



## Digital-to-Analog Converters (Cont.)

Description	Digi-Key Part No.	Price Each		Cirrus Logic Part No.
		1	25	
24-bit Delta-Sigma, 6-channel, up to 192 kHz sample rate, 103dB dynamic range, output mute control, digital de-emphasis, filtered line-level outputs, Poppard Technology, 20-TSSOP	598-1057-5-ND	5.23	4.66	CS4361-CZZ
24-bit Delta-Sigma, 6-channel, up to 192 kHz sample rate, 114dB dynamic range, direct stream digital mode, volume control, matched PCM and DSD Analog output levels, 48-LQFP	598-1058-ND	9.98	8.99	CS4362A-COZ
24-bit Delta-Sigma, 6-channel, up to 192 kHz sample rate, 103dB dynamic range, direct stream digital mode, volume control, TDM serial interface, ATAPI channel mixing, 48-LQFP	598-1059-ND	9.49	8.44	CS4364-COZ
24-bit Delta-Sigma, 6-channel, up to 192 kHz sample rate, 114dB dynamic range, direct stream digital mode, volume control, matched PCM and DSD analog audio outputs, 48-LQFP	598-1060-ND	10.24	9.22	CS4365-COZ
24-bit Delta-Sigma, 8-channel, up to 192 kHz sample rate, 114dB dynamic range, direct stream digital mode, volume control, matched PCM and DSD analog audio outputs, 48-LQFP	598-1063-ND	14.36	12.93	CS4385-COZ
24-bit Delta-Sigma, stereo, up to 192 kHz sample rate, 108dB dynamic range, Not recommended for new designs, 20-TSSOP	598-1064-5-ND	5.26	4.67	CS4391A-KZZ
24-bit Delta-Sigma, stereo, up to 192 kHz sample rate, 114dB dynamic range, direct stream digital mode, volume control, single +3V supply, ATAPI mixing functions, 20-TSSOP	598-1065-5-ND	8.15	7.25	CS4392-KZZ
Up to 24-bit Delta-Sigma, up to 192 kHz sample rate, PCM and DSD inputs, 120dB dynamic range, external muting control, volume control, stand-alone or I2C/SPI control, 28-TSSOP	598-1067-5-ND	9.15	8.24	CS4398-CZZ
Up to 24-bit Delta-Sigma, up to 192 kHz sample rate, 109dB dynamic range, integrated PLL, muting control for individual channels, digital volume control, I2C/SPI control, ATAPI mixing, 24-TSSOP	598-1184-5-ND	5.66	5.03	CS4350-DZZ
Up to 24-bit Delta-Sigma, up to 192 kHz sample rate, 109dB dynamic range, integrated PLL, muting control for individual channels, digital volume control, I2C/SPI control, ATAPI mixing, 24-TSSOP	598-1185-5-ND	5.23	4.36	CS4350-CZZ
24-bit Delta-Sigma, up to 192 kHz sample rate, 106dB (A-wt) dynamic range, integrated line driver, 2Vrms line-level output, stereo mute, analog low-pass filter, Poppard Technology, 20-TSSOP	598-1186-5-ND	2.92	2.44	CS4352-CZZ

### CDB4344 Evaluation Board

This board is an excellent means for quickly evaluating the CS4344 24-bit, 10 pin stereo D/A Converter. The CS8416 digital audio receiver IC provides the system timing necessary to operate the Digital-to-Analog converter and will accept S/PDIF and EIAJ-340 compatible audio data. The board may also be configured to accept external timing and data signals for operation in a user application during system development.

**Features:** • Demonstrates recommended layout and grounding arrangements • Header for external PCM audio

598-1006-ND (CDB4344) ..... 245.03

### CDB4361 Evaluation Board

An excellent means for quickly evaluating the CS4361 24-bit, 20-pin, 6-channel D/A converter. Evaluation requires an analog signal analyzer, a digital signal source and a power supply. Analog line-level outputs are provided via RCA phono jacks.

The CS8416 digital audio receiver IC provides the system timing necessary to operate the Digital-to-Analog converter and will accept S/PDIF and EIAJ-340-compatible audio data. The evaluation board may also be configured to accept external timing and data signals for operation in a user application during system development.

598-1153-ND (CDB4361) ..... 343.04

### CDB4398 Evaluation Board

An excellent means for quickly evaluating the CS4398 24-bit, high performance stereo D/A converter. Evaluation requires an analog signal analyzer, a digital signal source, a PC for controlling the CS4398 (stand alone operation is also available) and a power supply. Analog line-level outputs are provided via RCA phono jacks and balanced XLR.

The CS8414 digital audio receiver IC provides the system timing necessary to operate the Digital-to-Analog converter and will accept S/PDIF, and EIAJ-340-compatible audio data. The evaluation board may also be configured to accept external timing and data signals for operation in a user application during system development.

598-1155-ND (CDB4398) ..... 343.04

## Portable Audio Converters

Description	Digi-Key Part No.	Price Each		Cirrus Logic Part No.
		1	25	
Low Power, Stereo CODEC with Headphone Amp, 32-QFP	598-1045-ND	4.92	4.11	CS42L51-CNZ
98dB, 96kHz, Stereo AD, 24-Bit, Low Power, 32-QFN	598-1191-ND	4.66	3.89	CS53L21-CNZ
Stereo DAC, 96kHz, 98dB, 24-Bit, Low Power, 32-QFN	598-1187-ND	4.39	3.66	CS43L21-CNZ

### CDB42L51 Evaluation Board

The CDB42L51 evaluation board is an excellent means for evaluating the CS42L51 CODEC. System timing can be provided by the CS8415, by the CS42L51 with supplied master clock, or b and I/O stake header with a DSP connected. RCA phono jacks are provided for the CS42L51 analog inputs and outputs. 1/18th inch jacks are also available for microphone input and headphone output. Digital data I/O is available via RCA phono or optical connectors. The Windows® software provides a GUI to make configuration of the CDB42L51 easy. The evaluation board may also be configured to accept external timing and data signals for operation in a user application during system development.

#### Features:

- MUX's Analog Output
- 8 - 96 kHz S/PDIF Interface
- I/O Stake Headers
- 1.8 - 3.3V Logic Interface
- Layout and Grounding Recommendations

598-1005-ND (CDB42L51) ..... 539.06

## CobraNet™

The CobraNet solution leverages the rapid developments in the computer networking industry to provide an increasingly cost effective connectivity solution for audio professionals worldwide. It's based on the highly integrated CS1810xx CobraNet Silicon Series, providing an interface in the form of a compact, low power, low cost module. Featuring 8 or 16 simultaneous channels of digital audio input and output, the CM-2 is designed to be easily integrated into a wide variety of audio products such as signal processors, mixers, amplifiers, ceiling speakers and self-powered loudspeakers.

#### Features:

- 100BASE-TX Ethernet Interface - 100Mbps, full-duplex Ethernet, fully compliant with IEEE 802.3u Standard
- Secondary 100BASE-TX Ethernet Interface - redundant network connection for fault tolerance
- Quad Synchronous Serial Output Ports - capable of supplying and receiving 8 or 6 channels
- TFTP Support - firmware updates over the network
- Low Latency - selectable 1.33, 2.66 or 5.33ms across network
- Status LEDs - Link, Activity and CobraNet conductor status for each Ethernet jack
- Ability to send audio from any CobraNet interface to any other - unlimited addressing, unlimited capacity

598-1007-ND Evaluation Board CS496122 ..... 1796.85  
598-1023-ND Evaluation Board for CS44600 ..... 570.91

Description	Digi-Key Part No.	Price Each		Cirrus Logic Part No.
		1	25	
Module CobraNet 1810 CM2 MT	598-1020-ND	102.91	—	CPB181022-CM2-MT
Module CobraNet 4961 CM2 FB	598-1021-ND	114.35	—	CPB496122-CM2-FB
Module CobraNet 4961 CM2 MT	598-1022-ND	114.35	—	CPB496122-CM2-MT
2x2-Channel, 144-LQFP	598-1024-ND	16.57	13.99	CS181002-COZ
8x8-Channel, 144-LQFP	598-1025-ND	18.18	15.36	CS181012-COZ
16x16-Channel, 144-LQFP	598-1026-ND	20.36	17.19	CS181022-COZ
Audio DSP CobraNet 144-LQFP	598-1071-ND	19.65	16.60	CS496102-COZ
Audio DSP CobraNet 144-LQFP	598-1072-ND	21.25	17.95	CS496112-COZ
Audio DSP CobraNet 144-LQFP	598-1073-ND	23.43	19.79	CS496122-COZ

◆ RoHS Compliant

### CDB8952 Evaluation Board

Provides a platform for evaluating the CS8952 10 Base-T and 100 Base-X Transceiver. It is designed to plug into a transceiver test box via a standard 40-pin MII connector. System designers can use the CDB8952 to fully exercise the CS8952 without the time and expense of custom prototyping. Though the CDB8952 is configured from the factory for 5V operation with the power supplied from the test box, it may also be configured for 3.3V MII systems. The CDB8952 may be optionally configured with a fiber interface module for 100Base-FX testing.

598-1162-ND (CDB8952T) ..... 617.82

### CDB8130 Evaluation Board

Fast and easy evaluation of the CS8130 infrared transceiver. The board contains an RS-232 level shifter and DB-9 serial connector to allow easy interfacing to a standard PC serial (COM) port. The board is shipped with a complete set of diagnostic and test software, as well as the Infrared Data Association Link Access Protocol (IrLAP) reference code.

598-1161-ND (CDB8130) ..... 617.82

## Development Kits for ARM® Processors

Description	Digi-Key Part No.	Price Each	Cirrus Logic Part No.
Engineering Development Kit for EP9302 Processor	598-1132-ND	226.88	EDB9302A-Z
Embedded Processor Development System for EP9312/EP9315	598-1144-ND	226.88	EDB9315A-Z
Embedded Processor Development System for EP9307	598-1133-ND	226.88	EDB9307A-Z
ERD-9307IPR Internet Protocol Radio	598-1281-ND	456.21	ERD-9307IPR
EDP7312 Development Kit	598-1209-ND	453.75	EDB7312

## ARM® Processors

Description	Digi-Key Part No.	Price Each	Cirrus Logic Part No.
ARM720T Processor	598-1134-ND	15.96	EP7312-CVZ
ARM720T Processor	598-1135-ND	18.44	EP7312-IVZ
166MHz ARM920T Processor	598-1136-ND	16.32	EP9301-COZ
200MHz ARM9 Processor	598-1137-ND	16.92	EP9302-COZ
200MHz ARM9 Processor	598-1138-ND	21.82	EP9307-CRZ
200MHz ARM9 Processor	598-1139-ND	30.29	EP9315-CBZ
ARM720T Processor	598-1210-ND	14.36	EP7309-CB
ARM720T Processor	598-1213-ND	12.90	EP7309-CV

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(Continued)

Digi-Reel® Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.

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Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
ARM720T Processor	598-1214-ND◆	13.23 11.91	EP7309-CVZ
ARM720T Processor	598-1220-ND	15.86 14.28	EP7311-CB
ARM720T Processor	598-1224-ND	14.27 12.84	EP7311-CV
ARM720T Processor	598-1225-ND	17.37 15.63	EP7311-CV-90
ARM720T Processor	598-1226-ND◆	18.55 15.67	EP7311-IB
ARM720T Processor	598-1230-ND	16.70 14.10	EP7311-IV
ARM720T Processor	598-1234-ND◆	17.56 15.81	EP7312-CBZ
ARM720T Processor	598-1235-ND	17.59 15.83	EP7312-CR
ARM720T Processor	598-1237-ND	15.63 14.06	EP7312-CV
ARM720T Processor	598-1238-ND	17.10 14.45	EP7312-CV-90
ARM720T Processor	598-1239-ND◆	17.39 14.70	EP7312-CVZ-90
ARM720T Processor	598-1240-ND	20.33 17.17	EP7312-IB
ARM720T Processor	598-1242-ND◆	20.52 17.33	EP7312-IBZ
ARM720T Processor	598-1244-ND	23.05 19.46	EP7312-IR-90
ARM720T Processor	598-1245-ND	18.27 15.43	EP7312-IV
ARM720T Processor	598-1246-ND	22.22 18.76	EP7312-IV-90
166MHz ARM920T Processor	598-1249-ND	17.38 14.67	EP9301-IQ
166MHz ARM920T Processor	598-1250-ND◆	16.52 13.95	EP9301-IQZ
200MHz ARM9 Processor	598-1253-ND◆	19.03 16.07	EP9302-IQZ
200MHz ARM9 Processor	598-1254-ND	21.82 18.43	EP9307-CR
200MHz ARM9 Processor	598-1255-ND	25.32 21.39	EP9307-IR
200MHz ARM9 Processor	598-1256-ND◆	25.32 21.39	EP9307-IRZ
200MHz ARM9 Processor	598-1257-ND	27.33 23.08	EP9312-CB
200MHz ARM9 Processor	598-1258-ND◆	27.33 23.08	EP9312-CBZ
200MHz ARM9 Processor	598-1260-ND◆	30.59 25.84	EP9312-IBZ
200MHz ARM9 Processor	598-1261-ND	30.29 25.58	EP9315-CB
200MHz ARM9 Processor	598-1262-ND	30.14 27.13	EP9315-IB

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## Digital Amplifiers/Power Technology



Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
6-Channel Digital Amplifier Controller	598-1068-5-ND	6.86 6.18	CS44600-CQZ
8-Channel Digital Amplifier Controller	598-1070-ND	7.72 6.87	CS44800-CQZ
Multi-Bit A/D Real Time PSR Feedback	598-1069-5-ND	5.27 4.40	CS4461-CZZ
Digital TV Amplifier, 30W with integrated ADC 102dB, 48-QFN	598-1264-ND	7.56 6.73	CS4525-CNZ
Quad Digital Amp Power Stage IC, 107dB, 60W 48-QFN	598-1188-ND	5.07 4.51	CS44130-CNZ

## Op Amp



Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
Single, Ultra Low Noise Op Amp, 2.1mA 125nVp-p	598-1140-5-ND◆	2.64 2.20	CS3001-ISZ
Single, Ultra Low Noise Op Amp, 0.9mA 250nVp-p	598-1142-5-ND◆	2.64 2.20	CS3011-ISZ
Dual, Ultra Low Noise Op Amp, 3.6mA 125nVp-p	598-1141-5-ND◆	3.96 3.31	CS3002-ISZ
Dual, Ultra Low Noise Op Amp, 1.7mA 250nVp-p	598-1143-5-ND◆	3.96 3.31	CS3012-ISZ
Dual, Precision Low-Voltage, Low-Power Op Amp, 2.1mA, 8-SOIC	598-1145-1-ND◆†	2.60 2.08	CS3004-FSZR
Dual, Precision Low-Voltage, Low-Power Op Amp, 1.0mA, 8-SOIC	598-1146-1-ND◆†	2.60 2.08	CS3014-FSZR
	598-1146-2-ND◆†	2955.11/2,000	CS3014-FSZR
Single, Low-Voltage, Low-Power, Op Amp, 1mA, 150dB, 8-QFN	598-1164-ND◆	2.19 1.83	CS3003-FNZ
Single, Low-Voltage, Low-Power, Op Amp, 1mA, 150dB, 8-SOIC	598-1165-5-ND	2.57 2.25	CS3003-FS
Dual, Low-Voltage, Low-Power, Op Amp, 2.1mA, 150dB, 8-SOIC	598-1169-5-ND◆	3.72 3.10	CS3004-FS
Dual, Low-Voltage, Low-Power, Op Amp, 2.1mA, 150dB, 8-SOIC	598-1170-5-ND◆	3.38 2.82	CS3004-FSZ
Single Low-Voltage, Low-Power, Op Amp, 0.5mA, 135dB, 8-QFN	598-1172-ND◆	2.19 1.83	CS3013-FNZ
Dual, Low-Voltage, Low-Power, Op Amp, 1mA, 135dB, 8-QFN	598-1176-ND◆	3.38 2.82	CS3014-FNZ
Dual, Low-Voltage, Low-Power, Op Amp, 1mA, 135dB, 8-SOIC	598-1178-5-ND◆	3.38 2.82	CS3014-FSZ

◆ RoHS Compliant † Cut Tape ‡ Tape and Reel

## Infrared Echo Canceller

Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
Telephony Network Echo Suppression, 2-Channel, Full Duplex, 20-SOIC	598-1199-5-ND	10.15 9.14	CS6422-CS
Telephony Network Echo Suppression, 2-Channel, Full Duplex, 20-SOIC	598-1200-5-ND◆	12.67 11.41	CS6422-CSZ
Telephony Network Echo Suppression, 2-Channel, Full Duplex, 20-SOIC	598-1201-5-ND	11.17 10.05	CS6422-IS
Telephony Network Echo Suppression, 2-Channel, Full Duplex, 20-SOIC	598-1202-5-ND◆	15.21 13.69	CS6422-ISZ
Multi-Standard Infrared Transceiver, 1-Channel, 20-SSOP	598-1203-5-ND	8.49 7.55	CS8130-CS
Multi-Standard Infrared Transceiver, 1-Channel, 20-SSOP	598-1204-5-ND◆	8.49 7.55	CS8130-CSZ

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## Power Measurement

Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
6-Channel Delta/Sigma ADC, 28-SSOP	598-1093-5-ND	6.25 5.56	CS5451A-ISZ
Single Phase Bi-Directional IC, 24-SSOP	598-1094-5-ND	4.62 3.85	CS5460A-BSZ
Single Phase Bi-Directional Power/Energy, 24-SSOP	598-1096-5-ND	3.66 3.05	CS5463-ISZ
Single Phase Power/Energy IC, 3-Channel, 28-SSOP	598-1194-5-ND	4.20 3.51	CS5464-ISZ
Low Cost Power/Energy IC with Pulse Output, 2-Channel, 24-TSSOP	598-1097-5-ND	3.33 2.78	CS5466-ISZ
Single Phase Power/Energy IC, 4-Channel, 28-SSOP	598-1197-5-ND	4.46 3.73	CS5467-ISZ

## Ethernet

Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
LAN Controller, 3.3V, 100-LQFP	598-1127-ND◆	9.28 8.35	CS8900A-CQ3Z
LAN Controller, 5V, 100-LQFP	598-1128-ND◆	9.18 8.27	CS8900A-CQZ
LAN Controller, 3.3V, 100-LQFP	598-1129-ND◆	12.45 11.21	CS8900A-IQ3Z
LAN Controller, 5V, 100-LQFP	598-1130-ND◆	12.40 11.16	CS8900-IQZ
Crystal LAN 100 Base-X, 10 Base-T Transceiver and 100 Base-Fx Interface 1-Channel, 100-TQFP	598-1205-ND	11.20 10.08	CS8952-CQ
Crystal LAN 100 Base-X, 10 Base-T Transceiver and 100 Base-Fx Interface 1-Channel, 100-TQFP	598-1206-ND◆	11.20 10.08	CS8952-CQZ
Crystal LAN 100 Base-X, 10 Base-T Transceiver and 100 Base-Fx Interface 1-Channel, 100-TQFP	598-1207-ND	12.76 11.49	CS8952-IQ
Crystal LAN 100 Base-X, 10 Base-T Transceiver and 100 Base-Fx Interface 1-Channel, 100-TQFP	598-1208-ND◆	12.76 11.49	CS8952-IQZ

◆ RoHS Compliant

## Volume Control



Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
8-Channel Analog Volume Control, 123dB, Single-Ended, 48-LQFP	598-1180-ND	20.96 17.70	CS3318-CQZ

## Interface and Sample Rate Converters



Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
192kHz Digital Transmitter, 28-TSSOP	598-1121-5-ND	4.94 4.40	CS8406-CZZ
192kHz Digital Receiver, 28-SOIC	598-1123-5-ND	7.11 6.33	CS8416-CSZ
192kHz Digital Receiver, 28-TSSOP	598-1124-5-ND	7.11 6.33	CS8416-CZZ
Digital-Audio Sample Rate, 28-SOIC	598-1125-5-ND	22.82 19.28	CS8420-CSZ
32-Bit Asynchronous Sample, 20-TSSOP	598-1126-5-ND	8.80 7.83	CS8421-CZZ

## Evaluation Board for CS8416 and CS8406

The CDB8416 is designed to allow easy evaluation of the CS8416 and CS8406. The board is designed for easy connection to an Audio Precision or other digital audio test system. Input and output data may be set for either balanced using the XLR connectors or unbalanced using the coax or optical connectors. Windows PC software provides a GUI to make configuration easy in software mode. The software communicates through the PC's parallel port to control the internal registers so that all the possible software modes of the CS8416 may be tested.

### Features:

- CS8416 Digital Audio Receiver • Receives and transmits AES/EBU, S/PDIF and EIAJ-340 compatible digital audio • Analog and Digital 3.3V Supply • 3.3 - 5.0V Logic Interface Supply • Operates in stand alone Hardware Mode or computer controlled Software Mode • Balanced and unbalanced inputs available.

598-1017-ND (CDB8416)..... 416.54

## Evaluation Board for CS8421

The CDB8421 demonstration board is an excellent means for evaluating the CS8421 sample rate converter. System timing can be provided by the CS8421, by the CS8416 phase-locked to its S/PDIF input, by an I/O stake header or by an on-board oscillator. Digital I/O is available via coaxial (RCA) or optical connectors to the CS8416 and CS8406. All configuration control is handled from onboard switches.

### Features:

- CS8416 S/PDIF Digital Audio Receiver • CS8406 S/PDIF Digital Audio Transmitter • Header for External Serial Audio I/O • 3.3 - 5.0V Logic Interface • No software required to operate

598-1018-ND (CDB8421) ..... 392.04

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