

8-Bit 30 MSPS Video A/D Converter with Built-In Amplifier/Clamp

February 1996

Features

- Resolution 8-Bit $\pm 1/2$ LSB (DL)
- Maximum Sampling Frequency 30 MSPS
- Low Power Consumption 120mW
at 30 MSPS (Typ)
(Including Reference Current)
- Standby Function
 - Power Consumption in Standby 0.5mW
- Amplifier Functions
 - Build-In 3x Amplifier (15MHz Band)
 - 2-Input Selector Function Provided
- Synchronous Clamp Function
- Clamp ON/OFF Function
- Reference Voltage Self-Bias Circuit
- TTL Compatible Output
- 3V Digital Interface Capability
- Power Supply 5V Single
or 4.75/3.3V Dual
- Low Input Capacitance8pF
- Reference Impedance 330 Ω (Typ)

Applications

- Wide Range of Application Fields where High-Speed A/D Conversion is Required Such as in the Digital Systems of TVs, VCRs, etc.

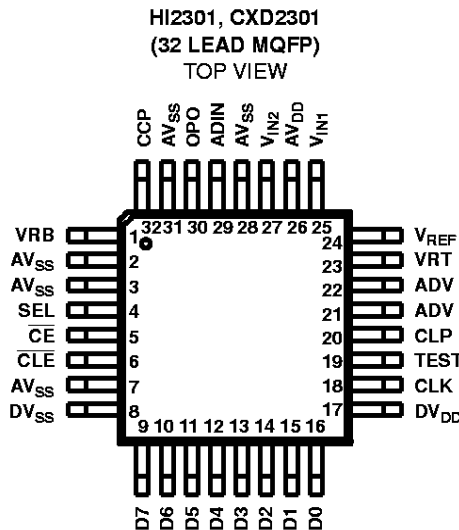
Description

The HI2301, CXD2301 is an 8-bit CMOS A/D converter for video applications with built-in amplifier/sync-clamp circuits. A maximum conversion rate of 30 MSPS is attained at a low power consumption by adopting a 2-step parallel system.

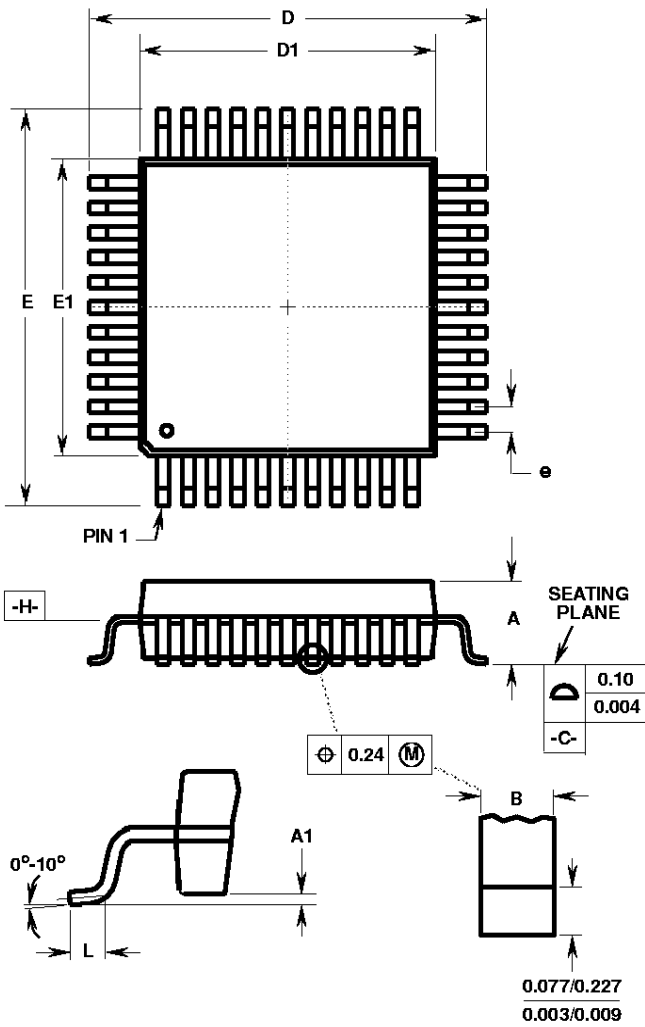
Ordering Information

PART NUMBER	TEMPERATURE RANGE	PACKAGE
HI2301JCQ, CXD2301Q	-20°C to +75°C	32 Lead Metric Plastic Quad Flatpack

Pinout



Metric Plastic Quad Flatpack Packages (MQFP)



Q32.7x7-S

32 LEAD METRIC PLASTIC QUAD FLATPACK PACKAGE

SYMBOL	INCHES		MILLIMETERS		NOTES
	MIN	MAX	MIN	MAX	
A	0.054	0.072	1.35	1.85	-
A1	0.000	0.011	0.00	0.30	-
B	0.008	0.017	0.20	0.45	5
D	0.347	0.362	8.80	9.20	2
D1	0.272	0.287	6.90	7.30	3, 4
E	0.347	0.362	8.80	9.20	2
E1	0.272	0.287	6.90	7.30	3, 4
L	0.012	0.027	0.30	0.70	-
N	32		32		6
e	0.032 BSC		0.80 BSC		-

Rev. 2 4/95

NOTES:

1. Controlling dimension: MILLIMETER. Converted inch dimensions are not necessarily exact.
2. Dimensions D and E to be determined at seating plane -C-.
3. Dimensions D1 and E1 to be determined at datum plane -H-.
4. Dimensions D1 and E1 do not include mold protrusion.
5. Dimension B does not include dambar protrusion.
6. "N" is the number of terminal positions.

All Harris Semiconductor products are manufactured, assembled and tested under **ISO9000** quality systems certification.

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