



NXP 1.4 to 1.7 GHz RF power transistor BLF7G15LS-200

RF power transistor for leading performance in 1.5 GHz LTE basestations

Optimized for 1.5 GHz LTE/W-CDMA applications and built in rugged Gen7 LDMOS, this 28 V ceramic transistor delivers best-in-class efficiency in a symmetrical Doherty configuration.

Key features

- ▶ Average output power: 50 W
- ▶ Power gain: 19.5 dB
- ▶ Drain efficiency: 29%
- ▶ ACPR: -35 dBc

Key benefits

- ▶ Excellent ruggedness
- ▶ High efficiency
- ▶ Low R_{th} (0.30 K/W) for excellent thermal stability
- ▶ Designed for broadband operation (1.45 to 1.55 GHz)
- ▶ Lower output capacitance for improved performance in Doherty applications
- ▶ Low memory effects, for excellent pre-distortability
- ▶ Internally matched for ease of use
- ▶ Integrated ESD protection
- ▶ RoHS compliant (2002/95/EC)

Applications

- ▶ Basestations and multi-carrier applications in the 1.45 to 1.55 GHz range (LTE, W-CDMA, MC-GSM)

NXP, the market leader in RF power devices, uses its rugged Gen7 LDMOS technology to produce this RF power transistor, optimized for LTE 1.5 GHz applications.

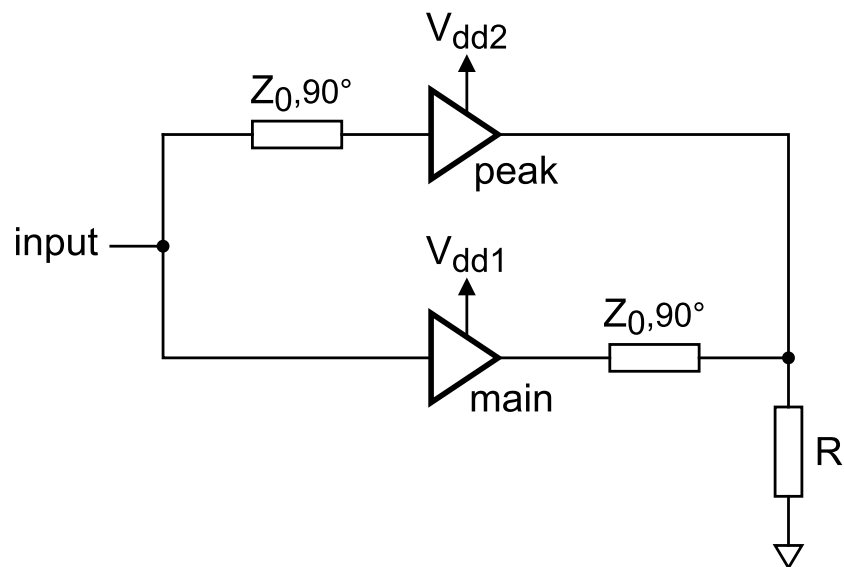
Designed to work in a symmetrical Doherty configuration, this ceramic transistor delivers a best-in-class efficiency of 42% for an average power of 48.6 dBm and peak power of 56.6 dBm between 1526 MHz and 1555 MHz.

The thermally enhanced ceramic package yields low R_{th} , for excellent thermal stability. The transistor is designed for low memory effects, which results in superior digital pre-distortion (DPD) capability. It includes integrated ESD protection, and complies with directive 2002/95/EC, regarding the Restriction of Hazardous Substances (RoHS).

All of NXP's RF power devices are backed up with world-class application support, which includes reference designs, application notes, simulation models, and, on request, customer-tailored support, to reduce time to market. In addition, NXP's high-volume manufacturing operations ensure device consistency and high end-product yields.



Doherty block diagram - as used by BLF7G15LS



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Demoboard of the BLF7G15LS-200

