CAST Announces Very Versatile I2S-TDM Digital Audio Transceiver IP Core

Extremely configurable transceiver core can provide an efficient serial audio interface for nearly every system and application.

Woodcliff Lake, New Jersey — March 8, 2023 — Semiconductor intellectual property provider CAST today announced the immediate availability of a new digital audio transceiver IP core that provides both Inter-IC Sound (I2S) and Time-Division Multiplexed (TDM) interfaces.

The new I2S-TDM I2S/TDM Multichannel Audio Transceiver has critical features and extensive options enabling customers to configure it as an efficient digital audio interface for practically any system and application. Sourced from

IObundle, Lda., the new core combines IObundle's years of experience providing digital audio interfaces with CAST's deep understanding of customer needs, high standards for IP core quality, and extreme commitment to technical support to provide one of the best I2S/TDM transceiver cores on the market.

This full-duplex transceiver can act as either a controller or a target and supports the left- and right-justified I2S and various TDM audio data formats.

Users set key parameters at synthesis time: the number of transmit and receive serial data lines, the maximum number of transmit and receive audio channels, and the size of the Receive and Transmit FIFOs. User runtime programmable options then include the operation mode (controller or target), sample width (2 to 32 bits), sample rate (supports a range including all commonly used sample rates—32, 44.1, 48, 96

– more –

and 192 kHz—and also uncommon rates), and frame format to ensure compatibility with the widest possible range of serial audio interfaces.

An often-requested feature is the ability for the core to use a configurable number of audio data lines—versus the single transmit and receive lines typical of many transceiver cores—and to have each of these lines carry a large number of audio channels. A single I2S-TDM core can, for example, readily handle 43 audio channels at 48KHz/24-bit/100Mhz.

The I2S-TDM I2S/TDM Multichannel Audio Transceiver IP core is available now, in synthesizable Verilog for ASICs or as a targeted FPGA netlist. Royalty-free and flexible licensing terms are available. Visit the [core's web page](#) or contact [CAST Sales](#) to learn more.

About CAST

Computer Aided Software Technologies, Inc. (CAST) is a silicon IP provider founded in 1993. CAST's ASIC and FPGA IP product line includes microcontrollers and processors; compression engines for data, images, and video; interfaces for automotive, aerospace, and other applications; various common peripheral devices; and comprehensive SoC security modules. Learn more by visiting www.cast-inc.com.