KU LNC 1215 C PRO



Manual

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Specification

Frequency range (RF) RF input power	1200 ... 1500 MHz max. 1 mW (0 dBm)
Output frequency (IF) Output IP3 Gain (switchable) Noise figure @ 18 °C	500 ... 200 MHz (local oscillator 1700 MHz) 200 ... 500 MHz (local oscillator 1000 MHz) typ. +30 dBm (high gain), typ. +19 dBm (low gain) typ. 35 dB (high gain), typ. 24 dB (low gain) (LO frequency 1700 MHz) typ. 0.5 dB, max. 1.0 dB (LO frequency 1700 MHz, IF amplifier enabled)
LO frequency (switchable) LO accuracy @ 18 °C LO frequency stability (0 ... 40 °C) Phase noise @ 1700 MHz @ 1 kHz @ 10 kHz @ 100 kHz	1700 MHz, 1600 MHz, 1800 MHz, 1000 MHz (switchable) +/- 2 ppm +/- 3 ppm typ. -95 dBc/Hz typ. -100 dBc/Hz typ. -107 dBc/Hz
Operating case temperature range	-20 ... +55 °C
Supply voltage Current consumption Power consumption	+9 ... 36 V DC typ. 240 mA @ 12V (IF amplifier enabled) typ. 2.7 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

CE Conformity:

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

CE

Applications

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

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.

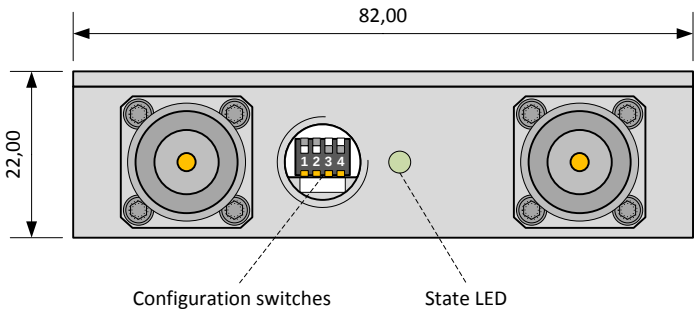
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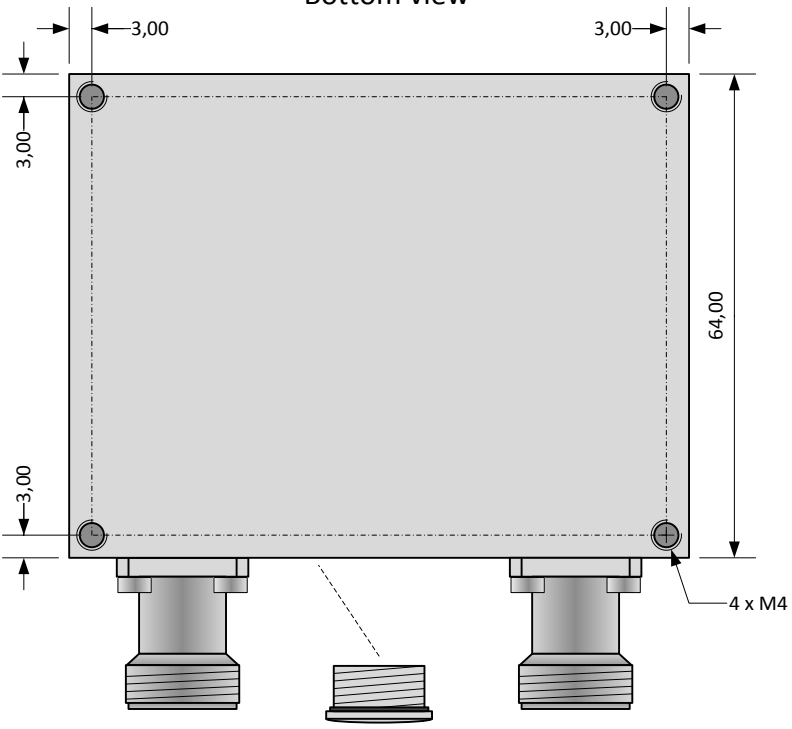
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Dimensions / Mounting holes

Front view



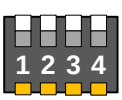
Bottom view



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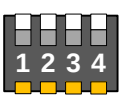
Configuration Switches / State LED



Switch 1 + 2 - (Local oscillator frequency)

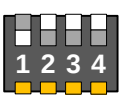
Switch 3 - (Gain)

Switch 4 - (User local oscillator frequency)



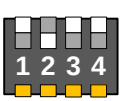
Switch 1 – OFF / Switch 2 – OFF

LO 1800 MHz
IF 600 … 300 MHz



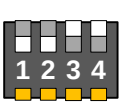
Switch 1 – ON / Switch 2 – OFF

LO 1600 MHz
IF 100 … 400 MHz



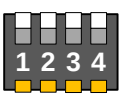
Switch 1 – OFF / Switch 2 – ON

LO 1700 MHz
IF 500 … 200 MHz



Switch 1 – ON / Switch 2 – ON

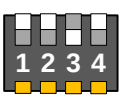
LO 1000 MHz
IF 200 … 500 MHz



Switch 3 – OFF → **State LED**

Low Gain → Green





Switch 3 – ON → **State LED**

High Gain → Blue



Device Error → **State LED**

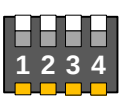
Red



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Configuration Switches / State LED

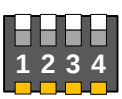


Switch 1 + 2 - (Local oscillator frequency)

Switch 3 - (Gain)

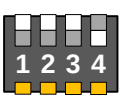
Switch 4 - (User local oscillator frequency)

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

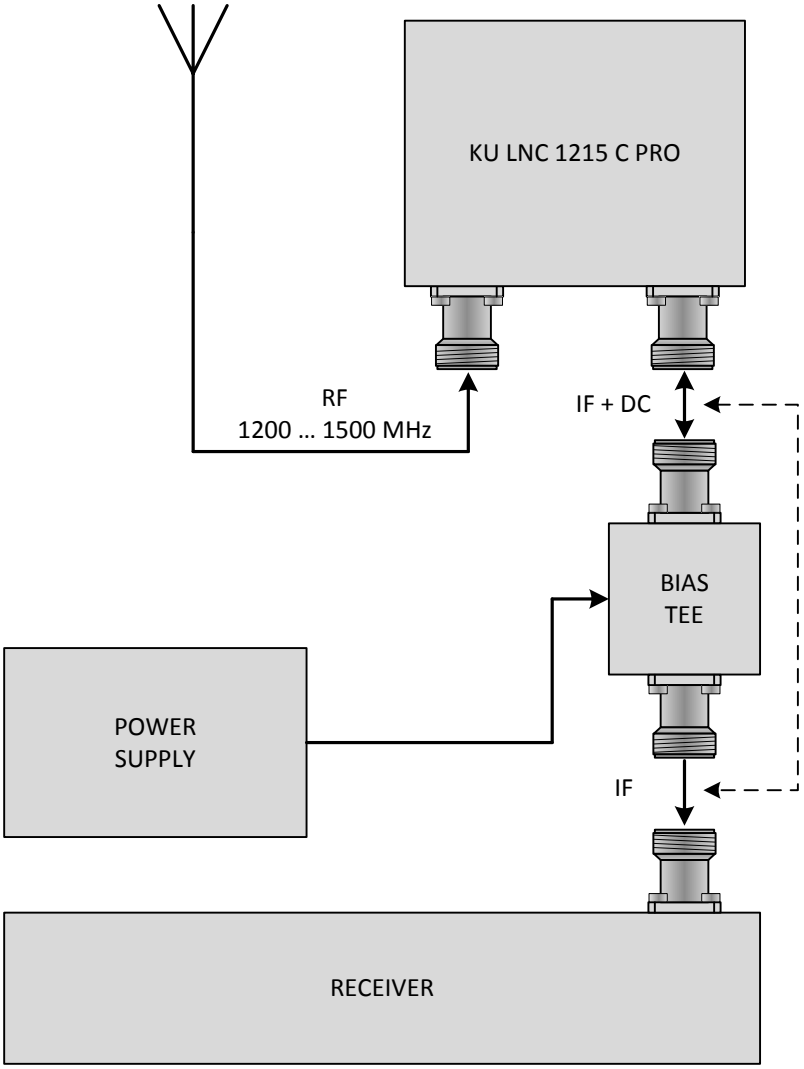
In the case that **Switch 4** is in position **ON** the user defined local oscillator frequency is activated.
This user defined local oscillator frequency can be selected in the range from 1600 … 1800 MHz of 900 … 1100 MHz.
The frequency step size of the oscillator frequency is 5 MHz.
The user defined oscillator frequency can be programmed with a special programming cable.

For example the oscillator frequency can be choosen to 1745 MHz .

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Application diagram

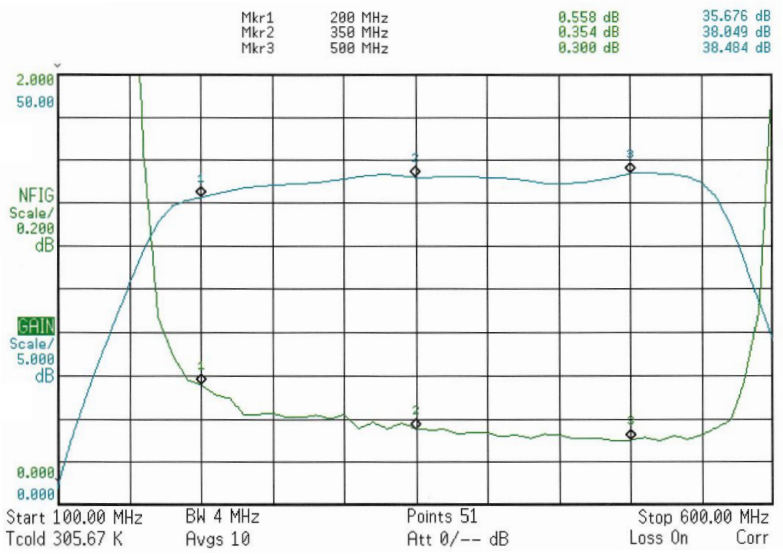


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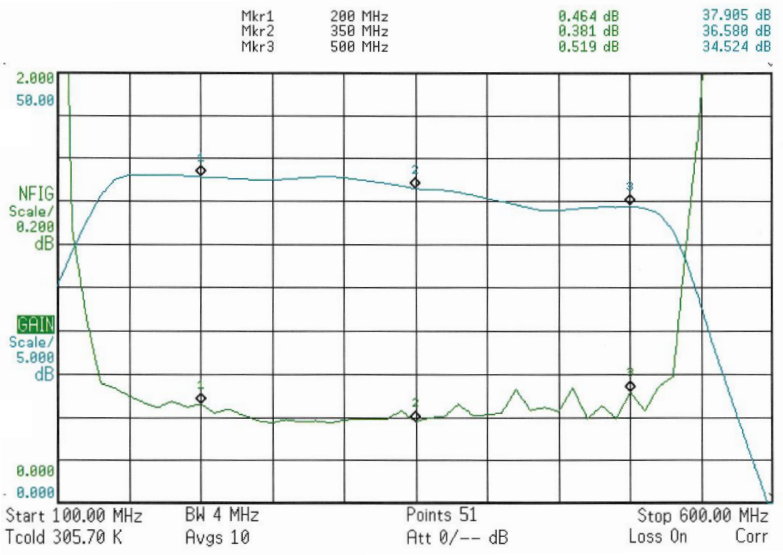
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Typical performance

Typical gain and noise figure (1700 MHz LO frequency, IF amplifier on)



Typical gain and noise figure (1000 MHz LO frequency, IF amplifier on)

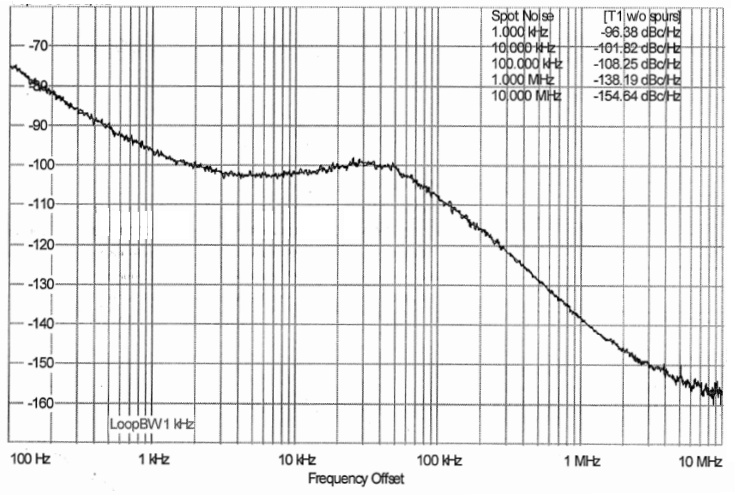


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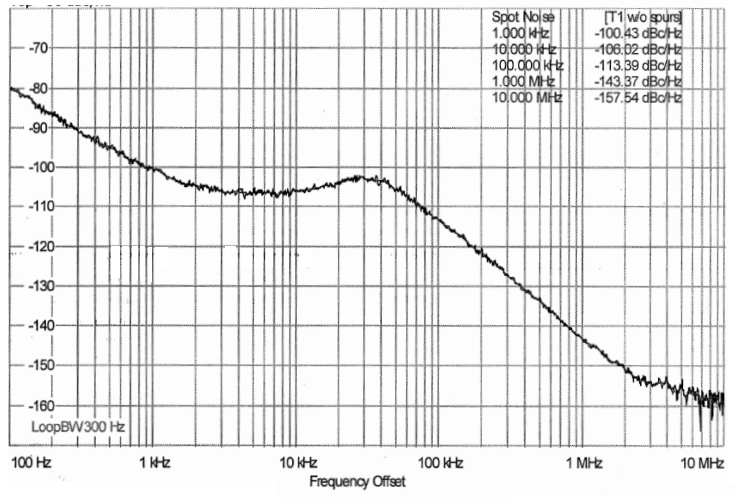
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Typical performance

Typical phase noise at 1700 MHz local oscillator frequency



Typical phase noise at 1000 MHz local oscillator frequency



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