

# Harmonic And Intermodulation Performance Of LDMOS Transistors

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## Summary

A mathematical model for the input-output characteristic of the LDMOS transistor is presented. The model, basically a Fourier-series, can easily yield closed-form series expressions for the amplitudes of the output components resulting from multisinusoidal input signals to the LDMOS transistor. The special case of equal-amplitude two-tone input signal is considered in detail. The results confirm the experimental observations that the third-order intermodulation of the class-AB is low and almost constant over a wide dynamic range. The results also show that for a wideband operation the second-order intermodulation is dominant.

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