INCH-POUND

MIL-M-38510/756A
AMENDMENT 3
01 February 2002
SUPERSEDING
AMENDMENT 2
28 April 1999

MILITARY SPECIFICATION

MICROCIRCUITS, DIGITAL, ADVANCED CMOS,
FLIP-FLOPS, MONOLITHIC SILICON, POSITIVE LOGIC

Inactive for new design after 9 August 1996

This amendment forms a part of MIL-M-38510/756A, dated 7 November 1994, and is approved for use by all Departments and Agencies of the Department of Defense.

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*1.2.3, delete in its entirety and replace with:

"1.2.3 Case outline(s). The case outlines are as designated in MIL-STD-1835 and as follows:

Outline letter	Descriptive designator	Terminals	Package style
R	GDIP1-T20 or CDIP2-T20	20	Dual-in-line
S	GDFP2-F20 or CDFP3-F20	20	Flat pack
Z	GDFP1-G20	20	Flat pack with gull wing
2	CQCC1-N20	20	Square leadless chip carrier"

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TABLE I, high level output voltage, V_{OH3}, device type column; add "03, 04" after "01, 02" for RHA levels M, D, and R.
TABLE I, high level output voltage, V_{OH5}, device type column; add "03, 04" after "01, 02" for RHA levels M, D, and R.

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TABLE I, high level output voltage, V_{OH7}, device type column; add "03, 04" after "01, 02" for RHA levels M, D, and R.
TABLE I, low level output voltage, V_{OL3}, device type column; add "03, 04" after "01, 02" for RHA levels M, D, and R.
TABLE I, low level output voltage, V_{OL5}, device type column; add "03, 04" after "01, 02" for RHA levels M, D, and R.

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TABLE I, low level output voltage, V_{OL7}, device type column; add "03, 04" after "01, 02" for RHA levels M, D, and R.
TABLE I, positive input clamp voltage, V_{IC+}, device type column; add "03, 04" after "01, 02" for RHA levels M, D, and R.
TABLE I, negative input clamp voltage, V_{IC-}, device type column; add "03, 04" after "01, 02" for RHA levels M, D, and R.
TABLE I, input current high, I_{IH}, device type column; add "03, 04" after "01, 02" for RHA levels M, D, and R.
TABLE I, input current low, I_{IL}, device type column; add "03, 04" after "01, 02" for RHA levels M, D, and R.

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TABLE I, quiescent supply current outputs high, I_{CCH}, device type column; add “03, 04” after “01, 02” for RHA level M, and add “03, 04” after “01” for RHA levels D and R.
TABLE I, quiescent supply current outputs low, I_{CCL}, device type column; add “03, 04” after “01, 02” for RHA level M, and add “03, 04” after “01” for RHA levels D and R.
TABLE I, quiescent supply current outputs three-state, I_{CCZ}, device type column and limits column; add “04” with the max limit of “15 μA” to RHA level M, add “04” with the max limit of “75 μA” to RHA level D and add “04” with the max limit of “700 μA” to RHA level R.
TABLE I, three-state output leakage current high, I_{OZH}, device type column; add “04” after “02” for RHA levels M, D, and R.
TABLE I, three-state output leakage current low, I_{OZL}, device type column; add “04” after “02” for RHA levels M, D, and R.

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TABLE I, truth table test, device type column; add “03, 04” after “01, 02” for RHA levels M, D, and R.

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TABLE I, propagation delay time, CP to Yn, $\overline{Yn}$, V_{CC} = 3.0 V, device type column; add “03” after “01” for RHA levels M, D, and R.
TABLE I, propagation delay time, CP to Yn, $\overline{Yn}$, V_{CC} = 3.0 V, device type column; add “04” after “02” for RHA levels M, D, and R.

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TABLE propagation delay time, CP to Yn, $\overline{Yn}$, V_{CC} = 4.5 V, device type column; add “03” after “01” for RHA levels M, D, and R.
TABLE propagation delay time, CP to Yn, $\overline{Yn}$, V_{CC} = 4.5 V, device type column; add “04” after “02” for RHA levels M, D, and R.

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TABLE I, unit column, add “ns” two places.
TABLE I, output enable time, $\overline{OE}$ to Yn, Yn , V_{CC} = 3.0 V, add a row to RHA limit M for device type “04” with a limit of “1.0” for the min column and “11.0” for the max column, add a row to RHA limit D for device type “04” with a limit of “1.0” for the min column and “11.0” for the max column, and add a row to RHA limit R for device type “04” with a limit of “1.0” for the min column and “11.0” for the max column.
TABLE I, output enable time, $\overline{OE}$ to Yn, Yn , V_{CC} = 4.5 V, add a row to RHA limit M for device type “04” with a limit of “1.0” for the min column and “8.5” for the max column, add a row to RHA limit D for device type “04” with a limit of “1.0” for the min column and “8.5” for the max column, and add a row to RHA limit R for device type “04” with a limit of “1.0” for the min column and “8.5” for the max column.

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TABLE I, unit column, add “ns” two places.
TABLE I, output disable time, $\overline{OE}$ to Yn, Yn , V_{CC} = 3.0 V, add a row to RHA limit M for device type “04” with a limit of “1.0” for the min column and “12.0” for the max column, add a row to RHA limit D for device type “04” with a limit of “1.0” for the min column and “12.0” for the max column, and add a row to RHA limit R for device type “04” with a limit of “1.0” for the min column and “12.0” for the max column.
TABLE I, output disable time, $\overline{OE}$ to Yn, Yn , V_{CC} = 4.5 V, add a row to RHA limit M for device type “04” with a limit of “1.0” for the min column and “10.0” for the max column, add a row to RHA limit D for device type “04” with a limit of “1.0” for the min column and “10.0” for the max column, and add a row to RHA limit R for device type “04” with a limit of “1.0” for the min column and “10.0” for the max column.

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*FIGURE 1; add case outline Z under device type “01” next to Case outlines “R, S, and 2”.
*FIGURE 1; add case outline Z under device type “04” next to Case outlines “R, S, and 2”.

The margins of this amendment are marked with an asterisk to indicate where changes from the previous amendment were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous amendment.

Custodians:
Army - CR
Navy - EC
Air Force - 11
NASA - NA
DLA - CC

Review activities:
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DLA - CC

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