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**SMS Mikrocomputer Systeme GmbH**  
**Im Grund 15**  
**D-88239 Wangen, Germany**

REF: **Intel and SMS Mikrocomputer Systeme GmbH Test Services Agreement dated 05/08/96**

Dear PROM Programmer Vendor:

I am pleased to inform **SMS Mikrocomputer Systeme GmbH** that your PROM programming hardware and software has passed PROM programmer testing by the Memory Components Division (MCD). PROM programmer testing was conducted by MCD under the following test parameters:

|                             |                            |
|-----------------------------|----------------------------|
| <b>PROM PROGRAMMER:</b>     | <b>SMS SPRINT PLUS48</b>   |
| <b>PROGRAMMER SOFTWARE:</b> | <b>PLUS48 Rev A/96</b>     |
| <b>HARDWARE TESTED:</b>     | Attached in <b>Table 1</b> |

MCD's PROM Programmer testing consists of functional tests of Intel Flash memory products on the specified hardware and software programming platform. MCD tests the functionality of Flash erase, data program, and data read algorithms using multiple data patterns. The results of this PROM programmer testing are contained in the attached **Table 1 PROM Programmer Test Report**

When **SMS Mikrocomputer Systeme GmbH** releases Flash related PROM programmer revisions, please provide these revisions to MCD and we will test these new algorithms. Thank you for your participation in this value added program.

Sincerely yours,

David B. James  
MCD Testing Lab, Manager

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## Table 1

### PROM Programmer Test Report

**Intel Flash memory products that passed PROM programmer testing using SMS Mikrocomputer Systeme GmbH SMS SPRINT PLUS48 Rev A/96 PROM programmer hardware and software:**

| PART NUMBER            |                  |                        | CIC PART NUMBER   | ET PART NUMBER    |
|------------------------|------------------|------------------------|-------------------|-------------------|
| Fast Flash             |                  | NOTES                  | SOCKET with TOP48 | SOCKET with TOP48 |
| 1                      | E28F016XS-85     | 4.7KΩ RES PINS 39 & 40 | 56TS-40D-D6-YAM-S | 56-40-04TS-6YAM-S |
| 2                      | DA28F016XS       | 4.7KΩ RES PINS 39 & 40 | 56SS-40D-B6-TI    | 56-40-02SS-6TI    |
| 3                      | E28F016XD-85     | 4.7KΩ RES PINS 39 & 40 | 56TS-40D-E6-YAM-S | 56-40-05TS-6YAM-S |
| FlashFile™ components: |                  |                        |                   |                   |
| 1                      | DD28F032SA-100   | 4.7KΩ RES PINS 39 & 40 | 56TS-40D-C6-YAM-S | 56-40-03TS-6YAM-S |
| 2                      | DA28F016SA-100   | 4.7KΩ RES PINS 39 & 40 | 56SS-40D-A6-TI    | 56-40-01SS-6TI    |
| 3                      | E28F016SA-70     | 4.7KΩ RES PINS 39 & 40 | 56TS-40D-C6-YAM-S | 56-40-03TS-6YAM-S |
| 4                      | DA28F016SV       | 4.7KΩ RES PINS 39 & 40 | 56SS-40D-A6-TI    | 56-40-01SS-6TI    |
| 5                      | E28F016SV-70     | 4.7KΩ RES PINS 39 & 40 | 56TS-40D-C6-YAM-S | 56-40-03TS-6YAM-S |
| 6                      | E28F008SA-85     | 4.7KΩ RES PINS 39 & 40 | 40TS-40D-A6-YAM-S | 40-40-01TS-6YAM-S |
| 7                      | Ei28F008SA-85    | 4.7KΩ RES PINS 39 & 40 | 40TS-40D-A6-YAM-S | 40-40-01TS-6YAM-S |
| 8                      | F28F008SA-85     | 4.7KΩ RES PINS 39 & 40 | 40TS-40D-A6-YAM-R | 40-40-01TS-6YAM-R |
| 9                      | Fi28F008SA-85    | 4.7KΩ RES PINS 39 & 40 | 40TS-40D-A6-YAM-R | 40-40-01TS-6YAM-R |
| 10                     | PA28F008SA       | 4.7KΩ RES PINS 39 & 40 | 44PS-40D-A6-YAM   | 44-40-03S-6YAM    |
| 11                     | E28F008SA-200-L  | 4.7KΩ RES PINS 39 & 40 | 40TS-40D-A6-YAM-S | 40-40-01TS-6YAM-S |
| 12                     | F28F008SA-200-L  | 4.7KΩ RES PINS 39 & 40 | 40TS-40D-A6-YAM-R | 40-40-01TS-6YAM-R |
| 13                     | PA28F008SA-200-L | 4.7KΩ RES PINS 39 & 40 | 44PS-40D-A6-YAM   | 44-40-03S-6YAM    |
| BootBlock Components   |                  | NOTES                  | SOCKET with TOP48 | SOCKET with TOP48 |
| 1                      | E28F400BL-T150   | JUMPER TO GROUND       | 56TS-40D-A6-YAM-S | 56-40-01TS-6YAM-S |
| 2                      | E28F400BL-B150   | JUMPER TO GROUND       | 56TS-40D-A6-YAM-S | 56-40-01TS-6YAM-S |
| 3                      | E28F400EX-T60    | JUMPER TO GROUND       | 56TS-40D-A6-YAM-S | 56-40-01TS-6YAM-S |
| 4                      | E28F400EX-B60    | JUMPER TO GROUND       | 56TS-40D-A6-YAM-S | 56-40-01TS-6YAM-S |
| 5                      | E28F200BL-T150   | JUMPER TO GROUND       | 56TS-40D-A6-YAM-S | 56-40-01TS-6YAM-S |
| 6                      | E28F200BL-B150   | JUMPER TO GROUND       | 56TS-40D-A6-YAM-S | 56-40-01TS-6YAM-S |
| 7                      | E28F200EX-T60    | JUMPER TO GROUND       | 56TS-40D-A6-YAM-S | 56-40-01TS-6YAM-S |
| 8                      | E28F200EX-B60    | JUMPER TO GROUND       | 56TS-40D-A6-YAM-S | 56-40-01TS-6YAM-S |
| 9                      | PA28F400BL-T150  | JUMPER TO GROUND       | 44PS-40D-B6-YAM   | 44-40-04S-6YAM    |
| 10                     | PA28F400BL-B150  | JUMPER TO GROUND       | 44PS-40D-B6-YAM   | 44-40-04S-6YAM    |
| 11                     | PA28F400EX-T60   | JUMPER TO GROUND       | 44PS-40D-B6-YAM   | 44-40-04S-6YAM    |
| 12                     | PA28F400EX-B60   | JUMPER TO GROUND       | 44PS-40D-B6-YAM   | 44-40-04S-6YAM    |
| 13                     | PA28F200BL-T150  | JUMPER TO GROUND       | 44PS-40D-B6-YAM   | 44-40-04S-6YAM    |
| 14                     | PA28F200BL-B150  | JUMPER TO GROUND       | 44PS-40D-B6-YAM   | 44-40-04S-6YAM    |
| 15                     | PA28F200EX-T60   | JUMPER TO GROUND       | 44PS-40D-B6-YAM   | 44-40-04S-6YAM    |
| 16                     | PA28F200EX-B60   | JUMPER TO GROUND       | 44PS-40D-B6-YAM   | 44-40-04S-6YAM    |
| 17                     | E28F004BL-T150   | JUMPER TO GROUND       | 40TS-40D-B6-YAM-S | 40-40-02TS-6YAM-S |
| 18                     | E28F004BL-B150   | JUMPER TO GROUND       | 40TS-40D-B6-YAM-S | 40-40-02TS-6YAM-S |
| 19                     | E28F004EX-T60    | JUMPER TO GROUND       | 40TS-40D-B6-YAM-S | 40-40-02TS-6YAM-S |
| 20                     | E28F004EX-B60    | JUMPER TO GROUND       | 40TS-40D-B6-YAM-S | 40-40-02TS-6YAM-S |
| 21                     | E28F002BL-T150   | JUMPER TO GROUND       | 40TS-40D-B6-YAM-S | 40-40-02TS-6YAM-S |
| 22                     | E28F002BL-B150   | JUMPER TO GROUND       | 40TS-40D-B6-YAM-S | 40-40-02TS-6YAM-S |
| 23                     | E28F002EX-T60    | JUMPER TO GROUND       | 40TS-40D-B6-YAM-S | 40-40-02TS-6YAM-S |
| 24                     | E28F002EX-B60    | JUMPER TO GROUND       | 40TS-40D-B6-YAM-S | 40-40-02TS-6YAM-S |
| 25                     | E28F001EX-T120   | P629                   | 32TS-32D-A6-ENP-S | 32-32-01TS-YAM-S  |
| 26                     | E28F001EX-T70    | P620                   | 32TS-32D-A6-ENP-S | 32-32-01TS-YAM-S  |
| 27                     | E28F001EX-B120   | P629                   | 32TS-32D-A6-ENP-S | 32-32-01TS-YAM-S  |
| 28                     | E28F001EX-B120   | P620                   | 32TS-32D-A6-ENP-S | 32-32-01TS-YAM-S  |
| 29                     | N28F001EX-T120   | P629                   | 32PL-32D-A6-YAM   | 32-32-01P-6YAM    |
| 30                     | N728F001EX-T120  | P620                   | 32PL-32D-A6-YAM   | 32-32-01P-6YAM    |
| 31                     | N28F001EX-B120   | P629                   | 32PL-32D-A6-YAM   | 32-32-01P-6YAM    |
| 32                     | N728F001EX-B120  | P620                   | 32PL-32D-A6-YAM   | 32-32-01P-6YAM    |
| 33                     | P28F001EX-T120   | P629                   | Dip package       | N/A               |
| 34                     | P728F001EX-T120  | P620                   | Dip package       | N/A               |
| 35                     | P28F001EX-B120   | P629                   | Dip package       | N/A               |
| 36                     | P728F001EX-B120  | P620                   | Dip package       | N/A               |
|                        |                  |                        | CIC PART NUMBER   | ET PART NUMBER    |

| SmartVoltage          | BootBlock      | NOTES            | SOCKET            | SOCKET            |
|-----------------------|----------------|------------------|-------------------|-------------------|
| 1                     | E28F400BV-T60  | JUMPER TO GROUND | 56TS-40D-A6-YAM-S | 56-40-01TS-6YAM-S |
| 2                     | E28F400BV-B60  | JUMPER TO GROUND | 56TS-40D-A6-YAM-S | 56-40-01TS-6YAM-S |
| 3                     | E28F200BV-T60  | JUMPER TO GROUND | 56TS-40D-A6-YAM-S | 56-40-01TS-6YAM-S |
| 4                     | E28F200BV-B60  | JUMPER TO GROUND | 56TS-40D-A6-YAM-S | 56-40-01TS-6YAM-S |
| 5                     | E28F800CV-T    | JUMPER TO GROUND | 48TS-40D-B6-WEL-S | 48-40-02TS-6WEL-S |
| 6                     | E28F800CV-B    | JUMPER TO GROUND | 48TS-40D-B6-WEL-S | 48-40-02TS-6WEL-S |
| 7                     | E28F400CV-T60  | JUMPER TO GROUND | 48TS-40D-B6-WEL-S | 48-40-02TS-6WEL-S |
| 8                     | E28F400CV-B60  | JUMPER TO GROUND | 48TS-40D-B6-WEL-S | 48-40-02TS-6WEL-S |
| 9                     | E28F200CV-T60  | JUMPER TO GROUND | 48TS-40D-B6-WEL-S | 48-40-02TS-6WEL-S |
| 10                    | E28F200CV-B60  | JUMPER TO GROUND | 48TS-40D-B6-WEL-S | 48-40-02TS-6WEL-S |
| 11                    | PA28F800BV-T60 | JUMPER TO GROUND | 44PS-40D-C6-YAM   | 44-40-05S-6YAM    |
| 12                    | PA28F800BV-B60 | JUMPER TO GROUND | 44PS-40D-C6-YAM   | 44-40-05S-6YAM    |
| 13                    | PA28F400BV-T60 | JUMPER TO GROUND | 44PS-40D-B6-YAM   | 44-40-04S-6YAM    |
| 14                    | PA28F400BV-B60 | JUMPER TO GROUND | 44PS-40D-B6-YAM   | 44-40-04S-6YAM    |
| 15                    | PA28F200BV-T60 | JUMPER TO GROUND | 44PS-40D-B6-YAM   | 44-40-04S-6YAM    |
| 16                    | PA28F200BV-B60 | JUMPER TO GROUND | 44PS-40D-B6-YAM   | 44-40-04S-6YAM    |
| 17                    | E28F008BV-T    |                  | 40TS-40D-B6-YAM-S | 40-40-02TS-6YAM-S |
| 18                    | E28F008BV-B    |                  | 40TS-40D-B6-YAM-S | 40-40-02TS-6YAM-S |
| 19                    | E28F004BV-T60  |                  | 40TS-40D-B6-YAM-S | 40-40-02TS-6YAM-S |
| 20                    | E28F004BV-B60  |                  | 40TS-40D-B6-YAM-S | 40-40-02TS-6YAM-S |
| 21                    | E28F002BV-T60  |                  | 40TS-40D-B6-YAM-S | 40-40-02TS-6YAM-S |
| 22                    | E28F002BV-B60  |                  | 40TS-40D-B6-YAM-S | 40-40-02TS-6YAM-S |
| Bulk Erase Components |                | NOTES            | SOCKET with TOP48 | SOCKET with TOP48 |
| 1                     | E28F020-70     | P620             | 32TS-32D-A6-ENP-S | 32-32-01TS-YAM-S  |
| 2                     | F28F020-70     | P620             | 32TS-32D-A6-ENP-R | 32-32-01TS-YAM-R  |
| 3                     | N28F020-70     | P620             | 32PL-32D-A6-YAM   | 32-32-01P-6YAM    |
| 4                     | P28F020-70     | P620             | Dip package       | N/A               |
| 5                     | E28F010-120    | P629             | N/A               | N/A               |
| 6                     | F28F010-120    | P629             | 32TS-32D-A6-ENP-S | 32-32-01TS-YAM-S  |
| 7                     | N28F010-120    | P629             | 32TS-32D-A6-ENP-R | 32-32-01TS-YAM-R  |
| 8                     | P28F010-90     | P629             | 32PL-32D-A6-YAM   | 32-32-01P-6YAM    |
| 9                     | N28F512-120    | P629             | Dip package       | N/A               |
| 10                    | P28F512-120    | P629             | 32PL-32D-A6-YAM   | 32-32-01P-6YAM    |
| 11                    | N28F256A-120   | P629             | N/A               | N/A               |
| 12                    | P28F256A-120   | P629             | 32PL-32D-A6-YAM   | 32-32-01P-6YAM    |
|                       |                |                  | N/A               | N/A               |

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