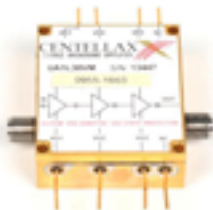


Centellax UA1L30VM

Broadband Amplifier Module



© Artisan Technology Group

In Stock

Used and in Excellent Condition

Open Web Page

<https://www.artisanTG.com/76248-1>

All trademarks, brandnames, and brands appearing herein are the property of their respective owners.



Your **definitive** source
for quality pre-owned
equipment.

Artisan Technology Group

(217) 352-9330 | sales@artisanTG.com | artisanTG.com

- Critical and expedited services
- In stock / Ready-to-ship

- We buy your excess, underutilized, and idle equipment
- Full-service, independent repair center

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

UA1L30VM Broadband Amplifier Module



Features

- 23 dBm saturated output power
- 27 dB gain (to 30 GHz)
- 3.4 W power dissipation
- Small size package
- 4.5 dB NF

Application

- mm-wave systems
- High frequency test instrumentation
- Broadband gain amplifier

Description

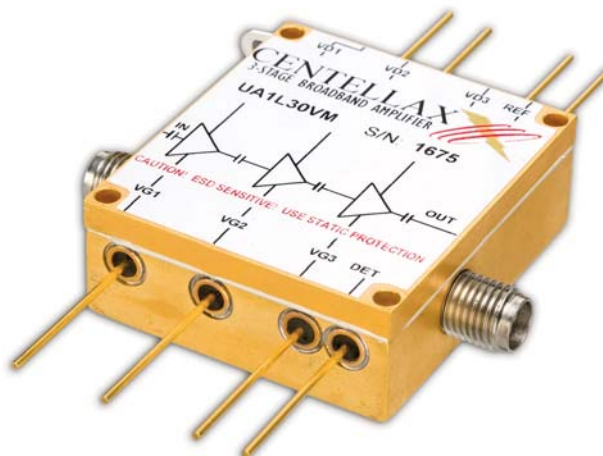
The UA1L30VM Amplifier is a general-purpose broadband amplifier designed for microwave communications, test equipment, and military systems. Its small size and exceptional performance make it a versatile gain block which can improve power and gain in a single package potentially replacing 2 or 3 narrower band amplifiers.

The UA1L30VM provides a complete amplifier module package with a wide frequency range of 1GHz to 30 GHz, low power dissipation, ample output power, low noise figure and gain control.

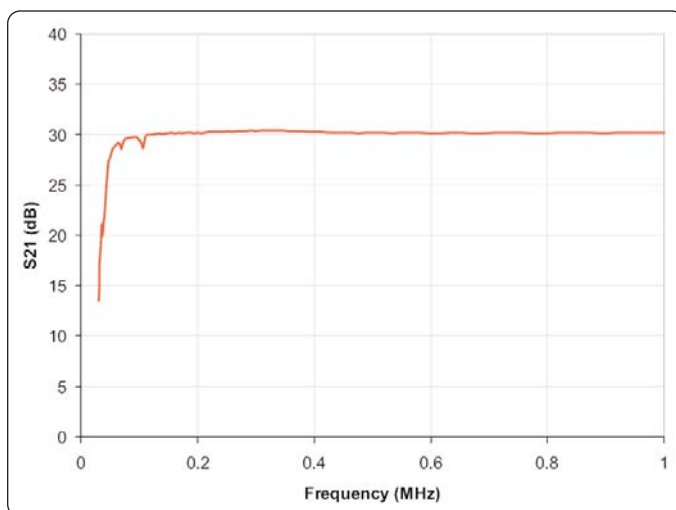
Key Specifications (Specifications pertain to measurements @ 25°C)

$V_{d1} = V_{d2} = V_{d3} = 7V$, $V_{g1} = V_{g2} = V_{g3} = -0.05 V$, $Z_0 = 50\Omega$

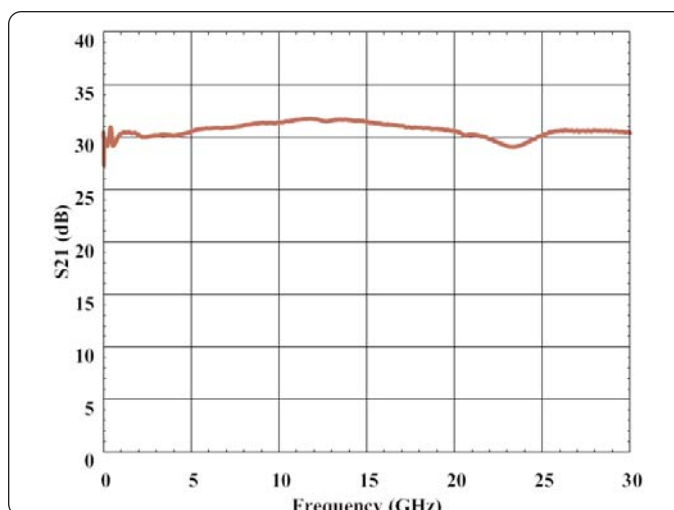
Parameter	Description	Minimum	Typical	Maximum
S21 (dB)	Small Signal Gain 0.01 - 30 GHz	27	30	-
S11 (dB)	Input Match 0.01 - 30 GHz	-	-12	-10
S22 (dB)	Output Match 0.01 - 30 GHz	-	-12	-10
P_{sat} (dBm)	Saturated Power Output	-	22	-



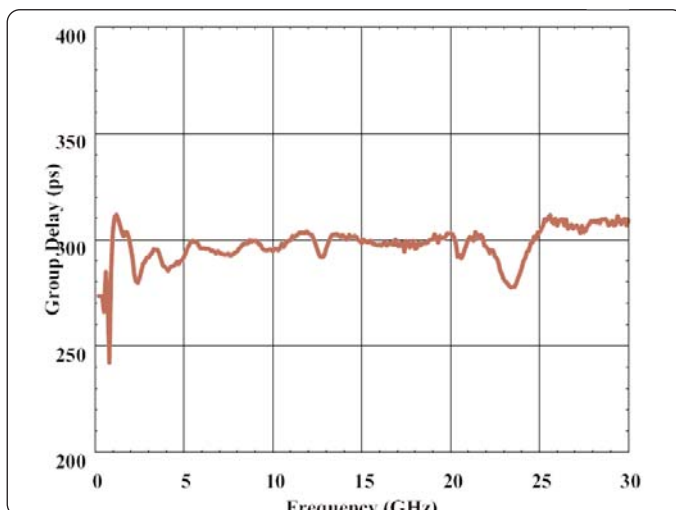
UA1L30VM Datasheet



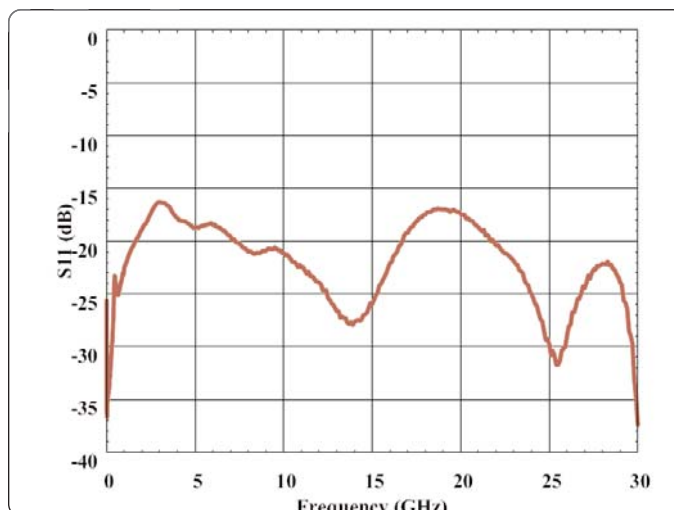
UA1L30VM typical measured performance
Bias: $V_{d1} = V_{d2} = V_{d3} = 7V$, $V_{g1} = V_{g2} = V_{g3} = -0.05 V$



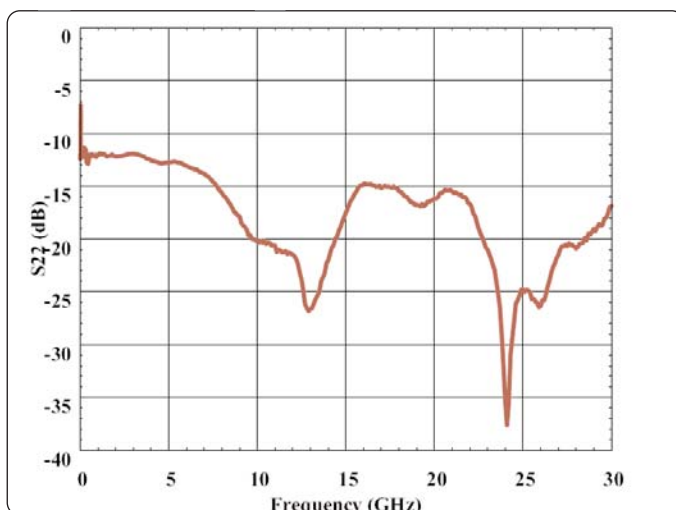
UA1L30VM typical measured performance
Bias: $V_{d1} = V_{d2} = V_{d3} = 7V$, $V_{g1} = V_{g2} = V_{g3} = -0.05 V$



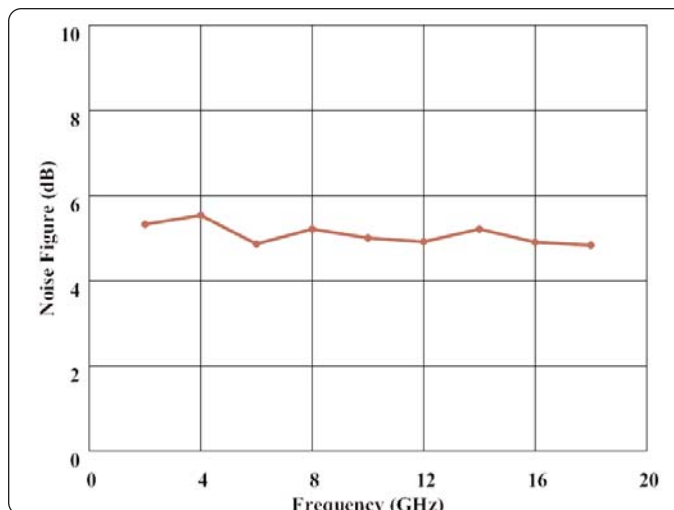
UA1L30VM typical measured performance
Bias: $V_{d1} = V_{d2} = V_{d3} = 7V$, $V_{g1} = V_{g2} = V_{g3} = -0.05 V$



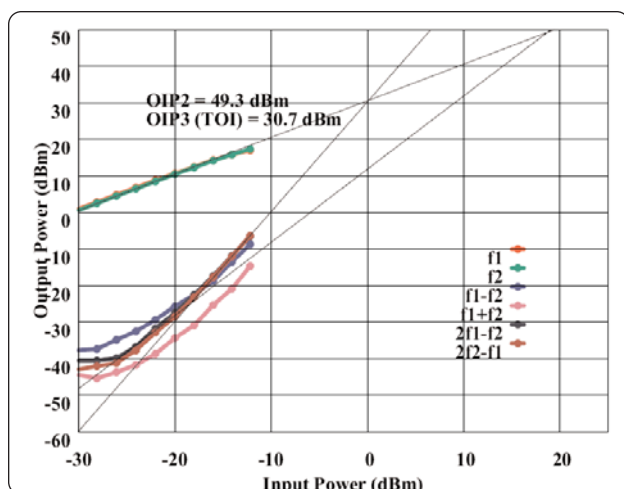
UA1L30VM typical measured performance
Bias: $V_{d1} = V_{d2} = V_{d3} = 7V$, $V_{g1} = V_{g2} = V_{g3} = -0.05 V$



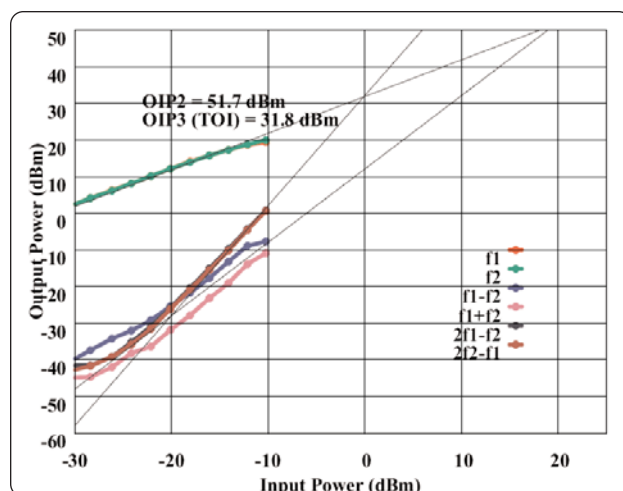
UA1L30VM typical measured performance
Bias: $V_{d1} = V_{d2} = V_{d3} = 7V$, $V_{g1} = V_{g2} = V_{g3} = -0.05 V$



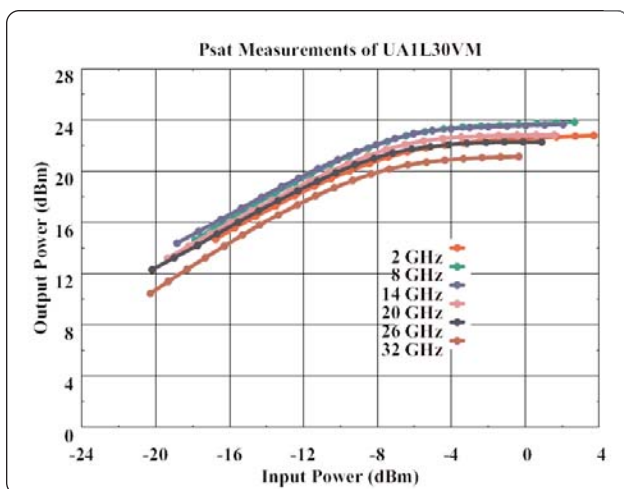
UA1L30VM typical measured performance
Bias: $V_{d1} = V_{d2} = V_{d3} = 7V$, $V_{g1} = V_{g2} = V_{g3} = -0.05 V$



IMD Performance of UA1L30VM @ 10 GHz



IMD Performance of UA1L30VM @ 4 GHz



UA1L30VM typical measured performance
Bias: Vd1= Vd2= Vd3 =7V, Vg1=Vg2=Vg3 =-0.05 V

UA1L30VM Options

- OPT001: with Output Power Detector
- OPT002: with Low Noise Figure
Option (Less Output Power)
- OPT003: with Performance
Specifications to 40GHz
- OPT004: with Peak Power Detector
- OPTSBB: with Bias Board

Operating Specifications

Parameter	Description	Minimum	Typical	Maximum
Vdd1 (V)	First Drain Voltage	—	+7	+8
Vdd2 (V)	Second Drain Voltage	—	+7	+8
Vdd3 (V)	Third Drain Voltage	—	+7	+8
Id1 (mA)	First Drain Current	—	85	—
Id2 (mA)	Second Drain Current	—	150	—
Id3 (mA)	Third Drain Current	—	240	—
Vg1 (V)	First Gate Voltage	-1	-0.2 to 0	+0.5
Vg2 (V)	Second Gate Voltage	-1	-0.2 to 0	+0.5
Vg3 (V)	Third Gate Voltage	-1	-0.2 to 0	+0.5
Pdc (W)	Power Dissipation	—	3.4	—
Tbs (°C)	Case Temperature	—	—	75**

** Four threaded holes are provided for convenient heatsink attachment. The package body temperature must not exceed Tbs maximum.

CENTELLAX • Web: <http://www.centellax.com/> • Email: sales@centellax.com • Tel: 866.522.6888 • Fax: 707.568.7647

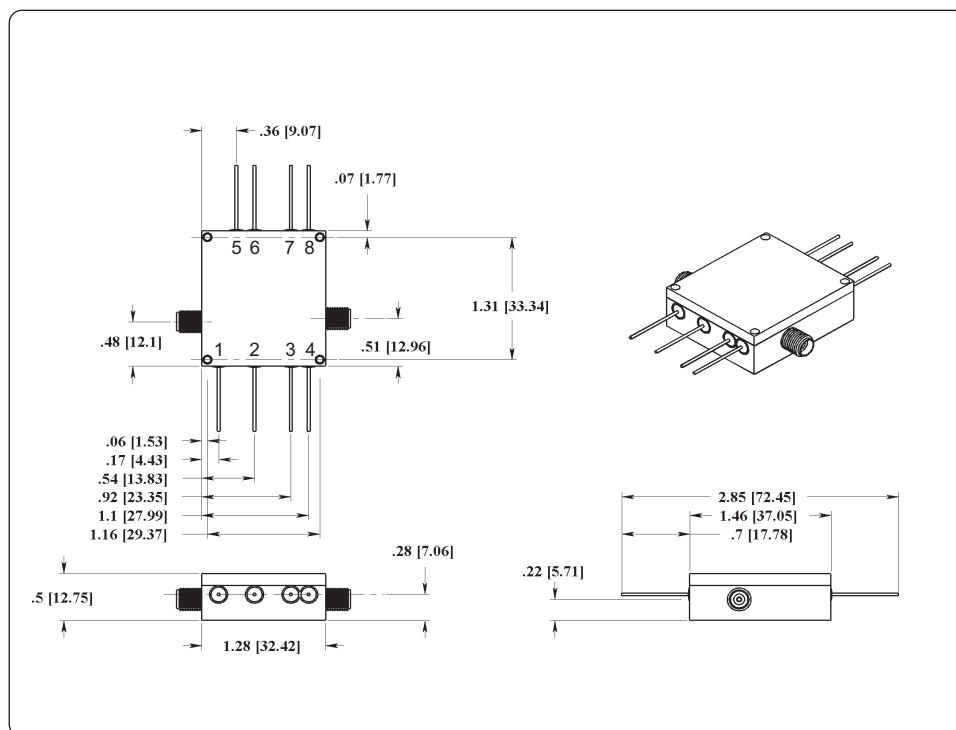
Specifications subject to change without notice. Copyright © 2001-2009 Centellax, Inc. Printed in USA. 26 May 2009. smd-00041 rev B.

Physical Characteristics

(all measurements in inches[mm])

DC pin diameter is
0.03in [0.76mm]

Mounting holes:
2-56 Through, x4



UA1L30VM Pin Definition

Pin	Function	Operational Notes
RFin	RF Input	K-Connector (f)
RFout	RF Output	K-Connector (f)
1 (Vg1)	1st stage gate bias	Adjust for optimum gain (-0.2 V to 0 V typical)
2 (Vg2)	2nd stage gate bias	Adjust for optimum gain (-0.2 V to 0 V typical)
3 (Vg3)	3rd stage gate bias	Adjust for optimum gain (-0.2 V to 0 V typical).
4 (Det)	RF Power Detector	(option)
5 (Vd1)	1st stage drain bias	Set at typical operating specification, adjust for desired amplitude
6 (Vd2)	2nd stage drain bias	Set at typical operating specification, adjust for desired amplitude
7 (Vd3)	3rd stage drain bias	Set at typical operating specification, adjust for desired amplitude
8 (Ref)	RF Power Reference	(option)

Bias Recommendations (in order):

1) Bias gates; 2) Bias Drains; 3) Adjust for the optimum gain

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at [artisanng.com](https://www.artisanng.com) for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisanng.com | [artisanng.com](https://www.artisanng.com)

