Application Note
AM62x Maximum Current Ratings

TEXAS INSTRUMENTS

1 AM62x Maximum Current Ratings

The table summarizes the maximum current ratings at the AM62x power terminals. The data in this table serves as a guide for designing power supplies. The current ratings in the table are worst-case estimates for each power supply group, and actual power supply currents for specific applications are typically lower. For further details, please refer to the AM62x Power Consumption Summary or the AM62x Power Estimation Tool.

Table 1-1. Maximum Current Ratings at Power Terminals

POWER SUPPLY GROUP	SUPPLY NAME	CONDITION	MAX	UNIT
CORE	VDD_CORE VDDA_CORE_CSIRX0 VDDA_CORE_USB VDDA_DDR_PLL0	Extended Industrial 105°C	2700	mA
		Automotive 125°C	3100	mA
CANUART CORE	VDD_CANUART[1]		10	mA
0.85V RAM	VDDR_CORE[2]	Extended Industrial 105°C	150	mA
		Automotive 125°C	250	mA
DDR	VDDS_DDR VDDS_DDR_C		200	mA
1.8V Digital Supply	VDDS_OSC0		5	mA
1.8V Analog Supply	VDDA_PLL0 VDDA_PLL1 VDDA_PLL2 VDDA_1P8_CSIRX0 VDDA_1P8_OLDI0 VDDA_1P8_USB VDDA_TEMP0 VDDA_TEMP1		150	mA
3.3V Supply	VDDA_3P3_USB		50	mA
IO Supply	VDDSHV0 VDDSHV1 VDDSHV2 VDDSHV3 VDDSHV4 VDDSHV6		150	mA
SD Interface IO Supply	VDDSHV5[3]		30	mA
MCU 1.8V Analog Supply	VDDA_MCU[4]		30	mA
MCU IO Supply	VDDSHV_MCU[4]		30	mA
CANUART IO Power Supply	VDDSHV_CANUART[1]		10	mA
VPP	VPP		400	mA

(1) VDD_CANUART shall be combined with the VDD_CORE power supply group and VDDSHV_CANUART shall be combined with the I/O Power Supply group when not using Partial IO low power mode.
(2) VDDR_CORE shall be combined with VDD_CORE power supply group when VDD_CORE is used in 0.85 V.

(3)   VDDSHV5 shall be combined with the I/O Power Supply group when a separate power supply is not required for voltage scaling for a high-speed SD card.

(4)   VDDA_MCU shall be combined with the same power supply group with the 1.8-V Analog Power Supply and VDDSHV_MCU shall be combined with the I/O Power Supply Group when not isolating MCU channel IO from other IO groups.

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