

FM PROFESIONAL RECEIVER MODEL KV/FM

1. GENERAL DESCRIPTION

The KV /FM receiver is designed to be used with all Vimesa model modulators, and they are in any case compatible with existing modulators equipment.

They convert antenna's signal in the standard IF frequency. Moreover they supply the AF signal via ultra-linear demodulator.

The local oscillator is realized by means a direct synthesis circuit with the possibility of frequency change by setting apposite internal dip-switches or contraves (/C option) without substitution quartz.

They have high frequency stability, due to the Digital Phase Locked Loop. The frequency stability is secured by quartz crystal.

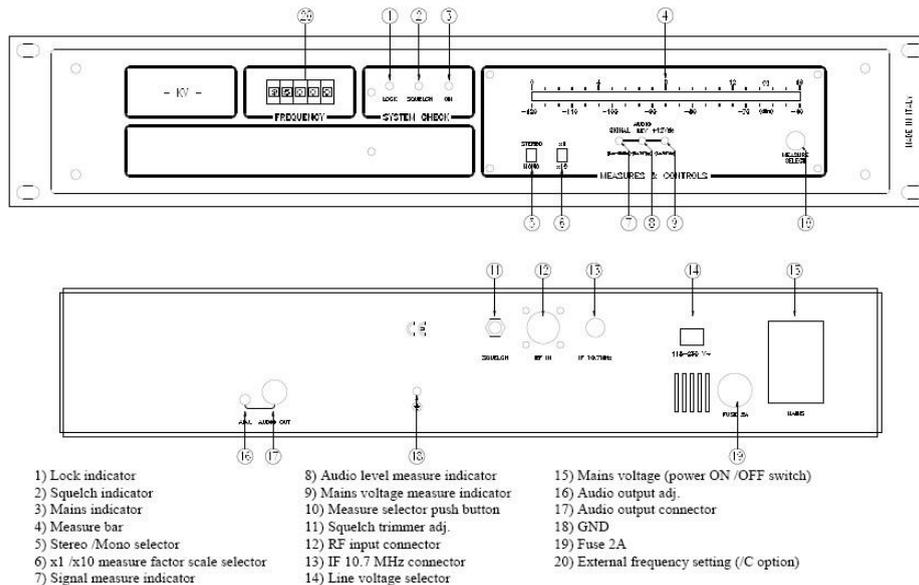
Standard IF 10.7 MHz output, 50 n, allows to realize easily multiple hopes without demodulation and remodulation process, obtaining a better result in signal's quality. An equalizer circuit permits to adjust the signal phase for having the best stereo separation.

An external adjustable squelch, (excludible), allows adjusting silence threshold at most suitable value. It is available on request, a 110/220 Vac output controlled by squelch circuit.

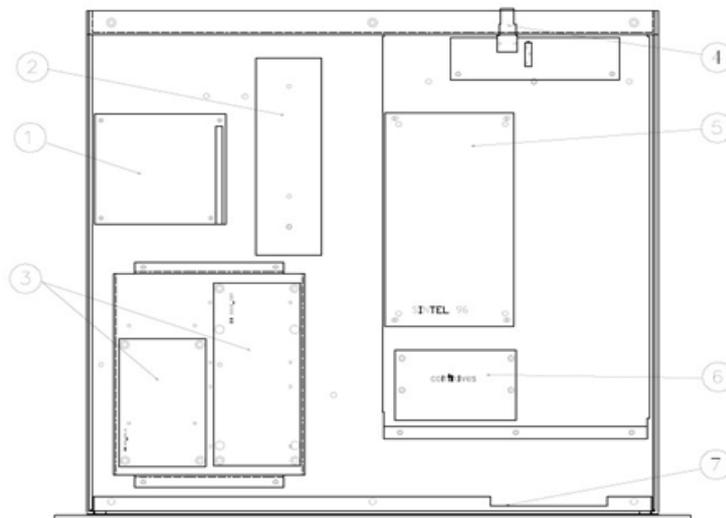
The receiver can be supplied on request, to be powered by 12Vdc: this allows to employ them in temporary places or to power them by solar cells battery.

A front panel meter enable the quick checking of the most important conditions of the equipment.

FRONT AND REAR VIEW



TOP VIEW



- | | |
|---------------------------------|-------------------------------|
| 1) Power supply board | 5) Sintel 96 Modulation board |
| 2) selective amplifier stage | 6) Contraves board (option) |
| 3) Intermediate frequency stage | 7) Frontal board |
| 4) Audio Output BNC connector | |

2. USEFUL INFORMATION

EXTERNAL SETTINGS AND ADJUSTMENTS

ON/OFF (*push button*)[15]: Main power supply switch. A green led on the front panel confirms that the receiver is switched on.

STEREO/MONO (*selector*)[5]: Stereophonic (STEREO) or monophonic (MONO) switch. In the case of mono selection the de-emphasis circuit is inserted.

IF 10.7 MHz (*BNC connector*)[13]: Standard IF 10.7 MHz output, to realise multiple links without demodulation and re-modulation process.

AUDIO OUT AND AUDIO ADJ. [17, 16]: It enables to adjust the AF signal output level.

SQUELCH (*potentiometer*)[11]: It allows adjusting silence threshold at the most suitable value.

x1 /x10 (*selector*)[6]: Modify the measure factor scale (x1 or x10).

MEASURE SELECT (*selector*)[10]: It permits the selection of the type of signal to measure with the bar meter.

3. TECHNICAL SPECIFICATIONS

R.F. DATA

- Input impedance: 50 n
- Input connector : N
- Frequency range: 87.5 + 108 MHz
- Audio frequency output: 0 + +5 dB / 600 n

- IF output: -10 dBm to 10.7 MHz / 50 n
- De-emphasis: 50 / 75 μ s
- Input voltage range: 12 μ V + 20 mV rms.
- Image rejection > 68 dB
- Lowest threshold squelch 8 μ V
- THD (mono) < 0.1 % (0.05 at 1kHz)
- THD (stereo) < 0.1 % (0.06 at 1kHz)
- Frequency linearity (15 Hz + 100 kHz) + 0.4 dB
- Signal to noise ratio (mono): 75 dB typ. with 75kHz dev. 1kHz dev. de-emphasized
- Signal to noise ratio (stereo): 69 dB typ. with 75kHz dev. 1kHz dev. de-emphasized

POWER SUPPLY

- Operating voltage: 110/220 \pm 10% Vac 50/60 Hz
- Power drains: 24 VA
- Battery operation (option): 12 Vcc, 1.3 A

OPERATING CONDITION

- Cooling: natural convection
- Operating temperature: -20 \pm +40 $^{\circ}$ C
- Relative humidity: 95% max

WEIGHT AND OIMENSION

- Weight (Kg): 4.5
- Dimension (mm): (W x H x D) 483 x 90 x 368