

About Us

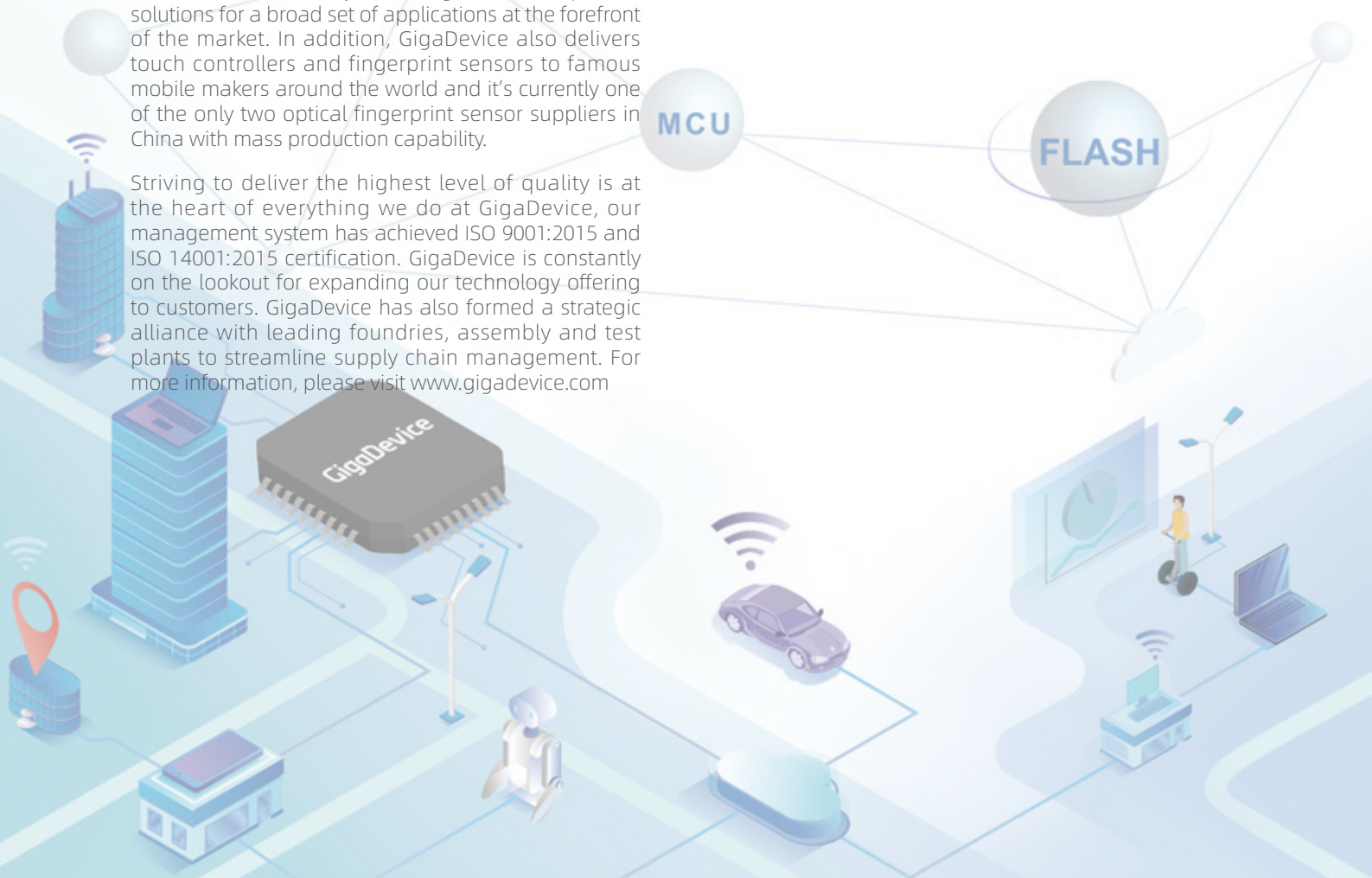
Founded in 2005 and headquartered in Beijing, GigaDevice Semiconductor (Beijing) Inc. was successfully listed on the Shanghai Stock Exchange in August 2016. With more than 800 employees, GigaDevice is a leading fabless semiconductor company dedicated to developing advanced memory technologies, MCU and sensor solutions. It is a global company with branch offices located in Beijing, Shanghai, Shenzhen, Hefei, Xi'an, Chengdu, Suzhou, Taiwan, the United States, South Korea, Japan, the United Kingdom, and Singapore, providing local support at customers' fingertips.

GigaDevice has three major product lines: FLASH memory, 32-bit general-purpose MCU and intelligent Human-Machine Interface (HMI) sensor chips. Having dedicated to high performance, low power products, GigaDevice offers turnkey solutions for market segments ranging from industrial, automotive, computing, consumer, IoT, mobile application to network/telecommunications. GigaDevice is currently ranked as the No. 1 SPI NOR FLASH supplier in China and No. 3 in the worldwide with an annual shipment of over 2 billion units and accumulated shipments over 10 billion since its inception. GigaDevice GD32 MCU is a leader in China's high performance 32-bit general-purpose microcontroller market. With a total of more than 300 million units shipped and over 350 products for selection in 24 family series, GigaDevice can provide solutions for a broad set of applications at the forefront of the market. In addition, GigaDevice also delivers touch controllers and fingerprint sensors to famous mobile makers around the world and it's currently one of the only two optical fingerprint sensor suppliers in China with mass production capability.

Striving to deliver the highest level of quality is at the heart of everything we do at GigaDevice, our management system has achieved ISO 9001:2015 and ISO 14001:2015 certification. GigaDevice is constantly on the lookout for expanding our technology offering to customers. GigaDevice has also formed a strategic alliance with leading foundries, assembly and test plants to streamline supply chain management. For more information, please visit www.gigadevice.com

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ARM Powered®

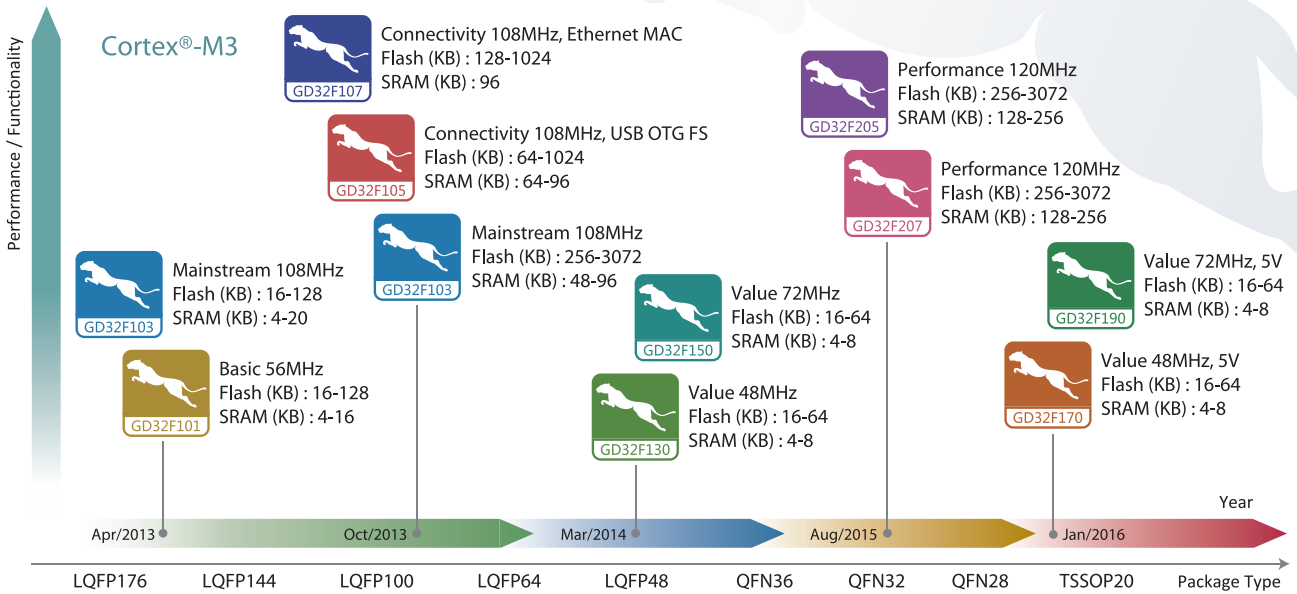
ARM CORTEX
Processor Technology

ARM University
Worldwide Education Program

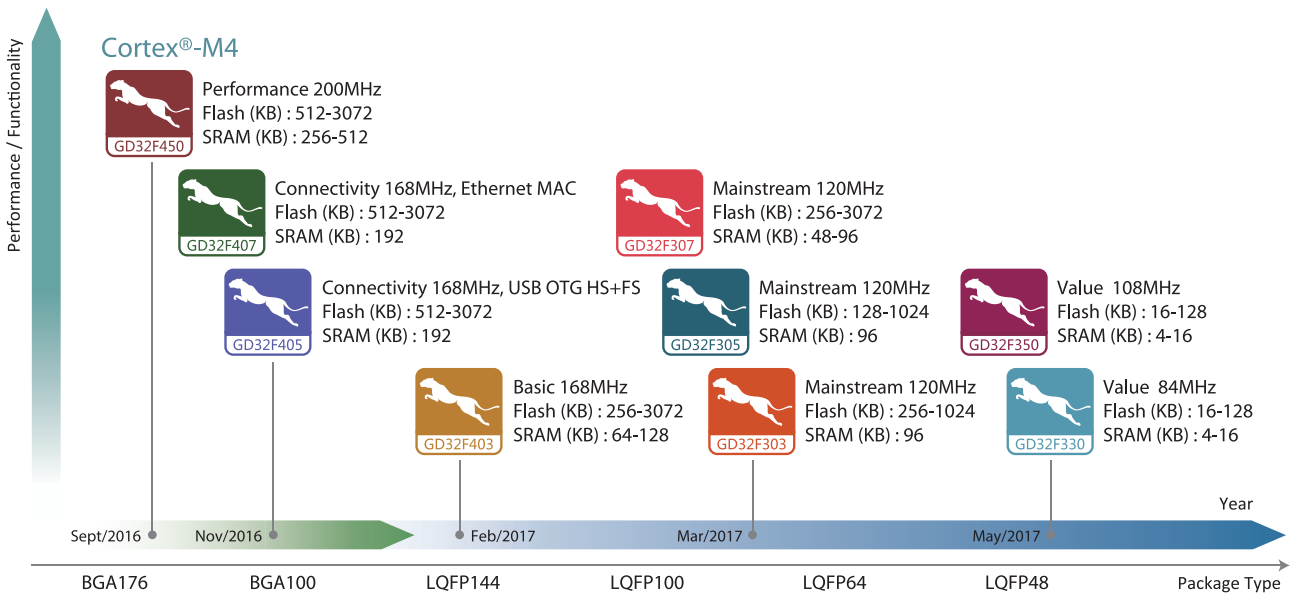
ARM Connected Community

GD32 MCU

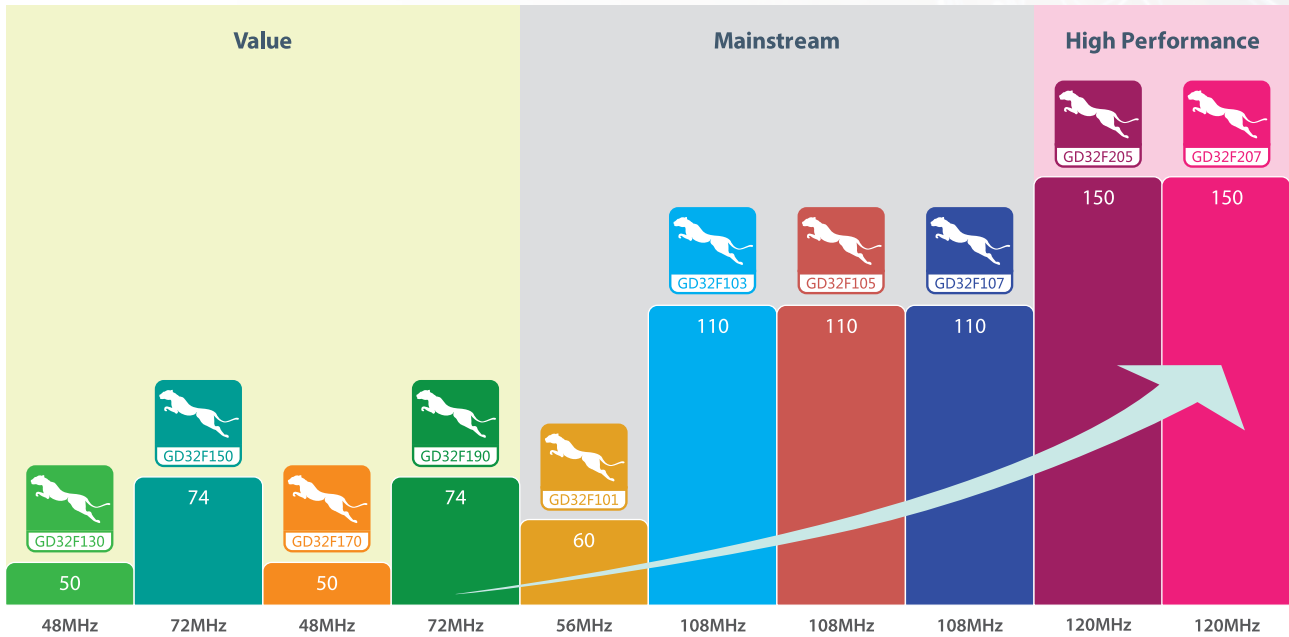
GD32 Cortex®-M3 MCU Portfolios



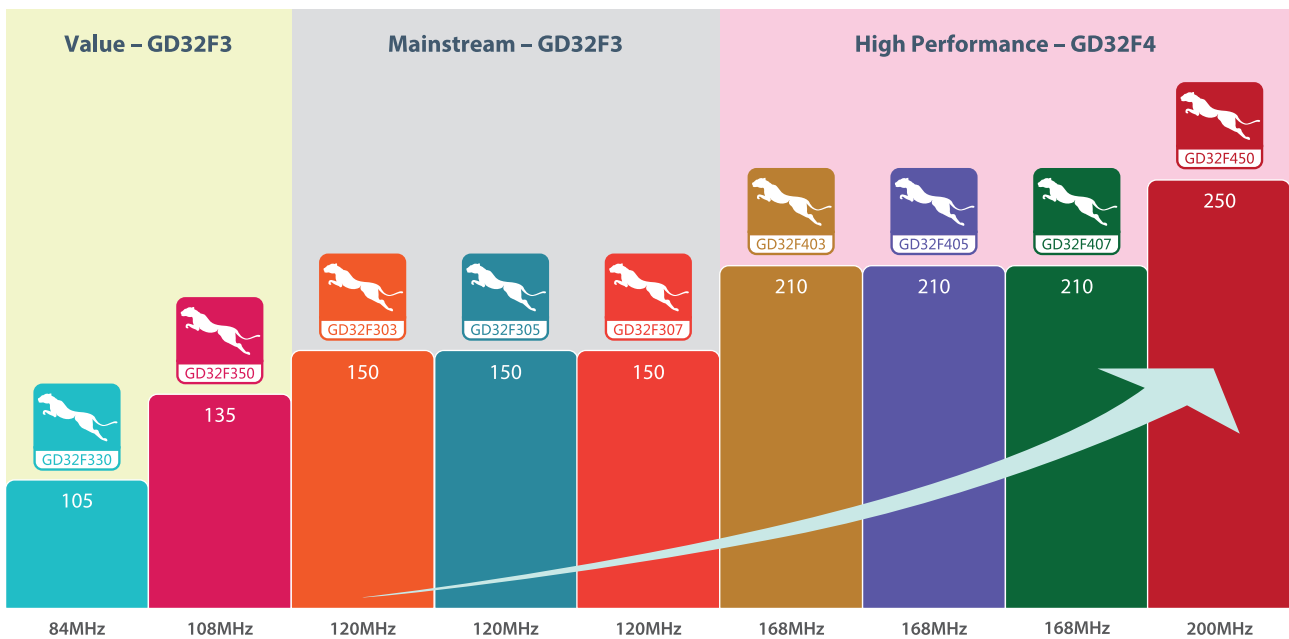
GD32 Cortex®-M4 MCU Portfolios



GD32 Cortex®-M3 MCU 200+ Part numbers



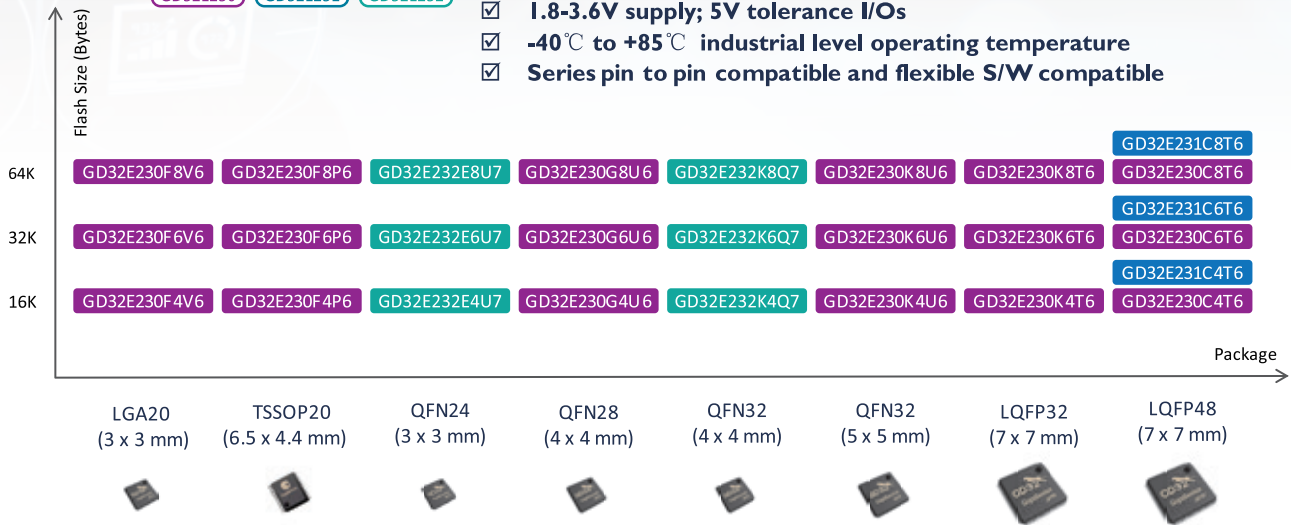
GD32 Cortex®-M4 MCU 100+ Part numbers



GD32 Cortex®-M23 MCU 20+ Part numbers



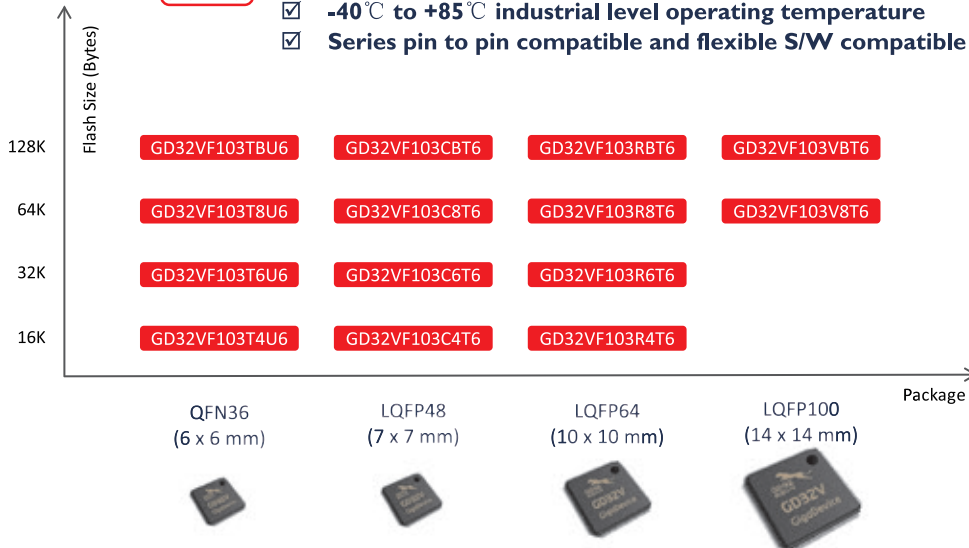
- ☑ GD32E230 & GD32E231 & GD32E232 Arm Cortex®-M23 value line @ 72MHz
- ☑ 16K-64K Flash, 4K-8K SRAM
- ☑ 1.8-3.6V supply; 5V tolerance I/Os
- ☑ -40°C to +85°C industrial level operating temperature
- ☑ Series pin to pin compatible and flexible S/W compatible



GD32VF103 RISC-V MCU 14 Part numbers


















- ☑ GD32VF103 RISC-V Bumblebee Core Mainstream Line
- ☑ Max F_{cpu} 108MHz, 16K-128K Flash, 6K-32K SRAM
- ☑ 2.6-3.6V supply; 5V tolerance I/Os; all support USB OTG & CAN 2.0B
- ☑ -40°C to +85°C industrial level operating temperature
- ☑ Series pin to pin compatible and flexible S/W compatible



GD32 Arm® MCU Product Family

Performance		Arm® Cortex®-M 32-bit MCUs					
		Cortex®-M23	Cortex®-M3		Cortex®-M4		
GD32 MCU Family	High-Performance				GD32F450 200MHz, 3M Flash, 512K RAM	GD32F407 168MHz, 3M Flash, 192K RAM	
			GD32F205 120MHz, 3M Flash, 256K RAM	GD32F207 120MHz, 3M Flash, 256K RAM	GD32F405 168MHz, 3M Flash, 192K RAM	GD32F403 168MHz, 3M Flash, 128K RAM	
	Mainstream		GD32F105 108MHz, 1M Flash, 96K RAM	GD32F107 108MHz, 1M Flash, 96K RAM	GD32F305 120MHz, 1M Flash, 96K RAM	GD32F307 120MHz, 1M Flash, 96K RAM	
			GD32F103 108MHz, 3M Flash, 96K RAM	GD32F101 56MHz, 3M Flash, 80K RAM	GD32F303 120MHz, 3M Flash, 96K RAM	GD32E103 120MHz, 128K Flash, 32K RAM	
	Entry-Level		GD32E232 72MHz, 64K Flash, 8K RAM				
		GD32E231 72MHz, 64K Flash, 8K RAM	GD32F170 48MHz, 64K Flash, 8K RAM	GD32F190 72MHz, 64K Flash, 8K RAM			
		GD32E230 72MHz, 64K Flash, 8K RAM	GD32F130 48MHz, 64K Flash, 8K RAM	GD32F150 72MHz, 64K Flash, 8K RAM	GD32F330 84MHz, 128K Flash, 16K RAM	GD32F350 108MHz, 128K Flash, 16K RAM	
Specific				GD32FFPR 168MHz, 1M Flash, 128K RAM			

MCU Package Types

LQFP176 (24*24mm)	LQFP144 (20*20mm)	LQFP100 (14*14mm)	LQFP64 (10*10mm)	LQFP48 (7*7mm)	LQFP32 (7*7mm)			
								
BGA176 (10*10mm)	BGA100 (7*7mm)	QFN36 (6*6mm)	QFN32 (5*5mm)	QFN32 (4*4mm)	QFN28 (4*4mm)	QFN24 (3*3mm)	TSSOP20 (6.5*4.4mm)	LGA20 (3*3mm)
								

GD32 Development Ecosystem



GD32V series of 32-bit RISC-V MCUs Selection Guide



Series	Part No.	Max Speed (MHz)	Memory (Bytes)		I/O	Timer						Connectivity							
			Flash	SRAM		GPTM (16bit)	Advanced TM (16bit)	Basic TM (16bit)	SysTick (24bit)	WDG	RTC	USART+UART	I ² C	SPI	CAN 2.0B	USB 2.0 FS	I ² S	SDIO	Ether net
GD32VF103	GD32VF103T4U6	108	16K	6K	up to 26	2	1	2	1	2	1	2+0	1	1	2	OTG			
	GD32VF103T6U6	108	32K	10K	up to 26	2	1	2	1	2	1	2+0	1	1	2	OTG			
	GD32VF103T8U6	108	64K	20K	up to 26	4	1	2	1	2	1	2+0	1	1	2	OTG			
	GD32VF103TBU6	108	128K	32K	up to 26	4	1	2	1	2	1	2+0	1	1	2	OTG			
	GD32VF103C4T6	108	16K	6K	up to 37	2	1	2	1	2	1	2+0	1	1	2	OTG			
	GD32VF103C6T6	108	32K	10K	up to 37	2	1	2	1	2	1	2+0	1	1	2	OTG			
	GD32VF103C8T6	108	64K	20K	up to 37	4	1	2	1	2	1	3+0	2	3	2	OTG	2		
	GD32VF103CBT6	108	128K	32K	up to 37	4	1	2	1	2	1	3+0	2	3	2	OTG	2		
	GD32VF103R4T6	108	16K	6K	up to 51	2	1	2	1	2	1	2+0	1	1	2	OTG			
	GD32VF103R6T6	108	32K	10K	up to 51	2	1	2	1	2	1	2+0	1	1	2	OTG			
	GD32VF103R8T6	108	64K	20K	up to 51	4	1	2	1	2	1	3+2	2	3	2	OTG	2		
	GD32VF103RBT6	108	128K	32K	up to 51	4	1	2	1	2	1	3+2	2	3	2	OTG	2		
	GD32VF103V8T6	108	64K	20K	up to 80	4	1	2	1	2	1	3+2	2	3	2	OTG	2		
GD32VF103VBT6	108	128K	32K	up to 80	4	1	2	1	2	1	3+2	2	3	2	OTG	2			

GD32E23x series of 32-bit ARM® Cortex®-M23 MCUs Selection Guide

Series	Part No.	Max Speed (MHz)	Memory (Bytes)		I/O	Timer						Connectivity						
			Flash	SRAM		GPTM (32bit)	GPTM (16bit)	Advanced TM (16bit)	Basic TM (16bit)	SysTick (24bit)	WDG	RTC	USART	I ² C	SPI	USB 2.0 FS	I ² S	Comp
GD32E230	GD32E230F4P6	72	16K	4K	up to 15		4	1	1	1	2	1	1	1	1		1	1
	GD32E230F6P6	72	32K	6K	up to 15		4	1	1	1	2	1	2	1	1		1	1
	GD32E230F8P6	72	64K	8K	up to 15		4	1	1	1	2	1	2	2	2		1	1
	GD32E230F4V6	72	16K	4K	up to 15		4	1	1	1	2	1	1	1	1		1	1
	GD32E230F6V6	72	32K	6K	up to 15		4	1	1	1	2	1	2	1	1		1	1
	GD32E230F8V6	72	64K	8K	up to 15		4	1	1	1	2	1	2	2	2		1	1
	GD32E230G4U6	72	16K	4K	up to 23		4	1	1	1	2	1	1	1	1		1	1
	GD32E230G6U6	72	32K	6K	up to 23		4	1	1	1	2	1	2	1	1		1	1
	GD32E230G8U6	72	64K	8K	up to 23		5	1	1	1	2	1	2	2	2		1	1
	GD32E230K4U6	72	16K	4K	up to 27		4	1	1	1	2	1	1	1	1		1	1
	GD32E230K6U6	72	32K	6K	up to 27		4	1	1	1	2	1	2	1	1		1	1
	GD32E230K8U6	72	64K	8K	up to 27		5	1	1	1	2	1	2	2	2		1	1
	GD32E230K4T6	72	16K	4K	up to 25		4	1	1	1	2	1	1	1	1		1	1

Series	Part No.	Max Speed (MHz)	Memory (Bytes)		I/O	Timer							Connectivity					
			Flash	SRAM		GPTM (32bit)	GPTM (16bit)	Advanced TM (16bit)	Basic TM (16bit)	SysTick (24bit)	WDG	RTC	USART	I ² C	SPI	USB 2.0 FS	I ² S	Comp
GD32E230	GD32E230K6T6	72	32K	6K	up to 25		4	1	1	1	2	1	2	1	1		1	1
	GD32E230K8T6	72	64K	8K	up to 25		5	1	1	1	2	1	2	2	2		1	1
	GD32E230C4T6	72	16K	4K	up to 39		4	1	1	1	2	1	1	1	1		1	1
	GD32E230C6T6	72	32K	6K	up to 39		4	1	1	1	2	1	2	1	1		1	1
	GD32E230C8T6	72	64K	8K	up to 39		5	1	1	1	2	1	2	2	2		1	1
GD32E231	GD32E231C4T6	72	16K	4K	up to 39		4	1	1	1	2	1	1	1	1		1	1
	GD32E231C6T6	72	32K	6K	up to 39		4	1	1	1	2	1	2	1	1		1	1
	GD32E231C8T6	72	64K	8K	up to 39		5	1	1	1	2	1	2	2	2		1	1
GD32E232	GD32E232E4U7	72	16K	4K	up to 23	1	4	1	2	1	2	1	2	2	1		1	
	GD32E232E6U7	72	32K	6K	up to 23	1	4	1	2	1	2	1	2	2	1		1	
	GD32E232E8U7	72	64K	8K	up to 23	1	5	1	2	1	2	1	2	2	2		1	
	GD32E232K4Q7	72	16K	4K	up to 28	1	4	1	2	1	2	1	2	2	1		1	
	GD32E232K6Q7	72	32K	6K	up to 28	1	4	1	2	1	2	1	2	2	1		1	
	GD32E232K8Q7	72	64K	8K	up to 28	1	5	1	2	1	2	1	2	2	2		1	

GD32E1 series of 32-bit ARM® Cortex®-M4F MCUs Selection Guide

Series	Part No.	Max Speed (MHz)	Memory (Bytes)		I/O	Timer							Connectivity							
			Flash	SRAM		GPTM (16bit)	Adv TM (16bit)	Bsc TM (16bit)	SysTick (24bit)	WDG	RTC	USART+UART	I ² C	SPI	CAN 2.0B	USB 2.0 FS	I ² S	SDIO	Ether-net	
GD32E103	GD32E103T8U6	120	64K	20K	up to 26	4	1	2	1	2	1	2+0	1	1	2 x FD	OTG				
	GD32E103T8U6	120	128K	32K	up to 26	4	1	2	1	2	1	2+0	1	1	2 x FD	OTG				
	GD32E103C8T6	120	64K	20K	up to 37	10	1	2	1	2	1	3+0	2	3	2 x FD	OTG	2			
	GD32E103CBT6	120	128K	32K	up to 37	10	1	2	1	2	1	3+0	2	3	2 x FD	OTG	2			
	GD32E103R8T6	120	64K	20K	up to 51	10	2	2	1	2	1	3+2	2	3	2 x FD	OTG	2			
	GD32E103RBT6	120	128K	32K	up to 51	10	2	2	1	2	1	3+2	2	3	2 x FD	OTG	2			
	GD32E103V8T6	120	64K	20K	up to 80	10	2	2	1	2	1	3+2	2	3	2 x FD	OTG	2			
	GD32E103VBT6	120	128K	32K	up to 80	10	2	2	1	2	1	3+2	2	3	2 x FD	OTG	2			

GD32F4 series of 32-bit ARM® Cortex®-M4F MCUs Selection Guide

Series	Part No.	Max Speed (MHz)	Memory (Bytes)		I/O	Timer						Connectivity											
			Flash	SRAM		GPTM (16bit)	Adv TM (16bit)	GPTM (32bit)	Bsc TM (16bit)	WDG	RTC	USART+UART	I ² C	SPI	CAN 2.0B	USB OTG	I ² S	SDIO	LCD-TFT	Camera	ETH MAC	IP	
GD32F450	GD32F450VET6	200	512K	256K	up to 82	8	2	2	2	2	1	4+4	3	5	2	FS+HS	2	1	1	1	1	1	1
	GD32F450VGT6	200	1024K	256K	up to 82	8	2	2	2	2	1	4+4	3	5	2	FS+HS	2	1	1	1	1	1	1
	GD32F450VIT6	200	2048K	512K	up to 82	8	2	2	2	2	1	4+4	3	5	2	FS+HS	2	1	1	1	1	1	1
	GD32F450VKT6	200	3072K	256K	up to 82	8	2	2	2	2	1	4+4	3	5	2	FS+HS	2	1	1	1	1	1	1
	GD32F450ZET6	200	512K	256K	up to 114	8	2	2	2	2	1	4+4	3	6	2	FS+HS	2	1	1	1	1	1	1
	GD32F450ZGT6	200	1024K	256K	up to 114	8	2	2	2	2	1	4+4	3	6	2	FS+HS	2	1	1	1	1	1	1
	GD32F450ZIT6	200	2048K	512K	up to 114	8	2	2	2	2	1	4+4	3	6	2	FS+HS	2	1	1	1	1	1	1
	GD32F450ZKT6	200	3072K	256K	up to 114	8	2	2	2	2	1	4+4	3	6	2	FS+HS	2	1	1	1	1	1	1
	GD32F450IGH6	200	1024K	256K	up to 140	8	2	2	2	2	1	4+4	3	6	2	FS+HS	2	1	1	1	1	1	1
	GD32F450IHH6	200	2048K	512K	up to 140	8	2	2	2	2	1	4+4	3	6	2	FS+HS	2	1	1	1	1	1	1
GD32F450IKH6	200	3072K	256K	up to 140	8	2	2	2	2	1	4+4	3	6	2	FS+HS	2	1	1	1	1	1	1	
GD32F405	GD32F405RET6	168	512K	192K	up to 51	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1			
	GD32F405RGT6	168	1024K	192K	up to 51	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1			
	GD32F405RKT6	168	3072K	192K	up to 51	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1			
	GD32F405VGT6	168	1024K	192K	up to 82	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1			
	GD32F405VKT6	168	3072K	192K	up to 82	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1			
	GD32F405VGH6	168	1024K	192K	up to 82	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1			
	GD32F405VKH6	168	3072K	192K	up to 82	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1			
	GD32F405ZGT6	168	1024K	192K	up to 114	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1			
	GD32F405ZKT6	168	3072K	192K	up to 114	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1			
	GD32F407RET6	168	512K	192K	up to 51	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1		
GD32F407RGT6	168	1024K	192K	up to 51	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1			
GD32F407RKT6	168	3072K	192K	up to 51	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1			
GD32F407VET6	168	512K	192K	up to 82	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1			
GD32F407VGT6	168	1024K	192K	up to 82	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1			
GD32F407VKT6	168	3072K	192K	up to 82	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1			
GD32F407VEH6	168	512K	192K	up to 82	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1			
GD32F407VGH6	168	1024K	192K	up to 82	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1			
GD32F407VKH6	168	3072K	192K	up to 82	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1			
GD32F407ZET6	168	512K	192K	up to 114	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1			
GD32F407ZGT6	168	1024K	192K	up to 114	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1			
GD32F407ZKT6	168	3072K	192K	up to 114	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1			
GD32F407IEH6	168	512K	192K	up to 140	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1			
GD32F407IGH6	168	1024K	192K	up to 140	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1			
GD32F407IKH6	168	3072K	192K	up to 140	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1			

Series	Part No.	Max Speed (MHz)	Memory (Bytes)		I/O	Timer						Connectivity										
			Flash	SRAM		GPTM (16bit)	Adv TM (16bit)	GPTM (32bit)	Bsc TM (16bit)	WDG	RTC	USART +UART	I ² C	SPI	CAN 2.0B	USB OTG	I ² S	SDIO	LCD-TFT	Camera	ETH MAC	IP
GD32F403	GD32F403RCT6	168	256K	64K	up to 51	8	2		2	2	1	3+2	2	3	2	OTG	2	1				
	GD32F403RET6	168	512K	96K	up to 51	8	2		2	2	1	3+2	2	3	2	OTG	2	1				
	GD32F403RGT6	168	1024K	128K	up to 51	8	2		2	2	1	3+2	2	3	2	OTG	2	1				
	GD32F403RIT6	168	2048K	128K	up to 51	8	2		2	2	1	3+2	2	3	2	OTG	2	1				
	GD32F403RKT6	168	3072K	128K	up to 51	8	2		2	2	1	3+2	2	3	2	OTG	2	1				
	GD32F403VCT6	168	256K	64K	up to 80	8	2		2	2	1	3+2	2	3	2	OTG	2	1				
	GD32F403VET6	168	512K	96K	up to 80	8	2		2	2	1	3+2	2	3	2	OTG	2	1				
	GD32F403VGT6	168	1024K	128K	up to 80	8	2		2	2	1	3+2	2	3	2	OTG	2	1				
	GD32F403VIT6	168	2048K	128K	up to 80	8	2		2	2	1	3+2	2	3	2	OTG	2	1				
	GD32F403VKT6	168	3072K	128K	up to 80	8	2		2	2	1	3+2	2	3	2	OTG	2	1				
	GD32F403VCH6	168	256K	64K	up to 80	8	2		2	2	1	3+2	2	3	2	OTG	2	1				
	GD32F403VEH6	168	512K	96K	up to 80	8	2		2	2	1	3+2	2	3	2	OTG	2	1				
	GD32F403VGH6	168	1024K	128K	up to 80	8	2		2	2	1	3+2	2	3	2	OTG	2	1				
	GD32F403VIH6	168	2048K	128K	up to 80	8	2		2	2	1	3+2	2	3	2	OTG	2	1				
	GD32F403VKH6	168	3072K	128K	up to 80	8	2		2	2	1	3+2	2	3	2	OTG	2	1				
	GD32F403ZCT6	168	256K	64K	up to 112	8	2		2	2	1	3+2	2	3	2	OTG	2	1				
	GD32F403ZET6	168	512K	96K	up to 112	8	2		2	2	1	3+2	2	3	2	OTG	2	1				
	GD32F403ZGT6	168	1024K	128K	up to 112	8	2		2	2	1	3+2	2	3	2	OTG	2	1				
	GD32F403ZIT6	168	2048K	128K	up to 112	8	2		2	2	1	3+2	2	3	2	OTG	2	1				
	GD32F403ZKT6	168	3072K	128K	up to 112	8	2		2	2	1	3+2	2	3	2	OTG	2	1				

GD32F3 series of 32-bit ARM® Cortex®-M4 MCUs Selection Guide

Series	Part No.	Max Speed (MHz)	Memory (Bytes)		I/O	Timer						Connectivity										
			Flash	SRAM		GPTM (16bit)	Advanced TM (16bit)	Basic TM (16bit)	SysTick (24bit)	WDG	RTC	USART +UART	I ² C	SPI	CAN 2.0B	USB 2.0 FS	I ² S	SDIO	Ether net			
GD32F303	GD32F303CCT6	120	256K	48K	up to 37	4	1	2	1	2	1	3	2	3	1	1	2					
	GD32F303CET6	120	512K	64K	up to 37	4	1	2	1	2	1	3	2	3	1	1	2					
	GD32F303CGT6	120	1024K	96K	up to 37	10	1	2	1	2	1	3	2	3	1	1	2					
	GD32F303RCT6	120	256K	48K	up to 51	4	2	2	1	2	1	5	2	3	1	1	2	1				
	GD32F303RET6	120	512K	64K	up to 51	4	2	2	1	2	1	5	2	3	1	1	2	1				
	GD32F303RGT6	120	1024K	96K	up to 51	10	2	2	1	2	1	5	2	3	1	1	2	1				
	GD32F303RIT6	120	2048K	96K	up to 51	10	2	2	1	2	1	5	2	3	1	1	2	1				
	GD32F303RKT6	120	3072K	96K	up to 51	10	2	2	1	2	1	5	2	3	1	1	2	1				
	GD32F303VCT6	120	256K	48K	up to 80	4	2	2	1	2	1	5	2	3	1	1	2	1				
	GD32F303VET6	120	512K	64K	up to 80	4	2	2	1	2	1	5	2	3	1	1	2	1				
	GD32F303VGT6	120	1024K	96K	up to 80	10	2	2	1	2	1	5	2	3	1	1	2	1				
	GD32F303VIT6	120	2048K	96K	up to 80	10	2	2	1	2	1	5	2	3	1	1	2	1				
	GD32F303VKT6	120	3072K	96K	up to 80	10	2	2	1	2	1	5	2	3	1	1	2	1				
	GD32F303ZCT6	120	256K	48K	up to 112	4	2	2	1	2	1	5	2	3	1	1	2	1				
	GD32F303ZET6	120	512K	64K	up to 112	4	2	2	1	2	1	5	2	3	1	1	2	1				
	GD32F303ZGT6	120	1024K	96K	up to 112	10	2	2	1	2	1	5	2	3	1	1	2	1				
	GD32F303ZIT6	120	2048K	96K	up to 112	10	2	2	1	2	1	5	2	3	1	1	2	1				
	GD32F303ZKT6	120	3072K	96K	up to 112	10	2	2	1	2	1	5	2	3	1	1	2	1				

GD32F3 series of 32-bit ARM® Cortex®-M4 MCUs Selection Guide

Series	Part No.	Max Speed (MHz)	Memory (Bytes)		I/O	Timer						Connectivity							
			Flash	SRAM		GPTM (16bit)	Advanced TM (16bit)	Basic TM (16bit)	SysTick (24bit)	WDG	RTC	USART +UART	I ² C	SPI	CAN 2.0B	USB 2.0 FS	I ² S	SDIO	Ether net
GD32F305	GD32F305RBT6	120	128K	64K	up to 51	4	1	2	1	2	1	5	2	3	2	OTG	2		
	GD32F305RCT6	120	256K	96K	up to 51	4	1	2	1	2	1	5	2	3	2	OTG	2		
	GD32F305RET6	120	512K	96K	up to 51	4	2	2	1	2	1	5	2	3	2	OTG	2		
	GD32F305RGT6	120	1024K	96K	up to 51	10	2	2	1	2	1	5	2	3	2	OTG	2		
	GD32F305VCT6	120	256K	96K	up to 80	4	1	2	1	2	1	5	2	3	2	OTG	2		
	GD32F305VET6	120	512K	96K	up to 80	4	2	2	1	2	1	5	2	3	2	OTG	2		
	GD32F305VGT6	120	1024K	96K	up to 80	10	2	2	1	2	1	5	2	3	2	OTG	2		
	GD32F305ZCT6	120	256K	96K	up to 112	4	2	2	1	2	1	5	2	3	2	OTG	2		
GD32F307	GD32F307RET6	120	512K	96K	up to 112	4	2	2	1	2	1	5	2	3	2	OTG	2		
	GD32F307ZET6	120	512K	96K	up to 112	4	2	2	1	2	1	5	2	3	2	OTG	2		
	GD32F307ZGT6	120	1024K	96K	up to 112	10	2	2	1	2	1	5	2	3	2	OTG	2		
	GD32F307RCT6	120	256K	96K	up to 51	4	1	2	1	2	1	5	2	3	2	OTG	2		•
	GD32F307RET6	120	512K	96K	up to 51	4	2	2	1	2	1	5	2	3	2	OTG	2		•
	GD32F307RGT6	120	1024K	96K	up to 51	10	2	2	1	2	1	5	2	3	2	OTG	2		•
	GD32F307VCT6	120	256K	96K	up to 80	4	1	2	1	2	1	5	2	3	2	OTG	2		•
	GD32F307VET6	120	512K	96K	up to 80	4	2	2	1	2	1	5	2	3	2	OTG	2		•
	GD32F307VGT6	120	1024K	96K	up to 80	10	2	2	1	2	1	5	2	3	2	OTG	2		•
	GD32F307ZCT6	120	256K	96K	up to 112	4	2	2	1	2	1	5	2	3	2	OTG	2		•
GD32F307ZET6	120	512K	96K	up to 112	4	2	2	1	2	1	5	2	3	2	OTG	2		•	
GD32F307ZGT6	120	1024K	96K	up to 112	10	2	2	1	2	1	5	2	3	2	OTG	2		•	

Series	Part No.	Max Speed (MHz)	Memory (Bytes)		I/O	Timer						Connectivity						
			Flash	SRAM		GPTM (32bit)	GPTM (16bit)	Advanced TM (16bit)	Basic TM (16bit)	SysTick (24bit)	WDG	RTC	USART	I ² C	SPI	USB 2.0 FS	I ² S	CEC
GD32F330	GD32F330F4P6	84	16K	4K	up to 15	1	4	1			1	2	1	1	1	1		
	GD32F330F6P6	84	32K	4K	up to 15	1	4	1			1	2	1	2	1	1		
	GD32F330F8P6	84	64K	8K	up to 15	1	4	1			1	2	1	2	2	2		
	GD32F330G4U6	84	16K	4K	up to 23	1	4	1			1	2	1	1	1	1		
	GD32F330G6U6	84	32K	4K	up to 23	1	4	1			1	2	1	2	1	1		
	GD32F330G8U6	84	64K	8K	up to 23	1	5	1			1	2	1	2	2	2		
	GD32F330K4U6	84	16K	4K	up to 27	1	4	1			1	2	1	1	1	1		
	GD32F330K6U6	84	32K	4K	up to 27	1	4	1			1	2	1	2	1	1		
	GD32F330K8U6	84	64K	8K	up to 27	1	5	1			1	2	1	2	2	2		
	GD32F330C4T6	84	16K	4K	up to 39	1	4	1			1	2	1	1	1	1		
	GD32F330C6T6	84	32K	4K	up to 39	1	4	1			1	2	1	2	1	1		
	GD32F330C8T6	84	64K	8K	up to 39	1	5	1			1	2	1	2	2	2		
	GD32F330CBT6	84	128K	16K	up to 39	1	5	1			1	2	1	2	2	2		
	GD32F330R8T6	84	64K	16K	up to 55	1	5	1			1	2	1	2	2	2		
	GD32F330RBT6	84	128K	16K	up to 55	1	5	1			1	2	1	2	2	2		

Series	Part No.	Max Speed (MHz)	Memory (Bytes)		I/O	Timer							Connectivity									
			Flash	SRAM		GPTM (32bit)	GPTM (16bit)	Advanced TM (16bit)	Basic TM (16bit)	SysTick (24bit)	WDG	RTC	USART	I ² C	SPI	USB 2.0 FS	I ² S	CEC				
GD32F350	GD32F350G4U6	108	16K	4K	up to 24	1	5	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1
	GD32F350G6U6	108	32K	6K	up to 24	1	5	1	1	1	2	1	2	1	1	1	1	1	1	1	1	1
	GD32F350G8U6	108	64K	8K	up to 24	1	5	1	1	1	2	1	2	1	2	2	2	2	2	2	2	2
	GD32F350K4U6	108	16K	4K	up to 27	1	5	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1
	GD32F350K6U6	108	32K	6K	up to 27	1	5	1	1	1	2	1	2	1	2	1	1	1	1	1	1	1
	GD32F350K8U6	108	64K	8K	up to 27	1	5	1	1	1	2	1	2	1	2	2	2	2	2	2	2	2
	GD32F350C4T6	108	16K	4K	up to 39	1	5	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1
	GD32F350C6T6	108	32K	6K	up to 39	1	5	1	1	1	2	1	2	1	2	1	1	1	1	1	1	1
	GD32F350C8T6	108	64K	8K	up to 39	1	5	1	1	1	2	1	2	1	2	2	2	2	2	2	2	2
	GD32F350CBT6	108	128K	16K	up to 39	1	5	1	1	1	2	1	2	1	2	2	2	2	2	2	2	2
	GD32F350R4T6	108	16K	4K	up to 55	1	5	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1
	GD32F350R6T6	108	32K	8K	up to 55	1	5	1	1	1	2	1	2	1	2	1	1	1	1	1	1	1
	GD32F350R8T6	108	64K	16K	up to 55	1	5	1	1	1	2	1	2	1	2	2	2	2	2	2	2	2
GD32F350RBT6	108	128K	16K	up to 55	1	5	1	1	1	2	1	2	1	2	2	2	2	2	2	2	2	

GD32F2 series of 32-bit ARM® Cortex®-M3 MCUs Selection Guide

Series	Part No.	Max Speed (MHz)	Memory (Bytes)		I/O	Timer							Connectivity											
			Flash	SRAM		GPTM (16bit)	Adv TM (16bit)	Bsc TM (16bit)	SysTick (24bit)	WDG	RTC	USART+UART	I ² C	SPI	CAN 2.0B	USB 2.0 FS	I ² S	SDIO	LCD-TFT	Cam era	ETH MAC	Crypt Hash		
GD32F205	GD32F205RCT6	120	256K	128K	up to 51	10	2	2	1	2	1	4+2	3	3	2	OTG	2	1						
	GD32F205RET6	120	512K	128K	up to 51	10	2	2	1	2	1	4+2	3	3	2	OTG	2	1						
	GD32F205RGT6	120	1024K	256K	up to 51	10	2	2	1	2	1	4+2	3	3	2	OTG	2	1						
	GD32F205RKT6	120	3072K	256K	up to 51	10	2	2	1	2	1	4+2	3	3	2	OTG	2	1						
	GD32F205VCT6	120	256K	128K	up to 82	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1					
	GD32F205VET6	120	512K	128K	up to 82	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1					
	GD32F205VGT6	120	1024K	256K	up to 82	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1					
	GD32F205VKT6	120	3072K	256K	up to 82	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1					
	GD32F205ZCT6	120	256K	128K	up to 114	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1					
	GD32F205ZET6	120	512K	128K	up to 114	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1					
	GD32F205ZGT6	120	1024K	256K	up to 114	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1					
	GD32F205ZKT6	120	3072K	256K	up to 114	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1					
	GD32F207	GD32F207RCT6	120	256K	128K	up to 51	10	2	2	1	2	1	4+2	3	3	2	OTG	2	1			1	1	1
GD32F207RET6		120	512K	128K	up to 51	10	2	2	1	2	1	4+2	3	3	2	OTG	2	1			1	1	1	1
GD32F207RGT6		120	1024K	256K	up to 51	10	2	2	1	2	1	4+2	3	3	2	OTG	2	1			1	1	1	1
GD32F207RKT6		120	3072K	256K	up to 51	10	2	2	1	2	1	4+2	3	3	2	OTG	2	1			1	1	1	1
GD32F207VCT6		120	256K	128K	up to 82	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1	1	1	1	1	1
GD32F207VET6		120	512K	128K	up to 82	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1	1	1	1	1	1
GD32F207VGT6		120	1024K	256K	up to 82	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1	1	1	1	1	1
GD32F207VKT6		120	3072K	256K	up to 82	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1	1	1	1	1	1
GD32F207ZCT6		120	256K	128K	up to 114	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1	1	1	1	1	1
GD32F207ZET6		120	512K	128K	up to 114	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1	1	1	1	1	1
GD32F207ZGT6		120	1024K	256K	up to 114	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1	1	1	1	1	1
GD32F207ZKT6		120	3072K	256K	up to 114	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1	1	1	1	1	1
GD32F207IET6		120	512K	128K	up to 140	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1	1	1	1	1	1
GD32F207IGT6	120	1024K	256K	up to 140	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1	1	1	1	1	1	
GD32F207IKT6	120	3072K	256K	up to 140	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1	1	1	1	1	1	

GD32F1 series of 32-bit ARM® Cortex®-M3 MCUs Selection Guide

Series	Part No.	Max Speed (MHz)	Memory (Bytes)		I/O	Timer							Connectivity						
			Flash	SRAM		GPTM (32bit)	GPTM (16bit)	Advanced TM (16bit)	Basic TM (16bit)	SysTick (24bit)	WDG	RTC	USART	I ² C	SPI	USB 2.0 FS	I ² S		
GD32F130	GD32F130F4P6	48	16K	4K	up to 15	1	4	1			1	2	1	1	1	1			
	GD32F130F6P6	48	32K	4K	up to 15	1	4	1			1	2	1	2	1	1			
	GD32F130F8P6	48	64K	8K	up to 15	1	4	1			1	2	1	2	2	2			
	GD32F130G4U6	48	16K	4K	up to 23	1	4	1			1	2	1	1	1	1			
	GD32F130G6U6	48	32K	4K	up to 23	1	4	1			1	2	1	2	1	1			
	GD32F130G8U6	48	64K	8K	up to 23	1	5	1			1	2	1	2	2	2			
	GD32F130K4T6	48	16K	4K	up to 27	1	4	1			1	2	1	1	1	1			
	GD32F130K6T6	48	32K	4K	up to 27	1	4	1			1	2	1	2	1	1			
	GD32F130K8T6	48	64K	8K	up to 27	1	5	1			1	2	1	2	2	2			
	GD32F130K4U6	48	16K	4K	up to 27	1	4	1			1	2	1	1	1	1			
	GD32F130K6U6	48	32K	4K	up to 27	1	4	1			1	2	1	2	1	1			
	GD32F130K8U6	48	64K	8K	up to 27	1	5	1			1	2	1	2	2	2			
	GD32F130C4T6	48	16K	4K	up to 39	1	4	1			1	2	1	1	1	1			
	GD32F130C6T6	48	32K	4K	up to 39	1	4	1			1	2	1	2	1	1			
	GD32F130C8T6	48	64K	8K	up to 39	1	5	1			1	2	1	2	2	2			
GD32F150	GD32F150R8T6	48	64K	8K	up to 55	1	5	1			1	2	1	2	2	2			
	GD32F150G4U6	72	16K	4K	up to 24	1	5	1	1	1	2	1	1	1	1	1	1	1	
	GD32F150G6U6	72	32K	6K	up to 24	1	5	1	1	1	2	1	2	1	1	1	1	1	
	GD32F150G8U6	72	64K	8K	up to 24	1	5	1	1	1	2	1	2	2	2	2	1	1	
	GD32F150K4U6	72	16K	4K	up to 27	1	5	1	1	1	2	1	1	1	1	1	1	1	
	GD32F150K6U6	72	32K	6K	up to 27	1	5	1	1	1	2	1	2	1	1	1	1	1	
	GD32F150K8U6	72	64K	8K	up to 27	1	5	1	1	1	2	1	2	2	2	2	1	1	
	GD32F150C4T6	72	16K	4K	up to 39	1	5	1	1	1	2	1	1	1	1	1	1	1	
	GD32F150C6T6	72	32K	6K	up to 39	1	5	1	1	1	2	1	2	1	1	1	1	1	
	GD32F150C8T6	72	64K	8K	up to 39	1	5	1	1	1	2	1	2	2	2	2	1	1	
	GD32F150R4T6	72	16K	4K	up to 55	1	5	1	1	1	2	1	1	1	1	1	1	1	
	GD32F150R6T6	72	32K	6K	up to 55	1	5	1	1	1	2	1	2	1	1	1	1	1	
	GD32F150R8T6	72	64K	8K	up to 55	1	5	1	1	1	2	1	2	2	2	2	1	1	

Series	Part No.	Max Speed (MHz)	Memory (Bytes)		I/O	Timer							Connectivity						
			Flash	SRAM		GPTM (32bit)	GPTM (16bit)	Advanced TM (16bit)	Basic TM (16bit)	SysTick (24bit)	WDG	RTC	USART	I ² C	SPI	CAN 2.0B	I ² S	LCD	OP amp
GD32F170	GD32F170T4U6	48	16K	4K	up to 28	1	4	1			1	2	1	1	1	1	2		
	GD32F170T6U6	48	32K	4K	up to 28	1	4	1			1	2	1	2	1	2			
	GD32F170T8U6	48	64K	8K	up to 28	1	5	1			1	2	1	2	3	3	2		
	GD32F170C4T6	48	16K	4K	up to 39	1	4	1			1	2	1	1	1	1	2		
	GD32F170C6T6	48	32K	4K	up to 39	1	4	1			1	2	1	2	1	1	2		
	GD32F170C8T6	48	64K	8K	up to 39	1	5	1			1	2	1	2	3	3	2		
	GD32F170R8T6	48	64K	8K	up to 55	1	5	1			1	2	1	2	3	3	2		
GD32F190	GD32F190T4U6	72	16K	4K	up to 28	1	5	1	1	1	2	1	1	1	1	2	1		2
	GD32F190T6U6	72	32K	6K	up to 28	1	5	1	1	1	2	1	2	1	1	2	1		2
	GD32F190T8U6	72	64K	8K	up to 28	1	5	1	1	1	2	1	2	3	3	2	2		2
	GD32F190C4T6	72	16K	4K	up to 39	1	5	1	1	1	2	1	1	1	1	2	1	4x18	2
	GD32F190C6T6	72	32K	6K	up to 39	1	5	1	1	1	2	1	2	1	1	2	1	4x18	2
	GD32F190C8T6	72	64K	8K	up to 39	1	5	1	1	1	2	1	2	3	3	2	2	4x18	2
	GD32F190R4T6	72	16K	4K	up to 55	1	5	1	1	1	2	1	1	1	1	2	1	8x32	3
	GD32F190R6T6	72	32K	6K	up to 55	1	5	1	1	1	2	1	2	1	1	2	1	8x32	3
	GD32F190R8T6	72	64K	8K	up to 55	1	5	1	1	1	2	1	2	3	3	2	2	8x32	3

GD32F1 series of 32-bit ARM® Cortex®-M3 MCUs Selection Guide

Series	Part No.	Max Speed (MHz)	Memory (Bytes)		I/O	Timer						Connectivity							
			Flash	SRAM		GPTM (16bit)	Advanced TM (16bit)	Basic TM (16bit)	SysTick (24bit)	WDG	RTC	USART (UART)	I ² C	SPI	CAN 2.0B	USB 2.0 FS	I ² S	SDIO	Ether net
GD32F103	GD32F103T4U6	108	16K	6K	up to 26	2	1		1	2	1	2	1	1	1	1			
	GD32F103T6U6	108	32K	10K	up to 26	2	1		1	2	1	2	1	1	1	1			
	GD32F103T8U6	108	64K	20K	up to 26	3	1		1	2	1	2	1	1	1	1			
	GD32F103TBU6	108	128K	20K	up to 26	3	1		1	2	1	2	1	1	1	1			
	GD32F103C4T6	108	16K	6K	up to 37	2	1		1	2	1	2	1	1	1	1			
	GD32F103C6T6	108	32K	10K	up to 37	2	1		1	2	1	2	1	1	1	1			
	GD32F103C8T6	108	64K	20K	up to 37	3	1		1	2	1	3	2	2	1	1			
	GD32F103CBT6	108	128K	20K	up to 37	3	1		1	2	1	3	2	2	1	1			
	GD32F103R4T6	108	16K	6K	up to 51	2	1		1	2	1	2	1	1	1	1			
	GD32F103R6T6	108	32K	10K	up to 51	2	1		1	2	1	2	1	1	1	1			
	GD32F103R8T6	108	64K	20K	up to 51	3	1		1	2	1	3	2	2	1	1			
	GD32F103RBT6	108	128K	20K	up to 51	3	1		1	2	1	3	2	2	1	1			
	GD32F103RCT6	108	256K	48K	up to 51	4	2	2	1	2	1	5	2	3	1	1	2	1	
	GD32F103RDT6	108	384K	64K	up to 51	4	2	2	1	2	1	5	2	3	1	1	2	1	
	GD32F103RET6	108	512K	64K	up to 51	4	2	2	1	2	1	5	2	3	1	1	2	1	
	GD32F103RFT6	108	768K	96K	up to 51	10	2	2	1	2	1	5	2	3	1	1	2	1	
	GD32F103RGT6	108	1024K	96K	up to 51	10	2	2	1	2	1	5	2	3	1	1	2	1	
	GD32F103RIT6	108	2048K	96K	up to 51	10	2	2	1	2	1	5	2	3	1	1	2	1	
	GD32F103RKT6	108	3072K	96K	up to 51	10	2	2	1	2	1	5	2	3	1	1	2	1	
	GD32F103V8T6	108	64K	20K	up to 80	3	1		1	2	1	3	2	2	1	1			
	GD32F103VBT6	108	128K	20K	up to 80	3	1		1	2	1	3	2	2	1	1			
	GD32F103VCT6	108	256K	48K	up to 80	4	2	2	1	2	1	5	2	3	1	1	2	1	
	GD32F103VDT6	108	384K	64K	up to 80	4	2	2	1	2	1	5	2	3	1	1	2	1	
	GD32F103VET6	108	512K	64K	up to 80	4	2	2	1	2	1	5	2	3	1	1	2	1	
	GD32F103VFT6	108	768K	96K	up to 80	10	2	2	1	2	1	5	2	3	1	1	2	1	
	GD32F103VGT6	108	1024K	96K	up to 80	10	2	2	1	2	1	5	2	3	1	1	2	1	
	GD32F103VIT6	108	2048K	96K	up to 80	10	2	2	1	2	1	5	2	3	1	1	2	1	
	GD32F103VKT6	108	3072K	96K	up to 80	10	2	2	1	2	1	5	2	3	1	1	2	1	
	GD32F103ZCT6	108	256K	48K	up to 112	4	2	2	1	2	1	5	2	3	1	1	2	1	
	GD32F103ZDT6	108	384K	64K	up to 112	4	2	2	1	2	1	5	2	3	1	1	2	1	
	GD32F103ZET6	108	512K	64K	up to 112	4	2	2	1	2	1	5	2	3	1	1	2	1	
	GD32F103ZFT6	108	768K	96K	up to 112	10	2	2	1	2	1	5	2	3	1	1	2	1	
	GD32F103ZGT6	108	1024K	96K	up to 112	10	2	2	1	2	1	5	2	3	1	1	2	1	
GD32F103ZIT6	108	2048K	96K	up to 112	10	2	2	1	2	1	5	2	3	1	1	2	1		
GD32F103ZKT6	108	3072K	96K	up to 112	10	2	2	1	2	1	5	2	3	1	1	2	1		

GD32F1 series of 32-bit ARM® Cortex®-M3 MCUs Selection Guide

Series	Part No.	Max Speed (MHz)	Memory (Bytes)		I/O	Timer						Connectivity							
			Flash	SRAM		GPTM (16bit)	Advanced TM (16bit)	Basic TM (16bit)	SysTick (24bit)	WDG	RTC	USART (UART)	I ² C	SPI	CAN 2.0B	USB 2.0 FS	I ² S	SDIO	Ether net
GD32F105	GD32F105R8T6	108	64K	64K	up to 51	4	1	2	1	2	1	5	2	3	2	OTG	2		
	GD32F105RBT6	108	128K	64K	up to 51	4	1	2	1	2	1	5	2	3	2	OTG	2		
	GD32F105RCT6	108	256K	96K	up to 51	4	1	2	1	2	1	5	2	3	2	OTG	2		
	GD32F105RDT6	108	384K	96K	up to 51	4	2	2	1	2	1	5	2	3	2	OTG	2		
	GD32F105RET6	108	512K	96K	up to 51	4	2	2	1	2	1	5	2	3	2	OTG	2		
	GD32F105RFT6	108	768K	96K	up to 51	10	2	2	1	2	1	5	2	3	2	OTG	2		
	GD32F105RGT6	108	1024K	96K	up to 51	10	2	2	1	2	1	5	2	3	2	OTG	2		
	GD32F105V8T6	108	64K	64K	up to 80	4	1	2	1	2	1	5	2	3	2	OTG	2		
	GD32F105VBT6	108	128K	64K	up to 80	4	1	2	1	2	1	5	2	3	2	OTG	2		
	GD32F105VCT6	108	256K	96K	up to 80	4	1	2	1	2	1	5	2	3	2	OTG	2		
	GD32F105VDT6	108	384K	96K	up to 80	4	2	2	1	2	1	5	2	3	2	OTG	2		
	GD32F105VET6	108	512K	96K	up to 80	4	2	2	1	2	1	5	2	3	2	OTG	2		
	GD32F105VFT6	108	768K	96K	up to 80	10	2	2	1	2	1	5	2	3	2	OTG	2		
	GD32F105VGT6	108	1024K	96K	up to 80	10	2	2	1	2	1	5	2	3	2	OTG	2		
	GD32F105ZCT6	108	256K	96K	up to 112	4	2	2	1	2	1	5	2	3	2	OTG	2		
	GD32F105ZDT6	108	384K	96K	up to 112	4	2	2	1	2	1	5	2	3	2	OTG	2		
GD32F105ZET6	108	512K	96K	up to 112	4	2	2	1	2	1	5	2	3	2	OTG	2			
GD32F105ZFT6	108	768K	96K	up to 112	10	2	2	1	2	1	5	2	3	2	OTG	2			
GD32F105ZGT6	108	1024K	96K	up to 112	10	2	2	1	2	1	5	2	3	2	OTG	2			
GD32F107	GD32F107RBT6	108	128K	96K	up to 51	4	1	2	1	2	1	5	1	3	2	OTG	2		•
	GD32F107RCT6	108	256K	96K	up to 51	4	1	2	1	2	1	5	1	3	2	OTG	2		•
	GD32F107RDT6	108	384K	96K	up to 51	4	2	2	1	2	1	5	2	3	2	OTG	2		•
	GD32F107RET6	108	512K	96K	up to 51	4	2	2	1	2	1	5	2	3	2	OTG	2		•
	GD32F107RFT6	108	768K	96K	up to 51	10	2	2	1	2	1	5	2	3	2	OTG	2		•
	GD32F107RGT6	108	1024K	96K	up to 51	10	2	2	1	2	1	5	2	3	2	OTG	2		•
	GD32F107VBT6	108	128K	96K	up to 80	4	1	2	1	2	1	5	1	3	2	OTG	2		•
	GD32F107VCT6	108	256K	96K	up to 80	4	1	2	1	2	1	5	1	3	2	OTG	2		•
	GD32F107VDT6	108	384K	96K	up to 80	4	2	2	1	2	1	5	2	3	2	OTG	2		•
	GD32F107VET6	108	512K	96K	up to 80	4	2	2	1	2	1	5	2	3	2	OTG	2		•
	GD32F107VFT6	108	768K	96K	up to 80	10	2	2	1	2	1	5	2	3	2	OTG	2		•
	GD32F107VGT6	108	1024K	96K	up to 80	10	2	2	1	2	1	5	2	3	2	OTG	2		•
	GD32F107ZCT6	108	256K	96K	up to 112	4	2	2	1	2	1	5	2	3	2	OTG	2		•
	GD32F107ZDT6	108	384K	96K	up to 112	4	2	2	1	2	1	5	2	3	2	OTG	2		•
	GD32F107ZET6	108	512K	96K	up to 112	4	2	2	1	2	1	5	2	3	2	OTG	2		•
	GD32F107ZFT6	108	768K	96K	up to 112	10	2	2	1	2	1	5	2	3	2	OTG	2		•
GD32F107ZGT6	108	1024K	96K	up to 112	10	2	2	1	2	1	5	2	3	2	OTG	2		•	

SPI NOR Flash

GD SPI NOR Flash Features



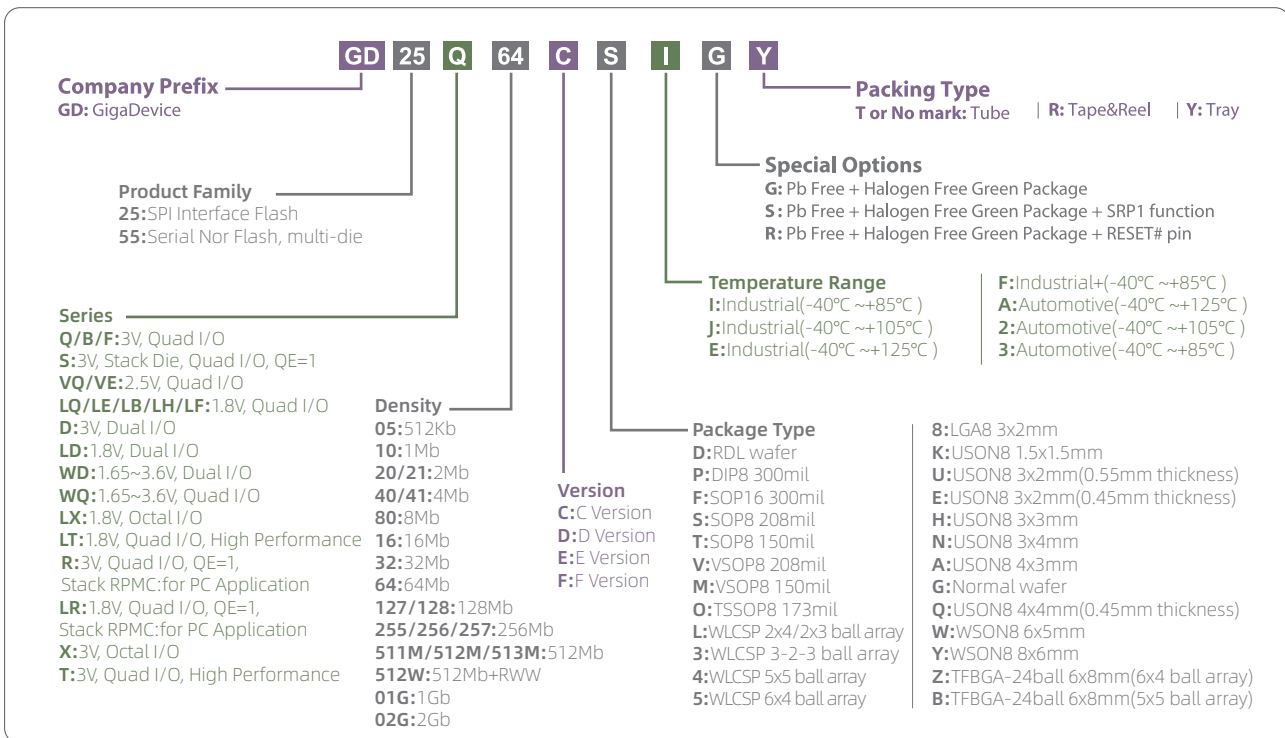
- ◆ **Single Power Supply Voltage**
 - Voltage range: 2.7V~3.6V
- ◆ **High Speed Clock Frequency**
 - Maximum 166MHz for fast read with 30pF load*
 - Dual I/O Data transfer up to 332Mbits/s
 - Quad I/O Data transfer up to 664Mbits/s
 - Continuous Read With 8/16/32/64-Byte Wrap
- ◆ **Flexible Memory Architecture**
 - Sector Size: 4K Bytes
 - Block Size: 32/64K Bytes

- ◆ **Single Power Supply Voltage**
 - Voltage range: 2.3V~3.6V
- ◆ **High Speed Clock Frequency**
 - Maximum 104MHz for fast read with 30pF load*
 - Dual I/O Data transfer up to 208Mbits/s
 - Quad I/O Data transfer up to 416Mbits/s
 - Continuous Read With 8/16/32/64-Byte Wrap
- ◆ **Flexible Memory Architecture**
 - Sector Size: 4K Bytes
 - Block Size: 32/64K Bytes

- ◆ **Single Power Supply Voltage**
 - Voltage range: 1.65V~2.0V
- ◆ **High Speed Clock Frequency**
 - Maximum 166MHz for fast read with 30pF load*
 - Dual I/O Data transfer up to 332Mbits/s
 - Quad I/O Data transfer up to 664Mbits/s
 - QPI Data transfer up to 664Mbits/s
 - Continuous Read With 8/16/32/64-Byte Wrap
- ◆ **Flexible Memory Architecture**
 - Sector Size: 4K Bytes
 - Block Size: 32/64K Bytes

* This feature is available on most of devices. Please refer to page 16-19.

GD SPI NOR Flash Part Number Definition



GD SPI NOR Flash Product List

Part No.	Density	Voltage	Oragnization	I/O Bus	Frequency (MHz)
GD55B02GE	2Gb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Quad	166MHz(x1, x4) 90MHz(DTR)
GD55T02GE	2Gb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Quad	166MHz(x1, x4) 166MHz(DTR)
GD55X02GE	2Gb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Octal	166MHz(x1, x8) 166MHz(DTR)
GD55B01GE	1Gb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Quad	166MHz(x1, x4) 90MHz(DTR)
GD55T01GE	1Gb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Quad	166MHz(x1, x4) 166MHz(DTR)
GD55X01GE	1Gb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Octal	166MHz(x1, x8) 166MHz(DTR)
GD25S512MD	512Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25S513MD	512Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4) 80MHz(DTR)
GD55B512ME	512Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD55F512MF	512Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	166MHz(x1, x2, x4) 104MHz(DTR)
GD25B512ME	512Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Quad	166MHz(x1, x4) 104MHz(DTR)
GD25T512ME	512Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Quad	166MHz(x1, x4) 166MHz(DTR)
GD25X512ME	512Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Octal	166MHz(x1, x8) 166MHz(DTR)
GD25B256D	256Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25B257D	256Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4) 80MHz(DTR)
GD25Q256D	256Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25Q257D	256Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4) 80MHz(DTR)
GD25R256D	256Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25Q256E	256Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25B256E	256Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25F256F	256Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	166MHz(x1, x2, x4) 104MHz(DTR)
GD25B127D	128Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25Q127C	128Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25R127D	128Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25B128E	128Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25F128E	128Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4) 104MHz(DTR)
GD25Q128E	128Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25B64C	64Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)
GD25Q64C	64Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)
GD25R64C	64Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)
GD25B64E	64Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25Q64E	64Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25B32C	32Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)
GD25Q32C	32Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)
GD25Q32E	32Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25B32E	32Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25B16C	16Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)
GD25Q16C	16Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)
GD25B16E	16Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25Q16E	16Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25Q80C	8Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)
GD25Q80E	8Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25D80C	8Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual Output	100MHz(x1) 80MHz(x2)
GD25B40C	4Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)
GD25Q40C	4Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)
GD25D40C	4Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual Output	100MHz(x1) 80MHz(x2)
GD25Q20C	2Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)
GD25D20C	2Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual Output	100MHz(x1) 80MHz(x2)
GD25D10C	1Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual Output	100MHz(x1) 80MHz(x2)
GD25D05C	512Kb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual Output	100MHz(x1) 80MHz(x2)
GD25VQ127C	128Mb	2.3V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25VE64C	64Mb	2.1V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25VQ64C	64Mb	2.3V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25VE32C	32Mb	2.1V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25VQ32C	32Mb	2.3V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)

Part No.	Density	Voltage	Organization	I/O Bus	Frequency (MHz)
GD25VE16C	16Mb	2.1V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25VQ16C	16Mb	2.3V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25VQ80C	8Mb	2.3V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25VE40C	4Mb	2.1V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25VQ40C	4Mb	2.3V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25VE20C	2Mb	2.1V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25VQ20C	2Mb	2.3V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD55LB02GE	2Gb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Quad	166MHz(x1, x4) 90MHz(DTR)
GD55LT02GE	2Gb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Quad	166MHz(x1, x4) 200MHz(DTR)
GD55LX02GE	2Gb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Octal	166MHz(x1, x8) 200MHz(DTR)
GD55LB01GE	1Gb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Quad	166MHz(x1, x4) 90MHz(DTR)
GD55LT01GE	1Gb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Quad	166MHz(x1, x4) 200MHz(DTR)
GD55LX01GE	1Gb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Octal	166MHz(x1, x8) 200MHz(DTR)
GD55LF511ME	512Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	166MHz(x1, x2, x4) 104MHz(DTR)
GD55LQ511ME	512Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD55LE511ME	512Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4) 66MHz(DTR)
GD25LB512ME	512Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Quad	166MHz(x1, x4) 104MHz(DTR)
GD25LX512ME	512Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Octal	166MHz(x1, x8) 200MHz(DTR)
GD55LT512WE	512Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Quad	166MHz(x1, x4) 166MHz(DTR)
GD55LX512WE	512Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Octal	166MHz(x1, x8) 166MHz(DTR)
GD25LE255E	256Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4) 66MHz(DTR)
GD25LF255E	256Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	166MHz(x1, x2, x4) 104MHz(DTR)
GD25LQ255E	256Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25LB256D	256Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)
GD25LE256D	256Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)
GD25LQ256D	256Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)
GD25LB256E	256Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Quad	166MHz(x1, x4) 104MHz(DTR)
GD25LR256E	256Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Quad	104MHz(x1, x4) 60MHz(DTR)
GD25LT256E	256Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Quad	166MHz(x1, x4) 200MHz(DTR)
GD25LX256E	256Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Octal	166MHz(x1, x8) 200MHz(DTR)
GD25LT512ME	256Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Quad	166MHz(x1, x4) 200MHz(DTR)
GD25LE128E	128Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4) 66MHz(DTR)
GD25LQ128E	128Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25LB128E	128Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25LF128E	128Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	166MHz(x1, x2, x4) 104MHz(DTR)
GD25LB128D	128Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)
GD25LE128D	128Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)
GD25LQ128D	128Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)
GD25LR128D	128Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)
GD25LF64E	64Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	166MHz(x1, x2, x4) 104MHz(DTR)
GD25LE64E	64Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4) 66MHz(DTR)
GD25LQ64E	64Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25LB64E	64Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25LR64E	64Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25LB64C	64Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)
GD25LE64C	64Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)
GD25LQ64C	64Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)
GD25LF32E	32Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	166MHz(x1, x2, x4) 104MHz(DTR)
GD25LE32E	32Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4) 66MHz(DTR)
GD25LQ32E	32Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25LH32E	32Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25LB32E	32Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25LB32D	32Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)
GD25LE32D	32Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)
GD25LH32D	32Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)
GD25LQ32D	32Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)
GD25LF16E	16Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	166MHz(x1, x2, x4) 104MHz(DTR)

Part No.	Density	Voltage	Organization	I/O Bus	Frequency (MHz)
GD25LE16E	16Mb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4) 66MHz(DTR)
GD25LQ16E	16Mb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25LH16E	16Mb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25LB16E	16Mb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25LB16C	16Mb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25LE16C	16Mb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25LH16C	16Mb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25LQ16C	16Mb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25LF80E	8Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual / Quad	166MHz(x1, x2, x4) 104MHz(DTR)
GD25LE80E	8Mb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4) 66MHz(DTR)
GD25LQ80E	8Mb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25LH80E	8Mb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25LD80C	8Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual Output	50MHz(x1) 40MHz(x2)
GD25LE80C	8Mb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25LH80C	8Mb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25LQ80C	8Mb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25LQ40E	4Mb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25LD40C	4Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual Output	50MHz(x1) 40MHz(x2)
GD25LE40C	4Mb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25LH40C	4Mb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25LQ40C	4Mb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25LQ20E	2Mb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)
GD25LD20C	2Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual Output	50MHz(x1) 40MHz(x2)
GD25LE20C	2Mb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25LH20C	2Mb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25LQ20C	2Mb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25LD10C	1Mb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual Output	50MHz(x1) 40MHz(x2)
GD25LE10C	1Mb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25LH10C	1Mb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25LQ10C	1Mb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25LD05C	512Kb	1.65V-2.0V	4KB / 32KB / 64KB	Single / Dual Output	50MHz(x1) 40MHz(x2)
GD25LE05C	512Kb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25LH05C	512Kb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25LQ05C	512Kb	1.65V-2.1V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25WQ256E	256Mb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25WQ128E	128Mb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25WQ64E	64Mb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25WQ32E	32Mb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25WQ16E	16Mb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25WQ80E	8Mb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)
GD25WD80C	8Mb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual Output	100MHz(x1) 80MHz(x2)
GD25WD40C	4Mb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual Output	100MHz(x1) 80MHz(x2)
GD25WD20C	2Mb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual Output	100MHz(x1) 80MHz(x2)
GD25WD10C	1Mb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual Output	100MHz(x1) 80MHz(x2)
GD25WD05C	512Kb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual Output	100MHz(x1) 80MHz(x2)

Product Series

3V

Q: Quad I/O, General
 B: Quad I/O, QE=1
 F: Quad I/O, DTR, QE=1
 X: Octal I/O
 D: Dual Output
 R: Quad I/O, QE=1, Stack RPMC
 S: Quad I/O, Stack Die, QE=1
 T: Quad I/O, High Performance

2.5V

VQ: Quad I/O, General
 VE: Quad I/O, Low Power

1.8V

LT: Quad I/O, High Performance
 LR: Quad I/O, QE=1, Stack RPMC
 LX: Octal I/O
 LQ: Quad I/O, General
 LB: Quad I/O, QE=1
 LF: Quad I/O, DTR, QE=1

SPI NAND Flash



GD SPI NAND Flash Features



- ◆ **Power Supply Voltage:** 2.7V~3.6V
- ◆ **High Speed Clock Frequency:**
 - Up to 120MHz for fast read with 30pF load
 - Quad I/O Data transfer up to 480Mbit/s
- ◆ **Flexible Memory Architecture:**
 - 2048Byte page for read and program
 - 128KByte per block for erase
- ◆ **Enhanced Access Performance:**
 - 2KByte cache for fast random read
 - Cache Read and Cache Program
- ◆ **Advanced Feature for SPI NAND:**
 - Internal ECC algorithm
 - Internal data move by page with ECC
 - Promised good block-0 with ECC

- ◆ **Power Supply Voltage:** 1.7V~2.0V
- ◆ **High Speed Clock Frequency:**
 - Up to 120MHz for fast read with 30pF load
 - Quad I/O Data transfer up to 480Mbit/s
- ◆ **Flexible Memory Architecture:**
 - 2048Byte page for read and program
 - 128KByte per block for erase
- ◆ **Enhanced Access Performance:**
 - 2KByte cache for fast random read
 - Cache Read and Cache Program
- ◆ **Advanced Feature for SPI NAND:**
 - Internal ECC algorithm
 - Internal data move by page with ECC
 - Promised good block-0 with ECC

Parallel NAND Flash

GD Parallel NAND Flash Features



- ◆ Power Supply: 2.7V ~ 3.6V
- ◆ Density: 1Gb / 2Gb / 4G / 8G / 16G
- ◆ Page Size: 2048Byte + 128Byte / 2048Byte + 64Byte
- ◆ Flash Array to Register Time: 25us
- ◆ IO Read Performance: 20ns / 25ns
- ◆ Bus Width: x8 or x16 options
- ◆ Temperature Range: -40° C to 85° C / -40° C to 105° C
- ◆ ONFI 1.0 Compatible

- ◆ Power Supply: 1.7V ~ 1.95V
- ◆ Density: 1Gb / 2Gb / 4G / 8G / 16G
- ◆ Page Size: 2048Byte + 128Byte / 2048Byte + 64Byte
- ◆ Flash Array to Register Time: 25us
- ◆ IO Read Performance: 25ns / 45ns
- ◆ Bus Width: x8 or x16 options
- ◆ Temperature Range: -40° C to 85° C / -40° C to 105° C
- ◆ ONFI 1.0 Compatible


GD Parallel NAND Flash Product List


3.3V


Part No.	Density	Sequential Access Time	I/O Bus	Page Size	ECC Requirement	Package
GD9FU1GxF2A	1Gb	25ns	x8/x16	2KB+128B	4bit/512B	TSOP48 20*12mm/ BGA63 9*11mm
GD9FU1GxF3A	1Gb	25ns	x8/x16	2KB+64B	4bit/512B	TSOP48 20*12mm/ BGA63 9*11mm
GD9FU2GxF2A	2Gb	20ns	x8/x16	2KB+128B	4bit/512B	TSOP48 20*12mm/ BGA63 9*11mm
GD9FU2GxF3A	2Gb	20ns	x8/x16	2KB+64B	4bit/512B	TSOP48 20*12mm/ BGA63 9*11mm
GD9FU4GxF2A	4Gb	20ns	x8/x16	2KB+128B	4bit/512B	TSOP48 20*12mm/ BGA63 9*11mm
GD9FU4GxF3A	4Gb	20ns	x8/x16	2KB+64B	4bit/512B	TSOP48 20*12mm/ BGA63 9*11mm
GD9FU8GxE2A	8Gb	20ns	x8/x16	2KB+128B	4bit/512B	TSOP48 20*12mm/ BGA63 9*11mm
GD9FU8GxE3A	8Gb	20ns	x8/x16	2KB+64B	4bit/512B	TSOP48 20*12mm/ BGA63 9*11mm
GD9FUAGxD2A	16Gb	20ns	x8/x16	2KB+128B	4bit/512B	TSOP48 20*12mm/ BGA63 9*11mm
GD9FUAGxD3A	16Gb	20ns	x8/x16	2KB+64B	4bit/512B	TSOP48 20*12mm/ BGA63 9*11mm
GD9AU2GxF3A*	2Gb	20ns	x8/x16	2KB+64B	Internal 4bit/512B	TSOP48 20*12mm/ BGA63 9*11mm
GD9AU4GxF3A*	4Gb	20ns	x8/x16	2KB+64B	Internal 4bit/512B	TSOP48 20*12mm/ BGA63 9*11mm
GD9AU8GxE3A*	8Gb	20ns	x8/x16	2KB+64B	Internal 4bit/512B	TSOP48 20*12mm/ BGA63 9*11mm
GD9AUAGxD3A*	16Gb	20ns	x8/x16	2KB+64B	Internal 4bit/512B	TSOP48 20*12mm/ BGA63 9*11mm

Note: The device has internal 4bit/512B ECC, doesn't need host ECC*.


Flash Package Options

T		SOP8 150mil	
		Length(Normal)	4.90
		Width(Normal)	6.00
		Thickness(Max)	1.75
		Pitch(Normal)	1.27
		mm	


P		DIP8 300mil	
		Length(Normal)	9.32
		Width(Normal)	7.94
		Thickness(Max)	3.50
		Pitch(Normal)	2.54
		mm	


S		SOP8 208mil	
		Length(Normal)	5.23
		Width(Normal)	7.90
		Thickness(Max)	2.16
		Pitch(Normal)	1.27
		mm	


Z		TFBGA-24ball 6*8mm (4*6ball array)	
		Length(Normal)	6.00
		Width(Normal)	8.00
		Thickness(Max)	1.20
		Pitch(Normal)	1.00
		mm	


M		VSOP8 150mil	
		Length(Normal)	4.90
		Width(Normal)	6.00
		Thickness(Max)	0.90
		Pitch(Normal)	1.27
		mm	


B		TFBGA-24ball 6*8mm (5*5ball array)	
		Length(Normal)	6.00
		Width(Normal)	8.00
		Thickness(Max)	1.20
		Pitch(Normal)	1.00
		mm	


M		TSOP48	
		Length(Normal)	12.0
		Width(Normal)	20.0
		Thickness(Max)	1.20
		Pitch(Normal)	0.50
		mm	

8		LGA8 3*2mm	
		Length(Normal)	3.00
		Width(Normal)	2.00
		Thickness(Max)	0.50
		Pitch(Normal)	0.50
		mm	

V		VSOP8 208mil	
		Length(Normal)	5.28
		Width(Normal)	7.90
		Thickness(Max)	1.00
		Pitch(Normal)	1.27
		mm	

9		LGA8 8*6mm	
		Length(Normal)	8.00
		Width(Normal)	6.00
		Thickness(Max)	0.80
		Pitch(Normal)	1.27
		mm	

F		SOP16 300mil	
		Length(Normal)	10.30
		Width(Normal)	10.35
		Thickness(Max)	2.75
		Pitch(Normal)	1.27
		mm	

K		USON8 1.5*1.5mm	
		Length(Normal)	1.50
		Width(Normal)	1.50
		Thickness(Max)	0.50
		Pitch(Normal)	0.40
		mm	

Capacitive Fingerprint Sensor



Overview

- ◆ Diverse shapes: round, square, rectangular etc
- ◆ All kinds of typical sizes: different diameters, different side lengths, especially ultra-narrow
- ◆ Front/Back/Edge-Mounted package sensor type supported
- ◆ Supports different surface materials: matte / glossy coating, ceramic / glass cover
- ◆ High Sensitivity, High SNR, High quality image.
- ◆ 256 true gray scale values, 8 bits per pixel.
- ◆ Support Standard SPI Bus Interface.
- ◆ Resolution:508 DPI

Fingerprint Identification

- ◆ Adaptive Calibration: automatically adjusts the sensor configuration according to the different types of fingerprint
- ◆ Adaptive for many kinds of algorithm includes finger pattern and feature points
- ◆ Getting the high definition fingerprint image without a metal ring module.
- ◆ Smart wake-up feature

Optical Fingerprint Sensor



Overview

- ◆ Different types of optical sensors under the display: CCM (CSM), ultra-thin, TFT large area
- ◆ All kinds of OLED type supported (both rigid and flexible OLED)
- ◆ $FRR \leq 1.5\%$ @ $FAR \leq 1/50,000$
- ◆ Enroll times ≤ 12 times
- ◆ All 360 degrees can be identified

CCM Sensor

- ◆ Large size pixel design for low-light under display fingerprint application
- ◆ Advanced Single-chip architecture
- ◆ Optimized lens design matching pixel array
- ◆ No flash supported
- ◆ Firstly introduce Chip-Scale Package in under-display fingerprint application

MEMS Ultrasonic Sensor



Fingerprint Identification

- ◆ High resolution 3D fingerprint image with epidermal and dermal skin
- ◆ Advanced ultrasonic sensor design in fingerprint application
- ◆ Creative CMOS and MEMS monolithic chip design
- ◆ Pulse echo and Beam-forming supported for higher sensitivity
- ◆ Better identification with water, cream, lotion fingerprint
- ◆ Capacitive smart wake-up supported
- ◆ Ultrathin thickness design (0.3mm supported)
- ◆ Under Flexible OLED supported
- ◆ Under different materials like cover-glass/metal/plastic etc

Capacitive Touchscreen Controller



Overview:

- ◆ Outstanding anti RF, LCD and power supply interference
- ◆ Detect up to 10 fingers
- ◆ Panel Thickness: glass up to 2.5mm, plastic up to 1.2mm
- ◆ I2C compatible slave mode 400KHz.
- ◆ I/O Interface: 1.8V /3.3V compatible

Recommended Capacitive Touch IC for Mobile Phone

Part No.	TP Type Supported	Channel Number	Recommended Dimensions
GSL1688F	Single layer multi-point (including double end pin, silver paste jumper), traditional DITO, silver paste free DITO, single-layer bridge building process	16 x 10	<4 inch
GSL1691F	Single layer multi-point (including double end pin, silver paste jumper), traditional DITO, silver paste free DITO, full ITO, sito	18 x 12	5 ~ 6 inch
GSL2682C	Single layer multi-point (including double end pin, silver paste jumper), traditional DITO, silver paste free DITO, single-layer bridge building process	23 x 12	<5 inch
GSL915	Single layer multi-point (including double end pin, silver paste jumper), traditional DITO, silver paste free DITO, single-layer bridge building process	26 x 14	<5 inch
GSL968	Single layer multi-point (including double end pin, silver paste jumper), traditional DITO, silver paste free DITO, single-layer bridge building process	17 x 10	4 inch
GSL2688	Single layer multi-point (including double end pin, silver paste jumper), traditional DITO, silver paste free DITO, single-layer bridge building process	26 x 16	5 ~ 6 inch
GSL2691	S+D37:D46ingle layer multi-point (including double end pin, silver paste jumper), traditional DITO, silver paste free DITO, single-layer bridge building process	29 x 14	5 ~ 6 inch
GSL2038	Two points of single-layer partition (with silver paste, all ITO)	25	<3 inch
GSL2232	Two points of single-layer partition (with silver paste, all ITO)	32	3.5 ~ 4.5 inch
GSL2336	Two points of single-layer partition (with silver paste, all ITO)	36	4 ~ 5 inch
GSL2338	Two points of single-layer partition (with silver paste, all ITO)	40	4 ~ 6 inch

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