

NXP TEMP SENSORS (LM75 and SA56004)

Temp Sensor Informations

1. Program Originator
2. Program Revision
3. Test Time

Temp SensorTests

Process Flows

NXP Temp Sensors

Temp Sensor Informations

| Device Family | Device Name | Package Type | Test Type | Test Program Originator | Test Program Revision | Test Program Name | Temperature (C) | Test Time (msec) |
|---------------|-------------|--------------|-----------|-------------------------|-----------------------|-------------------|-------------------|------------------|
| LM75 | LM75AD | SOIC-8 | FT | NXP | G | LM75FRG | 80 | 700 |
| | LM75ADP | MSOP-8 | QA | NXP | G | LM75PRG | 80 | 700 |
| | | | QA | NXP | G | LM75PHG | 120 | 700 |
| | | | QA | NXP | G | LM75PCG | 0 | 700 |
| SA56004 | SA56004AD | SOIC-8 | TRIM | NXP | H | A56004ES_TRH | 80 | 2200 |
| | | | QA | NXP | H | A56004ES_PRH | 80 | 1610 |
| | | | QA | NXP | H | A56004ES_PHH | 120 | 1610 |
| | | | QA | NXP | H | A56004ES_PLH | 0 | 1610 |
| | SA56004ADP | MSOP-8 | TRIM | NXP | H | A56004TS_TRH | 80 | 2200 |
| | | | QA | NXP | H | A56004TS_PRH | 80 | 1610 |
| | | | QA | NXP | H | A56004TS_PHH | 120 | 1610 |
| | | | QA | NXP | H | B56004TS_PLH | 0 | 1610 |
| | SA56004BD | SOIC-8 | TRIM | NXP | H | B56004ES_TRH | 80 | 2200 |
| | | | QA | NXP | H | B56004ES_PRH | 80 | 1610 |
| | | | QA | NXP | H | B56004ES_PHH | 120 | 1610 |
| | | | QA | NXP | H | B56004ES_PLH | 0 | 1610 |



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| Device Family | Device Name | Package | Test Type | Test Program Originator | Test Program Revision | Test Program Name | Temperature (C) | Test Time (msec) |
|---------------|-------------|---------|-----------|-------------------------|-----------------------|-------------------|-------------------|------------------|
| SA56004 | SA56004BDP | MSOP-8 | TRIM | NXP | H | B56004TS_TRH | 80 | 2200 |
| | | | QA | NXP | H | B56004TS_PRH | 80 | 1610 |
| | | | QA | NXP | H | B56004TS_PHH | 120 | 1610 |
| | | | QA | NXP | H | B56004TS_PLH | 0 | 1610 |
| | SA56004CD | SOIC-8 | TRIM | NXP | I | C56004ES_TRI | 80 | 2200 |
| | | | QA | NXP | I | C56004ES_PRI | 80 | 1610 |
| | | | QA | NXP | I | C56004ES_PHI | 120 | 1610 |
| | | | QA | NXP | I | C56004ES_PLI | 0 | 1610 |
| | SA56004CDP | MSOP-8 | TRIM | NXP | I | C56004ES_TRI | 80 | 2200 |
| | | | QA | NXP | I | C56004ES_PRI | 80 | 1610 |
| | | | QA | NXP | I | C56004ES_PHI | 120 | 1610 |
| | | | QA | NXP | I | C56004ES_PLI | 0 | 1610 |
| | SA56004DD | SOIC-8 | TRIM | NXP | H | D56004ES_TRH | 80 | 2200 |
| | | | QA | NXP | H | D56004ES_PRH | 80 | 1610 |
| | | | QA | NXP | H | D56004ES_PHH | 120 | 1610 |
| | | | QA | NXP | H | D56004ES_PLH | 0 | 1610 |
| | SA56004DDP | MSOP-8 | TRIM | NXP | H | D56004TS_TRH | 80 | 2200 |
| | | | QA | NXP | H | D56004TS_PRH | 80 | 1610 |
| | | | QA | NXP | H | D56004TS_PHH | 120 | 1610 |
| | | | QA | NXP | H | D56004TS_PLH | 0 | 1610 |



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|---------------|-------------|--------------|-----------|-------------------------|-----------------------|-------------------|------------------|------------------|
| SA56004 | SA56004ED | SOIC-8 | TRIM | NXP | F | E56004ES_TRF | 80 | 2010 |
| | | | QA | NXP | F | E56004ES_PRF | 80 | 1650 |
| | | | QA | NXP | F | E56004ES_PHF | 120 | 1650 |
| | | | QA | NXP | F | E56004ES_PLF | 0 | 1650 |
| | SA56004EDP | MSOP-8 | TRIM | NXP | F | E56004TS_TRF | 80 | 2010 |
| | | | QA | NXP | F | E56004TS_PRF | 80 | 1650 |
| | | | QA | NXP | F | E56004TS_PHF | 120 | 1650 |
| | | | QA | NXP | F | E56004TS_PLF | 0 | 1650 |
| | SA56004FD | SOIC-8 | TRIM | NXP | H | F56004ES_TRH | 80 | 2200 |
| | | | QA | NXP | H | F56004ES_PRH | 80 | 1610 |
| | | | QA | NXP | H | F56004ES_PHH | 120 | 1610 |
| | | | QA | NXP | H | F56004ES_PLH | 0 | 1610 |
| | SA56004FDP | MSOP-8 | TRIM | NXP | H | F56004TS_TRH | 80 | 2200 |
| | | | QA | NXP | H | F56004TS_PRH | 80 | 1610 |
| | | | QA | NXP | H | F56004TS_PHH | 120 | 1610 |
| | | | QA | NXP | H | F56004TS_PLH | 0 | 1610 |
| | SA56004GD | SOIC-8 | TRIM | NXP | H | G56004ES_TRH | 80 | 2200 |
| | | | QA | NXP | H | G56004ES_PRH | 80 | 1610 |
| | | | QA | NXP | H | G56004ES_PHH | 120 | 1610 |
| | | | QA | NXP | H | G56004ES_PLH | 0 | 1610 |



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| Device Family | Device Name | Package Type | Test Type | Test Program Originator | Test Program Revision | Test Program Name | Temperature (C) | Test Time (msec) |
|---------------|-------------|--------------|-----------|-------------------------|-----------------------|-------------------|------------------|------------------|
| SA56004 | SA56004GDP | MSOP-8 | TRIM | NXP | H | G56004TS_TRH | 80 | 2200 |
| | | | QA | NXP | H | G56004TS_PRH | 80 | 1610 |
| | | | QA | NXP | H | G56004TS_PHH | 120 | 1610 |
| | | | QA | NXP | H | G56004TS_PLH | 0 | 1610 |
| | SA56004HD | SOIC-8 | TRIM | NXP | G | G56004ES_TRH | 80 | 2200 |
| | | | QA | NXP | G | H56004ES_PRG | 80 | 1610 |
| | | | QA | NXP | G | H56004ES_PHG | 120 | 1610 |
| | | | QA | NXP | G | H56004ES_PLG | 0 | 1610 |
| | SA56004HDP | MSOP-8 | TRIM | NXP | G | H56004TS_TRG | 80 | 2200 |
| | | | QA | NXP | G | H56004TS_PRG | 80 | 1610 |
| | | | QA | NXP | G | H56004TS_PHG | 120 | 1610 |
| | | | QA | NXP | G | H56004TS_PLG | 0 | 1610 |



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NXP Temp Sensor

Temp Sensor Tests

| LM75 TEST NAMES | SA56004 TEST NAMES |
|--------------------------|---------------------------------|
| 1. Continuity | 1. Continuity |
| 2. Power Supply Coarse | 2. SMBus_acknowledge |
| 3. Power Supply Stress | 3. Trim / Temperature Error |
| 4. Digital Pin Current | 4. Default Register |
| 5. Read Default Register | 5. Stress_crt |
| 6. Temp Error | 6. Shutdown Supply Current |
| 7. Inactive Power | 7. Digital Imp_crt |
| 8. Shutdown Power | 8. Write Register |
| 9. Slave Address Func | 9. Diode Leakage |
| 10. Write_read_tos | 10. ALERT CRT Leakage |
| 11. Write_read_thyst | 11. SDA_VOL |
| 12. Write_read_config | 12. VOL_Alert_Crit |
| 13. SDA Output Low | 13. Oscillator Frequency |
| 14. OS Polarity | 14. Diode Fault |
| 15. OS Output Leakage | 15. UVL |
| 16. OS Low Voltage | 16. Digital Input Threshold |
| 17. Input Threshold | 17. Alert Response Address Func |
| 18. Power on reset | 18. Read OTP Register |
| 19. Oscillator Frequency | 19. Idd Check |



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| LM75 TEST NAMES | SA56004 TEST NAMES |
|-------------------------|--------------------|
| 20. Interrupt Mode | |
| 21. Power Supply Coarse | |



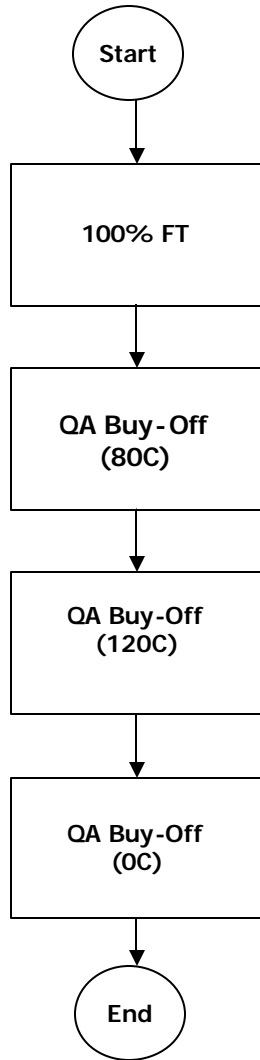
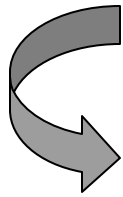
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NXP Temp Sensors

LM75 PROCESS FLOW

SA56004 PROCESS FLOW



QA Buy-Off of both devices on three temperatures are done once per wafer lot only.

