

RFI Test - NETGEAR GSM7328FS

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1 Introduction

This document shows RFI test (electric field only) info and results for the NETGEAR ProSafe GSM7328FS (see Fig. 1). This switch is going to be located inside the new engineers building, and other in the electronics department - cryogenics lab. The red labels in the picture show the positions of two test points (1. front panel close to the cable and fiber transceiver, 2. close to the 120VAC power cable). This test was requested by Jorge Rodriguez.



Figure 1: NETGEAR ProSafe GSM7328FS.

2 Test Equipment

Agilent E4445A Spectrum Analyzer:

- Trace 1: Clear Write, Average ON, 20 spec.
- Trace 2: Max Hold.
- Trace 3: Min Hold.
- 8192 points per spec.
- Internal Amplifier ON.
- 6dB Attenuation.
- SCPI Commands from Python.

ETS Model 7405[1] probe No.904:

- Electric field.
- Res. Freq. >1.0GHz.
- H/E Rejection 30dB.
- Performance: Fig. 2.
- + 15ft coax cable

3 Test Procedure

- NETGEAR ProSafe GSM7328FS with fiber module Linksys 1GbE SX Mini-GBIC SFP, no fiber connected. Port 8 connected to AO NET. Electric field test only. Results in Fig. 3.
- Agilent E4445A Spectrum Analyzer preheated for more than 1hour.
- Thirty (30) 100MHz bandwidth scans (12.207kHz per channel), from 0 to 3000MHz, electric and magnetic field.

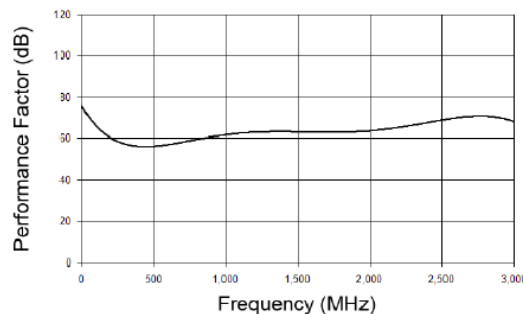


Figure 2: Probe No. 904 Performance.

- Twenty (20) seconds “integration” time.
- Screen/shielded room front door closed. Fluorescent lights OFF.
- A/C ON, eth. switch ON, 10MHz buffer OFF, 10MHz ref. cable disconnected.
- 430MHz and S-band transmitters OFF.

References

- [1] ETS LINDGREN, *ETS Near-Field Probe Set Model 7405*.

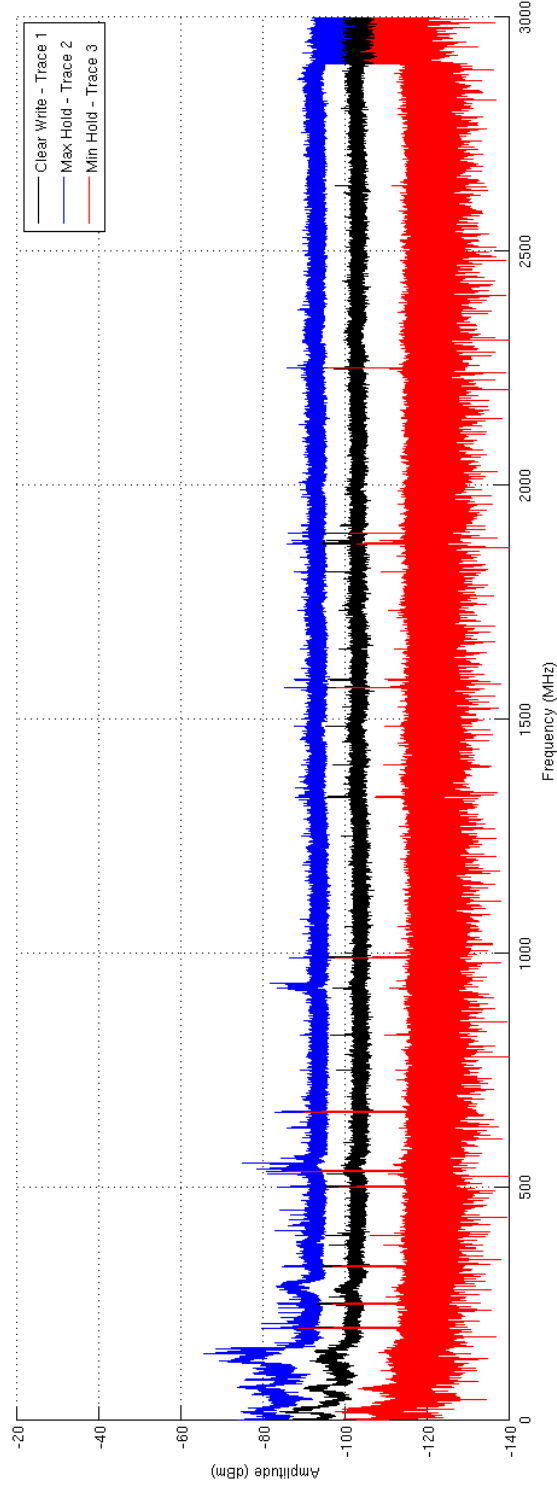
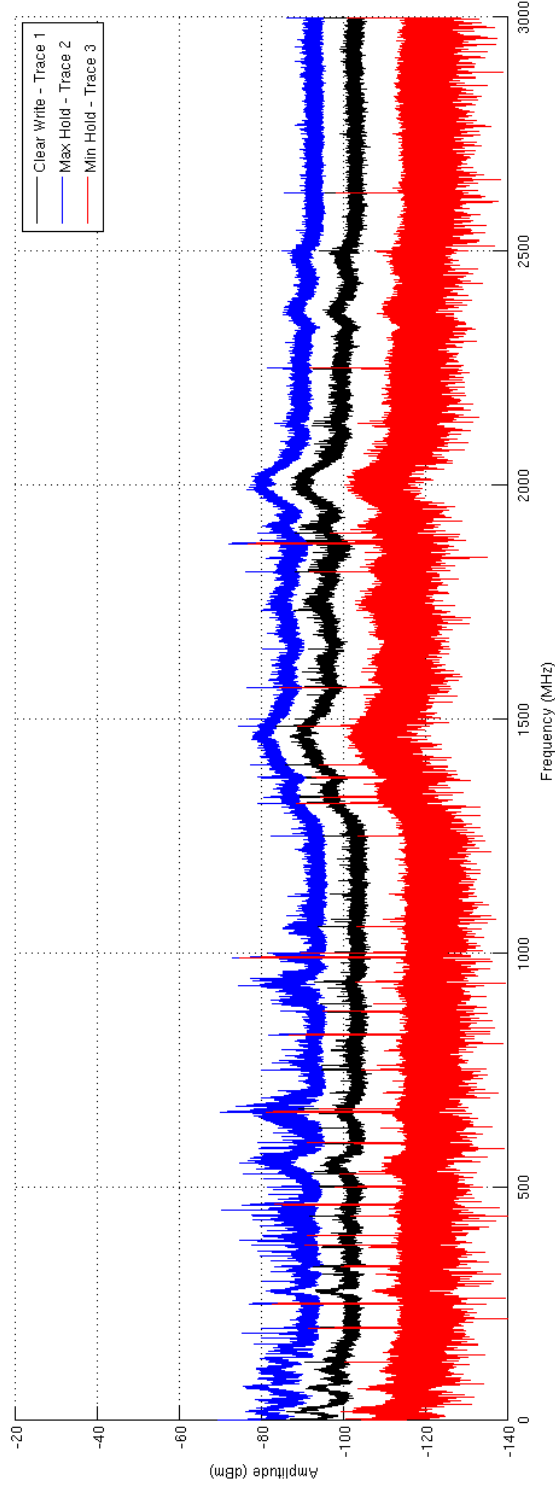


Figure 3: Electric Field Test Results. Top: Position 1; Bottom: Position 2.