

特点

模拟量 I/O

- 多通道, 12位, 1 MSPS ADC
- 多达16个ADC通道 1
- 全差分 and 单端模式
- 0 V至 V_{REF} 模拟输入范围
- 12位电压输出DAC
- 提供多达4个DAC输出 1
- 片上电压参考
- 片上温度传感器 ($\pm 3^{\circ}\text{C}$)
- 电压比较器

微控制器

- ARM7TDMI内核, 16位/32位RISC架构
- JTAG端口支持代码下载和调试

时钟选项

- 修正的片内振荡器 ($\pm 3\%$)
- 外部时钟晶体
- 外部时钟源高达44 MHz的
- 41.78 MHz的PLL具有可编程分频器

内存

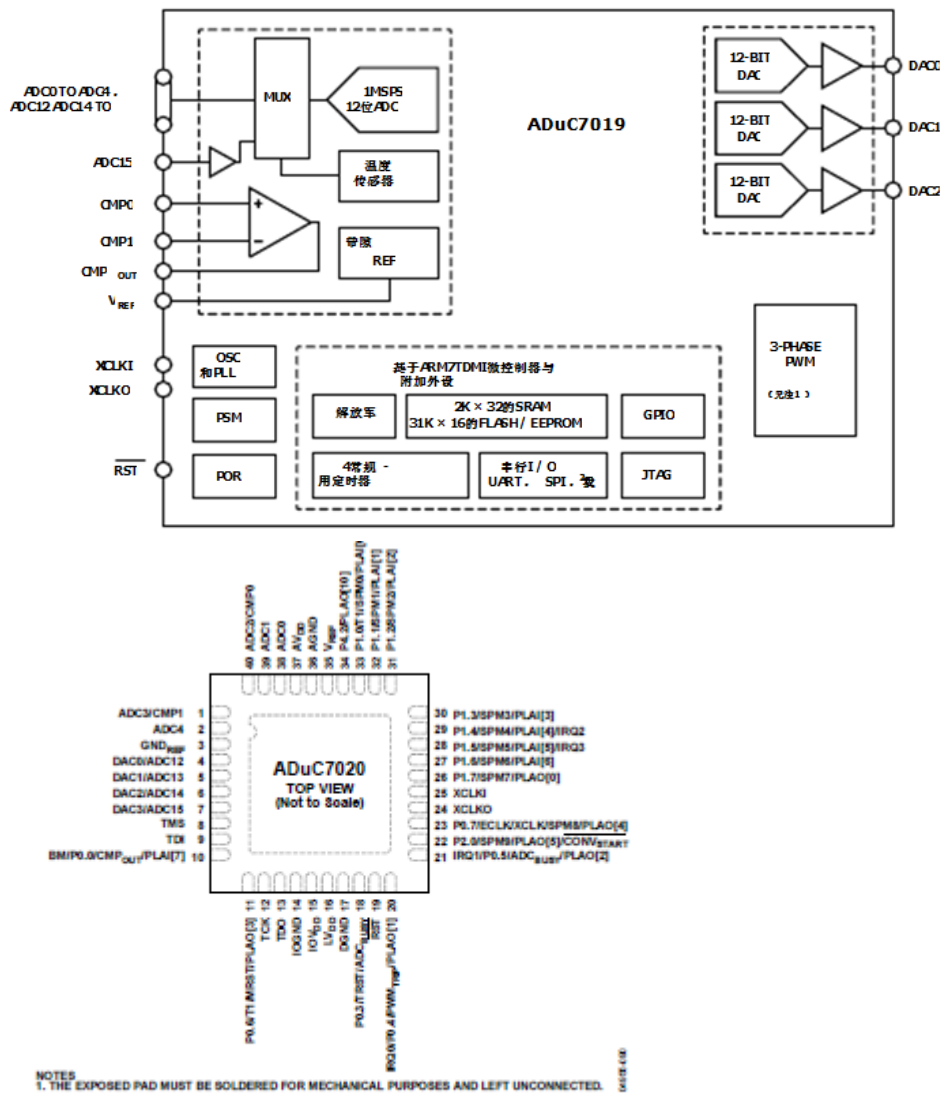
- 62 KB的Flash/EE存储器, 8 KB的SRAM
- 在线下载, 基于JTAG的调试
- 软件触发在线重新编程能力

片上外设

- UART, 2²⁰和SPI串行I/O
- 截至40针GPIO端口 1
- 4个通用定时器
- 唤醒和看门狗定时器 (WDT)
- 电源监控器
- 3相, 16位PWM发生器 1
- 可编程逻辑阵列 (PLA) 的
- 外部存储器接口, 高达512 KB 1
- 动力
- 指定为3 V操作
- 主动模式: 11毫安, 5兆赫, 40个毫安41.78兆赫
- 封装和温度范围
- 从40引脚6毫米 \times 6毫米LFCSP封装为80引脚LQFP 1
- 为 -40°C 至 $+125^{\circ}\text{C}$ 的操作完全指定
- 工具
- 低成本QuickStart™开发系统
- 全第三方支持

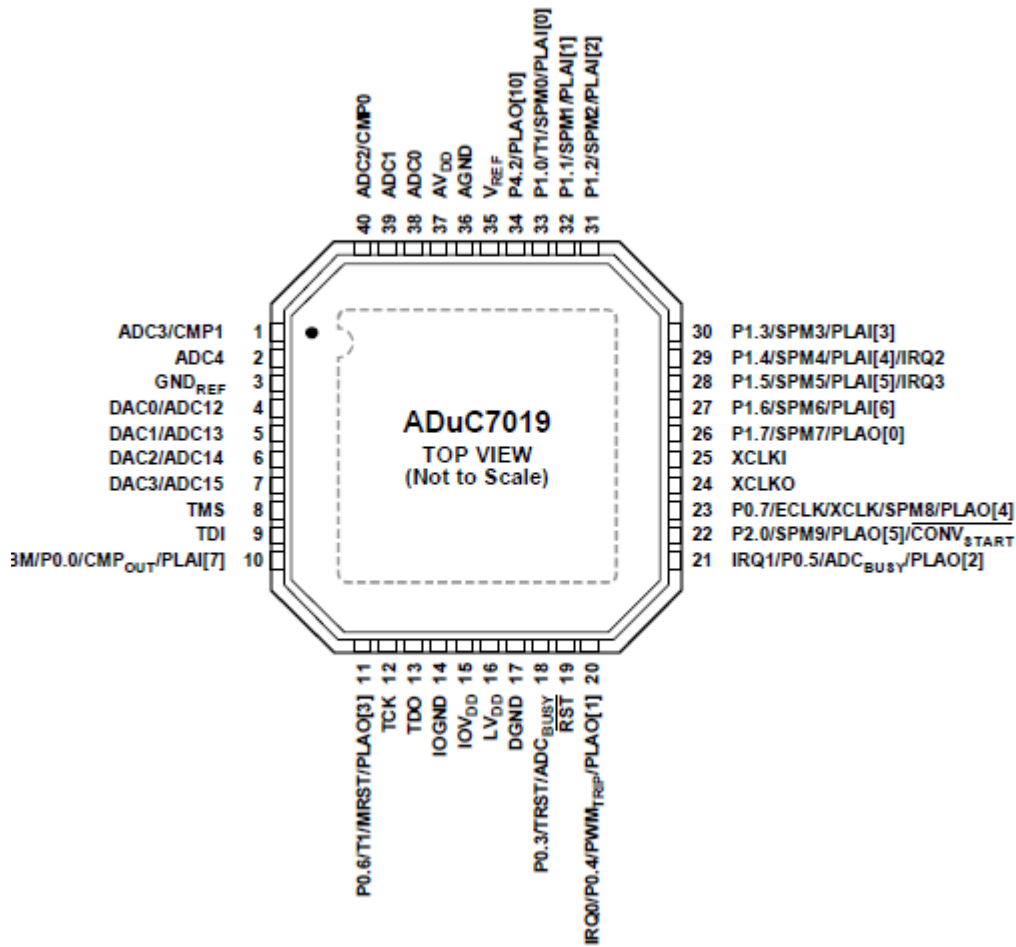
应用

- 工业控制和自动化系统
- 智能传感器, 精密仪表
- 基站系统, 光网络



NOTES
1. THE EXPOSED PAD MUST BE SOLDERED FOR MECHANICAL PURPOSES AND LEFT UNCONNECTED.

Figure 20. 40-Lead LFCSP_WQ Pin Configuration (ADuC7020)



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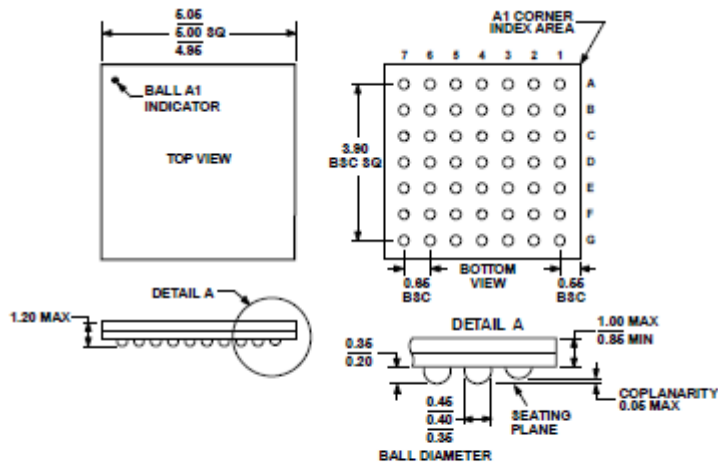
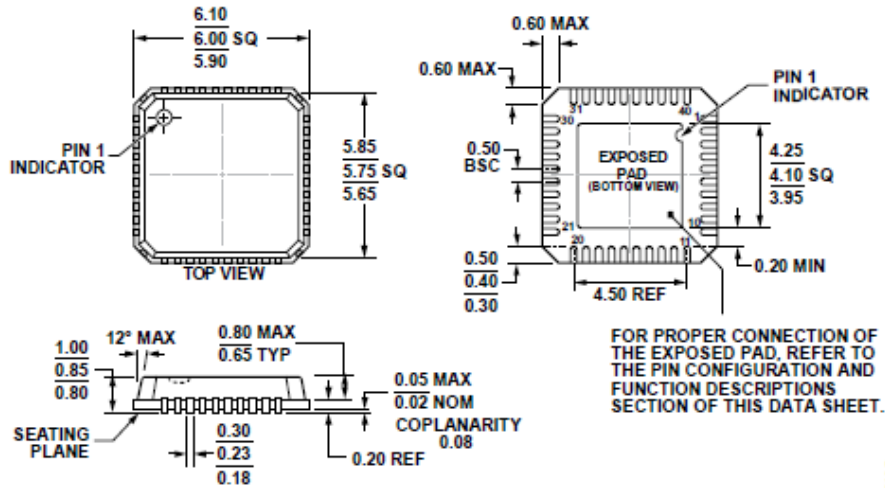


Figure 102. 49-Ball Chip Scale Package Ball Grid Array [CSP_BGA] (BC-49-1)
Dimensions shown in millimeters

01004

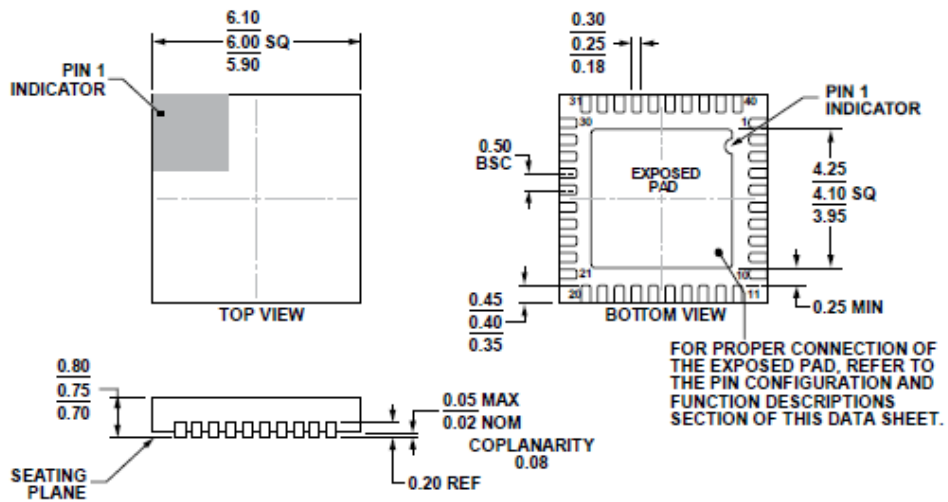


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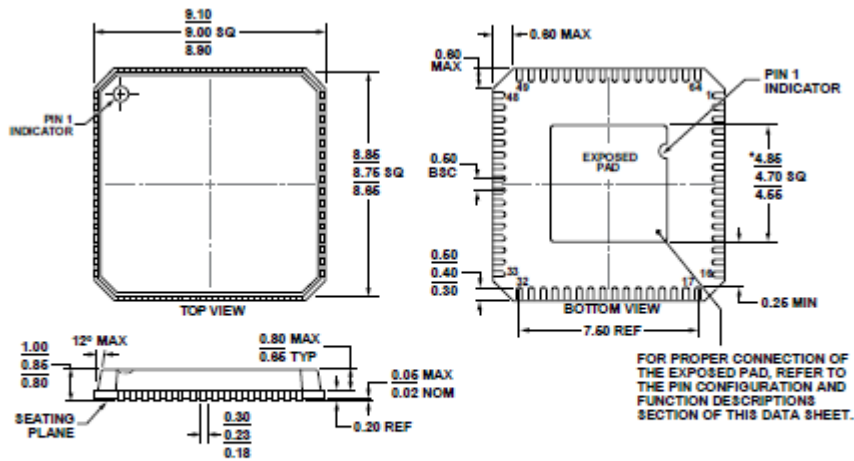
COMPLIANT TO JEDEC STANDARDS MO-220-VJJD-2

Figure 96. 40-Lead Lead Frame Chip Scale Package [LFCSP_VQ]
 6 mm × 6 mm Body, Very Thin Quad
 (CP-40-1)

Dimensions shown in millimeters



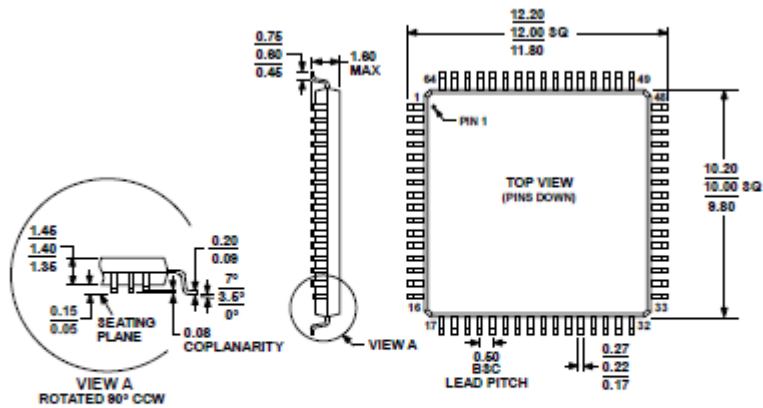
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*COMPLIANT TO JEDEC STANDARDS MO-220-VMMO-4 EXCEPT FOR EXPOSED PAD DIMENSION

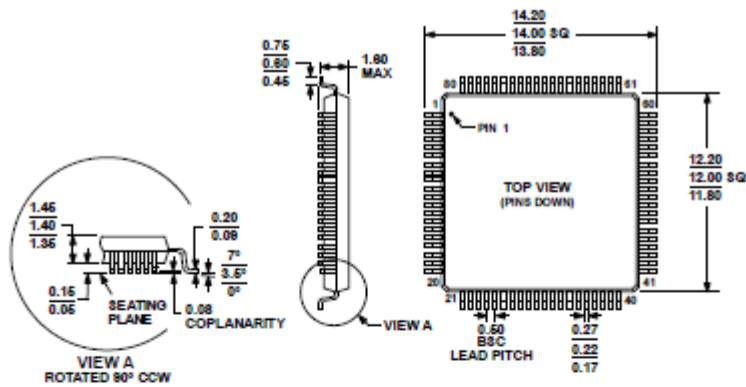
Figure 98. 64-Lead Lead Frame Chip Scale Package [LFCSP_VQ]
9 mm x 9 mm Body, Very Thin Quad
(CP-64-1)
Dimensions shown in millimeters

06-82828-4



COMPLIANT TO JEDEC STANDARDS MS-028-BCD
Figure 99. 64-Lead Low Profile Quad Flat Package [LQFP]
(ST-64-2)
Dimensions shown in millimeters

01-7664

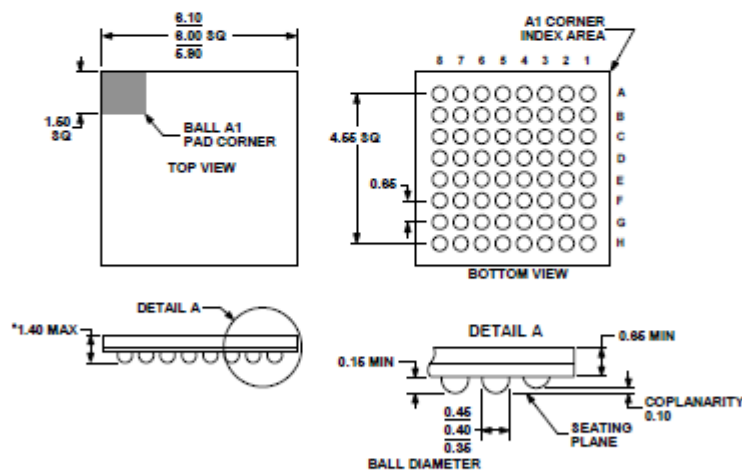


COMPLIANT TO JEDEC STANDARDS MS-026-BDD

Figure 100. 80-Lead Low Profile Quad Flat Package [LQFP] (ST-80-1)

Dimensions shown in millimeters

01219A



*COMPLIANT TO JEDEC STANDARDS MO-226 WITH THE EXCEPTION TO PACKAGE HEIGHT.

Figure 101. 64-Ball Chip Scale Package Ball Grid Array [CSP_BGA] (BC-64-4)

Dimensions shown in millimeters

01219B