CLOUD CDI-CA Auxiliary Digital Input Cards

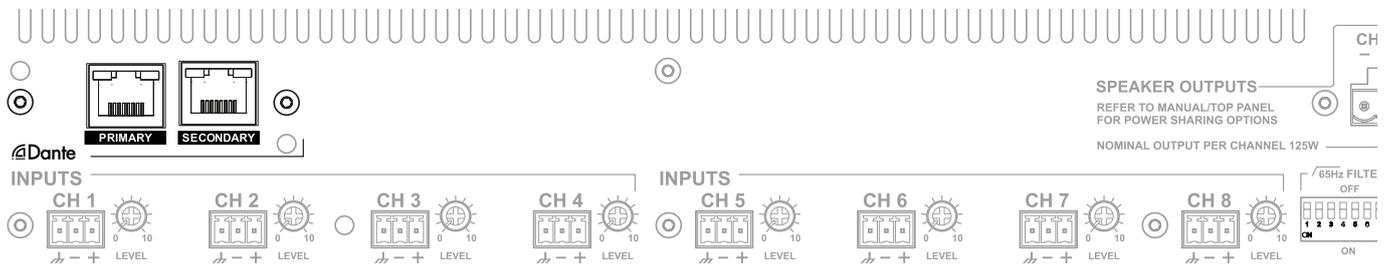**Cloud**
Clearly better sound

Dante™ Network Cards
For CA Series Digital Amplifiers

CDI-CA2 2-channel Dante input card
CDI-CA4 4-channel Dante input card
CDI-CA8 8-channel Dante input card

CDI-CA8 card installed in a CA8125 amplifier

CDI-CA2

CDI-CA4

CDI-CA8

Key Features

- Optional Dante interfaces for Cloud CA Series power amplifiers, allow integration with a Dante/AES67 AoIP network
- AES67 compliant for interoperability with alternative (non-Dante) audio networks
- Fits rear panel expansion bay: adds two (CDI-CA2), four (CDI-CA4) or eight (CDI-CA8) digital inputs to amplifier
- All card versions compatible with all amplifier models (routing restrictions will apply in some combinations)
- Internal amplifier channel routing configured by existing rear panel DIP switches

- Per-channel analogue/Dante source selection via jumpers on card (CDI-CA2 and CDI-CA4 only), or via active Dante subscription (CDI-CA8 only)
- CDI-CA8: dual RJ45 gigabit Ethernet ports: switched and redundant modes available for secondary port
- CDI-CA2 and CDI-CA4: single RJ45 100Mbit Ethernet port
- Externally powered via PoE
- Compatible with Dante Controller and Dante Domain Manager
- Dante sample rates: 44.1, 48, 88.2 and 96 kHz
- LED indication of network speed and Link activity

General Description

The CDI-CA Dante network cards are retrofittable options for Cloud CA Series power amplifiers, and allow the amplifier to derive its inputs directly from an Audinate Dante audio network. Dante is a multichannel digital audio system using standard IP Ethernet network technology for AoIP (Audio over Internet Protocol), and provides sample accurate synchronisation and automatic device and channel discovery. The card is compliant with AES67, making it compatible with a broad range of other AoIP networks.

The CA Series of multichannel amplifiers are suitable for use with both low-impedance loads and 70/100 V-line loudspeaker distribution systems, and all models except the CA2500 employ power sharing in 70/100 V-line mode in the odd- and even-numbered channel groups independently, permitting intelligent usage of the amplifier's total available power.

CDI-CA network cards are compatible with the following amplifier models (power ratings quoted here assume equal power sharing across all channels):

CA2250 – 2 channels, 250 W/ch
CA2500 – 2 channels, 500 W/ch
CA4250 – 4 channels, 250 W/ch
CA6160 – 6 channels, 160 W/ch
CA8125 – 8 channels, 125 W/ch

The CDI-CA2, CDI-CA4 and CDI-CA8 cards source up to two, four or eight channels (respectively) of low-latency digital audio from the Dante network. With Dante, channel assignment in a Dante device is normally made using Audinate's Dante Controller software: when the card option is installed in a Cloud CA Series amplifier,

General Description *(continued)*

each Dante channel assigned to the card may be selected as an alternative input to the corresponding amplifier channel, replacing the channel's normal analogue input. On the CDI-CA2 and CDI-CA4, this selection is made via on-card jumpers. On the CDI-CA8, an on-card jumper setting determines whether Dante routings are enabled when their channel subscription is defined in Dante Controller, or only if the subscription is active. If the subscription is inactive, the amplifier channel will default to its analogue source.

All CDI-CA cards use the latest version of Dante firmware, making them compatible with all versions of Dante Domain Manager (DDM), for security and domain management.

The card fits into the amplifier's rear panel expansion bay. The CDI-CA2 and CDI-CA4 are fitted with a standard RJ45 100 Mbit Ethernet port on the card faceplate to provide network connectivity, while the CDI-CA8 features dual gigabit ports: these enable operation using primary and secondary (redundant) networks, or alternatively, the second port can operate as an additional network port via the internal switch. The card is powered via PoE (Power Over Ethernet), thus drawing no additional current from the amplifier's internal power supplies. If the Ethernet port to which the card is connected is not PoE-enabled, an Ethernet-compatible power injector module may be inserted in the feed. The power injector(s) should be 100Mbit-rated for the CDI-CA2 and CDI-CA4, and gigabit-rated in the case of the CDI-CA8.

The amplifier's rear panel input routing DIP switches remain functional once a Dante card has been installed. This permits a single Dante channel to feed multiple amplifier channels or a stereo pair of Dante channels to feed multiple stereo pairs, if desired (amplifier model permitting).

The CDI-CA2, CDI-CA4 and CDI-CA8 cards are primarily intended for use in amplifiers with two, four and eight channels respectively, though all three card types are electrically compatible with all amplifier models. It is possible to fit a Dante input card with fewer channels than the amplifier, if the resulting restrictions are acceptable. For example, a CDI-CA2 card may be fitted in a CA4250 amplifier if only two Dante channels will ever be needed simultaneously: the amplifier's rear panel input routing DIP switches will allow the two analogue outputs of the Dante card to be routed to multiple channels in the amplifier in the same manner as the amplifier's normal analogue inputs. Amplifier channels not being sourced from the Dante card will still be able to operate normally from their analogue inputs. An exception to the rule may be the fitment of a CDI-CA8 card in an amplifier with fewer than eight channels if the dual network redundancy capability of the CDI-CA8 is an essential requirement.

	CDI-CA2	CDI-CA4	CDI-CA8
Dante channels	2	4	8
Simultaneous receive flows	1 or 2		Up to 8
Sample rates	Dante: 48/44.1/88.2/96 kHz AES67: 48 kHz		
Encoding	16/24/32-bit PCM (default 24-bit PCM)		
Data rates	100 Mb/s		1 Gb/s
Connectors	1 x RJ45		2 x RJ45
Secondary port modes	(not applicable)		Switched (default); Redundant
LEDs	Network speed, Link status		
Software compatibility	Configuration and Routing	Audinate Dante Controller	
	Security and Domain management	Audinate DDM	