

CMX902 RF Power Amplifier

Wideband and High Efficiency

130MHz to 700MHz

The CMX902 is a three stage (Class A, AB, C) high-gain and high efficiency RF power amplifier providing a combination of load-ruggedness, low-cost and high-efficiency at VHF and low UHF frequencies. Up to 700MHz.

The CMX902 is an interrelated product to the CMX901 RF PA within CML's RF Building Block range. The CMX902 is focused towards VHF/low UHF bands and low operating voltage applications.

Features

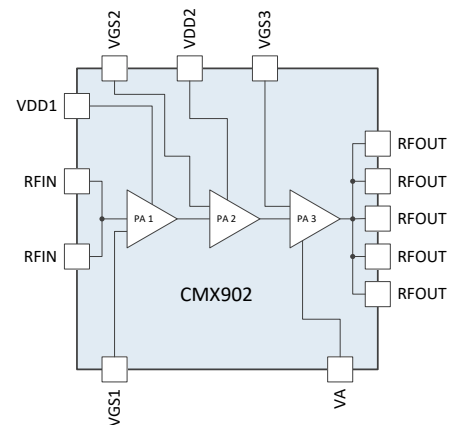
- Wide operating frequency range 130MHz to 700MHz
- Typical output power:
 - 2.8W operating at 160MHz (4V)
 - 1.75W operating at 435MHz (3.3V)
- High power gain up to 39dB
- High power added efficiency > 60% at VHF
- Single polarity supply voltage 2.5V to 6V
- Small 28 pin WQFN package

Applications

- Wireless data communications
FSK, FFSK/MSK, GFSK/GMSK, Multi-level FSK
- Marine AIS Class-B
- Marine AIS-SART
- RFID readers/writers
- Automatic meter reading (AMR)
- Wireless sensor networks Mesh/Ad hoc systems
- Remote control and sensing systems
- Battery-powered commercial and consumer communications

CMX902 Advantage

- Wide operating range 130MHz to 700MHz
- Small footprint WQFN package
- High gain (up to 39dB)
- High efficiency (> 60% for VHF)
- Single polarity supply 2.5V - 6.0V
- High performance
- Attractive price/performance
- Robust, load VSWR 10:1 without damage
- Focused technical support available
- CML's product longevity record



CMX902 Function Block Diagram



Small 28-pin WQFN Package (5mm x 5mm)

Typical Performance	RF Frequency (MHz)	
	160	435
Efficiency (%)	62.5	54
Power Gain Pmax (dBm)	39.5	42.5
Output Power (W)	2.8	2.4 1.75 (3.3V)

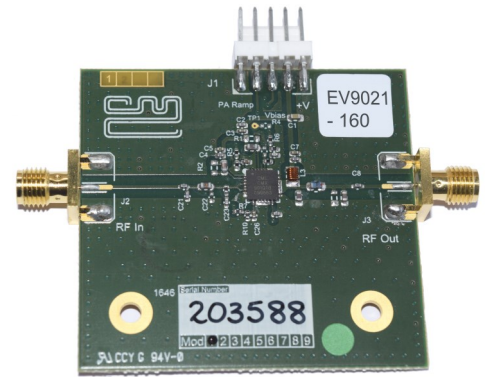


Evaluation Kit

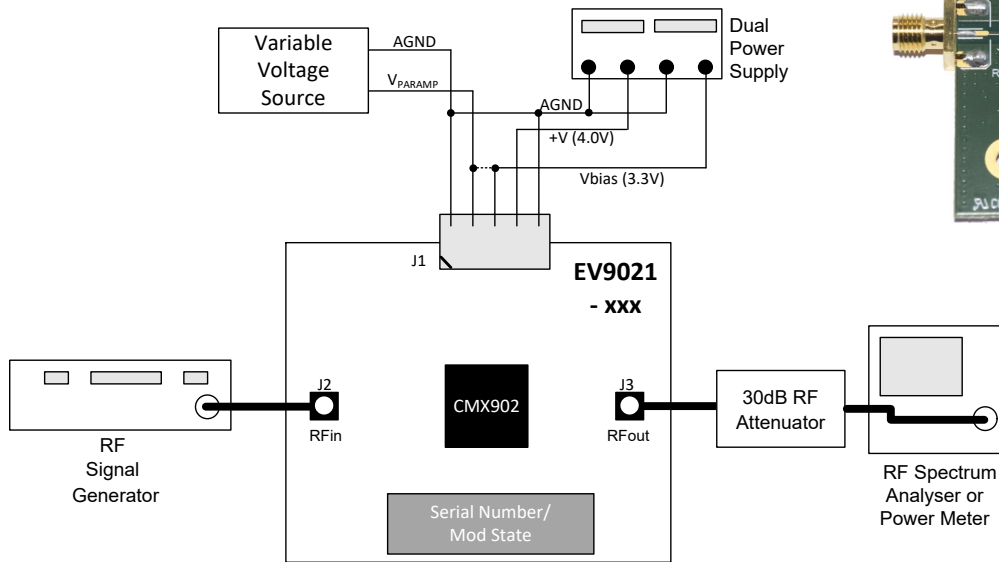
The EV9021 Evaluation Kit provides a convenient route to evaluating the CMX902 RF Power Amplifier.

The board is available in two RF frequency ranges:

- 150-170 MHz operation = EV9021-160
- 400-470 MHz operation = EV9021-435



EV9021 Evaluation Kit



Typical Evaluation Connections for EV9021

WHAT TO DO NEXT

Download: [Datasheet](#)

Find: [Distributor](#)

CML Microcircuits Benefits

Faster time to market

Developing proven high performance and field tested ASSP ICs, CML is helping engineers to cope with increasing pressure in delivering shorter project design cycles.

Design flexibility

CML's FirmASIC® reconfigurable technology with the use of a Function Image™ upload enables a single hardware platform to be used for multiple communications systems.

High Quality

With 100% of products being tested before shipping, customers are assured of the highest reliability.

Product Longevity

CML's product enjoys a long lifespan. Designing with CML, manufacturers are rewarded with longer product life cycles and a stable BOM, ensuring minimum engineering costs and maximum profit.

Low Power

Being at the forefront of low power chip technology, manufacturers can develop smaller equipment with extended battery life.

Superior Support

Internal and field based applications teams worldwide provide focused customer support to ease the development process.