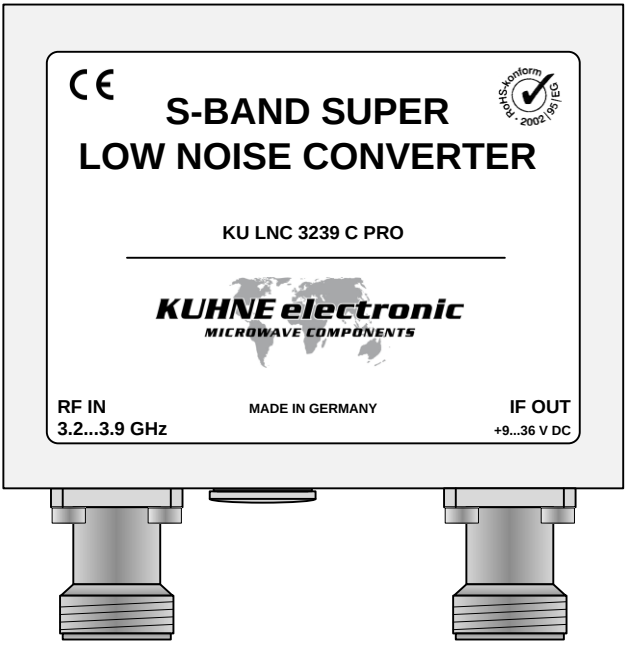
KU LNC 3239 C PRO



Manual

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Specification

Frequency range (RF) RF input power	3200 ... 3900 MHz max. 1 mW (0 dBm)
Output frequency (IF) Output IP3 Gain (switchable) Noise figure @ 18 °C	200 ... 900 MHz (local oscillator 3000 MHz) 200 ... 900 MHz (local oscillator 4100 MHz) typ. +23 dBm (high gain), typ. +12 dBm (low gain) typ. 31 dB (high gain), typ. 20 dB (low gain) (LO frequency 3000 MHz) typ. 1.1 dB, max. 1.5 dB (LO frequency 3000 MHz, IF amplifier enabled)
LO frequency (switchable) LO accuracy @ 18 °C LO frequency stability (0 ... 40 °C) Phase noise @ 3000 MHz @ 1 kHz @ 10 kHz @ 100 kHz	2900 MHz, 3000 MHz, 3100 MHz, 4100 MHz (switchable) +/- 2 ppm +/- 3 ppm typ. -91 dBc/Hz typ. -96 dBc/Hz typ. -105 dBc/Hz
Operating case temperature range	-20 ... +55 °C
Supply voltage Current consumption Power consumption	+9 ... 36 V DC typ. 280 mA @ 12V (IF amplifier enabled) typ. 3.3 W
Input connector / impedance Output connector / impedance	N-female, 50 ohms N-female, 50 ohms
Dimensions (mm) Case Weight	82 x 64 x 22 milled aluminium, water resistant typ. 230 g

Features

- Low noise figure
- Large bandwidth
- Low phase noise oscillator
- High frequency stability of the oscillator
- High linearity
- Antenna port protected against static discharge
- Small and light-weight to allow easy pole mounting
- Tri-colour LED indicates unit status and gain mode setting
- Overvoltage protection and reverse polarity protection
- Remote power supply via output connector

Applications

- Multichannel Multipoint Distribution Services (MMDS)
- Digital broadcast systems (DVB-T, DVB-S)
- Analog and digital transmission systems

CE Conformity:

- EMC directive 2014/30/EU
- Low voltage directive 2014/35/EU
- RoHS directive 2011/65/EU

CE

Sig _____

Products are only to be sold to competent companies or to radio amateurs with a licence.
For operating high frequency modules legal instructions must be followed.

QS _____

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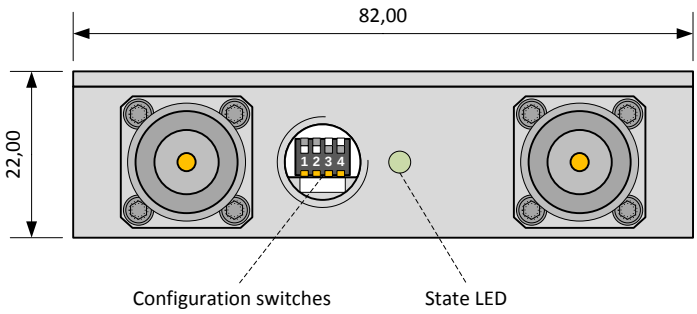
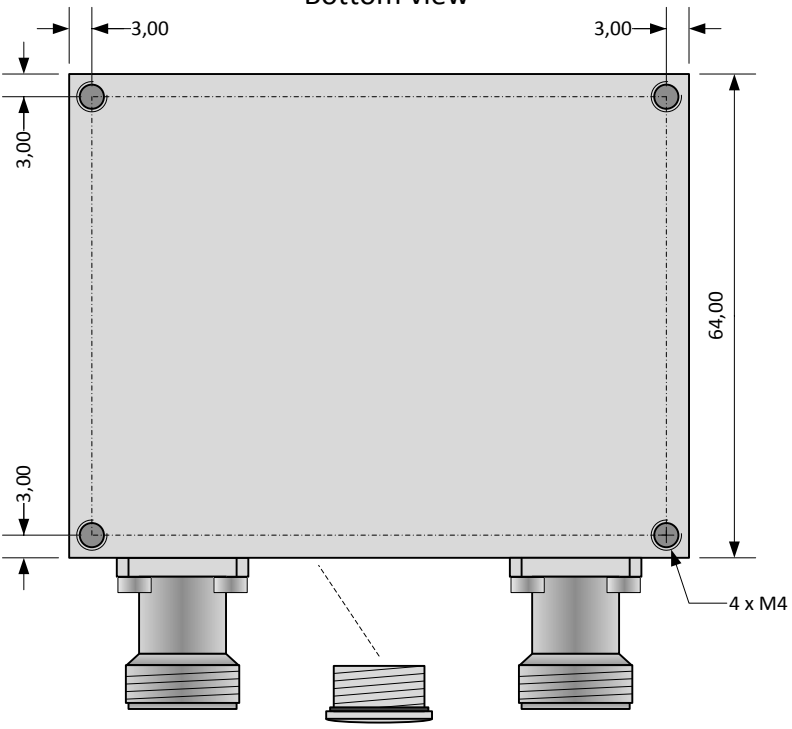
Dimensions / Mounting holes

Front view



Bottom view



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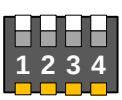
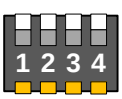
Configuration Switches / State LED



Switch 1 + 2 - (Local oscillator frequency)

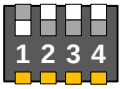
Switch 3 - (Gain)

Switch 4 - (User local oscillator frequency)



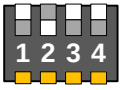
Switch 1 – OFF / Switch 2 – OFF

LO 4100 MHz
IF 200 … 900 MHz



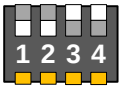
Switch 1 – ON / Switch 2 – OFF

LO 3100 MHz
IF 100 … 800 MHz



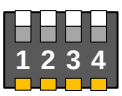
Switch 1 – OFF / Switch 2 – ON

LO 2900 MHz
IF 300 … 1000 MHz



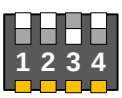
Switch 1 – ON / Switch 2 – ON

LO 3000 MHz
IF 200 … 900 MHz



Switch 3 – OFF → **State LED** Green

Low Gain



Switch 3 – ON → **State LED** Blue

High Gain

Device Error → **State LED** Red

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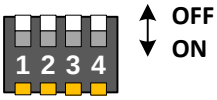
Configuration Switches / State LED

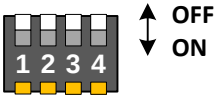


Switch 1 + 2 - (Local oscillator frequency)

Switch 3 - (Gain)

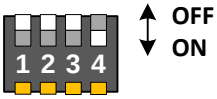
Switch 4 - (User local oscillator frequency)

User defined local oscillator frequency



Switch 4 – OFF

Local oscillator configuration with Switch 1 + 2



Switch 4 – ON

Local oscillator configuration with Switch 1 + 2 disabled
User defined local oscillator frequency is enabled

In the case that **Switch 4** is in position **ON** the user defined local oscillator frequency is activated.
This user defined local oscillator frequency can be selected in the range from 2900 … 3100 MHz of 4000 … 4200 MHz.
The frequency step size of the oscillator frequency is 5 MHz.
The user defined oscillator frequency can be programmed with a special programming cable.

For example the oscillator frequency can be choosen to 3055 MHz .

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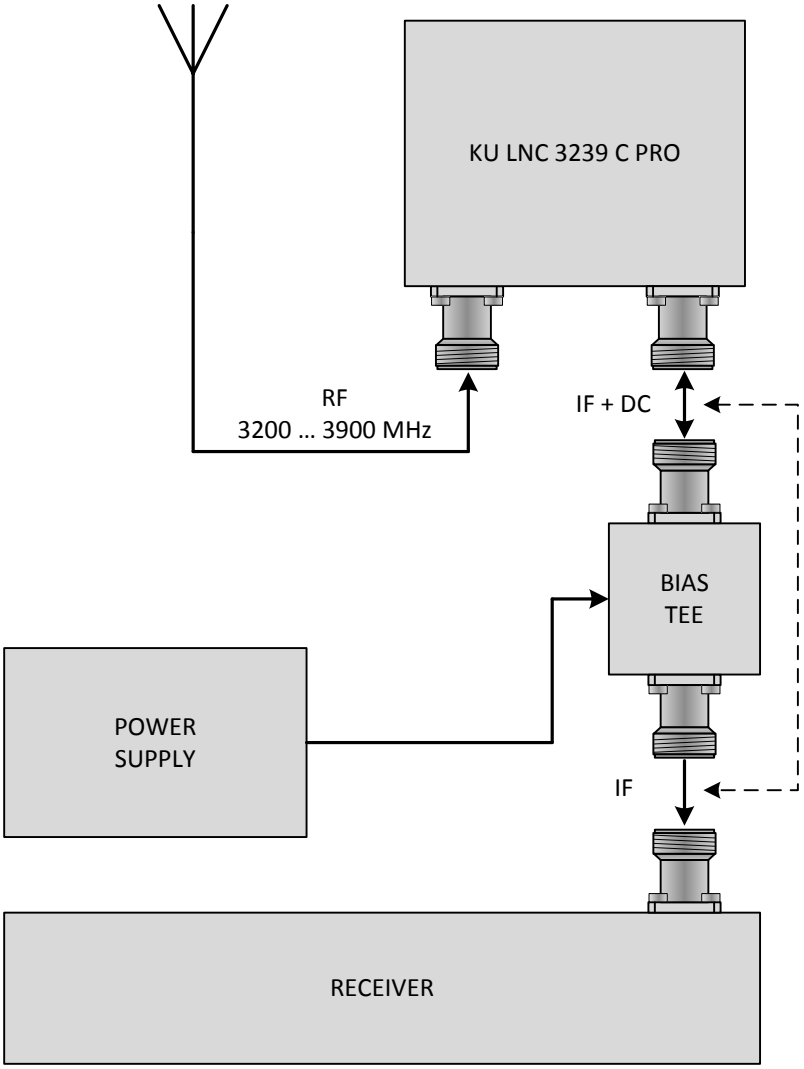
Application diagram



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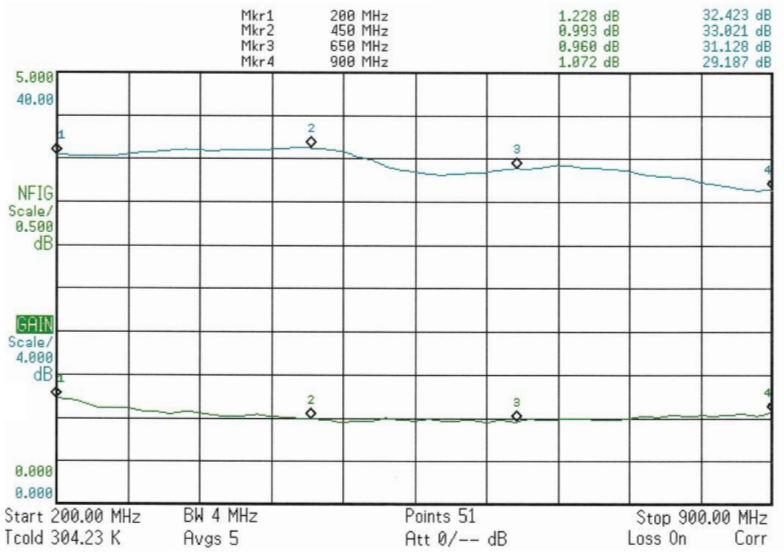
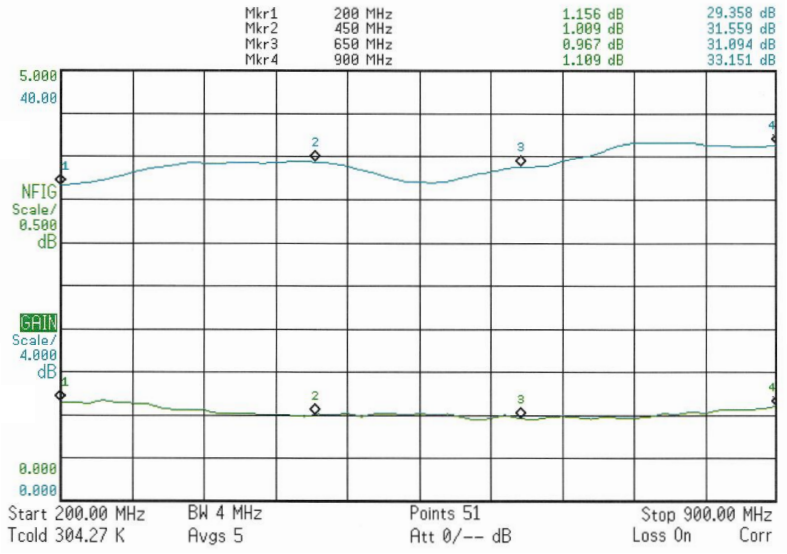
Typical performance

Typical gain and noise figure (3000 MHz LO frequency, IF amplifier on)



Typical gain and noise figure (4100 MHz LO frequency, IF amplifier on)



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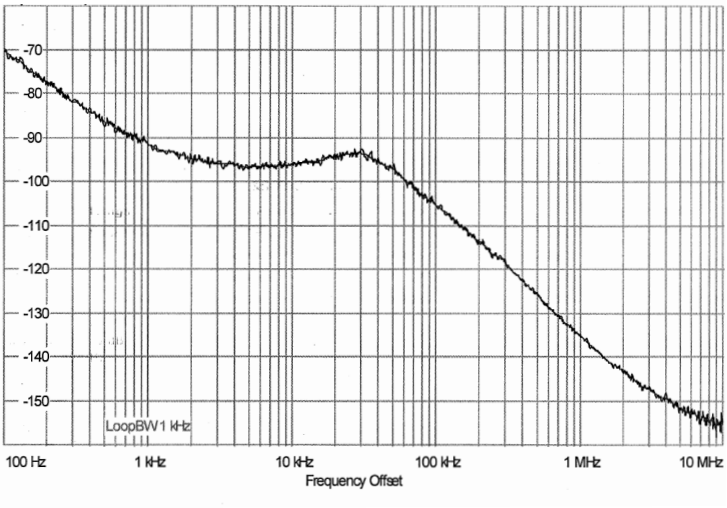
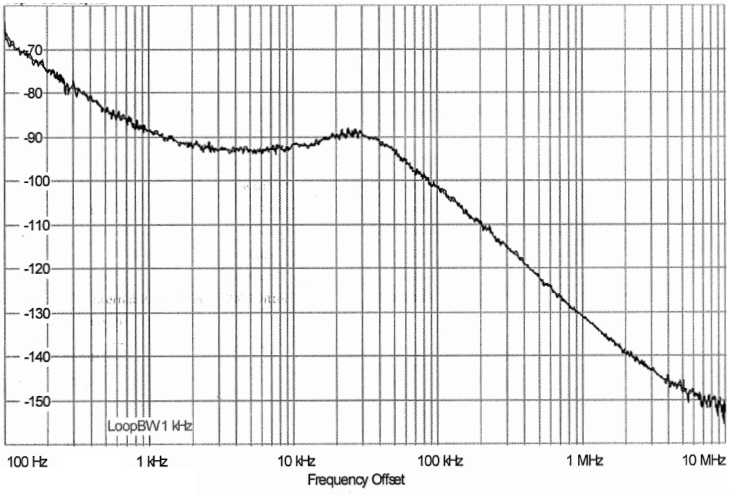
Typical performance

Typical phase noise at 3000 MHz local oscillator frequency



Typical phase noise at 4100 MHz local oscillator frequency



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