KU LNA 200250 A – SMA / A/B – N — Super Low Noise Preamplifier

Technical Specifications

Electrical Specifications				
Parameter	Min.	Typ.	Max.	Unit
Frequency	2000		2500	MHz
Gain in high-gain mode		53		dB
Gain Flatness in high-gain mode		±3		dB
Gain in low-gain mode		35		dB
Gain Flatness in low-gain mode		±2.5		dB
Noise Figure		0.35	0.5	dB
Input Reflection Coefficient (S11)		-12	-8	dB
Output Reflection Coefficient (S22)		-15	-12	dB
Output Power at 1 dB Compression (P1dB)		21		dBm
Output Third Order Intercept (IP3)		35		dBm
DC Supply Voltage	9		15	V
Supply Current (@ 12 V supply voltage)		110		mA

Maximum Ratings	
Parameter	Ratings
Operating Temperature	-40..65 °C
DC Voltage	16 V
Input RF Power	10 dBm

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

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

Mechanical Specifications	A – SMA	A/B – N
Input Connector	SMA female	N f. / m.
Output Connector	SMA female	N female
Case	milled aluminium	
Dimensions (L x W x H)	73 mm × 30 mm × 22 mm	
Weight	typ. 110 g	

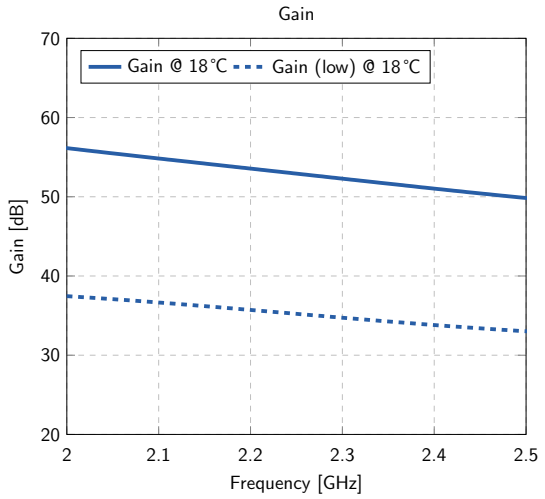
Applications:
Communication systems
Measurement, laboratory equipment
Satellite ground station

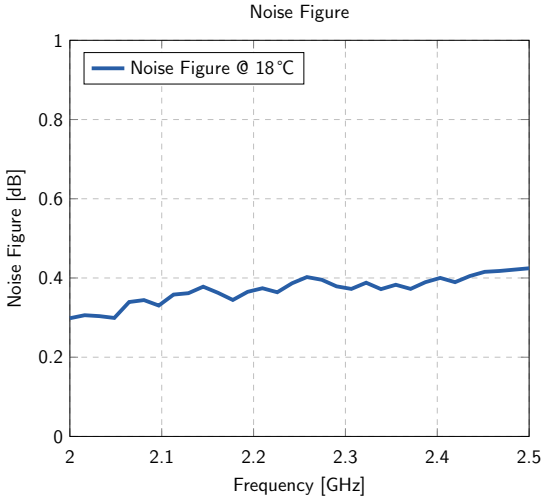
Fulfilled Standards:
EMC directive 2014/30/EU
RoHS directive 2011/65/EU

Features:
Extremely low noise figure
Remote power supply via output connector
Low-gain mode via solder pin

Typical Performance Data and Curves

(DC Voltage = 12 V, DC Current = 110 mA, measured in high-gain mode unless otherwise noted)





Notice

- Additional protection against moisture is essential in case of outdoor installation, e.g., a waterproof case
- Available in three different connector variants (see mechanical specifications)
- Low-gain mode by connecting second solder pin to ground

Test Certificate

Sig.: _____ QS: _____ SN: _____

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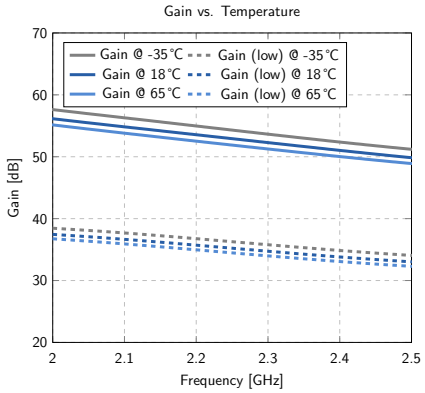
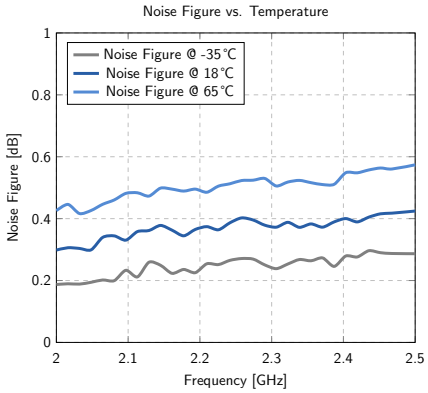
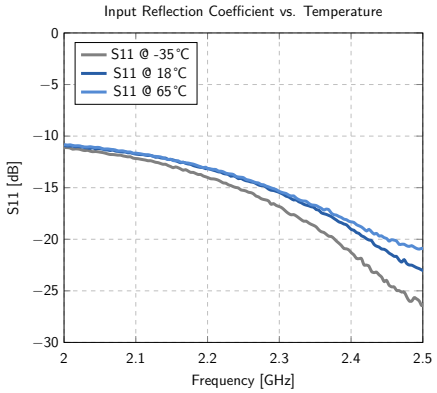
KUHNE electronic
MICROWAVE COMPONENTS

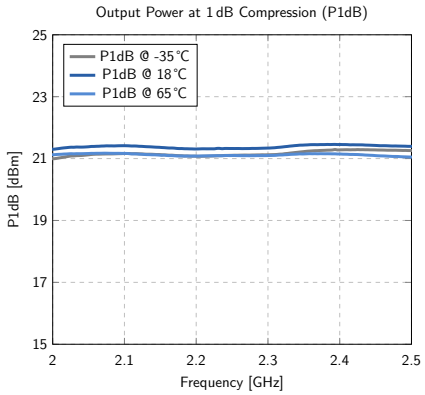
Typical Curves

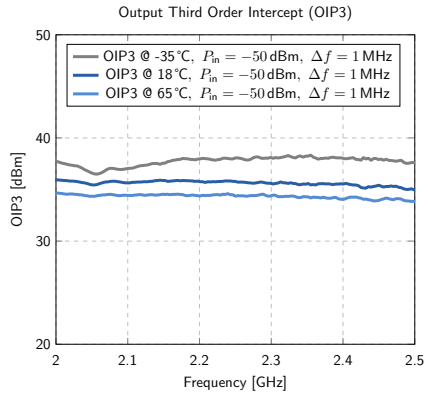
(DC Voltage = 12 V, DC Current = 110 mA, measured in high-gain mode unless otherwise noted)

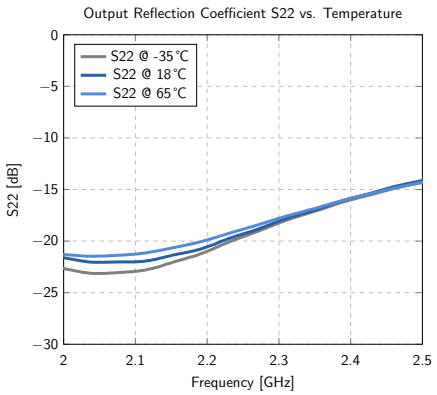












Typical Data

(DC Voltage = 12 V, DC Current = 110 mA, measured in high-gain mode)

Frequency [MHz]	Gain [dB]	Noise Figure [dB]	S11 [dB]	S22 [dB]	P1dB [dBm]	IP3 [dBm]
2000	56.1	0.30	-10.9	-21.6	21.3	35.9
2100	54.8	0.35	-11.7	-22.0	21.4	35.6
2200	53.5	0.37	-13.2	-20.5	21.3	35.8
2300	52.3	0.38	-15.4	-18.1	21.3	35.6
2400	51.0	0.40	-19.1	-15.8	21.5	35.5
2500	49.9	0.42	-23.0	-14.1	21.4	34.9

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Outline Drawings (similar for all connector variants)

(Unit: mm)