

## 1 AM62Ax Maximum Current Ratings

The table summarizes the maximum current ratings at the AM62Ax 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 AM62Ax Power Estimation Tool.

POWER SUPPLY GROUP	SUPPLY NAME	CONDITION					MAX	UNIT
		VDD_CORE Voltage	Operating Junction Temperature Range	Cortex -A53 # of cores and Performance	C7x256 Performance	Wave521CL Performance		
CORE	VDD_CORE VDDA_CORE_CSIR X0 VDDA_CORE_USB VDDA_DDR_PLL0 VDDA_CORE_DSI_C LK	0.85 V	Automotive	Quad, 1400 MHz	1000 MHz	240Mbps, 400 MHz	8000	mA
		0.75 V	Automotive	Quad, 1250 MHz	850 MHz	240Mbps, 400 MHz	6500	mA
		0.85 V	Automotive	Dual, 1400 MHz	500 MHz	60Mbps, 100 MHz	6000	mA
		0.75 V	Automotive	Dual, 1250 MHz	500 MHz	60Mbps, 100 MHz	5000	mA
		0.85 V	Extended Industrial	Quad, 1400 MHz	1000 MHz	240Mbps, 400 MHz	6900	mA
		0.75 V	Extended Industrial	Quad, 1250 MHz	850 MHz	240Mbps, 400 MHz	5500	mA
		0.85 V	Extended Industrial	Dual, 1400 MHz	500 MHz	60Mbps, 100 MHz	5000	mA
		0.75 V	Extended Industrial	Dual, 1250 MHz	500 MHz	60Mbps, 100 MHz	4100	mA
CANUART CORE	VDD_CANUART <sup>(1)</sup>	_CANUART <sup>(1)</sup>						mA
0.85V RAM	VDDR_CORE <sup>(2)</sup>	Extended Industrial 105°C					200	mA
		Automotive 125°C					300	mA
DDR	VDDS_DDR VDDS_DDR_C						400	mA
1.8V Digital Supply	VDDS_OSC0						5	mA

1



POWER SUPPLY GROUP	SUPPLY NAME	CONDITION					MAX	UNIT
		VDD_CORE Voltage	Operating Junction Temperature Range	Cortex -A53 # of cores and Performance	C7x256 Performance	Wave521CL Performance		
1.8V Analog Supply	VDDA_PLL0 VDDA_PLL1 VDDA_PLL3 VDDA_PLL4 VDDA_1P8_CSI_DSI VDDA_1P8_USB VDDA_TEMP0 VDDA_TEMP1 VDDA_TEMP2						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 <sup>(3)</sup>						30	mA
MCU 1.8V Analog Supply	VDDA_MCU <sup>(4)</sup>						30	mA
MCU IO Supply	VDDSHV_MCU <sup>(4)</sup>						30	mA
CANUART IO Power Supply	VDDSHV_CANUART(	1)					10	mA
VPP	VPP						400	mA

## Table 1-1. Maximum Current Ratings at Power Terminals (continued)

(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.

## IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATA SHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES "AS IS" AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, regulatory or other requirements.

These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disclaims responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI's products are provided subject to TI's Terms of Sale or other applicable terms available either on ti.com or provided in conjunction with such TI products. TI's provision of these resources does not expand or otherwise alter TI's applicable warranties or warranty disclaimers for TI products.

TI objects to and rejects any additional or different terms you may have proposed.

Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265 Copyright © 2023, Texas Instruments Incorporated