

TELERAD

Aeronautical and Maritime Radiocommunication Systems

RECEPTION
COUPLING UNIT

CPR9000-2G



OVERVIEW

The reception coupling unit CPR9000-2G has been designed to operate simultaneously with 2 receivers. This coupled mode is an innovative solution replacing the classical Mains/Standby switching that improves the overall sensitivity. The CPR ensures the squelch and the AF signals monitoring for both receivers.

The operating mode is selected with the "COUPLING CONTROL" push-button on the front panel:

- "Coupled mode": received AF signals are added and transmitted to the VCS; the level remains constant with one or two receivers operating,
- "Best SNR mode": the CPR9000-2G analyzes the signal/noise ratios of the two receivers and transmits the best reception within 5 ms.

Each of the 2 modes is associated to a light indicator which is lit when the mode is enabled.

The CPR9000-2G processes the AF reception channels through a DSP algorithm (Digital Signal Processor). No signal is transmitted with no call.

The management of the CPR9000-2G unit and the two associated receivers can be achieved either using the RS485 JBUS protocol or SNMP (ED137-4) protocol with an Ethernet port.

The AF output mode can be selected either using a push-button on the front panel of the CPR9000-2G, or through a remote control:

- "ANALOG": an analog AF is supplied on the operating connector,
 - "VOIP": the AF is transmitted according to ED137-1 protocol, in VOIP on Ethernet conductor.
- Each of the 2 modes is associated with a light indicator which is lit when the corresponding mode is enabled.

The CPR9000-2G dimensions are 19" wide and 1 unit high.

In case of an internal failure or absence of Mains, an automatic "BY-PASS" system allows to keep it operating. In this case, the sum of the AF received signals and the CALL signals are sent to the operator.

This equipment has two telemonitoring connectors:

- one is used to transmit data from the telemonitoring system to the CPR9000-2G,
- the other is used to control attached receivers by the CPR9000-2G.

Telecontrol and telemonitoring operations can be ensured by SNMP protocol on Ethernet port.

■ GENERAL CHARACTERISTICS

Consumption:

< 1 A / 24 V

Inputs and outputs:

600 Ω (balanced transformer)

Input level:

0 dBm/600 Ω

Bandwidth at 3 dB:

> 300-3400 Hz

Harmonic distortion:

< 2 %

Gain :

0 dB; ± 1 dB

Propagation delay:

< 5 ms

Signal/Noise ratio:

> 55 dB

Protocol:

JBUS function codes 3, 6 and 16

Interfaces :

RS485 4 wires

Speed:

1200/4800/9600/19600 bauds configurable

Parity:

Without

Format data:

8 bits

SNMP:

ED137-4 on Ethernet port

VOIP:

ED137-1 on Ethernet port

■ MECHANICAL CHARACTERISTICS

Height:

44 mm

Width:

482 mm

Depth:

500 mm

Weight:

2.7 kg

■ ENVIRONMENTAL CHARACTERISTICS

Operating temperature:

■ -20 °C to +55 °C

■ 95 % relative humidity at +40 °C (non-condensing)

Storage temperature:

-30 °C to +80 °C

■ 2 WAYS RF DIVIDER COVU29022 OPTION MODULE

Inputs and outputs:

■ 50 Ω VSRW < 2

■ on BNC connectors type

Insertion loss:

< 4 dB

Frequency range:

100-400 MHz

Insulation between outputs:

≥ 20 dB