# Content Guide

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1 General Description
This document contains typical characteristics for the RF front end. The characteristics are measured with a network analyzer. All characterizations have been done without battery supply.

2 Hardware Description

2.1 Input Impedance
The input impedance is specified for bare die and for QFN:
- bare die: 9-j330Ω
- QFN: 31-j320Ω
The impedance is frequency depended. Typical curves are below.

![Input Impedance Graphs](image-url)
2.2 RF rectifier performance

The characterization for the below chart was done at 900MHz input signal frequency and QFN packed devices were used.
The power efficiency and voltage-current characteristic was done at 900MHz input signal frequency with QFN packed devices. The characterization has been done with 3 different power levels with an ohmic load connected between the VPOS and VSS pins.

RF rectifier power conversion efficiency

RF rectifier voltage-current characteristic
2.3 Measurement Setup

The SL900A device has been characterized in 3 different set ups – Die on SMA, Die on PCB and QFN on PCB.

The Die on SMA set up is used for the characterisation of the pure die impedance. This information is used for inlay manufacturers where the chip is bumped and directly attached to the antenna pads.

The Die on PCB is used to characterise the die with normally long bonding wires and a ground plane on the bottom of the PCB.

The QFN on PCB is used for characterisation of the packed devices that are usually soldered on a PCB substrate.
3  Contact Information

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5 Revision Information

<table>
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<th>Changes from 1-00 (2014-Jun-26) to current revision 1-01 (2014-Jul-22)</th>
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<td>Update to corporate format</td>
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Note: Page numbers for the previous version may differ from page numbers in the current revision.