

PS-AT7909E

revision A

MICROCIRCUIT, DIGITAL, CMOS, MONOLITHIC SILICON

SINGLE CHIP TELEMETRY AND TELECOMMAND

AT7909E

| Revision | Written by | Approved by | Date |
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DOCUMENTATION CHANGE NOTICE

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1 GENERAL

1.1 Scope

This specification details the ratings, physical and electrical characteristics, tests and inspection data of the [Single Chip telemetry and Telecommand](#) named [AT7909E](#). It also defines the specific requirement for space and military applications with high reliability.

1.2 Identification

| Description | Case | Application |
|--------------|---------------------|----------------------|
| AT7909EKA-MQ | Flat pack 256 leads | Military application |
| AT7909EKA-SV | Flat pack 256 leads | Space application |

1.3 Absolute maximum ratings

| | |
|--|-------------------|
| Supply voltage range (V_{DD}) | -0.5V to 4V dc |
| Input voltage range (V_{IN}) | -0.5V dc to 6V dc |
| Input current per power pin | +/- 60 mA |
| Input current par signal pin | +/- 10 mA |
| Storage temperature | -65°C to 150°C |
| Maximum junction temperature (T_J) | 175°C |
| Lead temperature (soldering @ 1/16 in, 10 s) | 300°C |
| Thermal resistance junction to case (R_{jc}) | 3.5 K/W |

1.4 Recommended operating conditions.

| | |
|---|---|
| Supply voltage range (V_{DD}) | 3 V dc to 3.6 V dc |
| Ambient operating temperature (T_A) | -55°C to 125°C |
| Storage temperature | 30°C, 20 to 65% RH, dust free, original packing |

1.5 Radiation features

Tested up to a total dose (dose rate 0.1 rad/s) 100 kRads (Si)

1.6 Handling precautions

These components are susceptible to damage by electrostatic discharge. Therefore, suitable precautions shall be employed for protection during all phases of manufacturing, testing, shipment and any handling.

ESD..... >4000 V

2 APPLICABLE DOCUMENTS

MIL-PRF-38535 Integrated Circuits, Manufacturing, General Specification for.
MIL-STD-883 Test Method Standard Microcircuits.

In the event of a conflict between the text of this drawing and the references cited herein, the text of this drawing takes precedence.

3 REQUIREMENTS

3.1 Design, construction, and physical dimensions.

The design, construction, and physical dimensions shall be as specified in MIL-PRF-38535 and herein.

3.1.1 Package type.

The package shall be a flat pack, 256 leads ([figure1](#)). The case shall be hermetically sealed and have a ceramic body. Lid shall be connected to ground.

3.1.2 Terminal connections.

The terminal connections shall be as specified on [figure 2](#).

3.1.3 Block diagram.

The block diagram shall be as specified on [figure 3](#).

3.2 Marking

Each component shall be marked in respect of :

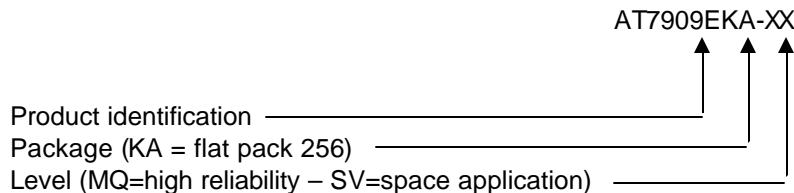
- (a) Lead Identification
- (b) Component Number
- (c) Traceability Information
- (d) Manufacturer's Component Number

3.2.1 Lead Identification

An index shall be located at the top of the package in the position defined in [Figure 1](#).

3.2.2 Component Number

Each component shall bear the component number which shall be constituted and marked as follows:



3.2.3 Traceability Information

Each component shall be marked in respect of traceability information: lot number and date code.

3.3 Electrical characteristics

The parameters to be measured with respect of electrical characteristics are scheduled in [Table 1](#). The measurements shall be performed at $T_{amb}=25 \pm 3^{\circ}\text{C}$, $T_{high}=125 (+0/-5)^{\circ}\text{C}$ and $T_{low} = -55 (+5/-0)^{\circ}\text{C}$ respectively.

3.4 Burn-in test

3.4.1 Electrical circuit

Circuit for use in performing the power burn-in is shown in [figure 4](#), in accordance with the intent specified in test method 1015 of MIL-STD-883.



3.4.2 Parameters drift value

For space application, the parameter drift values applicable to burn-in are specified in [Table 2](#) of this specification. Unless otherwise stated, measurements shall be performed at $+ 25 \pm 3$ ° C. The parameter drift values (Δ), applicable to the parameters scheduled, shall not be exceeded.

In addition to these drift value requirements, the appropriate limit value specified for a given parameter in [Table 1](#) shall not be exceeded.

3.5 Environmental and Endurance Tests

3.5.1 Electrical Circuit for Operating LifeTest

The circuit for operating life testing shall be as specified for power burn in ([figure 4](#)).

3.5.2 Electrical Measurements at Completion of Environmental and endurance tests

The parameters to be measured are scheduled in [Table 1](#). Unless otherwise stated, the measurements shall be performed at $t_{amb} = 25 \pm 3$ °C.

3.5.3 Conditions for Operating LifeTest

The conditions for operating life testing shall be as specified for power burn in.

4 QUALITY ASSURANCE PROVISIONS

4.1 Wafer lot acceptance test

For space application, Wafer Lot Acceptance shall be performed according to mil-std-883 method 5007.

4.2 Sampling and inspection.

Sampling and inspection procedures shall be in accordance with MIL-PRF-38535.

4.3 Screening.

Screening shall be in accordance with MIL-PRF-38535, and shall be conducted on all devices prior to qualification and technology conformance inspection

- The burn-in test duration, test condition and test temperature, or approved alternatives shall be as specified in accordance with MIL-PRF-38535.
- Additional screening for space application devices shall be as specified in MIL-PRF-38535, appendix B.

4.4 Quality conformance inspection

Qualification inspection for high reliability and space applications devices shall be in accordance with MIL-PRF-38535. Inspections to be performed shall be those specified in MIL-PRF-38535 and herein for groups A, B, C, D, and E inspections.

4.4.1 Group A inspection.

- Tests shall be as specified in [table 1](#) herein.
- Subgroups 5 and 6 of table I of method 5005 of MIL STD 883 shall be omitted.
- Subgroups 7 and 8 of table I of method 5005 of MIL STD 883 shall include verifying the functionality of the device.



- O/V (latch up) tests shall be measured only for the initial qualification and after any process or design changes which may affect the performance of the device.
- Capacitance measurement shall be measured only for initial qualification and after any process or design changes which may affect input or output capacitance. Capacitance shall be measured between the designated terminal and GND at a frequency of 1 MHz. Sample size is five devices with no failure, and all input and output terminals tested.

4.4.2 Group C inspection.

The group C inspection end-point electrical parameters shall be as specified in [table 1](#) herein.

4.4.3 Group D inspection.

The group D inspection end-point electrical parameters shall be as specified in [table 1](#) herein.

4.5 Delta measurements

Delta measurements, as specified in [table 2](#), shall be made and recorded before and after the required burn-in screens and steady-state life tests to determine delta compliance. The electrical parameters to be measured, with associated delta limits are listed in [table 2](#). The device manufacturer may, at his option, either perform delta measurements or within 24 hours after life test perform final electrical parameter tests, subgroups 1, 7 and 9.

5 PACKAGING

5.1 Packaging requirements

The requirements for packaging shall be in accordance with MIL-PRF-38535.



TABLE 1. Electrical Parameters

| Test | Symbol | Test method Mil-Std-883 | Conditions -55°C ≤ T _C ≤ +125°C +3 V ≤ V _{DD} ≤ +3.6 V unless otherwise specified | Limits | | Unit |
|---|-------------------|-------------------------|--|--------|------|-------|
| | | | | Min | Max | |
| High level input voltage | V _{IH} | 3013 | V _{DD} =3.6V | 2.0 | | V |
| Low level input voltage | V _{IL} | 3013 | V _{DD} =3.0V | | 0.8 | V |
| Threshold Schmitt trigger input voltage | V _{T+} | 3013 | Note 1 | 1.40 | 2.08 | V |
| Threshold Schmitt trigger input voltage | V _{T-} | 3013 | Note 1 | 0.99 | 1.51 | V |
| Hysteresis | V _{HYS} | - | Note 1 | 0.37 | | V |
| High level output voltage | V _{OH} | 3006 | | 2.4 | | V |
| Low level output voltage | V _{OL} | 3007 | | | 0.4 | V |
| Low level input current | I _{IL} | 3009 | V _{in} =GND, V _{DD} =V _{DD} (max) | -1 | 1 | μA |
| High level input current | I _{IH} | 3010 | V _{in} =V _{DD} =V _{DD} (max) | -1 | 1 | μA μA |
| High level input current, pull-down input | I _{IHP} | 3010 | V _{in} =V _{DD} =V _{DD} (max) | 5 | 70 | μA |
| Output leakage current | I _{OZ} | - | Outputs disabled, GND < V _{out} < V _{DD} | -1 | 1 | μA |
| Output leakage current, pull-down output | I _{OZHP} | - | Outputs disabled, V _{out} = V _{DD} | 5 | 70 | μA |
| Input pin capacitance | C _{IN} | 3012 | Note 1 | | 3 | pF |
| I/O pin capacitance | C _{IO} | 3012 | Note 1 | | 7 | pF |
| Standby supply current for array | I _{DDSB} | 3005 | Static mode | | 4.5 | mA |
| Operating current for array | I _{DDOP} | 3005 | V _{DD} =3.6V | | 80 | mA |
| Setup time SpwlfSel to SysClk | T _{s1} | 3003 | V _{DD} = 3.6 V Note 2 | | 0 | ns |
| Setup time MemD[15:0] to SysClk MemDcc[5:0] to SysClk | T _{s2} | 3003 | V _{DD} = 3.6 V Note 2 | | 0 | ns |
| Propagation Delay SysClk to MemA[23:0] | T _{p1} | 3003 | V _{DD} = 3.6 V Note 2 | | 30 | ns |
| Propagation Delay SysClk to MemD[15:0] SysClk to MemDcc[5:0] | T _{p2} | 3003 | V _{DD} = 3.6 V Note 2 | | 42 | ns |



| | | | | | | |
|--------------------------------------|-----|------|-----------------------|--|----|----|
| Propagation Delay SysClk to SpwDOut? | Tp3 | 3003 | VDD = 3.6 V Note 2 | | 41 | ns |
| Propagation Delay SysClk to SpwDOut? | Tp4 | 3003 | VDD = 3.6 V Note 2 | | 34 | ns |
| Propagation Delay SysClk to SpwSOut? | Tp5 | 3003 | VDD = 3.6 V Note 2 | | 41 | ns |
| Propagation Delay SysClk to SpwSOut? | Tp6 | 3003 | VDD = 3.6 V Note 2 | | 34 | ns |
| Propagation Delay SysClk to SeqIrq | Tp7 | 3003 | VDD = 3.6 V Note 2 | | 53 | ns |

Notes :

1/ Guaranteed but not tested

2/ Test conditions: Tester load 80 pF, VIL = 0V, VIH = VDD, Input signals dynamic characteristics: tr,tf < 10ns, Threshold voltages: VOL = VOH = VDD/2

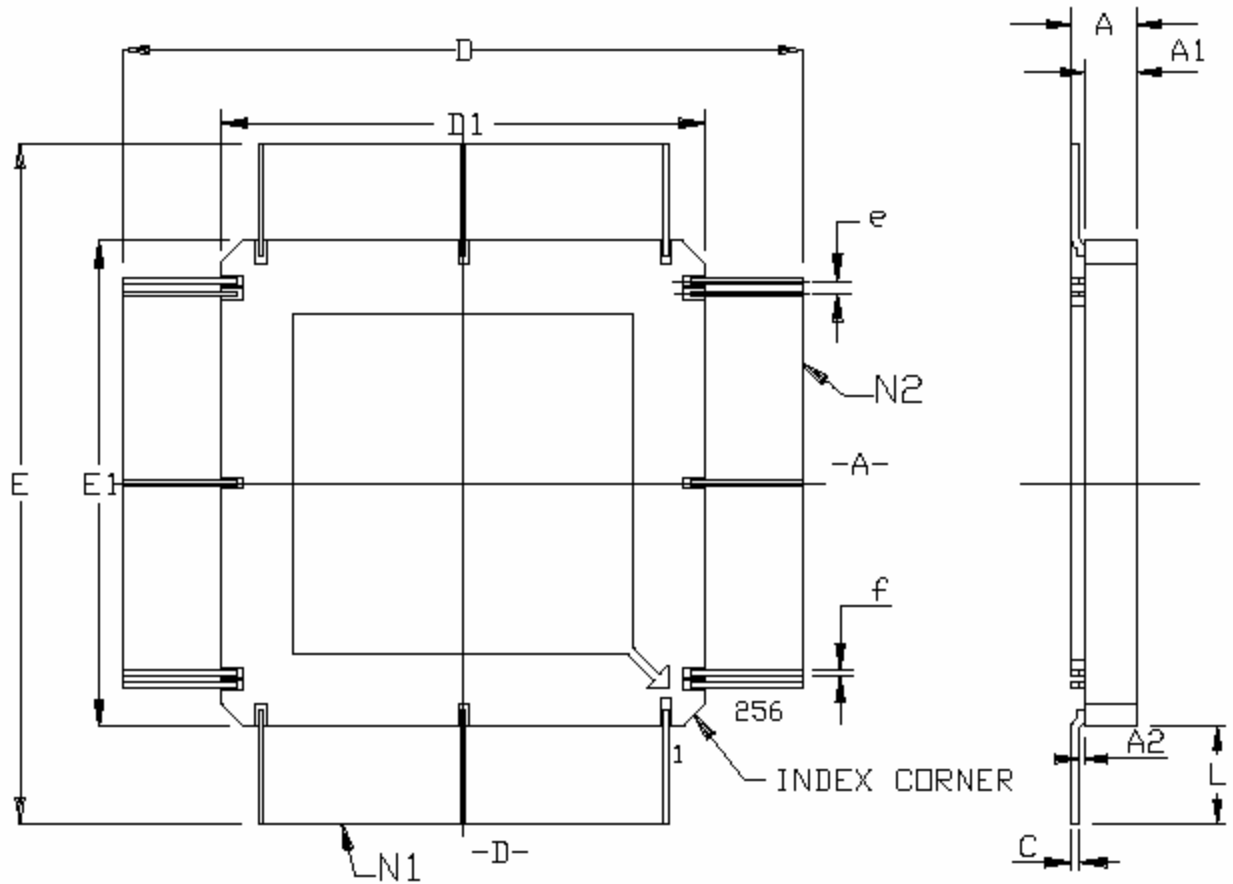
TABLE 2. Parameter drift values

| Test | Symbol | Test method Mil-Std- 883 | Conditions | Drift limits | Unit |
|-----------------------------------|--------|--------------------------------|----------------|--------------|------|
| Low Level Input Current | IIL | 3009 | as per Table 1 | ±0.1 | µA |
| High Level Input Current | IIH | 3010 | as per Table 1 | ±0.1 | µA |
| Output Leakage Low Current | IOZL | - | as per Table 1 | ±0.1 | µA |
| Output Leakage High Current | IOZH | - | as per Table 1 | ±0.1 | µA |
| Supply Current Stand-by for Array | IDDSBA | 3005 | as per Table 1 | 430 | µA |
| Low Level Output Voltage BUF2 | VOL | 3007 | as per Table 1 | ±100 | mV |
| High Level Output Voltage BUF2 | VOH | 3006 | as per Table 1 | ±100 | mV |

Note : the above parameter shall be recorded before and after burn-in and life test to determine the delta.

FIGURE 1. Case outline.

The package is a 256-pin MQFP with 0.02 mil pin spacing and lid connected to ground.



| | mm | | inch | |
|-------|-----------|-------|-----------|-------|
| A | 2.41 | 3.18 | 0.095 | 0.125 |
| A1 | 2.06 | 2.56 | 0.081 | 0.101 |
| A2 | 0.05 | 0.36 | 0.002 | 0.014 |
| C | 0.10 | 0.20 | 0.004 | 0.008 |
| D/E | 53.23 | 55.74 | 2.095 | 2.195 |
| D1/E1 | 36.83 | 37.34 | 1.450 | 1.470 |
| e | 0.508 BSC | | 0.020 BSC | |
| f | 0.15 | 0.25 | 0.006 | 0.010 |
| L | 8.20 | 9.20 | 0.323 | 0.362 |
| N1 | 64 | | | |
| N2 | 64 | | | |

FIGURE 2. Terminal connections.

| Pin | Signal name | Pin | Signal name | Pin | Signal name | Pin | Signal name |
|-----|-----------------|-----|-----------------|-----|-----------------|-----|----------------|
| 1 | Vss[8] | 51 | Vdd[2] | 101 | TestSignalIn[2] | 151 | PdecClwSamp[0] |
| 2 | MemD[12] | 52 | MemA[4] | 102 | TestSignalIn[3] | 152 | TmeSIn[E] |
| 3 | MemD[11] | 53 | MemA[3] | 103 | TmClk1 | 153 | PdecClwClk[0] |
| 4 | MemD[10] | 54 | MemA[2] | 104 | TmClk2 | 154 | TmeSClk[E] |
| 5 | Vdd[8] | 55 | Vss[1] | 105 | SysClk | 155 | TmeSRdy[E] |
| 6 | MemD[9] | 56 | MemA[1] | 106 | PoResetN | 156 | TmeSRdy[D] |
| 7 | Vss[18] | 57 | Vss[19] | 107 | PdecTcln[5] | 157 | TmeSValid[D] |
| 8 | Vdd[18] | 58 | Vdd[19] | 108 | PdecTcClk[5] | 158 | TmeSIn[D] |
| 9 | MemD[8] | 59 | MemA[0] | 109 | PdecTcAct[5] | 159 | TmeSClk[D] |
| 10 | MemD[7] | 60 | Vdd[1] | 110 | PdecTcln[4] | 160 | Vss[14] |
| 11 | MemD[6] | 61 | MemSize16 | 111 | PdecTcClk[4] | 161 | TmeSRdy[C] |
| 12 | MemD[5] | 62 | TestSignalIn[1] | 112 | PdecTcAct[4] | 162 | TmeSValid[C] |
| 13 | MemD[4] | 63 | TestMode | 113 | PdecTcln[3] | 163 | TmeSIn[C] |
| 14 | MemD[3] | 64 | TestSE | 114 | PdecTcClk[3] | 164 | TmeSClk[C] |
| 15 | Vss[7] | 65 | JtagTdo | 115 | PdecTcAct[3] | 165 | ExtCpduIfAbort |
| 16 | TestSignalIn[6] | 66 | JtagTdi | 116 | PdecTcln[2] | 166 | TmeSValid[B] |
| 17 | MemD[2] | 67 | JtagTms | 117 | PdecTcClk[2] | 167 | ExtCpduIfValid |
| 18 | MemD[1] | 68 | JtagTRstN | 118 | Vss[15] | 168 | ExtCpduIfRdy |
| 19 | Vdd[7] | 69 | JtagTck | 119 | PdecTcAct[2] | 169 | ExtCpduIfData |
| 20 | MemD[0] | 70 | PdecMapGenA[5] | 120 | PdecTcln[1] | 170 | TmeSIn[B] |
| 21 | MemCs3N | 71 | Vss[20] | 121 | Vss[21] | 171 | ExtCpduIfClk |
| 22 | Vss[6] | 72 | Vdd[20] | 122 | Vdd[21] | 172 | TmeSClk[B] |
| 23 | PdecTcPrior | 73 | PdecMapGenA[4] | 123 | PdecTcClk[1] | 173 | TmeSRdy[B] |
| 24 | MemCs2N | 74 | PdecMapGenA[3] | 124 | Vdd[15] | 174 | TmeSRdy[A] |
| 25 | MemCs0N | 75 | PdecMapGenA[2] | 125 | PdecTcAct[1] | 175 | TmeSValid[A] |
| 26 | Vdd[6] | 76 | PdecMapGenA[1] | 126 | PdecTcln[0] | 176 | TmeSIn[A] |
| 27 | MemOEN | 77 | PdecMapGenA[0] | 127 | PdecTcClk[0] | 177 | TmeSClk[A] |
| 28 | MemWEN | 78 | Vss[17] | 128 | PdecTcAct[0] | 178 | TmeEnable |
| 29 | Vss[5] | 79 | PdecMapDtr[5] | 129 | PdecClwD[1] | 179 | Vdd[14] |
| 30 | MemA[19] | 80 | PdecMapDsr[5] | 130 | PdecClwSamp[1] | 180 | TmeTimeStrb |
| 31 | MemA[18] | 81 | PdecMapDtr[4] | 131 | PdecClwClk[1] | 181 | TmeUnEncSync |
| 32 | Vdd[5] | 82 | PdecMapDsr[4] | 132 | PdecMapSwitch | 182 | TmeUnEncClk |
| 33 | MemA[17] | 83 | Vdd[17] | 133 | TmeSValid[H] | 183 | Vss[13] |
| 34 | MemA[16] | 84 | PdecMapDtr[3] | 134 | PdecAuEnable | 184 | TmeUnEncOut |
| 35 | Vss[4] | 85 | PdecMapDsr[3] | 135 | Vss[22] | 185 | Vss[23] |
| 36 | MemA[15] | 86 | PdecMapDtr[2] | 136 | Vdd[22] | 186 | Vdd[23] |
| 37 | MemA[14] | 87 | PdecMapDsr[2] | 137 | TmeSIn[H] | 187 | Vdd[13] |
| 38 | Vdd[4] | 88 | PdecMapDtr[1] | 138 | TmeSClk[H] | 188 | TmeEncOut |
| 39 | MemA[13] | 89 | PdecMapDsr[1] | 139 | TmeSRdy[H] | 189 | TmeEncClk |
| 40 | MemA[12] | 90 | PdecMapDtrG | 140 | TmeSValid[G] | 190 | TmeEnclOut |
| 41 | MemA[11] | 91 | PdecMapDsrG | 141 | TestSignalIn[4] | 191 | TmeEncQOut |
| 42 | Vss[3] | 92 | PdecMapData | 142 | TmeSIn[G] | 192 | TmeEnclQCik |
| 43 | MemA[10] | 93 | PdecMapClk | 143 | TmeSClk[G] | 193 | Vss[12] |
| 44 | Vdd[3] | 94 | PdecRfAvN[3] | 144 | TmeSRdy[G] | 194 | TmeClwSamp |
| 45 | MemA[9] | 95 | PdecRfAvN[2] | 145 | TmeSValid[F] | 195 | TmeClwClk |
| 46 | MemA[8] | 96 | Vss[16] | 146 | TmeSIn[F] | 196 | TmeClwD[3] |
| 47 | MemA[7] | 97 | PdecMapAdt | 147 | TmeSRdy[F] | 197 | TmeClwD[2] |
| 48 | Vss[2] | 98 | PdecRfAvN[1] | 148 | TmeSClk[F] | 198 | TmeClwD[1] |



| Pin | Signal name | Pin | Signal name | Pin | Signal name | Pin | Signal name |
|-----|------------------|-----|---------------|-----|------------------|-----|------------------|
| 49 | MemA[6] | 99 | Vdd[16] | 149 | TmeSValid[E] | 199 | Vss[24] |
| 50 | MemA[5] | 100 | PdecRfAvN[0] | 150 | PdecClwD[0] | 200 | Vdd[24] |
| 201 | TmeClwD[0] | 215 | SpwDInB | 229 | CpdmStrb | 243 | TestSignalOut[5] |
| 202 | Relnit | 216 | SpwIfSel | 230 | CselRmOn | 244 | TestSignalIn[5] |
| 203 | CiInClk | 217 | SpwSInA | 231 | CselStatusIn[2] | 245 | MemDcc[5] |
| 204 | CiInData | 218 | SpwDInA | 232 | CselStatusIn[1] | 246 | MemDcc[4] |
| 205 | Vdd[12] | 219 | SpwClk | 233 | CselStatusIn[0] | 247 | Vdd[9] |
| 206 | CiInRdy | 220 | Vdd[11] | 234 | Vdd[10] | 248 | MemDcc[3] |
| 207 | CiInValid | 221 | SpwSOut | 235 | Irq | 249 | Vss[25] |
| 208 | CiOutRdy | 222 | SpwDOut | 236 | CselStatusOut[2] | 250 | Vdd[25] |
| 209 | CiOutClk | 223 | CpdmClkAlive | 237 | CselStatusOut[1] | 251 | MemDcc[2] |
| 210 | CiOutData | 224 | CpdmClkToggle | 238 | CselStatusOut[0] | 252 | MemDcc[1] |
| 211 | Vss[11] | 225 | CpdmClk | 239 | TestSignalOut[2] | 253 | MemDcc[0] |
| 212 | CiOutValid | 226 | Vss[10] | 240 | TestSignalOut[3] | 254 | MemD[15] |
| 213 | TestSignalOut[1] | 227 | CpdmSer | 241 | Vss[9] | 255 | MemD[14] |
| 214 | SpwSInB | 228 | CpdmArmN | 242 | TestSignalOut[4] | 256 | MemD[13] |

Signals pins are described in AT7909E datasheet.

FIGURE 3. Block diagram

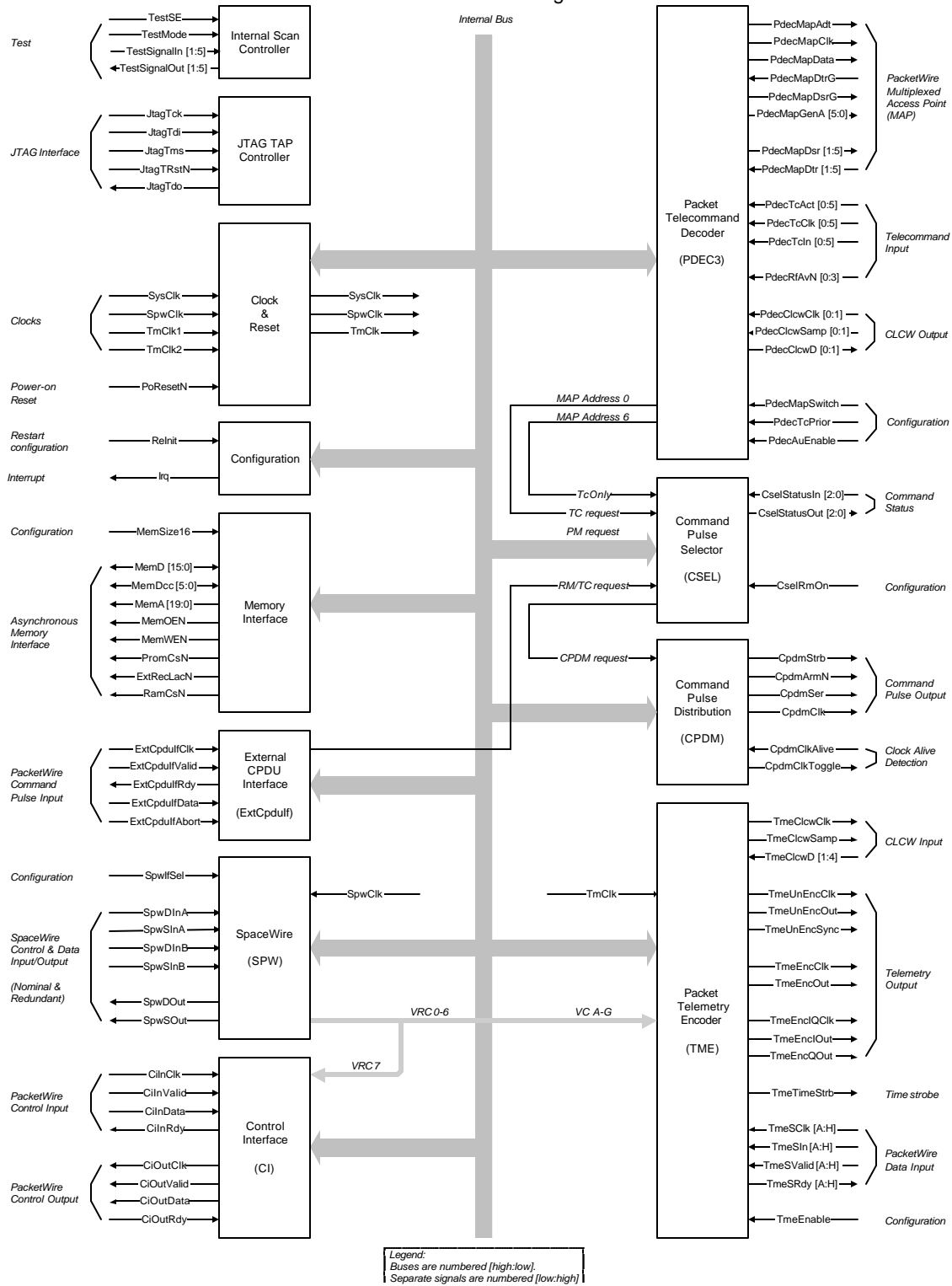




FIGURE 4. Electrical circuit for power burn-in and operating life test.

| Characteristics | Symbol | Conditions | Unit |
|-------------------------|--------|-------------------|------|
| Ambient Temperature | Tamb | 125 (+0/-5) | °C |
| Positive Supply Voltage | VCC | 3.7V (+0.1 /-0.1) | V |
| Negative Supply Voltage | GND | 0 | V |

Forcing inputs:

- S1 = 1.65 MHz
- S3 = 412.50 KHz
- S6 = 51.56 KHz
- S9 = 100.70 Hz
- S10 = 50.30 Hz

All signals are issued from the same clock and there is no overlap on timings

- Inputs must be wired to a defined level: VCC, GND or Driver Signals
- Connecting an input to VCC 'or' GND must always be through a 2.2k serie resistor

Forcing outputs:

- Output must be wired to VCC and GND
- Connecting an output to VCC 'and' GND must always be through two 5.6k series resistors.

Forcing inputs/outputs:

- I/O must be wired as Input or Output following previous definition.
- By default I/O are considered as Input

| Pin Number | Pad number | Signal | Model | Type | Pull type | Resistance | Wired |
|------------|------------|-----------|-----------------|------|-----------|------------|-------|
| 1 | 1 | VSB28 | PVSSB | VSB | | 0 | GND |
| 2 | 2 | MemD_12_ | PICV:PO33V:PRD6 | VI/O | PD | 2.2k | GND |
| 3 | 3 | MemD_11_ | PICV:PO33V:PRD6 | VI/O | PD | 2.2k | GND |
| 4 | 4 | MemD_10_ | PICV:PO33V:PRD6 | VI/O | PD | 2.2k | GND |
| 5 | 5 | VDB26 | PVDDVB | VDB | | 0 | VCC |
| 6 | 6 | MemD_9_ | PICV:PO33V:PRD6 | VI/O | PD | 2.2k | GND |
| 7 | 515 | VSA27 | PVSSA | VSA | | 0 | GND |
| 7 | 525 | VSA24 | PVSSA | VSA | | 0 | GND |
| 7 | 536 | VSA19 | PVSSA | VSA | | 0 | GND |
| 8 | 274 | VDA22 | PVDDA | VDA | | 0 | VCC |
| 8 | 264 | VDA25 | PVDDA | VDA | | 0 | VCC |
| 8 | 287 | VDA16 | PVDDA | VDA | | 0 | VCC |
| 9 | 7 | MemD_8_ | PICV:PO33V:PRD6 | VI/O | PD | 2.2k | GND |
| 10 | 8 | MemD_7_ | PICV:PO33V:PRD6 | VI/O | PD | 2.2k | GND |
| 11 | 9 | MemD_6_ | PICV:PO33V:PRD6 | VI/O | PD | 2.2k | GND |
| 12 | 10 | MemD_5_ | PICV:PO33V:PRD6 | VI/O | PD | 2.2k | GND |
| 13 | 11 | MemD_4_ | PICV:PO33V:PRD6 | VI/O | PD | 2.2k | GND |
| 14 | 12 | MemD_3_ | PICV:PO33V:PRD6 | VI/O | PD | 2.2k | GND |
| 15 | 13 | VSB23 | PVSSB | VSB | | 0 | GND |
| 16 | 14 | PdecTcDyn | PICV:PRD6V | I | PD | 2.2k | S6 |



| | | | | | | | |
|----|-----|-------------|-----------------|------|----|------|---------|
| 17 | 15 | MemD_2_ | PICV:PO33V:PRD6 | VI/O | PD | 2.2k | GND |
| 18 | 16 | MemD_1_ | PICV:PO33V:PRD6 | VI/O | PD | 2.2k | GND |
| 19 | 17 | VDB21 | PVDDVB | VDB | | 0 | VCC |
| 20 | 18 | MemD_0_ | PICV:PO33V:PRD6 | VI/O | PD | 2.2k | GND |
| 21 | 19 | MemCSN_3_ | PO66VF | O/Z | | 5.6k | VCC-GND |
| 22 | 20 | VSB20 | PVSSB | VSB | | 0 | GND |
| 23 | 21 | PdecTcPrior | PICV:PRD6V | I | PD | 2.2k | S6 |
| 24 | 22 | MemCSN_2_ | PO66VF | O/Z | | 5.6k | VCC-GND |
| 25 | 23 | MemCSN_0_ | PO66VF | O/Z | | 5.6k | VCC-GND |
| 26 | 24 | VDB18 | PVDDVB | VDB | | 0 | VCC |
| 27 | 25 | MemOEN | PO66VF | O/Z | | 5.6k | VCC-GND |
| 28 | 26 | MemWEN | PO66VF | O/Z | | 5.6k | VCC-GND |
| 29 | 27 | VSB17 | PVSSB | VSB | | 0 | GND |
| 30 | 28 | MemA_19_ | PO66VF | O/Z | | 5.6k | VCC-GND |
| 31 | 29 | MemA_18_ | PO66VF | O/Z | | 5.6k | VCC-GND |
| 32 | 30 | VDB15 | PVDDVB | VDB | | 0 | VCC |
| 33 | 31 | MemA_17_ | PO66VF | O/Z | | 5.6k | VCC-GND |
| 34 | 32 | MemA_16_ | PO66VF | O/Z | | 5.6k | VCC-GND |
| 35 | 33 | VSB14 | PVSSB | VSB | | 0 | GND |
| 36 | 34 | MemA_15_ | PO66VF | O/Z | | 5.6k | VCC-GND |
| 37 | 35 | MemA_14_ | PO66VF | O/Z | | 5.6k | VCC-GND |
| 38 | 36 | VDB12 | PVDDVB | VDB | | 0 | VCC |
| 39 | 37 | MemA_13_ | PO66VF | O/Z | | 5.6k | VCC-GND |
| 40 | 38 | MemA_12_ | PO66VF | O/Z | | 5.6k | VCC-GND |
| 41 | 39 | MemA_11_ | PO66VF | O/Z | | 5.6k | VCC-GND |
| 42 | 40 | VSB10 | PVSSB | VSB | | 0 | GND |
| 43 | 41 | MemA_10_ | PO66VF | O/Z | | 5.6k | VCC-GND |
| 44 | 42 | VDB9 | PVDDVB | VDB | | 0 | VCC |
| 45 | 43 | MemA_9_ | PO66VF | O/Z | | 5.6k | VCC-GND |
| 46 | 44 | MemA_8_ | PO66VF | O/Z | | 5.6k | VCC-GND |
| 47 | 45 | MemA_7_ | PO66VF | O/Z | | 5.6k | VCC-GND |
| 48 | 46 | VSB7 | PVSSB | VSB | | 0 | GND |
| 49 | 47 | MemA_6_ | PO66VF | O/Z | | 5.6k | VCC-GND |
| 50 | 48 | MemA_5_ | PO66VF | O/Z | | 5.6k | VCC-GND |
| 51 | 49 | VDB6 | PVDDVB | VDB | | 0 | VCC |
| 52 | 50 | MemA_4_ | PO66VF | O/Z | | 5.6k | VCC-GND |
| 53 | 51 | MemA_3_ | PO66VF | O/Z | | 5.6k | VCC-GND |
| 54 | 52 | MemA_2_ | PO66VF | O/Z | | 5.6k | VCC-GND |
| 55 | 53 | VSB4 | PVSSB | VSB | | 0 | GND |
| 56 | 54 | MemA_1_ | PO66VF | O/Z | | 5.6k | VCC-GND |
| 57 | 570 | VSA3 | PVSSA | VSA | | 0 | GND |
| 57 | 560 | VSA8 | PVSSA | VSA | | 0 | GND |
| 57 | 547 | VSA13 | PVSSA | VSA | | 0 | GND |
| 58 | 309 | VDA5 | PVDDA | VDA | | 0 | VCC |
| 58 | 318 | VDA1 | PVDDA | VDA | | 0 | VCC |
| 58 | 297 | VDA11 | PVDDA | VDA | | 0 | VCC |
| 59 | 55 | MemA_0_ | PO66VF | O/Z | | 5.6k | VCC-GND |
| 60 | 56 | VDB2 | PVDDVB | VDB | | 0 | VCC |



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|-----|-----|----------------|-------------|-----|----|------|---------|
| 61 | 57 | MemSiz | PICV | I | | 2.2k | S6 |
| 62 | 58 | ExtdAccess | PICV | I | | 2.2k | S6 |
| 63 | 59 | TestMode | PICV:PRD6V | I | PD | 2.2k | VCC |
| 64 | 60 | TestSE | PICV:PRD6V | I | PD | 2.2k | S10 |
| 65 | 61 | JtagTdo | PO22V | O/Z | | 5.6k | VCC-GND |
| 66 | 62 | JtagTdi | PICV:PRD6V | I | PD | 2.2k | S6 |
| 67 | 63 | JtagTms | PICV:PRD6V | I | PD | 2.2k | S6 |
| 68 | 64 | JtagTRstN | PICV:PRD6V | I | PD | 2.2k | S10 |
| 69 | 65 | JtagTck | PICV:PRD6V | I | PD | 2.2k | S1 |
| 70 | 66 | PdecMapGenA_5_ | PO22V | O/Z | | 5.6k | VCC-GND |
| 71 | 600 | VSA76 | PVSSA | VSA | | 0 | GND |
| 71 | 589 | VSA79 | PVSSA | VSA | | 0 | GND |
| 71 | 579 | VSA82 | PVSSA | VSA | | 0 | GND |
| 72 | 328 | VDA81 | PVDDA | VDA | | 0 | VCC |
| 72 | 350 | VDA75 | PVDDA | VDA | | 0 | VCC |
| 72 | 337 | VDA78 | PVDDA | VDA | | 0 | VCC |
| 73 | 67 | PdecMapGenA_4_ | PO22V | O/Z | | 5.6k | VCC-GND |
| 74 | 68 | PdecMapGenA_3_ | PO22V | O/Z | | 5.6k | VCC-GND |
| 75 | 69 | PdecMapGenA_2_ | PO22V | O/Z | | 5.6k | VCC-GND |
| 76 | 70 | PdecMapGenA_1_ | PO22V | O/Z | | 5.6k | VCC-GND |
| 77 | 71 | PdecMapGenA_0_ | PO22V | O/Z | | 5.6k | VCC-GND |
| 78 | 72 | VSB80 | PVSSB | VSB | | 0 | GND |
| 79 | 73 | PdecMapDtr_5_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 80 | 74 | PdecMapDsr_5_ | PO22V | O/Z | | 5.6k | VCC-GND |
| 81 | 75 | PdecMapDtr_4_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 82 | 76 | PdecMapDsr_4_ | PO22V | O/Z | | 5.6k | VCC-GND |
| 83 | 77 | VDB77 | PVDDVB | VDB | | 0 | VCC |
| 84 | 78 | PdecMapDtr_3_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 85 | 79 | PdecMapDsr_3_ | PO22V | O/Z | | 5.6k | VCC-GND |
| 86 | 80 | PdecMapDtr_2_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 87 | 81 | PdecMapDsr_2_ | PO22V | O/Z | | 5.6k | VCC-GND |
| 88 | 82 | PdecMapDtr_1_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 89 | 83 | PdecMapDsr_1_ | PO22V | O/Z | | 5.6k | VCC-GND |
| 90 | 84 | PdecMapDtrG | PICV:PRD6V | I | PD | 2.2k | S6 |
| 91 | 85 | PdecMapDsrG | PO22V | O/Z | | 5.6k | VCC-GND |
| 92 | 86 | PdecMapData | PO22V | O/Z | | 5.6k | VCC-GND |
| 93 | 87 | PdecMapClk | PO33V | O/Z | | 5.6k | VCC-GND |
| 94 | 88 | PdecRfAvN_3_ | PICSV:PRD6V | I | PD | 2.2k | S9 |
| 95 | 89 | PdecRfAvN_2_ | PICSV:PRD6V | I | PD | 2.2k | S9 |
| 96 | 90 | VSB74 | PVSSB | VSB | | 0 | GND |
| 97 | 91 | PdecMapAdt | PO22V | O/Z | | 5.6k | VCC-GND |
| 98 | 92 | PdecRfAvN_1_ | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 99 | 93 | VDB73 | PVDDVB | VDB | | 0 | VCC |
| 100 | 94 | PdecRfAvN_0_ | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 101 | 95 | M1553Clk | PICV | I | | 2.2k | S1 |
| 102 | 96 | ObtSrcClk | PICV | I | | 2.2k | S1 |
| 103 | 97 | TmClk1 | PICV | I | | 2.2k | S1 |
| 104 | 98 | TmClk2 | PICV | I | | 2.2k | S1 |



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|-----|-----|-----------------|-------------|-----|----|------|---------|
| 105 | 99 | SysClk | PICV | I | | 2.2k | S1 |
| 106 | 100 | PoResetN | PICSV | I | | 2.2k | VCC |
| 107 | 101 | PdecTcIn_5_ | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 108 | 102 | PdecTcClk_5_ | PICSV:PRD6V | I | PD | 2.2k | S3 |
| 109 | 103 | PdecTcAct_5_ | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 110 | 104 | PdecTcIn_4_ | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 111 | 105 | PdecTcClk_4_ | PICSV:PRD6V | I | PD | 2.2k | S3 |
| 112 | 106 | PdecTcAct_4_ | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 113 | 107 | PdecTcIn_3_ | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 114 | 108 | PdecTcClk_3_ | PICSV:PRD6V | I | PD | 2.2k | S3 |
| 115 | 109 | PdecTcAct_3_ | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 116 | 110 | PdecTcIn_2_ | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 117 | 111 | PdecTcClk_2_ | PICSV:PRD6V | I | PD | 2.2k | S3 |
| 118 | 112 | VSB68 | PVSSB | VSB | | 0 | GND |
| 119 | 113 | PdecTcAct_2_ | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 120 | 114 | PdecTcIn_1_ | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 121 | 624 | VSA70 | PVSSA | VSA | | 0 | GND |
| 121 | 611 | VSA72 | PVSSA | VSA | | 0 | GND |
| 121 | 634 | VSA67 | PVSSA | VSA | | 0 | GND |
| 122 | 361 | VDA71 | PVDDA | VDA | | 0 | VCC |
| 122 | 373 | VDA69 | PVDDA | VDA | | 0 | VCC |
| 122 | 382 | VDA65 | PVDDA | VDA | | 0 | VCC |
| 123 | 115 | PdecTcClk_1_ | PICSV:PRD6V | I | PD | 2.2k | S3 |
| 124 | 116 | VDB66 | PVDDVB | VDB | | 0 | VCC |
| 125 | 117 | PdecTcAct_1_ | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 126 | 118 | PdecTcIn_0_ | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 127 | 119 | PdecTcClk_0_ | PICSV:PRD6V | I | PD | 2.2k | S3 |
| 128 | 120 | PdecTcAct_0_ | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 129 | 121 | PdecClwD_1_ | PO22V | O/Z | | 5.6k | VCC-GND |
| 130 | 122 | PdecClwSamp_1_ | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 131 | 123 | PdecClwClk_1_ | PICSV:PRD6V | I | PD | 2.2k | S3 |
| 132 | 124 | PdecMapSwitch | PICV:PRD6V | I | PD | 2.2k | S6 |
| 133 | 125 | TmeSValidNom_7_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 134 | 126 | PdecAuEnable | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 135 | 664 | VSA60 | PVSSA | VSA | | 0 | GND |
| 135 | 654 | VSA62 | PVSSA | VSA | | 0 | GND |
| 135 | 643 | VSA64 | PVSSA | VSA | | 0 | GND |
| 136 | 415 | VDA59 | PVDDA | VDA | | 0 | VCC |
| 136 | 402 | VDA61 | PVDDA | VDA | | 0 | VCC |
| 136 | 392 | VDA63 | PVDDA | VDA | | 0 | VCC |
| 137 | 127 | TmeSInNom_7_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 138 | 128 | TmeSClkNom_7_ | PICV:PRD6V | I | PD | 2.2k | S1 |
| 139 | 129 | TmeSRdy_7_ | PO22V | O/Z | | 5.6k | VCC-GND |
| 140 | 130 | TmeSValidNom_6_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 141 | 131 | TmeSInRed_6_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 142 | 132 | TmeSInNom_6_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 143 | 133 | TmeSClkNom_6_ | PICV:PRD6V | I | PD | 2.2k | S1 |
| 144 | 134 | TmeSRdy_6_ | PO22V | O/Z | | 5.6k | VCC-GND |



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|-----|-----|-----------------|-------------|-----|----|------|---------|
| 145 | 135 | TmeSValidNom_5_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 146 | 136 | TmeSInNom_5_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 147 | 137 | TmeSRdy_5_ | PO22V | O/Z | | 5.6k | VCC-GND |
| 148 | 138 | TmeSClkNom_5_ | PICV:PRD6V | I | PD | 2.2k | S1 |
| 149 | 139 | TmeSValidNom_4_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 150 | 140 | PdecClwD_0_ | PO22V | O/Z | | 5.6k | VCC-GND |
| 151 | 141 | PdecClwSamp_0_ | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 152 | 142 | TmeSInNom_4_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 153 | 143 | PdecClwClk_0_ | PICSV:PRD6V | I | PD | 2.2k | S3 |
| 154 | 144 | TmeSClkNom_4_ | PICV:PRD6V | I | PD | 2.2k | S1 |
| 155 | 145 | TmeSRdy_4_ | PO22V | O/Z | | 5.6k | VCC-GND |
| 156 | 146 | TmeSRdy_3_ | PO22V | O/Z | | 5.6k | VCC-GND |
| 157 | 147 | TmeSValidNom_3_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 158 | 148 | TmeSInNom_3_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 159 | 149 | TmeSClkNom_3_ | PICV:PRD6V | I | PD | 2.2k | S1 |
| 160 | 150 | VSB58 | PVSSB | VSB | | 0 | GND |
| 161 | 151 | TmeSRdy_2_ | PO22V | O/Z | | 5.6k | VCC-GND |
| 162 | 152 | TmeSValidNom_2_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 163 | 153 | TmeSInNom_2_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 164 | 154 | TmeSClkNom_2_ | PICV:PRD6V | I | PD | 2.2k | S1 |
| 165 | 155 | ExtCpduIfAbort | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 166 | 156 | TmeSValidNom_1_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 167 | 157 | ExtCpduIfValid | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 168 | 158 | ExtCpduIfRdy | PO22V | O/Z | | 5.6k | VCC-GND |
| 169 | 159 | ExtCpduIfData | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 170 | 160 | TmeSInNom_1_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 171 | 161 | ExtCpduIfClk | PICSV:PRD6V | I | PD | 2.2k | S1 |
| 172 | 162 | TmeSClkNom_1_ | PICV:PRD6V | I | PD | 2.2k | S1 |
| 173 | 163 | TmeSRdy_1_ | PO22V | O/Z | | 5.6k | VCC-GND |
| 174 | 164 | TmeSRdy_0_ | PO22V | O/Z | | 5.6k | VCC-GND |
| 175 | 165 | TmeSValidNom_0_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 176 | 166 | TmeSInNom_0_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 177 | 167 | TmeSClkNom_0_ | PICV:PRD6V | I | PD | 2.2k | S1 |
| 178 | 168 | TmeEnable | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 179 | 169 | VDB54 | PVDDVB | VDB | | 0 | VCC |
| 180 | 170 | TmeTimeStrb | PO22V | O/Z | | 5.6k | VCC-GND |
| 181 | 171 | TmeUnEncSync | PO33V | O/Z | | 5.6k | VCC-GND |
| 182 | 172 | TmeUnEncClk | PO66VF | O/Z | | 5.6k | VCC-GND |
| 183 | 173 | VSB52 | PVSSB | VSB | | 0 | GND |
| 184 | 174 | TmeUnEncOut | PO66VF | O/Z | | 5.6k | VCC-GND |
| 185 | 688 | VSA55 | PVSSA | VSA | | 0 | GND |
| 185 | 698 | VSA51 | PVSSA | VSA | | 0 | GND |
| 185 | 675 | VSA57 | PVSSA | VSA | | 0 | GND |
| 186 | 446 | VDA49 | PVDDA | VDA | | 0 | VCC |
| 186 | 437 | VDA53 | PVDDA | VDA | | 0 | VCC |
| 186 | 425 | VDA56 | PVDDA | VDA | | 0 | VCC |
| 187 | 175 | VDB50 | PVDDVB | VDB | | 0 | VCC |
| 188 | 176 | TmeEncOut | PO66VF | O/Z | | 5.6k | VCC-GND |



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|-----|-----|---------------|-------------|-----|----|------|---------|
| 189 | 177 | TmeEncClk | PO66VF | O/Z | | 5.6k | VCC-GND |
| 190 | 178 | TmeEnc | IOut PO33V | O/Z | | 5.6k | VCC-GND |
| 191 | 179 | TmeEnc | QOut PO33V | O/Z | | 5.6k | VCC-GND |
| 192 | 180 | TmeEncIQClk | PO33V | O/Z | | 5.6k | VCC-GND |
| 193 | 181 | VSB48 | PVSSB | VSB | | 0 | GND |
| 194 | 182 | TmeClwSamp | PO22V | O/Z | | 5.6k | VCC-GND |
| 195 | 183 | TmeClwClk | PO22V | O/Z | | 5.6k | VCC-GND |
| 196 | 184 | TmeClwD_3_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 197 | 185 | TmeClwD_2_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 198 | 186 | TmeClwD_1_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 199 | 717 | VSA44 | PVSSA | VSA | | 0 | GND |
| 199 | 728 | VSA41 | PVSSA | VSA | | 0 | GND |
| 199 | 707 | VSA47 | PVSSA | VSA | | 0 | GND |
| 200 | 456 | VDA46 | PVDDA | VDA | | 0 | VCC |
| 200 | 478 | VDA39 | PVDDA | VDA | | 0 | VCC |
| 200 | 465 | VDA43 | PVDDA | VDA | | 0 | VCC |
| 201 | 187 | TmeClwD_0_ | PICV:PRD6V | I | PD | 2.2k | S6 |
| 202 | 188 | Relnit | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 203 | 189 | CilnClk | PICV:PRD6V | I | PD | 2.2k | S1 |
| 204 | 190 | CilnData | PICV:PRD6V | I | PD | 2.2k | S6 |
| 205 | 191 | VDB45 | PVDDVB | VDB | | 0 | VCC-GND |
| 206 | 192 | CilnRdy | PO33V | O/Z | | 5.6k | VCC-GND |
| 207 | 193 | CilnValid | PICV:PRD6V | I | PD | 2.2k | S6 |
| 208 | 194 | CiOutRdy | PICV:PRD6V | I | PD | 2.2k | S6 |
| 209 | 195 | CiOutClk | PO33V | O/Z | | 5.6k | VCC-GND |
| 210 | 196 | CiOutData | PO33V | O/Z | | 5.6k | VCC-GND |
| 211 | 197 | VSB42 | PVSSB | VSB | | 0 | GND |
| 212 | 198 | CiOutValid | PO33V | O/Z | | 5.6k | VCC-GND |
| 213 | 199 | SpwEnA | PO22V | O/Z | | 5.6k | VCC-GND |
| 214 | 200 | SpwSlkB | PICV | I | | 2.2k | S6 |
| 215 | 201 | SpwDInB | PICV | I | | 2.2k | S6 |
| 216 | 202 | SpwIfSel | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 217 | 203 | SpwSlmA | PICV | I | | 2.2k | S1 |
| 218 | 204 | SpwDInA | PICV | I | | 2.2k | S6 |
| 219 | 205 | SpwClk | PICV | I | | 2.2k | S1 |
| 220 | 206 | VDB40 | PVDDVB | VDB | | 0 | VCC |
| 221 | 207 | SpwSOut | PO33V | O/Z | | 5.6k | VCC-GND |
| 222 | 208 | SpwDOut | PO33V | O/Z | | 5.6k | VCC-GND |
| 223 | 209 | CpdmClkAlive | PICSV | I | | 2.2k | S6 |
| 224 | 210 | CpdmClkToggle | PO33V | O/Z | | 5.6k | VCC-GND |
| 225 | 211 | CpdmClk | PO33V | O/Z | | 5.6k | VCC-GND |
| 226 | 212 | VSB38 | PVSSB | | | VSB | 0 |
| 227 | 213 | CpdmSer | PO33V | O/Z | | 5.6k | VCC-GND |
| 228 | 214 | CpdmArmN | PO22V | O/Z | | 5.6k | VCC-GND |
| 229 | 215 | CpdmStrb | PO22V | O/Z | | 5.6k | VCC-GND |
| 230 | 216 | CselRmOn | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 231 | 217 | CselStsIn_2_ | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 232 | 218 | CselStsIn_1_ | PICSV:PRD6V | I | PD | 2.2k | S6 |



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|-----|-----|---------------|------------------|-----|----|------|---------|
| 233 | 219 | CselStsIn_0_ | PICSV:PRD6V | I | PD | 2.2k | S6 |
| 234 | 220 | VDB35 | PVDDVB | VDB | | 0 | VCC |
| 235 | 221 | SeqIrq | PO22V | O/Z | | 5.6k | VCC-GND |
| 236 | 222 | CselStsOut_2_ | PO22V | O/Z | | 5.6k | VCC-GND |
| 237 | 223 | CselStsOut_1_ | PO22V | O/Z | | 5.6k | VCC-GND |
| 238 | 224 | CselStsOut_0_ | PO22V | O/Z | | 5.6k | VCC-GND |
| 239 | 225 | TxBIhb | PO22V | O/Z | | 5.6k | VCC-GND |
| 240 | 226 | TxAIhb | PO22V | O/Z | | 5.6k | VCC-GND |
| 241 | 227 | VSB33 | PVSSB | VSB | | 0 | GND |
| 242 | 228 | DataOutN | PO22V | O/Z | | 5.6k | VCC-GND |
| 243 | 229 | DataOutP | PO22V | O/Z | | 5.6k | VCC-GND |
| 244 | 230 | DataInAN | PICSV:PRD6V | I | PD | 2.2k | S1 |
| 245 | 231 | MemDcc_5_ | PICV:PO33V:PRD6V | I/O | PD | 2.2k | GND |
| 246 | 232 | MemDcc_4_ | PICV:PO33V:PRD6V | I/O | PD | 2.2k | GND |
| 247 | 233 | VDB31 | PVDDVB | VDB | | 0 | VCC |
| 248 | 234 | MemDcc_3_ | PICV:PO33V:PRD6V | I/O | PD | 2.2k | GND |
| 249 | 753 | VSA34 | PVSSA | VSA | | 0 | GND |
| 249 | 762 | VSA30 | PVSSA | VSA | | 0 | GND |
| 249 | 739 | VSA37 | PVSSA | VSA | | 0 | GND |
| 250 | 489 | VDA36 | PVDDA | VDA | | 0 | VCC |
| 250 | 501 | VDA32 | PVDDA | VDA | | 0 | VCC |
| 250 | 510 | VDA29 | PVDDA | VDA | | 0 | VCC |
| 251 | 235 | MemDcc_2_ | PICV:PO33V:PRD6V | I/O | PD | 2.2k | GND |
| 252 | 236 | MemDcc_1_ | PICV:PO33V:PRD6V | I/O | PD | 2.2k | GND |
| 253 | 237 | MemDcc_0_ | PICV:PO33V:PRD6V | I/O | PD | 2.2k | GND |
| 254 | 238 | MemD_15_ | PICV:PO33V:PRD6V | I/O | PD | 2.2k | GND |
| 255 | 239 | MemD_14_ | PICV:PO33V:PRD6V | I/O | PD | 2.2k | GND |
| 256 | 240 | MemD_13_ | PICV:PO33V:PRD6V | I/O | PD | 2.2k | GND |