

Spurious Emissions Requirements

The Construction Permit for KCAI (FCC File Number BMPED-20101230ACA) requires the taking of sufficient measurements to establish that the operation is in compliance with the spurious emissions requirements of 47 C.F.R. Sections 73.3217(b) through 73.317(d). Accordingly, Educational Media Foundation Engineer Alan Guthrie performed spurious emissions measurements for KCAI, Juneau, Alaska on March 6, 2011.

The measurements were made using a Rhode & Schwartz FSH323 Spectrum Analyzer, serial number 102444. The spectrum analyzer was attached to the forward loop of the output directional coupler between the Shively Bandpass filter and the transmit antenna.

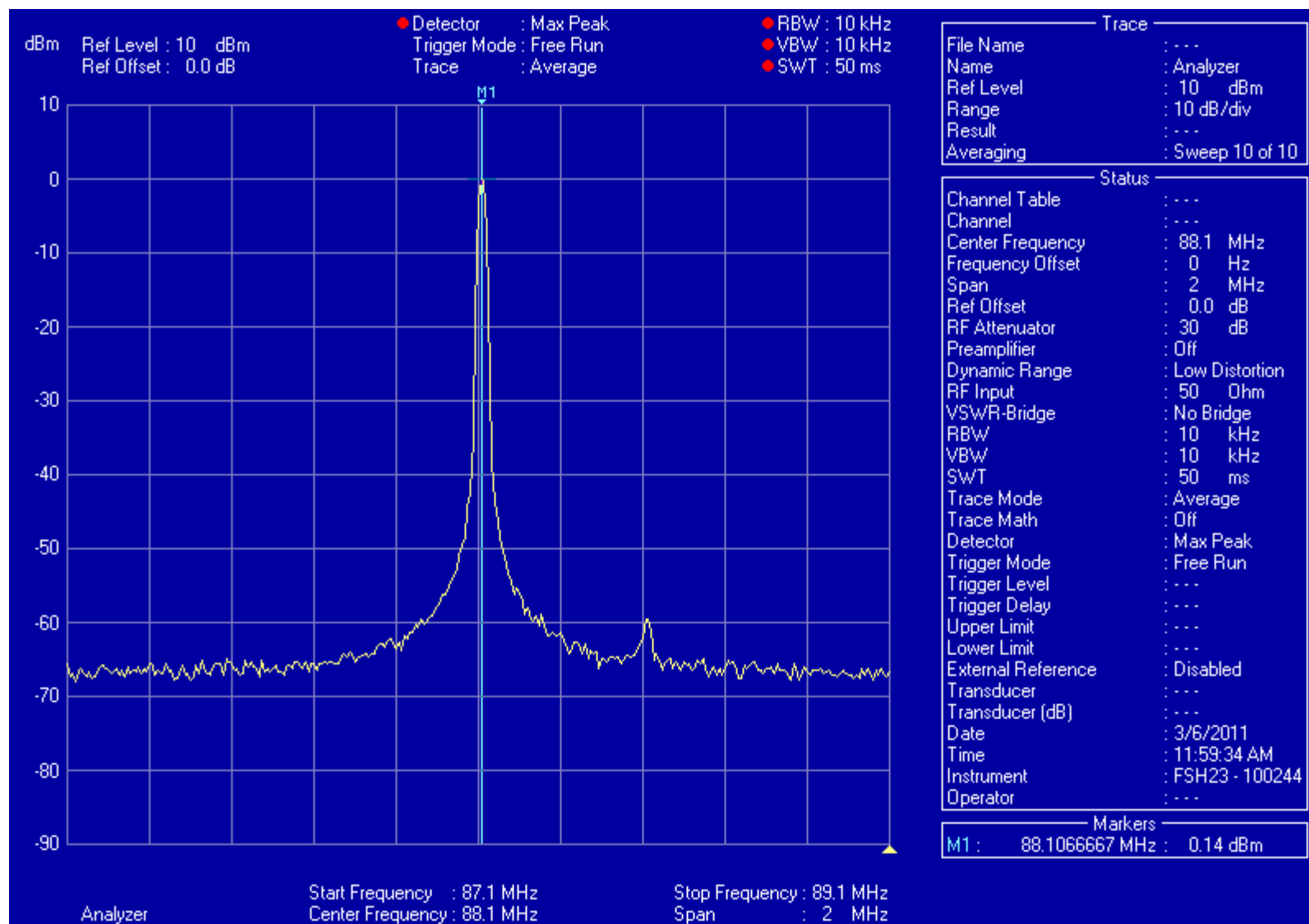
These measurements indicate that this multi-station facility does comply with Sections 73.317(b) through 73.317(d) in that no spurious emission was observed that exceeded the FCC's requirements.

Intermodulation and harmonic measurement plots are attached to this document.

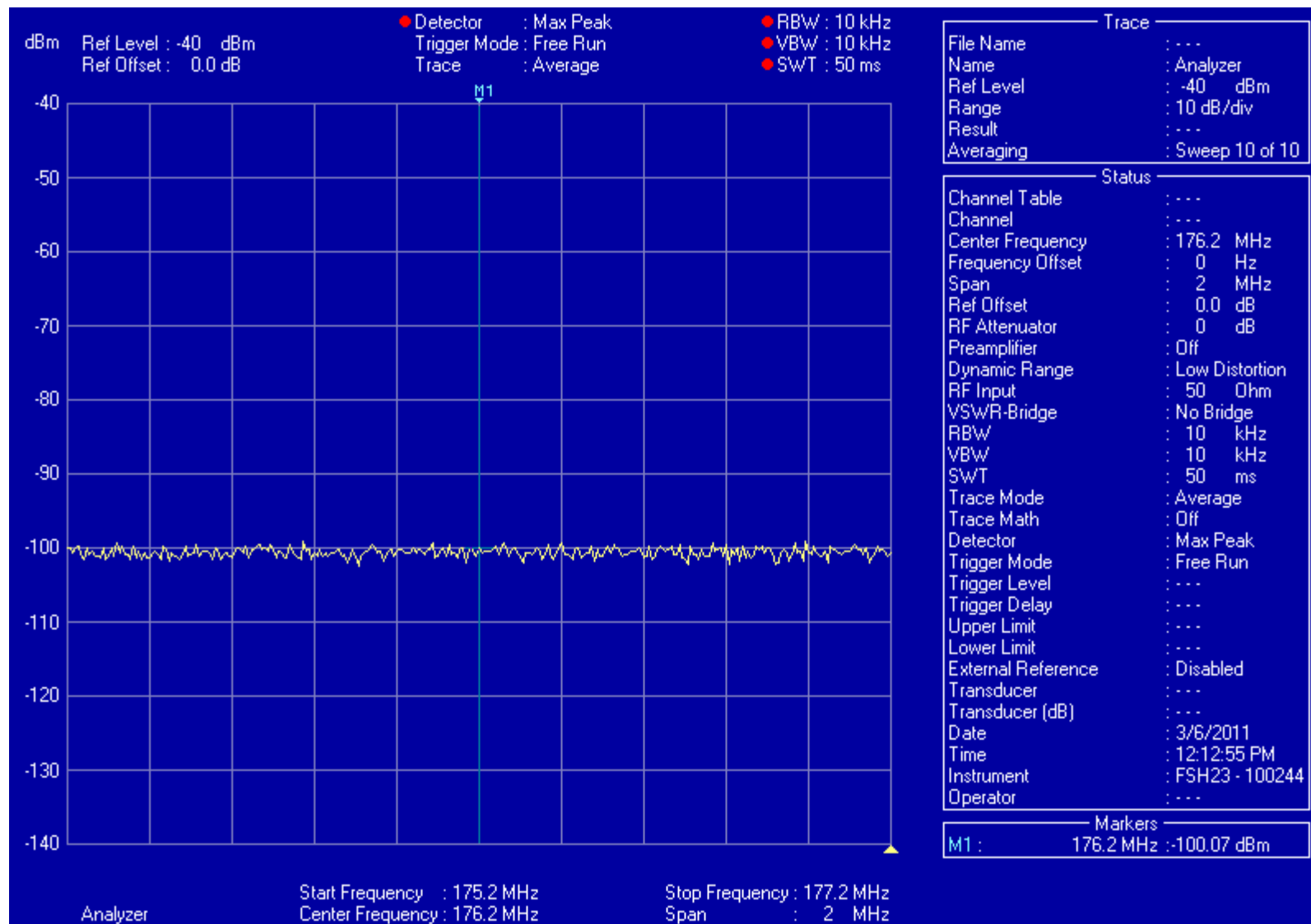
The detailed test report, including test setup and procedure is on file at Educational Media Foundation, and is available upon request.

Test Results Summary:

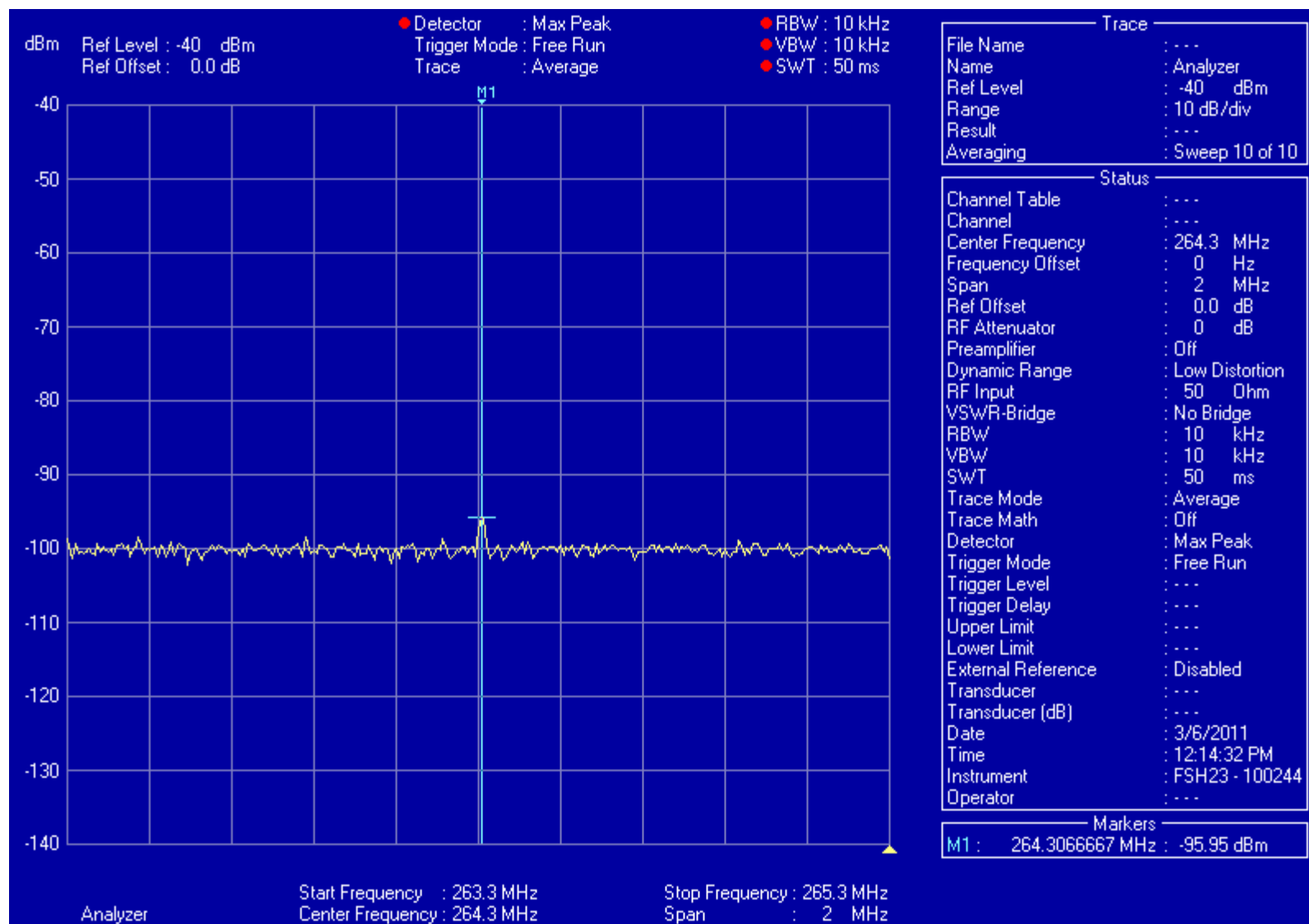
Harmonic	Frequency (MHz)	Harmonic Reference	Line Section Gain / Loss	Plot Value	Calculated value	FCC Limit	Pass / Fail
2	176.2	0.14	-3.5	-100.07	-103.43	-75.3	Pass
3	264.3	0.14	-3.2	-95.95	-99.01	-75.3	Pass
4	352.4	0.14	-4.3	-100.29	-104.45	-75.3	Pass
5	440.5	0.14	-9.1	-100.44	-109.4	-75.3	Pass
6	528.6	0.14	-11.5	-101.60	-112.96	-75.3	Pass
7	616.7	0.14	-10.4	-99.94	-110.2	-75.3	Pass
8	704.8	0.14	-15.5	-100.49	-115.85	-75.3	Pass
9	792.9	0.14	-16.3	-100.51	-116.67	-75.3	Pass



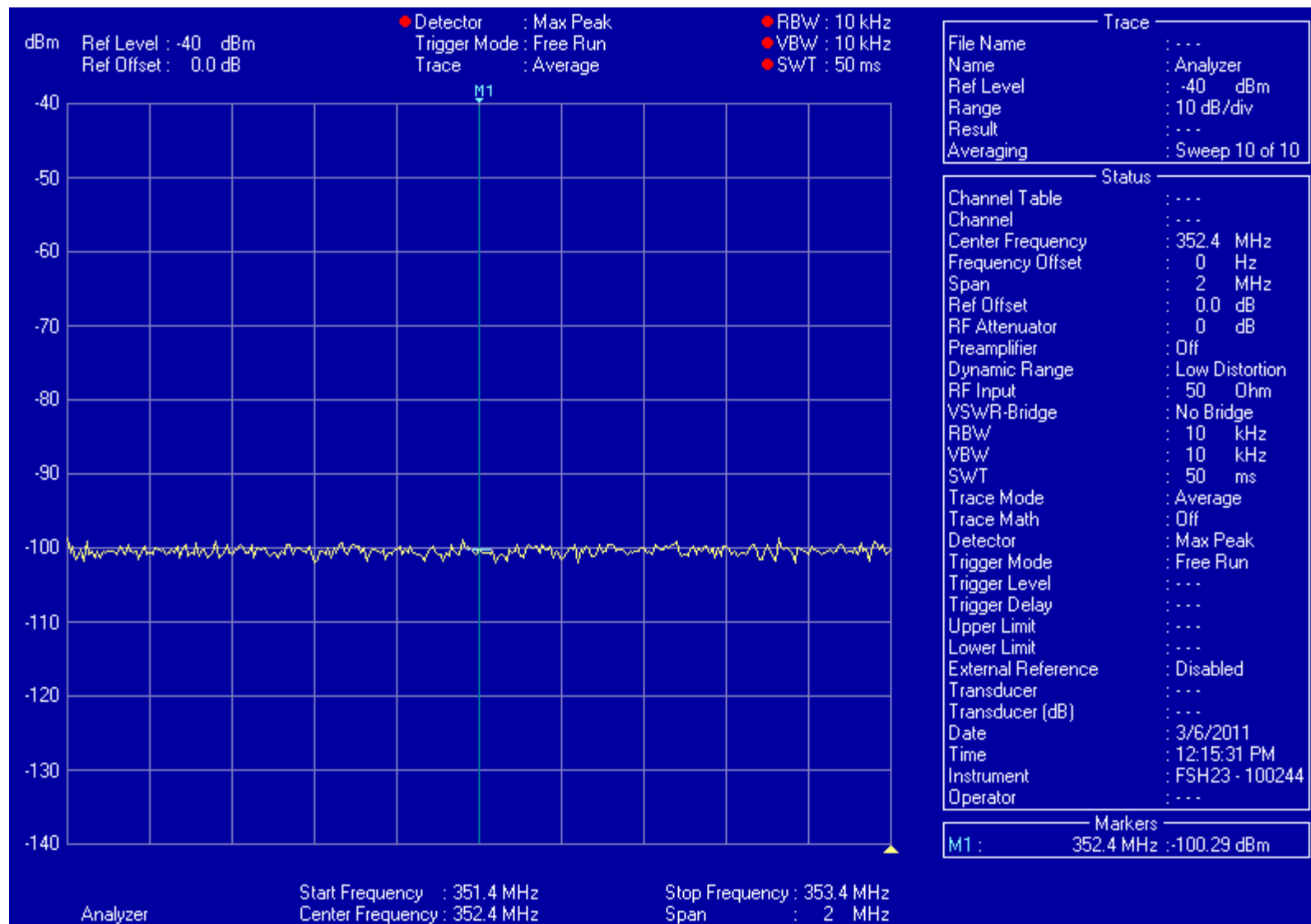
Harmonic Reference



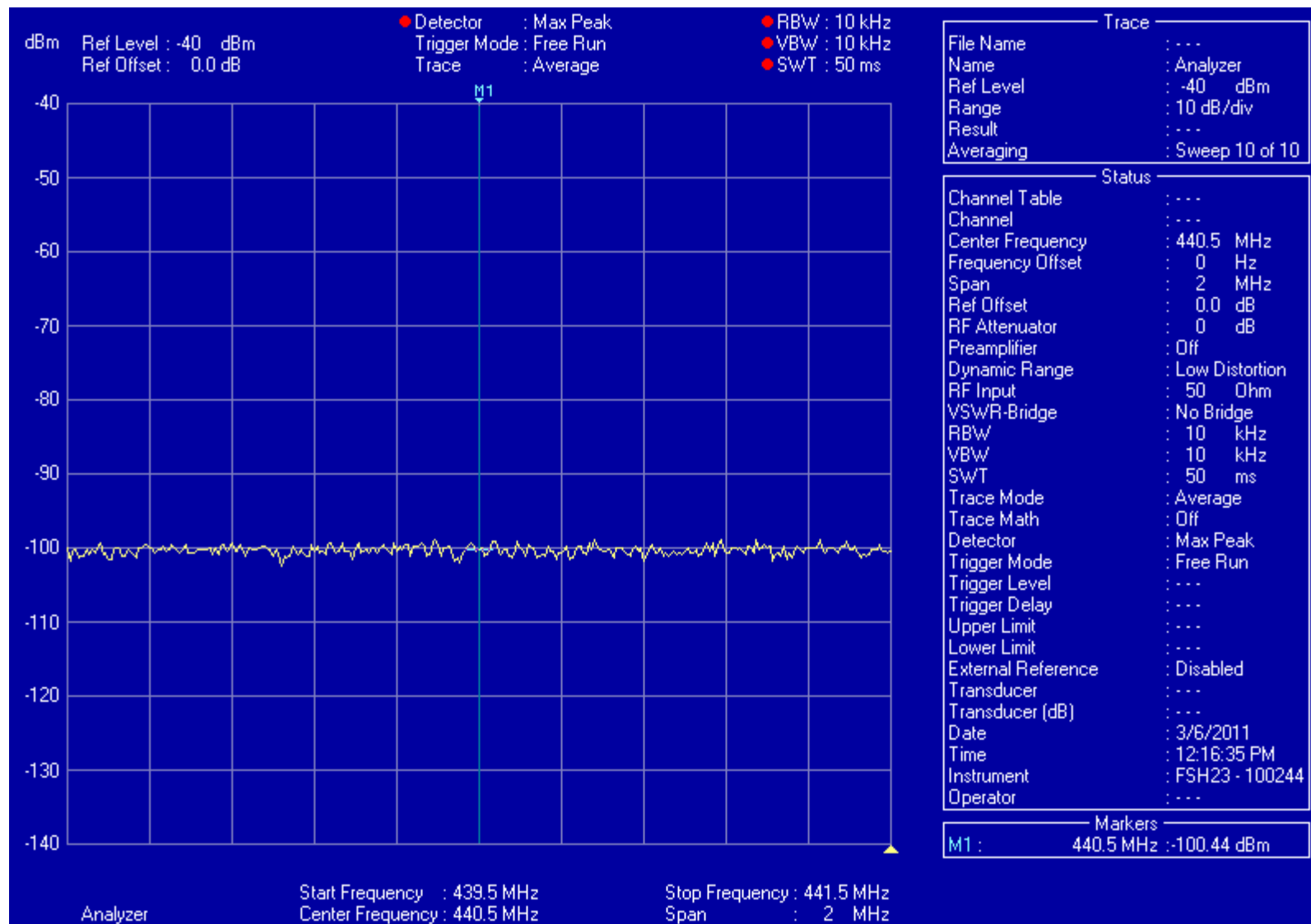
Second Harmonic



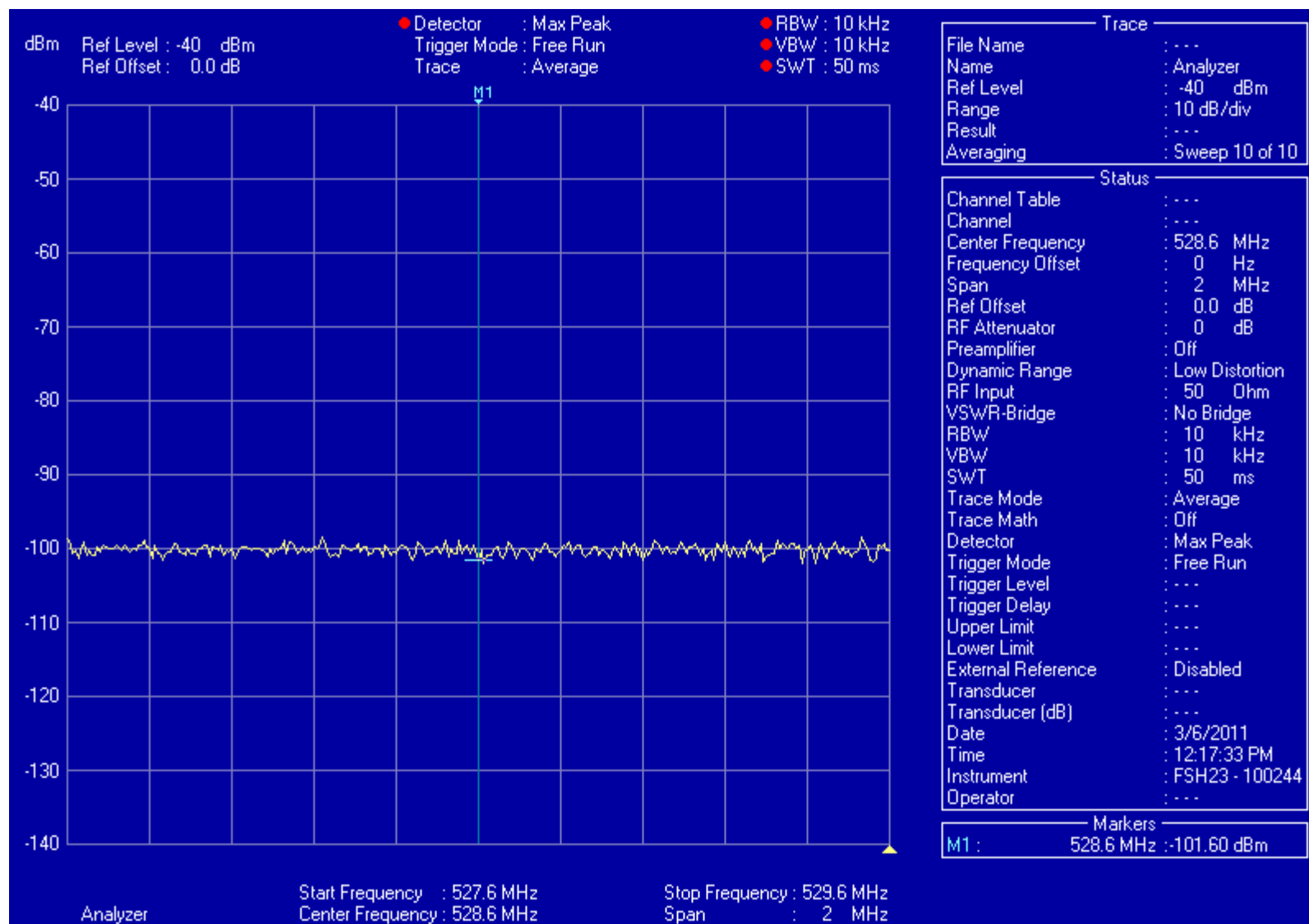
Third Harmonic



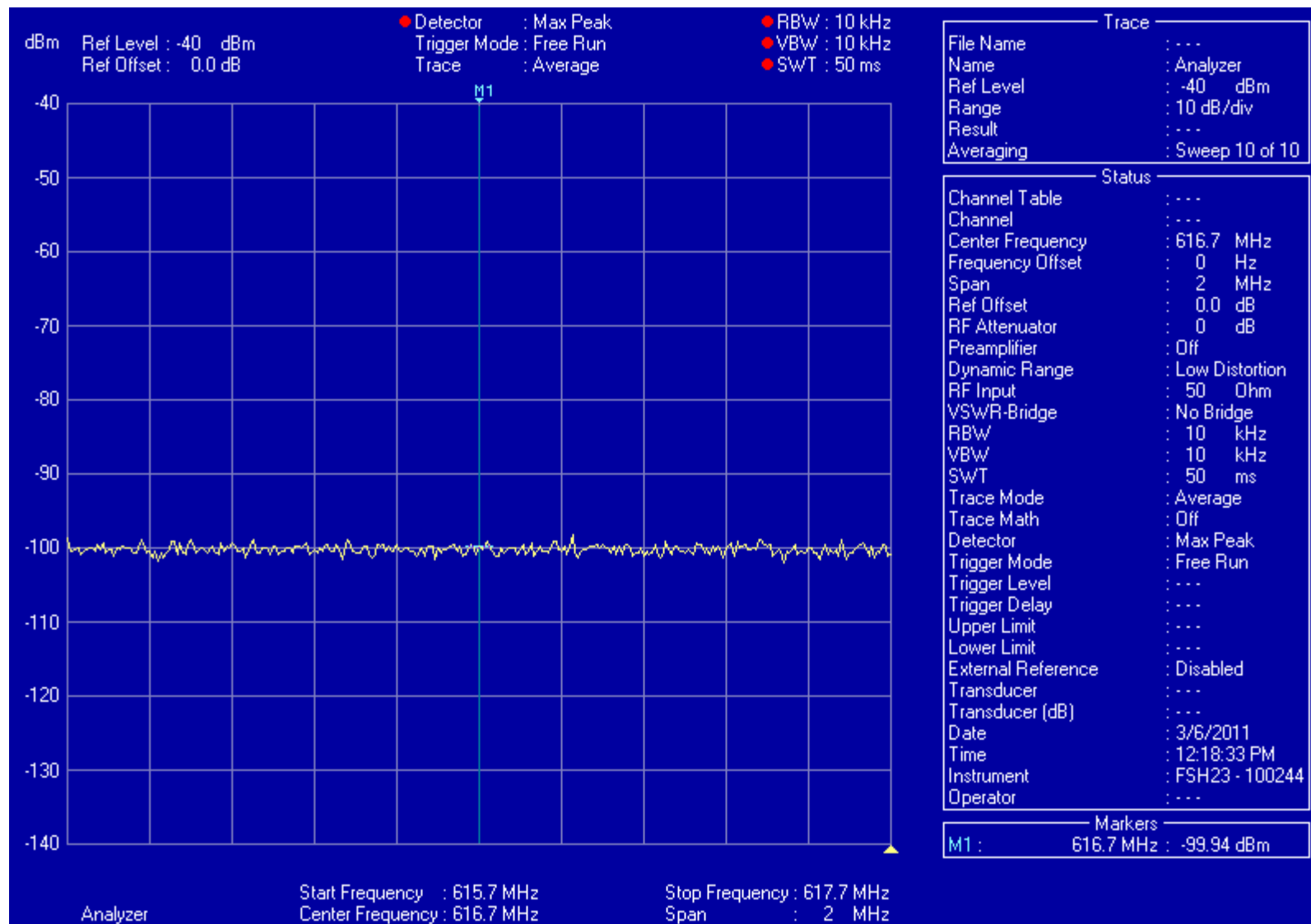
Fourth Harmonic



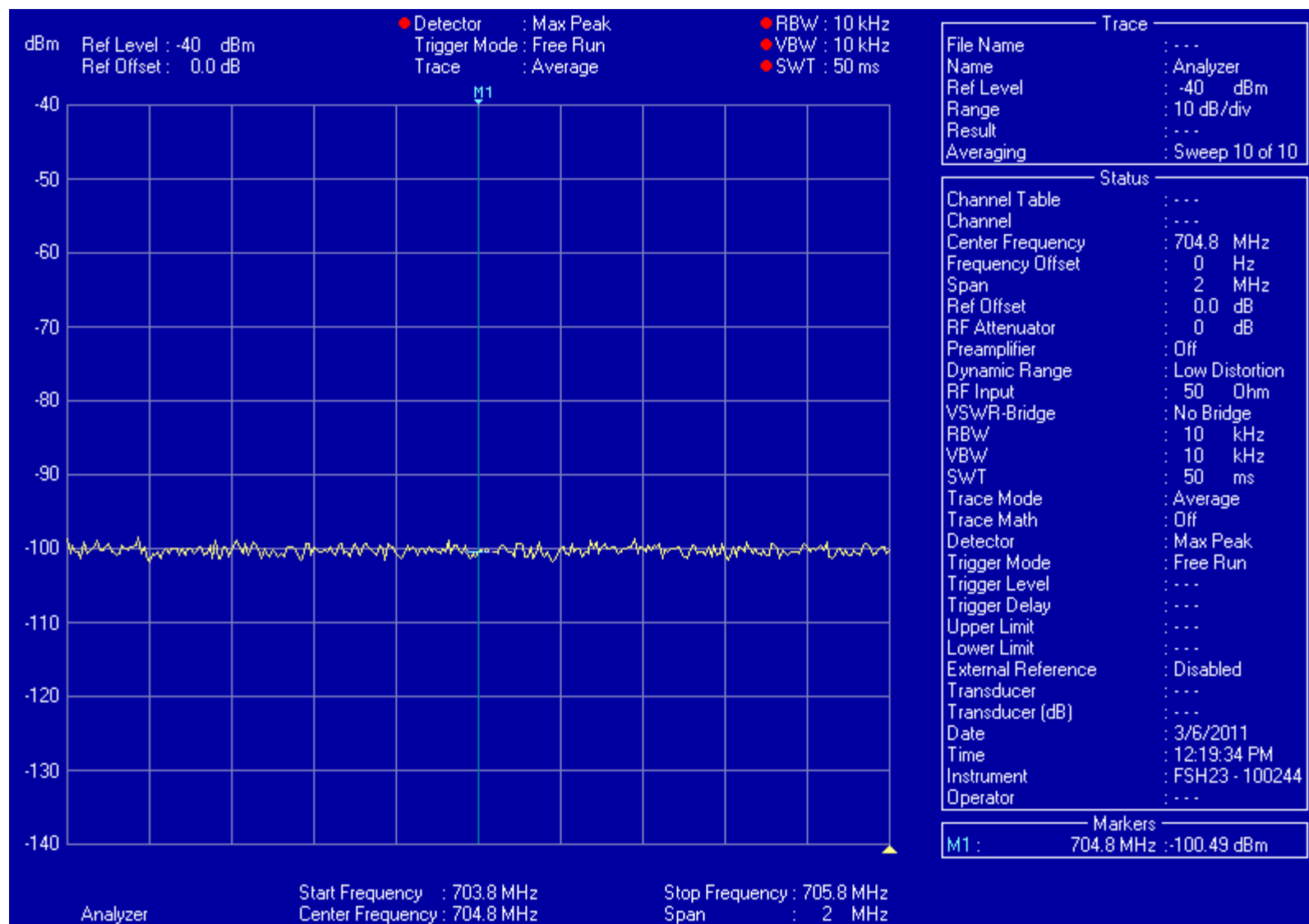
Fifth Harmonic



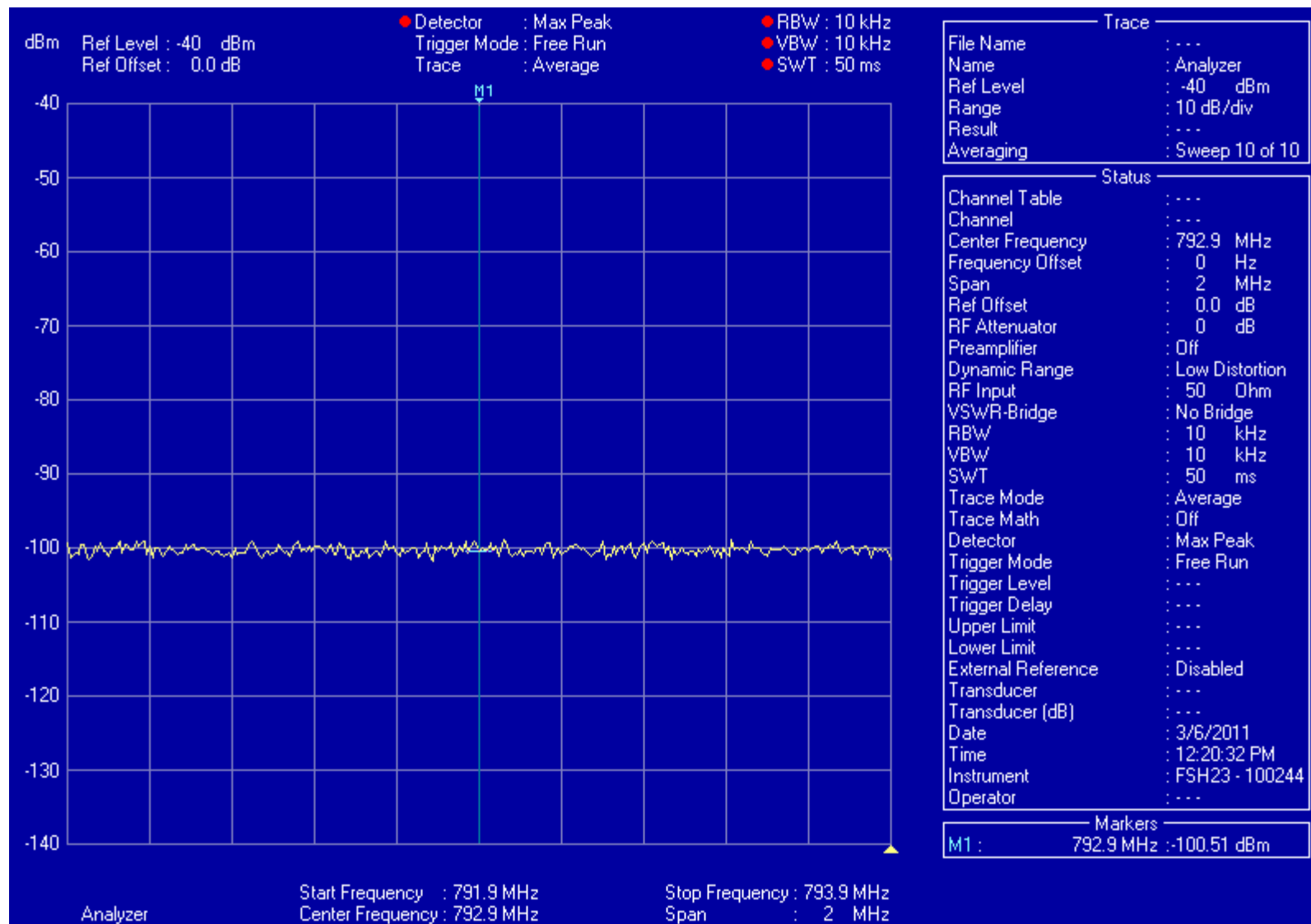
Sixth Harmonic



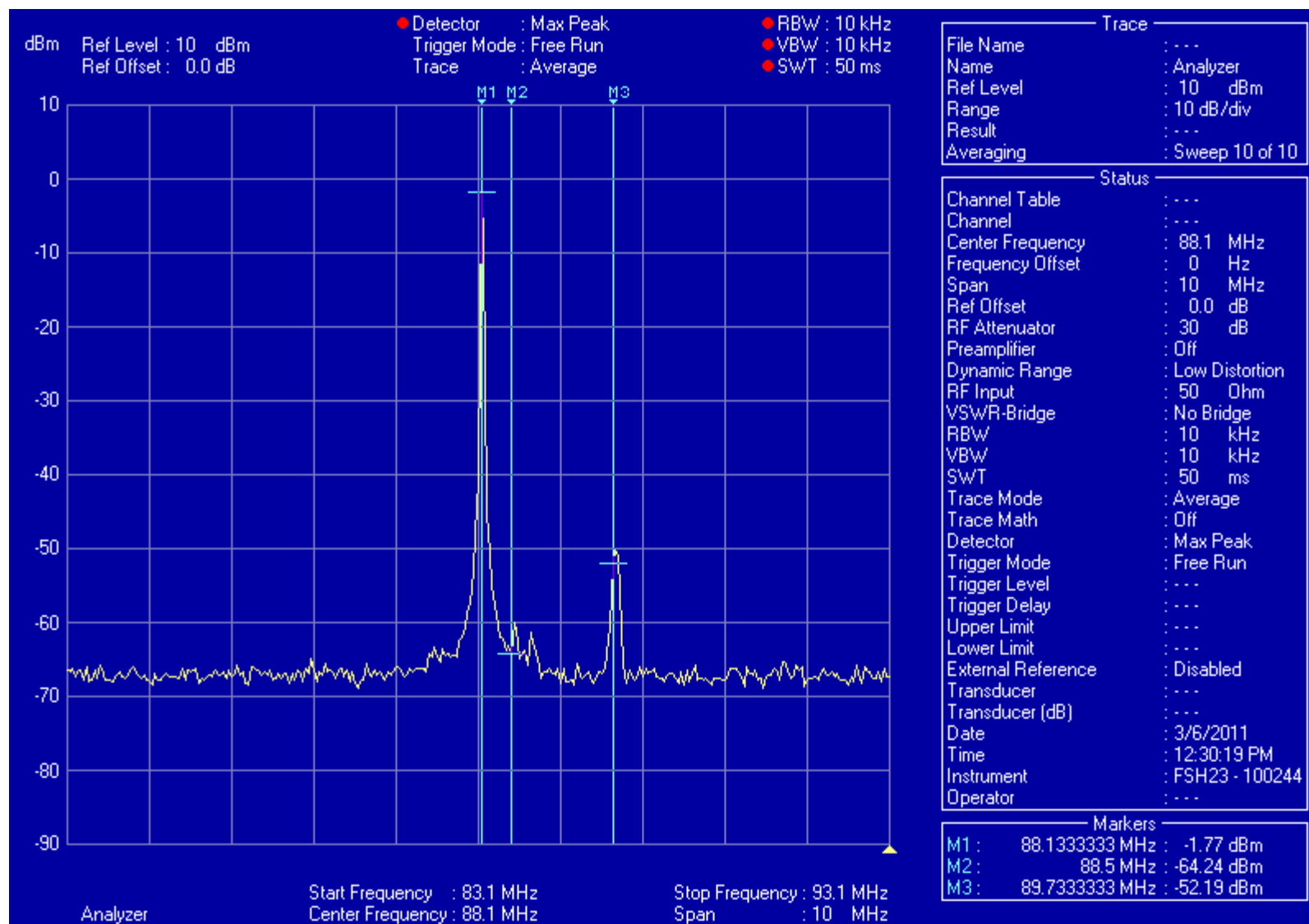
Seventh Harmonic



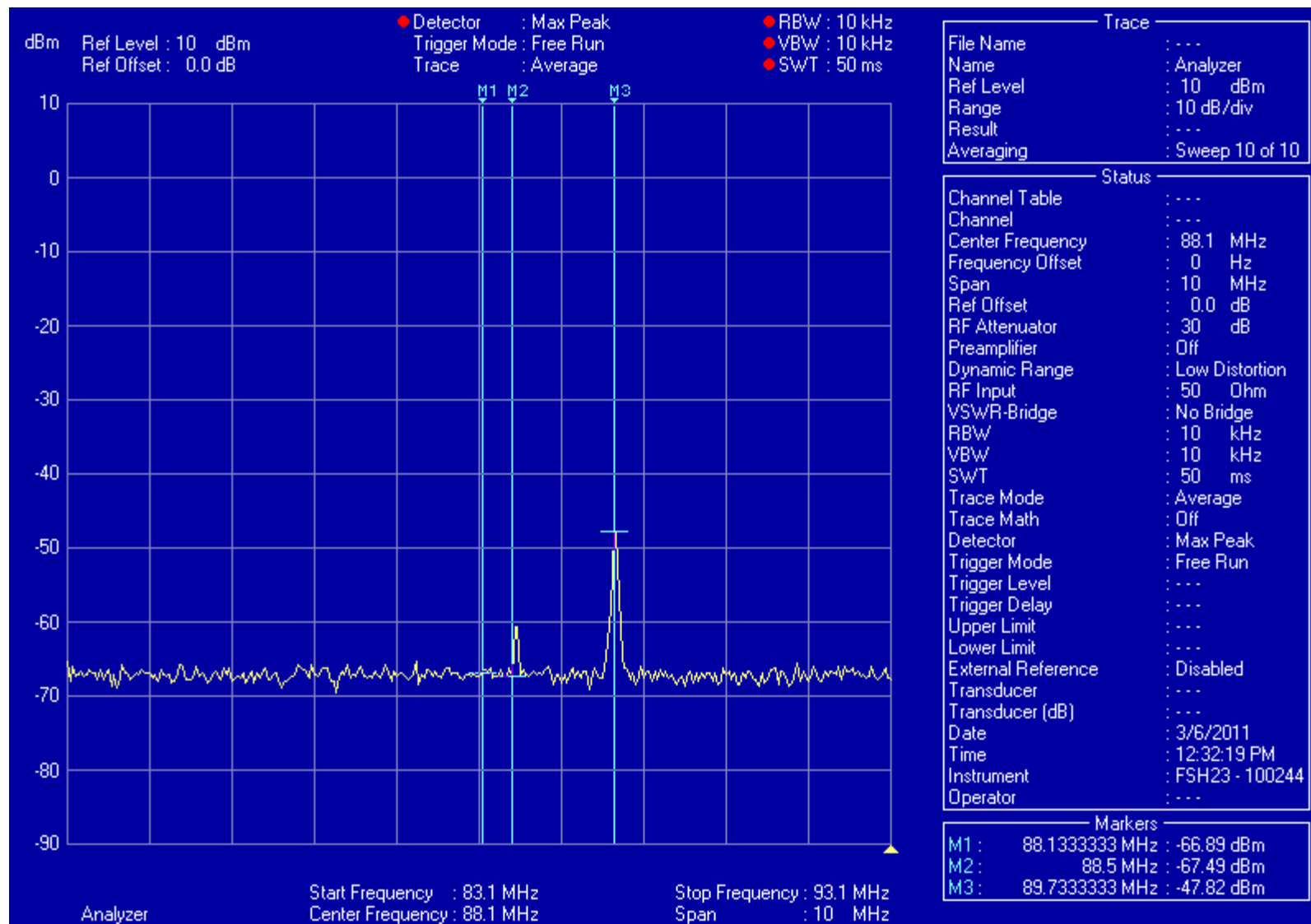
Eighth Harmonic



Ninth Harmonic



Tx On (IM Reference)



Tx Off