

MONOFREQUENCY UHF RECEIVER

The monofrequency receiver RPY 918 X is designed to meet the aeronautical telecommunication needs, in the UHF range, with an amplitude modulation (A3). It is fully compatible with the receivers RPY 910 and RPY 918T, both physically and functionally.

The receiver is piloted by a synthesised oscillator, by steps of 12.5 kHz.

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



The receiver RPY 918 X differs from its predecessors by a best protection against undesirable signals and by a best accessibility to the different adjustment points.

RPY 918 X

RADIOELECTRICAL CHARACTERISTICS

- **Frequency range:**
225 to 400 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:**
≥ 80 dB
- **Global band-pass:**
6 dB : ≥ ± 8 kHz
60 dB : ≤ ± 16 kHz
- **3rd order intermodulation (2 signals 500kHz and 1MHz spaced out, ref. 0.5 µV):**
≥ 83 dB ; IP3 ≥ 11.5 dBm
- **Transmodulation:**
< 10% (jammer signal, level -5dBm, 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
 - 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
- **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 918 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

Data subject to change