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**Betreff:** WG: He, Aeroflex - Rad Tolerant 3,3 Volt SRAM - Replacement für das abgekündigte Samsung Rev. C - rad tolerant SRAM



**Aeroflex**  
Rad Tolerant 3,3 Volt SRAM  
Replacement für das abgekündigte Samsung Rev. C - rad tolerant SRAM

Dear Customer:

The purpose of this letter is to update customers on the die inventory of Aeroflex's 3.3V 4M Quantified Commercial-Off-The Shelf (QCOTS™) used in our UT8Q512K8 and UT8Q512K32 products. In August 2007, Aeroflex announced the finite supply of the commercial die. Aeroflex now projects that die source will exhaust in 3 to 6 months.

Aeroflex's replacement devices for the UT8Q512 and UT8Q512K32 devices are the new RadTolerant UT8Q512E and UT8Q512K32E based on Aeroflex's twelve transistor (12T) memory technology. The new designs are a functional replacement offered via SMD (Standard Microcircuit Drawing) and available for order. The devices are QML Q qualified with QML V qualification pending.

04.06.2008

**Products affected by the die inventory**

| Product              | Existing Part Number | Replacement Part Number | Standard Microcircuit Drawing | Package      |
|----------------------|----------------------|-------------------------|-------------------------------|--------------|
| 3.3V 4M SRAM         | UT8Q512              | UT8Q512E                | 5962-99607                    | 36-lead CFP  |
| 3.3V 16M SRAM<br>MCM | UT8Q512K32           | UT8Q512K32<br>E         | 5962-01533                    | 68-lead CQFP |
| 3.3V 8M SRAM         | UT8Q1024K8           | <b>Reached EOL</b>      | 5962-01532                    | 44-lead CFP  |

The following AC and DC Electrical Characteristic differences have been identified between the 3.3V QCOTS and the new 3.3V RadTolerant devices.

**AC and DC Electrical Characteristic Differences (4M SRAM)**

| Specification                        | UT8Q512 3V<br>QCOTS   | UT8Q512E 3V<br>RadTolerant |
|--------------------------------------|-----------------------|----------------------------|
| $V_{OL1}$ Low-level output voltage   | $I_{OL} = 8\text{mA}$ | $I_{OL} = 6\text{mA}$      |
| $V_{OL2}$ Low-level output voltage   | MAX = 0.08V           | MAX = 0.05V                |
| $I_{DD}$ (OP) supply current @ 1MHz  | 125mA                 | 50mA                       |
| $I_{DD}$ (OP) supply current @ 40MHz | 180mA                 | 75mA                       |
| $I_{DD}$ (SB) @ 0MHz (-55°C & 25°C)  | 6mA                   | 10mA                       |
| $I_{DD}$ (SB) @ 0MHz (125°C)         | 40mA                  | 45mA                       |
| $t_{AVQV}$ Read Access time          | 25ns                  | 20ns                       |
| $t_{ETQV}$ E-controlled access time  | 25ns                  | 20ns                       |
| $t_{WHOX}$ Data hold time            | 5ns (min)             | 4ns (min)                  |

**Note:**

1. At maximum operating speed the RadTolerant replacement 4M device uses 60% less current (75mA vs. 180mA)

**AC and DC Electrical Characteristic Differences (16M SRAM)**

| Specification                                     | UT8Q512 3V<br>QCOTS   | UT8Q512E 3V<br>RadTolerant |
|---|-----------------------|----------------------------|
| V <sub>OL1</sub> Low-level output voltage         | I <sub>OL</sub> = 8mA | I <sub>OL</sub> = 6mA      |
| V <sub>OL2</sub> Low-level output voltage         | MAX = 0.08V           | MAX = 0.05V                |
| I <sub>DD</sub> (OP) supply current @ 1MHz        | 125mA                 | 50mA                       |
| I <sub>DD</sub> (OP) supply current @ 40MHz       | 180mA                 | 75mA                       |
| I <sub>DD</sub> (SB) @ 0MHz (-55°C & 25°C)        | 6mA                   | 10mA                       |
| I <sub>DD</sub> (SB) @ 0MHz (125°C)               | 40mA                  | 45mA                       |
| t <sub>AVQV</sub> Read Access time                | 25ns                  | 20ns                       |
| t <sub>ETQV</sub> E-controlled access time        | 25ns                  | 20ns                       |
| t <sub>WHQX</sub> Data hold time                  | 5ns (min)             | 4ns (min)                  |
| t <sub>GLQX</sub> G-controlled output enable time | 3ns (min)             | 0ns (min)                  |

**Note:**

1. At maximum operating speed the RadTolerant replacement 16M device uses 60% less current (75mA vs. 180mA per byte)

Aeroflex packaging engineers have identified the following fit and form differences between the 3.3V QCOTS and the new 3.3V RadTolerant device packages. A comparison of the package differences is shown below.

**Fit and Form Differences****4M Package Dimension Differences**

|        | UT8Q512 3V<br>QCOTs | UT8Q512E 3V<br>RadTolerant |
|--------|---------------------|----------------------------|
| Length | .920 ± .010         | .920 ± .010                |
| Width  | .480 ± .005         | .580 ± .005                |
| Height | .124 ± .013         | .117 ± .013                |

**16M Package Dimension Differences**

|                        | UT8Q512K32 3V<br>QCOTs | UT8Q512K32E 3V<br>RadTolerant |
|------------------------|------------------------|-------------------------------|
| Length (ceramic)       | .880 ± .009            | .980 ± .009                   |
| Width (ceramic)        | .880 ± .009            | .980 ± .009                   |
| Height (includes lids) | .205 ± .016            | .209 ± .020                   |

Bitte senden Sie uns Ihre Anfrage.

Mit freundlichen Grüßen  
Hermann Lindbüchl

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