

JENS – PETER (JP) AXELSSON

Audio Engineering Management and Design Professional

SUMMARY

- Managed multi discipline teams of Engineers and Technicians that brought Consumer- and Pro-Audio products from Concept through Design, Prototype and Manufacturing stages
- Accomplished in Audio Equipment Design, including Active Loudspeaker, Audio Processor, Class-AB & -D Amplifiers, Linear & Switch-mode Power-supplies, Loudspeaker Transducer, Crossover and Enclosure
- Experienced in Acoustics and Electronics measurements and analyses

WORK EXPERIENCE

CTO/owner

JP ELECTRONICS DESIGN, CA/TX/FL

2001 - Present

- Delivering consulting services to companies in High-End Audio, Pro-Audio, Consumer-Audio, Outdoor-Audio, Automotive-Audio, Wearables and Racing Simulator, in various capacities including Management, Loudspeaker- & Electronics Systems Design, R&D, Lab Design, Loudspeaker Voicing, Acoustic Measurements, Domestic and Overseas Vendor Management

Senior Acoustics Engineer

CIRRUS LOGIC, INC., Austin, TX

2010 - 2014

- Worked closely with DSP programmers to develop loudspeaker protection algorithm using KLIPPEL data
- Designing acoustic Noise Suppressing smartphone- & earphone-mockups, headphone test-enclosures using SolidWorks mechanical CAD, Sourcing MEMS microphones, micro-speakers and receivers
- Designed custom controlled/adjustable leak pinna with integrated acoustically invisible smartphone hand
- Responsible for specifying, designing and managing acoustics labs, consisting of 150Hz and 250Hz anechoic chambers, treated listening rooms and measurement spaces with background noise playback

Product Applications Engineer, Acoustics Engineer

AUDIENCE INC., Mountain View, CA

2008 - 2009

- In charge of the design of acoustically invisible handset positioners for KEMAR and HEAD Acoustics Head and Torso Simulators (HATS) and verified the acoustic performance compared to a human hand
- Designed RF immune microphone bias & preamp, differential-pair circuits for ECM and MEMS microphone
- Conducted acoustic measurements in Anechoic chamber of multi microphone cellphones to enable adaptation of noise reduction and echo canceling algorithms running on custom voice processor DSP
- Designed ETSI room with controlled reverberation times (RT-60) using reflective and absorptive panels; for diffused field measurements of noise cancelation in a real-world environment
- Re-designed and optimized customers' microphone circuit designs to enhance audio performance
- Member of listening panel evaluating sound quality of Noise reduction including MOS scoring

Sr. Audio Engineering Manager, Audio Electronics Design Engineer

TYMPHANY CORPORATION, Cupertino, CA

2003 - 2007

- Managed and staffed the Audio Engineering Group a multi discipline group that designed powered loudspeaker systems and loudspeaker transducers, personally voiced and tuned the systems
- Developed innovative enabling technologies for new groundbreaking Electro-Acoustic transducers
- Directed material and adhesive R&D for non-conventional materials and transducer designs
- Responsible for successfully putting in place the lab infrastructure of the company, including electronics and acoustics labs, 3D printer, model, machine and wood shops, enabling in-house prototype capabilities
- Won 2006 CES Innovations Design and Engineering award and 2007 CES Innovation Award

Audio Engineering Manager, Sr. Electronics Design Engineer

INTELLIGENT AUDIO SYSTEMS, INC. Berkeley, CA

2002 - 2003

- Managed multi discipline group that designed powered loudspeaker systems, and built customer- and tradeshow- demo systems that received highest marks by reviewers at the Alexis Park CES "The Show"
- Specified and evaluated custom designed long throw subwoofer transducers both listening & measuring
- Designed 4x1kW class-D power amplifier and integrated powered DSP controlled subwoofer system
- Designed, tuned and voiced powered three-way line-array and subwoofer systems for flat-panel TVs

Electronics Design Engineer

APOGEE SOUND INTERNATIONAL, LLC. Petaluma, CA

2000 - 2001

- Responsible for new products design with direct-report to the President of the company

- Successfully completed loudspeaker system design and electronics design of analog signal processor for powered professional loudspeaker line, including transducer evaluation and voicing (Pro-Sound)
- Refined the acoustic response of flown line-arrays based on polar plots measured at up to 300ft radii

Production and Acoustics Test Engineering Manager, Electronics Design Engineer

NHTPro, VERGENCE TECHNOLOGY, INC. Benicia, CA 1998 - 2000

- In charge of the design of electronics for award winning powered studio monitor loudspeaker line that won Pro Audio Review-Award of Excellence, Electronic Musician & CNET-Editors Choice Awards
- Member of the listening panel evaluating the acoustic performance of the products
- Managed a group of engineers and technicians that conducted amplifier quality control and testing
- Designed test equipment for power and frequency response testing of amplifiers on production line

Electronics Design Engineer

RECOTON, NHT, AR, LANZAR, JENSEN, ADVENT, Benicia, CA 1998

- Assisted in the crossover design and voicing of AR Video Tower loudspeakers
- Member of the listening panel evaluating the acoustic performance of the products using critical listening
- Evaluated cabinet, amplifier and transducer samples, analog signal processor design
- Automotive Audio amplifier production line setup and test engineering

Audio and Video System Sales

AKTUELL NORGE AS, Kristiansand, Norway 1995 - 1996

- Advised customers of what Sound System, Home Theater and Video product would best fit their needs.

OTHER EXPERIENCE

- President, Studio and Sound Engineer, RADIOEN, Grimstad, Norway
- Sound Engineer, TEKNIKKER GRUPPA, Grimstad, Norway

TECHNICAL SKILLS

Design: Audio Equipment, Analog & Mixed Signal Electronics, Amplifier, Signal Processor, Loudspeaker Driver and Enclosure, Room Acoustics, Electronics Packaging, DSP, Measurement and Listening Spaces
Tools: Schematic Capture, PCB Layout, Mechanical CAD, B&K HATS, HEAD Acoustics HATS, GRAS KEMAR
Software: KLIPPEL, Brüel & Kjær PULSE, SoundCheck, Adobe Audition, Audio Precision, LMS, SMAART, LEAP, TEF, MLSSA, LifeTest, OrCAD, EAGLE, AutoCAD, SolidWorks, COMSOL, MS Project, MS Office

EDUCATION

MSEE, Electronics & Telecom Engineering, AGDER UNIVERSITY, Grimstad, Norway 1995 - 1996
 BSEE, Consumer & Telecom Electronics Eng., AGDER UNIVERSITY, Grimstad, Norway 1990 - 1995
 ASEE, Audio / Video Electronics, KVADRATUREN SKOLESENTER, Kristiansand, Norway 1987 - 1990

TRAINING

COMSOL Multiphysics Training 2012
 Advanced SoundCheck 10 Training, LISTEN INC. 2010
 Advanced SoundCheck 6, LISTEN INC. 2006
 PULSE & Electro-acoustic Measurement Training, John Bareham (B&K) 2006 / 2011
 Management Certificate, AMERICAN MANAGEMENT ASSOCIATION 2005

PATENTS

US 8,897,472 & 9,462,388 Acoustic transducer comprising a plurality of coaxially arranged diaphragms
 US 20150358708 A1 Noise canceling microphones with shared back volume
 US 20140307888 A1 Systems and methods for multi-mode adaptive noise cancellation for audio headsets
 US 20140294182 A1 Systems and methods for locating an error microphone to minimize or reduce obstruction of an acoustic transducer wave path

PROFESSIONAL ASSOCIATIONS

- IEEE Senior Member
- Audio Engineering Society - Committee Member, Conference paper co-author: "An Extended Small Signal Parameter Loudspeaker Model for the Linear Array Transducer", Audio Engineering Society 121st Convention, Oct 2006

PERSONAL

US Citizen, Swedish Citizen Languages: English and Norwegian/Swedish

Cell: +1 707-853-6960 • Big Pine Key • Florida • JPAXELSSON@YAHOO.COM