

**ACOPT 19 (Code 6842)  
 Online Analysis**

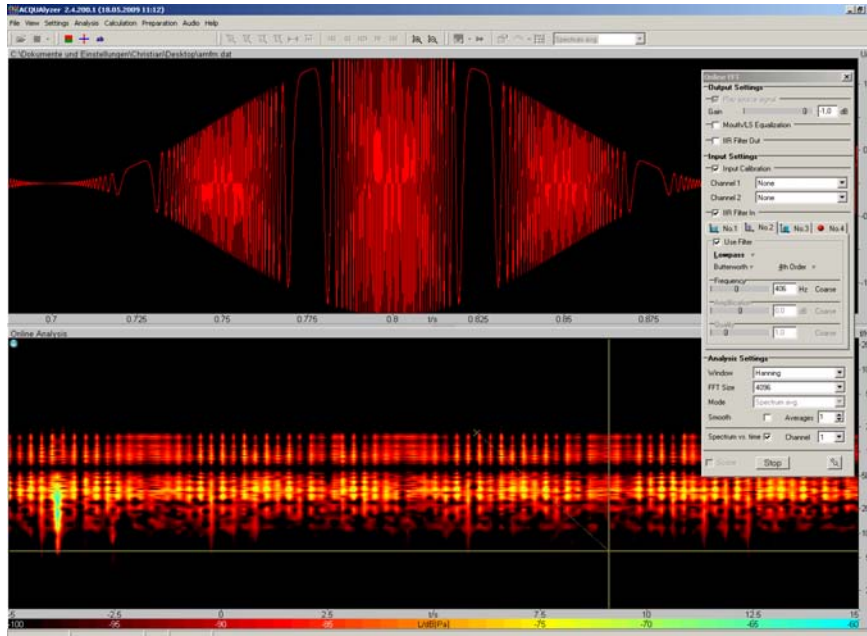
**OVERVIEW**

ACOPT 19 "Online Analysis" is a license option for the Advanced Communication Quality Analysis System ACQUA\*.

It provides the following functions for real-time analysis during simultaneous continuous signal playback under modifiable measurement setup conditions:

- **Online FFT:** Real-time analysis of the spectral transmission behavior.
- **Online Distortion:** Real-time analysis of the distortion behavior.

\*requires ACQUA Version 2.4.100 or later



Example: AM/FM modulated signal, played back and analyzed with „Online FFT“

**DESCRIPTION**

The ACOPT 19 license key activates two additional features in the ACQUAlyzer menu for real-time analysis during simultaneous continuous signal playback under modifiable measurement setup conditions (e.g. frequency-dependent convergence behavior of echo cancellers, pressure-force-dependent transfer functions between handset and artificial ear etc.):

- **Online FFT:** any arbitrarily generated signal can be played back continuously and can be analyzed online vs. time or frequency. E.g., while tuning the DSP of a telecommunication terminal, the immediate reaction of the device under test can be observed without having to start any measurement descriptors. Moreover, online IIR-Filters can be activated for the input as well as for the output.
- **Online Distortion:** very well suited to reveal distortion limits or problems with conversion of different numeric formats in signal processing. Can also be used for examining the saturation behavior.

**PARAMETERS**

The following parameters can be set for the selected online analysis:

- **Online FFT:**
  - Output Settings:**
    - Play source signal: activates source signal playback during Online FFT, with adjustable gain and optional activation of Mouth/LS Equalization as well as up to four IIR Filters
  - Input Settings:**
    - Channel1/Channel 2: selection of existing calibration for each channel
  - IIR Filter In:**
    - Definition and activation of up to four IIR filters for the input
  - Analysis Settings:**
    - Window: selects the windowing type
    - FFT Size / Block Size: selects the FFT or block size
    - Mode: selects the analysis method
    - Smooth: activates/deactivates the smoothing function
    - Averages: allows to define the number of averaging steps
    - Spectrum vs. time: displays spectrum vs. time during Online FFT in the analysis window
    - Scope: displays the time signal in the analysis window
- **Online Distortion:**
  - Settings:**
    - Level: sets the level
    - Freq.: sets the frequency
    - Mouth/LS Equalization: optional activation of Mouth/LS equalization
  - Distortion:** selects the analysis type (3rd harmonics, All harmonics, Even harmonics, Odd harmonics, Total distortion, Total distortion (O.132), n harmonics, Rub & Buzz). In addition, the following parameters can be set:
    - Nbr. of harmonics
    - dB weighting
    - Freq. range
  - Distortion:**
    - Channel 1 / Channel: displays the distortion values for channel 1 and 2 (in % or dB)

## SYSTEM REQUIREMENTS

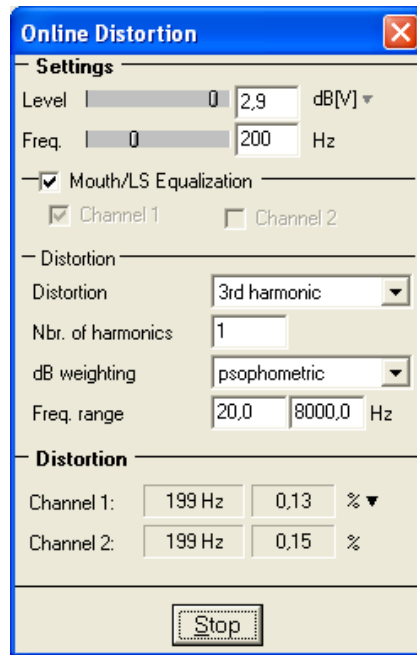
The following system components are required for ACOPT 19:

- **ACQUA** (Code 6810) or **ACQUA Compact** (Code 6860.xx etc.), Version 2.4.100 or later

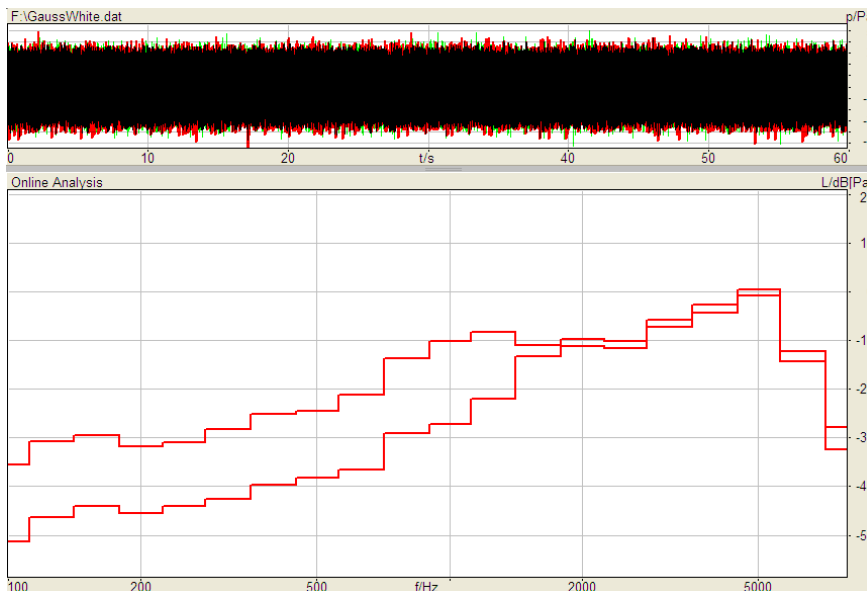
*Note: existing customers need a valid software maintenance agreement!*

## DELIVERY ITEMS

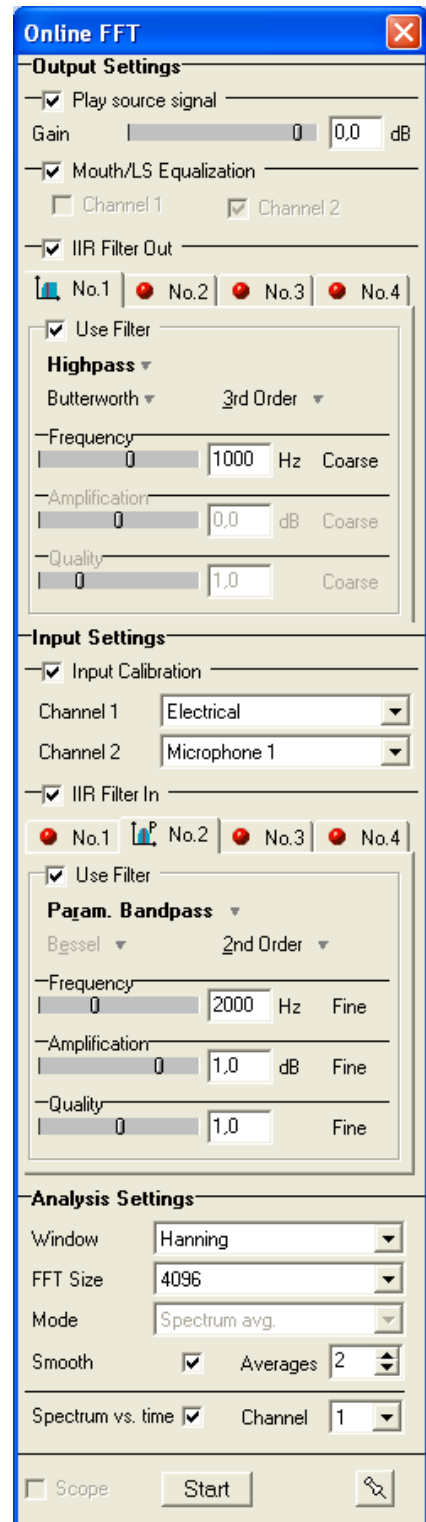
ACOPT 19 is delivered as license key on CD.



Example: Online Distortion Settings



Example: Gaussian white noise, played back and analyzed with "Online FFT". The graph shows the frequency response of a handset with two different pressure forces.



Example: Online FFT Settings

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