

# Measuring Received Signal Power

## EE361 Lab 4

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Due: <++>

# Abstract

## 1 Equipment and Parts

- RTL-SDR USB Receiver
- Whip Antenna
- SDR Sharp Software
- Map

## 2 Introduction

## 3 Experimental Design

## 4 Results

Table 1: Tuning In To an FM Radio Station

| Property           | Value |
|--------------------|-------|
| Band (MHz)         | 150.7 |
| Gain (dB)          | 19.7  |
| Sample Rate (Msps) | 2.4   |
| Tuner AGC          | OFF   |

Table 2: Tuning in to KUGS

| Property         | Value |
|------------------|-------|
| Noise Floor (dB) | -57   |

Table 3: Effect of RF Gain, Measured at 88.1MHz

| Gain (dB) | Noise Floor (dB) | Peak (dB)    | SNR (dB) |
|-----------|------------------|--------------|----------|
| 19.7      | -56              | -25          | 31       |
| 0         | -56              | -42          | 14       |
| 49.6      | -35              | 5 (clipping) | 40       |
| 29.7      | -50              | -12          | 38       |

**5 Discussion**

**6 Conclusion**

**7 References**

**Appendices**