

# KU LNA 500590 A – Super Low Noise Preamplicifier

## Technical Specifications

### Electrical Specifications

Parameter	Min.	Typ.	Max.	Unit
Frequency	5		5.9	GHz
Gain	26	27		dB
Gain Flatness		±1		dB
Noise Figure		1.5	1.8	dB
Input Reflection Coefficient (S11)			-11	dB
Output Reflection Coefficient (S22)			-9	dB
Output Power at 1 dB Compression (P1dB)		19		dBm
Output Third Order Intercept (IP3)		27		dBm
DC Supply Voltage	9		30	V
Supply Current		60		mA

### Mechanical Specifications

Input Connector	SMA-female 50 Ω
Output Connector	SMA-female 50 Ω
Case	milled aluminium
Dimensions (L x W x H)	50 mm x 30 mm x 17 mm
Weight	50 g

### Applications:

Digital broadcast systems (DVB-T/-S)  
COFDM systems using QPSK, QAM  
Analog and digital transmission systems

### Fulfilled Standards:

EMC directive 2014/30/EU  
RoHS directive 2011/65/EU

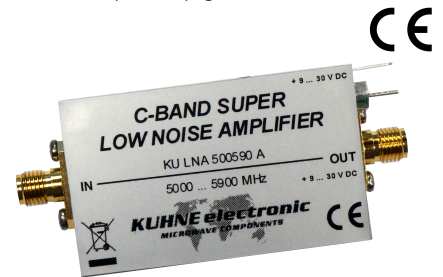
### Maximum Ratings

Parameter	Ratings
Operating Temperature	-40..65 °C
DC Voltage	32 V
Input RF Power	3 dBm

Permanent damage may occur if any of these limits are exceeded.

Noise figure specified at 18 °C, will increase with higher temperature.

[Link](#) to the product page online.

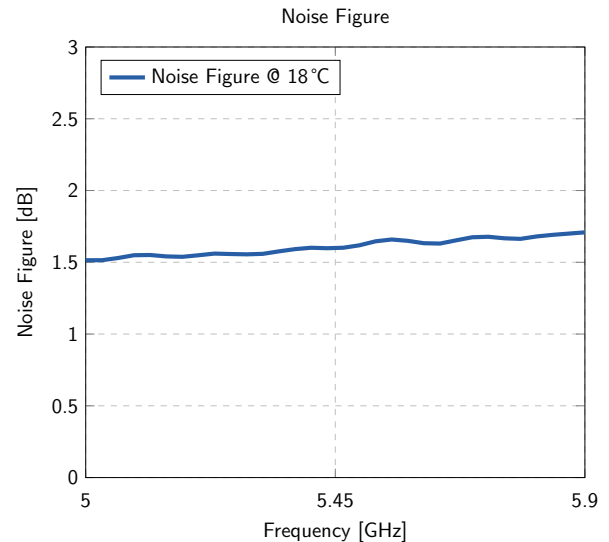
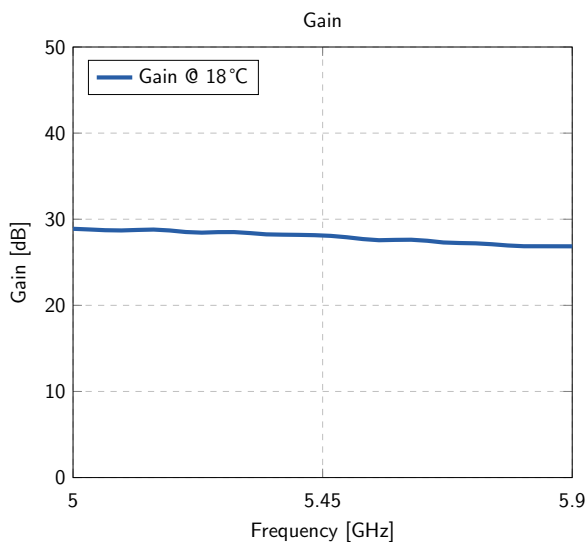


### Features:

High IP3  
Static protection (ESD) at input  
Solder pin for direct power supply  
Remote power supply via RF output  
Small mechanical dimensions

## Typical Performance Data and Curves

(DC Voltage = 12V, DC Current = 60mA)



## Notice

Additional protection against moisture is essential in case of outdoor installation.  
Installation in a waterproof case is recommended.

## Test Certificate

Sig.: \_\_\_\_\_

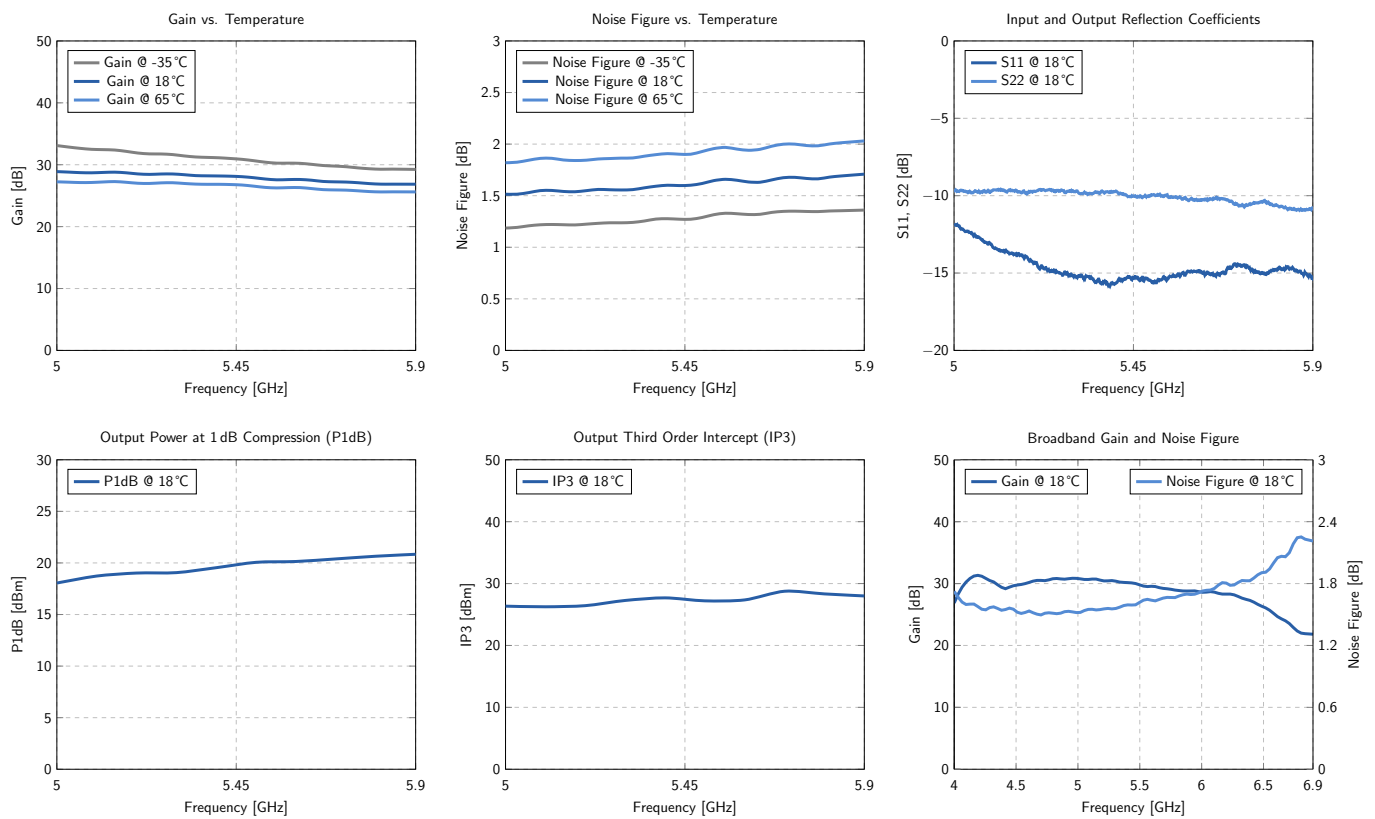
QS: \_\_\_\_\_

SN: \_\_\_\_\_

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## Typical Curves

(DC Voltage = 12V, DC Current = 60 mA)



## Typical Data

(DC Voltage = 12V, DC Current = 60 mA)

Frequency [MHz]	Gain [dB]	Noise Figure [dB]	S11 [dB]	S22 [dB]	P1dB [dBm]	IP3 [dBm]
5	28.9	1.5	-9.7	-11.8	18.1	26.4
5.225	28.5	1.6	-9.7	-14.7	19.0	26.4
5.45	28.1	1.6	-10.0	-15.3	19.8	27.5
5.675	27.3	1.7	-10.2	-15.0	20.3	28.4
5.9	26.9	1.7	-10.8	-15.3	20.8	28.0

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## Outline Drawings

(Unit: mm)

