RM022020

2 – 20 GHz 20 W Benchtop Power Amplifier

Product Overview

Qorvo's RM022020 Amplifier utilizes our patented Spatium™ combining technology providing unprecedented performance in a general purpose laboratory bench top amplifier.

Suitable for use a driver/booster amplifier, enabling more power incident upon the device under test (DUT), this amplifier is an excellent alternative to Traveling Wave Tube Amplifiers (TWTA) The RM022020 amplifier operates instantaneously across the 2 GHz – 20 GHz spectrum achieving saturated output powers (Psat) greater than 20 Watts. Front panel manual gain adjustment enables simple, rapid performance optimization.

Built-In-Test (BIT) monitors continuously evaluate the amplifier performance and provide instant visual indication of anomalous behavior.

Custom configurations and optimized screening conditions are available on request; consult the factory.

Key Features

- Saturated Power - 20 Watts typical
- Operating Band - 2 GHz to 20 GHz
- Solid State MMIC Reliability
- Multi Element Redundancy
- Instant On (No Warm Up)
- Flat Gain Response
- Excellent Harmonic and Intermodulation Characteristics

Standard Configuration

- SMA (F) Coaxial Input/Output
- IEC 60320 C14 Compliant AC input
- 2 Meter AC Power Cord with NEMA 5-15P
- Front Panel Gain Adjust
- Air Flow – Side intake – Rear exhaust

Applications

- Laboratory work
- Test and Measurement
- Load Pull
- EMI Test
- Anechoic Chambers and Test Ranges

Optional Accessories

- Rack Mount Brackets RMO1.0
- Alternate AC Cord Configurations

Ordering Information

Part No.	Description
RM022020	2 – 20 GHz 20 W Benchtop Amplifier

Absolute Maximum Ratings

Parameter	Rating
RF Input	+20 dBm
Load VSWR	3:1
Operating Temperature	-20 to +60 °C
Storage Temperature	-20 to +75 °C

Exceeding any one or a combination of the Absolute Maximum Rating conditions may cause permanent damage to the device. Extended application of Absolute Maximum Rating conditions to the device may reduce device reliability.

Recommended Operating Conditions

Parameter	Value
AC Input (Rear)	85-264 V_{AC} 47-63 Hz 300 VA
Operating Temperature	0 to +50 °C

Electrical specifications are measured at specified test conditions. Specifications are not guaranteed over all recommended operating conditions.

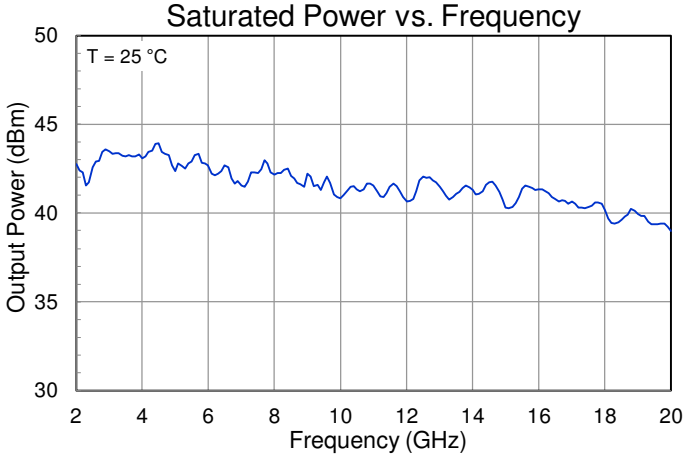
Electrical Specifications

Parameter		Min	Typ	Max	Units
Operational Frequency Range		2		20	GHz
Small Signal Gain		40	43		dB
Gain Adjustment - Manual (Front)		10			dB
Gain Flatness vs. Frequency			± 3		dB
RF Power	at 5 dBm input 2 – 10 GHz	40	43		dBm
	at 5 dBm input 10 – 18 GHz	39	42		dBm
	at 5 dBm input 18 – 20 GHz	38	39		dBm
Input VSWR			1.5:1	2:1	
Output VSWR				2.3:1	
Spurious			-75	-60	dBc
RF I/O (Front)			SMA (F)		
Dimensions (L x W x H)			17.1 x 16.9 x 5.1		inches
			43.4 x 42.9 x 13.0		cm

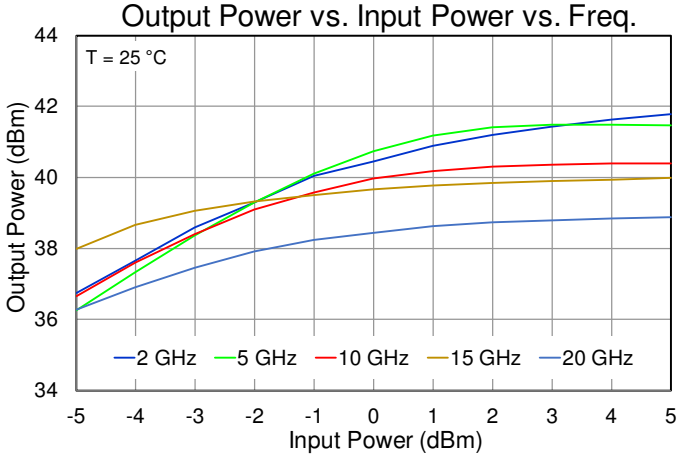
Performance Plots

Test conditions unless otherwise noted:

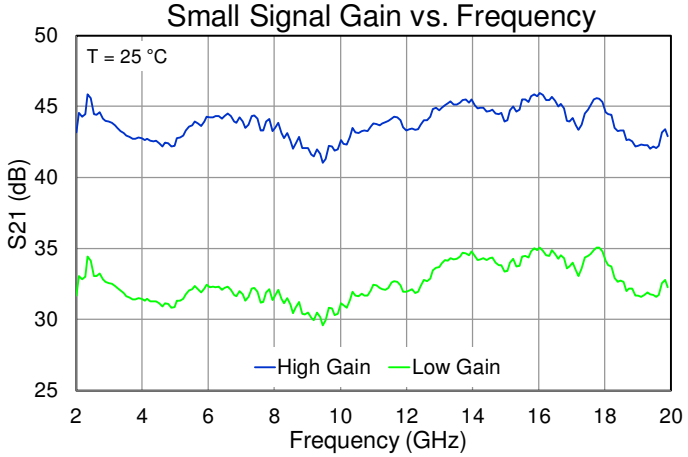
Saturated Power vs. Frequency



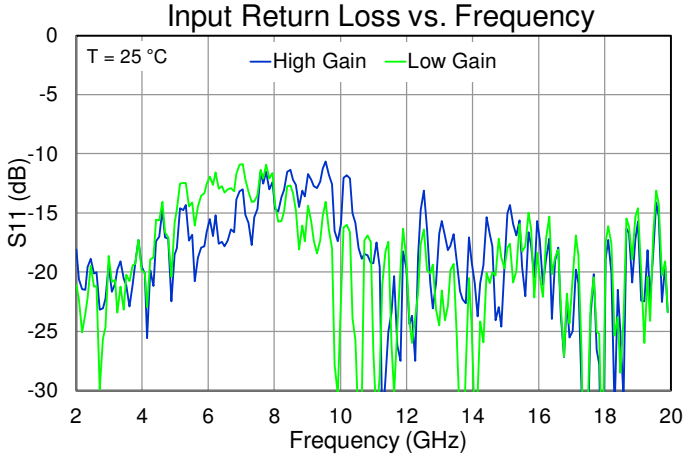
Output Power vs. Input Power vs. Freq.



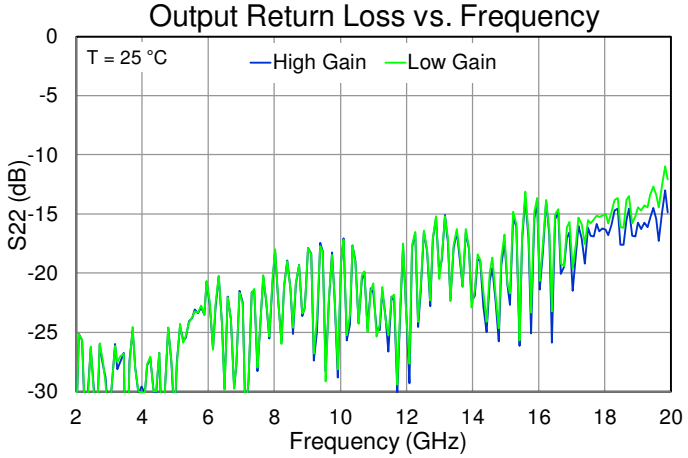
Small Signal Gain vs. Frequency



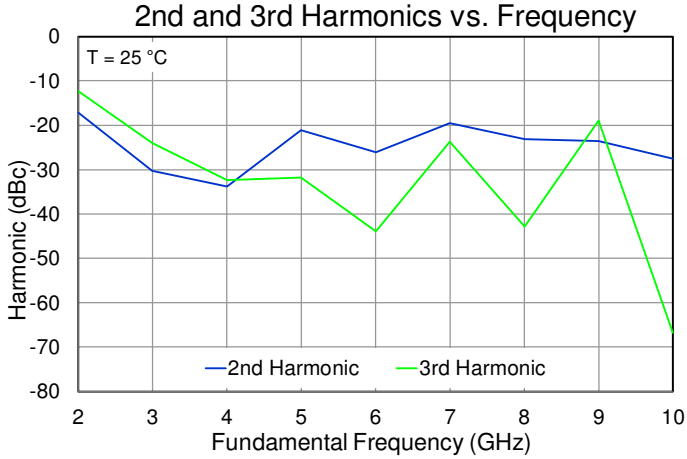
Input Return Loss vs. Frequency



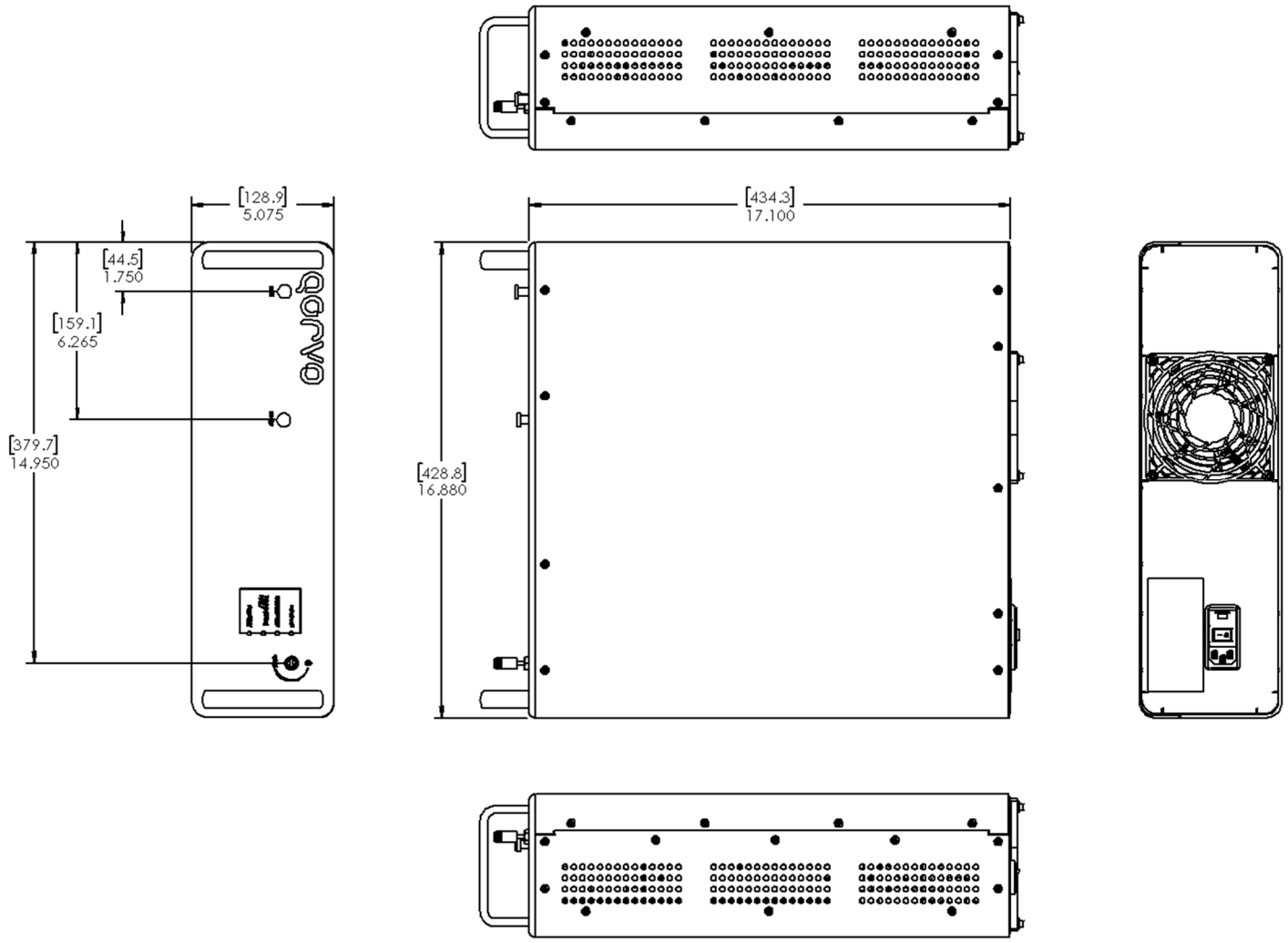
Output Return Loss vs. Frequency



2nd and 3rd Harmonics vs. Frequency



Package Marking and Dimensions



Handling Precautions

Caution!
ESD-Sensitive Device

Contact Information

For the latest specifications, additional product information, worldwide sales and distribution locations:

Web: www.qorvo.com

Tel: 1-844-890-8163

Email: customer.support@qorvo.com

Important Notice

The information contained herein is believed to be reliable; however, Qorvo makes no warranties regarding the information contained herein and assumes no responsibility or liability whatsoever for the use of the information contained herein. All information contained herein is subject to change without notice. Customers should obtain and verify the latest relevant information before placing orders for Qorvo products. The information contained herein or any use of such information does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other intellectual property rights, whether with regard to such information itself or anything described by such information. **THIS INFORMATION DOES NOT CONSTITUTE A WARRANTY WITH RESPECT TO THE PRODUCTS DESCRIBED HEREIN, AND QORVO HEREBY DISCLAIMS ANY AND ALL WARRANTIES WITH RESPECT TO SUCH PRODUCTS WHETHER EXPRESS OR IMPLIED BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE OR OTHERWISE, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

Without limiting the generality of the foregoing, Qorvo products are not warranted or authorized for use as critical components in medical, life-saving, or life-sustaining applications, or other applications where a failure would reasonably be expected to cause severe personal injury or death.

Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001
Адрес: 105318, г.Москва, ул.Щербаковская д.3, офис 1107

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

http://moschip.ru/get-element

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:
moschip.ru
moschip.ru_4
moschip.ru_6
moschip.ru_9