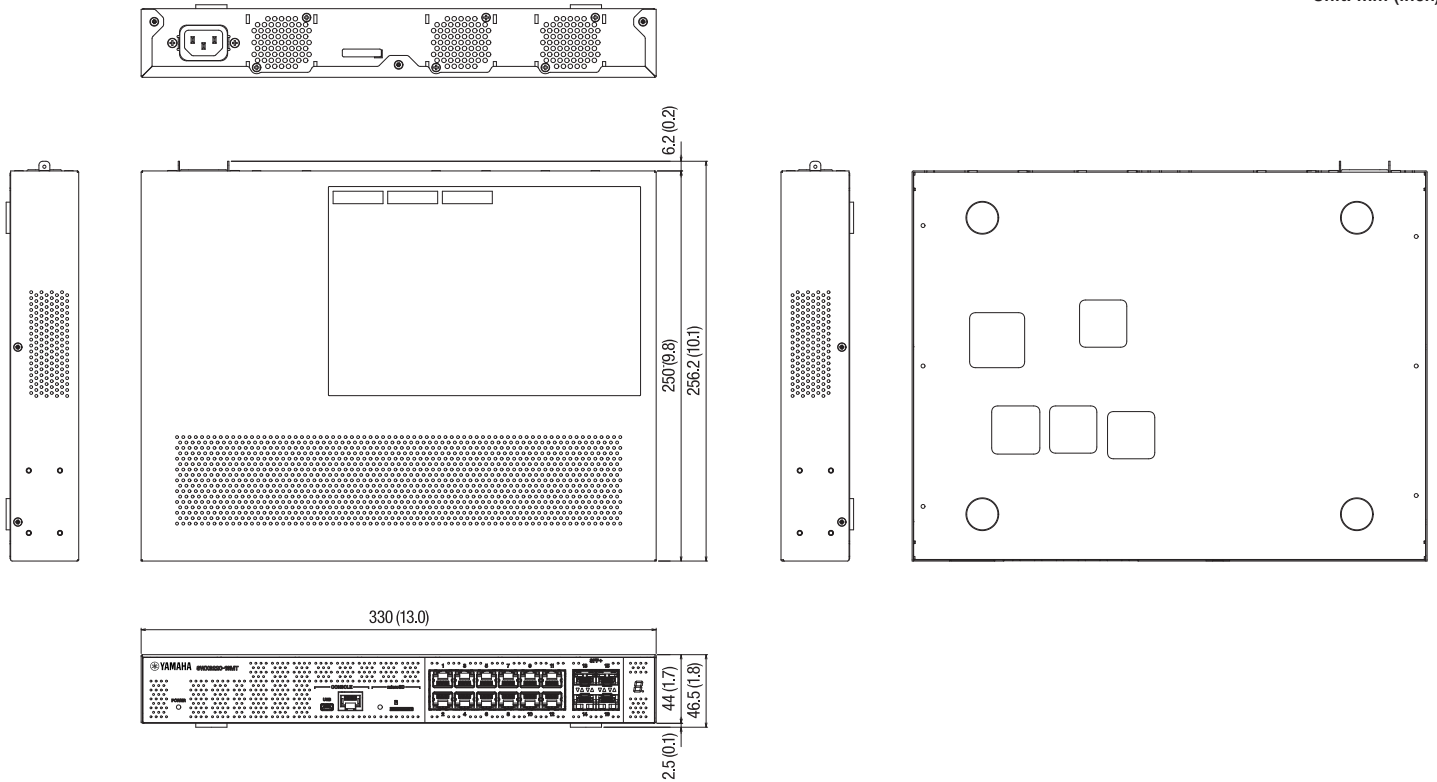
#### Console (RS-232C)

Signal	RJ-45	D-SUB 9
		9
RTS	1	8
DTR	2	6
TxD	3	2
GND	4	5
GND	5	
RxD	6	3
DSR*	7	7
CTS*	8	4
		1

\*DSR and CTS signals are not used by the SWX3220-16MT.

## Dimensions

Unit: mm (inch)



## Option

- Rack-mount brackets are included in SWX3220-16MT
- SFP Module                    SFP-SWRG-SX/LX
- SFP+ Module                SFP-SWRT-SR/LR
- Direct Attached Cable      DAC-SWRT-1M/3M

## Software

- Yamaha LAN Monitor

## Architectural and Engineering Specifications

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The Yamaha SWX3220-16MT shall be an intelligent 16-port L3 (Layer 3) switch optimized for networked audio installations, particularly those that use Dante networking. Layer 3 functionality shall allow the SWX3220-16MT to handle high volumes of data across multiple segments in large networked systems.

Twelve RJ-45 connectors and four SFP+ ports shall be provided on the front panel for network connection. The twelve RJ-45 connectors shall provide multi-gigabit communication at 100 Mbps, 1 Gbps, 2.5 Gbps, 5 Gbps, and 10 Gbps speeds, via standard Cat5e LAN cables for speeds up to 5 Gbps, or Cat6 LAN cables for speeds up to 10 Gbps. The four SFP+ ports shall allow installation of optional SFP modules such as the SFP-SWRG-LX or SFP-SWRG-SX for IEEE802.3z (1000BASE-LX/1000BASE-SX) connection, or optional SFP+ modules such as the SFP-SWRT-LR or SFP-SWRT-SR for IEEE802.3ae (10GBASE-LR/10GBASE-SR) connection. The SWX3220-16MT shall support the IEEE 1588 PTPv2 TC (Transparent Clock) standard for precise audio and video synchronization to within 1 microsecond.

One mini-USB port and one RJ-45 CONSOLE port shall be provided on the front panel for setup from a computer. The mini-USB port shall allow connection to the USB port of a computer, and the RJ-45 CONSOLE port shall allow connection to the RS-232C connector (COM port) of a computer. One microSD slot shall be provided on the front panel, accepting a microSD or microSDHC card for SD card boot (firmware, config), firmware update, config file save and copy, log file save, technical support information save, and statistical information save. A front-panel microSD indicator shall show microSD card status.

A dedicated Yamaha LAN Monitor software application for Windows and macOS operating systems shall allow comprehensive monitoring of SWX3220-16MT status, as well as the entire network including connected Dante devices. A “Dante optimization” button on the web-based GUI shall allow automatic optimization of IGMP and QoS settings to ensure stable operation in larger Dante systems. The SWX3220-16MT shall include a built-in RADIUS server for advanced security management.

The SWX3220-16MT shall have a built-in universal power supply so that no external AC adapter is required. Brackets for rack and wall mounting shall be supplied. Dimensions shall be 330 (W) x 44 (H) x 250 (D) mm. Weight shall be 2.7 kg.

\*All information subject to change without notice.

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