

# Defense, Telecom and Aeronautics



### **RHF VME WB**

## Wide band HF VME reception unit



# Application fields

- HF spectrum analysis and monitoring
- Wide band monitoring
- Network monitoring and searching
- Reception terminal for narrow multiband demodulators

RHF VME WB is a HF wide band reception unit in the 100 KHz to 30 MHz range designed for listening and analysis of 2 MHz band width.

Designed with a VME structure, it offers a wide range of output interfaces of digital signal, complex with sampling rate of 2.4 mega pairs (I,Q).

### www.amesys.fr



#### **Physical Features**

Power supply : +5V, 23 Watts

Size : VME: 6U-8F (2 slots)

: < 2 Kg

! Height : 233.7 mm ! Width : 40.5 mm ! Depth : 160 mm

WeightOperating

temperature : to +50°C

Storage

temperature : -40°C to +55°C

### **Output Features**

Output sampling speed :

BP\*1.2 pair (x, y) /s 1.2 Mxy/s (1 MHz band) 2.4 Mxy/s (2 MHz band)

Option :

Output port C40 : plug max de 1024 (X,Y) connector front face

Output port PO2 : parallel type without

plug

VME output: 4096 pair Fifo (X,Y)

#### Remote control

Serial link: RS232, RS422 or RS485 configurable

Bus VME : Slave type A24-D16

#### General features

RF input frequency range:

From BP/2 to 30 MHz 0.5-30 MHz (band 1 MHz) 1-30 MHz (band 2 MHz)

Central frequency tuning step :1 Hz

Internal frequency reference : 10 MHz

! Accuracy  $< \pm 0.2*10^{-7}$ ! Stability  $< \pm 2*10^{-9}$  per day

External frequency reference :1, 2, 5 or 10 MHz

- 10 dBm to +10 dBm

Analysis band at -3dB (PB) :

PB: 1 MHz 0.02 to 2 MHz (optional)

LO Locking time:

3 ms type to 25°C (jump 30 MHz) 250 µs type to 25°C (jump 1 MHz)

Configuration time: < 10 ms</p>

LO phase noise: < -130 dBc/Hz to ± 25 KHz</li>
< -145 dBc/Hz to ± 100 KHz</li>
< -150 dBc/Hz beyond ± 1 MHz</li>

Input protection : 20 Watts HF (+43 dBm), 63 V fem

Input re injected LO Level : < -110 dBm</p>

Internal parasitic signal :< -120 dBm eq. Input RF</p>

Sensitivity (without attenuation): < -115 dBm in 1kHz, S/B 10dB

Instantaneous dynamics: > 75 dB

Total dynamics: 140 dB (-130 dBm to +10 dBm)

Out-of-band rejection :> 75 dB

■ Image frequency rejection : > 90 dB

Intermediate frequency rejection : > 90 dB

Band inter-modulation :

IMD3 difference > 75 dB for RF level < -6 dBm without Att. for RF level <+10 dBm with Att.

Out-of-band IP3 : > +30 dBm without Att > +47 dBm with Att

AGC: range of 62 dB; 2 dB tuning step

Attack time : < 1 ms for 62 dB</p>

Decay time : 0.62s to 31s for 62 dB

Material subjected to R226 authorization

