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CONEXANT

SmartDAA[®] 3 Line Side Device



Digital Isolation Barrier-based Solution Provides a Low-cost, Reliable Channel

Conexant's broadband communications portfolio includes a comprehensive suite of semiconductor solutions that enable the digital home and information network. The CX20493 SmartDAA® 3 is based on the company's patented Digital Isolation Barrier (DIB) technology which provides an error-free and reliable digital communication channel, eliminates the need for costly analog transformers, relays, and opto-isolators that are typically used in discrete DAA implementations. Conexant's SmartDAA 3 technology is incorporated into a variety of the company's application specific products enabling users to send and receive data across the PSTN via modem, fax, set-top box or embedded appliances.

The Data Access Arrangement (DAA), also known as Line Interface Circuit, is required by all semiconductor fax and modem chip sets to connect the fax, modem, or voice circuit to the Public Switched Telephone Network (PSTN) for telecommunications services. The DAA is usually a passive discrete circuit that connects the physical telephone line to the active components, such as the codec, Digital Signal Processor (DSP), communications controller, or any other device that needs to send and receive data across the PSTN.

SmartDAA 3 includes an isolation barrier, providing isolation and balance while minimizing signal distortion within communications networks. This interface provides a barrier that prevents electrical contact between modems and phone equipment. Additionally, the DIB can withstand high voltages between phone lines, the modern and phone circuitry, and the user.

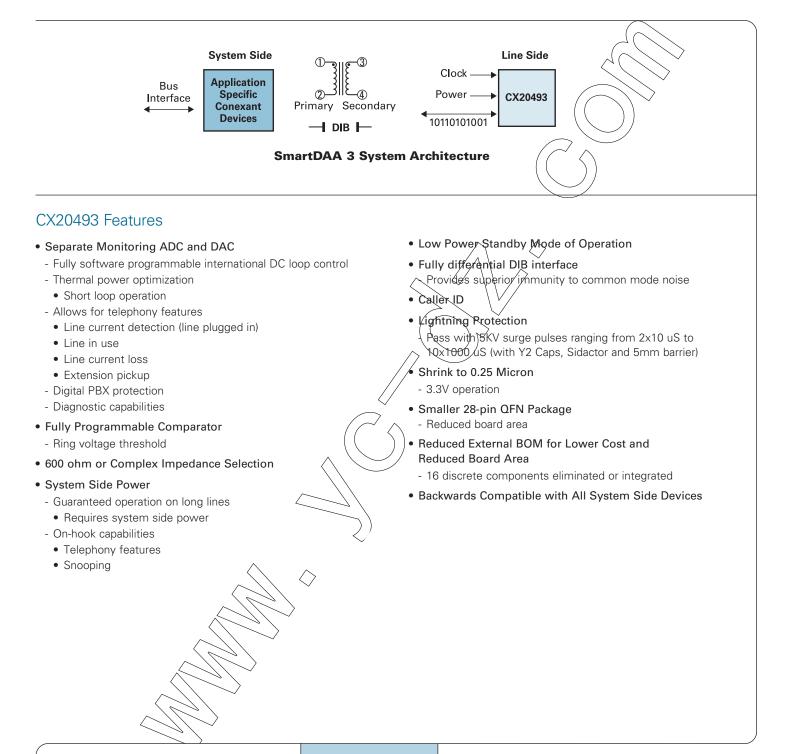
SmartDAA 3 provides all of the interface circuitry, off-hook relay, transformer, loop current holding, impedance matching and ring detection needed. It is designed to meet both domestic and international line interface requirements, with enough flexibility to meet worldwide regulatory specifications. Because it is powered from the system side rather than the line side, it can withstand extreme conditions, such as very low loop currents. Additionally, it exceeds worldwide worst case V/I requirements. At the same time, it allows new on-hook state diagnostic and monitoring activities, for improved cost efficiency and quick time to market design-in.



CX20493 Distinguishing Features

- Digital PBX protection
- Software programmable international DC loop control and ring voltage threshold leads
- Differential DIB interface for greater immunity to common mode noise
- 28-pin Quad Flat No (QFN) lead requires less board space
- Mature Third Generation design that is smaller in size and contains more discrete components than previous generations
- System side powered for guaranteed operation over longer lines

Part NumberCX20493DescriptionSmartDAA 3 Line Side Device



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www.conexant.com

General Information: U.S. and Canada: (800) 854-8099 International: (949) 483-6996 Headquarters – Newport Beach 4311 Jamboree Rd, PO. Box C Newport Beach, CA 92660-3095

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