

VHF SYNTHESIZED RECEIVER

The synthesized receiver **RY 908** has been designed to meet the civil aeronautical telecommunication requirements in the VHF range with an amplitude modulation (A3).

It can operate either with a spacing of 25 kHz, or with a channel spacing of 8.33 kHz, by selecting automatically the IF filter according to the frequency programming, and meets the standard ETSI ETS 300 676.

The receiver is synthesized, and the frequency can be selected either **locally** from the front panel, or **remotely** (operation from a remote control unit or RCMS).



An incorporated programmer permits to memorize up to 99 channels ; these channels may be authorized, protected or forbidden.

The synthesized receiver may be associated with a VHF transmitter, type EM 900 S8, to constitute a transmission-reception assembly.

RADIOELECTRICAL CHARACTERISTICS

- **Frequency range :**
118 to 144 MHz
- **Widened range :**
108-144 MHz (ADAP1-RY908)
- **Frequency stability :**
± 1 p.p.m between -20°C and +55°C
- **Channel spacing :**
25 kHz, 12.5 kHz and 8.33 kHz
- **Sensitivity :**
(S+N)/N ≥ 10 dB, m = 0.3 ponderation
CCITT : 1.5 µV
- **Image rejection :**
≥ 80 dB
- **Transmission with offset carrier (channel at 25 kHz) :**
According to the annex 10 of ICAO
Compatible : 2, 3 or 4 carriers
- **Preset channels :**
99
- **Remote control :**
 - Configurable series access :
Current loop 0/20 mA
RS 485
 - 3-wire parallel access (channels 1 to 8)
- **Display of the frequencies :**
According to the annex 10 of ICAO
- **Overall bandpass :**
 - Channels at 25 kHz :
6 dB : ≥ ± 8 kHz
60 dB : ≤ ± 18.5 kHz
 - Channels at 8.33 kHz :
6 dB : ≥ ± 3.5 kHz
60 dB : ≤ ± 8 kHz
- **Switching of the IF filters :**
Automatic according to the frequency programming
- **3rd order intermodulation :**
≥ 80 dB (2 signals 500 kHz spaced, ref. 0.5 µV)
- **Crossmodulation :**
≥ 95 dB (jammer 500 kHz spaced, ref. 1.5 µV)
- **AGC regulation** (between 3 µV et 500 mV emf) :
≤ 3 dB
- **Squelch :**
1 to 15 µV (adjustable on the front panel or by remote control)
- **AF outputs :**
 - 600 ohms symmetrical line :
0 to 10 mW
 - Bandpass at 3 dB :
> 300-3000 Hz (channels at 25 kHz)
> 300-2500 Hz (channels at 8.33 kHz)
 - Harmonic distortion (1 kHz ; m=0.6) :
≤ 5%
 - On headset plug :
0 to 100 mW
 - AF compressor :
desactivable
- **RF outputs :**
 - Level on 50 ohms (excitation of a transmitter) :
2 dBm ; ± 3 dB
 - Noise under the carrier (1% OF) :
> 150 dBc /Hz
- **Power supply** (d.c. voltage) :
21 to 31 V ; 0.6 A
- **Climatic conditions :**
Operation guaranteed between -20°C and +55°C
95% relative humidity at +40°C (without condensation)
- **Storage :**
-40°C to +80°C

MECHANICAL CHARACTERISTICS

The synthesized receiver **RY 908** has the shape of a drawer unit, standard rack 19", height 3U, width 1/6 rack.

- **Dimensions** (H x L x D) :
130 mm x 70 mm x 450 mm
- **Weight :**
2.7 kg around