

Model DSP223 Tone Remote Adapter Panel



Model DSP223

The DSP-223 tone-remote adapter provides a reliable means of remotely controlling two-way radio base stations. The adapter can be used in conjunction with all Vega consoles, or other manufacturers' (such as Motorola and GE) remote consoles that use the industry-standard sequential tone-keying format.

The DSP-223 is interconnected to the distant remote control console(s) by any voice-grade transmission medium such as a microwave link, a leased telephone line, or a twisted-pair 600-ohm line.

All DSP-223s are capable of decoding the PTT (push-to-talk/ transmitter-on) tone sequence and the voice-plus-tone signals during transmission.

All models are prepared for jumper-plug conversion from two-wire-line operation to four wire-line operation. In the four wire mode, the panels are full duplex capable .

The DSP-223 provides the following features:

Front Panel:

- PTT, Monitor, and Power LED indications
- RS-232C port on front panel for configuration via Windows application
- Front panel test points and level set potentiometers
- Local handset port for intercom back to console operator or PTT of the radio
- 99-digit display

- Police and Fire Brigades
- Utility and Energy
- Railways and Airlines
- Forestry and Environmental Agencies

Rear Panel:

- B25 Connector to the radio provides 6 digital outputs for channel selection, completely programmable per function tone or external relay control board
- RJ-45 connector to the telephone line (2-wire or 4-wire) jumper selectable

System:

- Two PTT modes and three monitor modes
- PTT& Monitor Relays
- Single Function tone recognition (16 function tones)
- Dual function tone recognition (100 function tones)
- Relays can be placed in any of four groups for separation of function
- Loop back tone for line level test and alignment
- CTCSS generation (64 frequencies)
- F1 and F2 Relays (programmable to any function tone or Revert to F1)
- Ability to pass-through to a second tone adapter with 400ms built in delay line (RF Link) control
- Morse Code Encoder for Automatic station identification

Specifications

Operating Temperature Range: -20 to 70°C for full specifications

Power Requirements: +12 to +16 Vdc, semi-regulated, 500ma.

Relay Contact Ratings: 1A at 125Vac

Non-Relay Outputs: Open collector, active low, 200mA maximum, 40V collector to emitter voltage

Line to TX Output Gain: -10dB to +25dB, user settable

Line Output Level: -40 to +10dBm, adjustable

Line Input/Output Impedance: 600W nominal, or 10kW receive

Line Connector: RJ-45

Radio Interface: ±45 Vdc withstand rating

Radio Input Level: 100mVrms to 16Vrms, adjustable

Radio Output Level: 10mVp-p to 9Vp-p for mic level or -40 to +10dBm into 600W load, adjustable

Radio Output Impedance: 600W for balanced mode, 200W for single ended mode

Frequency Response: ±1.5 dB, 300 to 3000 Hz, except at 2175 Hz notch frequency

Audio Distortion: 2% THD maximum

Sensitivity: Ultimate sensitivity, -25dBm PTT tone

PTT Tone Detect Bandwidth: ± 20 Hz around 2175Hz

Notch Frequency Rejection: 45 dB minimum

Notch Frequency Bandwidth: 50 Hz at -3dB points. ±1Hz at -40dB.

Function-Tone Detection Bandwidth: ± 20 Hz around center of frequency

Frequency-Select Function Tone

Decoder Tuning Range: Not tuneable by field personnel, only by software change

DTMF Detection Bandwidth: ± 25 Hz around centre of frequency

MON timer: 10ms to 65seconds, adjustable

Morse Code Transmitter: 20 wpm, 400-2000Hz carrier selectable, 50 chars max, -40 to 0 dB or range relative to max radio level output.

Dimensions: 8 ½" Wide, 7 1/8" Deep, by 1 5/8" High

Front panel operations:

- 99 DIGIT DISPLAY
- ACCESS TO TEST POINTS
- LEVEL ADJUSTMENT POTENTIOMETERS
- INTERCOM BUTTON
- HANDSET CONNECTOR
- RS232 INPUT
- LED INDICATORS, PTT, MONITOR AND POWER

Options:

- Programming Kit (includes cable and 3 ½ diskette)
- Relay board for frequency control or paired modes
- 19 inch rack mount kit, can accommodate 2 DSP-223 adapters

Warranty (Limited)

All Cyfas products are guaranteed against malfunction due to defects in materials and workmanship for one year, beginning at the date of original purchase. If such a malfunction occurs, the product will be repaired or replaced (at our option) without charge during the one year period, if delivered to the Cyfas factory.

Warranty does not extend to damage due to improper repairs, finish or appearance items, or malfunction due to abuse or operation under other than the specified conditions, nor does it extend to incidental or consequential damages.

Specifications are subject to change without notice.

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Cyfas Systems

Unit 5 Ivel Road Business Park
1 Ivel Road, Shefford
Beds SG17 5JU
Tel: 01462 818880
Fax: 01462 814070
Email: sales@cyfas.co.uk
Web: www.cyfas.co.uk