

# Inovonics 631

## FM "Relay" Receiver

### A PROFESSIONAL FM RECEIVER FOR RE-BROADCAST AND OTHER CRITICAL OFF-AIR RECEPTION APPLICATIONS

The Model 631 is Inovonics' second-generation, frequency-agile, digitally-tuned FM receiver developed exclusively for translator (re-broadcast) and similar professional service.

Featuring menu-driven selection of functions and readouts, the 631 is intuitive in its setup and easy to use. High-resolution bargraph displays indicate total carrier modulation and left/right audio levels, as well as showing the incoming RF signal level and multipath distortion to aid in antenna alignment. A selectable IF bandwidth helps overcome adjacent-channel interference, and parameters of carrier-loss and audio-loss alarms may be set by the user and monitored remotely.



# Inovonics 631

## Features & Specifications

- Composite/MPX and balanced L/R stereo outputs. Accurate front-panel metering displays MPX and audio levels, incoming RF and multipath distortion.
- Selectable wide/narrow IF bandwidth, adjustable muting threshold and an overdeviation limiter protect the re-transmitted signal.
- Very easy to set-up and use; 'generic' components are used throughout to simplify maintenance.

### TUNING RANGE

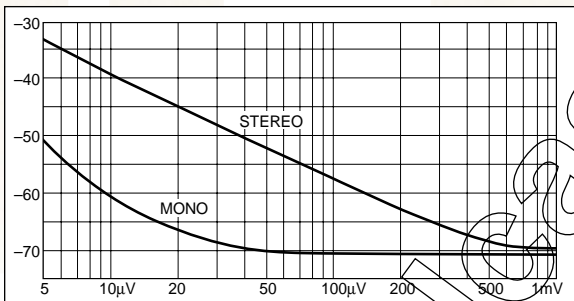
87.5–108.1MHz in 100kHz steps.

### ANTENNA INPUT

75-ohm, 'F' connector (50-ohm option with 'N' connector available).

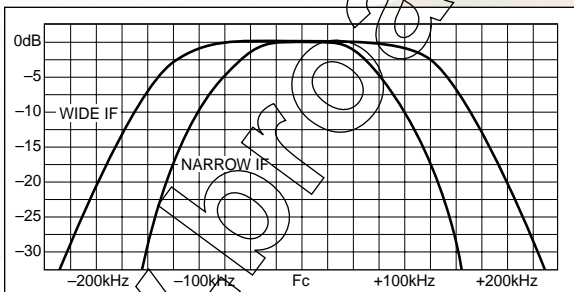
### RECEIVER SENSITIVITY (graph below)

MONO: 10 $\mu$ V for 60dB S/N, STEREO: 150 $\mu$ V for 60dB S/N.



### RECEIVER SELECTIVITY (graph below)

WIDE: -6dB at  $\pm$ 140kHz, NARROW: -6dB at  $\pm$ 80kHz.



### DISTORTION (in MPX or L/R audio)

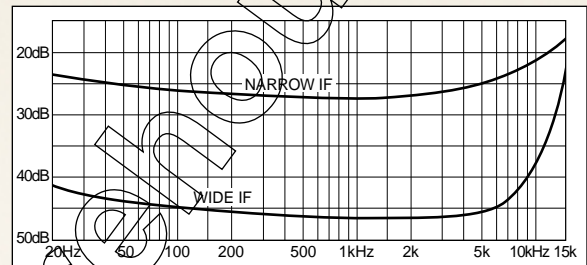
WIDE: <0.2% THD, NARROW: <0.6% THD.



Rear view

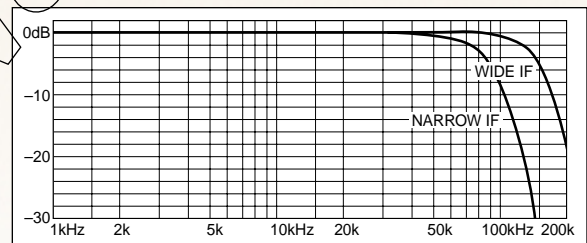
### STEREO SEPARATION (graph below)

WIDE: typ. >40dB, NARROW: typ. >20dB



### COMPOSITE/MPX OUTPUT (response graph below)

Unbalanced, 75-ohm BNC; adjustable between 2V p-p and 6V p-p at  $\pm$ 75kHz carrier deviation.



### OVERDEVIATION LIMITER

An internal clipping circuit limits the MPX output to a maximum level equivalent to  $\pm$ 100kHz carrier deviation.

### PROGRAM LINE OUTPUTS

Left/Right active-balanced XLR outputs deliver +4dBm at  $\pm$ 75kHz deviation. Frequency response  $\pm$ 0.5dB, 20Hz–15kHz; de-emphasis set by internal jumpers to 75 $\mu$ s or 50 $\mu$ s.

### LOW-SIGNAL MUTING

Composite/MPX and L/R audio muted when incoming RF falls below the user-programmed LOW-SIG level.

### AUDIO LOSS ALARM

Responds to loss of either stereo channel; alarm delay is user-programmable between 5 seconds and 4 minutes.

### FAULT INDICATORS

Front-panel LCD indication of low incoming RF or loss of program audio. Open-collector NPN transistor switches enable remote alarm indication via rear-panel terminal strip.

### POWER REQUIREMENT

105–130VAC or 210–255VAC, 50/60Hz; 10W

### SIZE AND SHIPPING WEIGHT

1 $\frac{3}{4}$ "H x 19"W x 8"D (1U); 8 lbs.