LX5537

InGaP HBT 2.3 – 2.7 GHz Power Amplifier

PRODUCTION DATA SHEET

DESCRIPTION

The LX5537 is a power amplifier optimized for 802.16e(WiMAX/WiBro) and 802.11b/g/n applications in the 2.3-2.7 GHz frequency range. The PA is implemented as a three-stage monolithic microwave integrated circuit (MMIC) with active bias, on-chip input matching and output pre-matching.

The device is manufactured with an InGaP/GaAs Heterojunction Bipolar Transistor (HBT) IC process (MOCVD). It operates with a single positive voltage supply of 3-4.2V, and provides power gain of 31dB and output powers of +23.5dBm at 3.6V and +25 dBm at 4.2V for 2.5% EVM in the 2.5-2.7GHz.

LX5537 also features an on-chip power detector at the output port of the PA to help reduce BOM cost and PCB space for implementation of power control in a typical wireless system. The 26dB attenuation function can optionally be used to reach low gain mode.

The LX5537 is available in a 16-pin 3mm x 3mm quad flat no lead package (QFN 3×3-16L). The compact footprint, low profile, and excellent thermal capability make the LX5537 an ideal solution for WiMAX/WiBro as well as 802.11b/g/n applications.

IMPORTANT: For the most current data, consult *MICROSEMI*'s website: **http://www.microsemi.com**

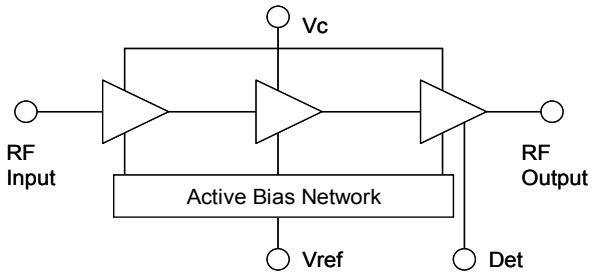
KEY FEATURES

- Advanced InGaP HBT
- 2.3-2.7GHz Operation
- Single-Polarity 3-4.2V Supply
- Power Gain ~ 31 dB or higher
- 23.5 dBm @2.5% EVM /3.6V
- 25 dBm @2.5% EVM /4.2V
- 24.5 dBm @4% EVM /3.6V
- 26 dBm @4% EVM /4.2V
- 22% Efficiency @24.5dBm/3.6V
- Optional 26dB Attenuation
- Complete On-Chip Input Match
- Simple Output Match for Optimal EVM
- Temperature-Compensated On-Chip Output Power Detector with Wide Dynamic Range
- Small Footprint: 3x3mm^2
- Low Profile: 0.9mm

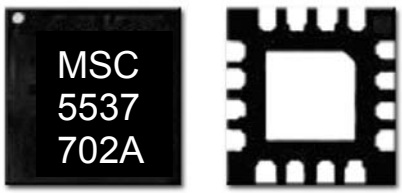
APPLICATIONS

- 802.16e WiMAX
- 802.16e WiBro
- 802.11b/g/n

BLOCK DIAGRAM



3X3MM QFN PACKAGE



PACKAGE ORDER INFO

LQ	**Plastic QFN 3×3** **16 pin** RoHS Compliant / Pb-free
LX5537LQ	

Note: Available in Tape & Reel. Append the letters "TR" to the part number. (i.e. LX5537LQ-TR)

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LX5537

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INFORMATION

Thank you for your interest in Microsemi® Analog Mixed Signal products.

The full data sheet for this device contains proprietary information.

To obtain a copy, please contact your local Microsemi sales representative. The name of your local representative can be obtained at the following link
http://www.microsemi.com/contact/contactfind.asp

or

Contact us directly by sending an email to:
IPGdatasheets@microsemi.com
Be sure to specify the data sheet you are requesting and include your company name and contact information and or vcard.

We look forward to hearing from you.

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