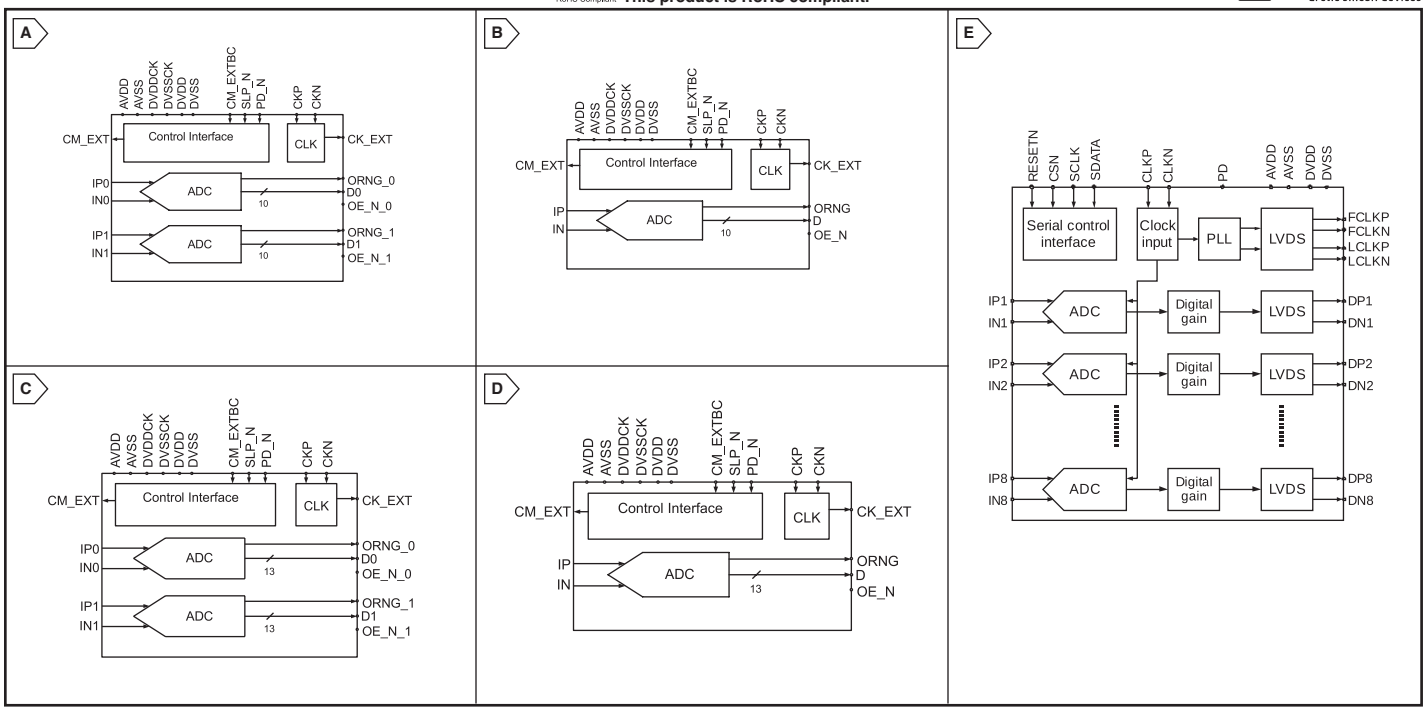
ARCTIC SILICON DEVICES Analog Digital Converters

RoHS Compliant **This product is RoHS compliant.**



ULTRA LOW POWER ANALOG-TO-DIGITAL CONVERTERS

Dual Ultra Low Power 20/40/65/80 MSPS, 10-bit Analog-to-Digital Converter

The ASD0400 and ASD0401 are high performance low power dual analog-to-digital converters (ADC). The ADC employs internal reference circuitry, a CMOS control interface and CMOS output data, and is based on a proprietary structure. Digital error correction is employed to ensure no missing codes in the complete full scale range. Idle modes with fast startup times exist.

RoHS Compliant

- 1.80V Input Voltage

For quantities of 100 and up, call for quote.

MOUSER STOCK NO.	Arctic Silicon Part No.	Fig.	Package Type	Number of ADC Inputs	Conversion Rate	SNR	Max. Power Dissipation	Price Each 1	25	50
Dual Channel 10-bit 15 to 80MSPS ADC										
770-ASD0400L20-INT	ASD0400L20-INT	A	QFN-64	2	20 MSPS	61.6 dB	24 mW	**9.20**	**8.40**	**8.11**
770-ASD0400L65-INT	ASD0400L65-INT	A	QFN-64	2	65 MSPS	61.5 dB	65 mW	**12.98**	**12.20**	**11.77**
770-ASD0400L80-INT	ASD0400L80-INT	A	QFN-64	2	80 MSPS	61.3 dB	78 mW	**21.91**	**20.60**	**19.88**
Single Channel 10-bit 15 to 80MSPS ADC										
770-ASD0401L20-INT	ASD0401L20-INT	B	QFN-40	1	20 MSPS	61.6 dB	15 mW	**5.11**	**4.80**	**4.63**
770-ASD0401L65-INT	ASD0401L65-INT	B	QFN-40	1	65 MSPS	61.5 dB	38 mW	**7.87**	**7.40**	**7.14**
770-ASD0401L80-INT	ASD0401L80-INT	B	QFN-40	1	80 MSPS	61.3 dB	46 mW	**8.94**	**8.40**	**8.11**

Ultra Low Power 20/40/65/80 MSPS, 13/12-bit Analog-to-Digital Converter

The ASD0500 and ASD0501 are high performance low power dual analog-to-digital converters (ADC). The ADC employs internal reference circuitry, a CMOS control interface and CMOS output data, and is based on a proprietary structure. Digital error correction is employed to ensure no missing codes in the complete full scale range. Idle modes with fast startup times exist.

RoHS Compliant

- 1.80V Input Voltage

For quantities of 100 and up, call for quote.

MOUSER STOCK NO.	Arctic Silicon Part No.	Fig.	Package Type	Number of ADC Inputs	Conversion Rate	SNR	Max. Power Dissipation	Price Each 1	25	50
Dual Channel 13/12-bit 15 to 80MSPS ADC										
770-ASD0500L40-INT	ASD0500L40-INT	C	QFN-64	2	40 MSPS	72 dB	55 mW	**23.62**	**22.20**	**21.42**
770-ASD0500L80-INT	ASD0500L80-INT	C	QFN-64	2	80 MSPS	71.2 dB	102 mW	**48.30**	**45.40**	**43.81**
Single Channel 13/12-bit 15 to 80MSPS ADC										
770-ASD0501L20-INT	ASD0501L20-INT	D	QFN-40	1	20 MSPS	72.1 dB	19 mW	**10.64**	**10.00**	**9.65**
770-ASD0501L65-INT	ASD0501L65-INT	D	QFN-40	1	65 MSPS	71.5 dB	50 mW	**21.28**	**20.00**	**19.30**

Octal Low Power 20 to 80 MSPS 12/13-bit Analog-to-Digital Converter

ASD1000 is a high performance low power octal analog-to-digital converter (ADC). The ADC is based on a proprietary structure and employs internal reference circuitry, a serial control interface and serial LVDS output data. Data and frame synchronization output clocks are supplied for data capture at the receiver. Various modes and configuration settings can be applied to the ADC through the serial control interface (SPI). Each channel can be powered down independently and data format can be selected through this interface. A full chip idle mode can be set by a single external pin. Register settings determine the exact function of this external pin. There are two options for the serial LVDS outputs, 12- bit or 14-bit. In 12-bit mode, the LSB bit from the ADCs are removed in the output stream. In 14-bit mode, a '0' is added in the LSB position. ASD1000 is designed to easily interface with field-programmable gate arrays (FPGAs) from several vendors. The very low start up times for ASD1000 allows significant power reduction in duty-cycled systems, by utilizing the Sleep Modes or Power Down Mode when the receive path is idle.

RoHS Compliant

- 1.80V Input Voltage

For quantities of 100 and up, call for quote.

MOUSER STOCK NO.	Arctic Silicon Part No.	Fig.	Package Type	Number of ADC Inputs	Conversion Rate	SNR	Max. Power Dissipation	Price Each 1	25	50
770-ASD1000L40-INT	ASD1000L40-INT	E	TQFP-80	8	40 MSPS	71.5 dB	280 mW	**28.94**	**27.20**	**26.25**
770-ASD1000L80-INT	ASD1000L80-INT	E	TQFP-80	8	80 MSPS	70 dB	470 mW	**48.94**	**46.00**	**44.39**

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