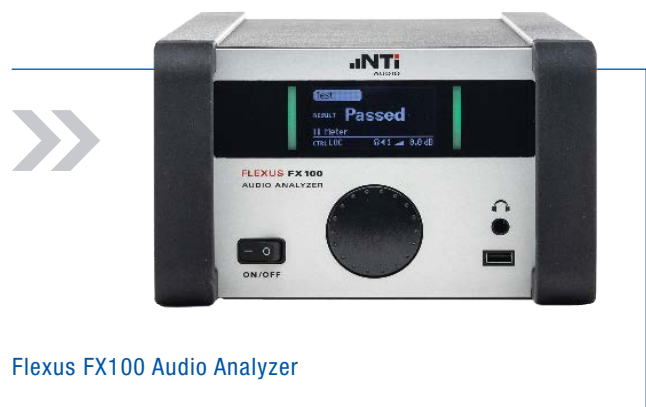# Pro Audio Microphone Test

FX100 USE CASE

A renowned manufacturer of Pro Audio microphones was looking for a flexible test system that could meet the demands of his R&D lab as well as the production quality control.

After an intensive evaluation phase, the FX100 Audio analyzer + RT-MicFX software were selected, due to the superior flexibility and performance of this package, combined with NTi Audio's excellent customer support.

Highlights

- Automated microphone testing with one on-axis, and two off-axis reference speakers.

- All standard microphone measurements supported.

- Large number of measurements is executed within a short time.

Flexus FX100 Audio Analyzer

THE CHALLENGE

The success story of this use case started in 2010, when an internationally-renowned producer of Pro Audio microphones approached NTi Audio, asking for a versatile test system that would meet their demands regarding laboratory and production testing.

Aside from standard measurements such as frequency response, sensitivity and distortion, the key requirement was a directivity test with three reference speakers that are mounted with an angle of 90° relative to each other.

An obvious advantage of this setup is its ability to verify the basic directivity behavior of the microphone under test in a much shorter time than with a turntable.

THE SOLUTION

The core measure taken to provide the solution was to increase the number of off-axis loudspeakers that are supported by the RT-MicFX software.

The approach was established in a close cooperation between the customer and an NTi Audio application specialist.

The FX100 systems were consequently put into operation in the customer's lab and production line, and have been running smoothly ever since.
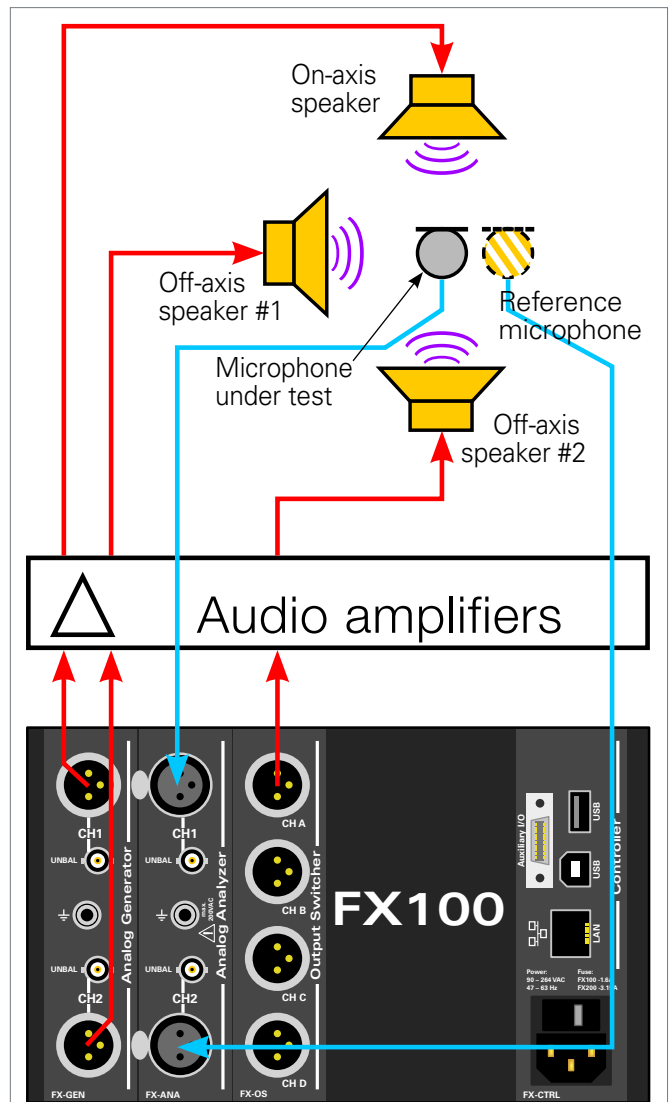
SYSTEM OVERVIEW

Hardware

- NTi Audio FX100 2-chn analyzer with FX-OS output switcher module
- Audio Power Amplifiers
- Reference loudspeakers
- NTi Audio M2010 microphone

Control software

- RT-MicFX

Measurements

- On-axis frequency response

- On-axis sensitivity

- On-axis distortion

- 90° off-axis frequency response

- 180° off-axis frequency response

FX100 Test Setup