

# KU LNA 700900 A WG – Super Low Noise Preamplifier

## Technical Specifications

### Electrical Specifications at 18 °C

Parameter	Min.	Typ.	Max.	Unit
Frequency	7000		9000	MHz
Gain		63		dB
Gain Flatness		±2		dB
Noise Figure (7.0 GHz ... 8.0 GHz)		0.85	1.00	dB
(8.0 GHz ... 9.0 GHz)		0.75	0.90	dB
Input Reflection Coefficient (S11)		-8	-5	dB
Output Reflection Coefficient (S22)		-15	-10	dB
Output Power at 1 dB Compression (P1dB)	10	13		dBm
Output Third Order Intercept (IP3)	17	20		dBm
DC Supply Voltage	9		15	V
Supply Current (@ 12 V supply voltage)		220		mA

### Mechanical Specifications

Input Connector	WR-112
Output Connector	N female
DC Connector	MS3112E10-6P
Case	milled aluminium
Dimensions (L x W x H)	99.2 mm x 76 mm x 63.5 mm
Weight	typ. 440 g

### Maximum Ratings

Parameter	Ratings
Operating Temperature	-40..65 °C
DC Voltage	16 V
Input RF Power	0 dBm

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

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



### Applications:

Deep Space communications  
Satellite ground station

### Fulfilled Standards:

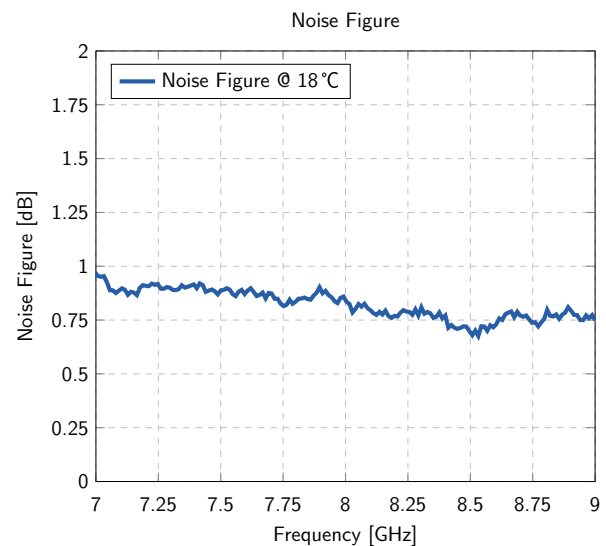
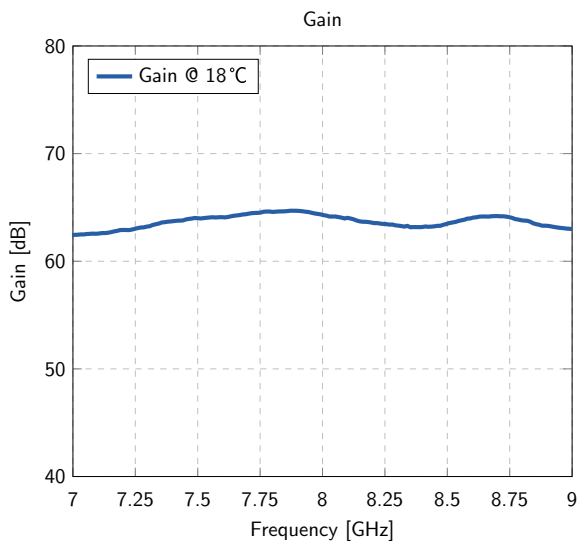
EMC directive 2014/30/EU  
RoHS directive 2011/65/EU

### Features:

Extremely low noise figure  
Reverse polarity protection  
Remote power supply via output connector  
Low-power enable input pin

## Typical Performance Data and Curves

(DC Voltage = 12V, DC Current = 220 mA)



## Notice

Airtight and splash-proof case, designed for 30 mbar air pressure.

## Test Certificate

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

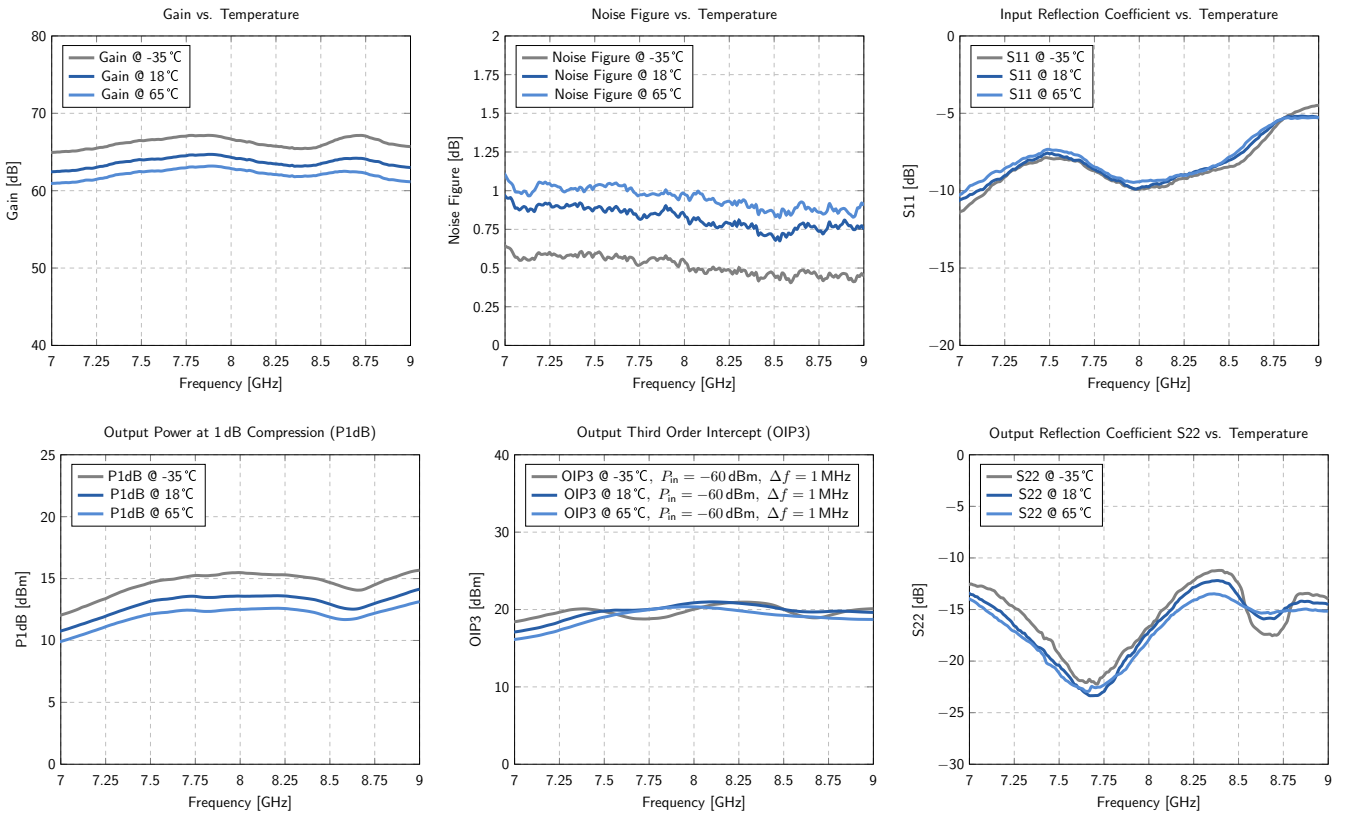
QS: \_\_\_\_\_

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## Typical Curves

(DC Voltage = 12V, DC Current = 220 mA)



## Typical Data

(DC Voltage = 12V, DC Current = 220 mA)

Frequency [MHz]	Gain [dB]	Noise Figure [dB]	S11 [dB]	S22 [dB]	P1dB [dBm]	IP3 [dBm]
7000	62.5	0.95	-10.6	-13.5	10.8	17.1
7250	62.9	0.92	-9.3	-16.0	11.8	18.2
7500	64.0	0.89	-7.6	-20.4	13.2	19.8
7750	64.5	0.81	-8.6	-22.9	13.6	20.0
8000	64.3	0.83	-9.8	-17.1	13.6	20.9
8250	63.5	0.79	-9.0	-12.9	13.6	20.8
8500	63.5	0.70	-8.0	-13.6	13.0	20.0
8750	64.1	0.74	-5.7	-15.1	13.0	19.7
9000	63.0	0.75	-5.3	-14.5	14.1	19.6

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## Outline Drawings

(Unit: mm)

