



### Applications

Boardrooms  
Training Centers  
Broadcast Testing  
Command and Control Centers  
Home Theaters



**Today's integrated systems demand simplified installation, total control, full feedback, and proven reliability. That's why Contemporary Research AV Tuners have been the trusted choice for control system pros for over ten years.**

### Sales Support

Need help finding tuning solution for your application? Our Sales Support staff will be happy to work with you, providing expert integration assistance and a complete systems proposal.

### Tech Support

Need tech help? Give us a call. Our tech support staff are experts in the integration industry, so we can research solutions in the proposal stage, advise on programming requirements, and resolve installation issues.

Our job is to make our solutions work seamlessly with your system, performing as promised.

### Related Products

Tuner Helper Software  
232-ATSC Digital HDTV Tuner  
VCC Closed Captioning Decoder

### 232-Series AV Tuners

Contemporary Research AV tuners share several features in common:

- RS-232 control and feedback with simple ASCII commands
- Daisy-chain up to nine tuners from a single RS-232 control port
- Closure inputs for channel up and down
- Front-panel setup, status and channel display
- Enable/disable commands for front-panel control lockout
- Tunes up to 125 NTSC channels in off-air, cable, HRC, and IRC modes
- Programmable tune ring defines active channels
- Pro quality video and audio
- Sturdy metal enclosure, rack mountable
- AMX and Crestron programming modules available
- Internal memory back-up restores operation after power loss
- Easy setup, cloning, and PC operation with Tuner Helper software

### Models

#### 232-ST5 S-Video Stereo TV Tuner

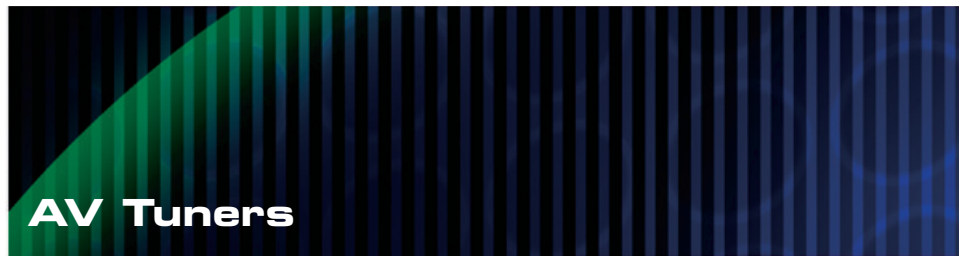
- S-Video and composite video outputs
- Stereo/SAP audio
- Captive screw balanced/unbalanced audio terminal
- Variable volume, bass, and treble control
- Closed captioning and on-screen text
- Switchable AV input
- Inserts blue screen on video loss
- Adds IR control sensors and input for external/wired IR control

#### 232-STA Stereo TV Tuner

- Stereo/SAP audio
- Variable volume, bass, and treble control
- Switchable AV input
- Composite video output

#### 232-MTA Mono TV Tuner

- Monaural audio
- Composite video output



232-ST3



232-STA



232-MTA

## Specifications

Feature	232-ST3	232-STA	232-MTA
<b>Type</b>	Stereo S-Video TV Tuner	Stereo TV Tuner	Mono TV Tuner
<b>Physical</b>	8.5" [216mm] wide x 1.75" [38mm] height (1RU) x 6.0" [153mm] deep 1.5 lbs [0.68kg] Rack mounting for one or two units side-by-side optional (RK1, RK2)		
<b>Tuning</b>	NTSC television 55.25 to 801.25 MHz, 62.5KHZ fine tune resolution +6dBmV max input, +4dBmV nominal 125 channels in off-air, cable, HRC, or IRC modes		
<b>Front Panel</b>	AV Mute (Power) Volume Up/Down Channel Up/Down RS-232 TX/RX LEDs Red LED Channel Display Stereo Indicator LED IR Sensor	AV Mute (Power) Volume Up/Down Channel Up/Down RS-232 TX/RX LEDs Red LED Channel Display Stereo Indicator LED	AV Mute (Power) Volume Up/Down Channel Up/Down RS-232 TX/RX LEDs Red LED Channel Display
<b>Antenna/Cable</b>	'F', female, 75 ohm impedance		
<b>AV Input</b>	RCA Video, Stereo Audio	3 RCA Video, Stereo Audio	---
<b>Video Out</b>	Composite RCA S-Video Mini-DIN4	Composite RCA	Composite RCA
<b>Audio Out</b>	100 ohm balanced stereo 200 Ohm unbalanced stereo 5-Pin captive screw terminal	Stereo RCA, 1K ohms	2 Mono RCA, 1K ohms
<b>Performance</b>	Stereo: Total Harmonic Distortion (THD): 1% maximum, 0.3% typical, 50Hz to 12KHz Channel Separation: 25dB minimum, 30dB typical Mono: Total Harmonic Distortion (THD) 0.5%, 0.1% typical, 20Hz to 20KHz		
<b>Max Level</b>	+4 dBu (1.2V RMS) balanced 0 dBu (.8V RMS) unbalanced	+8dBu, (2V RMS)	+8dBu, (2V RMS)
<b>Volume</b>	0 to -70 dB and mute, 64 steps	0 to -70 dB and mute, 64 steps	---
<b>RS-232 Control</b>	DB-9 male connector User selectable 300 to 19,200 (9600 default) baud, 8 data bits, no parity, 1 stop bit Employs standard ASCII strings from any terminal program, PC, or control system		
<b>Closure Control</b>	2 momentary closure inputs - Channel Up (Pin 4), Down (Pin 9), GND (Pin 5) on DB9		
<b>IR Control</b>	Front-panel IR sensor 3.5mm stereo jack on back for external sensor	---	---
<b>Closed Caption</b>	Modes CC1-CC4, TT1-TT4, On/On with Mute/Off modes, CG text times out for captions	---	---
<b>CG</b>	White text over video or white text with black background over video, up to 32 characters, 13 lines	---	---
<b>Video Sensing</b>	Displays blue video image	---	---
<b>Power</b>	2.1mm coaxial jack (inside center conductor positive) 400 mA maximum, 11.5 to 16.5 VDC, 12 VDC typical		
<b>Includes</b>	12 VDC 500 mA power supply RCA stereo audio adapter	12 VDC 500 mA power supply	12 VDC 500 mA power supply
<b>Options</b>	IC-RC Wireless IR Remote IR-RXC External IR Receiver RK1 Single Rack Kit RK2 Dual Rack Kit CC-232 RS-232 Cable	RK1 Single Rack Kit RK2 Dual Rack Kit CC-232 RS-232 Cable	RK1 Single Rack Kit RK2 Dual Rack Kit CC-232 RS-232 Cable

### Warranty

All CR products feature a full two-year warranty.