9-channels of amplification offer unprecedented flexibility. For superior sound-field envelopment, add Front Presence speakers to a standard 7.2ch theater or, for multi-room entertainment, power three independent zones. For higher room tuning accuracy, an improved YPAO calibration microphone is included. Compressed Music Enhancer expands the bit rate of stereo PCM signals to improve the fidelity of standard digital audio formats. Reward yourself with the highest level of video performance available for home theater today with the HQV Vida processor

Hidden Control Panel
Includes HDMI Input Terminal, USB port, Video Aux input terminals, Zone 2/Zone 3 switches, YPAO microphone jack, and more.

Learning and preset capable remote unit

DOLBY TRUEHD · dts-HD Master Audio · HD Radio · HDMI · Made for iPod iPhone iPad · HQV · 4K Pass-Through / 4K Upscaling · Zone3 · CINEMA DSP 3D · ViRTUAL Presence Speaker · SILENT CINEMA · compressed music ENHANCER · SCENE · YPAO · ECOmode

Audio Features

- 9-channel powerful surround sound
  140W per Channel (8 ohms, 20 Hz-20 kHz, 0.06 % THD, 2 ch driven)
  155W per Channel (8 ohms, 1 kHz, 0.9 % THD, 2 ch driven)
- HD Audio format decoding
- Symmetrical power amplifier layout
- Heat sink with anti-vibration and anti-thermal properties
- Rigid chassis with additional bottom frames
- DAC on Pure Ground circuitry
- High speed thermal feedback power amplifier
- Ultra Low Jitter PLL circuitry helps optimize sound imaging
- Extra 5th foot with Anti-Resonance Technology (A.R.T. Wedge) to reduce vibration
- High Resolution Music Enhancer further heightens musicality from the original content
- H-shaped Cross Frame for additional chassis rigidity
- Intelligent assignable amplifiers for Surround Back <-> Front Presence or Zone 2
- Phono input for vinyl playback

Video Features

- 4K Pass-Through for next-generation super high resolution images
- 4K upscaling boosts lower resolution images to super high-definition resolution
- 4K / full HD 1080p video upscaling from analog and HDMI input
- HDMI: 8 inputs (1 on front) and 2 outputs (simultaneous) with 3D and Audio Return Channel
- Analog to analog video upconversion
- HQV high-class chipset "VHD1900" for HD/SD Video
- Video adjustment functionality
  - Auto noise reduction (mosquito noise, block noise, temporal noise)
  - Auto resolution enhancement (detail/edge enhancement)
  - Auto contrast enhancement
  - Video signal control (Contrast, Brightness, Saturation)
  - 6 preset memories

Advanced Features

- SCENE PLUS - simple and versatile functionality
  - HDMI CEC powers up compatible TVs and Blu-ray Disc™ players
  - 12 SCENE choices (4 on front panel and others on GUI)
  - Zone SCENE - 4 SCENE buttons for Zone 2/Zone 3
  - Versatile parameters can be stored into each SCENE
- Network functions
  - AirPlay allows music streaming from iPad, iPhone, iPod touch, Mac, PC
  - AV Controller app for operating various functions from an iPod, iPhone, iPad or Android phones/tablets
  - Access to: Internet Radio (vTuner): MP3, WMA
    Music files on PC/NAS: WAV, MP3, WMA, AAC, FLAC
  - Web Browser Control via PC or Tablet
  - Receiver Manager through network connection
  - DLNA 1.5 certified

- HD Radio™*
- Front panel USB Digital Connection for iPod, iPhone, iPad and USB device
- Charging of iPod, iPhone and iPad via USB when AV Receiver is off
- HDMI front panel input for devices such as camcorders and digital cameras
- HDMI CEC with versatile control from AV Receiver remote control
- Ability to change HDMI input while in Standby Through mode
- YPAO-R.S.C. (Reflected Sound Control) sound optimization with multi-point measurement
- New design YPAO microphone for more precise measurement
- Ability to store and choose between two speaker setting patterns
- Advanced multi-language GUI on-screen display with album art (English, German, French, Spanish, Russian, Chinese and Japanese)
- Audio Delay for adjusting Lip-Sync (0–500 ms)
- Macro, Learning and preset capable remote unit
- Background Video feature (for tuner and Net)
*For USA only

Surround Realism

- HD Audio decoding with CINEMA DSP 3D (23 DSP programs)
- Compressed Music Enhancer with CINEMA DSP
- Dialogue Lift ensures that dialogue comes from the center of the screen
- Virtual dialogue lift even without use of presence speakers
- Dialogue Level Adjustment for proper sound balance with dialogue and vocals
- Virtual Presence Speaker function for CINEMA DSP 3D surround without Front Presence Speakers
- Channel expandability with external amplifier (9 channel expandability (bi-amping))
- Adaptive DRC (Dynamic Range Control) and Adaptive DSP Level

Versatile Zone Control

- HDMI Zone B for audio/video streaming to another room (same content as main room)
- Zone 2/3 on/off and control on front panel
- Zone GUI (song/station selection, album cover art display, Zone tone controls/Zone balance, short message)
- Zone 2/3 video assign (Component, S-Video, Composite)
- System Backup / Recovery function
- Zone mono, Zone volume, tone controls and balance
- Party mode

Eco-Friendly Design

- ECO mode operation for about 20%* less power consumption
  * Compared to power consumption when ECO mode is off (Yamaha measurement).
- Auto power down function with variable time setting
- Low standby power consumption of 0.3W
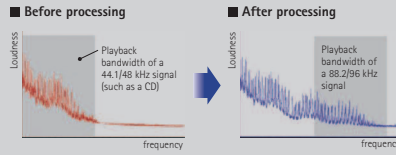
Powered by music

AV Receiver
RX-A2020

Dynamic, Realistic 9ch Surround Sound

With nine separate channels plus bass, CINEMA DSP 3D gives surround sound a true three-dimensional quality, using the extra channels to create higher and wider sound fields. YPAO automatically sets the system for optimum sound at any of several listening positions. It employs Reflected Sound Control to correct early reflections for studio-quality sound.

High Resolution Music Enhancer

Hi-bit high-sampling extension up to 96 kHz / 24-bit can be applied to lossless 44.1/48 kHz content such as from a CD (2-channel PCM) or a FLAC file for further heightening of the musicality in the original content.

■ Before processing

Loudness / frequency — Playback bandwidth of a 44.1/48 kHz signal (such as a CD)

■ After processing

Loudness / frequency — Playback bandwidth of a 88.2/96 kHz signal

Optimum Audio Quality Design Concept

The AVENTAGE line of high-performance AV receivers is based on the audio design concept of "uncompromising excellence." By combining traditional and innovative technologies, and including advanced features such as a symmetrical layout, an A.R.T. Wedge foot and an aluminum front panel, every factor that affects sound quality is optimized for superb musical performance.

Main Specifications

Audio Section

Rated Output Power (8 ohms, 20 Hz-20 kHz, 0.06 % THD, 2 ch driven)	
Front L/R	140 W + 140 W
Center	140 W
Surround L/R	140 W + 140 W
Surround Back L/R	140 W + 140 W
Front Presence L/R	140 W + 140 W

Rated Output Power (8 ohms, 1 kHz, 0.9 % THD, 2 ch driven)	
Front L/R	155 W + 155 W
Center	155 W
Surround L/R	155 W + 155 W
Surround Back L/R	155 W + 155 W
Front Presence L/R	155 W + 155 W

Dynamic Power/Ch (Front L/R, 8/6/4/2 ohms)	165/210/285/405 W

General

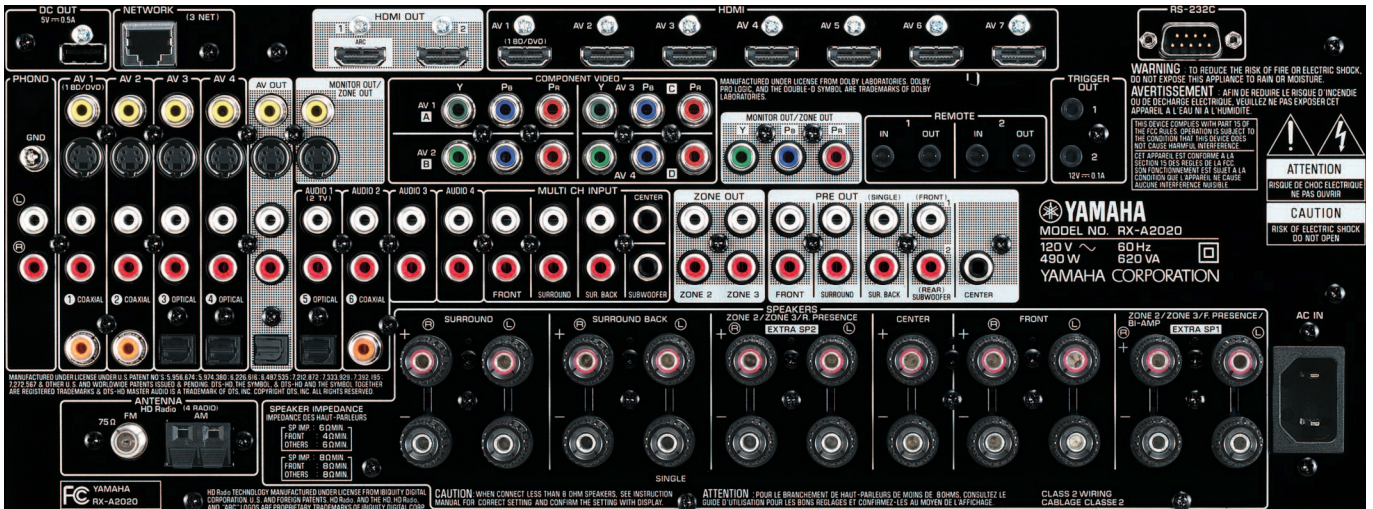| Standby Power Consumption	
HDMI Control off, Standby Through off	0.3 W (typical)
HDMI Control on, Standby Through on	6.0 W (typical)
Network Standby Through on	2.2 W (typical)
Dimensions (W x H x D)	17-1/8" x 7-1/2" x 18-3/8" 435 x 192 x 467 mm
Weight	37.7 lbs.; 17.1 kg

Optional Accessories

WiFi Adapter YWA-10

WiFi Adapter for Wireless Streaming of Additional Music Sources

The YWA-10 makes it possible to stream music wirelessly to the AV receiver from a PC, NAS and internet. 2 LAN port design supports connection of other network device such as Blu-ray player. Power is supplied from the AV receiver via USB.

Extensive Connections

USA Model

Inputs

HDMI*[1]	8
Network	1
USB*[1]	1
Radio Antenna (FM/AM) incl. HD Radio*[2]	1 / 1
Optical Digital (Assignable except Video AUX)*[1]	4
Coaxial Digital (Assignable)	3
Analog AV*[1] / Audio (with Phono)	5 / 5
Component Video (Assignable)	4
Composite*[1] / S-Video	5 / 4
Multi-Channel External Decoder	8ch

Outputs

HDMI	2 (simultaneous)
USB*[3]	1
Optical Digital*[4]	1
Analog Audio	1
Pre Out	7.2ch
Component Video Monitor*[5]	1
Composite / S-Video Monitor*[5]	1 / 1
AV Out (Composite / S-Video)	1 / 1
Speaker (without subwoofer)	9ch (11 terminals)
Subwoofer	2 (stereo, front/rear, mono x 2)
Headphone Jack	1

Others

Zone 2 Out with Volume and Tone Controls	1
Zone 3 Out with Volume and Tone Controls	1
Remote In/Out*[6]	2 / 2
+12V / Total 100 mA Trigger Out*[7]	2
RS-232C	1
Terminal for Detachable Power Cable	1

*[1] Including front panel terminals.
*[2] For USA only
*[3] USB terminal on rear panel is only for optional accessory's power supply.
*[4] Assignable to AV out.
*[5] Assignable to monitor out or Zone 2/3 out.
*[6] SCENE-IR support
*[7] Yamaha subwoofer system control support

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