TEXAS
INSTRUMENTS

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MEMORANDUM

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TO: JOHN LOHMEYER, CHAIRMAN X3T9.2

FROM: BILL SPENCE, TEXAS INSTRUMENTS

SUBJECT: IMMEDIATE BIT IN TAPE WRITE-FILEMARKS AND VERIFY COMMANDS

It appears that we may have an error in SCSI-2 with regard to the above subject. Accordingly, I submit the following

PROPOSAL: In the WRITE-FILEMARKS command (p 9-11), 3rd paragraph, 1st sentence, and in the VERIFY command (p 9-16), 2nd paragraph, 2nd sentence, replace the words "as soon as the operation has been initiated" with the words "as soon as the Command Descriptor Block has been received".

The background of this is as follows, as I perceive it. In SCSI-2, we wanted to have "immediate" functionality for a number of operations which require relatively long times: REWIND, ERASE, LOAD/UNLOAD, LOCATE. But it was agreed that the "immediate" return of status should only take place after all preceding buffered READ or WRITE commands had been sucessfully executed, i.e., after the requested operation had actually gotten started. Thus the phrase "as soon as the operation has been initiated" was born and was properly applied in these four commands.

We also wanted "immediate" functionality in two other, high-speed operations: WRITE-FILEMARKS and VERIFY. Here the situation is different. What really is desired is that these commands operate in streaming or buffered mode, just as WRITE and READ commands do when the MODE-SELECT has set buffered mode. Here the immediate bit is effective only if the buffered mode has been selected and its effect is simply to put these two commands into buffered mode also. As such, they are to return status as soon as the CDB is received and decoded (in the VERIFY case, there is a parenthetical modifier of this behavior already in place in the text of the command, effective only if the BytCmp bit is set). So the "as soon as the operation has been initiated" phrase seems not to be applicable here, but it appeared anyway, in parallel with the other four commands. Hence the need for the correction proposed above.

This may be more than a trivial correction. If, for instance, the status were not returned on a WRITE-FILEMARKS command until the command actually had started being executed, there likely would not be time to issue a following WRITE command and reload the buffer quickly enough to maintain streaming.