Protocol of RF Detector Calibration

IAP RAS

October 3, 2025

1 Sample

- RF detector 1

2 Measurement equipment

1. Microwave generator: Rigol DSG830

2. Spectrum analyzer: Rigol RSA5065N

3. Oscilloscope: Tektronix MDO34

3 Parameters

Parameters from DetCal application settings file.

RF FREQUENCIES	2000 to 3000 MHz [3]
RF LEVELS	-5.0 to 15.0 dBm [21]
SPAN WIDE	1000 kHz
SPAN NARROW	100 kHz
RBW WIDE	10 kHz
RBW NARROW	1 kHz
VBW WIDE	10 kHz
VBW NARROW	1 kHz
REF LEVEL	15.0 dBm
SWEEP POINTS	1001
SWEEP TIME	AUTO ON
PRECISE	True
HOR SCALE	10 ms/div
HIGH RES	True
IMPEDANCE 50OHM	True
COUPLING DC	True
CHANNEL	4
RECALC ATTEN	False

Table 1: Measurement parameters
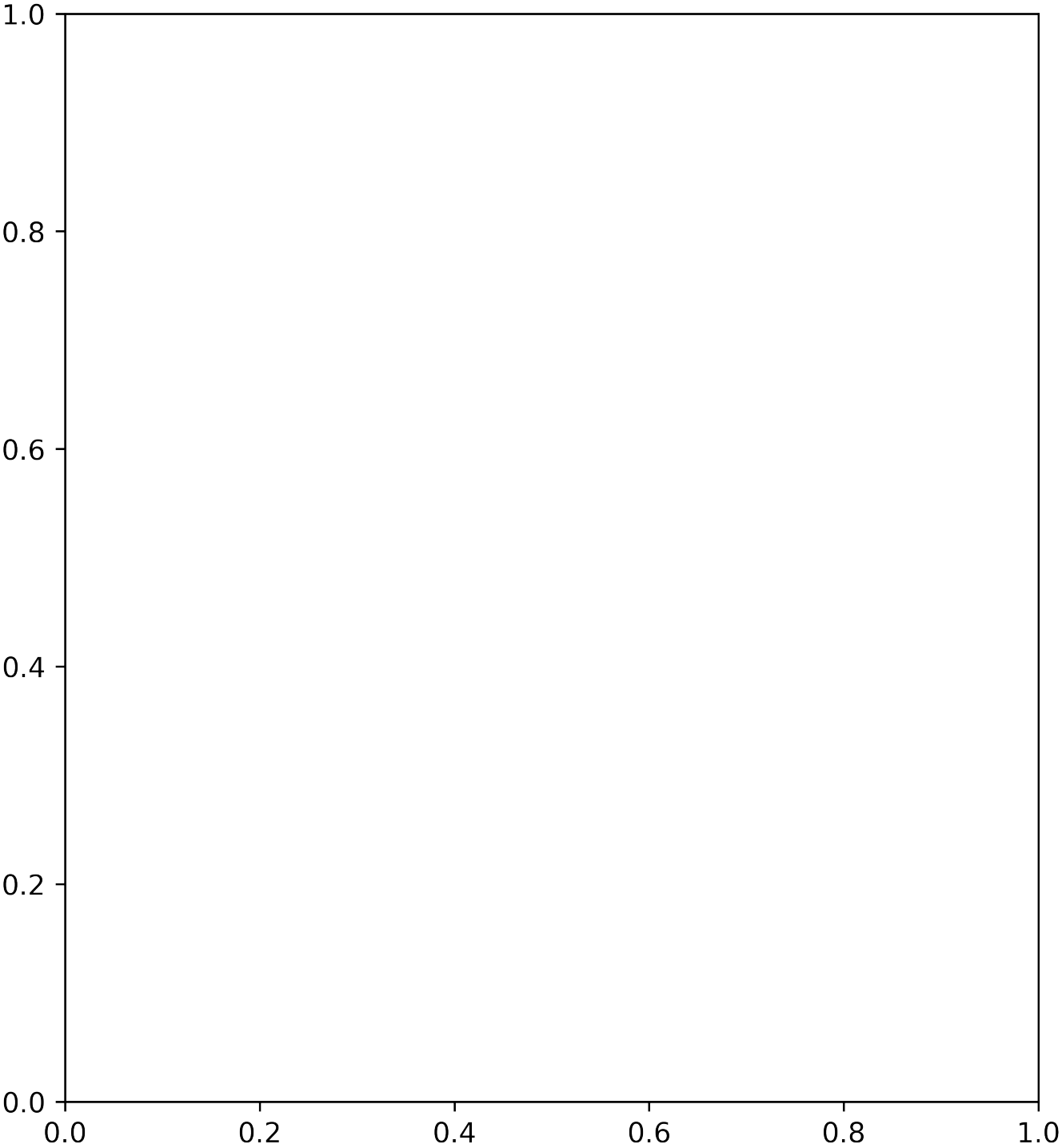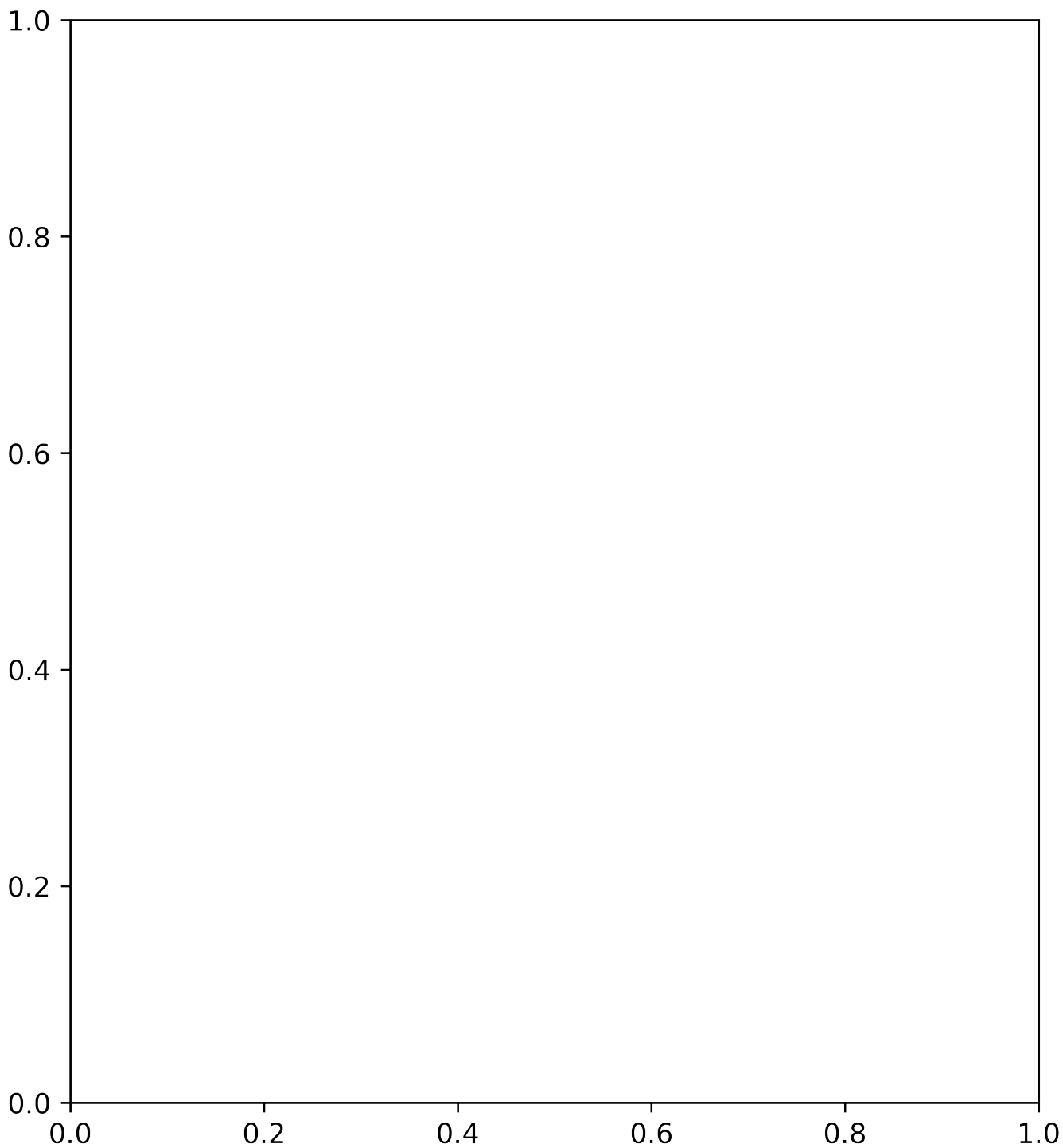
4 Results

Figure 1: Detector response at 2000 MHz

Figure 2: Detector response at 2000 MHz