

## 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

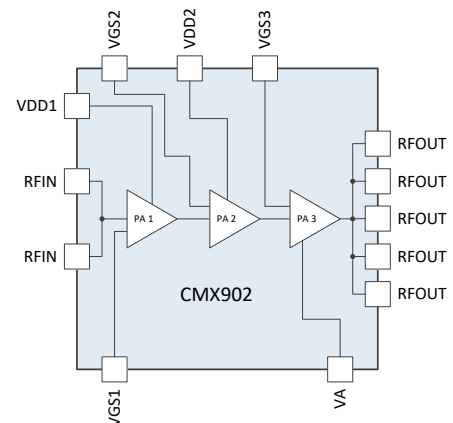
- Wide operating frequency range 130MHz to 700MHz
- Typical output power:
  - 2.8W operating at 160MHz (4V)
  - 1.75W operating at 435MHz (3.3V)
- High power gain up to 39dB
- High power added efficiency > 60% at VHF
- Single polarity supply voltage 2.5V to 6V
- Small 28 pin WQFN package

### 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

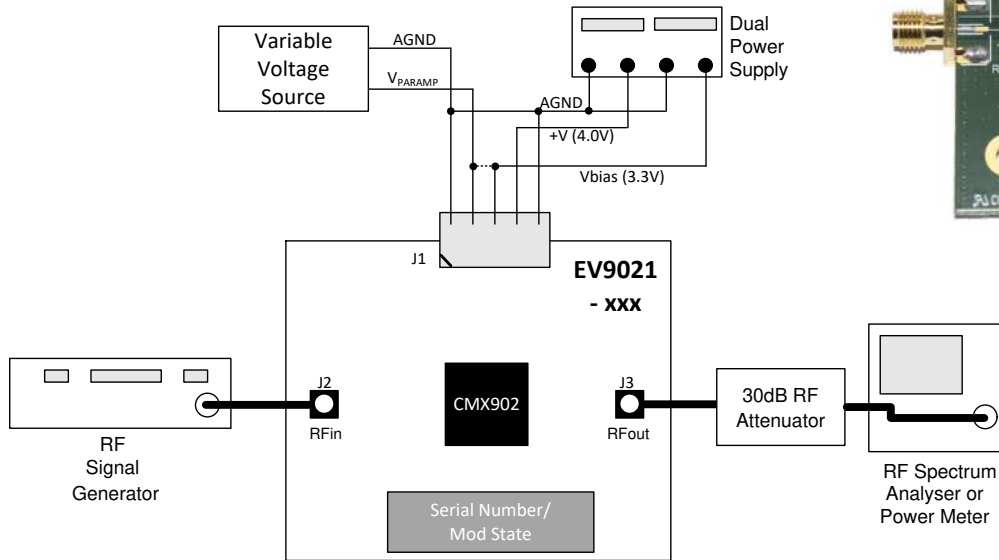
The EV9021 Evaluation Kit provides a convenient route to evaluating the CMX902 RF Power Amplifier.

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.