

Date: November 14, 2018

Federal Aviation Administration
Office of Spectrum Policy and Management
ASR-1
800 Independence AVE. SW
Washington, DC 20591

Dear Sir/Madam,

As required under FCC Rule Part 87.147(d), Please consider this letter as notification of an application for the certification of the equipment described below.

Equipment:	IC-A16 (FCC ID AFJ405200)
Manufacturer Identification:	Icom Inc.
Antenna Characteristics:	50 Ω
Rated Output Power:	1.8W (carrier power)
Emission Type & Characteristics:	6K00A3E/5K60A3E (Amplitude Modulation Voice)
Frequency of Operation:	(TX) 118.000 to 136.99166MHz (RX) 108.000 to 136.99166MHz, 161.650 to 163.275 MHz
Essential Receiver Characteristics:	Sensitivity 1 μ V; Spurious Response 60dB μ

Sincerely,

Icom Incorporated

Atsushi Tomiyama
General Manager of Quality Assurance Department



Information Necessary for FAA Review of FCC
Certification Application for VHF Transmitters/Receiver.

- 1.) FCC identification number
AFJ405200
- 2.) Manufacture and model number
Manufacture: Icom Inc.
Model number: IC-A16
- 3.) Rated transmitter output power
Rated output power: 1.8W
- 4.) Frequency range (capable of tuning)
Frequency capable/tuning range:
TX:118.000 to 136.99166 MHz
RX:108.000 to 136.99166 MHz
RX:161.650 to 163.275 MHz
- 5.) Method of tuning
Microprocessor controlled phased lock loop (PLL) arrangement
- 6.) Channeling capability
The radio comes with 25 kHz and 8.33 kHz channel spacing.
- 7.) Frequency stability (transmitter)
+ / - 0.4kHz
- 8.) Emission bandwidth(s)
25 KHz: 6K00A3E
8.33 KHz: 5K60A3E
- 9.) Emission type(s)
Amplitude modulation (AM)
- 10.) Spectral emission plots
All harmonics and spurious emissions are more than 20dB below the specified attenuation limit.
- 11.) Receiver RF characteristics
Sensitivity: 6 dB S/N 1 uV
Spurious Response: 60 dB
Audio output power: 0.35 W (EXT Speaker, 8ohm, 10% distortion)
Receive System: Double conversion superheterodyne

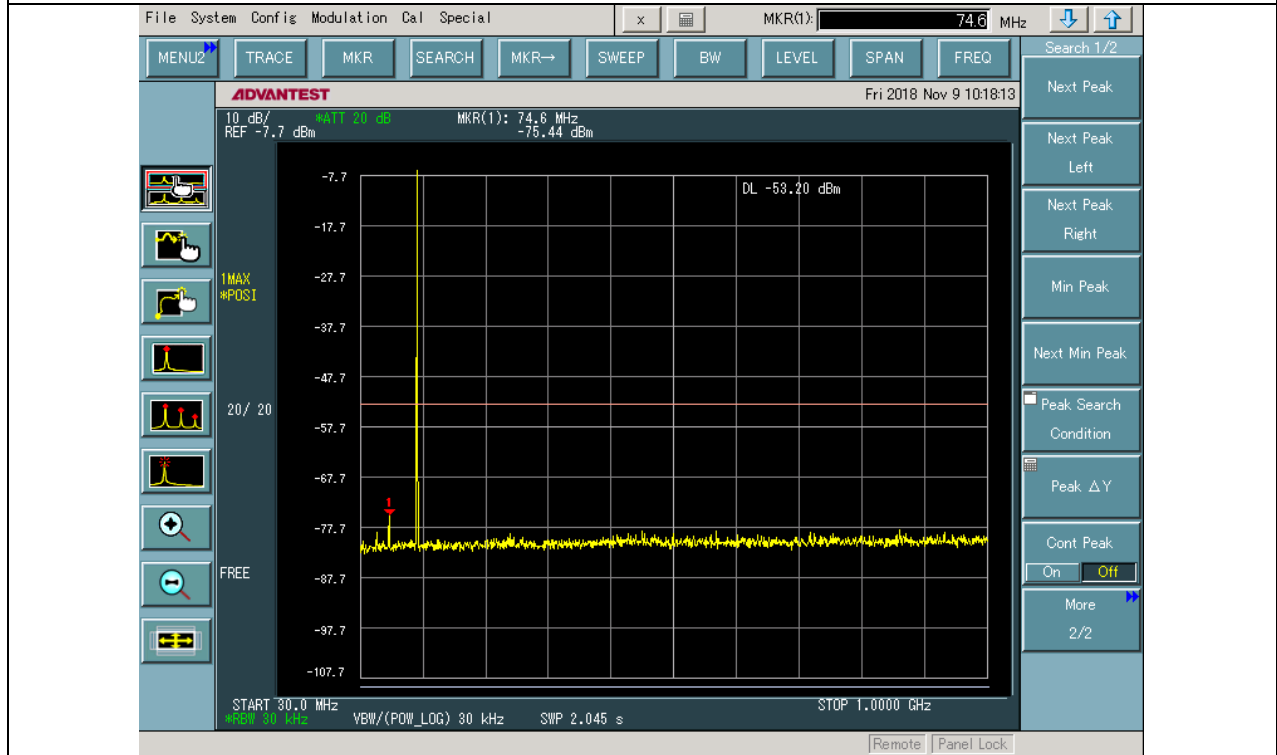
Plot 1 TX Conducted Emission

Test Frequency: 118.000MHz, with 2.5KHz audio signal

Power Supply: 7.2V DC

Channel Spacing: 25KHz

Power: 1.8W (attenuation 40.2dB)



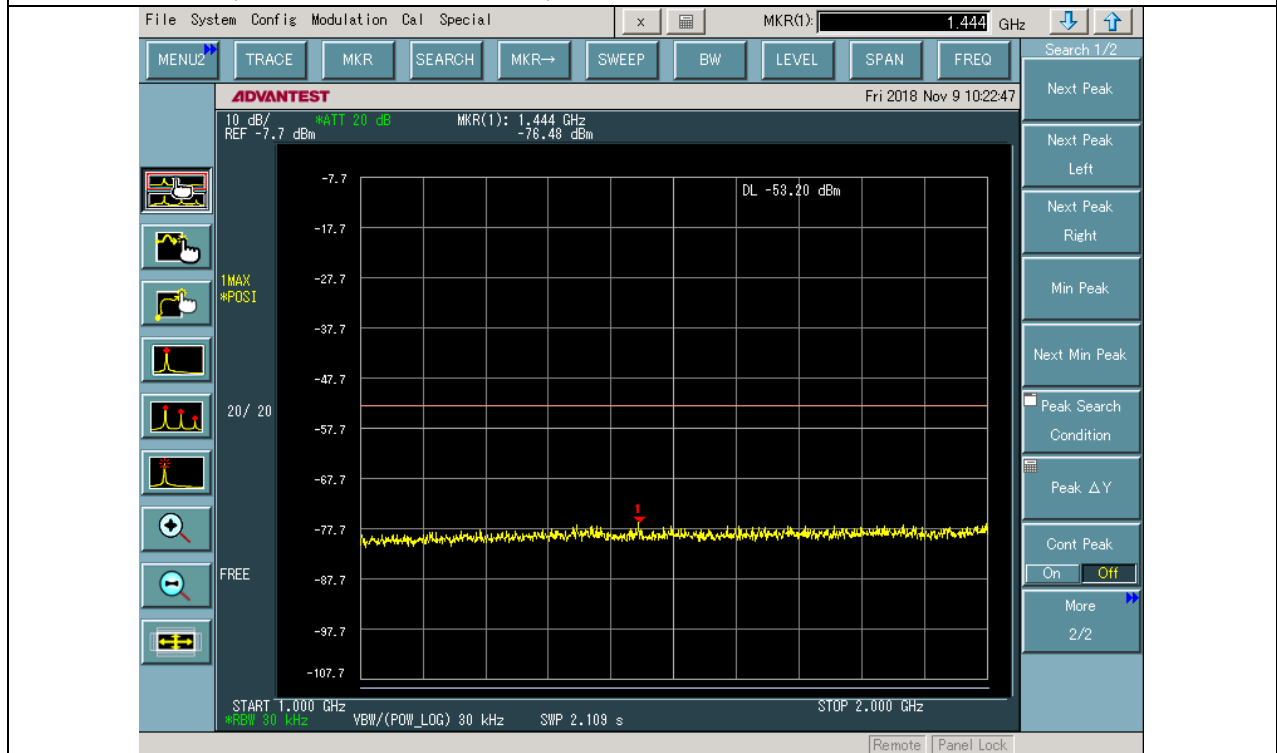
Plot 2 TX Conducted Emission

Test Frequency: 118.000MHz, with 2.5KHz audio signal

Power Supply: 7.2V DC

Channel Spacing: 25KHz

Power: 1.8W (attenuation 40.2dB)



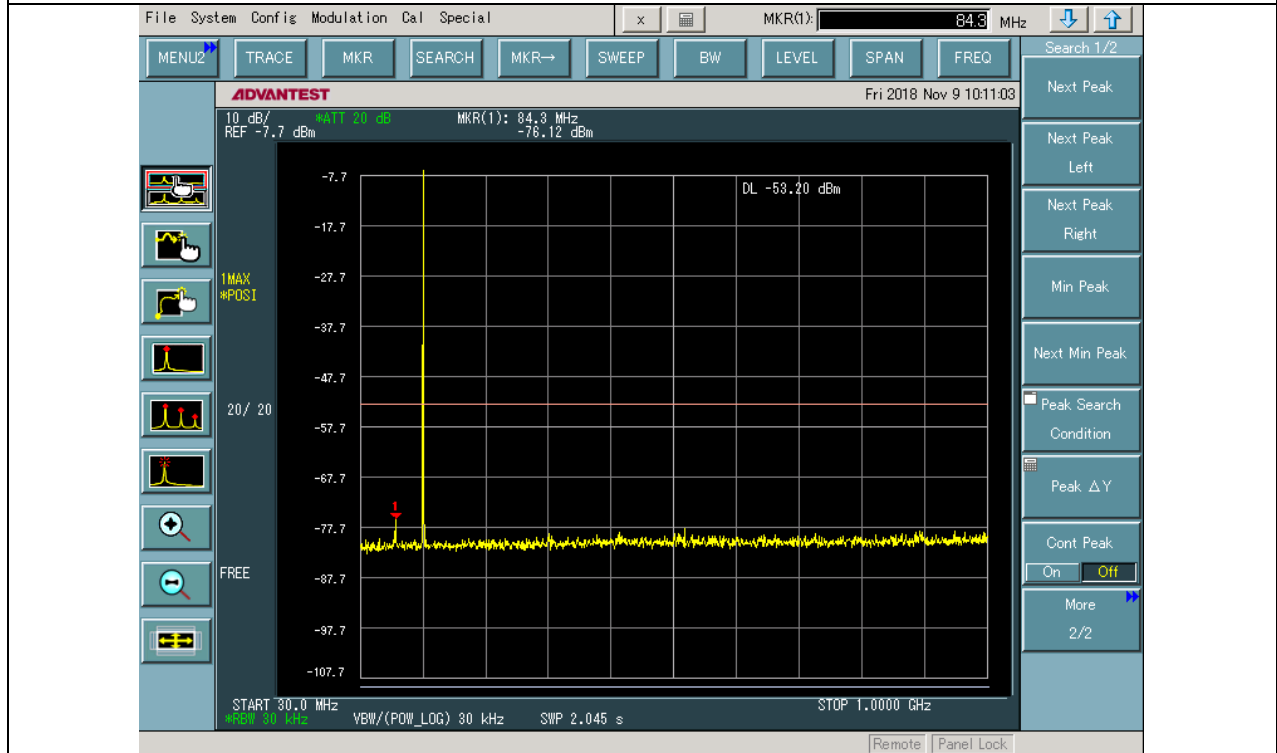
Plot 3 TX Conducted Emission

Test Frequency: 127.500MHz, with 2.5KHz audio signal

Power Supply: 7.2V DC

Channel Spacing: 25KHz

Power: 1.8W (attenuation 40.2dB)



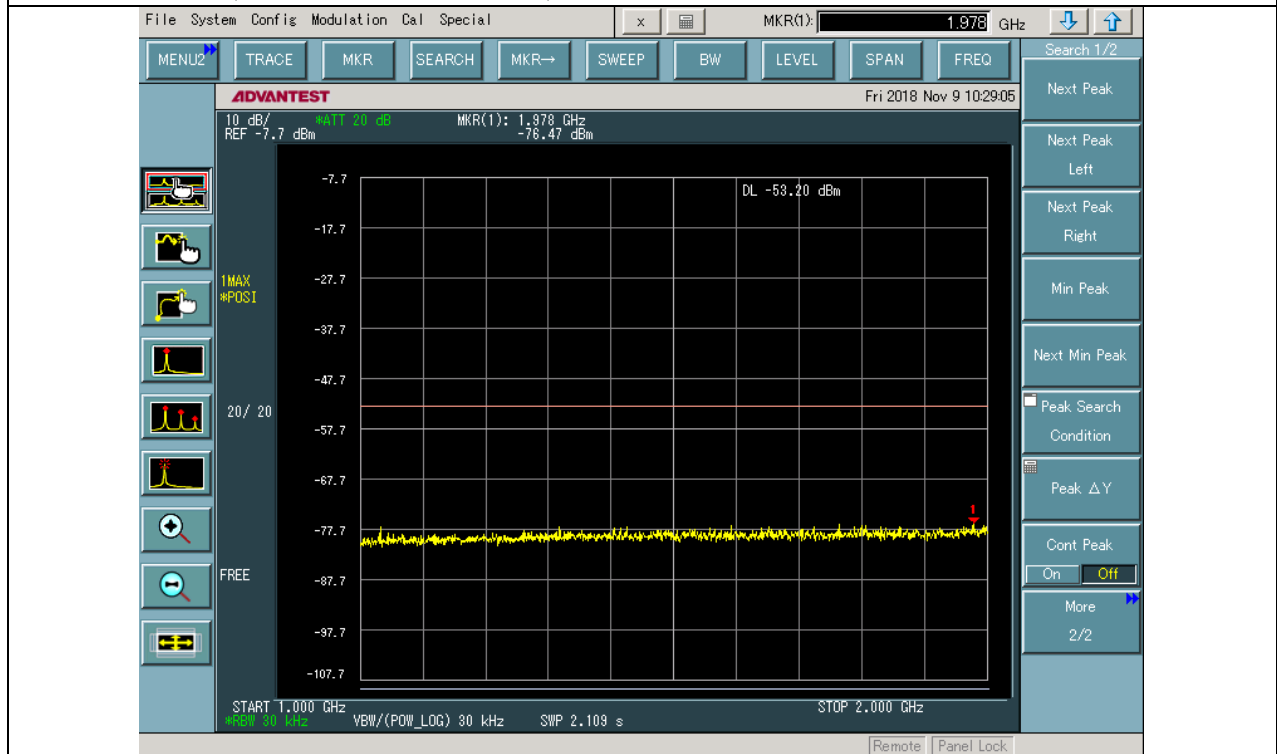
Plot 4 TX Conducted Emission

Test Frequency: 127.500MHz, with 2.5KHz audio signal

Power Supply: 7.2V DC

Channel Spacing: 25KHz

Power: 1.8W (attenuation 40.2dB)



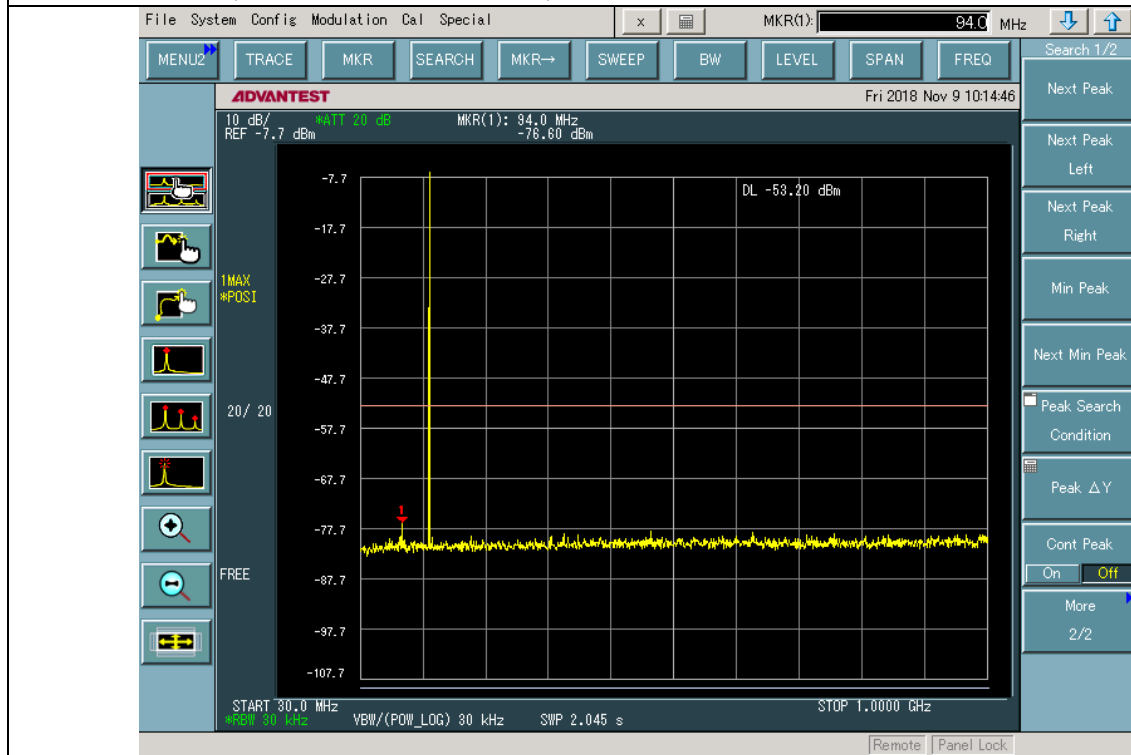
Plot 5 TX Conducted Emission

Test Frequency: 136.975MHz, with 2.5KHz audio signal

Power Supply: 7.2V DC

Channel Spacing: 25KHz

Power: 1.8W (attenuation 40.2dB)



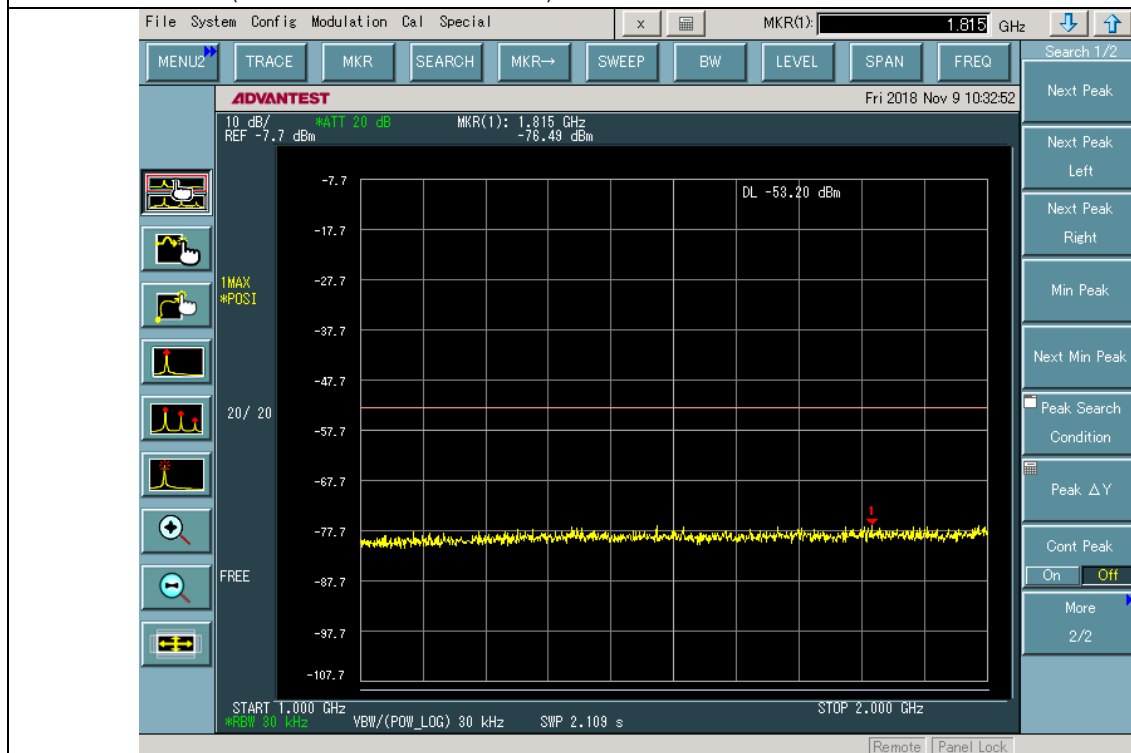
Plot 6 TX Conducted Emission

Test Frequency: 136.975MHz, with 2.5KHz audio signal

Power Supply: 7.2V DC

Channel Spacing: 25KHz

Power: 1.8W (attenuation 40.2dB)



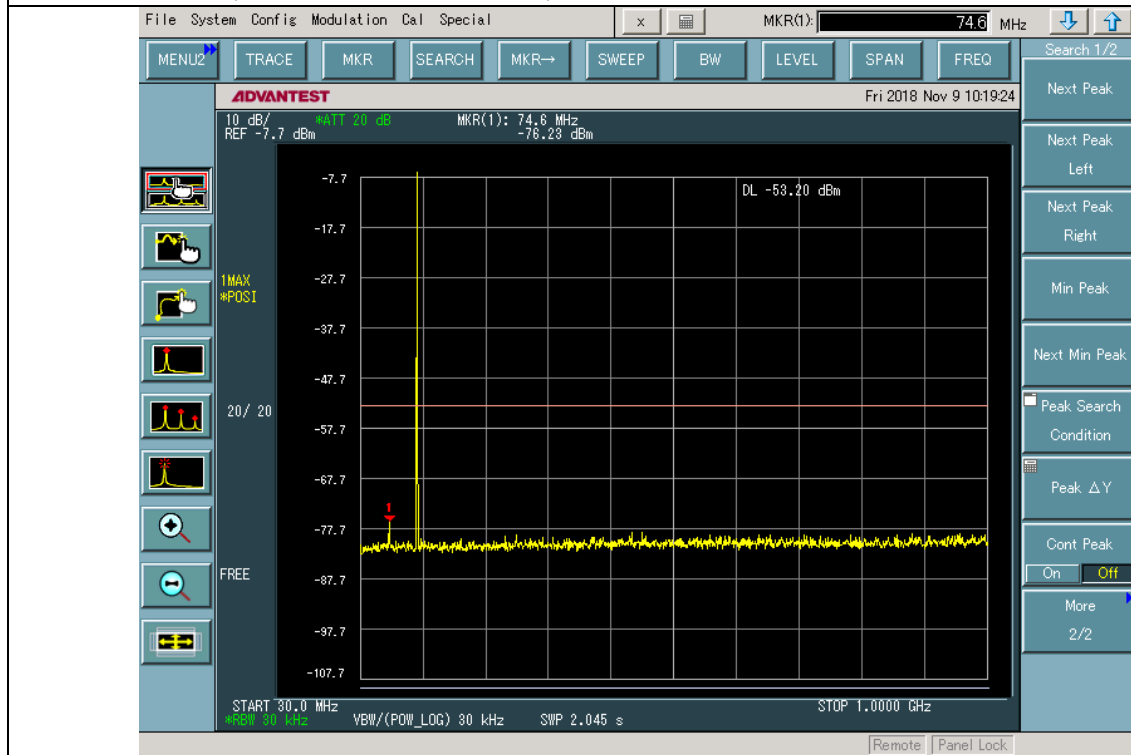
Plot 7 TX Conducted Emission

Test Frequency: 118.000MHz, with 2.5KHz audio signal

Power Supply: 7.2V DC

Channel Spacing: 8.33KHz

Power: 1.8W (attenuation 40.2dB)



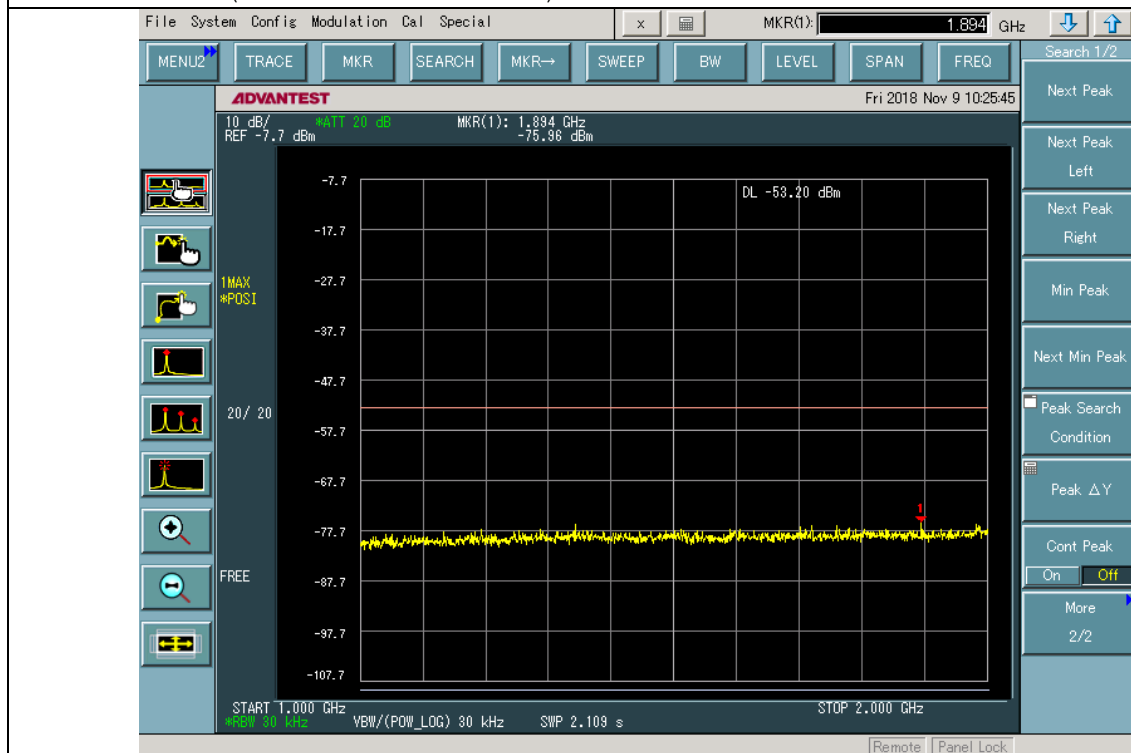
Plot 8 TX Conducted Emission

Test Frequency: 118.000MHz, with 2.5KHz audio signal

Power Supply: 7.2V DC

Channel Spacing: 8.33KHz

Power: 1.8W (attenuation 40.2dB)



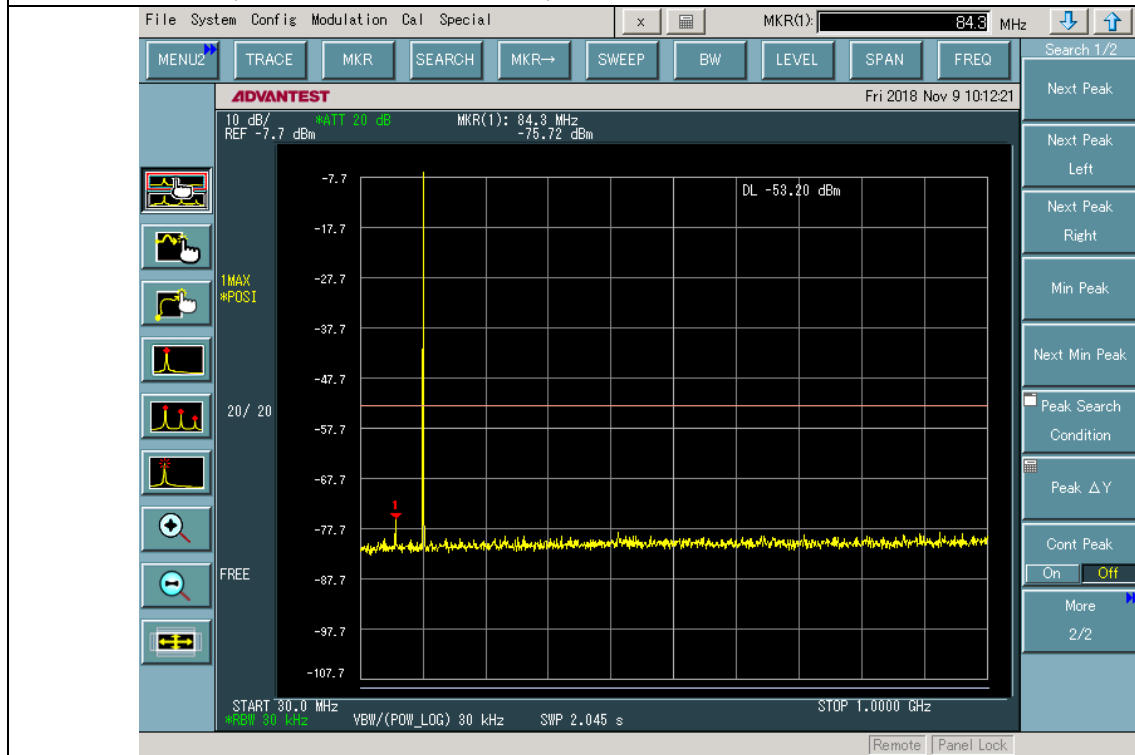
Plot 9 TX Conducted Emission

Test Frequency: 127.500MHz, with 2.5KHz audio signal

Power Supply: 7.2V DC

Channel Spacing: 8.33KHz

Power: 1.8W (attenuation 40.2dB)



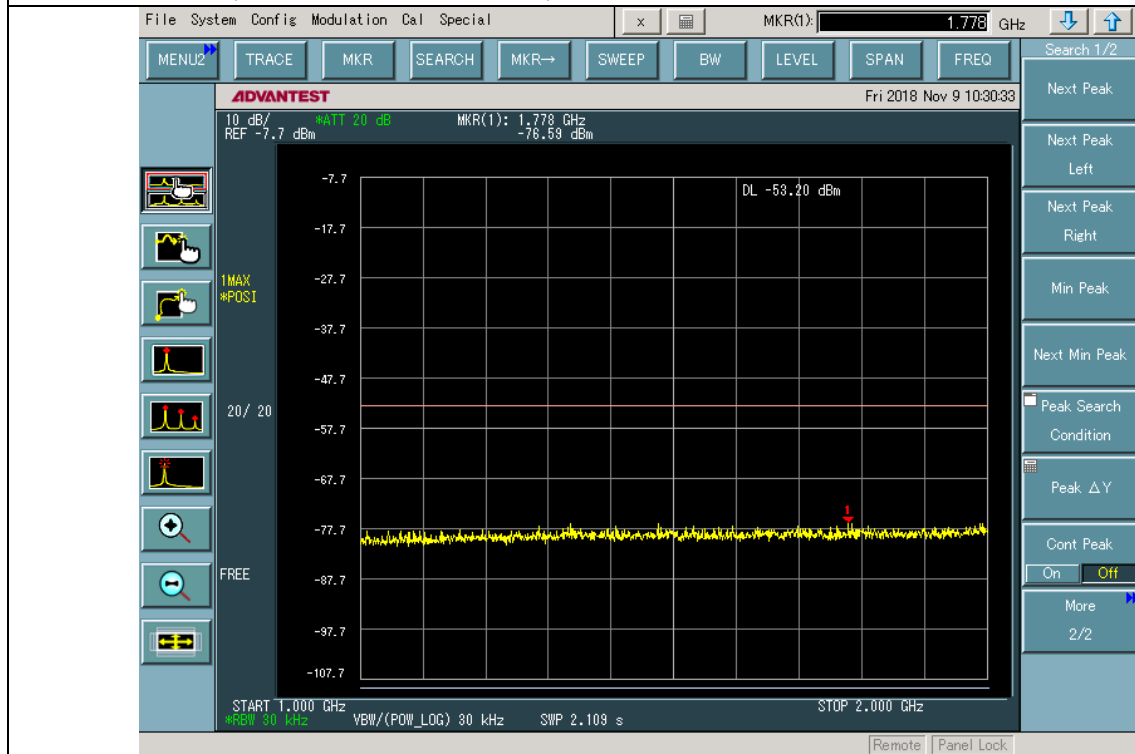
Plot 10 TX Conducted Emission

Test Frequency: 127.500MHz, with 2.5KHz audio signal

Power Supply: 7.2V DC

Channel Spacing: 8.33KHz

Power: 1.8W (attenuation 40.2dB)



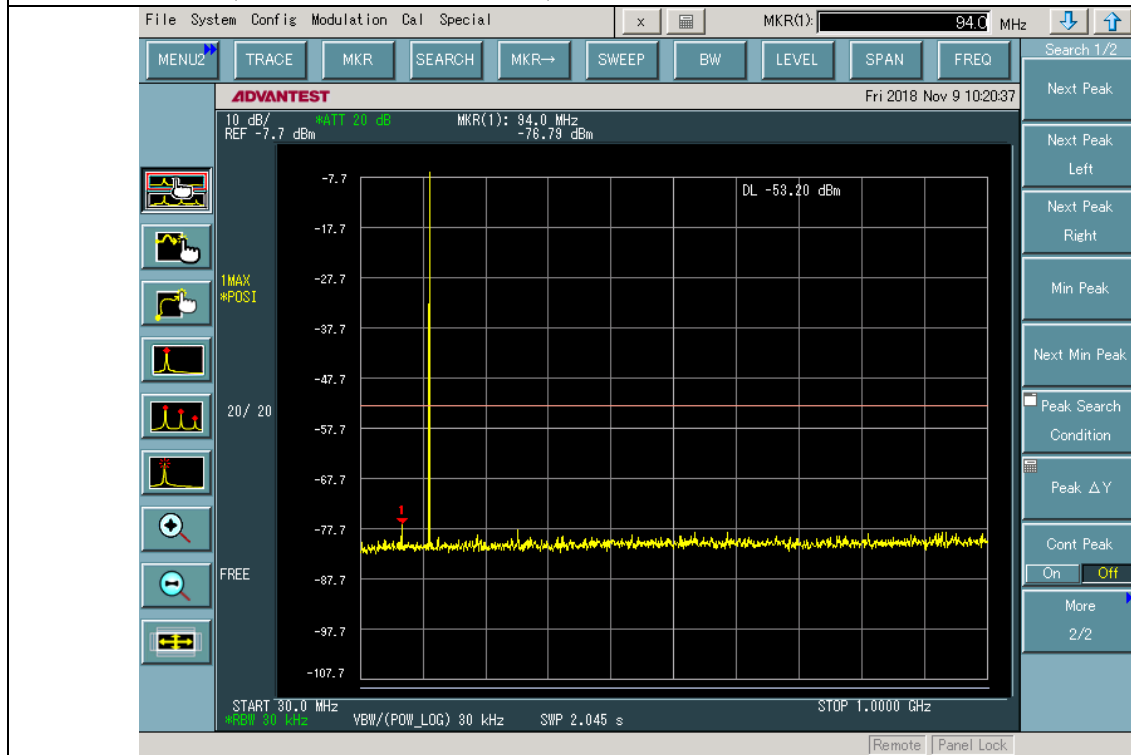
Plot 11 TX Conducted Emission

Test Frequency: 136.975MHz, with 2.5KHz audio signal

Power Supply: 7.2V DC

Channel Spacing: 8.33KHz

Power: 1.8W (attenuation 40.2dB)



Plot 12 TX Conducted Emission

Test Frequency: 136.975MHz, with 2.5KHz audio signal

Power Supply: 7.2V DC

Channel Spacing: 8.33KHz

Power: 1.8W (attenuation 40.2dB)

