

# Optimize Your Microwave Signal Chain



*Best-in-Class MMICs  
for Amplification, Switching, Control, and Frequency Conversion*

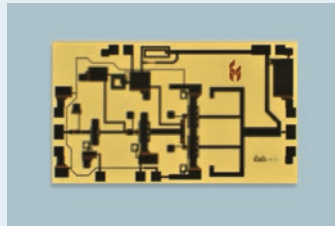
# Focused on Innovation and Performance

Our amplifier portfolio provides industry-leading gain flatness and stability, noise figure, and linearity. We offer unique benefits such as positive gain slope, positive biasing, and 50 ohm matching.



## **LOW NOISE AMPLIFIERS** 2 to 45+ GHz

- Low Noise Figure
- High Linearity
- Low Power Consumption
- All Positive Bias



## **POWER AMPLIFIERS** DC to 32+ GHz

- High Linearity
- High Gain
- GaN



## **DISTRIBUTED AMPLIFIERS** DC to 50+ GHz

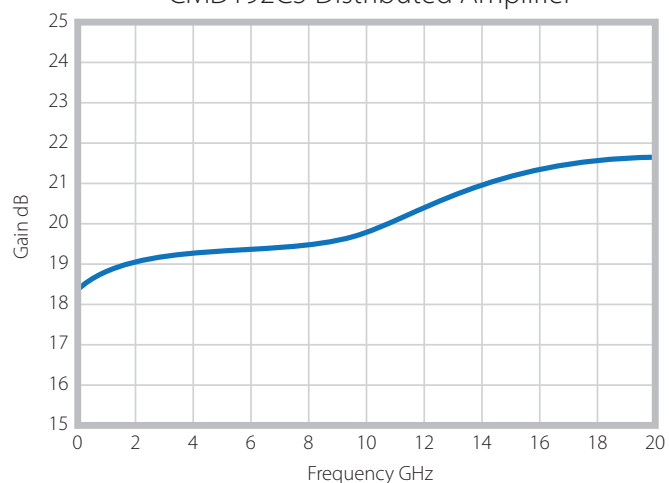
- Positive Gain Slope
- Broad Bandwidth
- High Linearity
- Low Noise Figure



## **DRIVER AMPLIFIERS** 2 to 40+ GHz

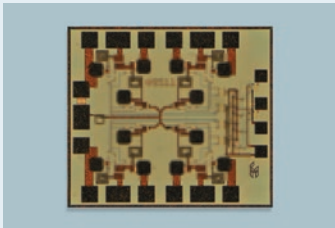
- High Gain Stability
- High Linearity
- Positive Bias

CMD192C5 Distributed Amplifier



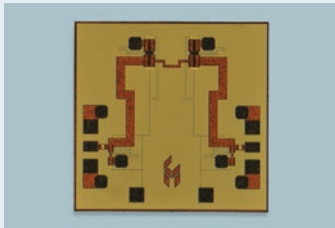
Founded in 2006, Custom MMIC is a leading developer of performance-driven monolithic microwave integrated circuits (MMICs). We are a fabless, ISO certified company offering a rapidly growing family of high-performance MMIC standard products, and innovative custom-design services. Our engineering team is highly experienced in a broad range of III-V processes (GaAs, GaN, InP, InGaP) and have longstanding relationships with the leading foundries. We offer high reliability, including space qualification.

*Our switching and frequency conversion portfolio offers state-of-the-art insertion/conversion loss, bandwidth, and isolation. Our gain and phase control products provide high accuracy, along with low loss.*



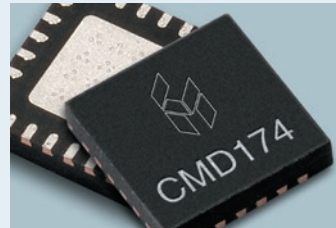
**SWITCHES**  
**DC to 40+ GHz**

- Ultra-low Insertion Loss
- Wide Bandwidth
- Fast Switching Speed
- High Isolation



**ATTENUATORS**  
**DC to 40+ GHz**

- High Attenuation Range
- Low Insertion Loss
- Wide Bandwidth



**PHASE SHIFTERS**  
**DC to 20+ GHz**

- Low Phase Error
- Low Insertion Loss
- Wide Bandwidth



**MIXERS/ MULTIPLIERS**  
**4 to 40+ GHz**

- Low Conversion Loss
- High Isolation
- Broad Bandwidth

## Take Advantage of Positive Gain

Microwave designers face many challenges in designing broadband transmitters and receivers. One of these challenges is dealing with signal-chain gain variation over frequency and temperature. Amplifiers, attenuators, switches and other MMIC functions in the signal chain typically exhibit a steady decline over frequency and temperature.

Custom MMIC has developed innovative amplifier and switch products which help lessen this decline in gain with our Positive Gain Slope feature. Our MMICs increase in gain by 1.5 to 2 dB as frequency increases over its specified band. This feature can benefit your design by eliminating one or more compensating gain stages and easing your worst-case conditions.





### **ISO9001:2008 CERTIFIED AND SPACE QUALIFIED**

Custom MMIC was certified to **ISO9001:2008** in July 2012. We design high quality into everything we do, from MMIC development to manufacturing and testing. Our facilities are audited regularly to ensure a sustained focus on quality.

Custom MMIC offers space qualification and testing for many of our products. We have completed **MIL-PRF-38534 Class K** and **MIL-PRF-38535 Class S** screening on die, hermetic packaged die, and hybrid assemblies.