


# RF Preamplifier

## Description

This RF preamplifier is a 1U rack mount unit which takes a  $< -10$  dBm input and provides a direct output as well as two amplified outputs. The direct output has a loss of 1 dB, whereas the other outputs are amplified by 13 dB. No power monitors are available; only the power supply monitor is implemented through 25-pin D-sub on the read panel. The unit requires  $\pm 24$ V and  $\pm 16.5$ V.

## Specifications

DCC:  E1200838-v1

Frequency range:

- 5 MHz to 500 MHz

Input:

- smaller than -10 dBm
- N female

Output (direct):

- 1 dB loss nominal
- 1x N female

Output (amplified):

- 13 gain nominal
- 2x N female

Phase figure(all outputs):

- 4 dB (direct)
- 15 dB (amplified)

Harmonics:

- $< -30$  dBc

Phase noise (outputs 1 and 2):

Frequency	Phase noise spec
10 Hz	-100 dBc/Hz

100 Hz	-135 dBc/Hz
1 kHz	-135 dBc/Hz
10 kHz	-135 dBc/Hz

Amplitude noise (outputs 1 and 2):

Frequency	AM noise spec
10 Hz	-140 dBc/Hz
100 Hz	-140 dBc/Hz
1 kHz	-140 dBc/Hz
10 kHz	-140 dBc/Hz