

UHF SYNTHESIZED RECEIVER

The synthesized receiver **RY 918 F** meets the UHF telecommunication requirements in amplitude modulation (A3E) and in frequency modulation (F3E).

It is a master oscillator designed to provide a reference signal for transmitter in the 225-400 MHz UHF frequency band with a 25 kHz step.

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 UHF transmitter, type EM 918, to constitute a transmission-reception assembly.

RADIOELECTRICAL CHARACTERISTICS

- **Modulation types :**
AM (A3E) and FM (F3E)
- **Frequency range :**
225-400 MHz
- **Frequency stability :**
 ± 1 p.p.m between -20°C and $+55^{\circ}\text{C}$
- **Channel spacing :**
25 kHz and 12.5 kHz
- **FM modulation (with EM 918 F) :**
Max. frequency deviation 4.25 kHz ± 0.5 dB
- **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) :**
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)
- **Overall bandpass :**
 $\geq \pm 11$ kHz at 6 dB
 $\leq \pm 25$ kHz at 60 dB
- **3rd order intermodulation :**
 ≥ 80 dB (2 signals 500 kHz spaced,
reference 0.5 μV)
- **Crossmodulation :**
 ≥ 95 dB (jammer 500 kHz spaced, ref. 1,5 μV)
- **AGC regulation (between 5 μV and 500 mV emf) :**
 ≤ 3 dB
- **Squelch :**
(Adjustable on the front panel or by remote control)
1 to 15 μV
- **AF outputs :**
 - 600 ohms symmetric line :
-17 dBm to +10 dBm for 80% of modulation
 - Bandpass at 3 dB :
> 300-3000 Hz
 - Harmonic distortion (1 kHz ; m=0,6) :
 $\leq 5\%$
 - On headset plug :
0-100 mW
 - AF compressor :
desactivable
- **RF outputs :**
 - Level on 50 ohms (excitation of a transmitter) :
2 dBm ; ± 3 dB
 - Noise under the carrier (1% of OF) :
> 150 dBc/Hz
- **Power supply (d.c. voltage) :**
21 to 31 V ; 0.6 A
- **Climatic conditions :**
Operation guaranteed between -20°C and $+55^{\circ}\text{C}$
Relative humidity 95% at $+40^{\circ}\text{C}$ (without condens.)
- **Storage :**
 -40°C to $+80^{\circ}\text{C}$



MECHANICAL CHARACTERISTICS

The synthesized receiver **RY 918 F** 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

Data subject to change