

Three Repeaters, One Controller: The S-COM 7330



Unbeatable Value • Only \$479 including LED Display Cabinet

Not just another three-port controller, the 7330 is a low-cost, highly flexible *triple repeater controller* with all the features you need to handle three full-duplex repeaters, cross-band repeaters, RF links, Internet links, and so on.

The 7330 saves you money and rack space by using state-of-the-art SoC (System-on-a-Chip) technology to replace numerous digital ICs.

Features that are extra-cost options on other controllers are standard in the 7330. Digital audio delay, user-created digitized speech, and CTCSS encode with reverse burst is

provided on each port, eliminating cumbersome modules and daughterboards. A space-saving 1U rackmount cabinet with an informative LED display is included at no extra cost.

Other controllers have only one tone generator and audio storage system for all repeaters, resulting in delays when repeaters must wait to use a resource. The 7330 has separate tone and digital audio generators for each port, allowing any message to be immediately sent to any transmitter. And, the flexible digital audio file playback system replaces obsolete speech synthesizers and short-duration audio recording ICs.

All of these features are standard and included in our low price:

- ✓ Three Receiver Interfaces
- ✓ Three Transmitter Interfaces
- ✓ Three DTMF Decoders
- ✓ Three Dual Tone Generators with remote level adjust
- ✓ Three Digital Audio Players with remote level adjust
- ✓ Three CTCSS Encoders with Reverse Burst
- ✓ Three Adjustable Digital Audio Delays
- ✓ Three 0-5V/0-25V A/D Inputs
- ✓ Four Logic Inputs
- ✓ Eight Logic Outputs
- ✓ Two RS-232 Ports
- ✓ 16 MB Flash Memory
- ✓ 512KB CMOS SRAM
- ✓ 1,600 Digitized Speech Words, standard vocabulary
- ✓ 2,000 words/13 minutes User-Created Digitized Speech
- ✓ 100 Scheduler Setpoints
- ✓ 340 Customizable Macros
- ✓ Real-Time Clock with TCXO Timebase
- ✓ Fast Firmware Upgrades via RS-232
- ✓ Multiple Receivers can mix to Any Transmitter
- ✓ Improved and Expanded Commands (vs. our 7K)
- ✓ Per-Path Programming (Courtesy, Timeout, etc.)
- ✓ Per-Transmitter Programming (ID, Tail, etc.)
- ✓ 5-Pole LP Filters on Tone & Digital Audio Generators
- ✓ 5-Pole LP Filters on CTCSS Generators
- ✓ Wide-range Input Power Supply (9-36 VDC)
- ✓ Reverse Polarity Power Supply Input Protection
- ✓ Large, Nonpolarized Audio Coupling Caps
- ✓ Push-on Jumpers for Pullup Resistors
- ✓ Push-on Jumpers for RX De-emphasis
- ✓ Push-on Jumpers for RX Gain (Normal/High)
- ✓ Push-on Jumpers for TX Gain (Normal/Low)
- ✓ Push-on Jumpers for COR, CTCSS, and PTT Invert
- ✓ Socketed PTT/Logic Output Driver ICs
- ✓ Locking DC Power Input Connector
- ✓ DE-9F Connector for each radio
- ✓ Space-saving Single-Height Rackmount Cabinet
- ✓ 28-LED Front Panel Status Display
- ✓ Rear Panel RESET and INITIALIZE Pushbuttons
- ✓ Legendary S-COM Quality and Reliability



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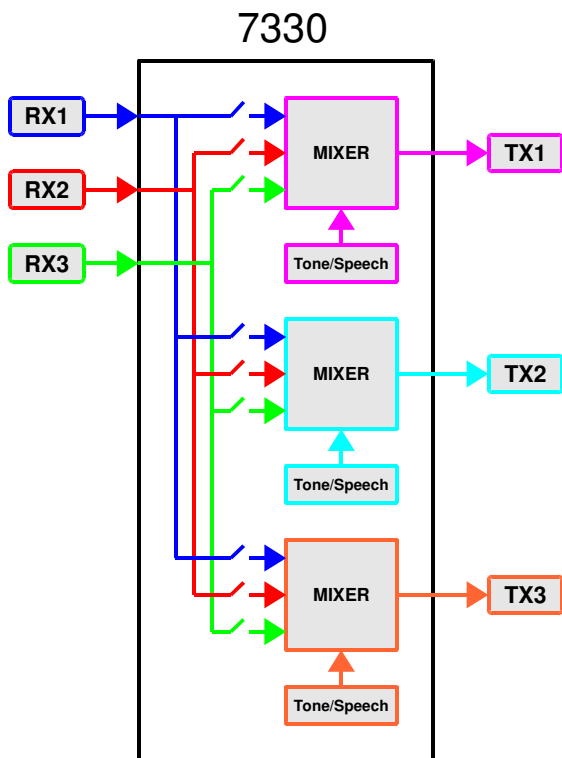
Download the 7330 User Manual, white papers, and other information at www.scomcontrollers.com.

Price, \$479.00. Shipping and handling, \$15.
Optional Radio Port Cables, \$20. each

Visa, MasterCard, Discover and AmEx accepted.

Interconnected repeater systems help amateur radio serve the public interest. Whether you're building a new system or expanding an existing one, get the triple repeater controller with the features you need to solve your problems – the new S-COM 7330.

What sets the 7330 apart from other three-port controllers? See the diagram.



You can configure your system any way you wish by programming the nine paths that connect the three receivers to the three transmitters.

Each path can be set up with its own programmable courtesy beep, timeout timer, access mode, and much more.

That means any receiver and any transmitter can act as a full-duplex repeater, full-duplex link, half-duplex link, or similar device. This capability also provides complete control over the tones sent to a transmitter – critical to meet the strict IRLP guidelines for correct operation.

A priority/mix system lets you choose which receivers are allowed to feed each transmitter. You can select whether the receivers mix or follow a priority rule when several receivers are active at the same time.

Add to that a complete set of programmable timers, messages, macros, software switches, scheduler setpoints, and digitized speech words (with 13 minutes of custom speech playback time), and you have a super-flexible solution to the problem of controlling multiple radios.

With its very flat frequency response, the 7330 won't color your audio. And your repeater stays a "good neighbor" thanks to extensive lowpass filtering that keeps controller-generated CW, beeps, paging tones, and digital audio playback from splattering into adjacent channels.

Hardware Specifications

-3dB Frequency Response: 18 Hz - 16 kHz (600Ω TX input)
 Receiver Audio Input Impedance: 25KΩ min.
 Receiver De-Emphasis Corner Frequency: ~200 Hz
 Receiver Audio Delay: Jumper enabled, 30 to >250 ms
 COR and CTCSS Input Thresholds: ~2.1 V
 COR and CTCSS Pullups: Jumper enabled, 4.7KΩ to +5 V
 COR and CTCSS Input Logic: Jumper selectable, active low/high
 Transmitter Audio Output Impedance: 600Ω
 Transmitter Audio Output Level: 2 V_{P-P} (10KΩ), 1 V_{P-P} (600Ω)
 PTT Output: Open-drain power MOSFET, 45 V/150 mA
 Tone Generators: 3 dual-tone w/5-pole Butterworth LP filters
 Tone Accuracy: 0.12% up to 1700 Hz
 Tone Purity: -35 dB THD @ 100 Hz (worst case)
 CTCSS Encoders: 3 w/5-pole Butterworth LP filters
 CTCSS Encode Accuracy: >0.02%

CTCSS Encode Purity: -35 dB THD @ 67 Hz (worst case)
 CTCSS Encode Level: 0 - 2 V_{P-P} into 20KΩ load
 Logic Inputs: 4, NPN buffered
 Logic Input Threshold: ~2.1 V
 Logic Input Pullups: Jumper enabled, 4.7KΩ to +5 V
 Logic Outputs: 8, open-drain power MOSFET, 45 V/150 mA
 A/D Inputs: 3, overvoltage protected
 A/D Input Range: Jumper selectable, 0 - 5 V or 0 - 25 V
 RTC Timebase Type: 32.768 kHz TXCO
 RTC Timebase Accuracy: ±1 minute/year, 0°C - 40°C
 Flash Memory: 128 Mb (16 MB)
 RAM: 512 KB CMOS SRAM with lithium battery backup
 Input Voltage: +9 to +36 VDC
 Power Consumption: ~1.5 W
 Input Protection: Reverse polarity



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The S-COM 7330 is the new Port Authority