8-BIT, 50MSPS, LOW POWER, PIPELINE ANALOG TO DIGITAL CONVERTER

SCL Part No.	SC1224-0T1

PRODUCT DESCRIPTION:

The 8-bit 50MSPS is a monolithic CMOS analog-to-digital converter capable of converting analog input signals into 8-bit digital word at 50 Mega samples per second (MSPS) and designed for imaging and communication applications. The converter uses a differential, pipeline architecture with digital error correction. Operating on a single 3.3V power supply, device achieves 8-bits effective resolution at nyquist rate and consumes <420mW power. The Power Down feature reduces power consumption to <15mW. The differential inputs provide a full scale differential input swing equal to 4 times of V_{REF} (4*(CAPTE-CAPBE)). Full scale input range is recommended for optimum performance. The chip requires three external references as 1.9V, 1.65V and 1.4V. The device has on chip voltage reference. To use internal reference, external buffer must be provided between internal and external references

FEATURES:

- Operating Voltage:3.3V
- Resolution: 8-Bit
- Data Rate: 50MSPS
- 2Vp-p Differential/Single Ended Input
- On Chip Voltage References
- No Missing Code guaranteed
- Output straight Binary Format
- DataLatency4 Clock Cycles
- Power Consumption < 420mW
- Power Down Mode
- SCL's 180nm CMOS Technology
- Operating Temperature (T_A): -55ºC to +125ºC
- 64 PIN CQFP Package
- θ_{jc}: 4.03 ºC/W

APPLICATIONS:

- Imaging Applications