

KU LNA BB 0112 A, Low Noise Broadband Amp.

100 ... 12000 MHz

Test equipment EMC analog & digital transmission systems



Features

- Large bandwidth
- Solder pin for direct power supply
- Reverse polarity protection
- Small mechanical dimensions

Applications

- Analog and digital transmission systems
- Measurement and laboratory equipment

Important note

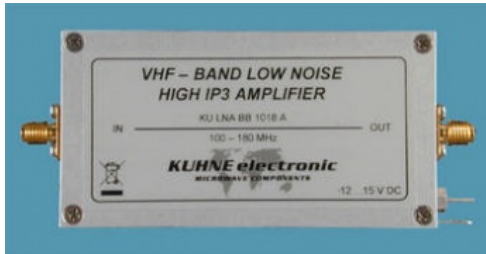
- Maximum input power 1 mW

Technical specifications:

Frequency range	100..12000 MHz
Noise figure @ 18 °C	typ. 6 dB
Gain	typ. 20 dB
Maximum input power	1 mW
Supply voltage	+12 ... 15 V DC
Current consumption	typ. 100 mA
Operating case temp. range	-20 ... +65°C
Input connector / impedance	SMA-female, 50 ohms
Output connector / impedance	SMA-female, 50 ohms
Case	milled aluminium
Dimensions (mm)	50 x 30 x 17
Weight	40 g (typ.)

KU LNA BB 1018 A, Low Noise Broadband Amplifier 100 ... 180 MHz

analog & digital transmission systems high IP3



Description

This high linear preamplifier was developed for applications in VHF communication band. It is suitable especially for applications where a high intermodulation distortion ratio and at the same time a high input sensitivity are used. The coupling happened through 3dB hybrids, which guarantee an excellent input SWR and linearity of the preamplifier. The voltage supply via coax cable (remote power supply) or direct at the case is possible.

Features

- Low noise figure
- Large bandwidth
- High IP3 and high output power
- Very good input return loss (S11)
- Static protection (ESD) at preamplifier input
- Overvoltage protection and reverse polarity protection
- Remote power supply via output connector
- Solder pin for direct power supply
- Milled aluminium case

Applications

- Analog and digital transmission systems
- Suitable for large signal environments
- Amplifier for low power applications
- Driver amplifier

Important notes

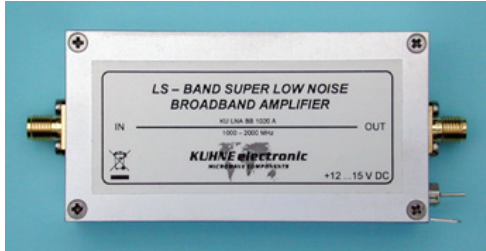
- Maximum input power +20 dBm (100 mW)

Technical specifications:

Frequency range	100..180 MHz
Noise figure @ 18 °C	typ. 1.0 dB, max. 1.3 dB NF
Gain	min. 20 dB
Gain flatness	max. +/- 2 dB
Maximum input power	100 mW
Output power (P1dB)	typ. 630 mW (+28 dBm)
Output power (Psat)	min. 1000 mW (+30 dBm)
Output IP3	typ. 44 dBm
Input return loss (S11)	min. 10 dB
Output return loss (S22)	typ. 15 dB
Supply voltage	+12 ... 15 V DC
Current consumption	typ. 400 mA
Operating case temp. range	-20 ... +55 °C
Input connector / impedance	SMA-female, 50 ohms
Output connector / impedance	SMA-female, 50 ohms

Case	milled aluminium
Dimensions (mm)	78 x 41 x 22
Weight	100 g (typ.)

KU LNA BB 1020 A, Low Noise Broadband Amplifier 1000 ... 2000 MHz



Description

This high linear preamplifier was developed in 1...2 GHz directional radio link. It is suitable especially for applications where a high intermodulation distortion ratio and at the same time a high input sensitivity are used. As example for RADAR preamplifiers or for digital directional radio distance with DVBT-DVBS-COFDM and QPSK modulation. The coupling happens through 3dB hybrids, which guarantee an excellent input SWR and linearity of the preamplifier. A high stimulus capability and simultaneously a low noise figure makes the preamplifier for many applications usable. The voltage supply via coax cable (remote power supply) or direct at the case is possible.

Features

- Low noise figure
- High IP3
- Good input return loss (S11)
- Static protection (ESD) at preamplifier input
- Overvoltage protection and reverse polarity protection
- Remote power supply via output connector
- Solder pin for direct power supply

Application

- Analog and digital transmission systems
- Measurement and laboratory equipment

Important notes

- Amplifier does not contain a coaxial relay!
- Maximum input power 10 mW

Technical specifications:

Frequency range	1000..2000 MHz
Noise figure @ 18 °C	typ. 0.8 dB, max. 1.0 dB NF
Gain	min. 28 dB
Maximum input power	10 mW
Output power (P1dB)	typ. 200 mW (+23 dBm)
Output IP3	typ. +37 dBm
Input return loss (S11)	min. 10 dB
Output return loss (S22)	typ. 10 dB
Supply voltage	+12 ... 15 V DC
Current consumption	typ. 350 mA
Operating case temp. range	-20 ... +65°C
Input connector / impedance	SMA-female, 50 ohms
Output connector / impedance	SMA-female, 50 ohms
Case	milled aluminium
Dimensions (mm)	78 x 41 x 22
Weight	100 g (typ.)

KU LNA BB 1522 A, Low Noise Broadband Amplifier
1500 ... 2200 MHz



Features

- Low noise figure
- High IP3
- Good input return loss (S11)
- Static protection (ESD) at preamplifier input
- Overvoltage protection and reverse polarity protection
- Remote power supply via output connector
- Solder pin for direct power supply

Applications

- Analog and digital transmission systems
- Measurement and laboratory equipment

Important notes

- Amplifier does not contain a coaxial relay!
- Maximum input power 5 mW

Technical specifications:

Frequency range	1500..2200 MHz
Noise figure @ 18 °C	typ. 0.8 dB, max. 1.0 dB NF
Gain	min. 27 dB
Maximum input power	5 mW
Output power (P1dB)	typ. 80 mW (+19 dBm)
Output power (Psat)	min. 100 mW (+20 dBm)
Output IP3	typ. 36 dBm
Input return loss (S11)	min. 13 dB
Output return loss (S22)	typ. 10 dB
Supply voltage	+12 ... 15 V DC
Current consumption	typ. 250 mA
Operating case temp. range	-20 ... +65°C
Input connector / impedance	SMA-female, 50 ohms
Output connector / impedance	SMA-female, 50 ohms
Case	milled aluminium
Dimensions (mm)	78 x 41 x 22
Weight	100 g (typ.)

KU LNA BB 2001200 A, Low Noise Amplifier

2000 ... 12000 MHz

analog & digital transmission systems high IP3 test equipment



Features

- Large bandwidth
- Low noise figure
- High gain
- High IP3
- Reverse polarity protection
- Small mechanical dimensions
- Solder pin for direct power supply
- Remote power supply via output connector

Applications

- Analog and digital transmission systems
- Measurement and laboratory equipment

Important note

- Maximum input power 1 mW

Technical specifications:

Frequency range	2000..12000 MHz
Noise figure @ 18 °C	2,0..2,6 dB (2000...8000 MHz) 2,5..3,0 dB (8000...12000 MHz)
Gain	typ. 30 dB, min. 28 dB
Maximum input power	1 mW
Output power (P1dB)	typ. 13 dBm (2000 ... 8000 MHz) typ. 7 dBm (8000 ... 12000 MHz)
Output IP3	typ. 18 dBm (2000 ... 8000 MHz) typ. 10 dBm (8000 ... 12000 MHz)
Input return loss (S11)	typ. 10 dB
Supply voltage	+8 ... 14 V DC
Current consumption	typ. 100 mA
Operating case temp. range	-20 ... +55 °C
Case	milled aluminium
Dimensions (mm)	23 x 24.5 x 9
Weight	15 g (typ.)

KU LNA BB 202 A, Low Noise Broadband Preamplifier

100 ... 20000 MHz



Features

- Large bandwidth
- Low noise figure
- Very good input return loss (S11)
- Solder pin for direct power supply
- Reverse polarity protection
- Milled aluminium case

Applications

- Measurement and laboratory equipment
- Analog and digital transmission systems

Technical specifications:

Frequency range	100..20000 MHz
Noise figure @ 18 °C	typ. 3.5 dB, max 5.5 dB
Gain	25 ... 28 dB
Gain flatness	max. +/- 3 dB
Output IP3	min. +27 dBm (100 ... 5000 MHz)
Input return loss (S11)	typ. 10 dB
Output return loss (S22)	typ. 10 dB
Supply voltage	+12 ... 14 V DC
Current consumption	typ. 190 mA
Operating case temp. range	-20 ... +65°C
Input connector / impedance	SMA-female, 50 ohms
Output connector / impedance	SMA-female, 50 ohms
Case	milled aluminium
Dimensions (mm)	78 x 41 x 22
Weight	100 g (typ.)

KU LNA BB 2227 A, Low Noise Broadband Amplifier 2200 ... 2700 MHz



Features

- Low noise figure
- High IP3
- Internal band-pass filter
- Good input return loss (S11)
- Static protection (ESD) at preamplifier input
- Overvoltage protection and reverse polarity protection
- Remote power supply via output connector
- Solder pin for direct power supply

Applications

- Digital broadcast systems (DVB-T, DVB-S)
- Multichannel Multipoint Distribution Service (MMDS)
- Analog and digital transmission systems
- Measurement and laboratory equipment

Important notes

- Amplifier does not contain a coaxial relay!
- Maximum input power 5 mW

Technical specifications:

Frequency range	2200..2700 MHz
Noise figure @ 18 °C	typ. 0.9 dB, max 1.2 dB
Gain	min. 25 dB
Maximum input power	5 mW
Output power (P1dB)	typ. 200 mW (+23 dBm)
Output IP3	typ. +33 dBm
Input return loss (S11)	typ. 13 dB
Output return loss (S22)	typ. 10 dB
Supply voltage	+12 ... 15 V DC
Current consumption	typ. 250 mA
Operating case temp. range	-40 ... +65 °C
Input connector / impedance	SMA-female, 50 ohms
Output connector / impedance	SMA-female, 50 ohms
Case	milled aluminium
Dimensions (mm)	78 x 41 x 22
Weight	110 g (typ.)

KU LNA BB 2240 A, Low Noise Broadband Preamplifier 225 ... 400 MHz



Description

The high linear preamplifier KU LNA BB2240 A is designed for the UHF communications band. It features best large signal performance and a low noise figure. Internally it uses 3dB hybrids for input and output coupling. This leads to good input return loss, output return loss and high third order intercept point (IP3). The preamplifier contains a bias-T for remote power supply via coaxial cable and a solder pin for direct power supply.

Features

- Low noise figure
- Large bandwidth
- High IP3 and high output power
- Very good input return loss (S11)
- Static protection (ESD) at preamplifier input
- Overvoltage protection and reverse polarity protection
- Remote power supply via output connector
- Solder pin for direct power supply
- Milled aluminium case

Applications

- Analog and digital transmission systems
- Suitable for large signal environments
- Amplifier for low power applications
- Driver amplifier

Important note

- Maximum input power +20 dBm (100 mW)

Technical specifications:

Frequency range	225..400 MHz
Noise figure @ 18 °C	typ. 1.1 dB, max. 1.5 dB
Gain	typ. 20 dB
Gain flatness	max. +/- 2.5 dB
Maximum input power	100 mW
Output power (P1dB)	typ. 630 mW (+28 dBm)
Output power (Psat)	min. 1000 mW (+30 dBm)
Output IP3	typ. 44 dBm
Input return loss (S11)	typ. 15 dB, min. 11 dB
Output return loss (S22)	typ. 15 dB, min. 11 dB
Supply voltage	+12 ... 15 V DC
Current consumption	typ. 400 mA
Operating case temp. range	-20 ... +55 °C
Input connector / impedance	SMA-female, 50 ohms
Output connector / impedance	SMA-female, 50 ohms
Case	milled aluminium
Dimensions (mm)	78 x 41 x 22
Weight	100 g (typ.)

KU LNA BB 3000 A, Low Noise Broadband Amplifier 10 ... 3000 MHz

analog & digital transmission systems test equipment



Description

This low noise broad band amplifier is designed to cover the frequency range from 10...3000 MHz with a gain of 25...30 dB. The noise figure is max. 2.5 dB.

Features

- Large bandwidth
- Solder pin for direct power supply
- Reverse polarity protection
- Small mechanical dimensions

Applications

- Analog and digital transmission systems
- Measurement and laboratory equipment

Important notes

- Amplifier does not contain a coaxial relay!
- Maximum input power 1 mW

Technical specifications:

Frequency range	10..3000 MHz
Noise figure @ 18 °C	typ. 1.5 dB, max 2.5 dB
Gain	25 ... 30 dB
Maximum input power	1 mW
RF input protection	PIN diodes
Output IP3	min. +26 dBm, typ. +30 dBm
Supply voltage	+12 ... 15 V DC
Current consumption	typ. 150 mA
Operating case temp. range	-40 ... +85°C
Input connector / impedance	SMA-female, 50 ohms
Output connector / impedance	SMA-female, 50 ohms
Case	milled aluminium
Dimensions (mm)	50 x 30 x 17
Weight	45 g (typ.)

KU LNA BB 3000 C-N, Low Noise Broadband Amplifier

10 ... 3000 MHz

analog & digital transmission systems test equipment



Description

This low noise broad band amplifier is designed to cover the frequency range from 10...3000 MHz with a gain of 25...30 dB. The noise figure is max. 2.5 dB.

Features

- Large bandwidth
- Solder pin for direct power supply
- Reverse polarity protection
- Small mechanical dimensions

Applications

- Analog and digital transmission systems
- Measurement and laboratory equipment

Important notes

- Amplifier does not contain a coaxial relay!
- Maximum input power 1 mW

Technical specifications:

Frequency range	10..3000 MHz
Noise figure @ 18 °C	typ. 1.5 dB, max 2.5 dB
Gain	25 ... 30 dB
Maximum input power	1 mW
RF input protection	PIN diodes
Output IP3	min. +26 dBm, typ. +30 dBm
Supply voltage	+12 ... 15 V DC
Current consumption	typ. 150 mA
Operating case temp. range	-40 ... +85°C
Input connector / impedance	N-female, 50 ohms
Output connector / impedance	N-male, 50 ohms
Case	milled aluminium
Dimensions (mm)	50 x 30 x 22
Weight	100 g (typ.)

KU LNA BB 2533 A, Low Noise Broadband Amplifier



Description

Features

Application

Important notes

Technical specifications:

Frequency range	2500..3300 MHz
Noise figure @ 18 °C	typ. 1.2 dB, max. 1.3 dB
Gain	typ. 33 dB, min. 31 dB
Maximum input power	2 mW
Output IP3	typ. +30 dBm
Input return loss (S11)	typ. 12 dB
Output return loss (S22)	typ. 10 dB
Supply voltage	+12 ... 15 V DC
Current consumption	typ. 120 mA
Operating case temp. range	-20 ... +65°C
Input connector / impedance	SMA-female, 50 ohms
Output connector / impedance	SMA-female, 50 ohms
Case	milled aluminium
Dimensions (mm)	78 x 41 x 22
Weight	110 g (typ.)

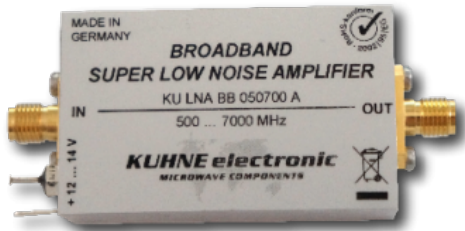
KU LNA BB 050700 A, Broadband Low Noise Amplifier

500 ... 7000 MHz

Monitoring systems test equipment

This super low noise wideband amplifier was designed to cover the 500 ... 7000 MHz. The noise figure is typ. 1.6 dB at 40 dB gain.

Concurrently the broadband amplifier comes with a high IP3 and a output power of >100 mW. With this outstanding performances, this amplifier may be used for many applications.



Features

- High IP3
- Large bandwidth
- Reverse polarity protection
- Solder pin for direct power supply
- Small mechanical dimensions
- Super Low Noise
- Remote power supply via output connector

Applications

- Measurement and laboratory equipment
- Broadband amplifier for spectrum analysis
- Low noise broadband amplifier for monitoring systems
- Broadband power amplifier for network analysis (sweep oscillators)

Important notes

- Amplifier does not contain a coaxial relay!

Technical specifications:

Frequency range	500..7000 MHz
Noise figure @ 18 °C	typ. 1.5 dB, max. 1.9 dB
Gain	typ. 40 dB, min. 37 dB
Gain flatness	max. +/- 2 dB
Maximum input power	-3 dBm
Output power (P1dB)	typ. 20 dBm
Output IP3	typ. +30 dBm
Input return loss (S11)	typ. 10 dB, min. 7 dB
Supply voltage	+9 ... 15 V DC
Current consumption	160mA
Operating case temp. range	-40 ... +65 °C
Input connector / impedance	SMA-female, 50 ohms
Output connector / impedance	SMA-female, 50 ohms
Case	milled aluminium
Dimensions (mm)	50 x 30 x 17
Weight	50 g (typ.)
Feature	Remote power supply via RF output

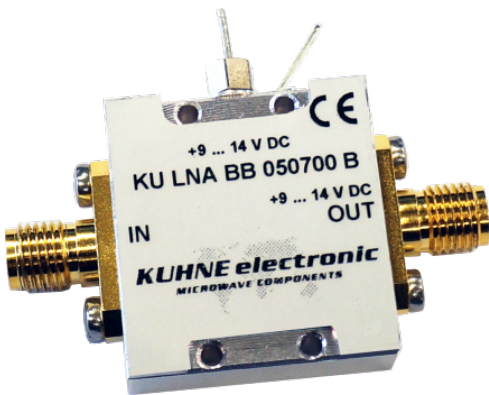
KU LNA BB 050700 B, Broadband Low Noise Amplifier

500 ... 7000 MHz

Monitoring systems test equipment

- Low ripple
- High bandwidth
- Good input and output matching
- Reverse polarity protection
- Super-small mechanical dimensions

The low noise broadband preamplifier KU LNA BB 050700 B impresses with a very low ripple of typ. ± 1 dB over the wide frequency range from 500 MHz to 7 GHz. Gain and noise figure are typically 21 dB and 1.6 dB, respectively. Furthermore, the LNA shows a high IP3 and an output power of more than 100 mW. These outstanding technical properties result in a wide range of possible applications.



Features

- High IP3
- Reverse polarity protection
- Solder pin for direct power supply
- Super Low Noise
- Remote power supply via output connector
- Low ripple
- High bandwidth
- Good input and output matching
- Reverse polarity protection
- Super-small mechanical dimensions

Applications

- Measurement and laboratory equipment
- Broadband amplifier for spectrum analysis
- Low noise broadband amplifier for monitoring systems
- Broadband power amplifier for network analysis (sweep oscillators)

Important notes

- Amplifier does not contain a coaxial relay!

Technical specifications:

Frequency range	500..7000 MHz
Noise figure @ 18 °C	typ. 1.6 dB, max. 2 dB @ 7 GHz
Gain	typ. 21 dB, min. 18 dB @ 7 GHz
Gain flatness	max. ± 2 dB
Maximum input power	16 dBm
Output power (P1dB)	typ. 20 dBm
Output IP3	typ. 30 dBm, min. 27 dBm
Input return loss (S11)	min. 10 dB
Supply voltage	+9 ... 14 V DC
Current consumption	typ. 80 mA
Operating case temp. range	-40 ... +65 °C
Input connector / impedance	SMA-female, 50 ohms
Output connector / impedance	SMA-female, 50 ohms
Case	milled aluminium

Dimensions (mm)	23 x 24.5 x 9
Weight	15 g (typ.)
Feature	Remote power supply via RF output

KU LNA BB 3000 N-TM, Low Noise Broadband Amplifier

10 ... 3000 MHz

Analog & digital transmission systems Test equipment

- High bandwidth
- Reverse polarity protection
- V2A mounting clamp incl.
- Water-resistant case – perfectly suitable for outdoor operation

The broadband low-noise amplifier KU LNA BB 3000 N-TM was particularly developed by KUHNE for outdoor application. Due to the waterproof housing and the attached mounting clamp, the LNA is perfectly suitable for mounting it directly on the mast and close to the antenna.



Description

The KU LNA BB 3000 N-TM has a bandwidth from 10 MHz to 3000 MHz, making it suitable for a variety of radio-frequency applications. Furthermore, the low noise figure of typically 1.5 dB, the gain of up to 30 dB, and the direct attachment close to the antenna minimize the noise figure of the receiver. Furthermore, the ease of handling is further enhanced by the PIN diode-based reverse polarity protection.

Features

- High bandwidth
- Reverse polarity protection
- Water-resistant case
- V2A mounting clamp

Applications

- Analog and digital transmission systems
- Measurement equipment

Important notes

- Maximum input power 1 mW
- Mating connector type is Amphenol MS3106E10SL-3S, not part of delivery

Technical specifications:

Frequency range	10..3000 MHz
Noise figure @ 18 °C	typ. 1.5 dB, max 2.5 dB
Gain	25 ... 30 dB
Maximum input power	1 mW
RF input protection	PIN diodes
Output IP3	min. +26 dBm, typ. +30 dBm
Supply voltage	+12 ... 15 V DC
Current consumption	typ. 150 mA
Operating case temp. range	-40 ... +85°C
Input connector / impedance	N-female, 50 ohms
Output connector / impedance	N-female, 50 ohms
Case	Case incl. V2A mounting clamp, IP43 water resistant case incl. V2A mounting clamp
Dimensions (mm)	115 x 56 x 82
Feature	Remote power supply via RF output

Feature 2

3-pin connector MS3102E series for power supply

KU LNA BB 17002650 A, Broadband Amplifier

17000 ... 26500 MHz

Analog & digital transmission systems Measurement and laboratory equipment

- Low noise figure
- High bandwidth
- Good input and output matching
- Reverse polarity protection
- Small mechanical dimensions

The low-noise broadband pre-amplifier KU LNA BB 17002650 A was particularly developed by KUHNE for use in double-digit GHz range. Thus, the amplifier is particularly suitable for laboratory operation and the extension of measuring equipment as well as for use in broadband high-frequency transmission systems.



Description

The KU LNA BB 17002650 A has a bandwidth of 17 GHz to 26.5 GHz and is thus suitable for a variety of applications in the radio-frequency (RF) and microwave range. Furthermore, the low noise figure of between 2.8 dB and 3 dB in the range from 17 GHz to 24 GHz and between 3 dB and 2.4 dB from 24 GHz to 26.5 GHz with a gain of 23 dB minimizes the noise figure of the receiver. The PIN diode-based reverse polarity protection furthermore increases user-friendliness.

Features

- Low noise figure
- High bandwidth
- Good input and output matching
- Reverse polarity protection
- Small mechanical dimensions

Applications

- Analog and digital transmission systems
- Measurement and laboratory equipment

Important note

- Maximum input power 1 mW

Technical specifications:

Frequency range	17000..26500 MHz
Noise figure @ 18 °C	2,8..3 dB (17000...24000 MHz) 3..3,4 dB (24000...26500 MHz)
Gain	typ. 23 dB
Maximum input power	1 mW
Output power (P1dB)	min. 5 mW
Input return loss (S11)	typ. 10 dB
Supply voltage	+9 ... 15 V DC
Current consumption	typ. 80 mA
Operating case temp. range	-20 ... +65°C
Input connector / impedance	SMA-female, 50 ohms
Output connector / impedance	SMA-female, 50 ohms
Case	milled aluminium
Dimensions (mm)	26 X 25 X 9 mm

Weight

40 g (typ.)

KU LNA BB 0012650 A, Low Noise Broadband Amplifier

10 ... 26500 MHz

Analog & digital transmission systems Measurement and laboratory equipment Pulse Amplification

- Low noise figure
- High bandwidth
- Good gain flatness
- Reverse polarity protection
- Small mechanical dimensions

The low-noise broadband pre-amplifier KU LNA BB 0012650 A was particularly developed by KUHNE for broadband use from 10 MHz up to 26.5 GHz. Thus, the amplifier is particularly suitable for laboratory operation and the extension of measuring equipment as well as for use in broadband high-frequency transmission systems and broadband pulse amplification.



Description

The KU LNA BB 0012650 A has a bandwidth of 10 MHz to 26.5 GHz and is thus suitable for a variety of applications in the radio-frequency (RF) and microwave range, in particular for the amplification of broadband pulsed signals. Furthermore, the KU LNA BB 0012650 A is characterized by a low noise figure of between 2 dB and 7 dB and a gain of typically 30 dB with a gain flatness of ± 2 dB. The PIN diode-based reverse polarity protection furthermore increases user-friendliness.

Features

- Low noise figure
- High bandwidth
- Good gain flatness
- Reverse polarity protection
- Small mechanical dimensions

Technical specifications:

Frequency range	10..26500 MHz
Noise figure @ 18 °C	min. 2 dB, max. 7 dB
Gain	min. 25 dB, typ. 30 dB
Maximum input power	10 mW
Output power (P1dB)	min. 10 dBm
Output IP3	min. 20 dBm
Input return loss (S11)	min. 8 dB
Output return loss (S22)	min. 8 dB
Supply voltage	min. 12 V DC, max. 36 V DC
Current consumption	typ. 220 mA
Operating case temp. range	-40 ... +65 °C
Input connector / impedance	SMA-female, 50 ohms
Output connector / impedance	SMA-female, 50 ohms
Case	milled aluminium
Dimensions (mm)	56 x 44 x 12
Weight	74 g (typ.)

KU LNA BB 8001200A, Broadband Low Noise Amplifier

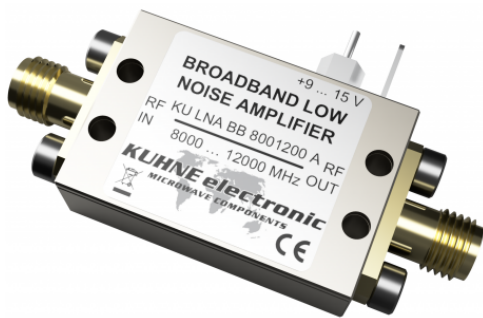
8000 ... 12000 MHz

Analog & digital transmission systems Measurement and laboratory equipment Communication systems

Driver amplifier for X-band power amplifiers

- Low noise figure
- High output power with typ. 0.5 W P1dB
- Small mechanical dimensions
- Reverse polarity protection

The KU LNA BB 8001200 A is KUHNE's latest low-noise broadband preamplifier and was developed as a preamplifier or driver amplifier for use in confined spaces. Due to its compact design, it can be used flexibly and, thanks to its noise figure (NF) of typ. 3 dB and its 1 dB compression point (P1dB) of typ. 27 dBm, it is suitable for a variety of applications in the X-band.



Description

The KU LNA BB 8001200 A has a bandwidth of 8 GHz to 12 GHz, covers the entire X-band microwave range and thus enables many possible applications. For example, the KU LNA BB 8001200 A can be used as a low-noise preamplifier for receivers with moderate to high input powers, as a driver amplifier for X-band power amplifiers and as a signal amplifier for laboratory applications. With a gain of typically 30 dB, signals up to a power of almost 1 mW can be amplified linearly.

Features

- Low noise figure
- High output power with typ. 0.5 W P1dB
- Small mechanical dimensions
- Reverse polarity protection

Technical specifications:

Frequency range	8000..12000 MHz
Noise figure @ 18 °C	typ. 3 dB, max. 4 dB
Gain	typ. 30 dB
Gain flatness	typ. +/- 2 dB
Maximum input power	10 mW
Output power (P1dB)	typ. 27 dBm
Output IP3	typ. +31 dBm
Input return loss (S11)	typ. 10 dB, min. 8 dB
Output return loss (S22)	typ. 9 dB, min. 6 dB
Supply voltage	+9 ... 15 V DC
Current consumption	typ. 230 mA
Operating case temp. range	-40 ... +65 °C
Input connector / impedance	SMA-female, 50 ohms
Output connector / impedance	SMA-female, 50 ohms
Case	milled aluminium
Dimensions (mm)	28.7 X 19.3 X 8.4
Weight	15 g (typ.)

KU LNA BB 0515-4 A SMA, Broadband Amplifier

5 ... 1500 MHz

Monitoring systems Test equipment - High IP3

- Large bandwidth
- Reverse polarity protection
- Solder pin for direct power supply
- Small mechanical dimensions

Kuhne electronic introduces the KU LNA BB 0515-4 A SMA, a broadband preamplifier for the VHF, UHF and L frequency bands. In addition to the large bandwidth, the amplifier is characterized by a high linearity, making it perfect for use in the fields of high-frequency measurements and monitoring systems.



Description

This super low noise wideband amplifier was designed to cover the 5 ... 1500 MHz frequency range. The noise figure is typ. 1.2 dB at 22 dB gain. Simultaneously the broadband amplifier has a high IP3 and a output power of > 10 mW. With this outstanding performances, this amplifier may be used for many applications. The amplifier is coupled via a high pass filter for suppressing frequencies below 5 MHz.

Features

- High IP3
- Large bandwidth
- Reverse polarity protection
- Solder pin for direct power supply
- Small mechanical dimensions

Applications

- Measurement and laboratory equipment
- Broadband amplifier for spectrumanalysis
- Low noise broadband amplifier for watchingsystems
- Broadband power amplifier for networkanalysis (sweep oscillators)
- Suitable for large signal environments
- CATV Distribution amplifier

Important notes

- Amplifier does not contain a coaxial relay!
- Maximum input power +12 dBm

Technical specifications:

Frequency range	5..1500 MHz
Noise figure @ 18 °C	typ. 1.2 dB, max. 2.0 dB
Gain	min. 20 dB, typ. 22 dB
Maximum input power	12 dBm
Output power (P1dB)	typ. 22 dBm
Output IP3	typ. +37 dBm
Input return loss (S11)	min. 6 dB, typ. 10 dB
Supply voltage	+12 ... 14 V DC
Current consumption	typ. 140 mA
Operating case temp. range	-40 ... +85°C
Input connector / impedance	SMA-female, 50 ohms

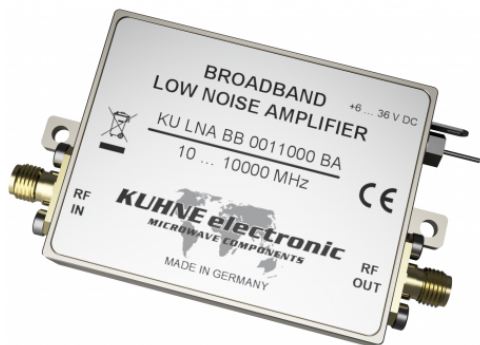
Output connector / impedance	SMA-female, 50 ohms
Case	milled aluminium
Dimensions (mm)	50 x 30 x 17
Weight	50 g (typ.)

KU LNA BB 0011000-BA, Broadband preamplifier

10 ... 10000 MHz

Analog & digital transmission systems Measurement and laboratory equipment Communication systems Low noise figure

- High bandwidth and simultaneously
- Small mechanical dimensions
- Reverse polarity protection



Description

The KU LNA BB 0011000 BA is KUHNE's latest low-noise broadband preamplifier and was developed as a broadband 14 dB gain block for a large variety of applications. Thanks to its compact design and its low gain ripple of typically ± 1 dB, it is very flexible in use.

Features

- Low noise figure
- High bandwidth and simultaneously low gain variations
- Small mechanical dimensions
- Reverse polarity protection

KU LNA BB 0011000-AB Low Noise Broadband Amplifier

10 ... 10000 MHz

Analog & digital transmission systems Measurement and laboratory equipment Communication systems Low noise figure

High bandwidth and simultaneously low gain variations

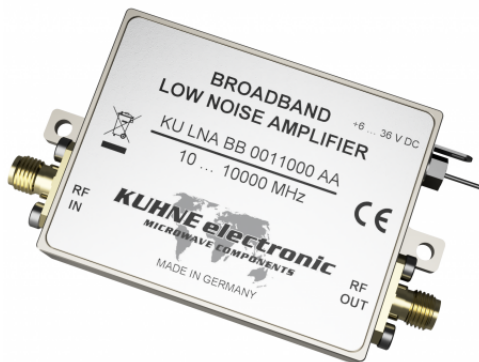
Small mechanical dimensions

Seven different supply and bias variants available

Reverse polarity protection

Low-gain versions available (14 dB)

The KU LNA BB 0011000 AA is KUHNE's latest low-noise broadband preamplifier and was developed as a broadband 24 dB gain block for a large variety of applications. Thanks to its compact design and its low gain ripple of typically ± 1 dB, it is very flexible in use.



Description

The KU LNA BB 0011000 AA has a bandwidth of 10 MHz to 10 GHz, covers the UHF / VHF, L, S, C frequency bands as well as parts of the X band and thus enables many possible applications. For example, the KU LNA BB 0011000 AA can be used as a low-noise preamplifier for broadband receivers, as a driver amplifier for power amplifiers and as a signal amplifier for laboratory applications. A second variant of the LNA with 14 dB gain is also available.

Features

- Low noise figure
- High bandwidth and simultaneously low gain variations
- Small mechanical dimensions
- Seven different supply and bias variants available
- Reverse polarity protection
- Low-gain versions available (14 dB)

Technical specifications:

Frequency range	10..10000 MHz
Noise figure @ 18 °C	typ. 2.3 dB, max. 4.5 dB (200 MHz ... 10 GHz) typ. 3 dB, max. 6 dB (100 MHz ... 200 MHz)
Gain	typ. 24 dB (10 MHz ... 8 GHz) typ. 22 dB (8 GHz ... 10 GHz)
Gain flatness	typ. +/- 1 dB (10 MHz ... 8 GHz) typ. +/- 2.5 dB (8 GHz ... 10 GHz)
Maximum input power	15 dBm
Output power (P1dB)	typ. 18 dBm, min. 15 dBm
Output IP3	typ. 32 dBm, min. 30 dBm
Input return loss (S11)	typ. 10 dB, min. 5 dB
Output return loss (S22)	typ. 10 dB, min. 7 dB (10 MHz ... 100 MHz) typ. 15 dB, min. 9 dB (100 MHz ... 10 GHz)
Supply voltage	+6 ... 36 V DC
Current consumption	typ. 85 mA
Operating case temp. range	-30 ... +85 °C
Input connector / impedance	SMA-female, 50 ohms
Output connector / impedance	SMA-female, 50 ohms
Case	milled brass
Dimensions (mm)	58 X 45 X 12

Weight

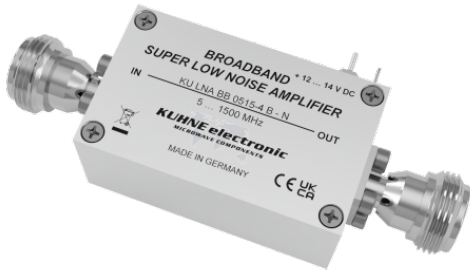
200 g (typ.)

KU LNA BB 0515-4 B N, Broadband Amplifier

5 ... 1500 MHz

Monitoring systems Test equipment

Kuhne electronic introduces the KU LNA BB 0515-4 B N, a broadband preamplifier for the VHF, UHF and L frequency bands. In addition to the large bandwidth, the amplifier is characterized by a high linearity, making it perfect for use in the fields of high-frequency measurements and monitoring systems.



Description

This super low noise wideband amplifier was designed to cover the 5 ... 1500 MHz frequency range. The noise figure is typ. 1.2 dB at 22 dB gain. Simultaneously the broadband amplifier has a high IP3 and a output power of > 10 mW. With this outstanding performances, this amplifier may be used for many applications. The amplifier is coupled via a high pass filter for suppressing frequencies below 5 MHz.

Features

- High IP3
- Large bandwidth
- Reverse polarity protection
- Solder pin for direct power supply
- Small mechanical dimensions

Applications

- Measurement and laboratory equipment
- Broadband amplifier for spectumanalysis
- Low noise broadband amplifier for watchingsystems
- Broadband power amplifier for networkanalysis (sweep oscillators)
- Suitable for large signal environments
- CATV Distribution amplifier

Important notes

- Amplifier does not contain a coaxial relay!
- Maximum input power +12 dBm

Technical specifications:

Frequency range	5..1500 MHz
Noise figure @ 18 °C	typ. 1.2 dB, max. 2.0 dB
Gain	min. 20 dB, typ. 22 dB
Maximum input power	12 dBm
Output power (P1dB)	typ. 22 dBm
Output IP3	typ. +37 dBm
Input return loss (S11)	min. 6 dB, typ. 10 dB
Supply voltage	+12 ... 14 V DC
Current consumption	typ. 140 mA
Operating case temp. range	-40 ... +85°C
Input connector / impedance	N-female, 50 ohms
Output connector / impedance	N-female, 50 ohms
Case	milled aluminium
Dimensions (mm)	50 x 30 x 17
Weight	50 g (typ.)