

A miniature PHEMT switched-LNA for 800 MHz to 8.0 GHz handset applications

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A powerful monolithic integrated switched-LNA utilizing advanced pseudomorphic GaAs has been developed. The Swt-LNA covers 800 MHz to 8000 MHz but the primary application focus is 800 MHz to 2500 MHz. In gain mode the Swt-LNA operates on a single 3V supply and the current (thus output IP3) can be adjusted from 5 to 60 mA (input IP3=+1 to +15 dBm). The Swt-LNA provides a typical 1.4 dB noise figure and 14 dB gain. When the current control pin sets the LNA to 0 mA, the Swt-LNA goes automatically into bypass mode. Bypass mode has typically 2 dB loss and +35 dBm IIP3. The IC is packaged in a low cost 2 mm sq. SOT-343 plastic package. This Swt-LNA provides smaller size, lower NF, wider bandwidth, and easier usage than previously reported, similar products.

 [Return to main document.](#)