

VHF Stereo Receiver NU002-DDC

Ideal for relay reception

VHF Stereo Receiver DDC is a high-end demodulator/stereodecoder (87.5 to 108 MHz, FM) to CCIR recommendations. It is part of the versatile NU002 plug-in system from Rohde&Schwarz and is ideal for relay reception.

The *demodulator* has an excellent static and dynamic selectivity which is extremely important in the face of increasing signal density in the VHF band.

Special emphasis was placed in the design for obtaining an optimum S/N ratio. The demodulated MPX signal is equalized in phase and amplitude to compensate for the effects of filtering.

The subsequent *stereodecoder* has a high channel separation. The two signal components (L/R) pass through their own active 15-kHz lowpass filter and deemphasis network. Following

the AF output amplifier, transformers output balanced and floating AF signals of optimum quality. The MPX signal is available at a separate output.

Operation is interrupted if the RF input level falls below an adjustable value (squelch). In this case, an error message is displayed on the front panel and is available at a signalling relay.

Specifications

RF input

Frequency range
Tuning

87.5 to 108 MHz
crystal ($f_{XTL} = f_{in} + 10.7$ MHz), with
built-in trimmer capacitor
SMA female

Connector

Sensitivity (for 54 dB
weighted S/N ratio)
Input impedance
Return loss

300 μ V
50 Ω
>14 dB (typ. 20 dB)

Dynamic selectivity (ratio of signal
and interfering voltage for a
weighted S/N ratio of 54 dB,
with deemphasis, $V_{sig} = 1$ mV,
interfering signal with 75-kHz
deviation, $f_{mod} = 500$ Hz)

$\Delta f = \pm 100$ kHz $\geq +60$ dB (typ. 57 dB)
 $\Delta f = \pm 200$ kHz $\geq +10$ dB (typ. 6 dB)
 $\Delta f = \pm 300$ kHz ≤ -15 dB (typ. -21 dB)
 $\Delta f = \pm 600$ kHz ≤ -40 dB (typ. -45 dB)
 $\Delta f = \pm 1200$ kHz ≥ -45 dB (typ. -50 dB)

AF outputs

Output level

+6 to +9 dBm for 40-kHz deviation,
set internally
 $\leq 30 \Omega$ (typ. 15 Ω)
Lemo Triax

Impedance

Connectors

Frequency response

40 Hz to 15 kHz

Deemphasis

Filter at signal output

$\leq \pm 0.8$ dB
50 μ s (on/off by internal link)
1.5-kHz lowpass filter

Quality parameters

S/N ratio (deemphasis 50 μ s)

Weighted for

$V_{in} = 80 \mu$ V ≥ 43 dB
 $V_{in} = 1.8$ mV ≥ 70 dB

Unweighted for

$V_{in} = 80 \mu$ V ≥ 52 dB
 $V_{in} = 1.8$ mV ≥ 74 dB

Distortion

40 Hz to 15 kHz, 46.7-kHz dev. ≥ 50 dB

Difference-frequency distortion

($f_1 = 13$ kHz, $f_2 = 14$ kHz,
deviation = 46.7 kHz)

$d_2 \geq 60$ dB
 $d_3 \geq 55$ dB

Crosstalk attenuation R \leftrightarrow L ≥ 40 dB

Indicators

LED yellow

LED green

for RF input level (squelch)
for pilot tone detect (stereo)

General data

Rated temperature range

0 to +40 $^{\circ}$ C

Operating temperature range

-5 to +45 $^{\circ}$ C

Storage temperature range

-40 to +70 $^{\circ}$ C

Power supply

230 V -10%/+15%, 47 to 63 Hz
(15 VA / 11 W)

Dimensions (W x H x D); weight

with power supply

38 mm x 208 mm x 502 mm; 2.4 kg

without power supply

38 mm x 208 mm x 377 mm; 1.8 kg



Ordering information

VHF Stereo Receiver

with power supply

without power supply

Power Supply (separate)

(2 x 400 mA)

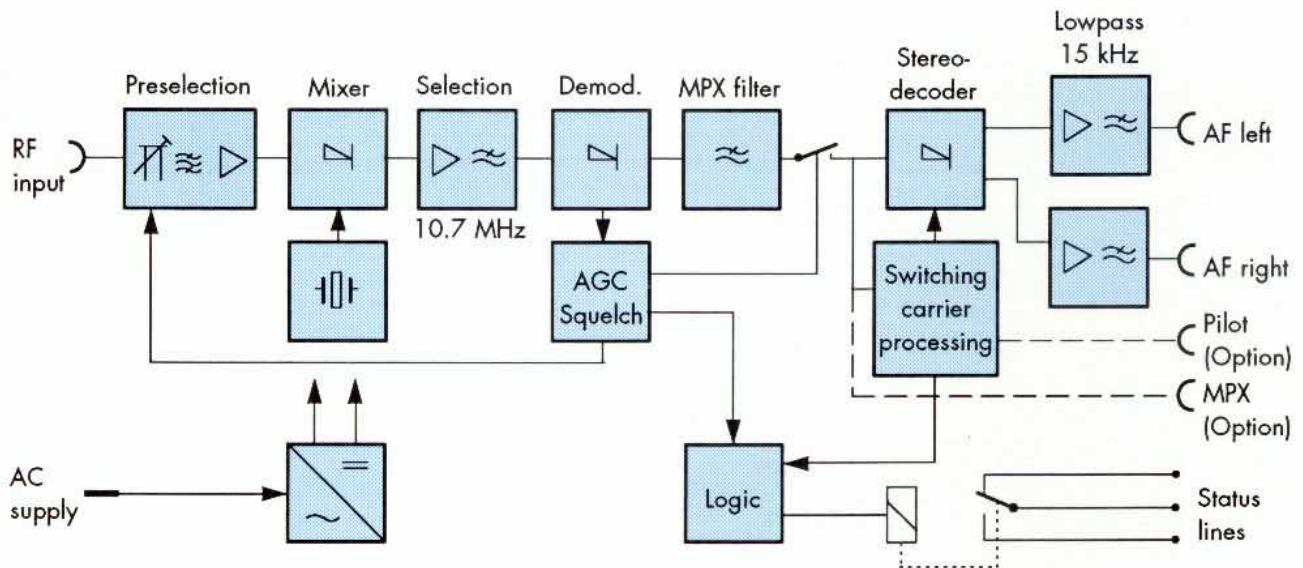
NU002-DDC

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NU002-B

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