



Pioneer

Elite SC-07 A/V receiver



Pioneer's SC-07 is the second son in the firm's new A/V receiver lineup. As such, it omits the flashy front-panel LCD video display of the flagship SC-09 but retains many of that model's more notable features for a much lower price. Among these are a full alphabet soup of surround modes and enhancements, both XM and Sirius satellite radio, and Pioneer's own Multi-Channel Acoustic Calibration System (MCACC) auto-setup/EQ processing. An arguably more important item is the SC-07's highly efficient 7-channel ICEpower amplifier. This sophisticated variant of Class D topology eliminates most of the bulk, waste heat, and weight — not to mention the increasingly costly copper — of conventional amplifying circuits.

SETUP

Setting up the SC-07 was easy as long I stuck to the basics: Plug in the supplied calibration microphone and select the auto-MCACC option from the main menu. After a couple minutes of circulating noise bursts, the resulting channel levels and distances were accurate, and the selected crossover setting of 80 Hz was reasonable. The SC-07 doesn't permit different crossover frequencies for the center or surround channels, and while its 50-, 80-, 100-, 150-, and 200-Hz cross-

over options aren't as extensive as some, they're perfectly adequate.

MCACC basics also invoke Standing Wave correction, a parametric three-band equalizer that automatically compensates for the three most significant low-frequency room-acoustic effects, and EQ Adjust, which performs basic speaker/room correction through higher frequencies. Standing Wave dialed in cuts at the two frequencies I know to be troublesome in my room, resulting in tighter, clearer bass at the main listening seat. (This sort of correction only optimizes one room position for one or two listeners.) EQ Adjust's 9-band graphic equalizer set itself for a puzzlingly jaggy curve that didn't agree with my ears' notion of how my room and system — which I know to be uncolored — should sound. (Because of this, I left the MCACC corrections defeated for the listening part of my evaluation.) Each of these EQs can be tweaked using onscreen menus, and they can also be defeated on the fly using the SC-07's Audio Parameters function.

At a whole other level is Advanced MCACC with EQ Professional, which opens a world of options and adjustments on the Pioneer for automated tests and corrections. It includes such technical — and to most readers likely abstruse — matters as data-collection time-

windowing and phase compensation, and it can also interface with a Windows PC for even more detailed operations.

With the SC-07, Pioneer moves to a new generation of more graphically sophisticated onscreen displays that are clear, attractive, and reasonably quick to pop up and navigate. Its Faroudja DCDi video processing performs deinterlacing and scaling of incoming analog video signals (including 720p and 1080i) up to 1080p, with output onto HDMI. But signals coming into the receiver by way of HDMI pass through without any processing.

MUSIC & MOVIE PERFORMANCE

There's a gazillion features, functions, and modes in this thing (I counted them all), and since I only have space to cover a handful, I'll just hit on my favorites.

Let's start with the amplifiers, which sounded terrific on both movies and music. The SC-07's performance was discernibly better — freer, more dynamic, and more texturally focused — than many other receivers and even some separate power amps. If credit here is due to Pioneer's use of ICEpower amp topology as the basis for the SC-07's Direct Energy HD Amplifiers, then count me a fan. (ICEpower was developed by Danish engineers working in conjunction with B&O.)

Whatever the name, the Pioneer's

The Short Form

Snapshot

A pricey but feature-filled receiver with lots of pluses, beginning with its unique and powerful amplification

Plus

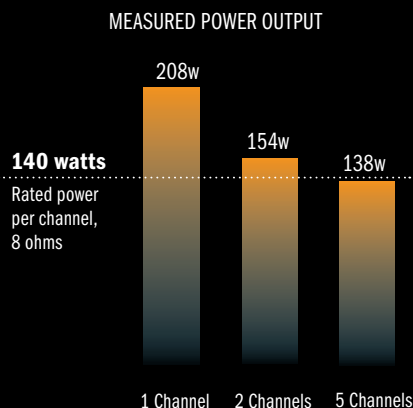
- ⚡ Impressive multichannel wattage
- ⚡ Powerful (if complex) auto setup and calibration
- ⚡ Capable DLNA media client with FLAC support
- ⚡ Handsome onscreen graphics

Minus

- ⚡ No HDMI video processing

Price \$2,200

Test Bench



The SC-07's power output was impressive on just about every test — especially for a receiver that weighs under 50 pounds and

never gets more than modestly warm. As more channels were driven, its maximum power fell off in a comparatively linear manner — much more so than is usually the case with conventional, regulated Class A/B designs. (Class D uses available power-supply current much more efficiently, but it's not nuclear fission: the supply is still finite.) Other tests were generally excellent throughout. What I took to be artifacts from the amplifiers' switching frequencies (at a guess, several hundred kHz) were visible on scope traces of all speaker outputs. While these made taking certain measurements a bit challenging, they're not sonically significant, being many times higher than the highest frequency of interest. — D.K.

Class D power section proved its mettle on demanding multichannel recordings like a new Telarc SACD of the Cincinnati Pops performing music by American composer Howard Hanson. The final movement of the Symphony No. 2 is almost overwhelmingly colorful, and its dense, powerful brass-and-winds harmonies can really test the clarity and articulation of an audio component. The Pioneer passed with honors.

Reproducing the full, noisy palette of the *Pirates of the Caribbean: At World's End* soundtrack was child's play for the SC-07. It easily reached big-cinema reference levels without a hint of harshness or excess "bite" on crashing waves and cannon shots. Dynamic "squishing" wasn't a problem on the many impacts and explosions, while the very clean sonics of Hans Zimmer's music remained unspoiled — even through the drawn-out mayhem of the climactic vortex sequence.

Next feature: THX Loudness Plus. Invoked on the setup menu, this option enhances the THX listening modes with a "smart" compensation (depending on volume setting) to make surround effects, tonal balance, and dialogue listened to at lower volumes sound more like they do at

reference level. It ain't perfect, but if you do a lot of your home theater listening at settings well below reference (and almost everyone does), it's a pearl.

Lastly, while it might be a little nerdy, one of my most exciting discoveries was that the SC-07's Home Media Gallery feature is compatible with FLAC (Free Lossless Audio Codec) as well as the more common MP3, WMA, and AAC/MP4. Because FLAC is sonically transparent, is digital-rights-management free, and cuts file sizes in half, I'm using it to archive my music collection.

There's also Precision Quartz Lock System (PQLS), which relocks HDMI digital audio, including CD data, from a compatible Pioneer Blu-ray Disc player to reduce jitter. I tried PQLS using the company's BDP-05FD (reviewed on page 94), and while I'm usually skeptical about such things, I have to confess I heard a difference — with the caveat that since there's no way to enable or disable PQLS without a disruptive trip to the setup menu, I couldn't do a direct A/B comparison. Nonetheless, I judged that carefully recorded stereo music sounded subtly better with PQLS on, with cleaner edges to transients such as hi-hat cymbal strikes; smoother, more



organic-sounding reverb tails on natural hall-sound echoes; and blacker background silences.

ERGONOMICS

Pioneer minted a new preprogrammed/learning remote for this new receiver line. It's handsome and usable, but the buttons, type, and spacing are all too small, and its backlighting only illuminates the central keys, leaving you to squint your way through input-select, transport, and listening-mode commands — the ones you're most likely to need in the dark.

BOTTOM LINE

I give the SC-07 two big thumbs up — okay, one and a half. Its video processing isn't all-encompassing (but of very solid quality), and it has ease-of-use issues (but what A/V receiver doesn't?). Far more important, it delivers gobs of clean, dynamic power and great sound on music and movies, and offers a whole slew of additional goodies, many of them potentially useful. The SC-07's price is substantial, but its rewards are substantial as well. **S&V**

Key Features

- :: 7 x 140 watts (2 channels driven) ICEpower Class D amplification
- :: THX Ultra2 Pure certified
- :: (4) HDMI 1.3 inputs, 2 outputs
- :: Upconverts analog video to 1080p on HDMI
- :: Decodes Dolby TrueHD, DTS-HD Master Audio, and DSD (SACD)
- :: PQLS for reduced digital-audio jitter via HDMI
- :: Proprietary MCACC auto-setup/equalization/room-correction plus phase correction with supplied microphone
- :: DLNA-compatible Media Gallery media player for audio and photo files from server, Mac/PC, and USB media
- :: THX Loudness Plus level correction
- :: Graphical onscreen display
- :: XM/Sirius satellite-radio-ready
- :: Assignable front biamp or powered-zone 2/3 amp channels
- :: (2) IR in, (1) IR out (2) 12-v triggers, RS-232 serial port
- :: 16¹/₂ x 7⁷/₈ x 18¹/₈ in, 41 lb

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