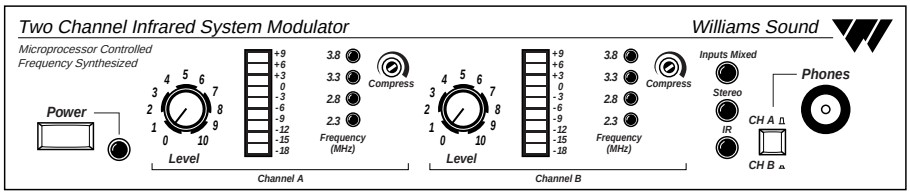
Two Channel Infrared Modulator, Model MOD 232

Description:
The MOD 232 Modulator is designed to operate with a TX9 emitter operating on 2.3/2.8/3.3/3.8 MHz frequency. Each microprocessor controlled MOD 232 modulator can handle up to two audio channels. Baseband outputs can daisy-chain two MOD 232 together for four-channel operation. Flexible combination jacks permit balanced/unbalanced line-level inputs. Carrier frequencies are controlled by the microprocessor and a frequency synthesizer for rock-solid frequency control.

MOD 232 Modulator:

Size, Weight:	8.5" W x 8.2" D x 1.7" H (21.5 cm x 20.8 cm x 4.4 cm), 3.1 lbs (1.5 kg)
Color:	Black epoxy paint with white legends
Rack Mount:	1/2 rack space wide, 1 rack space high, one or two modulators may be mounted in a single IEC rack space with RPK 005 (single) or RPK 006 (double) Rack Mount Kits
Power Supply:	Wall Transformer, 24 VAC, 50-60 Hz, 15VA
	North America: TFP 016, UL/CSA
	Europe: TFP 027-01, 2-pin Schuko plug, CE
	UK: TFP 027-02, 3-pin UK plug, CE
Modulation:	FM Wideband, +50 kHz deviation, 50 uS pre-emphasis
Carrier Frequency:	Channel A: Selectable, 2.3/2.8/3.3/3.8 MHz,
	Channel B: Selectable, 2.3/2.8/3.3/3.8 MHz
Signal-to-Noise Ratio:	More than 60dB
Frequency Response:	30 to 16,000 Hz, +1 dB, -3 dB, electrical response
Total Harmonic Distortion:	Less than 2%, electrical response
Audio Processing:	Compression (slope) adjustable from 1:1 to 4:1
	Switchable compression gain: Moderate: 16dB. Max: 33dB
Auto Carrier Shut-Off:	30-minute timer shuts off carrier when no audio is present (can be disabled)

(MOD 232 Front Panel)



Power Switch:	Two-position push button, ON/OFF
Power Indicator:	Green LED
Audio Level Controls:	CHA and CHB Input Level, rotary knobs
Audio Indicators:	CHA and CHB Audio Level, 10-segment LED's
Carrier LEDs:	4 green LED carrier "on" indicators per channel (indicates frequency, malfunctions)
Compress Control:	1:1 to 4:1
Input Mix LED:	Indicates inputs A and B audio are mixed and transmitted by CHA and CHB off
Stereo LED:	Indicates stereo mode
Phones Switch:	Selects CH1 or CH2 for phones when not in stereo mode
Phones Output:	1/4" TRS headphone jack. Accepts stereo, mono and any impedance phones.
Infrared Test LED:	IR LED for receiver testing, monitoring and audio signal testing.

NOTE: SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE!

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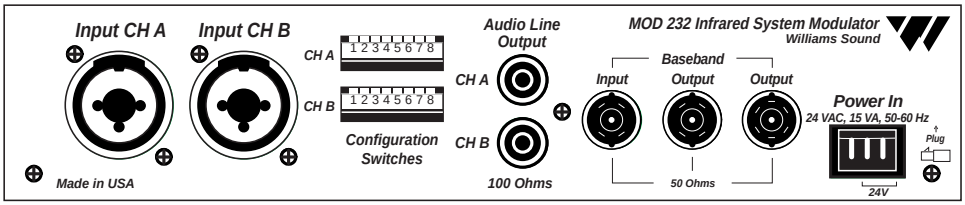
(MOD 232 Rear Panel)



Power Input:	3-Pin Molex, 24 VAC, 50-60 Hz, 15 VA
Audio Input Jack:	CHA and CHB combination XLR/TRS jack
Mic Level:	Balanced, Lo-Z, 100 µV min. to 90 mV max., 1 mV nominal, 3kΩ input impedance, supplies switchable simplex power per DIN 45596 for condenser mics
Line Level:	Balanced or unbalanced, 21 mV min. to 10V max., 212 mV nominal, 100 kΩ
Audio Line Output Jacks:	RCA Jack, CHA and CHB, 500 mV, unbalanced, 100 Ω source impedance, load impedance must be greater than1 kΩ
Configuration Switches:	CHA and CHB 8-position DIP switch, selects Mic/Line input, compressor gain, simplex power, discrete or mixed inputs, carrier frequency, channel disable, auto shut-off timer
Baseband Input Jack:	BNC, allows mixing with additional MOD 232 Modulator (4CH operation), 100 mV, 50 Ω input impedance, use with MOD 232 or MOD 112 (111), BNC, RG-58 Cable
Baseband Output Jack:	Two BNC jacks carry baseband signal, 100 mV/channel, 50 Ω source impedance, for use with WIR TX9 or MOD 232 only
Approvals:	CE, FCC Part 15, Industry Canada, AS
Operating Requirements:	0-50º C ambient temperature, non-condensing, non-corrosive atmosphere
Warranty:	5 years on modulator, 90 days on accessories

Bid Specs:

Modulator, Model MOD 232

The infrared system shall consist of separate modulator and emitter units, with portable receivers. The modulator unit shall be a half-rack style, metal enclosure. A rack panel shall be available to mount one or two modulator units within a single EIA rack space. An adjustable floor stand and mounting bracket shall be available to mount the modulator and emitter together for portable operation.

The modulator shall provide two channels of selectable FM carrier signals, 2.3/2.8/3.3/3.8 MHz, so that a single modulator can be used to simultaneously transmit up to two channels, and two modulators can be ganged together to transmit up to four channels simultaneously. The carrier signals shall use 50 kHz deviation and 50 µS pre-emphasis. The carrier signals (baseband) shall be transmitted to one or more emitters by 50 ohm RG58 coaxial cable with BNC-type connectors. A BNC–type baseband input jack and baseband output jack shall be provided on the modulator. The modulator shall be powered by an external 24 VAC, 10 VA, 50-60 Hz power supply, connected via a three-pin Molex power connector.

It shall have a rocker-type power switch, power LED indicator, four carrier indicator LEDs and two bar graph-type LED audio indicators. The modulator shall have a modulated IR LED on the front panel for testing purposes, and a headphone jack that accommodates mono and stereo 1/4" headphones, and channel monitoring switch. The modulator shall have two rotary audio input level controls, and a screwdriver adjustable control for varying the input compression from 1:1 to 4:1. The modulator shall have two timers that automatically shut off the carriers when there is no audio signal present for 30 minutes. The modulator shall have two combination input jacks that accept 3-pin XLR plugs for balanced microphone input or 1/4" TRS plugs for balanced or unbalanced line-level inputs. The XLR inputs shall be low impedance, accept signal levels from 100 µV to 90 mV and supply 15 V simplex power per DIN45596. The TRS jacks shall accept balanced or unbalanced audio signal levels from 21 mV to 10 V. The modulator shall have CE, FCC, Industry Canada and AS approval and carry a five-year parts and labor warranty.

The modulator shall be the Williams Sound Corp. model MOD 232.

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