Memorandum

To:

cc:

From: J. Effland
R. Groves

Subject: Saturation Measurements of Single-Ended SIS Mixer/Preamp for ALMA Band 6

Introduction

History

Equipment Setup

Results

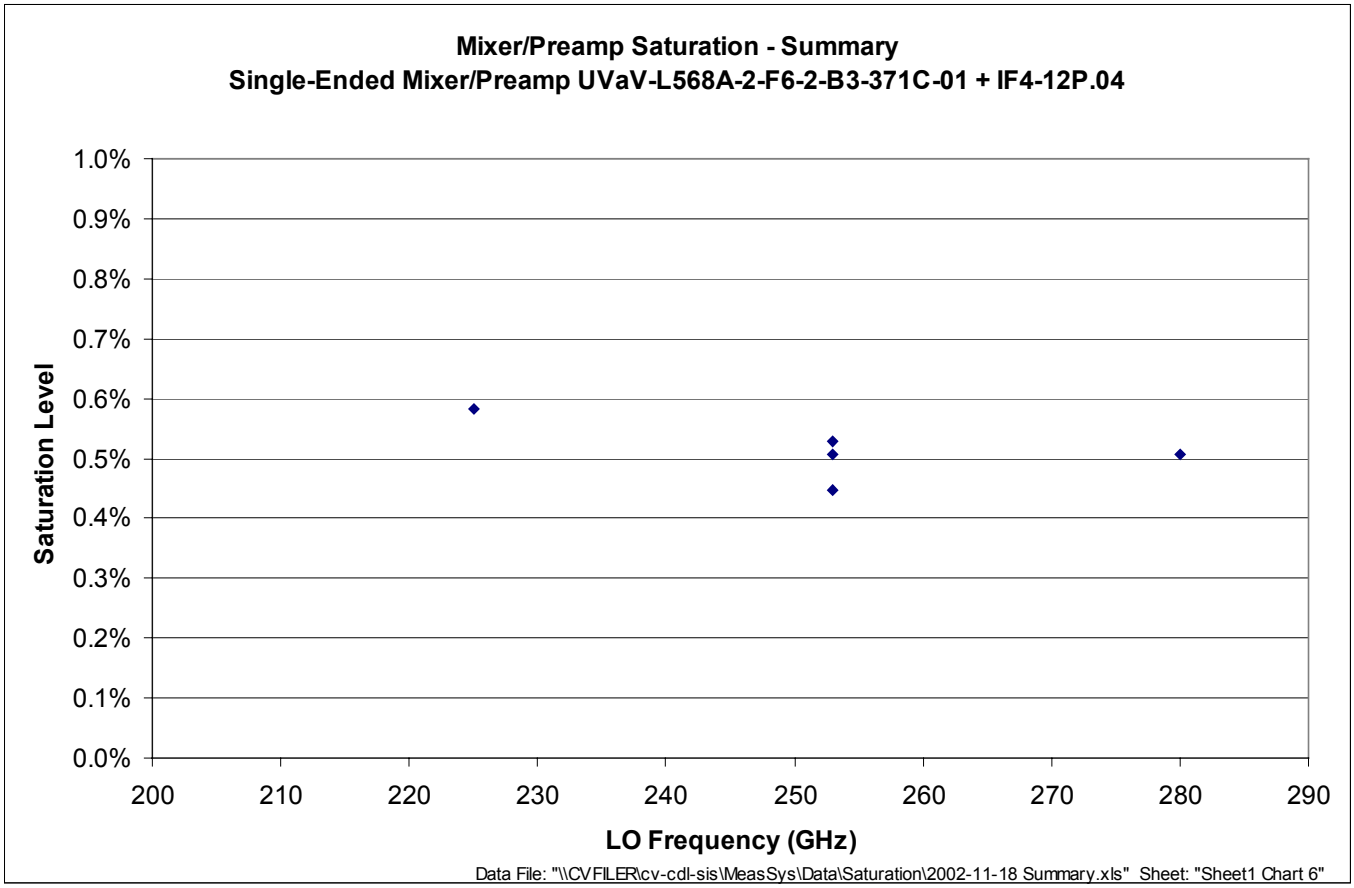

Figure 1: Summary data for single-ended mixer/preamp saturation *vs*. LO frequency

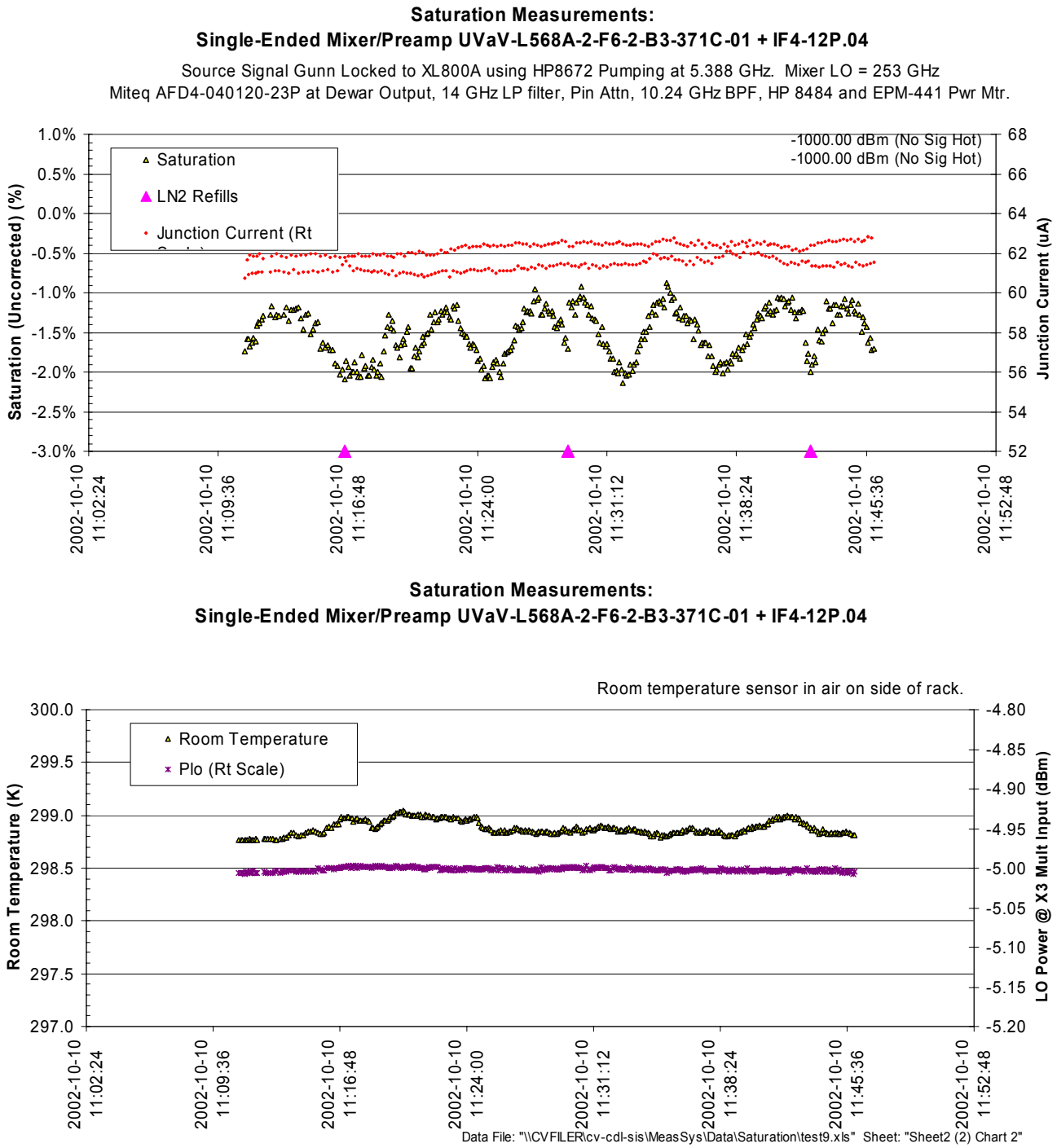

Figure 2: Phase change of ripple in saturation data when cold load is refilled. Cold load mirror angle at 30°.

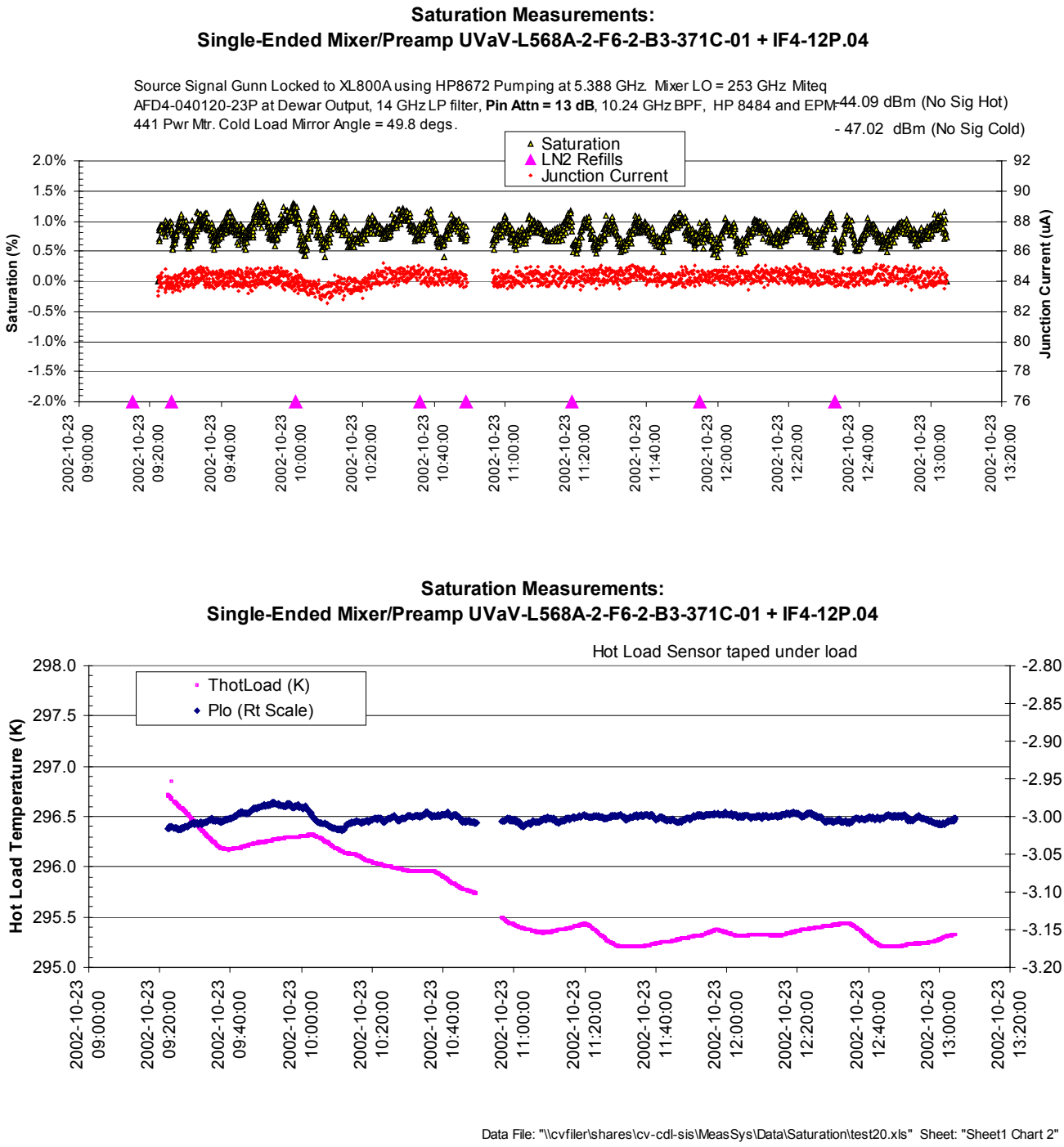

Figure 3: Frequency change of ripple in saturation data when cold load is refilled. Cold load mirror angle at 44°.

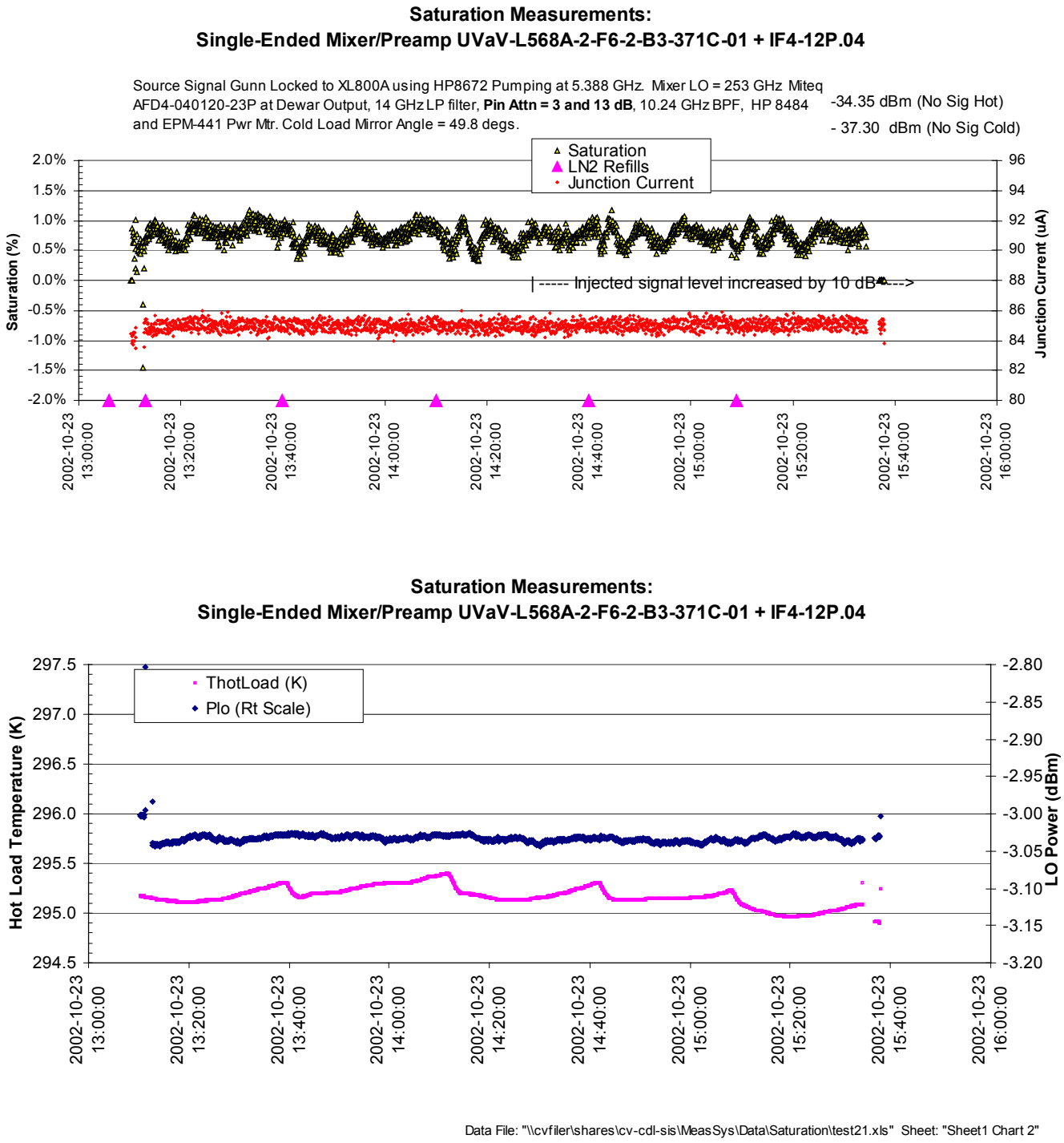

Figure 4: No change in saturation level with 10 increase in injected signal

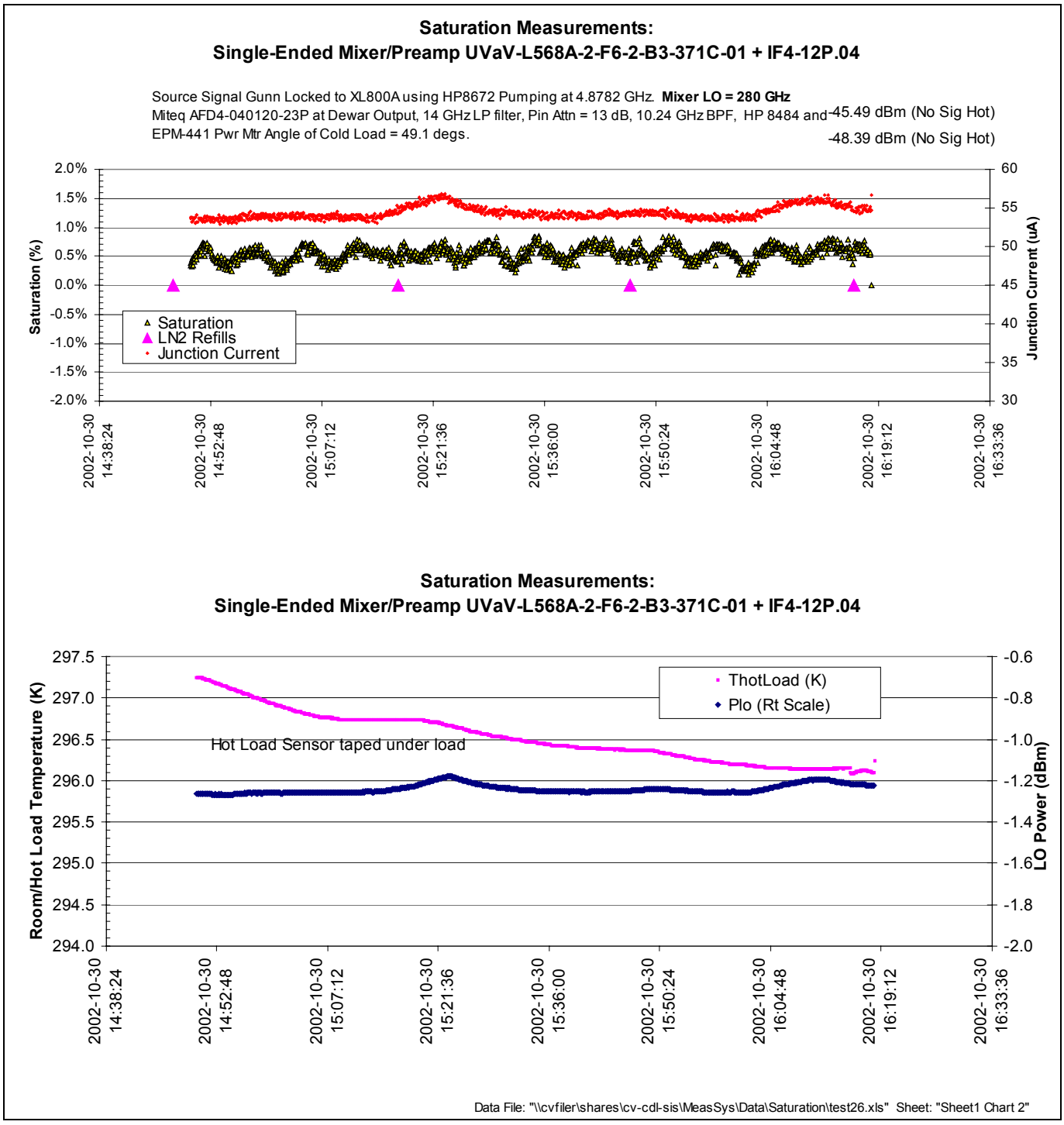

Figure 5: Saturation with LO = 280 GHz

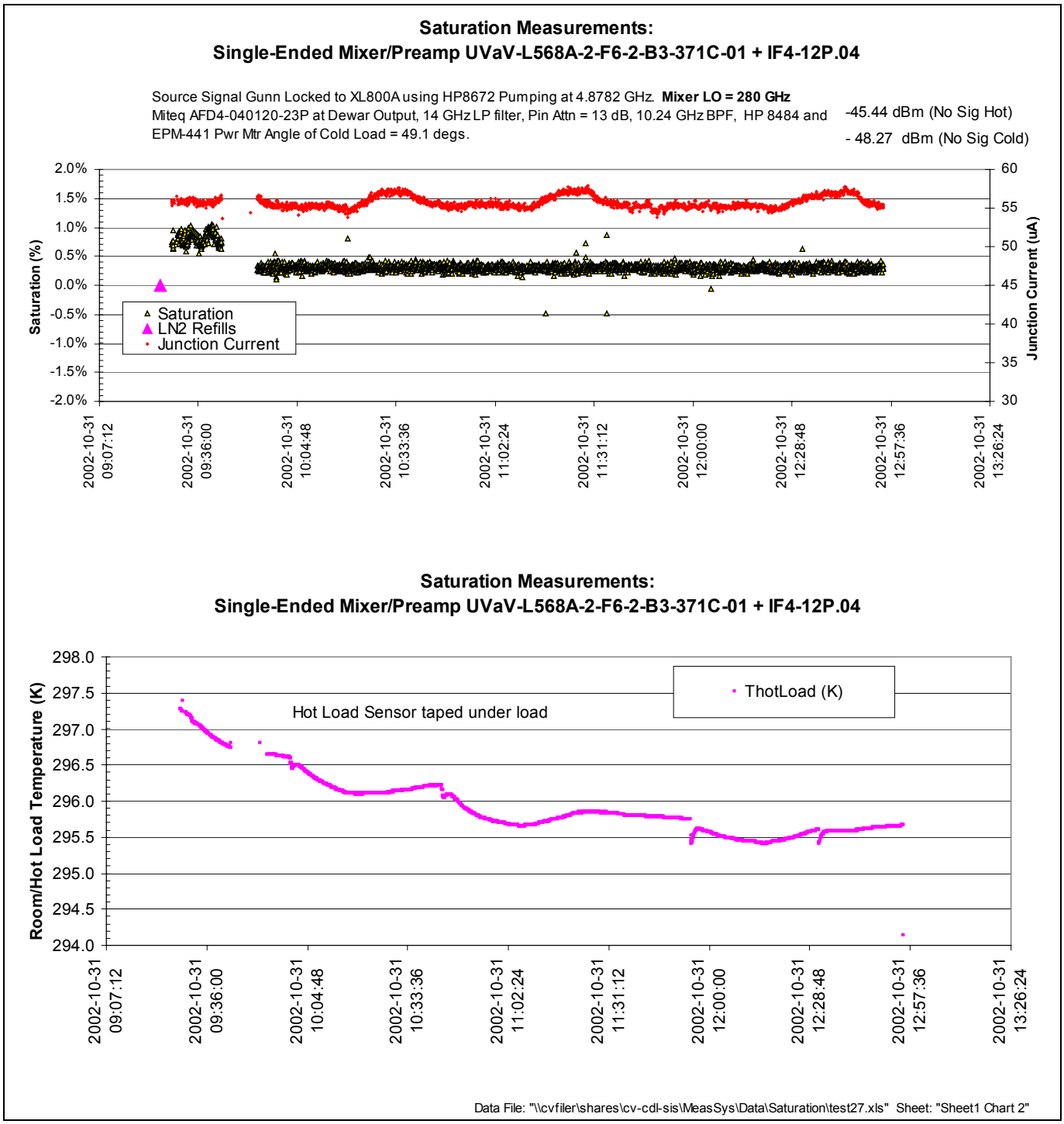

Figure 6: System calibration by injecting signal after mixer/preamp (Port 4 in Figure 7)

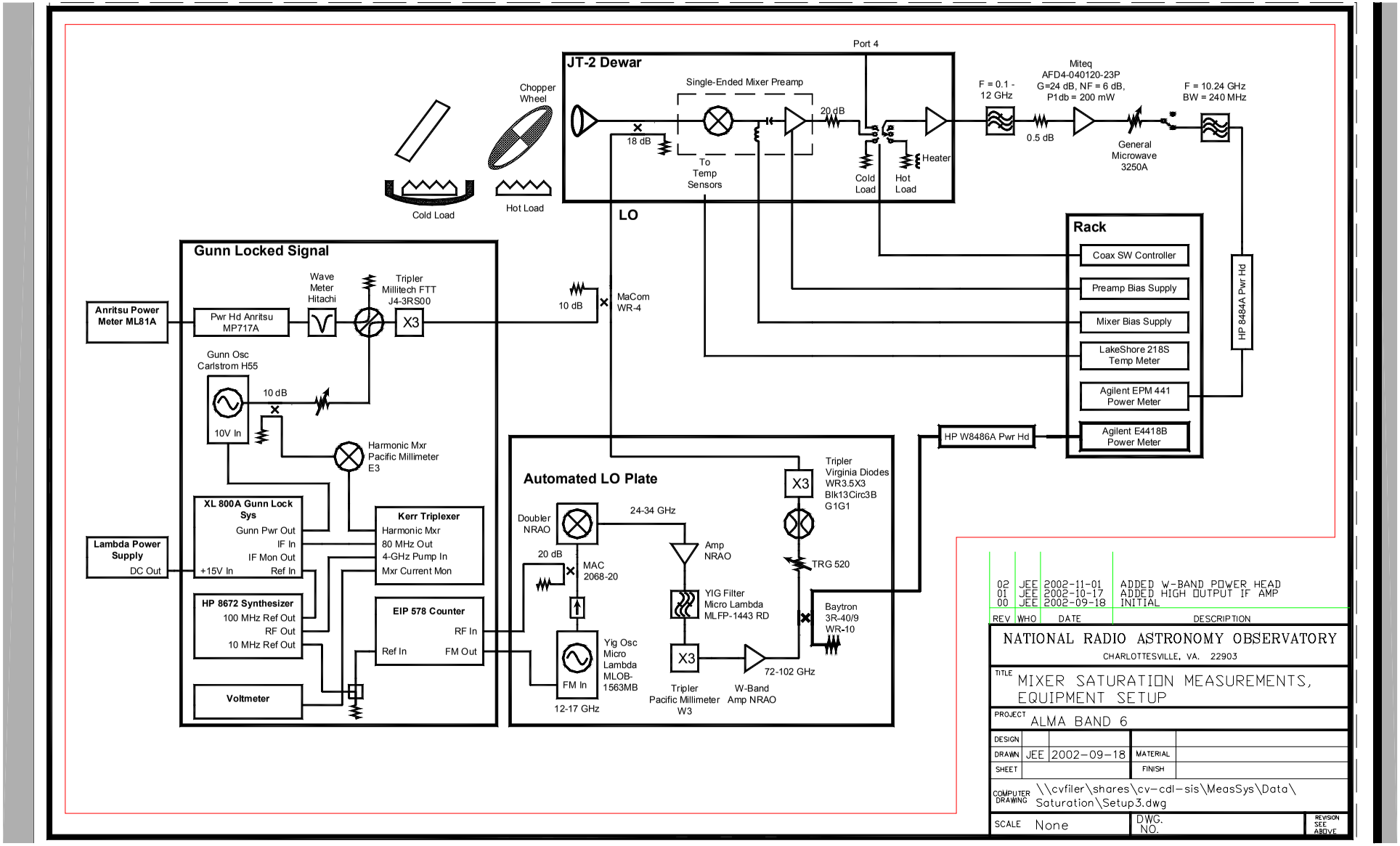

Figure 7: Mixer Saturation Measurement Setup