

**DESCRIPTION**

The LX5518 is a high gain and high power amplifier optimized for 802.11b/g/n applications in the 2.4-2.5 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 3-5V, and provides a power gain of 30dB and an output power of +26dBm at 5V for 3% EVM in the 2.4-2.5GHz.

LX5518 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 LX5518 is available in a 16-pin 3mm x 3mm quad flat no lead package (QFN 3x3-16L). The compact footprint, low profile, and excellent thermal capability make the LX5518 an ideal solution for 802.11b/g/n applications.

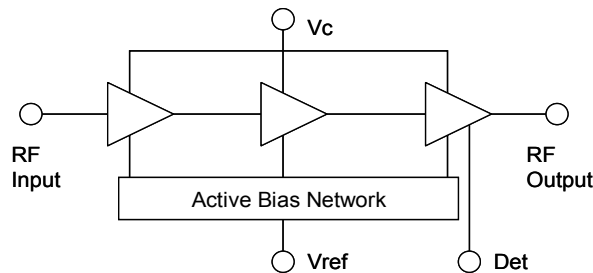
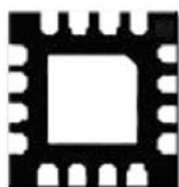
**IMPORTANT:** For the most current data, consult MICROSEMI's website: <http://www.microsemi.com>

**KEY FEATURES**

- Advanced InGaP HBT
- 2.4-2.5GHz Operation
- Single-Polarity 3-5V Supply
- Power Gain ~ 30 dB
- 26dBm @3%EVM,802.11g/5V
- 24dBm @3.5%EVM,802.11g/3.3V
- 28dBm @CCK,802.11b/5V
- 27dBm @CCK,802.11b/3.3V
- 24.5% Efficiency @28dBm/5V
- 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<sup>2</sup>
- Low Profile: 0.9mm

**APPLICATIONS**

- 802.11b/g/n

**BLOCK DIAGRAM**

**3X3MM MLP PACKAGE**

**PACKAGE ORDER INFO**
**LQ**
**Plastic QFN 3x3  
16 pin**

RoHS Compliant / Pb-free

**LX5518LQ**

Note: Available in Tape & Reel. Append the letters "TR" to the part number. (i.e. LX5518LQ-TR)



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## INFORMATION

*Thank you for your interest in Microsemi<sup>®</sup> 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](mailto: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.*