

LTE Band 48 CBRS/5G Power Amplifier Module (PAM) Family

30 years of constant improvement yields the Duet Microelectronics DMA370x Family of high gain, best-in-class power added efficiency (PAE), high RF output LTE Band 42/43/48 CBRS 5G power amplifier modules (PAMs). Developed to power tomorrow's LTE-A-Pro, CBRS, and 5G networks with unmatched bit efficiency, the 35-dB gain DMA3700 and DMA3701 form the Portfolio. The DMA3700 produces four (4) Watts of RF power (OP1dB) with >28% PAE while operating from +8 Vdc single supply making it ideal for dense coverage long-reach class HetNet Small Cell transmitters while the DMA3701 produces two (2) Watts of RF power (OP1dB) with >22% PAE while operating from +5 Vdc single supply making it ideal for HetNet small cell medium reach transmitters (or user equipment (UE) transmitters when operated from +3.6 Vdc).



Applications & Benefits

- High Gain High Power Citizens Broadband Radio Service (CBRS)/5G TDD Power Amplifier Module (PAM)
- 35 dB Minimum Gain from 3550 to 3700 MHz
- Gain Flatness ± 0.25 dB within any 10 MHz Channel
- +36/+33 dBm OP1dB (CW Tone) DMA3700/DMA3701
- +28/+24 dBm Linear RF Power Output TD-LTE Uplink (B42/B43/B48), DMA3700/DMA3701
- Power Added Efficiency > 28%/22%, DMA3700/DMA3701
- Single Power Supply Input (+8 Vdc for DMA3700, +5 or +3.6 Vdc for DMA3701)
- Operating Current = 250/200 mA Typical ($P_{diss} \approx 2/1$ Wdc), DMA3700/DMA3701
- Low Profile Miniature 10-Pin 5 x 5 x 1.2 mm Surface Mount Package

RF and Electrical Performance

Part Number	Frequency Range (MHz)	Vcc (Vdc)	Gain (dB)	OP1dB/ Linear RF Output Power (dBm)	Icc, Operating Current (mA)	PAE (%)	Worst Case EVM, 256-QAM (%RMS)	Harmonics (dBc)	Suprious Output Level (dBc)	PA Die	Package
DMA3700	3550 to 3700	+8	35	+36/+28	250	>28	<2.5	2fo: -42 3fo: -58	-60	InGaP HBT	5x5x1.3 mm, 10-Pin SMT Module
DMA3701	3550 to 3700	+5/+3.6	35	+33/+24	200	>22	<2.5	2fo: -42 3fo: -58	-60	InGaP HBT	5x5x1.3 mm, 10-Pin SMT Module

Other Duet Microelectronics Products



LNA ICs



FTTx Optical Receiver Modules



5G mmW Transmit Modules



DOCSIS® 3.1 Amplifiers

About Duet Microelectronics

Our singular focus is helping you build products that you couldn't make before. Since our founding in 2016, we have attracted the industry's top design, engineering, process technology and applications talent. Guided by veteran RF business leaders and supported by a robust supply chain, modern quality management, service and support systems, our team is able to offer top tier RF semiconductor technology, products, service and support.

So, trust Duet Microelectronics for your next project. We offer more than just RF...we deliver RF that works for you!

Contact us today to learn more about our products or discuss having an RFIC designed to your specifications!