

Chopper Board Switch Isolation

Mickey Horn

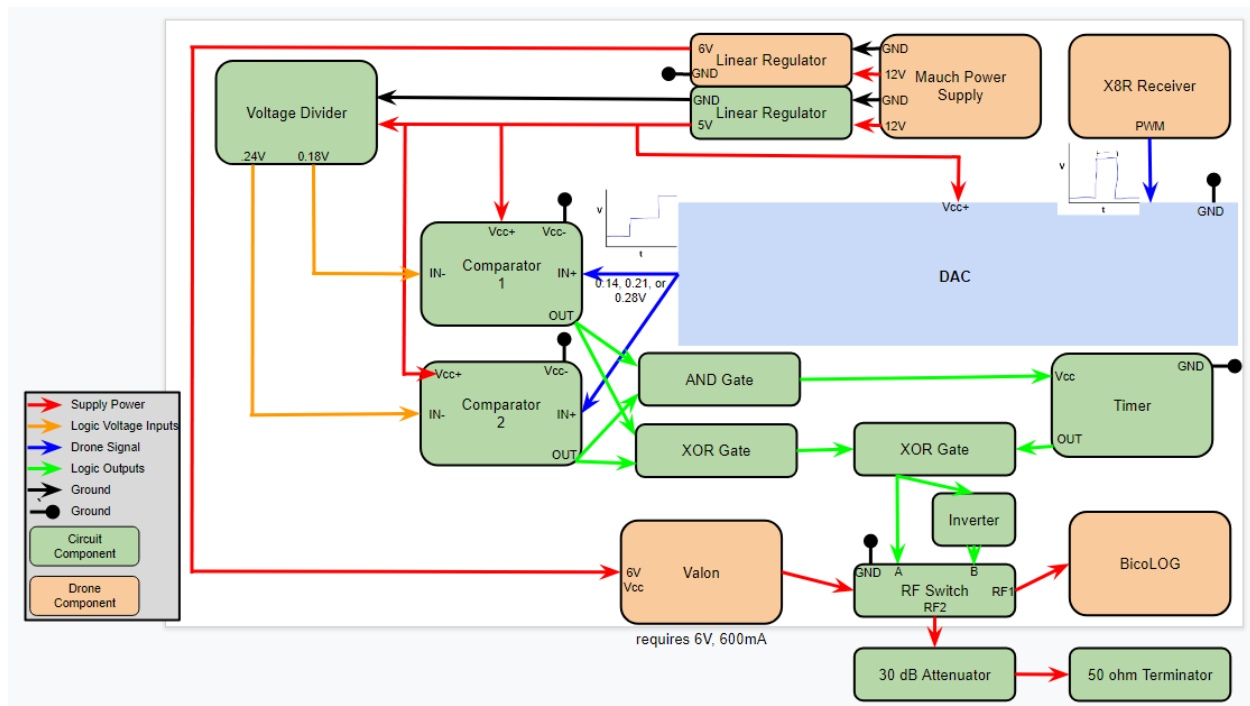
Jan 28, 2021

Here I show the results of testing the RF Switch HMC545A within the ECHO payload control circuit. For the purposes of this test, RF1 was hooked up to a Fieldfox in Spectrum Analyzer mode instead of the BicoLOG. Everything else is as you see it in the block diagram below.

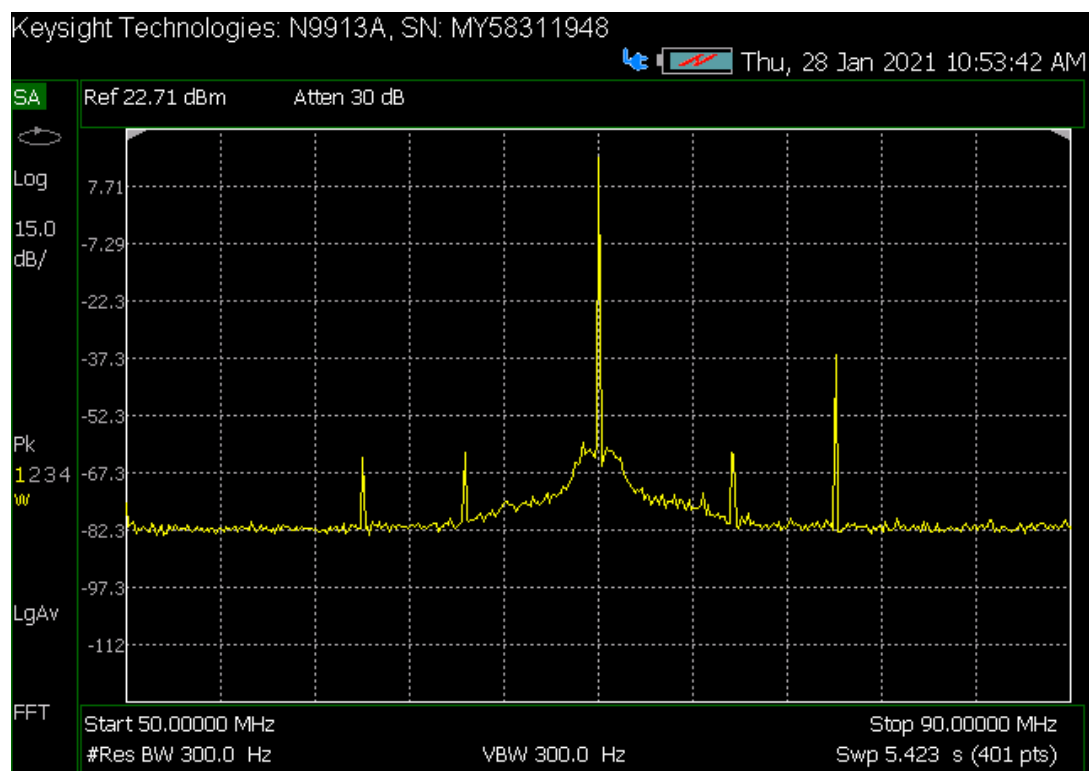
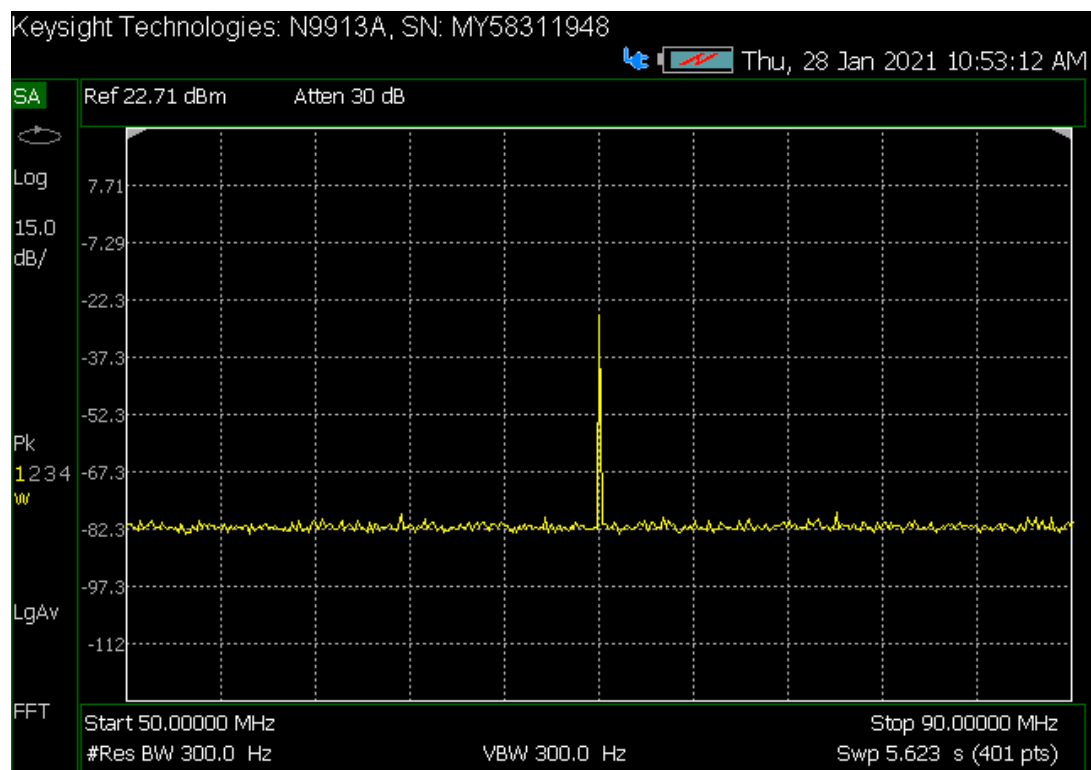
Switch Datasheet:

https://www.analog.com/media/en/technical-documentation/data-sheets/HMC545A_545AE.pdf

1. Block Diagram



2. Results



Spectrum from 50MHz to 90MHz with a 300Hz bandwidth. Off peak is about -25dB and On peak is about +15dB, meaning the switch is able to isolate about 40dB in this setup. There is possibly some compression due to overloading the Fieldfox.