DEESSE Product Brief

DEESSE Overview

Déesse is a DSP + High Quality AUDIO PCI card designed for all PCI computers.
It supports the **PCI 2.1 protocole at 33 MHz** with 3.3V I/O (LVTTL) with 5V tolerance.

It is based on two sub-systems :
- a DSP system based on the **MOTOROLA DSP56301**
- an AUDIO system based on the **TI TLC320AD77C**

The **DSP56301** is based on the powerful DSP Engine DSP56301 Core capable of **executing an instruction on every clock cycle**, thus yielding a twofold performance increase as compared to the 56000 Core while **maintaining object code compatibility with it.**
The **TLC320AD77C** is a stereo analog-to-digital (A/D) and digital-to-analog (D/A) **24-Bit delta-sigma** converter with **excellent audio performances of 100dB**.
It has a wide range of sampling rates starting from **16 kHz to 96 kHz** with **16-, 20-, or 24-**Bit input/output data.

DEESSE Features

- DSP56301 at **100 MHz (100 Mips)**
- 8 KWords (24Kbytes) of internal memory (X, Y & P)
- **128 KWords (384KBytes) of SRAM** (10ns) as external DSP memory (X,Y & P)
- Stereo Audio Sampling at **22.05, 24, 32, 44.1, 48, 64, 88.2 and 96 kHz**
- Stereo Audio Sampling in **16-, 20-, or 24-Bit formats**
- 128x Oversampling
- High Performance: **100-dB Signal-to-Noise Ratio (SNR) (EIAJ), 100-dB Dynamic Range**
- Two CINCH for Stereo **Audio Input** with **0.7 Vrms Input**
- Two CINCH for Stereo **Audio Output** with **0.7 Vrms Output**
- One **DSP LINK connector** for external connections of hardware such like **multi-CODEC, AES-EBU, S/PDIF and Data aquisition Boxes or 19' Racks. The DSP Link furnish several voltages up to 1A.**
- 32-Bit / 33 MHz **PCI** 2.1 interface
- 3.3V design

DEESSE Diagram