

# M451RG6AE

t a Quote

#### **M451RG6AE Information**

	Part Number	M451RG6AF	
Winterner.com		Nuvoton Technology Corporation of America	
	Category	Integrated Circuits (ICs) Embedded - Microcontrollers	
	Description	MICROCONTROLLER ARM CORTEX	- S3.50
	Package	64-LQFP	
		For the pricing/inventory/lead time, please contact us	<b>11</b> 87
For Reference Only		Website: https://www.heisener.com E-mail: salesdept@heisener.com	Request

## **Certified Quality**

Heisener's commitment to quality has shaped our processes for sourcing, testing, shipping, and every step in between. This foundation underlies each component we sell.



# M451RG6AE Specifications

ManufacturerNuvoton Technology Corporation of AmericaCategoryIntegrated Circuits (ICs)Embedded - MicrocontrollersPackage64-LQFPSeriesNuMicro™ M451Core ProcessorARM@ Cortex@-M4FCore Size32-BitSpeed72MHzConnectivityEBI/EMI, PC, IrDA, LINbus, SmartCard, SPI,UART/USARTPeripheralsBrown-out Detect/Reset, DMA, PS, LVD, LVR, POR, PWM, WDTNumber of I/O53Program Memory Size256KB (256K x 8)Pergram Memory TypeFLASHEEPROM Size-Nuface - Supply (Vcc/Vdd)2.5V ~ 5.5VData ConvertersA/D 12x12bOscillator TypeInternalOperating Temperature-40°C ~ 105°C (TA)Mounting TypeSurface MountPackage / Case64-LQFPSupplier Device Package64-LQFP (10x10)			
Integrated Circuits (ICs)   Embedded - Microntrollers   Package 64-LQFP   Series NuMicro <sup>TM</sup> M451   Core Processor ARM® Cortex®-M4F   Core Size 32-Bit   Speed 72MHz   Connectivity EBI/EMI, PC, IrDA, LINbus, SmartCard, SPI, UART/USART   Peripherals Brown-out Detect/Reset, DMA, PS, LVD, LVR, POR, PWM, WDT   Number of I/O 53   Program Memory Size 256KB (256K x 8)   Program Memory Type FLASH   EEPROM Size -   RAM Size 32K x 8   Voltage - Supply (Vcc/Vdd) 2,5V ~ 5.5V   Data Converters A/D 12x12b   Operating Temperature -40°C ~ 105°C (TA)   Mounting Type Surface Mount   Package / Case 64-LQFP   Supplier Device Package 64-LQFP (10x10)	Manufacturer Part Number	M451RG6AE	
Imbedded - MicrocontrollersPackage $64$ -LQFPSeriesNuMicroTM M451Core ProcessorARM® Cortex®-M4FCore Size $32$ -BitSpeed72MHzConnectivityEBI/EMI, PC, IrDA, LINbus, SmartCard, SPI,UART/USARTPeripheralsBrown-out Detect/Reset, DMA, PS, LVD, LVR, POR, PWM, WDTNumber of I/O $53$ Program Memory Size $256KB (256K x 8)$ Program Memory TypeFLASHEEPROM Size-RAM Size $32K x 8$ Voltage - Supply (Vcc/Vdd) $2.5V \sim 5.5V$ Data Converters $A/D 12x12b$ Oscillator TypeInternalOperating Temperature $-40^{\circ}C \sim 105^{\circ}C (TA)$ Mounting TypeSurface MountPackage / Case $64$ -LQFP (10x10)	Manufacturer	Nuvoton Technology Corporation of America	
Package64-LQFPSeriesNuMicro™ M451Core ProcessorARM® Cortex®-M4FCore Size32-BitSpeed72MHzConnectivityEBI/EMI, PC, IrDA, LINbus, SmartCard, SPI,UART/USARTPeripheralsBrown-out Detect/Reset, DMA, PS, LVD, LVR, POR, PWM, WDTNumber of I/O53Program Memory Size256KB (256K x 8)Program Memory TypeFLASHEEPROM Size-RAM Size32K x 8Voltage - Supply (Vcc/Vdd)2.5V ~ 5.5VData ConvertersA/D 12x12bOscillator TypeInternalOperating Temperature40°C ~ 105°C (TA)Mounting TypeSurface MountPackage / Case64-LQFP	Category	Integrated Circuits (ICs)	
SeriesNuMicro <sup>TM</sup> M451Core ProcessorARM® Cortex®-M4FCore Size32-BitSpeed72MHzConnectivityEBI/EMI, PC, IrDA, LINbus, SmartCard, SPI,UART/USARTPeripheralsBrown-out Detect/Reset, DMA, I'S, LVD, LVR, POR, PWM, WDTNumber of I/O53Program Memory Size256KB (256K x 8)Program Memory TypeFLASHEEPROM Size-RAM Size32K x 8Voltage - Supply (Vcc/Vdd)2.5V ~ 5.5VData ConvertersA/D 12x12bOscillator TypeInternalOperating Temperature-40°C ~ 105°C (TA)Mounting TypeSurface MountPackage / Case64-LQFP (10x10)		Embedded - Microcontrollers	
ARM® Cortex®-M4FCore Size32-BitSpeed72MHzConnectivityEBI/EMI, PC, IrDA, LINbus, SmartCard, SPI,UART/USARTPeripheralsBrown-out Detect/Reset, DMA, PS, LVD, LVR, POR, PWM, WDTSumber of I/O53Program Memory Size256KB (256K x 8)Program Memory TypeFLASHEEPROM Size-RAM Size32K x 8Voltage - Supply (Vcc/Vdd)2.5V ~ 5.5VData ConvertersA/D 12x12bOscillator TypeInternalOperating Temperature-40°C ~ 105°C (TA)Mounting TypeSurface MountPackage / Case64-LQFP (10x10)	Package	64-LQFP	
Core Size32-BitSpeed72MHzConnectivityEBI/EMI, PC, IrDA, LINbus, SmartCard, SPI,UART/USARTPeripheralsBrown-out Detect/Reset, DMA, PS, LVD, LVR, POR, PWM, WDTNumber of I/O53Program Memory Size256KB (256K x 8)Program Memory TypeFLASHEEPROM Size-RAM Size32K x 8Voltage - Supply (Vcc/Vdd)2.5V ~ 5.5VData ConvertersA/D 12x12bOscillator TypeInternalOperating Temperature-40°C ~ 105°C (TA)Mounting TypeSurface MountPackage / Case64-LQFPSupplier Device Package64-LQFP (10x10)	Series	NuMicro™ M451	
Speed72MHzConnectivityEBI/EMI, PC, IrDA, LINbus, SmartCard, SPI,UART/USARTPeripheralsBrown-out Detect/Reset, DMA, PS, LVD, LVR, POR, PWM, WDTNumber of I/O53Program Memory Size256KB (256K x 8)Program Memory TypeFLASHEEPROM Size-RAM Size32K x 8Voltage - Supply (Vcc/Vdd)2.5V ~ 5.5VData ConvertersA/D 12x12bOscillator TypeInternalOperating Temperature-40°C ~ 105°C (TA)Mounting TypeSurface MountPackage / Case64-LQFP (10x10)	Core Processor	ARM® Cortex®-M4F	
ConnectivityEBI/EMI, PC, IrDA, LINbus, SmartCard, SPI,UART/USARTPeripheralsBrown-out Detect/Reset, DMA, PS, LVD, LVR, POR, PWM, WDTNumber of I/O53Program Memory Size256KB (256K x 8)Program Memory TypeFLASHEEPROM Size-RAM Size32K x 8Voltage - Supply (Vcc/Vdd)2.5V ~ 5.5VData ConvertersA/D 12x12bOscillator TypeInternalOperating Temperature-40°C ~ 105°C (TA)Mounting TypeSurface MountPackage / Case64-LQFPSupplier Device Package64-LQFP (10x10)	Core Size	32-Bit	
PeripheralsBrown-out Detect/Reset, DMA, I2S, LVD, LVR, POR, PWM, WDTNumber of I/O53Program Memory Size256KB (256K x 8)Program Memory TypeFLASHEEPROM Size-RAM Size32K x 8Voltage - Supply (Vcc/Vdd)2.5V ~ 5.5VData ConvertersA/D 12x12bOscillator TypeInternalOperating Temperature-40°C ~ 105°C (TA)Mounting TypeSurface MountPackage / Case64-LQFP (10x10)	Speed	72MHz	
Number of I/O53Program Memory Size256KB (256K x 8)Program Memory TypeFLASHEEPROM Size-RAM Size32K x 8Voltage - Supply (Vcc/Vdd)2.5V ~ 5.5VData ConvertersA/D 12x12bOscillator TypeInternalOperating Temperature-40°C ~ 105°C (TA)Mounting TypeSurface MountPackage / Case64-LQFPSupplier Device Package64-LQFP (10x10)	Connectivity	EBI/EMI, I <sup>2</sup> C, IrDA, LINbus, SmartCard, SPI,UART/USART	
Program Memory Size256KB (256K x 8)Program Memory TypeFLASHEEPROM Size-RAM Size32K x 8Voltage - Supply (Vcc/Vdd)2.5V ~ 5.5VData ConvertersA/D 12x12bOscillator TypeInternalOperating Temperature-40°C ~ 105°C (TA)Mounting TypeSurface MountPackage / Case64-LQFPSupplier Device Package64-LQFP (10x10)	Peripherals	Brown-out Detect/Reset, DMA, I2S, LVD, LVR, POR, PWM, WDT	
Program Memory TypeFLASHEEPROM Size-RAM Size32K x 8Voltage - Supply (Vcc/Vdd)2.5V ~ 5.5VData ConvertersA/D 12x12bOscillator TypeInternalOperating Temperature-40°C ~ 105°C (TA)Mounting TypeSurface MountPackage / Case64-LQFP (10x10)	Number of I/O	53	
EEPROM Size-RAM Size32K x 8Voltage - Supply (Vcc/Vdd)2.5V ~ 5.5VData ConvertersA/D 12x12bOscillator TypeInternalOperating Temperature-40°C ~ 105°C (TA)Mounting TypeSurface MountPackage / Case64-LQFP (10x10)	Program Memory Size	256KB (256K x 8)	
RAM Size32K x 8Voltage - Supply (Vcc/Vdd)2.5V ~ 5.5VData ConvertersA/D 12x12bOscillator TypeInternalOperating Temperature-40°C ~ 105°C (TA)Mounting TypeSurface MountPackage / Case64-LQFPSupplier Device Package64-LQFP (10x10)	Program Memory Type	FLASH	
Voltage - Supply (Vcc/Vdd)2.5V ~ 5.5VData ConvertersA/D 12x12bOscillator TypeInternalOperating Temperature-40°C ~ 105°C (TA)Mounting TypeSurface MountPackage / Case64-LQFPSupplier Device Package64-LQFP (10x10)	EEPROM Size	-	
Data ConvertersA/D 12x12bOscillator TypeInternalOperating Temperature-40°C ~ 105°C (TA)Mounting TypeSurface MountPackage / Case64-LQFPSupplier Device Package64-LQFP (10x10)	RAM Size	32K x 8	
Oscillator TypeInternalOperating Temperature-40°C ~ 105°C (TA)Mounting TypeSurface MountPackage / Case64-LQFPSupplier Device Package64-LQFP (10x10)	Voltage - Supply (Vcc/Vdd)	2.5V ~ 5.5V	
Operating Temperature-40°C ~ 105°C (TA)Mounting TypeSurface MountPackage / Case64-LQFPSupplier Device Package64-LQFP (10x10)	Data Converters	A/D 12x12b	
Mounting TypeSurface MountPackage / Case64-LQFPSupplier Device Package64-LQFP (10x10)	Oscillator Type	Internal	
Package / Case64-LQFPSupplier Device Package64-LQFP (10x10)	Operating Temperature	-40°C ~ 105°C (TA)	
Supplier Device Package64-LQFP (10x10)	Mounting Type	Surface Mount	
	Package / Case	64-LQFP	
Report errors?	Supplier Device Package	64-LQFP (10x10)	
			Report errors?

#### M451RG6AE Guarantees



Quality Guarantees

We provide 90 days warranty. \* If the items you received were not in perfect quality, we would be responsible for your refund or replacement, but the items must be returned in their original condition.

# SERVICE EUARANTEE

#### **Service Guarantees**

We guarantee 100% customer satisfaction. Our experienced sales team and tech support team back our services to satisfy all our customers.

#### M451RG6AE Payment Methods



## M451RG6AE Shipping Methods



If you have any question about M451RG6AE, please do not hesitate to contact us! Website: https://www.heisener.com E-mail: salesdept@heisener.com