

**UNCLASSIFIED**

**DATASHEET**

**Product Description**

SLNA-2729 is an ultra low noise amplifier with a frequency range of 2700 to 2900MHz. The typical gain is 20dB with a flatness of  $\pm 1.0$ dB. The working temperature of this product is between  $- 10^{\circ}\text{C}$  and  $+ 65^{\circ}\text{C}$ .

**Features**

- Gain 20dB Typical
- Output Saturation Power 22dBm Typical
- Supply Voltage +12VDC
- 50 Ohm Matched Input/Output
- Low Noise Figure +0.5dB Typical
- Gain Flatness +/-1dB



**Typical Applications**

- Wireless Infrastructure
- Military and Aerospace Applications
- Test Instrumentation
- Radar Systems
- 5G Wireless Communications
- Microwave Radio Systems
- TR Modules
- Research and Development
- Cellular Base Stations



Figure 1 Ultra Low Noise Amplifier

**Electrical Characteristics (T =+25°C)**

Parameter	Minimum	Typical	Maximum	Unit
• Frequency Range	2.7		3.1	GHz
• Gain		20		dBm
• Gain Flatness		$\pm 1.00$		dB
• Gain Variation Over Temp (-40°C to +85°C)		$\pm 1.00$		dB
• Noise Figure		0.5	0.8	dB
• Input VSWR		1.288		dB
• Output VSWR		1.25		dB
• Output 1dB Compression Point (P1dB)	18	20		dBm
• Saturated Output Power (Psat)		22		dBm
• Output Third Order Intercept (OIP3)		30		dBm
• Supply Current (Vcc=+15V)			200	mA
• Impedance		50		Ohms

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

### Mechanical Specifications

- Operating temperature range
- Non-operating temperature range
- RF Input connectors
- RF Output connectors for received signals
- RF BIT test signal connectors
- Receivers control connectors
- Dimensions L x W x H
- Weight

From -10°C to 65°C  
From -20°C to 85°C  
SMA female  
SMA female  
SMA female  
DB-9 female  
71.6mm x 67.9mm x 21.8mm.  
160 g [0.352 lb.]

### Typical Performance Data

#### Attenuation 0dB

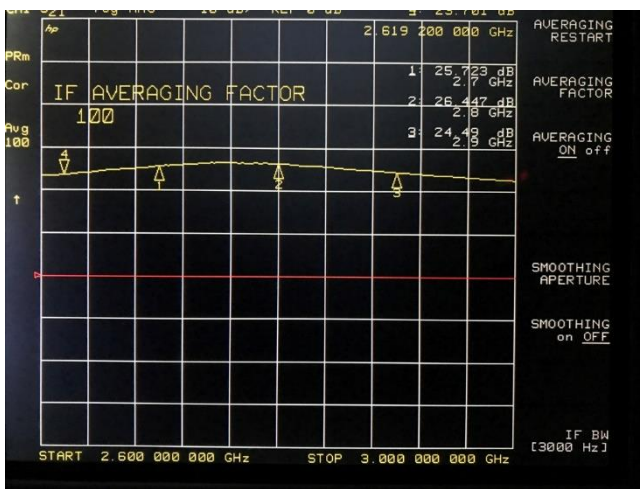


Figure 3 S21 Forward Transmission

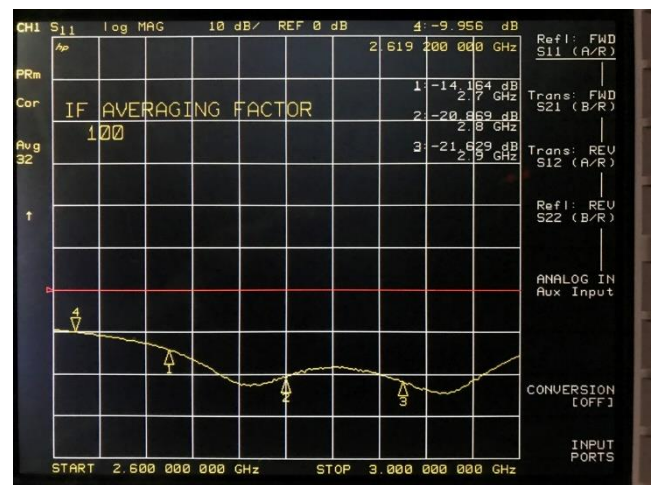


Figure 2 S11 Input Reflection Coefficient

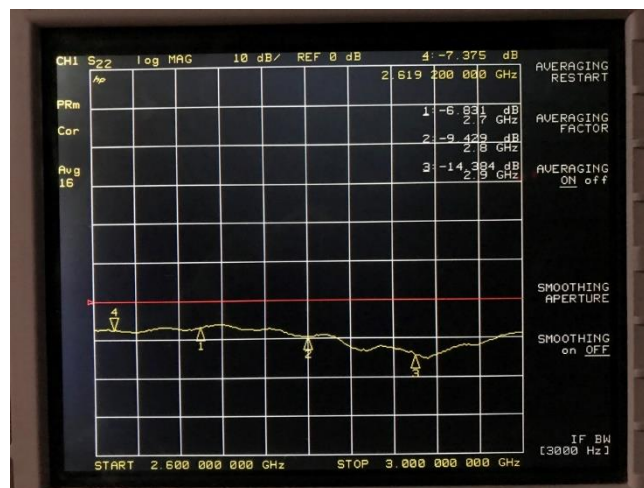


Figure 4 S22 Output Port Voltage Reflection Coefficient

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### Attenuation 1dB

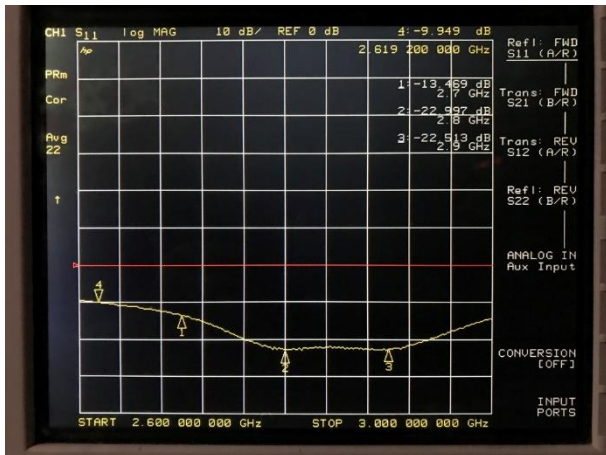


Figure 5 S11 Input Reflection Coefficient

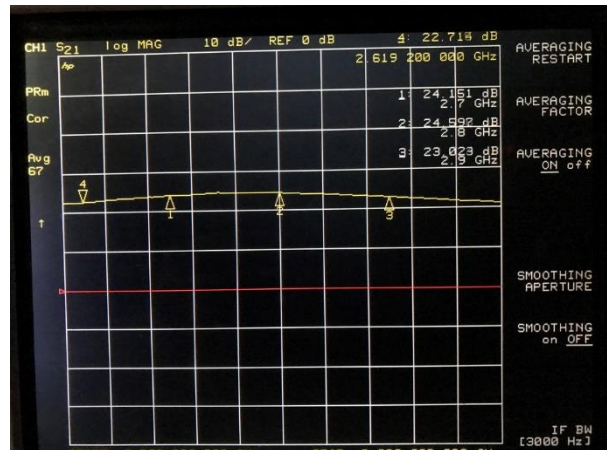


Figure 6 S21 Forward Transmission

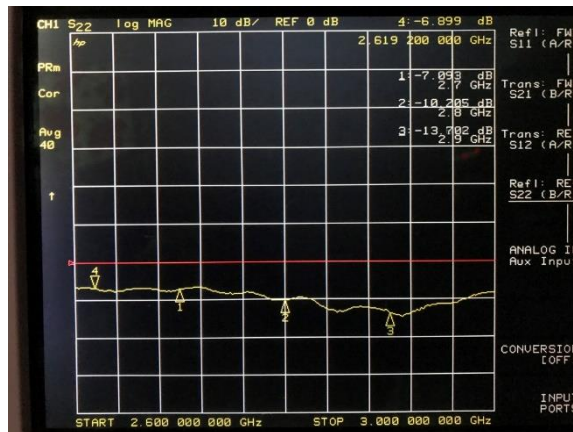


Figure 7 S22 Output Port Voltage Reflection Coefficient

### Attenuation 2dB

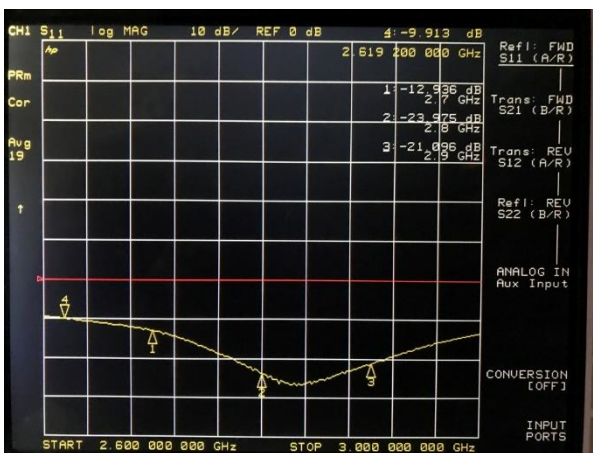


Figure 9 S11 Input Reflection Coefficient

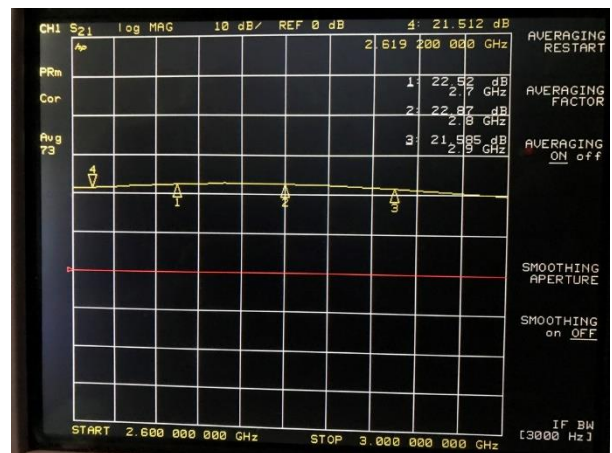


Figure 8 S21 Forward Transmission

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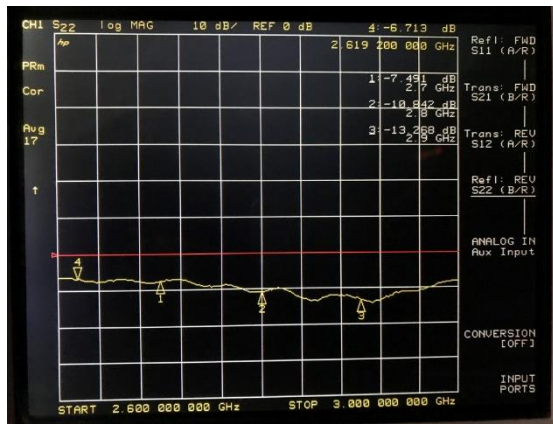


Figure 10 Output Port Voltage Reflection Coefficient

Noise Figure

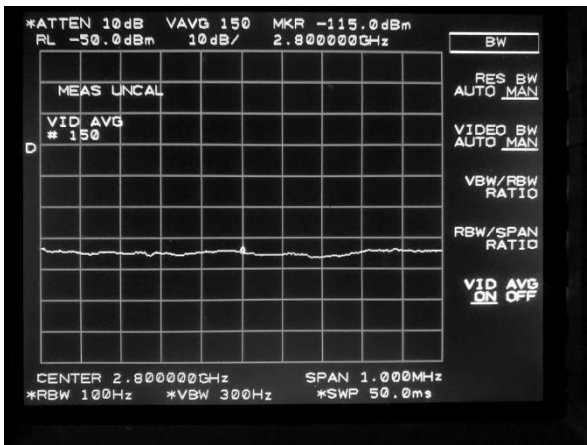


Figure 12 Noise Figure without LNA

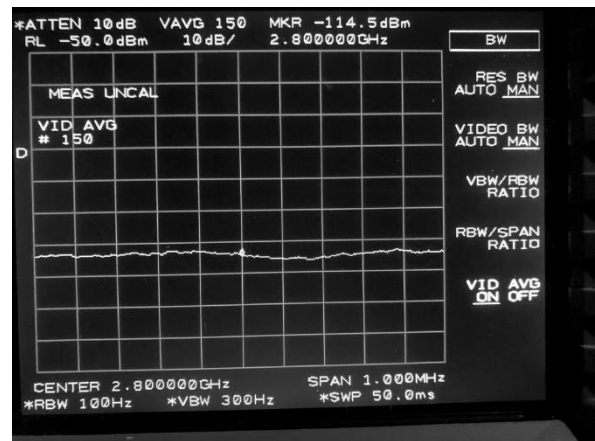


Figure 11 Noise Figure with LNA ON

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Contact Information

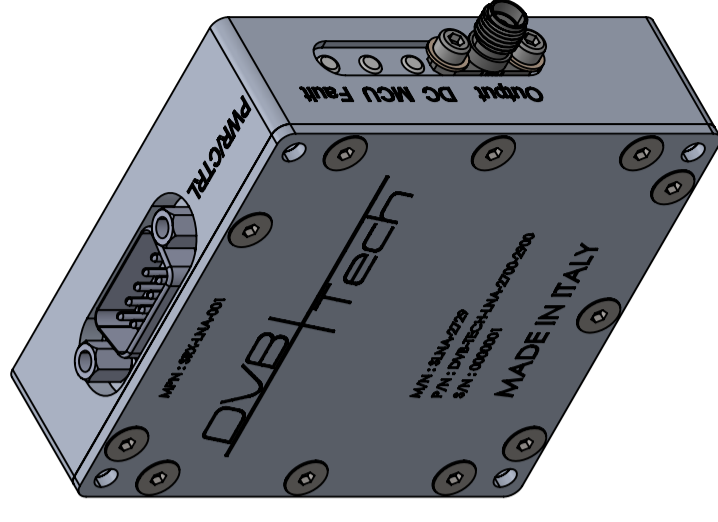
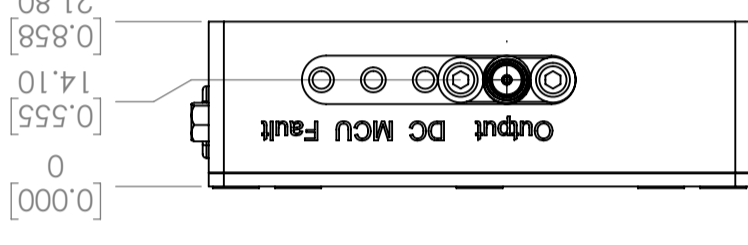
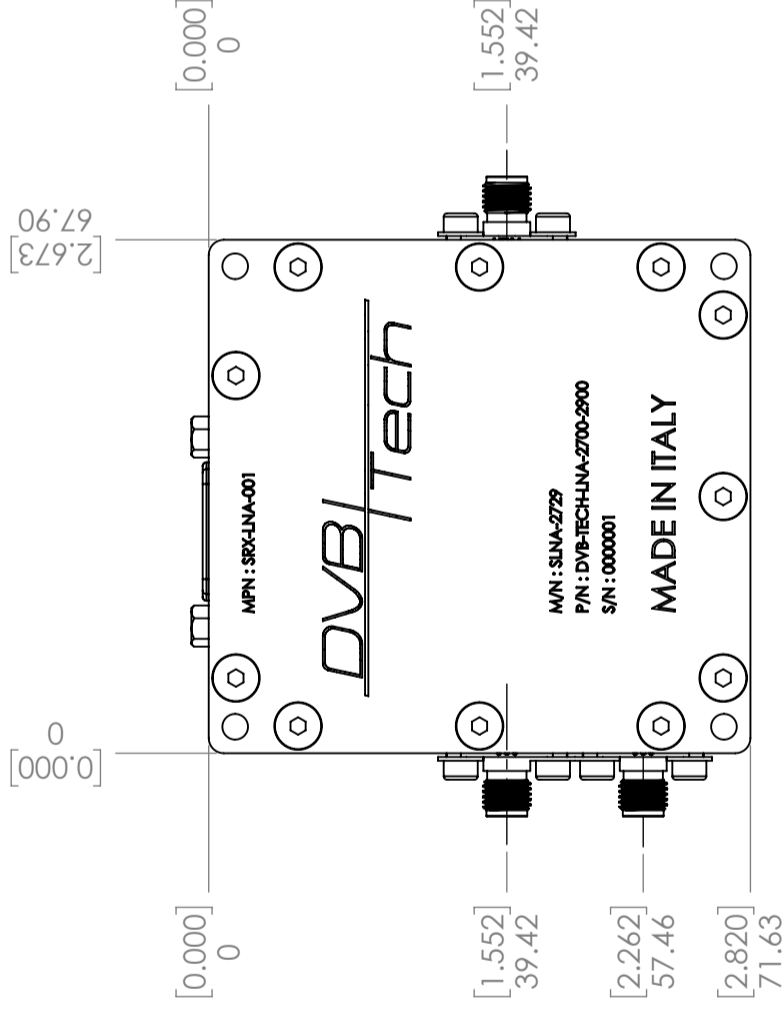
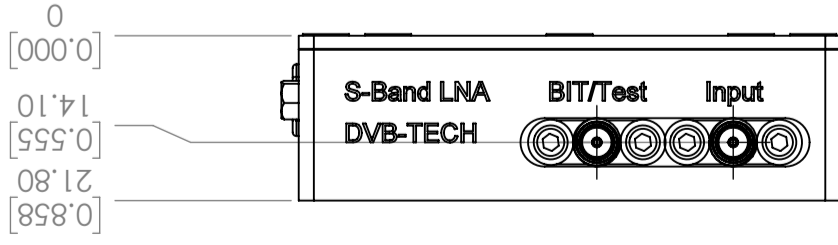
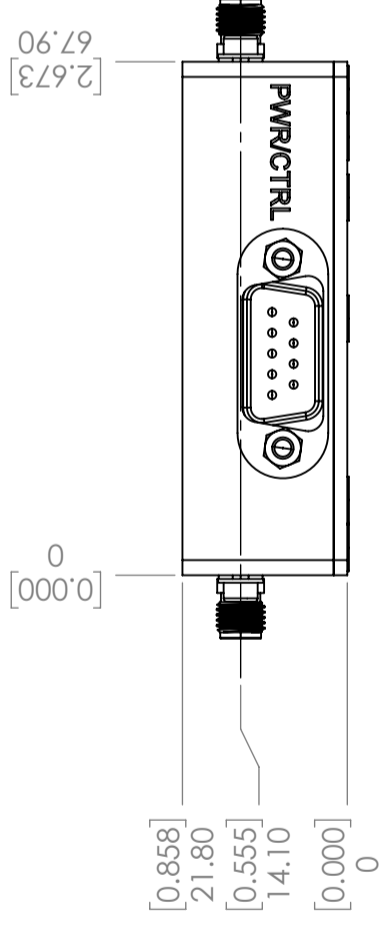
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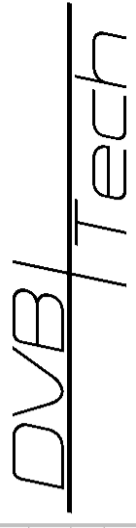


REVISIONS

REV.	DESCRIPTION	DATE	APPROVED
00	Release	30/03/2021	MoinM



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NAME	DATE
MoinM	30-03-21
KarenS	27-07-23
ArturM	27-07-23

Notes:

- Enclosure Material: Aluminum
- Surface Finish: SURTEC650
- All dimensions are in millimeters [inches].
- Standard torque wrench must be used to secure RF connectors.

DEBURR AND BREAK SHARP EDGES

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS

X ± 0.50  
 XX ± 0.10  
 .XXX ± 0.05

∠ ± 0.5

THIRD ANGLE PROJECTION



SIZE A3 SCALE 1:1

DO NOT SCALE DRAWING

S-Band LNA Receiver

PART NO. DVB-SLNA-2700-2900-A DWG NO. SLNA-2729-DS REVISION 00

MATERIAL: Aluminium 6061 T6 FINISH: SURTEC 650 SHEET 1 OF 1