



VOICE TRANSCODING

D-Series: Transcoding

D500 High Density Voice Transcoding Card

The industry's highest density transcoding card - designed for optimum voice quality for high port count systems, offering from 400 to 2,000 transcoding sessions in one compact PCIe form factor!

IP telephony applications commonly require the use of multiple voice codecs, used to digitally compress voice signals and save on bandwidth. Voice signals from the Public Switched Telephone Network (PSTN) come in the form of the G.711 codec, but the VoIP terminal equipment and networks can support a variety of different voice codecs, such as G.729, G.726, AMR, G.722, iLBC, etc. The VoIP infrastructure needs the capability to mediate between endpoints supporting different codecs, but this functionality requires digital signal processing tasks that are often costly and resource-intensive, and can affect the quality of the voice signals, if it introduces too much latency and delay.

The D500 card converts numerous simultaneous sessions of transcoding from one type of codec (e.g. G.711) to another (e.g. G.729), without affecting latency or using up precious host CPU resources. The card allows up to 2,000 sessions of any-to-any voice codec conversion, with unmatched quality¹. All codecs are fully indemnified; no additional licensing is required for their use².

The D500 works with both Asterisk® and FreeSWITCH®. With compatible drivers, these applications can use the D500 cards as seamless voice transcoding resources. Alternatively, developers and integrators can use the Transcoding API in C for their own application development.



D500 PCIe with high profile bracket

HIGHLIGHTS

- 400 to 2,000 Transcoding Sessions
- No Licensing Fees²
- Integrates in Asterisk® and FreeSWITCH®
- Works on Linux and Windows®
- Simple C API
- PCI Express

CODEC SUPPORT

- | | |
|----------------------|--------------------|
| • G.711 | • GSM-FR |
| • G.722 | • GMS-EFR |
| • G.722.1 (HD Voice) | • AMR |
| • G.723.1 | • AMR-WB (G.722.2) |
| • G.726 | • L16 (Linear 16K) |
| • G.729AB | • iLBC |

SAMPLE APPLICATIONS

- | | |
|----------------------|----------------|
| • Hosted VoIP | • Hosted PBX |
| • PBX with HD Voice | • Call Centres |
| • IP Network Peering | |

¹ Total port counts performance varies from codec to codec use and on the traffic mix at any given time.

² AMR codecs needs to be indemnified by integrator.

CONTINUE READING »

TECHNICAL SPECIFICATIONS

Software

- Support for Asterisk and FreeSWITCH
- Transcoding API in C
- Media flows in and out of 2x GigE ports and/or PCIe bus

Dimensions

- Length: 245.2mm
- Height: 106.1mm

Operating Systems

- Linux
- Windows®

Certifications

- Emissions: FCC Part 15 Class B, CISPR 22/EN55022 Class B
- Immunity: CISPR 24/EN55024
- IEC/EN 60950 safety is pending

Bus Supported

- PCIe: x1 bus width, V1.1

Power Requirements

- 24W (1.6A @ 12V; 1.5A @ 3.3V)

Operating Temperature Range

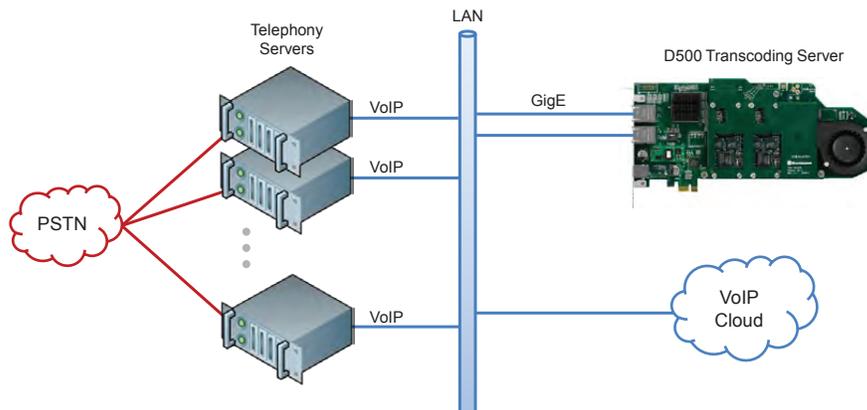
- Temperature range: 0 – 50 °C

ORDERING INFORMATION

SKU for PCIe Bus	Usage
D500-100e	D500 card with 1 transcoding module, up to 400 transcoding sessions, PCIe
D500-200e	D500 card with 2 transcoding modules, up to 800 transcoding sessions, PCIe
D500-300e	D500 card with 3 transcoding modules, up to 1,200 transcoding sessions, PCIe
D500-400e	D500 card with 4 transcoding modules, up to 1,600 transcoding sessions, PCIe
D500-500e	D500 card with 5 transcoding modules, up to 2,000 transcoding sessions, PCIe

Pool of VoIP Telephony Servers Accessing

High Density Transcoding Server



Network Interfaces

- 2x Gigabit Ethernet ports

Production Quality

- ISO 9002

Warranty

- D-Series hardware comes with a standard 5-year warranty with product registration when purchased through an authorized Empowered by Sangoma representative
- 30-day "no questions asked" return policy



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