DEQX™

Speaker + Room Calibration

Visit DEQX at THE Show Newport Room 1021

May 24th, 2016 |As DEQX nears its 20th aniversary, its mission to enable affordable 'HD-Speaker' performance using its patented low-latency Impulse-Response correction and 3rd generatioon linear-phase active speaker architecture is gaining momentum. Several major manufacturers in recent times have announced "... new DSP Impulse Response correction that revolutionise speaker design " ... well better late than never!

At previous shows we have demonstrated improvements gained by calibrating established speaker models from Magnapan, Gallo, YG Acoustics and others. This year we show how *'3rd Generation Active'* speaker architecture that DEQX pioneered in the 90's can be used to create affordable 'HD-Speakers'.

DEQX calibrates your system using patented Impulse Response Compensation Technology™. 'On-time' frequency groups are delayed so that 'late-arriving' frequency groups can 'catch up' to preserve the original recording's timing coherence. At the same time frequency-response errors are corrected in fine detail from speaker (not room) measurements. DEQX then measures the room to compensate for low frequency room issues that mask detail.

In this demonstration a compact sealed 3-way enclosure uses DEQX HD-active architecture with affordable high-resolution (very low distortion) drivers. The 7" bass/lower-mid is a SEAS Prestige aluminium driver with 0.3% distortion providing 50dB resolution below 500Hz (normally we expect 1% THD - or 40dB resolution in that area). The 3" Eton upper midrange driver from 500Hz to 3kHz provides excellent 0.1% THD providing 60dB of clean resolution from 500Hz to 3kHz where normally we expect from 40dB resolution (1% THD) to 50dB resolution (0.3% THD) in that area. The Eton then crosses to a 1" Scan Speak Illuminator Beryllium tweeter providing equally high resolution above 3kHz.

The DEQX HDP5's crossovers feed separate bass, mid and tweeter amplifiers for each driver with steep 48dB/octave and 60dB/octave linear-phase crossovers. Each driver's crossover filters are combined with their customised Impulse Response calibration filter created from a near-filed (anechoic) measurement. Finally, for awesome bass extension a slave DEQX unit drives two 10" JL Audio subwoofers below 150Hz.

For ultimate results DEQX calibration processors are integrated with their own state-of-the-art ADC's to allow transparent analogue inputs from Vinyl or analogue Preamps. Three sets of internal premium stereo DACs drive the external power amps. The Bass and Midrange amps are a prototype A/B DEQX design while a 5-watt S.E.T valve amp powers the tweeter. The HDP5 also provides direct rendering of networked audio sources and streamed Internet media management from third party sources J-River, and ROON with Tidal integration.

Don't forget to view the video at DEQX.com that illustrates why loudspeaker's (not room issues) are every system's weakest link and how DEQX deals with it in ways that have previously been impossible. To view the video, visit our website or come to room 1021.

Visit DEQX at THE Show Newport Room 1021 and hear the difference DEQX makes!

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