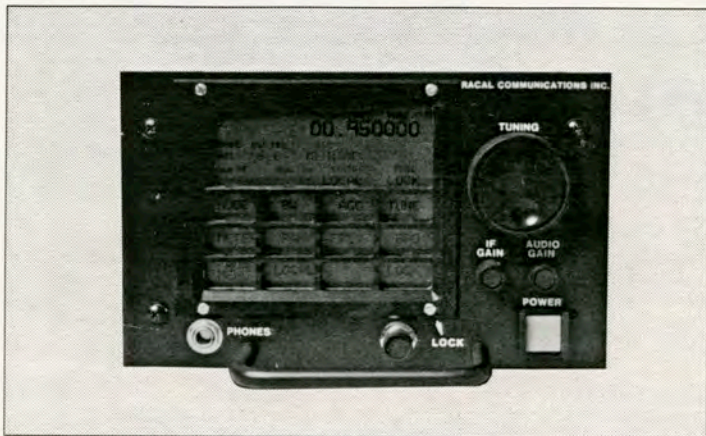


RACAL COMMUNICATIONS, INC.



RA6831 Touch-Screen Controlled Receiver

Standard Features

- 100 kHz to 32 MHz Tuning Range
- 1 Hz Frequency Resolution & Display
- 100 Channel Memory
- Channel Scan & Frequency Sweep
- Audio Confirmation of Function Selection

Options

- Built-in Panoramic Display
- Low Frequency Extensions to 1 kHz
- Custom Control Panels Require No Hardware Modification
- Full Feature Remote Control with Full Status Response

The RA6831 is a channel scanning, half-rack LF/MF/HF Receiver featuring unique touch screen controls. Utilizing state-of-the-art display technology, the RA6831 offers custom designed control panels without hardware modifications and features an optional built-in panoramic display.

The RA6831 provides solid performance, offering high instantaneous dynamic range, exceptional channel-to-channel interference rejection, and tuning speeds compatible with today's high speed, computer control system architecture.

A highly responsive BITE tests the receiver throughout its signal path and provides lowest replaceable unit failure reporting. The RA6831 also utilizes fully modular construction for low MTRR and proven design and construction techniques for high MTBF.

Technical Specifications

Frequency Range

100 kHz to 30 MHz

Frequency Resolution

to 1 Hz

Frequency Stability

± 5 parts in 10^8 per 10° C
0° to 50 °C with Internal Standard

Input Impedance

50 ohms, VSWR 2:1

Intermodulation

3rd Order Intercept:

+30 dBm for a separation of 100 kHz
or more from the tuned frequency.

2nd Order Intercept:

+60 dBm

Inband better than -50 dBc referenced

to two -10 dBm input tones

Image and IF Rejection

90 dB

Modes of Operation

AM, FM, CW, CW with zero BFO, USB, LSB

Noise Figure

13 dB from 500 kHz to 30 MHz

Sensitivity

SSB

10 dB (S + N)/N for -113 dBm input

AM

10 dB (S + N)/N for -99 dBm input
(6 kHz IF BW)

Selectivity

Standard*

-3 dB	Shape Factor
.3 kHz	6.6
1.0 kHz	4.5
3.2 kHz	1.4
6.0 kHz	2.3
20 kHz	4.0

AGC

120 dB Range Above Threshold
for Less than 1 dB change in
output level. 20ms Attack time.
3 selectable delay times of 30ms,
200, ± 100 ms, +3.75, ± 1.25 s.

Manual Gain Control

120 dB of Gain Adjustment

Blocking

On-Tune:

10% Distortion for ± 13 dBm
30% modulated AM input signals

Off-Tune:

No blocking effect on
a 30% modulated On-Tune signal
with a +23 dBm carrier 50 kHz
Off-Tuned.

Cross Modulation

3% Distortion from +10 dBm,
30% Modulated Signal, 50 kHz
Off-Tuned.

Reciprocal Mixing

-100 dBm apparent noise caused
by a 0 dBm signal, 100 kHz Off-Tuned

Internal Spurious Response

-116 dBm

Size and Weight

5-1/4 x 8-1/2 x 22"
13.33 x 21.6 x 56mm
20 lbs, 9.1 kg

Power Consumption

40 Watts

Power Supply

115/230 v Ac $\pm 10\%$
48 Hz to 420 Hz

*Over 30 IF bandwidth filters are available as standard
options. Special requirements filled on request.

All specifications are subject to change without notification

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