



MOTOROLA

Chip Errata
DSP56001 Digital Signal Processor
Mask: C68S/C21T

ERRATA

Errata Description	Applies to Mask
1. If the following conditions are met: bit 7 in the OMR is set, the $\overline{BR}/\overline{WT}$ pin is asserted (held low) so that the DSP56001 is executing Wait states, and the $\overline{RESET}$ pin is strobed, the DSP56001 processor will not reset correctly. To prevent this problem from occurring, the $\overline{RESET}$ pin should not be asserted while the $\overline{BR}/\overline{WT}$ pin is asserted.	C68S
2. The internal flags for the Host interface may not be updated correctly if the Host processor accesses are too long. The problem does not occur if $\overline{HEN}$ is asserted for less than 9T.	C68S
3. The Limit bit (bit #6) of the Status Register is not updated when using non-parallel instructions, even if limiting occurred in the ALU.	C68S
4. Prior to the DSP56001 entering the STOP processing state, after receiving a STOP instruction, all pending interrupts except for trace and stack error should be automatically cleared by the processor so that they will not be processed when the processor exits the STOP processing state. However, all external or peripheral interrupts which are pending prior to STOP processing are, in fact, serviced when the processor leaves the STOP processing state. Interrupts should be disabled prior to executing the STOP instruction to avoid this problem, as shown below:	C68S C21T
movep #0,x:\$ffff ;clear ipr nop ;required for pipeline delay nop ;required for pipeline delay stop ;enter stop state	
5. AC Electrical Characteristic - External Bus Timing specification number 128 on page 46 of the Technical Data Sheet, DSP56001 / D (Rev. 2), is 0 ns for the minimum specification for Pin Grid Array and Ceramic Quad Flat Pack packaged parts. The 2 ns minimum specification remains for Plastic Quad Flat Pack packaged parts only. The maximum specification remains unchanged for all package types.	C21T

NOTES

1. An over-bar (i.e. $\overline{\text{xxxx}}$) indicates an active-low signal.
2. The letters seen to the right of the errata tell which DSP56002 mask numbers apply.

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