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| DATE : May 2005 | QUALIFICATION REPORT | PAGE : 1/2 |
| | In accordance with PGQ 15 : GENERAL PRINCIPLES OF QUALIFICATION | |

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| <i>Product :</i> | AT84AS008 - 10 Bit 2.2 Gsps ADC |
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|--|---|---|--|
| <i>Qualification status :</i> | <input checked="" type="checkbox"/> Accepted | <input type="checkbox"/> Pending | <input type="checkbox"/> Rejected |
| <i>This product has met all ATMEL Grenoble qualification requirements.</i> | | | |

| <i>Qualified products :</i> | Package | Temperature range | Screening level |
|-----------------------------|-----------------|--|-----------------|
| AT84AS008CGL | CBGA 152 | “C” Grade : 0°C < Tc ; Tj < 90°C | Standard |
| AT84AS008VGL | CBGA 152 | “V” Grade : -20°C < Tc ; Tj < 110°C | Standard |

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|---|--|--|---|
| <i>Directive 2002/95/EC compliance status :</i> | <input type="checkbox"/> Pb free compliant | <input type="checkbox"/> RoHS compliant | <input type="checkbox"/> Fully Green compliant |
| | <input checked="" type="checkbox"/> Not compliant | | |

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| <i>Die information :</i> | | |
| Die size : 3.84 x 3.75 mm (14.40 mm²) | P. dissipated in Watt : 4.2 W | Mask : VK80C |
| Wafer fab. : INFINEON (Ger) | Process : B7HF | Technology : Bipolar HS |

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| <i>Package information :</i> | | |
| Outline : 21 x 21 x 2.40 mm | Pitch : 1.27 mm | Solder ball composition : Sn/Pb 63/37 |
| Assy plant : ATMEL St Egrève | Moisture sensitivity level : n/a | Max. peak reflow : 245°C |

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|---------------------------|--------------------|-------------------|---------------------|
| <i>Approbation list :</i> | | | |
| Project Eng. | Product Eng. | BDC Quality | BDC Marketing |
| BRUEL S. | BELLEFET J. | CARMONA C. | TERRIEN J-C. |

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| <i>Product :</i> | AT84AS008 - 10 Bit 2.2 Gsps ADC |
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|--|------------------------------------|----------------------------|----------------------------|
| <i>Qualification batch information :</i> | | | |
| Mask : VK80C | Diffusion lot : PF420851 | Lot ID : 3815245 | Date Code : 0450 |

| <i>Qualification tests results :</i> | | | | | | |
|---|---|---|--------------------------|--------|------------|------|
| SUB-GROUP | TEST <i>Acceptable criteria</i> | METHOD <i>Condition</i> | LTPD or Qty (Acc. Nb) | Sample | Acc. Numb. | Fail |
| - | ESD <i>Electrical measurements</i> | MIL-STD 883 / 3015 750V HBM | 3 (0) | 3 | 0 | 0 |
| - | Latch-Up <i>Electrical measurements</i> | JEDEC 78 <i>Class 2</i> | 3 (0) | 3 | 0 | 0 |
| C1 | Steady-state life test <i>Electrical measurements</i> | MIL-STD 883 / 1005 <i>Tj 125°C / 1000H</i> | 45 (0) | 45 | 0 | 0 |
| D1 | Physical dimension <i>Ball diameter Ball height Co planarity Outline dim Thickness tip to tip Ceramic thickness</i> | MIL-STD 883 / 2016 <i>CBGA 152 specification</i> | 4 (0) | 4 | 0 | 0 |
| <i>Observations : CBGA 152 package qualification is pronounced by association with an additional package qualification. (see subgroup D1)</i> | | | | | | |