



Image may be representation.  
See specifications for product details.



## MK21FX512VLQ12

Manufacturer Part Number	<b>MK21FX512VLQ12</b>
Manufacturer	<b>NXP Semiconductors</b>
Allelco Part Number	32D-MK21FX512VLQ12
ECAD Model	Request Free CAD Models
Parts Description	IC MCU 32BIT 512KB FLASH 144LQFP
Package	144-LQFP
Data sheet	<b>K-21 Sub-Family Datasheet.pdf</b> <b>MK21FXyyyyVyy12 Ref Manual.pdf</b>
RoHs Status	<b>ROHS3 Compliant</b>

**Get a Quote**

MK21FX512VLQ12 - NXP USA Inc..New Original in Stock. Download Linear Technology MK21FX512VLQ12 datasheet/specifications on AllelcoElec.com.  
Request a quote for MK21FX512VLQ12, please send us email: [info@allelco.com](mailto:info@allelco.com)

### Specifications

MK21FX512VLQ12 Tech Specifications

MK21FX512VLQ12 - NXP USA Inc. technical specifications, attributes, parameters

Product Attribute	Attribute Value	Product Attribute	Attribute Value
Manufacturer	NXP Semiconductors	Oscillator Type	Internal
Voltage - Supply (Vcc/Vdd)	1.71V ~ 3.6V	Operating Temperature	-40°C ~ 105°C (TA)
Supplier Device Package	144-LQFP (20x20)	Number of I/O	100
Speed	120MHz	Mounting Type	Surface Mount
Series	Kinetis K20	EEPROM Size	-
RAM Size	128K x 8	Data Converters	A/D 42x16b; D/A 2x12b
Program Memory Type	FLASH	Core Size	32-Bit Single-Core
Program Memory Size	512KB (512K x 8)	Core Processor	ARM® Cortex®-M4
Peripherals	DMA, I²S, LVD, POR, PWM, WDT	Connectivity	CANbus, I²C, IrDA, SPI, UART/USART, USB, USB OTG
Package / Case	144-LQFP	Base Product Number	MK21FX512
Package	Tray		

### Parts with Similar Specifications

The three parts on the right have similar specifications to NXP USA Inc. MK21FX512VLQ12

Product Attribute				
Part Number	MK21FX512VLQ12	<b>MK21FN1M0VMD12</b>	<b>MK22DX256VLF5</b>	<b>MK22FN128VLL10</b>
Manufacturer	NXP USA Inc.	NXP USA Inc.	Freescale Semiconductor	NXP USA Inc.
Operating Temperature	-40°C ~ 105°C (TA)	-40°C ~ 105°C (TA)	-40°C ~ 105°C (TA)	-40°C ~ 105°C (TA)
Base Product Number	MK21FX512	MK21FN1M0	MK22DX256	MK22FN128
Core Processor	ARM® Cortex®-M4	ARM® Cortex®-M4	ARM® Cortex®-M4	ARM® Cortex®-M4
Mounting Type	Surface Mount	Surface Mount	Surface Mount	Surface Mount
Oscillator Type	Internal	Internal	Internal	Internal
Program Memory Type	FLASH	FLASH	FLASH	FLASH
Voltage - Supply (Vcc/Vdd)	1.71V ~ 3.6V	1.71V ~ 3.6V	1.71V ~ 3.6V	1.71V ~ 3.6V
Number of I/O	100	100	29	66
Program Memory Size	512KB (512K x 8)	1MB (1M x 8)	256KB (256K x 8)	128KB (128K x 8)
EEPROM Size	-	-	4K x 8	-
Series	Kinetis K20	Kinetis K20	Kinetis K20	Kinetis K20
Data Converters	A/D 42x16b; D/A 2x12b	A/D 42x16b; D/A 2x12b	A/D 14x16b	A/D 33x16b; D/A 1x12b
Connectivity	CANbus, I²C, IrDA, SPI, UART/USART, USB, USB OTG	CANbus, I²C, IrDA, SPI, UART/USART, USB, USB OTG	I²C, IrDA, SPI, UART/USART, USB, USB OTG	I²C, IrDA, SPI, UART/USART, USB, USB OTG
Peripherals	DMA, I²S, LVD, POR, PWM, WDT	DMA, I²S, LVD, POR, PWM, WDT	DMA, I²S, LVD, POR, PWM, WDT	DMA, I²S, LVD, POR, PWM, WDT
Core Size	32-Bit Single-Core	32-Bit Single-Core	32-Bit Single-Core	32-Bit Single-Core
Package	Tray	Tray	Bulk	Tray
RAM Size	128K x 8	128K x 8	32K x 8	24K x 8
Supplier Device Package	144-LQFP (20x20)	144-MAPBGA (13x13)	48-LQFP (7x7)	100-LQFP (14x14)
Package / Case	144-LQFP	144-LBGA	48-LQFP	100-LQFP
Speed	120MHz	120MHz	50MHz	100MHz

### MK21FX512VLQ12 Datasheet PDF

Download MK21FX512VLQ12 pdf datasheets and NXP USA Inc. documentation for MK21FX512VLQ12 - NXP USA Inc..

#### Datasheets

[K-21 Sub-Family Datasheet.pdf](#)


[MK21FXyyyyVyy12 Ref Manual.pdf](#)

#### PCN Packaging

[All Dev Label Update 15/Dec/2020.pdf](#)


[Mult Dev Pkg Seal 15/Dec/2020.pdf](#)

## Environmental Information

 NXP USA Inc REACH.pdf

 NXP USA Inc RoHS Cert.pdf

## PCN Assembly/Origin

 2.73KHz.pdf

## Errata

 2.73KHz.pdf

## Customers Also Interested in

### Recommended Products

					
<b>MK21P-1A66B-500W</b> Standex-Meder Electronics SENSOR REED SW SPST-NO W LEADS	<b>MK21FN1MOV12</b> Freescale / NXP Semiconductors	<b>MK21FN1M0VMD12</b> NXP USA Inc. IC MCU 32BIT 1MB FLASH 144MAPBGA	<b>MK22DX256VLF5</b> Freescale Semiconductor IC MCU 32BIT 256KB FLASH 48LQFP	<b>MK22FN128VLL10</b> NXP USA Inc. IC MCU 32BIT 128KB FLASH 100LQFP	<b>MK21FN1M0VLQ12</b> NXP USA Inc. IC MCU 32BIT 1MB FLASH 144LQFP
					
<b>MK22DX256VLK5</b> NXP USA Inc. IC MCU 32BIT 256KB FLASH 80FQFP	<b>MK21FX512AVLQ12</b> NXP USA Inc. IC MCU 32BIT 512KB FLASH 144LQFP	<b>MK22DX256VLF5</b> NXP USA Inc. IC MCU 32BIT 256KB FLASH 48LQFP	<b>MK21FN1M0VMC12</b> NXP USA Inc. IC MCU 32BIT 1MB FLASH 121MAPBGA	<b>MK22FN1M0AVLL12</b> NXP USA Inc. IC MCU 32BIT 1MB FLASH 100LQFP	<b>MK22FN1M0AVLH12</b> NXP USA Inc. IC MCU 32BIT 1MB FLASH 64LQFP
					
<b>MK21FX512VLQ12</b> Freescale Semiconductor IC MCU 32BIT 512KB FLASH 144LQFP	<b>MK22FN128VLH10</b> NXP USA Inc. IC MCU 32BIT 128KB FLASH 64LQFP	<b>MK21FN1M0VLQ12</b> Freescale Semiconductor IC MCU 32BIT 1MB FLASH 144LQFP	<b>MK21FX512AVMC12</b> NXP USA Inc. IC MCU 32B 512KB FLASH 121MAPBGA	<b>MK21FX512VMC12</b> NXP USA Inc. IC MCU 32B 512KB FLASH 121MAPBGA	<b>MK21FN1M0V12</b> Freescale / NXP Semiconductors

## Shipment

### Delivery Time

In-stock items can be shipped within 24 hours. Some parts will be arranged for delivery within 1-2 days from the date all items arrive at our warehouse. And Alleco ships order once a day at about 17:00, except Sunday. Once the goods are shipped, the estimated delivery time depends on the shipping methods and Delivery destination. The table below shows are the logistic time for some common countries.

### Delivery Cost

- > Use your express account for shipment if you have one.
- > Use our account for the shipment. Refer to the table below for the approximate charges.  
(Different time frame / countries / package size has different price.)

### Delivery Method

- > Global Common Shipment by DHL / UPS / FedEx / TNT / EMS / SF we support.
- > Others more shipping ways, please get in touch with your customer manager.

Common Countries Logistic Time Reference		
Region	Country	Logistic Time(Day)
America	United States	5
	Brazil	7
Europe	Germany	5
	United Kingdom	4
	Italy	5
Oceania	Australia	6
	New Zealand	7
Asia	India	6
	Japan	7
Middle East	Israel	6

DHL & FedEx Shipment Charges Reference	
Shipment charges(KG)	Reference DHL(USD\$)
0.00kg-1.00kg	USD\$60.00
1.00kg-2.00kg	USD\$70.00
2.00kg-3.00kg	USD\$80.00


**Note:** The above table is for reference only. There may have some data bias for the uncontrollable factors.  
Contact us if you have any questions.


### Payment Support


The payment method can be chosen from the methods shown below:  
Wire Transfer (T/T, Bank Transfer), Western Union, Credit card,  
PayPal.



### Your Faithful Supply Chain Partner -

 Efficient Supply Management

 Cost-Saving Procurement

 Fast Sourcing & Delivery

Contact us if you have any questions.

 Phone  
+00852 9146 4856

 Email  
info@alleco.com

### Certifications & Memberships



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