

# RFMD2014 Application Note

## Product Description

The RFMD2014 is direct quadrature modulator for use in cellular base stations and other communications systems. RFMD2014 supports cellular, 3G, WiMax, and LTE air interface standards. This device features operation from 1450MHz to 2700MHz with excellent carrier and sideband suppression and ultra-low noise floor. The device is manufactured in an advanced GaAs HBT process. The RFMD2014 operates from a single 5V supply and is packaged in a low cost, 4mm x 4mm, 24-pin leadless package.

This is to provide tuning information for better Input Return Loss on the LO port at 1450MHz.

The following performance data was collected at room temperature,  $V_{CC}$  is 5V and BBIP, BBIN, BBQP, BBQN is 1.5V. C8 is 1.5pF and L1 is 12nH.

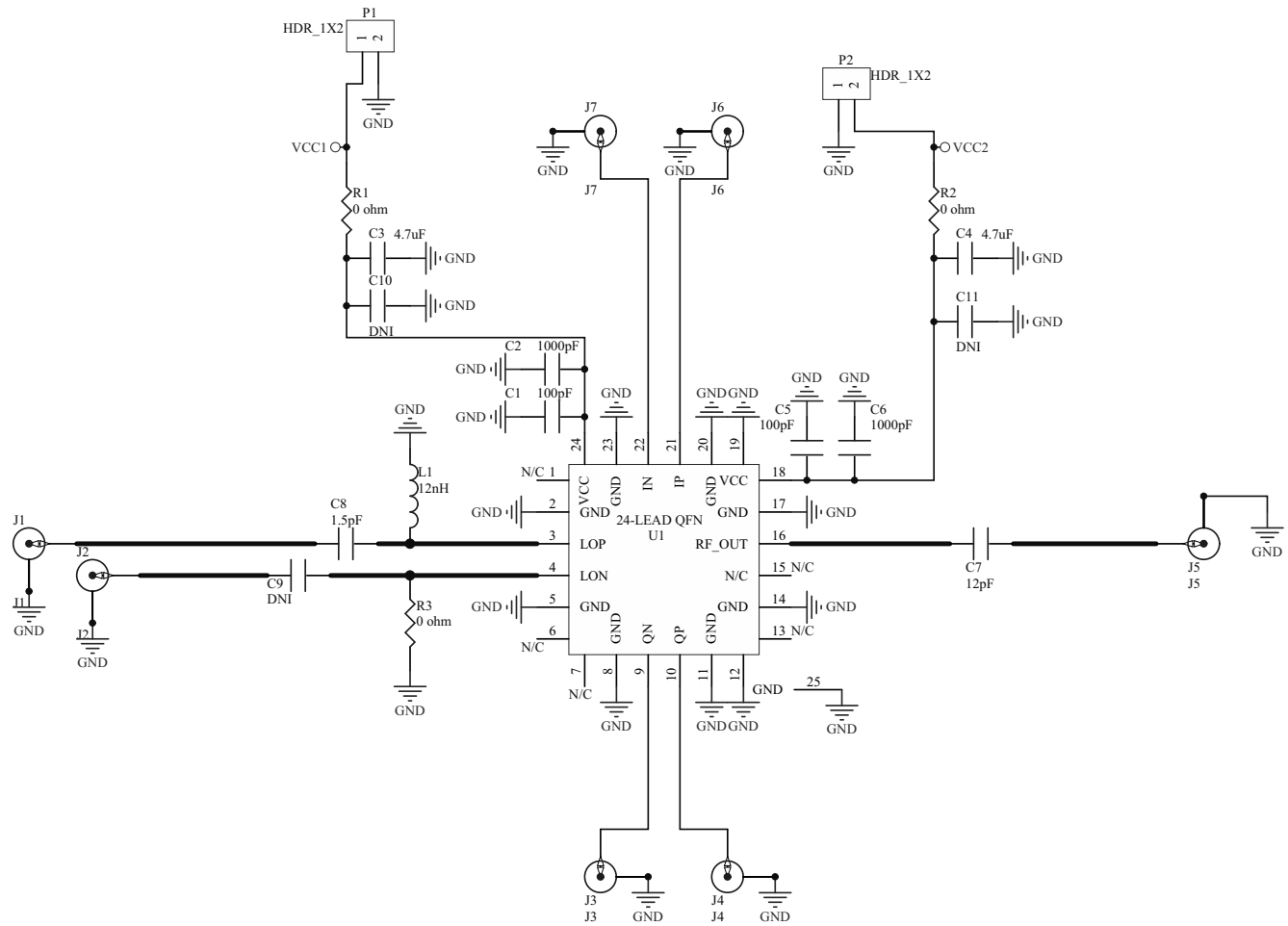


Figure 1. 1450MHz Application Circuit

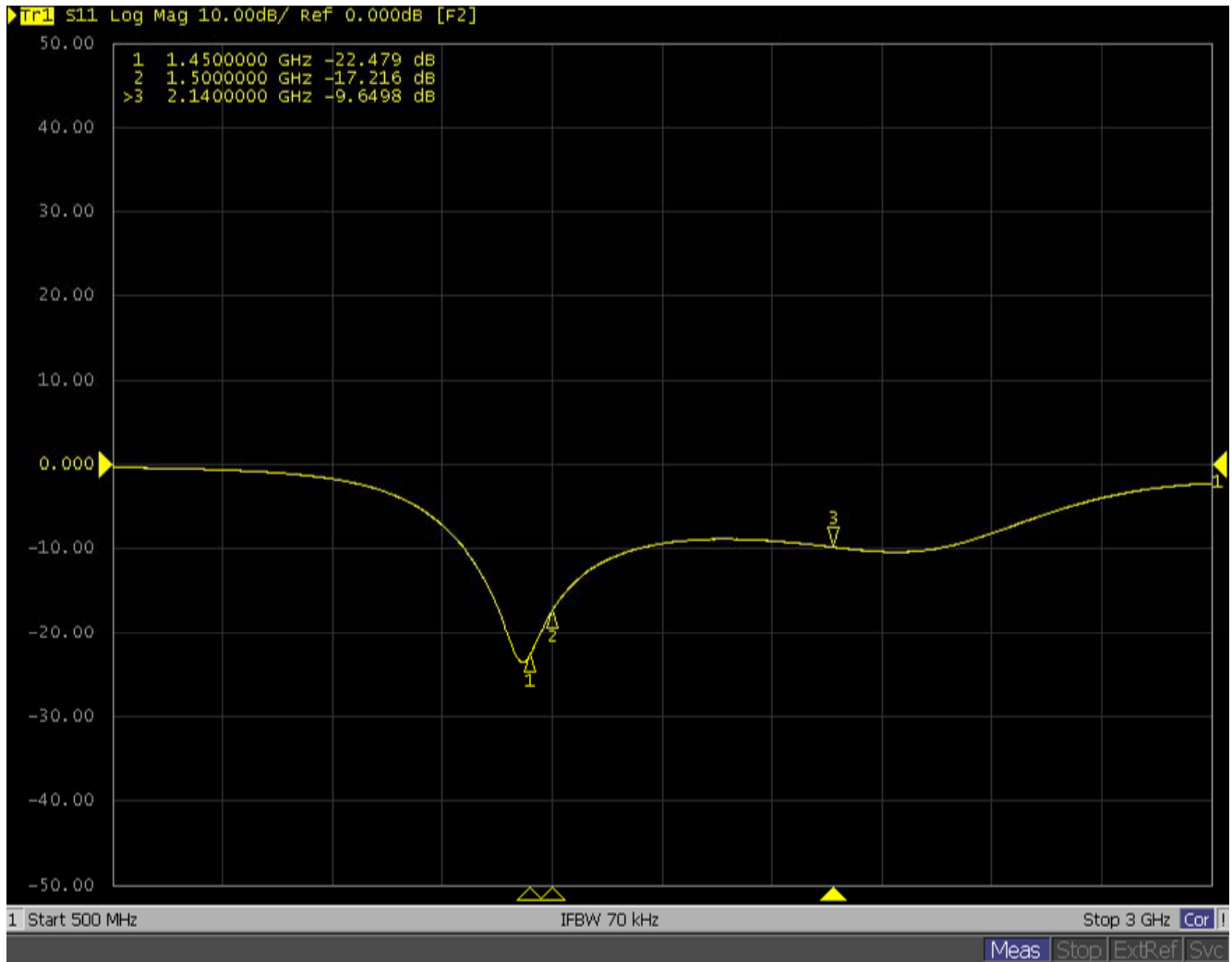


Figure 2. S-Parameters (500MHz to 3GHz)