



# XDA-QS5400RK

MusicCast Multi-Room Streaming Amplifier (4 Zone, 8 Channel)



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### Overview

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Specially designed for custom integration of whole home audio systems, the “QS” (Quad Streamer) provides four zones of audio streaming and eight channels of high-performance audio amplification in an ultra-slim, 1U-high, rack-mountable enclosure. Expandable and extremely flexible, the QS works with the MusicCast multi-room audio system, allowing it to be linked with home theater AV receivers, sound bars and Hi-Fi gear in a wide variety of configurations.

- Designed for custom integration of a MusicCast multi-room audio system connected via Ethernet LAN in a rack or cabinet
- Streams four zones of audio per unit, expandable to 32 zones with simultaneous playback in linked groups of up to 20 zones each
- Eight channels of audiophile-grade Class D amplification assignable to any zone, bridgeable and 4-ohm capable, featuring a unique ground loop/hum-free circuit design
- Built-in Pandora®, Spotify Connect, SiriusXM Internet Radio, TIDAL, Deezer, Napster and more, plus access to music libraries and linked external sources
- Easy control via a free MusicCast app and 3rd-party control systems
- 1U high, rack-wide enclosure; removable rack ears and faceplate included

# Features

## Whole Home Audio: Redefined

### Ingenious Integration

Designed from the ground up for custom installation, the “QS” represents the ultimate integrated solution for filling every room in a home with extraordinary sound.



### Slim Yet Powerful

The QS packs four rooms of audio streaming and eight channels of audiophile-grade amplification into a remarkably slim, 1U-high enclosure, allowing you to fully-optimize your valuable rack real estate.



### Expands Easily

Multiple QS units can be used together to expand up to 32 zones with simultaneous playback of linked groups up to 20 zones each. In addition, the QS offers four zone pre outs that enable it to be combined with the Yamaha XDA-AMP5400RK, a companion multi-room amplifier, to provide more power or more speaker coverage for large areas in a home. The pre outs may also be used to connect powered subwoofers or subwoofer amps.

XDA-QS5400RK rear panel



XDA-AMP5400RK rear panel



## A Family Like No Other

As a member of the MusicCast family, the QS integrates seamlessly with Yamaha AV receivers, sound bars and more. Now everything – from a surround sound home theatre to a bedroom TV system to in-ceiling speakers in the kitchen – can all work beautifully together.



## Stream It All

Access all of your favorite music, including built-in streaming services and music libraries on smartphones, tablets and network-attached storage devices.

(Streaming service availability varies by region.)



## Plays Nicely with Everything

Want to hear TV sound or vinyl records throughout the home? Link to a MusicCast receiver, sound bar or turntable to access audio from virtually any source.



## 3rd-Party Control

The QS supports IP control by 3rd-party control systems used in many of today's most advanced smart homes.



## There's an (Amazing) App for It

It's also easy to set up and control with the free MusicCast app, which offers unique personalisation features including the ability to assign custom images to rooms, and to rename, rearrange and hide sources.

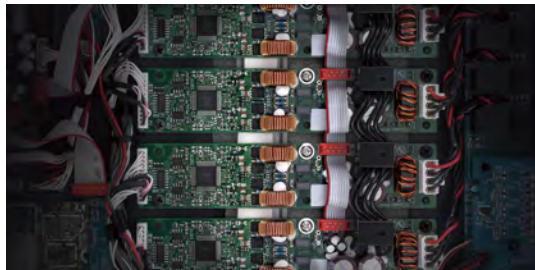


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# Engineered to Sound Extraordinary

## Audiophile-Grade Amplification

No ordinary amp, the QS employs ultra-efficient ICEpower integrated circuits to deliver eight channels of pristine, musically-dynamic digital amplification at 50 watts/channel (8 ohms) with an outstanding 10 Hz to 22 kHz (+0/-3 dB) frequency response and 106 dB signal-to-noise ratio. It is 4 ohm capable at 100 watts/channel and bridgeable to 200 watts/channel (8 ohms).



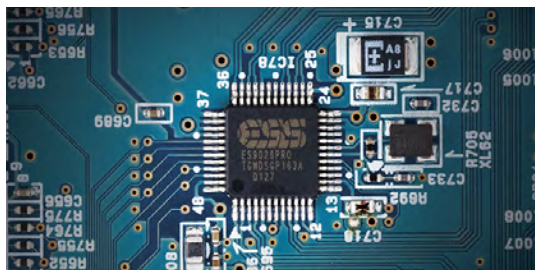
## Goodbye Ground Loop Hum

The curse of the custom integrator: ground loop hum, a common and vexing side effect of connecting a bunch of electronics together in a rack. The QS takes care of it with a brilliantly-engineered differential circuit design. Sometimes it's what you don't hear that sounds the most amazing.



## High-Resolution Audio

Experience every detail of your favorite recordings. The QS supports high-res audio playback up to 192 kHz/24-bit, and employs the same premium ESS Sabre DACs (Digital-to-Analog Converters) and PML capacitors used in our flagship AVENTAGE AV receivers.



## Uniquely Yamaha

The audio performance of the QS is further enhanced with a suite of exclusive Yamaha technologies, including our Compressed Music Enhancer, Advanced Bass Extension Processing and volume adaptive EQ. The result – it always sounds great.



# Custom-Built for Custom

## Versatile Installation

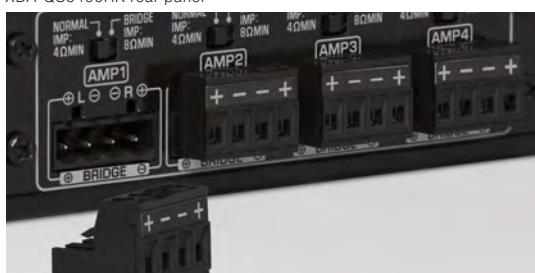
Mount it in a rack with the included ears or remove the ears for shelf installations. The included magnetic faceplate discourages tampering and provides the perfect cosmetic finish.



## Custom-Friendly Connectivity and Control

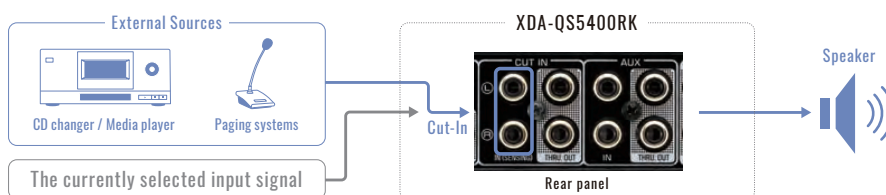
The QS is truly made for custom integration, with Euroblock-style speaker connectors, dual RJ-45 Ethernet ports and a detachable AC cable for smart connectivity, and IP, IR and 12 V Trigger Out jacks for versatile control.

XDA-QS5400RK rear panel



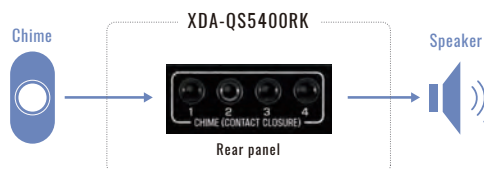
## Three Ways to Handle External Sources

In addition to supporting external sources through linking with MusicCast receivers and sound bars, the QS offers an Aux input that can be selected for playback in any zone and a Cut-In input that automatically senses an input signal and temporarily overrides the selected source. This gives you flexibility to integrate media players, CD changers or even paging systems. Thru-Outs let you set up a bus to additional QS units.



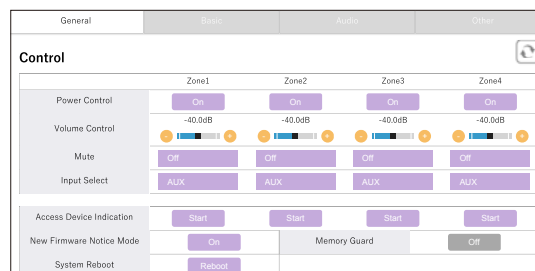
## Unique Chime Generator

The Chime contact closure inputs let you generate a doorbell chime or, for example, an alert for a gate from a common switch. Output zones and chime sound selection can be configured using the Web Setup.



## Web Setup

Access Basic or Advanced settings via a Web Setup menu and store commonly-used profiles for faster configuration of future projects.



# Specifications



Network Section	File Format	MP3 / WMA / MPEG-4 AAC, ALAC: up to 96 kHz / 24-bit, WAV / FLAC / AIFF: up to 192 kHz / 24-bit
	Ethernet	Yes (2 terminals)
	AirPlay	Yes
Audio Specifications	Channel	8 Channel (2 channel x 4)
	Minimum Speaker Load Capability	4 ohm
	BTL Connection	Yes
	Speaker Output	4 (Euroblock)
	Pre Out Terminal	4
	Audio Input Terminal	RCA: 2 (CUT IN, AUX), USB: 4
	Audio Output Terminal	RCA (2-ch through out): 2 (CUT IN, AUX)
	Trigger In / Out	0 / 4
	Remote In / Out	1 / 1
	Chime	4
	Rated Output Power (1 kHz, 0.9% THD, 2ch driven)	Normal (4 / 8 ohms): 90 / 50 W, Bridge (8 ohms): 100 W
	Rated Output Power (1 kHz, 0.9% THD, 1ch driven)	Normal (4 / 8 ohms): 100 / 50 W, Bridge (8 ohms): 200 W
	Dynamic Power (20 Hz-20 kHz, 0.08% THD, 2ch driven, 20 ms burst)	Normal (4 / 8 ohms): 80 / 40 W, Bridge (8 ohms): 150 W
	Dynamic Power (1 kHz, 0.9% THD, 2ch driven, 20 ms burst)	Normal (4 / 8 ohms): 100 / 50 W, Bridge (8 ohms): 200 W
	Dynamic Power (1 kHz, 0.9% THD, All ch driven, 20 ms burst)	Normal (4 / 8 ohms): 80 / 50 W, Bridge (8 ohms): 170 W
	Maximum Effective Output Power	[1-ch driven, 1 kHz, 10% THD] Normal (4 / 8 ohm): 130 / 65 W, Bridge (8 ohm): 260 W
	Total Harmonic Distortion	[SP OUT, 20 Hz-20 kHz, 25 W, 8 ohm] 0.04%, [PRE OUT, 20 Hz-20 kHz, 1 V] 0.005%
	Frequency Response	[1 kHz + 0 / -3 dB] PRE OUT NET / USB IN, AUX IN: 10 Hz-22 kHz, SP OUT NET / USB IN, AUX IN: 10 Hz-22 kHz
	Channel Separation	[PRE OUT, 1 kHz / 10 kHz] 76 dB / 76 dB, [SP OUT, 1 kHz / 10 kHz] 76 dB / 68 dB
	Signal to Noise Ratio	[PRE OUT NET / USB IN] 114 dB, [PRE OUT AUX IN] 108 dB, [SP OUT NET / USB IN] 106 dB, [SP OUT AUX IN] 104 dB
	Rated Output Level / Output Impedance	[PRE OUT L / R, 1 kHz] 2.0 V / 470 ohm
	Maximum Output Level	[PRE OUT L / R, 0.9% THD] 4.0 V
	Maximum Input Signal	[PRE OUT L / R, 0.9% THD] 2.4 V
	Gain	[SP OUT 1 V Input] 25.8 dB
	Input Sensitivity	[1 W Power, 8 ohm] 150 mV, [MAX (50W) Power, 8 ohm] 1.0 V
	Web Setup	Yes
	Direct Mode	Yes
	Monaural Downmix	Yes (stereo playback or monaural downmix selectable)
	Compressed Music Enhancer	Yes
	Volume Adaptive EQ	Yes
	Volume Control	Support Terminals: PRE OUT / SP OUT, Range: Mute, -80 dB ~ 0 dB, Step: 0.5 dB
	EQ Characteristics	[Bass] Variable Width: +6.0 dB ~ -6.0 dB / 0.5 dB step, Center Frequency: 350 Hz, [Mid] Variable Width: +6.0 dB ~ -6.0 dB / 0.5 dB step, Center Frequency: 1.1 kHz, [Treble] Variable Width: +6.0 dB ~ -6.0 dB / 0.5 dB step, Center Frequency: 3.5 kHz
Bass Extension	Yes	
General	Power Consumption	130 W, [All Zone On] No Signal Condition: 40 W, [All Zone Off] Chime On: 18.2 W, Cut In Power On Enable: 18.2 W
	Standby Power Consumption	Network Standby Off: 0.2 W, Network Standby On (1 Zone): 3.2 W, Network Standby On (All Zone): 6.0 W
	Power Management (Auto Power Standby)	5 / 20 min, 2 / 4 / 8 / 12 hours selectable
	Dimension (W x H x D) mm	[Table Top Mount with Adhesive Feet] 17-1/4" x 1-3/4" x 17-3/8" [Table Top Mount with Adhesive Feet and Faceplate] 17-1/4" x 1-3/4" x 17-7/8" [Rack Mount] 18-7/8" x 1-3/4" x 17-3/8" [Rack Mount with Faceplate] 18-7/8" x 1-3/4" x 17-7/8"
	Weight	13.9 lbs