



NO CONTENT ON THE ATTACHED DOCUMENT HAS CHANGED



THIS PAGE INTENTIONALLY LEFT BLANK

DESIGNER'S KIT

Linear Driver Amps, 0.4 - 2.5 GHz

This Driver Amplifier Designer's Kit HMC-DK002 includes samples of 6 of Hittite's most popular GaAs InGaP HBT MMIC Amplifiers. The table below summarizes the features of each of the products included in this kit. Also included are 6 evaluation boards (assembled and tested), which enable the designer to immediately test each enclosed sample.

Some of the Driver Amplifier products in this kit can be tuned for several different Cellular/3G frequency bands. In these cases, Hittite offers several evaluation board versions for the same product, where each evaluation board is tuned for a different frequency band. All of the evaluation boards in this kit are tuned for either 900 MHz or 1900 MHz bands. The designer is encouraged to refer to the Application Circuit section of the product data sheet before applying power to any evaluation board. Data sheets for each of the enclosed samples and complete information regarding available evaluation boards for all Hittite products can be found on the enclosed CD or on-line at www.hittite.com.

Hittite MMIC Driver Amplifier products are offered in industry standard QS16G, MS8G, LP3 and SOT89 packages, and are targeted to Cellular/3G, Fixed Wireless, CATV, MMDS, WiMAX, and WiBro applications from 0.45 to 2.5 GHz. The enclosed HBT MMIC amplifier products are ideal for use in driver, pre-driver, feed forward, and predistortion applications from 0.45 to 2.5 GHz.

HMC-DK002 – LINEAR DRIVER AMPLIFIERS, 0.4 - 2.5 GHz

| Part Number | Frequency (GHz) | Function | Gain (dB) | OIP3 (dBm) | NF (dB) | P1dB (dBm) | Bias Supply | Package | Quantity |
|--------------|-----------------|------------------------|-----------|------------|---------|------------|----------------|---------|----------|
| HMC454ST89E | 0.4 - 2.5 | High IP3 Amp, 1/2 Watt | 12.5 | 42 | 6 | 27 | +5V @ 150 mA | ST89 | 5 |
| HMC450QS16GE | 0.8 - 1.0 | Medium Power Amp | 26 | 40 | 8 | 26 | +4V @ 310 mA | QS16G | 5 |
| HMC413QS16GE | 1.6 - 2.2 | Medium Power Amp | 22 | 40 | 5.5 | 27 | +3.6V @ 270 mA | QS16G | 5 |
| HMC452ST89E | 0.4 - 2.2 | Power Amp, 1 Watt | 21 | 49 | 6.5 | 30 | +5V @ 510 mA | ST89 | 5 |
| HMC453ST89E | 0.4 - 2.2 | Power Amp, 1.6 Watt | 20.5 | 49 | 6.5 | 32 | +5V @ 725 mA | ST89 | 5 |
| HMC457QS16GE | 1.7 - 2.2 | Power Amp, 1 Watt | 27 | 46 | 5 | 30.5 | +5V @ 500 mA | QS16G | 5 |

| Part Number | Description | Quantity |
|----------------------|--|----------|
| 107749 – HMC454ST89 | Evaluation Board – High IP3 Amp, 1/2 Watt – 1900 MHz | 1 |
| 108349 – HMC450QS16G | Evaluation Board – Medium Power Amp – 900 MHz | 1 |
| 105000 – HMC413QS16G | Evaluation Board – Medium Power Amp – 1900 MHz | 1 |
| 108712 – HMC452ST89 | Evaluation Board – Power Amp, 1 Watt – 1900 MHz | 1 |
| 108718 – HMC453ST89 | Evaluation Board – Power Amp, 1.6 Watt – 1900 MHz | 1 |
| 106043 – HMC457QS16G | Evaluation Board – Power Amp, 1 Watt – 1900 MHz | 1 |

Each of the enclosed evaluation boards utilize Rogers 4350 (Er=3.48) as the circuit board material. HMC452ST89, HMC453ST89, and HMC454ST89 evaluation boards are also available on FR4 with a common tuning circuit footprint. Please contact Hittite for more information regarding available circuit board materials and tuning circuits for customer-specific applications.