

### MONOFREQUENCY VHF RECEIVER

The monofrequency receiver RPY 908 X is designed to meet the aeronautical telecommunication needs, in the VHF range, with an amplitude modulation (A3E). It is fully compatible with the receivers RPY 908 and RPY 908 T, both physically and functionally.

The receiver is piloted by a synthesised oscillator, by steps of 25 kHz, 12.5 kHz and 8.33 kHz. It permits to receive VHF signals on 25 kHz or 8.33 kHz channels.

The commutation of the channel width and the synthesis of the frequency of the local oscillator are automatically performed by simple programming of the coding wheels. A test plug, on the front panel, permits to measure this frequency.



The receiver RPY 908 X differs from its predecessors by a best protection against undesirable signals, a best accessibility to the different adjustment points and by the integration of the X'tal quartz filters which determine the global pass band of the receiver in order to get a good operation at 25 kHz or 8.33 kHz.

## RADIOELECTRICAL CHARACTERISTICS

- **Compliance with ETSI EN 300 676 standard**
- **Frequency range:**  
118 to 144 MHz
- **Frequency stability from -20°C to +55°C:**  
± 1 p.p.m
- **Sensitivity:**  
(S+N/N) ≥ 10 dB, m = 0.3, CCITT weighting: 1.5 µV
- **Rejection of the image frequency:**  
≥ 100 dB
- **Global band-pass:**
  - Channels at 25 kHz:  
6 dB: ≥ ± 8 kHz / 60 dB: ≤ ± 16 kHz
  - Channels at 8.33 kHz:  
6 dB: ≥ ± 3.5 kHz / 60 dB: ≤ ± 7 kHz
- **3rd order intermodulation (2 signals 200kHz and 400kHz spaced out, ref. 0.5 µV):**  
≥ 85 dB ; IP3 ≥ 14.5 dBm
- **Transmodulation:**  
< 10% (jammer signal, level 0dBm, 500kHz spaced out)
- **AGC regulation (input from 2.5 µV to 500 mV):**  
≤ 3 dB
- **Squelch (adjustment on the front panel):**  
1 to 15 µV
- **AF outputs:**
  - 600 ohms line: -20 to +10 dBm
  - On jack plug: 0 to 100 mW ; Z = 15 ohms
  - Pass band at 3 dB: ≥ 300-3000 Hz (25kHz)
  - Pass band at 3 dB: ≥ 300-2500 Hz (8.33kHz)
  - Harmonic distortion: ≤ 5 % (1 kHz, m = 0.8)
  - AF compressor (50 to 90% mod.): ≤ 0.5 dB
- **Test output of the local oscillator:**  
0 dBm ± 3 dB
- **Non-destructive max. power admissible at the antenna input:**  
2 W
- **Power supply (d.c. voltage) :**  
21 to 31 V ; 0.4 A

## ENVIRONMENT

- **Climatic conditions:**
  - Operation guaranteed: between -20°C and +55°C
  - Relative humidity: 95% at +40°C (without condensation)
- **Storage:**  
-40°C to +80°C

## MECHANICAL CHARACTERISTICS

The monofrequency receiver RPY 908 X has the shape of a drawer unit for 19" standard rack, height 3 U, width 1/12 rack.

- **Dimensions (H x L x D):**  
130 mm x 35 mm x 450 mm
- **Weight:**  
1.4 kg

## CONFIGURATIONS - REMOTE CONTROL

- **Output call:**  
On one wire with grounding when call, and possibility to use the middle point of the line transformer (phantom), or two wires in dry loop.
- **AF compressor:**  
Started by a switch
- **Remote controlled functions:**
  - Global test of the receiver
  - System test or 2nd squelch threshold
  - Isolation of the receiver
  - Squelch stop

## OPTIONS

- Extended range version 108-144 MHz: RPY 908 XV