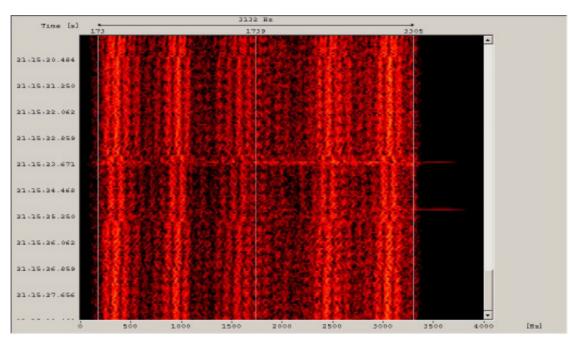


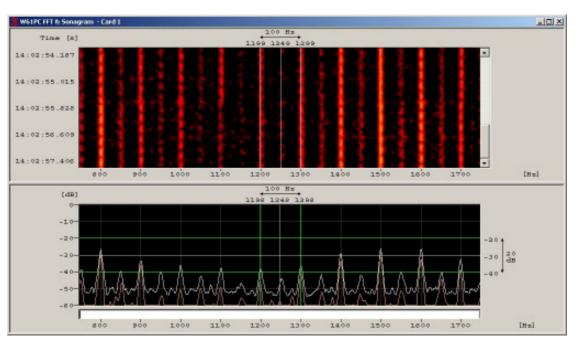
The following sonagrams and FFTs will help you to find local intruders:

# Plasma-TV – shortwave killer – sonagram: 3500 kHz – receiver set to USB – producing QRM from 0.1 – 28 MHz



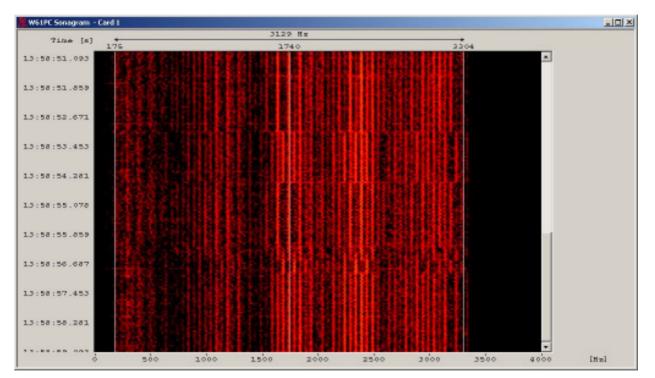
#### soundfile: <u>http://www.iarums-r1.org/iarums/sound/tv-plasma.wav</u>

Plasma-TV - shortwave killer – sonagram and FFT: 3500 kHz – AM - producing QRM from 0.1 – 28 MHz



soundfile: http://www.iarums-r1.org/iarums/sound/tv-plasma-am.wav

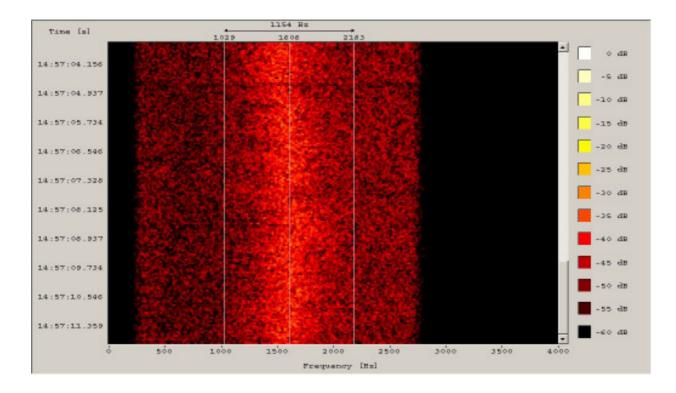
## Large LCD-TV shortwave killer – sonagram on 3515 kHz – USB



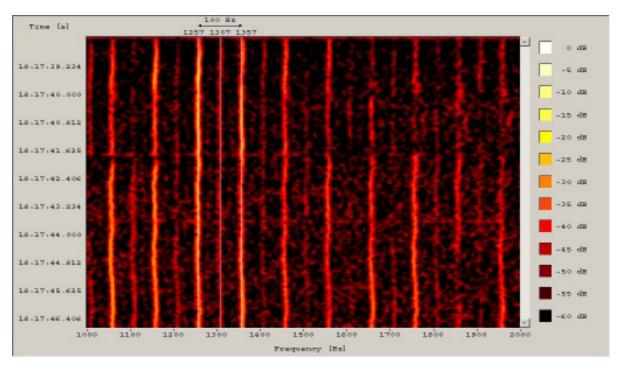
soundfile: http://www.iarums-r1.org/iarums/sound/lcdl.wav

## Small LCD – TV harmonic radiations on all bands



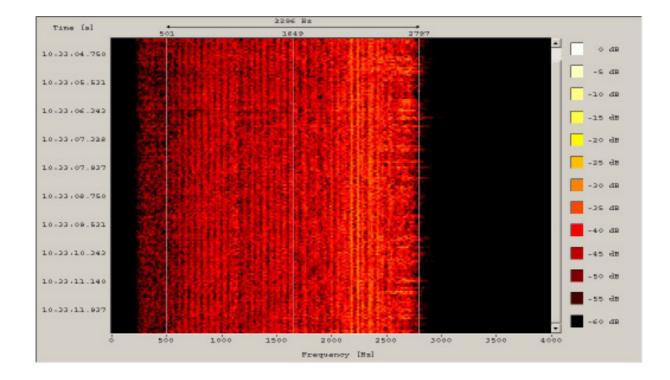


## TV – switching power supply accumulations in 30 kHz increments, 50 or 100 Hz spectral lines



#### soundfile: http://www.iarums-r1.org/iarums/sound/tv-switchps.wav

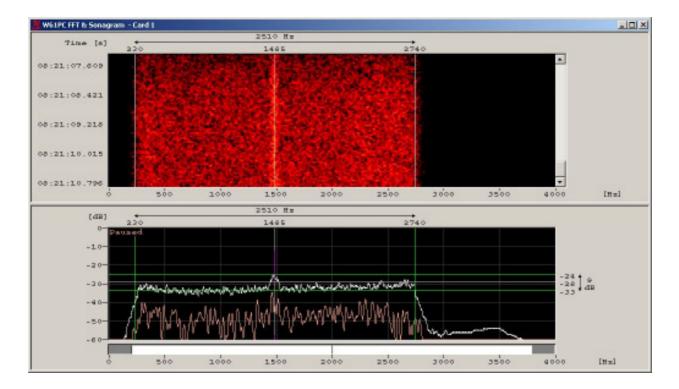
## Radiation of a computer monitor, switching power supply



soundfile: http://www.iarums-r1.org/iarums/sound/moni.wav

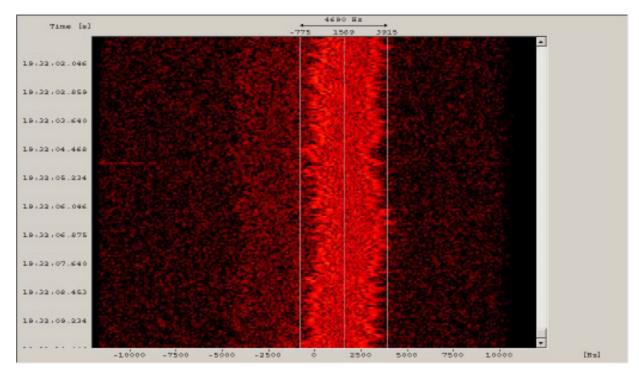
## Radiation of a TFT- computer monitor very weak (9 dB over white noise), but audible – spectral lines in 50 kHz increments

soundfile: http://www.iarums-r1.org/iarums/sound/tft1.wav



## Radiation of a broadband DSL-Modem on 10, 21 and 24 MHz

- very unstable signal - radiation source: DC power supply cable -



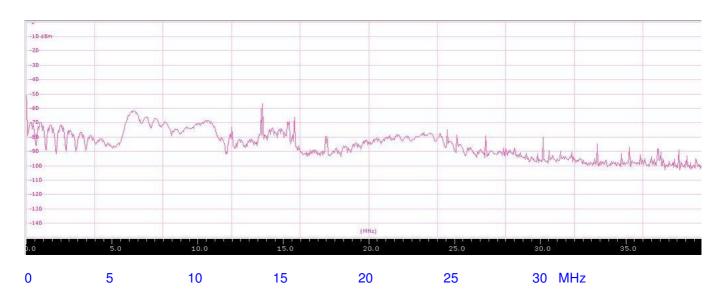
soundfile: http://www.iarums-r1.org/iarums/sound/dslmodem.wav

# DC PS black cable with filter (white) – 30 dB reduction of the disturbing signal!



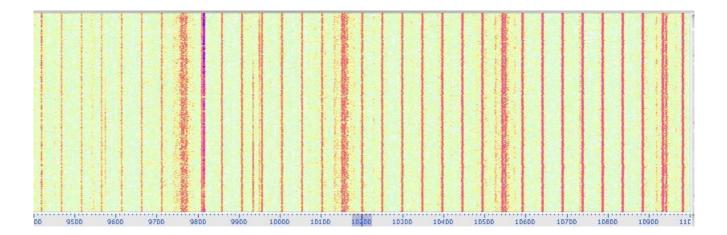
## Radiation of a brandnew combined fax-telephone device (made in Thailand) Spectrogram with Perseus - showing the interference from 10 kHz – 30 MHz!

### soundfile: http://www.iarums-r1.org/iarums/sound/fax.wav



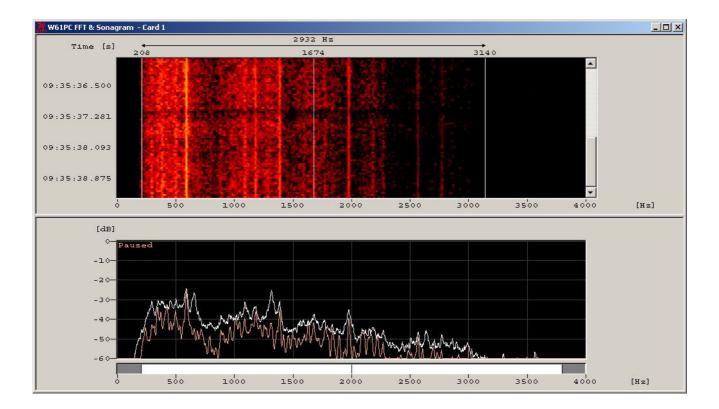
# The same device - spectral lines with 50 kHz and 400 kHz increments – here: on 10 MHz

soundfile: http://www.iarums-r1.org/iarums/sound/fax.wav



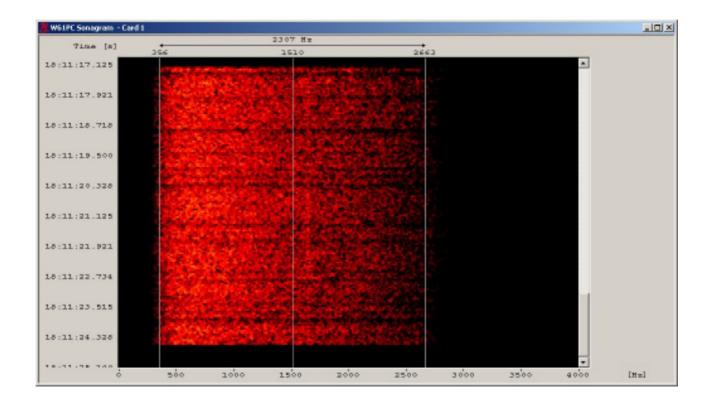
## PLC – shortwave killer in Portugal producing QRM from 1 - 30 MHz – reported by CT4AN

#### soundfile: http://www.iarums-r1.org/iarums/sound/plc.mp3



## LED Power Supply – disturbing 12 – 15 MHz reported by PA0GRU

soundfile: http://www.iarums-r1.org/iarums/sound/led.wav



You can get similar sonagrams with all soundcardprograms, which are displaying a "waterfall" !!! For example: Gram50, Spectran, Multipsk and others. Spectrograms are not very helpful in such cases. Waterfall = sonagram. If you need soundfiles for comparing purposes, please look under "Soundfiles" and "Local Intruders" on our homepage:

#### http://www.iarums-r1.org/iarums/sound/main.html

#### Screenshots: DK2OM with Wavecom W61 and Perseus

State: November 2009

#### credits:

Wavecom Elektronik – Buelach –Switzerland SSB-Electronic – Iserlohn – Germany BAZ-Special Antennas - Germany

Compiled and published by DK2OM