



GigaDevice GD32 MCU
Microcon Trollers Solsta



GigaDevice GD32 MCU Microcon Trollers Solsta User Guide

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GigaDevice

GigaDevice GD32 MCU Microcon Trollers Solsta



Specifications

- Brand: GigaDevice
- Product: GD32 MCU
- Various models with different specifications are available

Product Usage Instructions

Overview

The GD32 MCU product family offers a wide range of models with varying performance levels to suit different applications.

Selecting the Right Model

Refer to the GD32 MCU Product Family section in the manual to choose a model based on your requirements such as clock speed, memory size, and peripherals.

Getting Started

Before using the GD32 MCU, ensure you have the necessary development tools and software installed. Connect the MCU to your development board following the provided guidelines.

Frequently Asked Questions (FAQ)

Q: Where can I find additional technical support for the GD32 MCU?

A: You can visit GigaDevice's official website at www.gigadevice.com for technical documentation, forums, and support resources.

ABOUT US

- GigaDevice Semiconductor Inc. (SSE Stock Code 603986) is a global leading fabless supplier. The company was founded in April 2005 and headquartered in Beijing, China, with branch offices in many countries and regions worldwide, providing local support at customers' fingertips.

Committed to building a complete ecosystem with major product lines- Flash memory, MCU, sensor and power as the core driving force, GigaDevice can provide a wide range of solutions and services in the fields of industrial, automotive, computing, consumer electronics, IoT, mobile, networking and telecommunications.

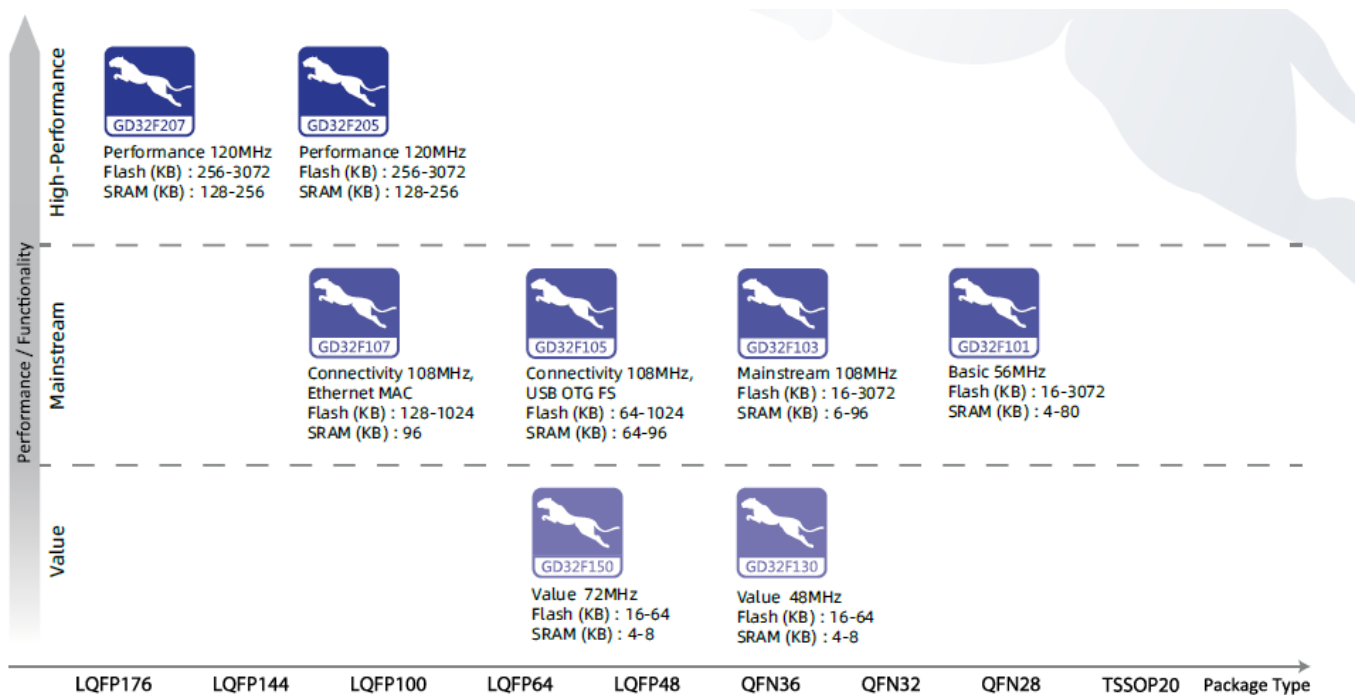
- GigaDevice is currently ranked No. 1 NOR FLASH® supplier in China and No. 3 in the world with accumulated shipments over 21.2 billion since its inception. GigaDevice GD32 MCU is a leader in China's high performance 32-bit general-purpose microcontroller market, with more than 1.5 billion units shipped, and over 550 part numbers from 42 family series in a variety of applications. In addition, GigaDevice delivers touchscreen controller sensor and fingerprint sensor to world-renowned mobile makers around the globe. It is currently one of the only two optical fingerprint sensor suppliers in China with mass production capability. GigaDevice's touchscreen controller sensor is ranked No. 4, and the optical fingerprint sensor is ranked No. 3 in the world.
- GigaDevice has strict standards in quality management, and has received the ISO26262:2018 automotive functional safety ASIL D certification, as well as achieved ISO9001, ISO14001, ISO45001, and Duns certifications. In a constant quest to expand our technology offering to customers, GigaDevice has also formed strategic alliances with leading foundries, assembly, and test plants to streamline supply chain management.
- For more details, please visit: www.gigadevice.com

GD32 MCU

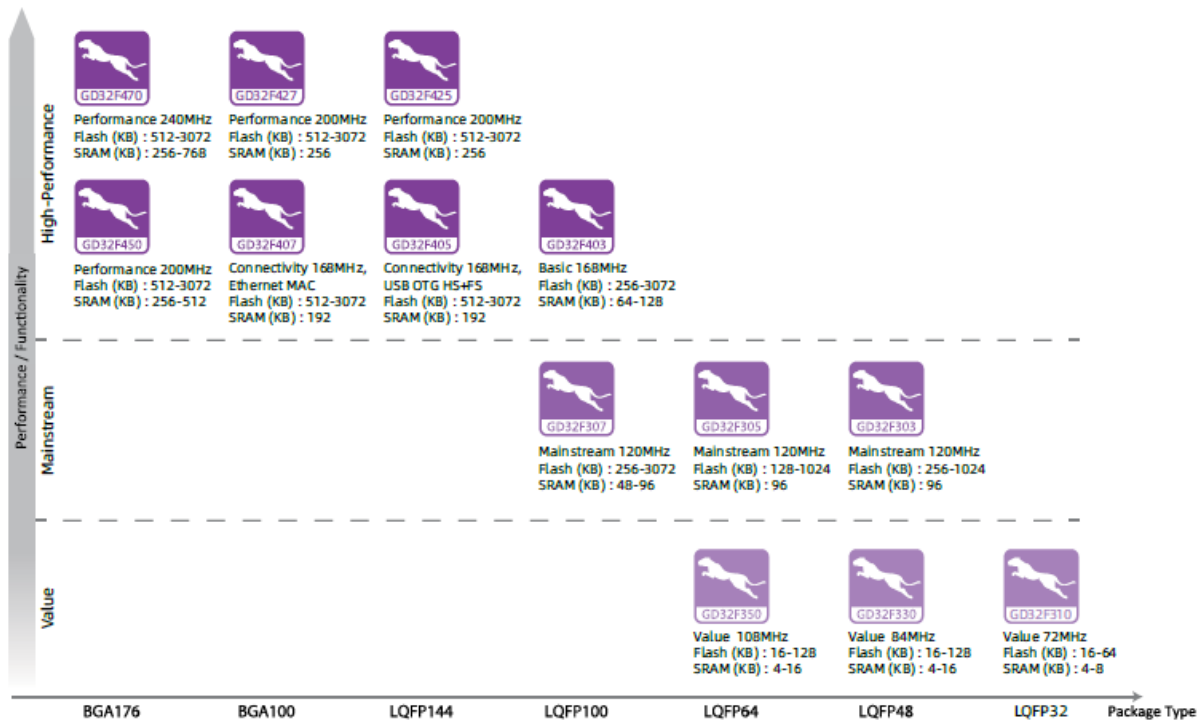
GD32 MCU Product Family

Performance	Arm® Cortex®-M 32-bit MCUs (Flash KB/RAM KB)						RISC-V MCUs	
	Cortex®-M23	Cortex®-M3	Cortex®-M4		Cortex®-M33		Cortex®-M7	RISC-V
High-Performance		GD32F207 120MHz, 3M/256K	GD32F470 240MHz, 3M/768K	GD32F427 200MHz, 3M/256K	GD32W515 180MHz, 2048K/448K	GD32E508 180MHz, 512K/128K	GD32H759 600MHz, 3840K/1024K	GD32VW553 160MHz, 4M/320K
		GD32F205 120MHz, 3M/256K	GD32F425 200MHz, 3M/256K	GD32F450 200MHz, 3M/512K	GD32E507 180MHz, 512K/128K	GD32E505 180MHz, 512K/128K	GD32H757 600MHz, 3840K/1024K	
			GD32F407 168MHz, 3M/192K	GD32F405 168MHz, 3M/192K	GD32E503 180MHz, 512K/128K		GD32H737 600MHz, 3840K/1024K	
			GD32F403 168MHz, 3M/128K					
Mainstream	GD32L233 64MHz, 256K/32K	GD32F107 108MHz, 1M/96K	GD32F307 120MHz, 1M/96K	GD32F305 120MHz, 1M/96K	GD32E502 100MHz, 384K/48K	GD32E501 100MHz, 512K/32K		GD32VF103 120MHz, 128K/32K
		GD32F105 108MHz, 1M/96K	GD32F303 120MHz, 3M/96K	GD32C113 120MHz, 128K/32K				
		GD32F103 108MHz, 3M/96K	GD32E113 120MHz, 128K/32K	GD32C103 120MHz, 128K/32K				
		GD32F101 56MHz, 3M/80K	GD32E103 120MHz, 128K/32K					
Entry-Level	GD32E232 72MHz, 64K/8K	GD32F150 72MHz, 64K/8K	GD32F350 108MHz, 128K/16K	GD32F330 84MHz, 128K/16K				
	GD32E230 72MHz, 64K/8K	GD32F130 48MHz, 64K/8K	GD32F310 72MHz, 64K/8K					
Specific			GD32FFPR 168MHz, 1M/128K			GD32EPRT 168MHz, 384K/96K+4M		

GD32 Cortex-M3 MCU 200+ PNs



GD32 Cortex-M4 MCU 100+ PNs

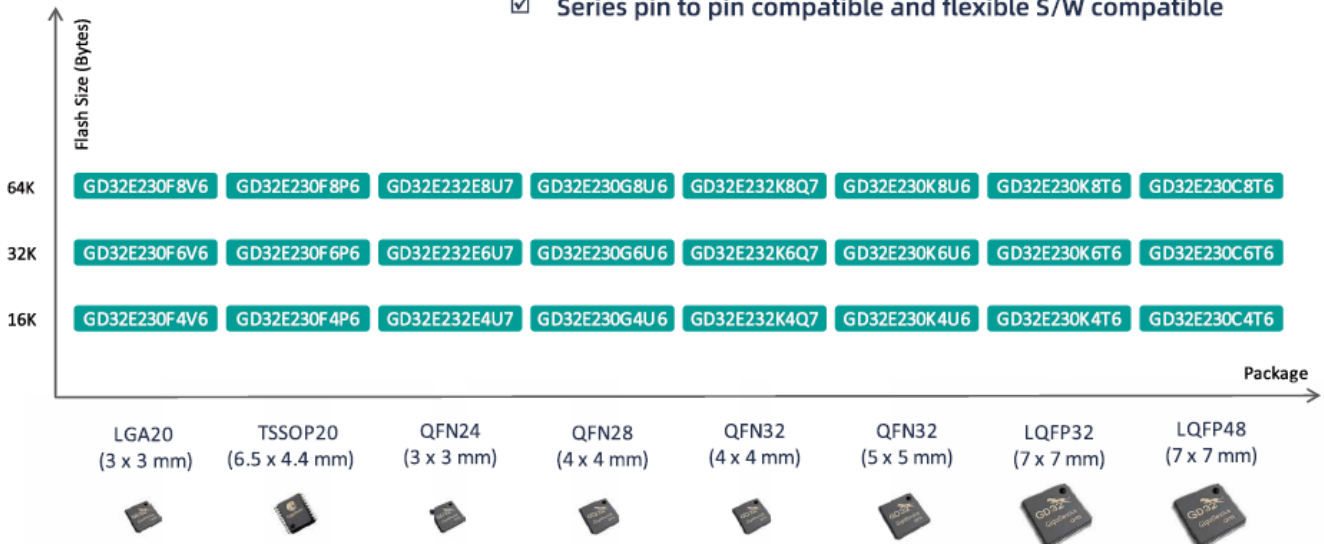


GD32 Cortex-M23 MCU 30+ PNs

GD32E23x Series MCU

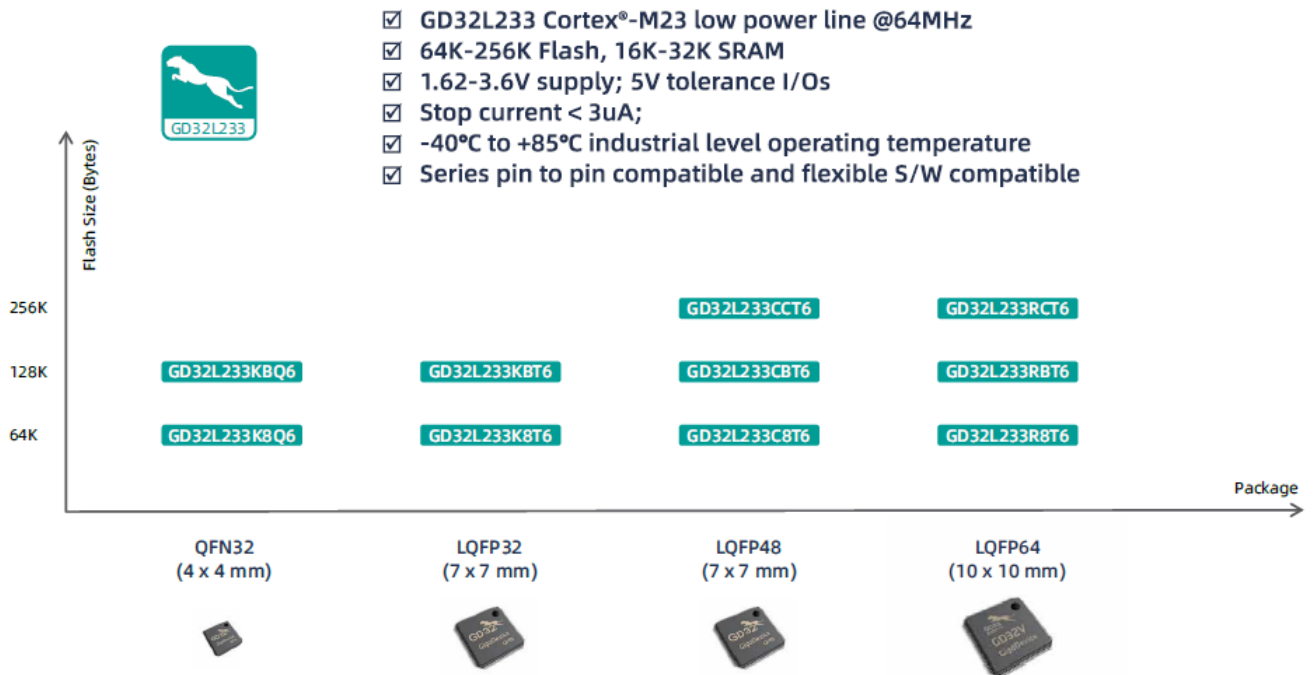


- ☑ GD32E230 & GD32E232 Arm Cortex®-M23 value line @ 72MHz
- ☑ 16K-64K Flash, 4K-8K SRAM
- ☑ 1.8-3.6V supply; 5V tolerance I/Os
- ☑ -40°C to +85°C industrial level operating temperature
- ☑ Series pin to pin compatible and flexible S/W compatible



GD32 Cortex-M23 MCU 30+ PNs

GD32L233 Series of Low-power MCU



GD32 Cortex-M33 MCU 30+ PNs

GD32E5 Series MCU



- ✓ GD32E503/505/507/508/PRT High-performance line
- ✓ Cortex®-M33 @180MHz
- ✓ 128-512KB eFlash, 80-128KB SRAM
- ✓ 1.7-3.6V supply; 5V tolerance I/Os
- ✓ -40°C to + 85°C industrial level operating temperature
- ✓ Series pin to pin compatible and flexible S/W compatible



GD32 Cortex-M33 MCU 70+ PNs

GD32E502 Series Industrial 5V MCU



- ☑ GD32E502 Cortex®-M33 series
- ☑ 128K-384K Flash, 24K-48K SRAM
- ☑ 2.7V-5.5V supply; 5V tolerance I/Os
- ☑ GD32E502xxx3 temperature range -40°C ~125°C
- ☑ GD32E502xxx7 temperature range -40°C ~105°C
- ☑ Series pin to pin compatible and flexible S/W compatible

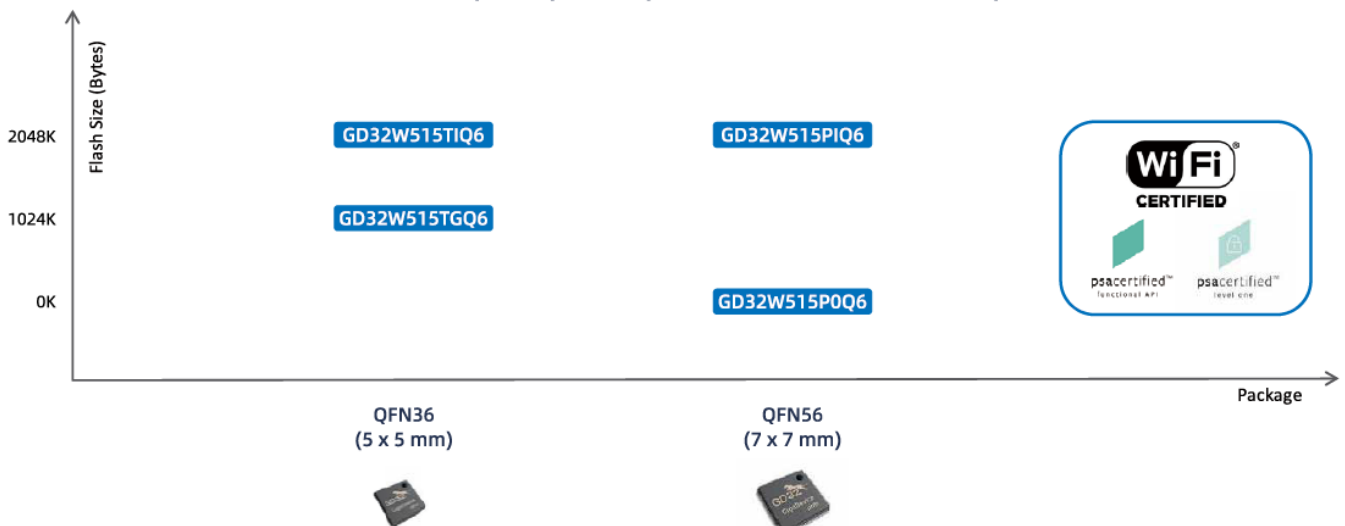


GD32 Cortex-M33 MCU 30+ PNs

GD32W5 Series of Wireless MCU



- ☑ GD32E230 & 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



GD32 Cortex-M7 MCU 27 PNs

GD32H7 ultra-high performance MCU series



- ☑ GD32H7 Cortex®-M7 Ultra-high performance line
- ☑ 1024K-3840K Flash, 1024K SRAM (512K TCM), 64K L1-Cache
- ☑ 1.71V-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



GD32VW553 RISC-V MCU 8 PNs



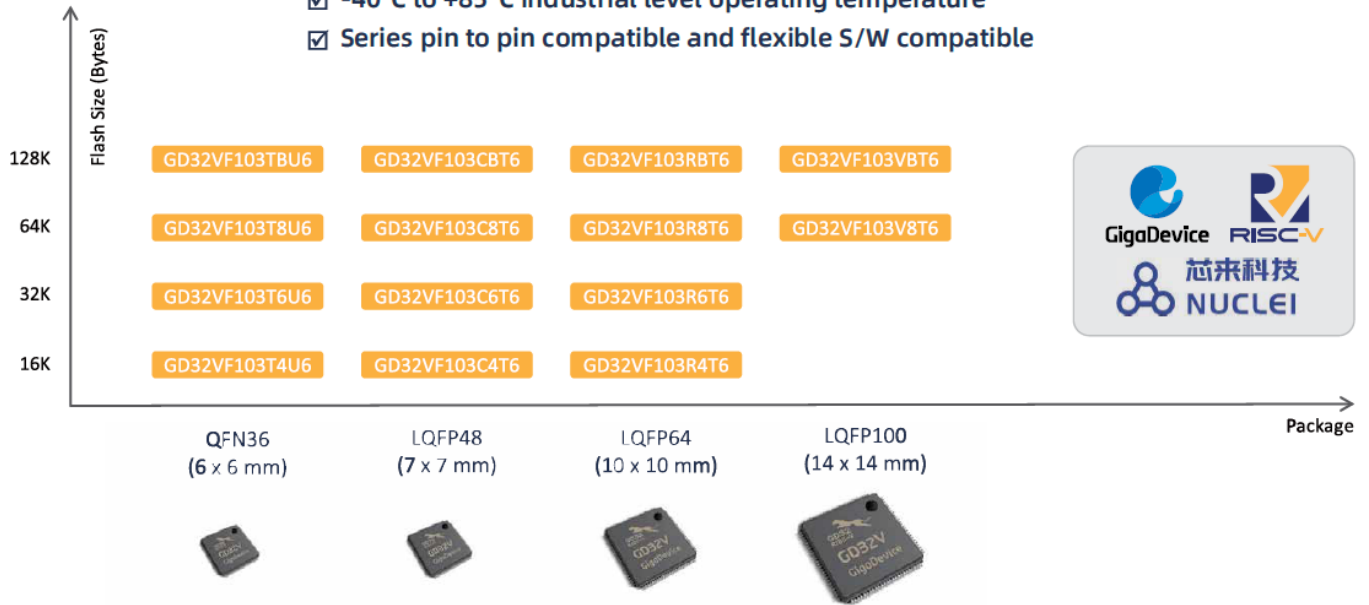
- ☑ GD32VW553 RISC-V core @160MHz
- ☑ 2048K-4096K Flash, 320K SRAM
- ☑ 1.8-3.6V supply; 5V tolerance I/Os
- ☑ GD32VW553xxx7 temperature range -40°C ~105°C
- ☑ GD32VW553xxx6 temperature range -40°C ~85°C
- ☑ Series pin to pin compatible and flexible S/W compatible



GD32VF103 RISC-V MCU 14 PNs



- ☑ 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



MCU Package Options



GD32 Development Ecosystem

D 3 2 V W 5 5	G D 3 2 V W 5 5 3 K I Q 7	1 6 0	2 0 4 8 K	3 2 0 K	u p t o 2 1	2	2	1	1	1	2	1	1 + 2	2	1			1	•	•	•		(b/ g/ n/ a x) H E 2 0	B L E 5 • 2	1 (9)		Q F N 3 2
	G D 3 2 V W 5 5 3 K M Q 7	1 6 0	4 0 9 6 K	3 2 0 K	u p t o 2 1	2	2	1	1	1	2	1	1 + 2	2	1			1	•	•	•	•	(b/ g/ n/ a x) H E 2 0	B L E 5 • 2	1 (9)		Q F N 3 2
	G D 3 2 V W 5 5 3 H I Q 7	1 6 0	2 0 4 8 K	3 2 0 K	u p t o 2 8	2	2	1	1	1	2	1	1 + 2	2	1			1	•	•	•	•	(b/ g/ n/ a x) H E 2 0	B L E 5 • 2	1 (9)		Q F N 4 0
	G D 3 2 V W 5 5 3 H M Q 7	1 6 0	4 0 9 6 K	3 2 0 K	u p t o 2 8	2	2	1	1	1	2	1	1 + 2	2	1			1	•	•	•	•	(b/ g/ n/ a x) H E 2 0	B L E 5 • 2	1 (9)		Q F N 4 0

3	GD32VW553KIQ6	160	2048K	320K	upto21	2	2	1	1	1	2	1	1+2	2	1			1	•	•	•	•	(b/g/n/ax)HE20	BLE5.2	1(9)		QFN32
	GD32VW553KMQ6	160	4096K	320K	upto21	2	2	1	1	1	2	1	1+2	2	1			1	•	•	•	•	(b/g/n/ax)HE20	BLE5.2	1(9)		QFN32
	GD32VW553HIQ6	160	2048K	320K	upto28	2	2	1	1	1	2	1	1+2	2	1			1	•	•	•	•	(b/g/n/ax)HE20	BLE5.2	1(9)		QFN40
	GD32VW553HMQ6	160	4096K	320K	upto28	2	2	1	1	1	2	1	1+2	2	1			1	•	•	•	•	(b/g/n/ax)HE20	BLE5.2	1(9)		QFN40

Series	Part No.	Max Speed (MHz)	Memory(Bytes)		I/O	Timer							Connectivity												EXMC	Analog Interface		
			Flash	SRAM		GPTM (16 bit)	GPTM (32 bit)	Advanced T M (16 bit)	Basic T M (32 bit)	Basic T M (64 bit)	System Tick (24 bit)	WDG	RTC	U(S)ART	I ² C	SPI	OSPI	CAN2.0B	I ² S	USBHSOTG	COMP	SDIO	LCD-TFT	SAIL		Ethernet	14 bit ADC Units (CHS)	12 bit ADC Units (CHS)
	GD32H737VGT6	600	1024K	1024K	upto 82	10	4	2	2	2	1	2	1	8	4	5	1	2	4	1	2	2		2	1	• 1(14), 1(12)	1(4)	1
	GD32H737VIT6	600	2048K	1024K	upto 82	10	4	2	2	2	1	2	1	8	4	5	1	3	4	1	2	2	1	2	1	• 1(14), 1(12)	1(4)	1
	GD32H737VMT6	600	3840K	1024K	upto 82	10	4	2	2	2	1	2	1	8	4	5	1	3	4	1	2	2	1	2	1	• 1(14), 1(12)	1(4)	1

GD32H737

GD32H737ZGT6	600	1024K	1024K	upto113	12	4	2	2	2	1	2	1	8	4	6	2	2	4	1	2	2		3	1	•	1 (16), 1 (14)	1 (12)	1
GD32H737ZIT6	600	2048K	1024K	upto113	12	4	2	2	2	1	2	1	8	4	6	2	3	4	1	2	2	1	3	1	•	1 (16), 1 (14)	1 (12)	1
GD32H737ZMT6	600	3840K	1024K	upto113	12	4	2	2	2	1	2	1	8	4	6	2	3	4	1	2	2	1	3	1	•	1 (16), 1 (14)	1 (12)	1
GD32H737IGT6	600	1024K	1024K	upto121	12	4	2	2	2	1	2	1	8	4	6	2	2	4	2	2	2		3	1	•	1 (16), 1 (14)	1 (12)	1

G D 3 2 H 7 3 7I I T 6	6 0 0	2 0 4 8 K	1 0 2 4 K	u p t o 1 2 1	1 2	4	2	2	2	1	2	1	8	4	6	2	3	4	2	2	2	1	3	1	•	1 (1 6) 1 (1 4)	1 (1 2)	1
G D 3 2 H 7 3 7I M T 6	6 0 0	3 8 4 0 K	1 0 2 4 K	u p t o 1 2 1	1 2	4	2	2	2	1	2	1	8	4	6	2	3	4	2	2	2	1	3	1	•	1 (16) 1 (14)	1 (1 2)	1
G D 3 2 H 7 3 7I G K 6	6 0 0	1 0 2 4 K	1 0 2 4 K	u p t o 1 3 4	1 2	4	2	2	2	1	2	1	8	4	6	2	2	4	2	2	2		3	2	•	1 (2 0) 1 (1 8)	1 (1 7)	1
G D 3 2 H 7 3 7I I K 6	6 0 0	2 0 4 8 K	1 0 2 4 K	u p t o 1 3 4	1 2	4	2	2	2	1	2	1	8	4	6	2	3	4	2	2	2	1	3	2	•	1 (20) 1 (18)	1 (1 7)	1
G D 3 2 H 7 3 7I M K 6	6 0 0	3 8 4 0 K	1 0 2 4 K	u p t o 1 3 4	1 2	4	2	2	2	1	2	1	8	4	6	2	3	4	2	2	2	1	3	2	•	1 (2 0) 1 (1 8)	1 (1 7)	1

	G D 3 2 H 7 5 7 V G T 6	6 0 0	1 0 2 4 K	1 0 2 4 K	u p t o 8 2	1 0	4	2	2	2	1	2	1	8	4	5	1	3 x F D	4	1	2	2	1	2	1	• 1 (14), (12)	1 (4)	1
	G D 3 2 H 7 5 7 V I T 6	6 0 0	2 0 4 8 K	1 0 2 4 K	u p t o 8 2	1 0	4	2	2	2	1	2	1	8	4	5	1	3 x F D	4	1	2	2	1	2	1	• 1 (1 4) , 1 (1 2)	1 (4)	1
	G D 3 2 H 7 5 7 V M T 6	6 0 0	3 8 4 0 K	1 0 2 4 K	u p t o 8 2	1 0	4	2	2	2	1	2	1	8	4	5	1	3 x F D	4	1	2	2	1	2	1	• 1 (14), (12)	1 (4)	1
	G D 3 2 H 7 5 7 V G J 6	6 0 0	1 0 2 4 K	1 0 2 4 K	u p t o 8 2	1 0	4	2	2	2	1	2	1	8	4	5	1	3 x F D	4	1	2	2	1	2	1	• 1 (1 4) , 1 (1 2)	1 (4)	1

G D 3 2 H 7 5 7 V J 6	G D 3 2 H 7 5 7 V J 6	6 0 0	2 0 4 8 K	1 0 2 4 K	u p t o 8 2	1 0	4	2	2	2	1	2	1	8	4	5	1	3 x F D	4	1	2	2	1	2	1	• 1(14), 1(12)	1 (4)	1
	G D 3 2 H 7 5 7 V M J 6	6 0 0	3 8 4 0 K	1 0 2 4 K	u p t o 8 2	1 0	4	2	2	2	1	2	1	8	4	5	1	3 x F D	4	1	2	2	1	2	1	• 1 (14), 1 (12)	1 (4)	1
	G D 3 2 H 7 5 7 Z G T 6	6 0 0	1 0 2 4 K	1 0 2 4 K	u p t o 1 1 3	1 2	4	2	2	2	1	2	1	8	4	6	2	3 x F D	4	1	2	2	1	3	1	• 1(16), 1(14)	1 (12)	1
	G D 3 2 H 7 5 7 Z I T 6	6 0 0	2 0 4 8 K	1 0 2 4 K	u p t o 1 1 3	1 2	4	2	2	2	1	2	1	8	4	6	2	3 x F D	4	1	2	2	1	3	1	• 1 (16), 1 (14)	1 (12)	1

G D 3 2 H 7 5 9	G D 3 2 H 7 5 7 Z M T 6	6 0 0	3 8 4 0 K	1 0 2 4 K	u p t o 1 1 3	1 2	4	2	2	2	1	2	1	8	4	6	2	3 x F D	4	1	2	2	1	3	1	• 1(16), 1(14)	1 (12)	1
	G D 3 2 H 7 5 9 I G T 6	6 0 0	1 0 2 4 K	1 0 2 4 K	u p t o 1 2 1	1 2	4	2	2	2	1	2	1	8	4	6	2	3 x F D	4	2	2	2	1	3	1	• 1 (16), 1(14)	1 (12)	1
	G D 3 2 H 7 5 9 I I T 6	6 0 0	2 0 4 8 K	1 0 2 4 K	u p t o 1 2 1	1 2	4	2	2	2	1	2	1	8	4	6	2	3 x F D	4	2	2	2	1	3	1	• 1(16), 1(14)	1 (12)	1
	G D 3 2 H 7 5 9 I M T 6	6 0 0	3 8 4 0 K	1 0 2 4 K	u p t o 1 2 1	1 2	4	2	2	2	1	2	1	8	4	6	2	3 x F D	4	2	2	2	1	3	1	• 1 (16), 1(14)	1 (12)	1

G D 3 2 H 7 5 9 I G K 6	6 0 0	1 0 2 4 K	1 0 2 4 K	u p t o 1 3 4	1 2	4	2	2	2	1	2	1	8	4	6	2	3 x F D	4	2	2	2	1	3	2	• 1(20), (18)	1 (1 7)	1
G D 3 2 H 7 5 9 I I K 6	6 0 0	2 0 4 8 K	1 0 2 4 K	u p t o 1 3 4	1 2	4	2	2	2	1	2	1	8	4	6	2	3 x F D	4	2	2	2	1	3	2	• 1 (2 0) , 1 (1 8)	1 (1 7)	1
G D 3 2 H 7 5 9 I M K 6	6 0 0	3 8 4 0 K	1 0 2 4 K	u p t o 1 3 4	1 2	4	2	2	2	1	2	1	8	4	6	2	3 x F D	4	2	2	2	1	3	2	• 1(20), (18)	1 (1 7)	1

GD32W5 series of 32-bit ARM® Cortex®-M33 Wireless MCUs Selection Guide

Series	Part No.	Max Speed	Memory	(Bytes)	I/O	Timer	Connectivity	Analogue	Interface	Packaging

		(MHz)	Flash	SRAM		GPTM (32 bit)	GPTM (16 bit)	Advanced T M (16 bit)	Basic T M (16 bit)	Systic k (24 bit)	WDG	RTC	USART	I ² C	SP I	USB 2.0 F S	I ² S	SD I O	IEEE 802 . 11	QSP I	Digital Filters	Digital Camera	HW Security	12bit ADC Units (CHs)	Cap. Touch Key	e
G D 3 2 W 5 1 5 T G Q 6	G D 3 2 W 5 1 5 T G Q 6	180	1024K	384K	upto 25	2	3	1	1	1	2	1	3	2	2	OTG	1	1	b / g / n	1			•	1(5)	7	QFN 36
	G D 3 2 W 5 1 5 T I Q 6	180	2048K	448K	upto 25	2	3	1	1	1	2	1	3	2	2	OTG	1	1	b / g / n	1			•	1(5)	7	QFN 36
	G D 3 2 W 5 1 5 P 0 Q 6	180	0K	448K	upto 43	2	4	1	1	1	2	1	3	2	2	OTG	1	1	b / g / n	1	•	•	•	1(9)	12	QFN 56

G D 3 2 W 5 1 5 P I Q 6	1 8 0	2 0 4 8 K	4 4 8 K	u p t o 4 3	2	4	1	1	1	2	1	3	2	2	O T G	1	1	b / g / n	1	•	•	•	1(9)	1 2	Q F N 5 6
--	-------------	-----------------------	------------------	----------------------------	---	---	---	---	---	---	---	---	---	---	-------------	---	---	-----------------------	---	---	---	---	------	--------	-----------------------

GD32L23x series of 32-bit ARM® Cortex®-M23 Low-power Consumption MCUs Selection Guide

GD32E502 series of 32-bit ARM® Cortex®-M33 Industrial 5V MCUs Selection Guide

S e r i e s	P a r t N o.	M a x S p e e d (M H z)	Memory (B ytes)			I/ O	Timer						Connectivity							A n a l o g	Inter face	Pack age
			F l a s h	S R A M	D a t a- F l a s h/ E E P R O M		G P I O M (1 6 b i t)	A d v a n c e d T M (1 6 b i t)	B s c T M (1 6 b i t)	S y s T i c k (2 4 b i t)	W D G	R T C	U S A R T / L I N	I ² C	S P I	C A N 2. 0 B	I ² S	C O M P	M F C O M	12b i t A D C U n i t s (C H s)	12 b i t D A C U n i t s	
	GD 32 E5 02 KB U3	10 0	1 2 8 K	24 K	32 K/ 2K	up to 27	1	3	2	1	2	1	1	2	1	1x F D	0	1	1	2(1 2)	1	QFN 32
	GD 32 E5 02 KC U3	10 0	2 5 6 K	32 K	64 K/ 4K	up to 27	1	4	2	1	2	1	1	2	1	1x F D	0	1	1	2(12)	1	QFN 32
	GD 32 E5 02 CB T3	10 0	1 2 8 K	24 K	32 K/ 2K	up to 42	1	3	2	1	2	1	2	2	2	2x F D	1	1	1	2(2 0)	1	LQF P48

GD32E502CCT3	100	256K	32K	64K/4K	up to 42	1	4	2	1	2	1	2	2	2	2x FD	1	1	1	2(20)	1	LQFP48
GD32E502RBT3	100	128K	24K	32K/2K	up to 57	1	3	2	1	2	1	3	2	2	2x FD	1	1	1	2(27)	1	LQFP64
GD32E502RCT3	100	256K	32K	64K/4K	up to 57	1	4	2	1	2	1	3	2	2	2x FD	1	1	1	2(27)	1	LQFP64
GD32E502RDT3	100	384K	48K	64K/4K	up to 57	1	4	2	1	2	1	3	2	2	2x FD	1	1	1	2(27)	1	LQFP64
GD32E502VBT3	100	128K	24K	32K/2K	up to 88	1	4	2	1	2	1	3	2	2	2x FD	1	1	1	2(32)	1	LQFP100
GD32E502VCT3	100	256K	32K	64K/4K	up to 88	1	4	2	1	2	1	3	2	2	2x FD	1	1	1	2(32)	1	LQFP100
GD32E502VDT3	100	384K	48K	64K/4K	up to 88	1	4	2	1	2	1	3	2	2	2x FD	1	1	1	2(32)	1	LQFP100
GD32E502KB U7	100	128K	24K	32K/2K	up to 27	1	3	2	1	2	1	1	2	1	1x FD	0	1	1	2(12)	1	QFN32

GD 32 E5 02 KC U7	10 0	2 5 6 K	32 K	64 K/ 4K	up to 27	1	4	2	1	2	1	1	2	1	1x F D	0	1	1	2(12)	1	QFN 32
GD 32 E5 02 CB T7	10 0	1 2 8 K	24 K	32 K/ 2K	up to 42	1	3	2	1	2	1	2	2	2	2x F D	1	1	1	2(2 0)	1	LQF P48
GD 32 E5 02 CC T7	10 0	2 5 6 K	32 K	64 K/ 4K	up to 42	1	4	2	1	2	1	2	2	2	2x F D	1	1	1	2(20)	1	LQF P48
GD 32 E5 02 RB T7	10 0	1 2 8 K	24 K	32 K/ 2K	up to 57	1	3	2	1	2	1	3	2	2	2x F D	1	1	1	2(2 7)	1	LQF P64
GD 32 E5 02 RC T7	10 0	2 5 6 K	32 K	64 K/ 4K	up to 57	1	4	2	1	2	1	3	2	2	2x F D	1	1	1	2(27)	1	LQF P64
GD 32 E5 02 RD T7	10 0	3 8 4 K	48 K	64 K/ 4K	up to 57	1	4	2	1	2	1	3	2	2	2x F D	1	1	1	2(2 7)	1	LQF P64
GD 32 E5 02 VB T7	10 0	1 2 8 K	24 K	32 K/ 2K	up to 88	1	4	2	1	2	1	3	2	2	2x F D	1	1	1	2(32)	1	LQF P10 0
GD 32 E5 02 VC T7	10 0	2 5 6 K	32 K	64 K/ 4K	up to 88	1	4	2	1	2	1	3	2	2	2x F D	1	1	1	2(3 2)	1	LQF P10 0

GD32E503

GD32E503RCT6	180	256K	96K	upto51	1	3	2	2	1	2	1	4+2	3	3	2	FS	2	1	• 3(16)								2	LQFP64
GD32E503RET6	180	512K	128K	upto51	1	9	2	2	1	2	1	4+2	3	3	2	FS	2	1						3(16)	2	LQFP64		
GD32E503VCT6	180	256K	96K	upto80	1	3	2	2	1	2	1	4+2	3	3	2	FS	2	1						3(16)		2	LQFP100	
GD32E503VET6	180	512K	128K	upto80	1	9	2	2	1	2	1	4+2	3	3	2	FS	2	1						3(16)	2	LQFP100		

	G D 3 2 E 5 0 3 Z C T 6 1 8 0 2 5 6 K 9 6 K u p t o 1 1 2 1 3 2 2 1 2 1 4 + 2 3 3 2 F S 2 1 • • 3 (2 1) 2 L Q F P 1 4 4	G D 3 2 E 5 0 3 Z E T 6 1 8 0 5 1 2 K 1 2 8 K u p t o 1 1 2 1 9 2 2 1 2 1 4 + 2 3 3 2 F S 2 1 • • 3 (2 1) 2 L Q F P 1 4 4
	G D 3 2 E 5 0 5 R B T 6 1 8 0 1 2 8 K 8 0 K u p t o 5 1 1 3 1 2 1 2 1 4 + 2 3 3 3 H S O T G 2 • • 3 2 (1 6) 2 L Q F P 6 4	G D 3 2 E 5 0 5 R C T 6 1 8 0 2 5 6 K 9 6 K u p t o 5 1 1 3 1 2 1 2 1 4 + 2 3 3 3 H S O T G 2 • • 3 2 (1 6) 2 L Q F P 6 4

G D 3 2 E 5 0 5	G D 3 2 E 5 0 5 R E T 6	1 8 0	5 1 2 K	1 2 8 K	u p t o 5 1	1	9	2	2	1	2	1	4 + 2	3	3	3	H S O T G	2				•	•	3		2 (1 6)		2	L Q F P 6 4
	G D 3 2 E 5 0 5 V C T 6	1 8 0	2 5 6 K	9 6 K	u p t o 8 0	1	3	1	2	1	2	1	4 + 2	3	3	3	H S O T G	2				•	•	3	•	2(1 6)	2		L Q F P 1 0 0
	G D 3 2 E 5 0 5 V E T 6	1 8 0	5 1 2 K	1 2 8 K	u p t o 8 0	1	9	2	2	1	2	1	4 + 2	3	3	3	H S O T G	2				•	•	3	•	2 (1 6)	2		L Q F P 1 0 0
	G D 3 2 E 5 0 5 Z C T 6	1 8 0	2 5 6 K	9 6 K	u p t o 1 1 2	1	3	2	2	1	2	1	4 + 2	3	3	3	H S O T G	2				•	•	3	•	2(1 6)	2		L Q F P 1 4 4

G
D
3
2
E
5
0
7

	G D 3 2 E 5 0 5 Z E T 6	1 8 0	5 1 2 K	1 2 8 K	u p t o 1 1 2	1	9	2	2	1	2	1	4 + 2	3	3	3	H S O T G	2			•	•	3	•	2 (1 6)		2	L Q F P 1 4 4
	G D 3 2 E 5 0 7 R C T 6	1 8 0	2 5 6 K	9 6 K	u p t o 5 1	1	3	1	2	1	2	1	4 + 2	3	3	3	H S O T G	2			•	•	•	3		2(1 6)	2	L Q F P 6 4
	G D 3 2 E 5 0 7 R E T 6	1 8 0	5 1 2 K	1 2 8 K	u p t o 5 1	1	9	2	2	1	2	1	4 + 2	3	3	3	H S O T G	2			•	•	•	3		2 (1 6)	2	L Q F P 6 4
	G D 3 2 E 5 0 7 V C T 6	1 8 0	2 5 6 K	9 6 K	u p t o 8 0	1	3	1	2	1	2	1	4 + 2	3	3	3	H S O T G	2			•	•	•	3	•	2(1 6)	2	L Q F P 1 0 0

G D 3 2 E 5 0 7 V E T 6	1 8 0	5 1 2 K	1 2 8 K	u p t o 8 0	1	9	2	2	1	2	1	4 + 2	3	3	3	H S O T G	2			•	•	•	3	•	2 (1 6)	2	L Q F P 1 0 0
G D 3 2 E 5 0 7 Z C T 6	1 8 0	2 5 6 K	9 6 K	u p t o 1 1 2	1	3	2	2	1	2	1	4 + 2	3	3	3	H S O T G	2			•	•	•	3	•	2(1 6)	2	L Q F P 1 4 4
G D 3 2 E 5 0 7 Z E T 6	1 8 0	5 1 2 K	1 2 8 K	u p t o 1 1 2	1	9	2	2	1	2	1	4 + 2	3	3	3	H S O T G	2			•	•	•	3	•	2 (1 6)	2	L Q F P 1 4 4
G D 3 2 E 5 0 8 R E T 6	1 8 0	5 1 2 K	1 2 8 K	u p t o 5 1	1	9	2	2	1	2	1	4 + 2	3	3	3 x F D	H S O T G	2			•	•	•	3		2(1 6)	2	L Q F P 6 4

Series	Part No.	Max Speed (MHz)	Memory	(Bytes)	I/O	Timer					Connectivity								EXMC	Analogue	Interface		Package	
			Flash	SRAM		GP TM (16bit)	Advanced TM (16bit)	Basic TM (16bit)	System Tick (24bit)	WDG	RTC	USART + UART	I ² C	SPI	CAN 2.0B	USB 2.0FS	I ² S	SDIO		Ethernet	12bit ADC Units (CHs)	12bit DAC Units		
	GD32VF103T4U6	108	16K	6K	upto 26	2	1	2	1	2	1	2+0	1	1	2	OTG						2(10)	2	QFN36
	GD32VF103T6U6	108	32K	10K	upto 26	2	1	2	1	2	1	2+0	1	1	2	OTG					2(10)		2	QFN36
	GD32VF103T8U6	108	64K	20K	upto 26	4	1	2	1	2	1	2+0	1	1	2	OTG						2(10)	2	QFN36
	GD32VF103TB U6	108	128K	32K	upto 26	4	1	2	1	2	1	2+0	1	1	2	OTG						2(10)	2	QFN36
	GD32VF103C4T6	108	16K	6K	upto 37	2	1	2	1	2	1	2+0	1	1	2	OTG						2(10)	2	LQFP48

G D 3 2 V F 1 0 3	G D3 2V F1 03 C6 T6	10 8	32 K	10 K	u p to 3 7	2	1	2	1	2	1	2 + 0	1	1	2	O T G				2(1 0)	2	LQ FP 48
	G D3 2V F1 03 C8 T6	10 8	64 K	20 K	u p to 3 7	4	1	2	1	2	1	3 + 0	2	3	2	O T G	2			2(1 0)	2	LQ FP 48
	G D3 2V F1 03 CB T6	10 8	12 8K	32 K	u p to 3 7	4	1	2	1	2	1	3 + 0	2	3	2	O T G	2			2(1 0)	2	LQ FP 48
	G D3 2V F1 03 R4 T6	10 8	16 K	6 K	u p to 5 1	2	1	2	1	2	1	2 + 0	1	1	2	O T G				2(1 6)	2	LQ FP 64
	G D3 2V F1 03 R6 T6	10 8	32 K	10 K	u p to 5 1	2	1	2	1	2	1	2 + 0	1	1	2	O T G				2(1 6)	2	LQ FP 64
	G D3 2V F1 03 R8 T6	10 8	64 K	20 K	u p to 5 1	4	1	2	1	2	1	3 + 2	2	3	2	O T G	2			2(1 6)	2	LQ FP 64
	G D3 2V F1 03 RB T6	10 8	12 8K	32 K	u p to 5 1	4	1	2	1	2	1	3 + 2	2	3	2	O T G	2			2(1 6)	2	LQ FP 64

G D3 2V F1 03 V8 T6	10 8	64 K	20 K	u p to 8 0	4	1	2	1	2	1	3 + 2	2	3	2	O T G	2			•	2(1 6)	2	LQ FP 10 0
G D3 2V F1 03 VB T6	10 8	12 8K	32 K	u p to 8 0	4	1	2	1	2	1	3 + 2	2	3	2	O T G	2			• 2(16)		2	LQ FP 10 0

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

S e r i e s	Part N o.	M a x S p e e d (M H z)	M e m o r y	(B y t e s)	I/ O	Timer						Connectivity							Analog Interfa ce		Pa c k a g e	
			Fl a s h	S R A M		G P T M (3 2b it)	G P T M (1 6b it)	Ad v a n c e d T M (16 bit)	Ba s i c T M (1 6b it)	Sy s T i c k (24 bit)	W D G	R T C	U S A R T	I ² C	S P I	U S B 2. 0F S	I ² S	Co m p	O P- A M P	12 bit A D C U n i t s (C H s)		12 bit D A C U n i t s
	GD 32 E2 30F 4P 6T R	72	16 K	4K	up to 15		4	1	1	1	2	1	1	1	1		1	1		1(9)		TS SO P2 0
	GD 32 E2 30F 6P 6T R	72	32 K	6K	up to 15		4	1	1	1	2	1	2	1	1		1	1		1(9)		TS SO P2 0

G D 3 2 E 2 3 0	GD 32 E2 30F 8P 6T R	72	64 K	8K	up to 15		4	1	1	1	2	1	2	2	2		1	1		1(9)		TS SO P2 0
	GD 32 E2 30F 4V 6T R	72	16 K	4K	up to 15		4	1	1	1	2	1	1	1	1		1	1		1(9)		LG A2 0
	GD 32 E2 30F 6V 6T R	72	32 K	6K	up to 15		4	1	1	1	2	1	2	1	1		1	1		1(9)		LG A2 0
	GD 32 E2 30F 8V 6T R	72	64 K	8K	up to 15		4	1	1	1	2	1	2	2	2		1	1		1(9)		LG A2 0
	GD 32 E2 30 G4 U6 TR	72	16 K	4K	up to 23		4	1	1	1	2	1	1	1	1		1	1		1(10)		QF N2 8
	GD 32 E2 30 G6 U6 TR	72	32 K	6K	up to 23		4	1	1	1	2	1	2	1	1		1	1		1(10)		QF N2 8
	GD 32 E2 30 G8 U6 TR	72	64 K	8K	up to 23		5	1	1	1	2	1	2	2	2		1	1		1(10)		QF N2 8

GD32E230K4U6	72	16K	4K	up to 27		4	1	1	1	2	1	1	1	1		1	1		1(10)		QFN32
GD32E230K6U6	72	32K	6K	up to 27		4	1	1	1	2	1	2	1	1		1	1		1(10)		QFN32
GD32E230K8U6	72	64K	8K	up to 27		5	1	1	1	2	1	2	2	2		1	1		1(10)		QFN32
GD32E230K4T6	72	16K	4K	up to 25		4	1	1	1	2	1	1	1	1		1	1		1(10)		LQFP32

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

	Part No.	Max Speed (MHz)	Memory	(Bytes)	I/O	Timer						Connectivity						Analog		Interface		Package	
			Flash	SRAM		GP TIM (32bit)	GP TIM (16bit)	Advanced TIM (16bit)	BSCTM (16bit)	Systick (24bit)	WDG	RTC	USART	I ² C	SPI	USB 2.0 FS	I ² S	COMP	OP-AMP	12bit ADC Units (CHs)	12bit DAC Units		
	GD32E230K6T6	72	32K	6K	up to 25		4	1	1	1	2	1	2	1	1		1	1		1(10)			LQFP32

G D 3 2 E 2 3 0	GD 32 E2 30 K8 T6	72	64 K	8 K	up to 25		5	1	1	1	2	1	2	2	2		1	1		1(10)		LQ FP 32
	GD 32 E2 30 C4 T6	72	16 K	4 K	up to 39		4	1	1	1	2	1	1	1	1		1	1		1(1 0)		LQ FP 48
	GD 32 E2 30 C6 T6	72	32 K	6 K	up to 39		4	1	1	1	2	1	2	1	1		1	1		1(10)		LQ FP 48
	GD 32 E2 30 C8 T6	72	64 K	8 K	up to 39		5	1	1	1	2	1	2	2	2		1	1		1(1 0)		LQ FP 48
G D 3 2 E 2 3 2	GD 32 E2 32 E4 U7 TR	72	16 K	4 K	up to 18	1	4	1	2	1	2	1	2	2	1		1			1(9)	4	QF N2 4
	GD 32 E2 32 E6 U7 TR	72	32 K	6 K	up to 18	1	4	1	2	1	2	1	2	2	1		1			1(9)	4	QF N2 4
	GD 32 E2 32 E8 U7 TR	72	64 K	8 K	up to 18	1	5	1	2	1	2	1	2	2	2		1			1(9)	4	QF N2 4
	GD 32 E2 32 K4 Q7 TR	72	16 K	4 K	up to 28	1	4	1	2	1	2	1	2	2	1		1			1(1 6)	4	QF N3 2

GD 32 E2 32 K6 Q7 TR	72	32 K	6 K	up to 28	1	4	1	2	1	2	1	2	2	1		1			1(16)	4	QF N3 2
GD 32 E2 32 K8 Q7 TR	72	64 K	8 K	up to 28	1	5	1	2	1	2	1	2	2	2		1			1(1 6)	4	QF N3 2

GD32E1 series of 32-bit ARM® Cortex®-M4 MCUs Selection Guide

Series	Part No.	Max Speed (MHz)	Memory (Bytes)		I/O	Timer						Connectivity								EMC	Analog Interface		Package
			Flash	SRAM		GPIO (16bit)	Advanced TM (16bit)	Bsc TM (16bit)	SysTick (24bit)	WDG	RTC	USART + UART	I ² C	SPI	CAN 2.0B	USB 2.0FS	I ² S	SDIO	Ethernet		12 bit ADC Units (CHs)	12 bit DAC Units	
	GD32E113T8U6	120	1	64K	20K	up to 26	4	1	2														
	1	2	1	2+0	1	1																	
	2(10) 2 QFN36																						
	GD32E113TBU6	120	1	32K	up to 26	4	1	2	1	2	1	2+0	1	1	OTG				2(10)	2	QFN36		
	1	2	1	2	2	1	2	1	2+0	1	1	OTG											
	2(10) 2 LQFP48																						
	GD32E113C8T6	120	1	64K	20K	up to 37	10	1	2														
	1	2	1	3+0	2	3																	
	2(10) 2 LQFP48																						

G D 3 2 E 1 1 3	G D3 2E 11 3C BT 6	12 0	1 2 8 K	32 K	u p to 3 7	10	1	2	1	2	1	3 + 0	2	3		O T G	2				2(1 0)	2	LQF P48
	GD32E113R8T6 1 2 1 3+2 2 up to 51 10 2 2 2 2(16) 2 LQFP64																						
	G D3 2E 11 3R BT 6	12 0	1 2 8 K	32 K	u p to 5 1	10	2	2	1	2	1	3 + 2	2	3		O T G	2				2(1 6)	2	LQF P64
	GD32E113V8T6 1 2 2 1 3+2 2 up to 80 10 2 2 2 2(16) 2 LQFP100																						
G D 3 2 C 1 1 3	G D3 2E 11 3V BT 6	12 0	1 2 8 K	32 K	u p to 8 0	10	2	2	1	2	1	3 + 2	2	3		O T G	2		•	2(1 6)	2	LQF P10 0	
	GD32C113TBU6 1 2 1 2+0 1 up to 26 4 1 2 2(10) 2 QFN36																						
	G D3 2C 11 3C BT 6	12 0	1 2 8 K	32 K	u p to 3 7	10	1	2	1	2	1	3 + 0	2	3	2 x F D	O T G	2				2(1 0)	2	LQF P48
	GD32C113RBT6 1 2 1 3+2 2 up to 51 10 2 2 2 2(16) 2 LQFP64																						
G D 3 2 C 1 1 3	G D3 2C 11 3V BT 6	12 0	1 2 8 K	32 K	u p to 8 0	10	2	2	1	2	1	3 + 2	2	3	2 x F D	O T G	2		•	2(1 6)	2	LQF P10 0	
	GD32C113TBU6 1 2 1 2+0 1 up to 26 4 1 2 2(10) 2 QFN36																						
	G D3 2C 11 3C BT 6	12 0	1 2 8 K	32 K	u p to 3 7	10	1	2	1	2	1	3 + 0	2	3	2 x F D	O T G	2				2(1 0)	2	LQF P48
	GD32C113RBT6 1 2 1 3+2 2 up to 51 10 2 2 2 2(16) 2 LQFP64																						

				Memory (Bytes)		Timer		Connectivity			Analog Interface		
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S e r i e s	P a r t N o .	M a x S p e d (M H z)	F l a s h	S R A M	I/ O	G P T M (1 6 b i t)	A d v T M (1 6 b i t)	B s c T M (1 6 b i t)	S y s T i c k (2 4 b i t)	W D G	R T C	U S A R T + U A R T	I ² C	S P I	C A N 2. 0 B	U S B 2. 0 F S	I ² S	S D I O	E t h e r n e t	E X M C	1 2 b i t A D C U n i t s (C H s)	1 2 b i t D A C U n i t s	Pac kag e
																					2(10)	2	
G D 3 2 E 1 0 3	G D3 2E 10 3T 8U 6	12 0	6 4 K	2 0 K	u p t o 2 6	4	1	2	1	2	1	2 + 0	1	1		O T G				2(10)	2	QF N3 6	
	G D3 2E 10 3T B U6	12 0	1 2 8 K	3 2 K	u p t o 2 6	4	1	2	1	2	1	2 + 0	1	1		O T G				2(1 0)	2	QF N3 6	
	G D3 2E 10 3C 8T 6	12 0	6 4 K	2 0 K	u p t o 3 7	1 0	1	2	1	2	1	3 + 0	2	3		O T G	2			2(10)	2	LQ FP 48	
	G D3 2E 10 3C BT 6	12 0	1 2 8 K	3 2 K	u p t o 3 7	1 0	1	2	1	2	1	3 + 0	2	3		O T G	2			2(1 0)	2	LQ FP 48	
	G D3 2E 10 3R 8T 6	12 0	6 4 K	2 0 K	u p t o 5 1	1 0	2	2	1	2	1	3 + 2	2	3		O T G	2			2(16)	2	LQ FP 64	

		G D3 2E 10 3R BT 6	12 0	1 2 8 K	3 2 K	u p to 5 1	1 0	2	2	1	2	1	3 + 2	2	3		O T G	2				2(1 6)	2	LQ FP 64	
		G D3 2E 10 3V 8T 6	12 0	6 4 K	2 0 K	u p to 8 0	1 0	2	2	1	2	1	3 + 2	2	3		O T G	2				• 2(16)	2	LQ FP 100	
		G D3 2E 10 3V BT 6	12 0	1 2 8 K	3 2 K	u p to 8 0	1 0	2	2	1	2	1	3 + 2	2	3		O T G	2				•	2(1 6)	2	LQ FP 100
G D 3 2 C 1 0 3		G D3 2C 10 3T B U6	12 0	1 2 8 K	3 2 K	u p to 2 6	4	1	2	1	2	1	2 + 0	1	1	2 x F D	O T G					2(10)	2	QF N3 6	
		G D3 2C 10 3C BT 6	12 0	1 2 8 K	3 2 K	u p to 3 7	1 0	1	2	1	2	1	3 + 0	2	3	2 x F D	O T G	2					2(1 0)	2	LQ FP 48
		G D3 2C 10 3R BT 6	12 0	1 2 8 K	3 2 K	u p to 5 1	1 0	2	2	1	2	1	3 + 2	2	3	2 x F D	O T G	2				2(16)	2	LQ FP 64	
		G D3 2C 10 3V BT 6	12 0	1 2 8 K	3 2 K	u p to 8 0	1 0	2	2	1	2	1	3 + 2	2	3	2 x F D	O T G	2				•	2(1 6)	2	LQ FP 100

Series	Part No.	Max Speed (MHz)	Memory (Bytes)		I/O	Timer						Connectivity										Analog Interface		Package		
			Flash	SRAM		GPWM (16bit)	Adv TM (16bit)	GPWM (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	IPA	EXMC/SDRAM		12bit ADC Units (Chs)	12bit DAC Units
GD32F425	GD32F425RET6	200	512K	256K	up to 51	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1				3(16)	2	LQFP64
	GD32F425RGT6	200	1024K	256K	up to 51	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1				3(16)	2	LQFP64
	GD32F425RKT6	200	3072K	256K	up to 51	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1				3(16)	2	LQFP64
	GD32F425VGT6	200	1024K	256K	up to 82	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1				3(16)	2	LQFP100
	GD32F425VKT6	200	3072K	256K	up to 82	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1				3(16)	2	LQFP100
	GD32F425VGH6	200	1024K	256K	up to 82	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1				3(16)	2	BGA100
	GD32F425VKH6	200	3072K	256K	up to 82	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1				3(16)	2	BGA100
	GD32F425ZGT6	200	1024K	256K	up to 114	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1				3(24)	2	LQFP144
	GD32F425ZKT6	200	3072K	256K	up to 114	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1				3(24)	2	LQFP144
	GD32F427RET6	200	512K	256K	up to 51	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1			3(16)	2	LQFP64
GD32F427	GD32F427RGT6	200	1024K	256K	up to 51	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1			3(16)	2	LQFP64
	GD32F427RKT6	200	3072K	256K	up to 51	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1			3(16)	2	LQFP64
	GD32F427VET6	200	512K	256K	up to 82	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1		1/0	3(16)	2	LQFP100
	GD32F427VGT6	200	1024K	256K	up to 82	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1		1/0	3(16)	2	LQFP100
	GD32F427VKT6	200	3072K	256K	up to 82	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1		1/0	3(16)	2	LQFP100
	GD32F427VEH6	200	512K	256K	up to 82	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1		1/0	3(16)	2	BGA100
	GD32F427VGH6	200	1024K	256K	up to 82	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1		1/0	3(16)	2	BGA100
	GD32F427VKH6	200	3072K	256K	up to 82	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1		1/0	3(16)	2	BGA100
	GD32F427ZET6	200	512K	256K	up to 114	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1		1/1	3(24)	2	LQFP144
	GD32F427ZGT6	200	1024K	256K	up to 114	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1		1/1	3(24)	2	LQFP144
GD32F470	GD32F470ZKT6	200	3072K	256K	up to 114	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1		1/1	3(24)	2	LQFP144
	GD32F427IEH6	200	512K	256K	up to 140	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1		1/1	3(24)	2	BGA176
	GD32F427IGH6	200	1024K	256K	up to 140	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1		1/1	3(24)	2	BGA176
	GD32F427IKH6	200	3072K	256K	up to 140	8	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1		1/1	3(24)	2	BGA176
	GD32F470VET6	240	512K	256K	up to 82	8	2	2	2	2	1	4+4	3	5	2	FS+HS	2	1	1	1	1	1	1/0	3(16)	2	LQFP100
	GD32F470VGT6	240	1024K	512K	up to 82	8	2	2	2	2	1	4+4	3	5	2	FS+HS	2	1	1	1	1	1	1/0	3(16)	2	LQFP100
	GD32F470VKT6	240	2048K	768K	up to 82	8	2	2	2	2	1	4+4	3	5	2	FS+HS	2	1	1	1	1	1	1/0	3(16)	2	LQFP100
	GD32F470VGH6	240	1024K	512K	up to 82	8	2	2	2	2	1	4+4	3	5	2	FS+HS	2	1	1	1	1	1	1/0	3(16)	2	BGA100
	GD32F470VIH6	240	2048K	768K	up to 82	8	2	2	2	2	1	4+4	3	5	2	FS+HS	2	1	1	1	1	1	1/0	3(16)	2	BGA100
	GD32F470VXH6	240	3072K	256K	up to 82	8	2	2	2	2	1	4+4	3	5	2	FS+HS	2	1	1	1	1	1	1/0	3(16)	2	BGA100
GD32F470Z	GD32F470ZET6	240	512K	256K	up to 114	8	2	2	2	2	1	4+4	3	6	2	FS+HS	2	1	1	1	1	1	1/1	3(24)	2	LQFP144
	GD32F470ZGT6	240	1024K	512K	up to 114	8	2	2	2	2	1	4+4	3	6	2	FS+HS	2	1	1	1	1	1	1/1	3(24)	2	LQFP144
	GD32F470ZIT6	240	2048K	768K	up to 114	8	2	2	2	2	1	4+4	3	6	2	FS+HS	2	1	1	1	1	1	1/1	3(24)	2	LQFP144
	GD32F470ZKT6	240	3072K	256K	up to 114	8	2	2	2	2	1	4+4	3	6	2	FS+HS	2	1	1	1	1	1	1/1	3(24)	2	LQFP144
	GD32F470ZGH6	240	1024K	512K	up to 140	8	2	2	2	2	1	4+4	3	6	2	FS+HS	2	1	1	1	1	1	1/1	3(24)	2	BGA176
	GD32F470IHH6	240	2048K	768K	up to 140	8	2	2	2	2	1	4+4	3	6	2	FS+HS	2	1	1	1	1	1	1/1	3(24)	2	BGA176
	GD32F470IKH6	240	3072K	256K	up to 140	8	2	2	2	2	1	4+4	3	6	2	FS+HS	2	1	1	1	1	1	1/1	3(24)	2	BGA176

Series	Part No.	Max Speed (MHz)	Memory (Bytes)		I/O	Timer							Connectivity										Analog Interface		Package		
			Flash	SRAM		GPWM (16bit)	Adv TM (16bit)	GPWM (32bit)	Bsc TM (16bit)	WDG	RTC	USART +UART	I ² C	SPI	CAN 2.0B	USB OTG	I ² S	SDIO	LCD-TFT	Cam era	ETH MAC	IPA	EXMC/SDRAM	12bit ADC Units (Chs)		12bit DAC Units	
GD32F403	GD32F403RCT6	168	256K	64K	up to 51	8	2			2	2	1	3+2	2	3	2	OTG	2	1				0/0	3(16)	2	LQFP64	
	GD32F403RET6	168	512K	96K	up to 51	8	2			2	2	1	3+2	2	3	2	OTG	2	1				0/0	3(16)	2	LQFP64	
	GD32F403RGT6	168	1024K	128K	up to 51	8	2			2	2	1	3+2	2	3	2	OTG	2	1				0/0	3(16)	2	LQFP64	
	GD32F403RIT6	168	2048K	128K	up to 51	8	2			2	2	1	3+2	2	3	2	OTG	2	1				0/0	3(16)	2	LQFP64	
	GD32F403RKT6	168	3072K	128K	up to 51	8	2			2	2	2	1	3+2	2	3	2	OTG	2	1				0/0	3(16)	2	LQFP64
	GD32F403VCT6	168	256K	64K	up to 80	8	2			2	2	2	1	3+2	2	3	2	OTG	2	1			1/0	3(16)	2	LQFP100	
	GD32F403VET6	168	512K	96K	up to 80	8	2			2	2	2	1	3+2	2	3	2	OTG	2	1			1/0	3(16)	2	LQFP100	
	GD32F403VGT6	168	1024K	128K	up to 80	8	2			2	2	2	1	3+2	2	3	2	OTG	2	1			1/0	3(16)	2	LQFP100	
	GD32F403VIT6	168	2048K	128K	up to 80	8	2			2	2	2	2	1	3+2	2	3	2	OTG	2	1		1/0	3(16)	2	LQFP100	
	GD32F403VKT6	168	3072K	128K	up to 80	8	2			2	2	2	2	1	3+2	2	3	2	OTG	2	1		1/0	3(16)	2	LQFP100	
GD32F405	GD32F405VCH6	168	256K	64K	up to 80	8	2			2	2	2	1	3+2	2	3	2	OTG	2	1			1/0	3(16)	2	BGA100	
	GD32F405VEH6	168	512K	96K	up to 80	8	2			2	2	2	1	3+2	2	3	2	OTG	2	1			1/0	3(16)	2	BGA100	
	GD32F405VGH6	168	1024K	128K	up to 80	8	2			2	2	2	1	3+2	2	3	2	OTG	2	1			1/0	3(16)	2	BGA100	
	GD32F405VIH6	168	2048K	128K	up to 80	8	2			2	2	2	1	3+2	2	3	2	OTG	2	1			1/0	3(16)	2	BGA100	
	GD32F405VKH6	168	3072K	128K	up to 80	8	2			2	2	2	1	3+2	2	3	2	OTG	2	1			1/0	3(16)	2	BGA100	
	GD32F405ZCT6	168	256K	64K	up to 112	8	2			2	2	2	1	3+2	2	3	2	OTG	2	1			1/0	3(21)	2	LQFP144	
	GD32F405ZET6	168	512K	96K	up to 112	8	2			2	2	2	1	3+2	2	3	2	OTG	2	1			1/0	3(21)	2	LQFP144	
	GD32F405ZGT6	168	1024K	128K	up to 112	8	2			2	2	2	1	3+2	2	3	2	OTG	2	1			1/0	3(21)	2	LQFP144	
	GD32F405ZIT6	168	2048K	128K	up to 112	8	2			2	2	2	2	1	3+2	2	3	2	OTG	2	1		1/0	3(21)	2	LQFP144	
	GD32F405ZKT6	168	3072K	128K	up to 112	8	2			2	2	2	2	1	3+2	2	3	2	OTG	2	1		1/0	3(21)	2	LQFP144	
GD32F407	GD32F405RET6	168	512K	192K	up to 51	8	2	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1		3(16)	2	LQFP64		
	GD32F405RGT6	168	1024K	192K	up to 51	8	2	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1		3(16)	2	LQFP64		
	GD32F405RKT6	168	3072K	192K	up to 51	8	2	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1		3(16)	2	LQFP64		
	GD32F405VGT6	168	1024K	192K	up to 82	8	2	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1		3(16)	2	LQFP100		
	GD32F405VKT6	168	3072K	192K	up to 82	8	2	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1		3(16)	2	LQFP100		
	GD32F405VGH6	168	1024K	192K	up to 82	8	2	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1		3(16)	2	BGA100		
	GD32F405VKH6	168	3072K	192K	up to 82	8	2	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1		3(16)	2	BGA100		
	GD32F405ZGT6	168	1024K	192K	up to 114	8	2	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1		3(24)	2	LQFP144		
	GD32F405ZKT6	168	3072K	192K	up to 114	8	2	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1		3(24)	2	LQFP144		
	GD32F407RET6	168	512K	192K	up to 51	8	2	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1	3(16)	2	LQFP64		
GD32F407	GD32F407RGT6	168	1024K	192K	up to 51	8	2	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1	3(16)	2	LQFP64		
	GD32F407RKT6	168	3072K	192K	up to 51	8	2	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1	3(16)	2	LQFP64		
	GD32F407VET6	168	512K	192K	up to 82	8	2	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1	3(16)	2	LQFP100		
	GD32F407VGT6	168	1024K	192K	up to 82	8	2	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1	3(16)	2	LQFP100		
	GD32F407VKT6	168	3072K	192K	up to 82	8	2	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1	3(16)	2	LQFP100		
	GD32F407VEH6	168	512K	192K	up to 82	8	2	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1	3(16)	2	BGA100		
	GD32F407VGH6	168	1024K	192K	up to 82	8	2	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1	3(16)	2	BGA100		
	GD32F407VKH6	168	3072K	192K	up to 82	8	2	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1	3(16)	2	BGA100		
	GD32F407ZET6	168	512K	192K	up to 114	8	2	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1	3(24)	2	LQFP144		
	GD32F407ZGT6	168	1024K	192K	up to 114	8	2	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1	3(24)	2	LQFP144		
GD32F450	GD32F407ZKT6	168	3072K	192K	up to 114	8	2	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1	3(24)	2	LQFP144		
	GD32F407VEH6	168	512K	192K	up to 140	8	2	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1	3(24)	2	BGA176		
	GD32F407VGH6	168	1024K	192K	up to 140	8	2	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1	3(24)	2	BGA176		
	GD32F407VKT6	168	3072K	192K	up to 140	8	2	2	2	2	2	1	4+2	3	3	2	FS+HS	2	1		1	1	3(24)	2	BGA176		
	GD32F450VET6	200	512K	256K	up to 82	8	2	2	2	2	2	1	4+4	3	5	2	FS+HS	2	1	1	1	1	1/0	3(16)	2	LQFP100	
	GD32F450VGT6	200	1024K	256K	up to 82	8	2	2	2	2	2	1	4+4	3	5	2	FS+HS	2	1	1	1	1	1/0	3(16)	2	LQFP100	
	GD32F450VIT6	200	2048K	512K	up to 82	8	2	2	2	2	2	1	4+4	3	5	2	FS+HS	2	1	1	1	1	1/0	3(16)	2	LQFP100	
	GD32F450VKT6	200	3072K	256K	up to 82	8	2	2	2	2	2	1	4+4	3	5	2	FS+HS	2	1	1	1	1	1/0	3(16)	2	LQFP100	
	GD32F450ZET6	200	512K	256K	up to 114	8	2	2	2	2	2	1	4+4	3	6	2	FS+HS	2	1	1	1	1	1/1	3(24)	2	LQFP144	
	GD32F450ZGT6	200	1024K	256K	up to 114	8	2	2	2	2	2	1	4+4	3	6	2	FS+HS	2	1	1	1	1	1/1	3(24)	2	LQFP144	
GD32F450	GD32F450ZET6	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	3(24)	2	LQFP144		
	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	3(24)	2	LQFP144		
	GD32F450IGH6	200	1024K	256K	up to 140	8	2	2	2	2	2	1	4+4	3	6	2	FS+HS	2	1	1	1	1	1/1	3(24)	2	BGA176	
	GD32F450IHH6	200	2048K	512K	up to 140	8	2	2	2	2	2	1	4+4	3	6	2	FS+HS	2	1	1	1	1	1/1	3(24)	2	BGA176	
	GD32F450IKH6	200	3072K	256K	up to 140	8	2	2	2	2	2	1	4+4	3	6	2	FS+HS	2	1	1	1	1	1/1	3(24)	2	BGA176	

Series	Part No.	Max Speed (MHz)	Memory (Bytes)		I/O	Timer							Connectivity								EXMC	Analog Interface		Package	
			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	Ethernet	12bit ADC Units (Chs)		12bit DAC Units			
GD32F303	GD32F303CBT6	120	128K	32K	up to 37	4	1	2	1	2	1	3	2	3	1	1	2					3(10)	2	LQFP48	
	GD32F303CCT6	120	256K	48K	up to 37	4	1	2	1	2	1	3	2	3	1	1	2					3(10)	2	LQFP48	
	GD32F303CET6	120	512K	64K	up to 37	4	1	2	1	2	1	3	2	3	1	1	2					3(10)	2	LQFP48	
	GD32F303CGT6	120	1024K	96K	up to 37	10	1	2	1	2	1	3	2	3	1	1	2					3(10)	2	LQFP48	
	GD32F303RBT6	120	128K	32K	up to 51	4	2	2	1	2	1	5	2	3	1	1	2					3(16)	2	LQFP64	
	GD32F303RCt6	120	256K	48K	up to 51	4	2	2	1	2	1	5	2	3	1	1	2	1					3(16)	2	LQFP64
	GD32F303RET6	120	512K	64K	up to 51	4	2	2	1	2	1	5	2	3	1	1	2	1					3(16)	2	LQFP64
	GD32F303RGt6	120	1024K	96K	up to 51	10	2	2	1	2	1	5	2	3	1	1	2	1					3(16)	2	LQFP64
	GD32F303RIt6	120	2048K	96K	up to 51	10	2	2	1	2	1	5	2	3	1	1	2	1					3(16)	2	LQFP64
	GD32F303RKt6	120	3072K	96K	up to 51	10	2	2	1	2	1	5	2	3	1	1	2	1					3(16)	2	LQFP64
	GD32F303VBt6	120	128K	32K	up to 80	4	2	2	1	2	1	5	2	3	1	1	2			*		3(16)	2	LQFP100	
	GD32F303VCt6	120	256K	48K	up to 80	4	2	2	1	2	1	5	2	3	1	1	2	1			*		3(16)	2	LQFP100
	GD32F303VEt6	120	512K	64K	up to 80	4	2	2	1	2	1	5	2	3	1	1	2	1			*		3(16)	2	LQFP100
	GD32F303VGt6	120	1024K	96K	up to 80	10	2	2	1	2	1	5	2	3	1	1	2	1			*		3(16)	2	LQFP100
	GD32F303VIt6	120	2048K	96K	up to 80	10	2	2	1	2	1	5	2	3	1	1	2	1			*		3(16)	2	LQFP100
	GD32F303VKt6	120	3072K	96K	up to 80	10	2	2	1	2	1	5	2	3	1	1	2	1			*		3(16)	2	LQFP100
	GD32F303ZCt6	120	256K	48K	up to 112	4	2	2	1	2	1	5	2	3	1	1	2	1			*		3(21)	2	LQFP144
	GD32F303ZEt6	120	512K	64K	up to 112	4	2	2	1	2	1	5	2	3	1	1	2	1			*		3(21)	2	LQFP144
	GD32F303ZGt6	120	1024K	96K	up to 112	10	2	2	1	2	1	5	2	3	1	1	2	1			*		3(21)	2	LQFP144
GD32F305	GD32F303ZIt6	120	2048K	96K	up to 112	10	2	2	1	2	1	5	2	3	1	1	2	1			*		3(21)	2	LQFP144
	GD32F303ZKt6	120	3072K	96K	up to 112	10	2	2	1	2	1	5	2	3	1	1	2	1			*		3(21)	2	LQFP144
	GD32F305RBT6	120	128K	64K	up to 51	4	1	2	1	2	1	5	2	3	2	OTG	2					2(16)	2	LQFP64	
	GD32F305RCt6	120	256K	96K	up to 51	4	1	2	1	2	1	5	2	3	2	OTG	2					2(16)	2	LQFP64	
	GD32F305REt6	120	512K	96K	up to 51	4	2	2	1	2	1	5	2	3	2	OTG	2					2(16)	2	LQFP64	
	GD32F305RGt6	120	1024K	96K	up to 51	10	2	2	1	2	1	5	2	3	2	OTG	2					2(16)	2	LQFP64	
	GD32F305VBt6	120	256K	96K	up to 80	4	1	2	1	2	1	5	2	3	2	OTG	2		*			2(16)	2	LQFP100	
	GD32F305VEt6	120	512K	96K	up to 80	4	2	2	1	2	1	5	2	3	2	OTG	2		*			2(16)	2	LQFP100	
	GD32F305VGt6	120	1024K	96K	up to 80	10	2	2	1	2	1	5	2	3	2	OTG	2		*			2(16)	2	LQFP100	
	GD32F305ZCt6	120	256K	96K	up to 112	4	2	2	1	2	1	5	2	3	2	OTG	2		*			2(16)	2	LQFP144	
GD32F307	GD32F305ZEt6	120	512K	96K	up to 112	4	2	2	1	2	1	5	2	3	2	OTG	2		*			2(16)	2	LQFP144	
	GD32F305ZGt6	120	1024K	96K	up to 112	10	2	2	1	2	1	5	2	3	2	OTG	2		*			2(16)	2	LQFP144	
	GD32F307RCt6	120	256K	96K	up to 51	4	1	2	1	2	1	5	2	3	2	OTG	2		*			2(16)	2	LQFP64	
	GD32F307REt6	120	512K	96K	up to 51	4	2	2	1	2	1	5	2	3	2	OTG	2		*			2(16)	2	LQFP64	
	GD32F307RGt6	120	1024K	96K	up to 51	10	2	2	1	2	1	5	2	3	2	OTG	2		*			2(16)	2	LQFP64	
	GD32F307VCt6	120	256K	96K	up to 80	4	1	2	1	2	1	5	2	3	2	OTG	2		*	*		2(16)	2	LQFP100	
	GD32F307VEt6	120	512K	96K	up to 80	4	2	2	1	2	1	5	2	3	2	OTG	2		*	*		2(16)	2	LQFP100	
	GD32F307VGt6	120	1024K	96K	up to 80	10	2	2	1	2	1	5	2	3	2	OTG	2		*	*		2(16)	2	LQFP100	
	GD32F307ZCt6	120	256K	96K	up to 112	4	2	2	1	2	1	5	2	3	2	OTG	2		*	*		2(16)	2	LQFP144	
	GD32F307ZEt6	120	512K	96K	up to 112	4	2	2	1	2	1	5	2	3	2	OTG	2		*	*		2(16)	2	LQFP144	
GD32F307ZGt6	120	1024K	96K	up to 112	10	2	2	1	2	1	5	2	3	2	OTG	2		*	*		2(16)	2	LQFP144		

Series	Part No.	Max Speed (MHz)	Memory (Bytes)		I/O	Timer								Connectivity								Analog Interface		Package	
			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	Comp	12bit ADC Units (Chs)	12bit DAC Units				
GD32F310	GD32F310F4P6TR	72	16K	4K	up to 15		4	1			1	2	1	1	1	1				1(9)			TSSOP20		
	GD32F310F6P6TR	72	32K	6K	up to 15		4	1			1	2	1	2	1	1	1			1(9)			TSSOP20		
	GD32F310F8P6TR	72	64K	8K	up to 15		4	1			1	2	1	2	2	2	2			1(9)			TSSOP20		
	GD32F310G8U6TR	72	64K	8K	up to 23		5	1			1	2	1	2	2	2	2	1			1(10)			QFN28	
	GD32F310K8U6	72	64K	8K	up to 27		5	1			1	2	1	2	2	2	2	1			1(10)			QFN32	
	GD32F310K6T6	72	32K	6K	up to 25		4	1			1	2	1	2	1	1	1	1			1(10)			LQFP32	
	GD32F310K8T6	72	64K	8K	up to 25		5	1			1	2	1	2	2	2	2	1			1(10)			LQFP32	
	GD32F310C8T6	72	64K	8K	up to 39		5	1			1	2	1	2	2	2	2	1			1(10)			LQFP48	
	GD32F330F4P6TR	84	16K	4K	up to 15	1	4	1			1	2	1	1	1	1	1	1			1(9)			TSSOP20	
	GD32F330F6P6TR	84	32K	4K	up to 15	1	4	1			1	2	1	2	1	1	1	1			1(9)			TSSOP20	
GD32F330	GD32F330F8P6TR	84	64K	8K	up to 15	1	4	1			1	2	1	2	2	2	2	2			1(9)			TSSOP20	
	GD32F330G4U6TR	84	16K	4K	up to 23	1	4	1			1	2	1	1	1	1	1	1			1(10)			QFN28	
	GD32F330G6U6TR	84	32K	4K	up to 23	1	4	1			1	2	1	2	1	1	1	1			1(10)			QFN28	
	GD32F330G8U6TR	84	64K	8K	up to 23	1	5	1			1	2	1	2	2	2	2	2			1(10)			QFN28	
	GD32F330K4U6	84	16K	4K	up to 27	1	4	1			1	2	1	1	1	1	1	1			1(10)			QFN32	
	GD32F330K6U6	84	32K	4K	up to 27	1	4	1			1	2	1	2	1	1	1	1			1(10)			QFN32	
	GD32F330K8U6	84	64K	8K	up to 27	1	5	1			1	2	1	2	2	2	2	1			1(10)			QFN32	
	GD32F330K4T6	84	16K	4K	up to 27	1	4	1			1	2	1	1	1	1	1	1			1(10)			LQFP32	
	GD32F330K6T6	84	32K	4K	up to 27	1	5	1			1	2	1	2	2	2	2	1			1(10)			LQFP32	
	GD32F330C4T6	84	16K	4K	up to 39	1	4	1			1	2	1	1	1	1	1	1			1(10)			LQFP48	
GD32F350	GD32F330C6T6	84	32K	4K	up to 39	1	4	1			1	2	1	2	1	1	1	1			1(10)			LQFP48	
	GD32F330C8T6	84	64K	8K	up to 39	1	5	1			1	2	1	2	2	2	2	1			1(10)			LQFP48	
	GD32F330C8T6	84	128K	16K	up to 39	1	5	1			1	2	1	2	2	2	2	1			1(10)			LQFP48	
	GD32F330R8T6	84	64K	16K	up to 55	1	5	1			1	2	1	2	2	2	2	2			1(16)			LQFP64	
	GD32F330R8T6	84	128K	16K	up to 55	1	5	1			1	2	1	2	2	2	2	2			1(16)			LQFP64	
	GD32F350G4U6TR	108	16K	4K	up to 24	1	5	1	1	1	1	2	1	1	1	1	1	OTG	1	1	2	1(10)	1		QFN28
	GD32F350G6U6TR	108	32K	6K	up to 24	1	5	1	1	1	1	2	1	2	1	1	1	OTG	1	1	2	1(10)	1		QFN28
	GD32F350G8U6TR	108	64K	8K	up to 24	1	5	1	1	1	1	2	1	2	2	2	2	OTG	1	1	2	1(10)	1		QFN28
	GD32F350K4U6	108	16K	4K	up to 27	1	5	1	1	1	1	2	1	1	1	1	1	OTG	1	1	2	1(10)	1		QFN32
	GD32F350K6U6	108	32K	6K	up to 27	1	5	1	1	1	1	2	1	2	1	1	1	OTG	1	1	2	1(10)	1		QFN32
GD32F350	GD32F350K8U6	108	64K	8K	up to 27	1	5	1	1	1	1	2	1	2	2	2	2	OTG	1	1	2	1(10)	1		QFN32
	GD32F350C4T6	108	16K	4K	up to 39	1	5	1	1	1	1	2	1	1	1	1	1	OTG	1	1	2	1(10)	1		LQFP48
	GD32F350C6T6	108	32K	6K	up to 39	1	5	1	1	1	1	2	1	2	1	1	1	OTG	1	1	2	1(10)	1		LQFP48
	GD32F350C8T6	108	64K	8K	up to 39	1	5	1	1	1	1	2	1	2	2	2	2	OTG	1	1	2	1(10)	1		LQFP48
	GD32F350C8T6	108	128K	16K	up to 39	1	5	1	1	1	1	2	1	2	2	2	2	OTG	1	1	2	1(10)	1		LQFP48
	GD32F350R4T6	108	16K	4K	up to 55	1	5	1	1	1	1	2	1	1	1	1	1	OTG	1	1	2	1(16)	1		LQFP64
	GD32F350R6T6	108	32K	8K	up to 55	1	5	1	1	1	1	2	1	2	1	1	1	OTG	1	1	2	1(16)	1		LQFP64
	GD32F350R8T6	108	64K	16K	up to 55	1	5	1	1	1	1	2	1	2	2	2	2	OTG	1	1	2	1(16)	1		LQFP64
	GD32F350R8T6	108	128K	16K	up to 55	1	5	1	1	1	1	2	1	2	2	2	2	OTG	1	1	2	1(16)	1		LQFP64

Series	Part No.	Max Speed (MHz)	Memory (Bytes)		I/O	Timer						Connectivity										EXMC/ SDRAM	Analog Interface		Package	
			Flash	SRAM		GBTM (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	Camera	ETH MAC		Crypto/ Hash	12bit ADC Units (Chs)		12bit DAC Units
GD32F205	GD32F205RCT6	120	256K	128K	up to 51	10	2	2	1	2	1	4+2	3	3	2	OTG	2	1						3(16)	2	LQFP64
	GD32F205RET6	120	512K	128K	up to 51	10	2	2	1	2	1	4+2	3	3	2	OTG	2	1						3(16)	2	LQFP64
	GD32F205RG6	120	1024K	256K	up to 51	10	2	2	1	2	1	4+2	3	3	2	OTG	2	1						3(16)	2	LQFP64
	GD32F205RKT6	120	3072K	256K	up to 51	10	2	2	1	2	1	4+2	3	3	2	OTG	2	1						3(16)	2	LQFP64
	GD32F205VCT6	120	256K	128K	up to 82	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1				1/0	3(16)	2	LQFP100
	GD32F205VET6	120	512K	128K	up to 82	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1				1/0	3(16)	2	LQFP100
	GD32F205VGT6	120	1024K	256K	up to 82	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1				1/0	3(16)	2	LQFP100
	GD32F205VKT6	120	3072K	256K	up to 82	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1				1/0	3(16)	2	LQFP100
	GD32F205ZCT6	120	256K	128K	up to 114	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1				1/1	3(24)	2	LQFP144
	GD32F205ZET6	120	512K	128K	up to 114	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1				1/1	3(24)	2	LQFP144
GD32F207	GD32F205ZGT6	120	1024K	256K	up to 114	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1				1/1	3(24)	2	LQFP144
	GD32F205ZKT6	120	3072K	256K	up to 114	10	2	2	1	2	1	4+4	3	3	2	OTG	2	1	1				1/1	3(24)	2	LQFP144
	GD32F207RCT6	120	256K	128K	up to 51	10	2	2	1	2	1	4+2	3	3	2	OTG	2	1		1	1	1		3(16)	2	LQFP64
	GD32F207RET6	120	512K	128K	up to 51	10	2	2	1	2	1	4+2	3	3	2	OTG	2	1		1	1	1		3(16)	2	LQFP64
	GD32F207RG6	120	1024K	256K	up to 51	10	2	2	1	2	1	4+2	3	3	2	OTG	2	1		1	1	1		3(16)	2	LQFP64
	GD32F207RKT6	120	3072K	256K	up to 51	10	2	2	1	2	1	4+2	3	3	2	OTG	2	1		1	1	1		3(16)	2	LQFP64
	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	1/0	3(16)	2	LQFP100
	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	1/0	3(16)	2	LQFP100
	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	1/0	3(16)	2	LQFP100
	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	1/0	3(16)	2	LQFP100
	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	3(24)	2	LQFP144
	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	3(24)	2	LQFP144
	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	3(24)	2	LQFP144
	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	3(24)	2	LQFP144
	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	3(24)	2	LQFP176
	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	3(24)	2	LQFP176
	GD32F207KIT6	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	3(24)	2	LQFP176

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

Series	Part No.	Max Speed (MHz)	Memory (Bytes)		I/O	Timer					Connectivity							EXMC	Analog Interface		Package		
			Flash	SRAM		GPWM (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	Ethernet		12bit ADC Units (Chs)	12bit DAC Units
GD32F101	GD32F101T4U6	56	16K	4K	up to 26	2			1	2	1	2	1	1							1(10)		QFN36
	GD32F101T6U6	56	32K	6K	up to 26	2			1	2	1	2	1	1							1(10)		QFN36
	GD32F101T8U6	56	64K	10K	up to 26	3			1	2	1	2	1	1							1(10)		QFN36
	GD32F101TB6U6	56	128K	16K	up to 26	3			1	2	1	2	1	1							1(10)		QFN36
	GD32F101C4T6	56	16K	4K	up to 37	2			1	2	1	2	1	1							1(10)		LQFP48
	GD32F101C6T6	56	32K	6K	up to 37	2			1	2	1	2	1	1							1(10)		LQFP48
	GD32F101C8T6	56	64K	10K	up to 37	3			1	2	1	3	2	2							1(10)		LQFP48
	GD32F101CBT6	56	128K	16K	up to 37	3			1	2	1	3	2	2							1(10)		LQFP48
	GD32F101R4T6	56	16K	4K	up to 51	2			1	2	1	2	1	1							1(16)		LQFP64
	GD32F101R6T6	56	32K	6K	up to 51	2			1	2	1	2	1	1							1(16)		LQFP64
	GD32F101R8T6	56	64K	10K	up to 51	3			1	2	1	3	2	2							1(16)		LQFP64
	GD32F101RB6T6	56	128K	16K	up to 51	3			1	2	1	3	2	2							1(16)		LQFP64
	GD32F101RC6T6	56	256K	32K	up to 51	4		2	1	2	1	5	2	3							1(16)	2	LQFP64
	GD32F101RD6T6	56	384K	48K	up to 51	4		2	1	2	1	5	2	3							1(16)	2	LQFP64
	GD32F101RET6	56	512K	48K	up to 51	4		2	1	2	1	5	2	3							1(16)	2	LQFP64
	GD32F101RFT6	56	768K	80K	up to 51	10		2	1	2	1	5	2	3							2(16)	2	LQFP64
	GD32F101RG6T6	56	1024K	80K	up to 51	10		2	1	2	1	5	2	3							2(16)	2	LQFP64
	GD32F101RIT6	56	2048K	80K	up to 51	10		2	1	2	1	5	2	3							2(16)	2	LQFP64
	GD32F101RKT6	56	3072K	80K	up to 51	10		2	1	2	1	5	2	3							2(16)	2	LQFP64
	GD32F101VB6T6	56	64K	10K	up to 80	3			1	2	1	3	2	2				*			1(16)		LQFP100
	GD32F101VBT6	56	128K	16K	up to 80	3			1	2	1	3	2	2				*			1(16)		LQFP100
	GD32F101VCT6	56	256K	32K	up to 80	4		2	1	2	1	5	2	3				*			1(16)	2	LQFP100
	GD32F101VDT6	56	384K	48K	up to 80	4		2	1	2	1	5	2	3				*			1(16)	2	LQFP100
	GD32F101VET6	56	512K	48K	up to 80	4		2	1	2	1	5	2	3				*			1(16)	2	LQFP100
	GD32F101VFT6	56	768K	80K	up to 80	10		2	1	2	1	5	2	3				*			2(16)	2	LQFP100
	GD32F101VGT6	56	1024K	80K	up to 80	10		2	1	2	1	5	2	3				*			2(16)	2	LQFP100
	GD32F101VIT6	56	2048K	80K	up to 80	10		2	1	2	1	5	2	3				*			2(16)	2	LQFP100
	GD32F101VK6T6	56	3072K	80K	up to 80	10		2	1	2	1	5	2	3				*			2(16)	2	LQFP100
	GD32F101ZCT6	56	256K	32K	up to 112	4		2	1	2	1	5	2	3				*			1(16)	2	LQFP144
	GD32F101ZDT6	56	384K	48K	up to 112	4		2	1	2	1	5	2	3				*			1(16)	2	LQFP144
	GD32F101ZET6	56	512K	48K	up to 112	4		2	1	2	1	5	2	3				*			1(16)	2	LQFP144
	GD32F101ZFT6	56	768K	80K	up to 112	10		2	1	2	1	5	2	3				*			2(16)	2	LQFP144
	GD32F101ZGT6	56	1024K	80K	up to 112	10		2	1	2	1	5	2	3				*			2(16)	2	LQFP144
	GD32F101ZIT6	56	2048K	80K	up to 112	10		2	1	2	1	5	2	3				*			2(16)	2	LQFP144
	GD32F101ZKT6	56	3072K	80K	up to 112	10		2	1	2	1	5	2	3				*			2(16)	2	LQFP144

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Series	Part No.	Max Speed (MHz)	Memory (Bytes)		I/O	Timer							Connectivity								EXMC	Analog Interface		Package
			Flash	SRAM		GPTM (16bit)	Advanced TM (16bit)	Basic TM (16bit)	SysTick (24bit)	WDG	RTC	USART (UART)	iC	SPI	CAN 2.0B	USB 2.0 FS	iS	SDIO	Ethernet	12bit ADC Units (Chs)		12bit DAC Units		
GD32F105	GD32F105R8T6	108	64K	64K	up to 51	4	1	2	1	2	1	5	2	3	2	OTG	2					2(16)	2	LQFP64
	GD32F105R8T6	108	128K	64K	up to 51	4	1	2	1	2	1	5	2	3	2	OTG	2					2(16)	2	LQFP64
	GD32F105RCt6	108	256K	96K	up to 51	4	1	2	1	2	1	5	2	3	2	OTG	2					2(16)	2	LQFP64
	GD32F105RDt6	108	384K	96K	up to 51	4	1	2	1	2	1	5	2	3	2	OTG	2					2(16)	2	LQFP64
	GD32F105RET6	108	512K	96K	up to 51	4	1	2	1	2	1	5	2	3	2	OTG	2					2(16)	2	LQFP64
	GD32F105RFT6	108	768K	96K	up to 51	4	1	2	1	2	1	5	2	3	2	OTG	2					2(16)	2	LQFP64
	GD32F105RGt6	108	1024K	96K	up to 51	4	1	2	1	2	1	5	2	3	2	OTG	2					2(16)	2	LQFP64
	GD32F105VBt6	108	64K	64K	up to 80	4	1	2	1	2	1	5	2	3	2	OTG	2				-	2(16)	2	LQFP100
	GD32F105VBt6	108	128K	64K	up to 80	4	1	2	1	2	1	5	2	3	2	OTG	2				-	2(16)	2	LQFP100
	GD32F105VCT6	108	256K	96K	up to 80	4	1	2	1	2	1	5	2	3	2	OTG	2				-	2(16)	2	LQFP100
	GD32F105VDt6	108	384K	96K	up to 80	4	1	2	1	2	1	5	2	3	2	OTG	2				-	2(16)	2	LQFP100
	GD32F105VET6	108	512K	96K	up to 80	4	1	2	1	2	1	5	2	3	2	OTG	2				-	2(16)	2	LQFP100
	GD32F105VFT6	108	768K	96K	up to 80	4	1	2	1	2	1	5	2	3	2	OTG	2				-	2(16)	2	LQFP100
	GD32F105VGt6	108	1024K	96K	up to 80	4	1	2	1	2	1	5	2	3	2	OTG	2				-	2(16)	2	LQFP100
	GD32F105ZCT6	108	256K	96K	up to 112	4	1	2	1	2	1	5	2	3	2	OTG	2				-	2(16)	2	LQFP144
	GD32F105ZDt6	108	384K	96K	up to 112	4	1	2	1	2	1	5	2	3	2	OTG	2				-	2(16)	2	LQFP144
	GD32F105ZET6	108	512K	96K	up to 112	4	1	2	1	2	1	5	2	3	2	OTG	2				-	2(16)	2	LQFP144
	GD32F105ZFT6	108	768K	96K	up to 112	4	1	2	1	2	1	5	2	3	2	OTG	2				-	2(16)	2	LQFP144
	GD32F105ZGT6	108	1024K	96K	up to 112	4	1	2	1	2	1	5	2	3	2	OTG	2				-	2(16)	2	LQFP144
	GD32F107	GD32F107R8T6	108	128K	96K	up to 51	4	1	2	1	2	1	5	1	3	2	OTG	2			-		2(16)	2
GD32F107RCt6		108	256K	96K	up to 51	4	1	2	1	2	1	5	1	3	2	OTG	2			-		2(16)	2	LQFP64
GD32F107RDt6		108	384K	96K	up to 51	4	1	2	1	2	1	5	2	3	2	OTG	2			-		2(16)	2	LQFP64
GD32F107RET6		108	512K	96K	up to 51	4	1	2	1	2	1	5	2	3	2	OTG	2			-		2(16)	2	LQFP64
GD32F107RFT6		108	768K	96K	up to 51	4	1	2	1	2	1	5	2	3	2	OTG	2			-		2(16)	2	LQFP64
GD32F107RGt6		108	1024K	96K	up to 51	4	1	2	1	2	1	5	2	3	2	OTG	2			-		2(16)	2	LQFP64
GD32F107VBt6		108	128K	96K	up to 80	4	1	2	1	2	1	5	1	3	2	OTG	2			-	-	2(16)	2	LQFP100
GD32F107VCT6		108	256K	96K	up to 80	4	1	2	1	2	1	5	1	3	2	OTG	2			-	-	2(16)	2	LQFP100
GD32F107VDt6		108	384K	96K	up to 80	4	1	2	1	2	1	5	2	3	2	OTG	2			-	-	2(16)	2	LQFP100
GD32F107VET6		108	512K	96K	up to 80	4	1	2	1	2	1	5	2	3	2	OTG	2			-	-	2(16)	2	LQFP100
GD32F107VFT6		108	768K	96K	up to 80	4	1	2	1	2	1	5	2	3	2	OTG	2			-	-	2(16)	2	LQFP100
GD32F107VGt6		108	1024K	96K	up to 80	4	1	2	1	2	1	5	2	3	2	OTG	2			-	-	2(16)	2	LQFP100
GD32F107ZCT6		108	256K	96K	up to 112	4	1	2	1	2	1	5	2	3	2	OTG	2			-	-	2(16)	2	LQFP144
GD32F107ZDt6		108	384K	96K	up to 112	4	1	2	1	2	1	5	2	3	2	OTG	2			-	-	2(16)	2	LQFP144
GD32F107ZET6		108	512K	96K	up to 112	4	1	2	1	2	1	5	2	3	2	OTG	2			-	-	2(16)	2	LQFP144
GD32F107ZFT6		108	768K	96K	up to 112	4	1	2	1	2	1	5	2	3	2	OTG	2			-	-	2(16)	2	LQFP144
GD32F107ZGT6	108	1024K	96K	up to 112	4	1	2	1	2	1	5	2	3	2	OTG	2			-	-	2(16)	2	LQFP144	

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

Series	Part No.	Max Speed (MHz)	Memory (Bytes)		I/O	Timer							Connectivity							Analog Interface		Package	
			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	Comp	12bit ADC Units (Chs)	12bit DAC Units		
GD32F310	GD32F310F4P6TR	72	16K	4K	up to 15		4	1			1	2	1	1	1	1				1(9)		TSSOP20	
	GD32F310F6P6TR	72	32K	6K	up to 15		4	1			1	2	1	2	1	1				1(9)		TSSOP20	
	GD32F310F8P6TR	72	64K	8K	up to 15		4	1			1	2	1	2	2	2				1(9)		TSSOP20	
	GD32F310G8U6TR	72	64K	8K	up to 23		5	1			1	2	1	2	2	2				1(10)		QFN28	
	GD32F310K8U6	72	64K	8K	up to 27		5	1			1	2	1	2	2	2				1(10)		QFN32	
	GD32F310K6T6	72	32K	6K	up to 25		4	1			1	2	1	2	1	1				1(10)		LQFP32	
	GD32F310K8T6	72	64K	8K	up to 25		5	1			1	2	1	2	2	2				1(10)		LQFP32	
	GD32F310C8T6	72	64K	8K	up to 39		5	1			1	2	1	2	2	2				1(10)		LQFP48	
	GD32F330F4P6TR	84	16K	4K	up to 15	1	4	1			1	2	1	1	1	1				1(9)		TSSOP20	
	GD32F330F6P6TR	84	32K	4K	up to 15	1	4	1			1	2	1	2	1	1				1(9)		TSSOP20	
GD32F330	GD32F330F8P6TR	84	64K	8K	up to 15	1	4	1			1	2	1	2	2	2				1(9)		TSSOP20	
	GD32F330G4U6TR	84	16K	4K	up to 23	1	4	1			1	2	1	1	1	1				1(10)		QFN28	
	GD32F330G6U6TR	84	32K	4K	up to 23	1	4	1			1	2	1	2	1	1				1(10)		QFN28	
	GD32F330G8U6TR	84	64K	8K	up to 23	1	5	1			1	2	1	2	2	2				1(10)		QFN28	
	GD32F330K4U6	84	16K	4K	up to 27	1	4	1			1	2	1	1	1	1				1(10)		QFN32	
	GD32F330K6U6	84	32K	4K	up to 27	1	4	1			1	2	1	2	1	1				1(10)		QFN32	
	GD32F330K8U6	84	64K	8K	up to 27	1	5	1			1	2	1	2	2	2				1(10)		QFN32	
	GD32F330K4T6	84	16K	4K	up to 27	1	4	1			1	2	1	1	1	1				1(10)		LQFP32	
	GD32F330K6T6	84	32K	4K	up to 27	1	5	1			1	2	1	2	1	1				1(10)		LQFP32	
	GD32F330C4T6	84	16K	4K	up to 39	1	4	1			1	2	1	1	1	1				1(10)		LQFP48	
GD32F350	GD32F330C6T6	84	32K	4K	up to 39	1	4	1			1	2	1	2	1	1				1(10)		LQFP48	
	GD32F330C8T6	84	64K	8K	up to 39	1	5	1			1	2	1	2	2	2				1(10)		LQFP48	
	GD32F330C8T6	84	128K	16K	up to 39	1	5	1			1	2	1	2	2	2				1(10)		LQFP48	
	GD32F330R8T6	84	64K	16K	up to 55	1	5	1			1	2	1	2	2	2				1(16)		LQFP64	
	GD32F330RBt6	84	128K	16K	up to 55	1	5	1			1	2	1	2	2	2				1(16)		LQFP64	
	GD32F350G4U6TR	108	16K	4K	up to 24	1	5	1	1	1	1	2	1	1	1	1	OTG	1	1	2	1(10)	1	QFN28
	GD32F350G6U6TR	108	32K	6K	up to 24	1	5	1	1	1	1	2	1	2	1	1	OTG	1	1	2	1(10)	1	QFN28
	GD32F350G8U6TR	108	64K	8K	up to 24	1	5	1	1	1	1	2	1	2	2	2	OTG	1	1	2	1(10)	1	QFN28
	GD32F350K4U6	108	16K	4K	up to 27	1	5	1	1	1	1	2	1	1	1	1	OTG	1	1	2	1(10)	1	QFN32
	GD32F350K6U6	108	32K	6K	up to 27	1	5	1	1	1	1	2	1	2	1	1	OTG	1	1	2	1(10)	1	QFN32
GD32F350	GD32F350K8U6	108	64K	8K	up to 27	1	5	1	1	1	1	2	1	2	2	2	OTG	1	1	2	1(10)	1	QFN32
	GD32F350C4T6	108	16K	4K	up to 39	1	5	1	1	1	1	2	1	1	1	1	OTG	1	1	2	1(10)	1	LQFP48
	GD32F350C6T6	108	32K	6K	up to 39	1	5	1	1	1	1	2	1	2	1	1	OTG	1	1	2	1(10)	1	LQFP48
	GD32F350C8T6	108	64K	8K	up to 39	1	5	1	1	1	1	2	1	2	2	2	OTG	1	1	2	1(10)	1	LQFP48
	GD32F350C8T6	108	128K	16K	up to 39	1	5	1	1	1	1	2	1	2	2	2	OTG	1	1	2	1(10)	1	LQFP48
	GD32F350R4T6	108	16K	4K	up to 55	1	5	1	1	1	1	2	1	1	1	1	OTG	1	1	2	1(16)	1	LQFP64
	GD32F350R6T6	108	32K	8K	up to 55	1	5	1	1	1	1	2	1	2	1	1	OTG	1	1	2	1(16)	1	LQFP64
	GD32F350R8T6	108	64K	16K	up to 55	1	5	1	1	1	1	2	1	2	2	2	OTG	1	1	2	1(16)	1	LQFP64
	GD32F350RBt6	108	128K	16K	up to 55	1	5	1	1	1	1	2	1	2	2	2	OTG	1	1	2	1(16)	1	LQFP64

Series	Part No.	Max Speed (MHz)	Memory (Bytes)		I/O	Timer							Connectivity						Analog Interface		Package
			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	12bit ADC Units (Chs)	12bit DAC Units	
GD32F130	GD32F130F4P6TR	48	16K	4K	up to 15	1	4	1		1	2	1	1	1	1				1(9)		TSSOP20
	GD32F130F6P6TR	48	32K	4K	up to 15	1	4	1		1	2	1	2	1	1				1(9)		TSSOP20
	GD32F130F8P6TR	48	64K	8K	up to 15	1	4	1		1	2	1	2	2	2				1(9)		TSSOP20
	GD32F130G4U6TR	48	16K	4K	up to 23	1	4	1		1	2	1	1	1	1				1(10)		QFN28
	GD32F130G6U6TR	48	32K	4K	up to 23	1	4	1		1	2	1	2	1	1				1(10)		QFN28
	GD32F130G8U6TR	48	64K	8K	up to 23	1	5	1		1	2	1	2	2	2				1(10)		QFN28
	GD32F130K4T6	48	16K	4K	up to 27	1	4	1		1	2	1	1	1	1				1(10)		LQFP32
	GD32F130K6T6	48	32K	4K	up to 27	1	4	1		1	2	1	2	1	1				1(10)		LQFP32
	GD32F130K8T6	48	64K	8K	up to 27	1	5	1		1	2	1	2	2	2				1(10)		LQFP32
	GD32F130K4U6	48	16K	4K	up to 27	1	4	1		1	2	1	1	1	1				1(10)		QFN32
	GD32F130K6U6	48	32K	4K	up to 27	1	4	1		1	2	1	2	1	1				1(10)		QFN32
	GD32F130K8U6	48	64K	8K	up to 27	1	5	1		1	2	1	2	2	2				1(10)		QFN32
	GD32F130C4T6	48	16K	4K	up to 39	1	4	1		1	2	1	1	1	1				1(10)		LQFP48
	GD32F130C6T6	48	32K	4K	up to 39	1	4	1		1	2	1	2	1	1				1(10)		LQFP48
	GD32F130C8T6	48	64K	8K	up to 39	1	5	1		1	2	1	2	2	2				1(10)		LQFP48
	GD32F130R8T6	48	64K	8K	up to 55	1	5	1		1	2	1	2	2	2				1(16)		LQFP64
GD32F150	GD32F150G4U6TR	72	16K	4K	up to 24	1	5	1	1	1	2	1	1	1	1	1	1	1	1(10)	1	QFN28
	GD32F150G6U6TR	72	32K	6K	up to 24	1	5	1	1	1	2	1	2	1	1	1	1	1	1(10)	1	QFN28
	GD32F150G8U6TR	72	64K	8K	up to 24	1	5	1	1	1	2	1	2	2	2	1	1	1	1(10)	1	QFN28
	GD32F150K4U6	72	16K	4K	up to 27	1	5	1	1	1	2	1	1	1	1	1	1	1	1(10)	1	QFN32
	GD32F150K6U6	72	32K	6K	up to 27	1	5	1	1	1	2	1	2	1	1	1	1	1	1(10)	1	QFN32
	GD32F150K8U6	72	64K	8K	up to 27	1	5	1	1	1	2	1	2	2	2	1	1	1	1(10)	1	QFN32
	GD32F150C4T6	72	16K	4K	up to 39	1	5	1	1	1	2	1	1	1	1	1	1	1	1(10)	1	LQFP48
	GD32F150C6T6	72	32K	6K	up to 39	1	5	1	1	1	2	1	2	1	1	1	1	1	1(10)	1	LQFP48
	GD32F150C8T6	72	64K	8K	up to 39	1	5	1	1	1	2	1	2	2	2	1	1	1	1(10)	1	LQFP48
	GD32F150R4T6	72	16K	4K	up to 55	1	5	1	1	1	2	1	1	1	1	1	1	1	1(16)	1	LQFP64
	GD32F150R6T6	72	32K	6K	up to 55	1	5	1	1	1	2	1	2	1	1	1	1	1	1(16)	1	LQFP64
	GD32F150R8T6	72	64K	8K	up to 55	1	5	1	1	1	2	1	2	2	2	1	1	1	1(16)	1	LQFP64

GD30 PMU

High Performance Power

- Wireless infrastructure
- Telecom/Networking cards
- Industrial application
- IPC
- IoT

Motor Driver

- BLDC,BDC and Stepper Motors
- Power tools
- Robotics and RC toys
- Industrial automation
- IoT

Battery Management

- Battery chargers and AFE
- Cleaning robots
- Aeromodelling, drones
- Energy storage
- IoT

Specific Power Management

- TWS earbuds charging case

Portable healthcare devices

- Low power applications
- Customized Solution

GD30WS Power Management IC

Part No.	Absolute VUSB (V)	Control Topology	Charging Current (A)	Load Current (A)	Charging Efficiency (%)	CV Charge Voltage (V)	Quiescent Current (µA)	LDO	Control interface	12bit ADC	Protection Features						Operating Temperature Range	Package	MPQ (PCS)	MOQ (PCS)
	Max		Max	Max	Max						Short Circuit	Over Voltage	Under Voltage	Over Current	Over Temperature	Under Temperature				
GD30WS8805EU	20	Switch-Mode	1.2	0.6	95	4.1/4.2/4.3/4.35/4.4 @0.5%	<5	3.3V/50mA	I ² C	•	•	•	•	•	•	•	-20~85°C	QFN24	490	2940
GD30WS8815EU	20	Switch-Mode	1.5	1	95	4.1/4.2/4.3/4.35/4.4 @0.5%	<5	3.3V/80mA	I ² C	•	•	•	•	•	•	•	-20~85°C	QFN24	490	2940
GD30WS8855EU	20	Switch-Mode	1.2	0.6	95	4.1/4.2/4.3/4.35/4.4 @0.5%	<5	3.3V/50mA	I ² C	•	•	•	•	•	•	•	-20~85°C	QFN24	490	2940

GD30DR Motor Driver

Part No.	Supply Voltage (V)		Gate Driver	Power MOSFET	Gate Driver Peak Current (A)		Control Interface	PWM Frequency (kHz)	Buck Controller	LDO	Protection Features			Operating Temperature Range	Package	MPQ (PCS)	MOQ (PCS)
	Min	Max			Source	Sink					Under Voltage	Over Temperature	Fault diagnostics				
GD30DR8306KU	4.5	30	3	External	1	1.2	6xPWM, 3xPWM	200	5V/2A	5V/40mA	•	•	•	-40~105°C	QFN32	490	2940
GD30DR8304EUTR	4.5	30	3	External	1	1.2	6xPWM, 3xPWM	200	/	5V/40mA	•	•	•	-40~105°C	QFN24	3000	3000

Part No.	Supply Voltage (V)		Gate Driver	Power MOSFET	Drive Current (A)	Control Interface	PWM Frequency (kHz)	LDO	Protection Features	Operating Temperature Range	Package	MPQ (PCS)	MOQ (PCS)
	Min	Max					Max						
GD30DR8413EUTR	4.5	30	-	Internal	3	3xPWM	50	5V/20mA	•	-40to +125	QFN24	3000	3000
GD30DR3000WGTR-K	6.5	40	-	Internal	3.2	PWM	100	-	•	-40to +125	ESQ8	4000	4000
GD30DR3820LPTR-K	2.5	10.8	-	Internal	1.2	PWM	200	-	•	-40to +125	eTSSOP16	3000	3000
GD30DR3820LUTR-K	2.5	10.8	-	Internal	1.2	PWM	200	-	•	-40to +125	QFN16	3000	3000
GD30DR3800WETR-K	0	11	-	Internal	1.8	PWM	250	-	•	-40to +125	DFN8	3000	3000
GD30DR3801WETR-K	0	10	-	Internal	1.0	PWM	250	-	•	-40to +125	DFN8	3000	3000

GD30BC Battery Management

Part No.	Series Cells	Input Operation Voltage (V)		Control Topology	Charging Current (A)	Charging Efficiency (%)	CV Charge Voltage for Per cell (V)	LDO	Power Path	Control interface	Protection Features				Operating Temperature Range	Package	MPQ (PCS)	MOQ (PCS)
		Min	Max		Max	Max					Over Voltage	Under Voltage	Over Current	Battery Over/Under Temperature				
GD30BC2501LRTR	4,6	18	32	Buck	5	95	4.1/4.2/4.3/4.35@1%	3.3V/25mA	NO	I ² C	•	•	•	•	-40~85°C	QFN16	3000	3000
GD30BC2502LRTR	2,3,5	18	32	Buck	5	95	4.1/4.2/4.3/4.35@1%	3.3V/25mA	NO	I ² C	•	•	•	•	-40~85°C	QFN16	3000	3000
GD30BC2416FUTR	1	4.4	5.5	Buck(Charging)-Boost(Discharging)	1.5	97	4.1/4.2/4.3/4.35/4.4@0.5%	3.3V/50mA	YES	I ² C	•	•	•	•	-20~85°C	QFN20	3000	3000

Part No.	Input Operation Voltage (V)		MAX Output Current A	Over Voltage Protection (V)		Internal switch ON resistance (mΩ)	Quiescent Current (µA)	Protection Features			Operating Temperature Range	Package	MPQ PCS	MOQ PCS
	Min	Max		Min	Max			Over Current	Over Current	Over Temperature				
GD30SP2200WFTTR	2.5	30	3	4	15	50	100	•	•	•	-40~85°C	DFN8L	3000	3000

Part No.	Input Operation Voltage (V)		MAX Output Current A	Over Voltage Protection (V)		Internal switch ON resistance (mΩ)	Quiescent Current (μA)	Protection Features			Operating Temperature Range	Package	MPQ PCS	MOQ PCS
	Min	Max		Min	Max			Over Current	Over Current	Over Temperature				
GD30SP2200WFT R	2.5	30	3	4	15	50	100	•	•	•	-40~85°C	DFN8L	3000	3000

GD30LD High Accuracy, Low Noise LDO

Part No.	V _{in} (V)		V _{out} (V)		Output Current (A)	Dropout Voltage @ with BIAS (mV)	PSRR (db)	Output Voltage Noise (μVRMS)		Ground Current (mA)	Protection Features			Temperature Junction Range (°C)	Package	MPQ (PCS)	MOQ (PCS)
	With BIAS	Without BIAS	Pin-selectable	Set by a Resistor Divider	Max			0.8V Output	5V Output		Current Limiting	Over Temperature	Power Good				
GD30LD3300FUTR	1.1~6.5	1.4~6.5	0.5~2.075	0.5~5.2	3	180	42@10kHz	5.9	9.8	3	•	•	•	-40 to +125	QFN20	3000	3000
GD30LD3301FUTR	1.1~6.5	1.4~6.5	0.8~3.95	0.8~5.2	3	180	42@10kHz	5.9	9.8	3	•	•	•	-40 to +125	QFN20	3000	3000
GD30LD3137WETR	1.1~6.5	1.4~6.5	-	0.8~5.2	1.2	70	40@500kHz	4.4	7.7	3	•	•	•	-40 to +125	DFN8	3000	3000
GD30LD1003FUTY-I	1.1~6.5	1.4~6.5	0.8~3.95	0.8~5.2	2	125	39@500kHz	5.9	9.8	3	•	•	•	-40 to +125	QFN20	400	2940
GD30LD1030MUTR-I	1.1~6.5	1.4~6.5	0.5~2.075	0.5~5.2	3	180	39@500kHz	5.9	9.8	3	•	•	•	-40 to +125	QFN20	3000	3000

Part No.	V _{in} (V)	V _{out} (V)		Output Current (A)	Dropout Voltage @2A (mV)	PSRR (db)	Ground Current (mA)	Protection Features			Temperature Junction Range (°C)	Package	MPQ (PCS)	MOQ (PCS)
		Pin-selectable	Set by a Resistor Divider	Max				Current Limiting	Over Temperature	Power Good				
GD30LD1000WGTR-I	1.4~6.5	-	0.5~5.2	2	300	39@500 KHz	3	•	•	•	-40 to +125	SOP8	4000	4000
GD30LD1000NBTR-I	1.4~6.5	-	0.5~5.2	2	300	39@500 KHz	3	•	•	•	-40 to +125	TO263	3000	3000
GD30LD1001LWTR	1.4~6.5	0.5~2.075	0.5~5.2	2	180	39@500 KHz	3	•	•	•	-40 to +125	QFN16	3000	3000
GD30LD1002WETR-I	1.4~6.5	-	0.5~5.2	1.2	200	39@500 KHz	3	•	•	•	-40 to +125	DFN8	3000	3000
GD30LD1031NBTR-I	1.4~6.5	-	0.5~5.2	3	300	-	3	•	•	•	-40 to +125	TO263	3000	3000

Part No.	V _{IN} (V)	V _{OUT} (V)	Output Current (A)	Dropout Voltage @0.2 A (mV)	PSRR (db)	Ground Current (mA)	Shutdown Current (uA)	Protection Features		Temperature Junction Range (°C)	Package	MPQ PCS	MOQ PCS
			Max				Max	Current Limiting	Over Temperature				
GD30LD2000NSTR-C08	1.9~5.5	0.8	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to +125	SOT235	3000	3000
GD30LD2000NSTR-C10	1.9~5.5	1	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to +125	SOT235	3000	3000
GD30LD2000NSTR-C12	1.9~5.5	1.2	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to +125	SOT235	3000	3000

GD30L D2000 NSTR- C15	1.9 ~5. 5	1.5	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to + 125	SOT 235	3000	3000
GD30L D2000 NSTR- C18	1.9 ~5. 5	1.8	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to +125	SOT 235	3000	3000
GD30L D2000 NSTR- C25	1.9 ~5. 5	2.5	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to + 125	SOT 235	3000	3000
GD30L D2000 NSTR- C28	1.9 ~5. 5	2.8	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to +125	SOT 235	3000	3000
GD30L D2000 NSTR- C30	1.9 ~5. 5	3	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to + 125	SOT 235	3000	3000
GD30L D2000 NSTR- C33	1.9 ~5. 5	3.3	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to +125	SOT 235	3000	3000
GD30L D2000 NSTR- C36	1.9 ~5. 5	3.6	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to + 125	SOT 235	3000	3000
GD30L D2000 BSTR- C08	1.9 ~5. 5	0.8	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to +125	SOT 235	3000	3000
GD30L D2000 BSTR- C10	1.9 ~5. 5	1	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to + 125	SOT 233	3000	3000
GD30L D2000 BSTR- C12	1.9 ~5. 5	1.2	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to +125	SOT 233	3000	3000
GD30L D2000 BSTR- C15	1.9 ~5. 5	1.5	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to + 125	SOT 233	3000	3000
GD30L D2000 BSTR- C18	1.9 ~5. 5	1.8	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to +125	SOT 233	3000	3000

GD30L D2000 BSTR- C25	1.9 ~5. 5	2.5	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to + 125	SOT 233	3000	3000
GD30L D2000 BSTR- C28	1.9 ~5. 5	2.8	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to +125	SOT 233	3000	3000
GD30L D2000 BSTR- C30	1.9 ~5. 5	3	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to + 125	SOT 233	3000	3000
GD30L D2000 BSTR- C33	1.9 ~5. 5	3.3	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to +125	SOT 233	3000	3000
GD30L D2000 BSTR- C36	1.9 ~5. 5	3.6	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to + 125	SOT 233	3000	3000
GD30L D2000 JETR- C08	1.9 ~5. 5	0.8	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to +125	DFN 1×1	1000 0	10000
GD30L D2000 JETR- C10	1.9 ~5. 5	1	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to + 125	DFN 1×1	1000 0	10000
GD30L D2000 JETR- C12	1.9 ~5. 5	1.2	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to +125	DFN 1×1	1000 0	10000
GD30L D2000 JETR- C15	1.9 ~5. 5	1.5	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to + 125	DFN 1×1	1000 0	10000
GD30L D2000 JETR- C18	1.9 ~5. 5	1.8	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to +125	DFN 1×1	1000 0	10000
GD30L D2000 JETR- C25	1.9 ~5. 5	2.5	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to + 125	DFN 1×1	1000 0	10000
GD30L D2000 JETR- C28	1.9 ~5. 5	2.8	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to +125	DFN 1×1	1000 0	10000

GD30L D2000 JETR- C30	1.9 ~5. 5	3	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to + 125	DFN 1×1	1000 0	10000
GD30L D2000 JETR- C33	1.9 ~5. 5	3.3	0.3	180	50@1 KHz	0.8	0.1	• +125	• -40 to		DFN 1×1	1000 0	10000
GD30L D2000 JETR- C36	1.9 ~5. 5	3.6	0.3	180	50@1 KHz	0.8	0.1	•	•	-40 to + 125	DFN 1×1	1000 0	10000
GD30L D2010 NSTR- I08	1.9 ~7. 0	0.8	0.5	520	87@1 KHz	40	0.1	• +125	• -40 to		SOT 235	3000	3000
GD30L D2010 NSTR- I10	1.9 ~7. 0	1	0.5	520	87@1 KHz	40	0.1	•	•	-40 to + 125	SOT 235	3000	3000
GD30L D2010 NSTR- I12	1.9 ~7. 0	1.2	0.5	520	87@1 KHz	40	0.1	• +125	• -40 to		SOT 235	3000	3000
GD30L D2010 NSTR- I15	1.9 ~7. 0	1.5	0.5	520	87@1 KHz	40	0.1	•	•	-40 to + 125	SOT 235	3000	3000
GD30L D2010 NSTR- I18	1.9 ~7. 0	1.8	0.5	520	87@1 KHz	40	0.1	• +125	• -40 to		SOT 235	3000	3000
GD30L D2010 NSTR- I25	1.9 ~7. 0	2.5	0.5	520	87@1 KHz	40	0.1	•	•	-40 to + 125	SOT 235	3000	3000
GD30L D2010 NSTR- I28	1.9 ~7. 0	2.8	0.5	520	87@1 KHz	40	0.1	• +125	• -40 to		SOT 235	3000	3000
GD30L D2010 NSTR- I30	1.9 ~7. 0	3	0.5	520	87@1 KHz	40	0.1	•	•	-40 to + 125	SOT 235	3000	3000
GD30L D2010 NSTR- I33	1.9 ~7. 0	3.3	0.5	520	87@1 KHz	40	0.1	• +125	• -40 to		SOT 235	3000	3000

GD30L D2010 NSTR- I36	1.9 ~7. 0	3.6	0.5	520	87@1 KHz	40	0.1	•	•	-40 to + 125	SOT 235	3000	3000
GD30L D2010 NSTR- I50	1.9 ~7. 0	5	0.5	520	87@1 KHz	40	0.1	• +125	• -40 to		SOT 235	3000	3000
GD30L D2010 JETR-I 08	1.9 ~7. 0	0.8	0.5	520	87@1 KHz	40	0.1	•	•	-40 to + 125	DFN 1x1	1000 0	10000
GD30L D2010 JETR-I 10	1.9 ~7. 0	1	0.5	520	87@1 KHz	40	0.1	• +125	• -40 to		DFN 1x1	1000 0	10000
GD30L D2010 JETR-I 12	1.9 ~7. 0	1.2	0.5	520	87@1 KHz	40	0.1	•	•	-40 to + 125	DFN 1x1	1000 0	10000
GD30L D2010 JETR-I 15	1.9 ~7. 0	1.5	0.5	520	87@1 KHz	40	0.1	• +125	• -40 to		DFN 1x1	1000 0	10000
GD30L D2010 JETR-I 18	1.9 ~7. 0	1.8	0.5	520	87@1 KHz	40	0.1	•	•	-40 to + 125	DFN 1x1	1000 0	10000
GD30L D2010 JETR-I 25	1.9 ~7. 0	2.5	0.5	520	87@1 KHz	40	0.1	• +125	• -40 to		DFN 1x1	1000 0	10000
GD30L D2010 JETR-I 28	1.9 ~7. 0	2.8	0.5	520	87@1 KHz	40	0.1	•	•	-40 to + 125	DFN 1x1	1000 0	10000
GD30L D2010 JETR-I 30	1.9 ~7. 0	3	0.5	520	87@1 KHz	40	0.1	• +125	• -40 to		DFN 1x1	1000 0	10000
GD30L D2010 JETR-I 33	1.9 ~7. 0	3.3	0.5	520	87@1 KHz	40	0.1	•	•	-40 to + 125	DFN 1x1	1000 0	10000
GD30L D2010 JETR-I 36	1.9 ~7. 0	3.6	0.5	520	87@1 KHz	40	0.1	• +125	• -40 to		DFN 1x1	1000 0	10000

GD30L D2010 JETR-I 50	1.9 ~7. 0	5	0.5	520	87@1 KHz	40	0.1	•	•	-40 to + 125	DFN 1×1	1000 0	100 00	
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GD30DC General Purpose DC/DC Converter

Part No.	V _{in} (V)	V _{out} (V)	Output Current (A)		Dropout Voltage (@0.2A (mV)	PSRR (db)	Ground Current (nA)	Shutdown Current (uA)		Protection Features		Temperature Junction Range (°C)	Package	MPQ (PCS)	MOQ (PCS)
			Max					Max		Current Limiting	Over Temperature				
GD30LD2000NSTR-C08	1.9-5.5	0.8	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	SOT235	3000	3000
GD30LD2000NSTR-C10	1.9-5.5	1	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	SOT235	3000	3000
GD30LD2000NSTR-C12	1.9-5.5	1.2	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	SOT235	3000	3000
GD30LD2000NSTR-C15	1.9-5.5	1.5	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	SOT235	3000	3000
GD30LD2000NSTR-C18	1.9-5.5	1.8	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	SOT235	3000	3000
GD30LD2000NSTR-C25	1.9-5.5	2.5	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	SOT235	3000	3000
GD30LD2000NSTR-C28	1.9-5.5	2.8	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	SOT235	3000	3000
GD30LD2000NSTR-C30	1.9-5.5	3	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	SOT235	3000	3000
GD30LD2000NSTR-C33	1.9-5.5	3.3	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	SOT235	3000	3000
GD30LD2000NSTR-C36	1.9-5.5	3.6	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	SOT235	3000	3000
GD30LD2000BSTR-C08	1.9-5.5	0.8	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	SOT235	3000	3000
GD30LD2000BSTR-C10	1.9-5.5	1	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	SOT233	3000	3000
GD30LD2000BSTR-C12	1.9-5.5	1.2	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	SOT233	3000	3000
GD30LD2000BSTR-C15	1.9-5.5	1.5	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	SOT233	3000	3000
GD30LD2000BSTR-C18	1.9-5.5	1.8	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	SOT233	3000	3000
GD30LD2000BSTR-C25	1.9-5.5	2.5	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	SOT233	3000	3000
GD30LD2000BSTR-C28	1.9-5.5	2.8	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	SOT233	3000	3000
GD30LD2000BSTR-C30	1.9-5.5	3	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	SOT233	3000	3000
GD30LD2000BSTR-C33	1.9-5.5	3.3	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	SOT233	3000	3000
GD30LD2000BSTR-C36	1.9-5.5	3.6	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	SOT233	3000	3000
GD30LD2000JETR-C08	1.9-5.5	0.8	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	DFN 1x1	10000	10000
GD30LD2000JETR-C10	1.9-5.5	1	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	DFN 1x1	10000	10000
GD30LD2000JETR-C12	1.9-5.5	1.2	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	DFN 1x1	10000	10000
GD30LD2000JETR-C15	1.9-5.5	1.5	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	DFN 1x1	10000	10000
GD30LD2000JETR-C18	1.9-5.5	1.8	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	DFN 1x1	10000	10000
GD30LD2000JETR-C25	1.9-5.5	2.5	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	DFN 1x1	10000	10000
GD30LD2000JETR-C28	1.9-5.5	2.8	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	DFN 1x1	10000	10000
GD30LD2000JETR-C30	1.9-5.5	3	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	DFN 1x1	10000	10000
GD30LD2000JETR-C33	1.9-5.5	3.3	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	DFN 1x1	10000	10000
GD30LD2000JETR-C36	1.9-5.5	3.6	0.3		180	50@10KHz	0.8	0.1	-	-	-	-40 to +125	DFN 1x1	10000	10000
GD30LD2010NSTR-I08	1.9-70	0.8	0.5		520	87@10KHz	40	0.1	-	-	-	-40 to +125	SOT235	3000	3000
GD30LD2010NSTR-I10	1.9-70	1	0.5		520	87@10KHz	40	0.1	-	-	-	-40 to +125	SOT235	3000	3000
GD30LD2010NSTR-I12	1.9-70	1.2	0.5		520	87@10KHz	40	0.1	-	-	-	-40 to +125	SOT235	3000	3000
GD30LD2010NSTR-I15	1.9-70	1.5	0.5		520	87@10KHz	40	0.1	-	-	-	-40 to +125	SOT235	3000	3000
GD30LD2010NSTR-I18	1.9-70	1.8	0.5		520	87@10KHz	40	0.1	-	-	-	-40 to +125	SOT235	3000	3000
GD30LD2010NSTR-I25	1.9-70	2.5	0.5		520	87@10KHz	40	0.1	-	-	-	-40 to +125	SOT235	3000	3000
GD30LD2010NSTR-I28	1.9-70	2.8	0.5		520	87@10KHz	40	0.1	-	-	-	-40 to +125	SOT235	3000	3000
GD30LD2010NSTR-I30	1.9-70	3	0.5		520	87@10KHz	40	0.1	-	-	-	-40 to +125	SOT235	3000	3000
GD30LD2010NSTR-I33	1.9-70	3.3	0.5		520	87@10KHz	40	0.1	-	-	-	-40 to +125	SOT235	3000	3000
GD30LD2010NSTR-I36	1.9-70	3.6	0.5		520	87@10KHz	40	0.1	-	-	-	-40 to +125	SOT235	3000	3000
GD30LD2010NSTR-I50	1.9-70	5	0.5		520	87@10KHz	40	0.1	-	-	-	-40 to +125	SOT235	3000	3000
GD30LD2010JETR-I08	1.9-70	0.8	0.5		520	87@10KHz	40	0.1	-	-	-	-40 to +125	DFN 1x1	10000	10000
GD30LD2010JETR-I10	1.9-70	1	0.5		520	87@10KHz	40	0.1	-	-	-	-40 to +125	DFN 1x1	10000	10000
GD30LD2010JETR-I12	1.9-70	1.2	0.5		520	87@10KHz	40	0.1	-	-	-	-40 to +125	DFN 1x1	10000	10000
GD30LD2010JETR-I15	1.9-70	1.5	0.5		520	87@10KHz	40	0.1	-	-	-	-40 to +125	DFN 1x1	10000	10000
GD30LD2010JETR-I18	1.9-70	1.8	0.5		520	87@10KHz	40	0.1	-	-	-	-40 to +125	DFN 1x1	10000	10000
GD30LD2010JETR-I25	1.9-70	2.5	0.5		520	87@10KHz	40	0.1	-	-	-	-40 to +125	DFN 1x1	10000	10000
GD30LD2010JETR-I28	1.9-70	2.8	0.5		520	87@10KHz	40	0.1	-	-	-	-40 to +125	DFN 1x1	10000	10000
GD30LD2010JETR-I30	1.9-70	3	0.5		520	87@10KHz	40	0.1	-	-	-	-40 to +125	DFN 1x1	10000	10000
GD30LD2010JETR-I33	1.9-70	3.3	0.5		520	87@10KHz	40	0.1	-	-	-	-40 to +125	DFN 1x1	10000	10000
GD30LD2010JETR-I36	1.9-70	3.6	0.5		520	87@10KHz	40	0.1	-	-	-	-40 to +125	DFN 1x1	10000	10000
GD30LD2010JETR-I50	1.9-70	5	0.5		520	87@10KHz	40	0.1	-	-	-	-40 to +125	DFN 1x1	10000	10000

GD30DC General Purpose DC/DC Converter

Part No.	Function	Supply Voltage (V)		Output Current (A)	R _{on} (mΩ)		Reference Voltage (V)	Quiescent current (uA)	Switching Frequency (MHz)	100% Duty Cycle	Protection Features				Note	Temperature Operating Range (°C)	Package	MPQ (PCS)	MOQ (PCS)
		Min	Max		HSFET	LSFET					Over Voltage	Over Current	Hiccup Short Circuit	Over Temperature					
GD30DC1101NSTR-I	BUCK	2.5	5.5	1	250	200	0.6	25	1.5	•	•	•	•	•	SS/Comp./Current Mode	-40 to +125	SOT235	3000	3000
GD30DC1101SSTR-I	BUCK	2.5	5.5	1	250	200	0.6	25	1.5	•	•	•	•	•	SS/Comp./Current Mode	-40 to +125	SOT236	3000	3000
GD30DC1105NSTR-I	BUCK	2.5	5.5	1.2	250	200	0.6	25	1.5	•	•	•	•	•	SS/Comp./Current Mode	-40 to +125	SOT235	3000	3000
GD30DC1301SOTR-I	BUCK	4.5	18	2	95	56	0.8	250	0.8	•	•	•	•	•	ACDT	-40 to +125	SOT563	5000	5000
GD30DC1301SSTR-I	BUCK	4.5	18	2	95	56	0.8	250	0.8	•	•	•	•	•	ACDT	-40 to +125	SOT236	3000	3000

Part No.	Function	Supply Voltage (V)		Output Voltage (V)	Limit Current (A)	Power Mos (mΩ)	Reference Voltage (V)	Quiescent current (uA)	Switching Frequency (MHz)	Protection Features			Note	Temperature Operating Range (°C)	Package	MPQ (PCS)	MOQ (PCS)
		Min	Max							Under Voltage	Over Current	Over Temperature					
GD30DC2300SSTR-N	BOOST	2.5	18	30	3	150	0.6	110	1	•	•	•	Current Mode	-20 to +85	SOT236	3000	3000
GD30DC2301SSTR-N	BOOST	2.5	18	36	2	150	0.2	110	1	•	•	•	Current Mode	-20 to +85	SOT236	3000	3000



GD SPI NOR Flash Features

1.8V

- Single Power Supply Voltage
 - Voltage range: 1.65V—2.0V
- Dual Power Supply Voltage
 - Core Voltage Range: 1.65V—2.0V
 - I/O Voltage Range: 1.1V—1.8V
- High Speed Clock Frequency
 - Maximum 20MHz for fast read*
 - Dual I/O Data transfer up to 332Mbit/s
 - Quad I/O Data transfer up to 664Mbit/s
 - QPI Data transfer up to 64Mbit/s
 - DTR Quad I/O Data transfer up to 1600Mbit/s
 - DTR Octal I/O Data transfer up to 3200Mbit/s
 - Continuous read with 8/16/32/64-Byte wrap
- Flexible Memory Architecture
 - Sector size: 4K-Byte
 - Block size: 32/64K-Byte

3V

- Single Power Supply Voltage
 - Voltage range: 2.7V—3.6V
- High Speed Clock Frequency
 - Maximum 20MHz for fast read*
 - Dual I/O Data transfer up to 332Mbit/s
 - Quad I/O Data transfer up to 664Mbit/s

- DTR Quad 1/0 Data transfer up to 1600Mbit/s
- DTR Octal 1/0 Data transfer up to 3200Mbit/s
- Continuous read with 8/16/32/ 64-Byte wrap
- Flexible Memory Architecture
 - Sector size: 4K-Byte
 - Block size: 32/64K-Byte

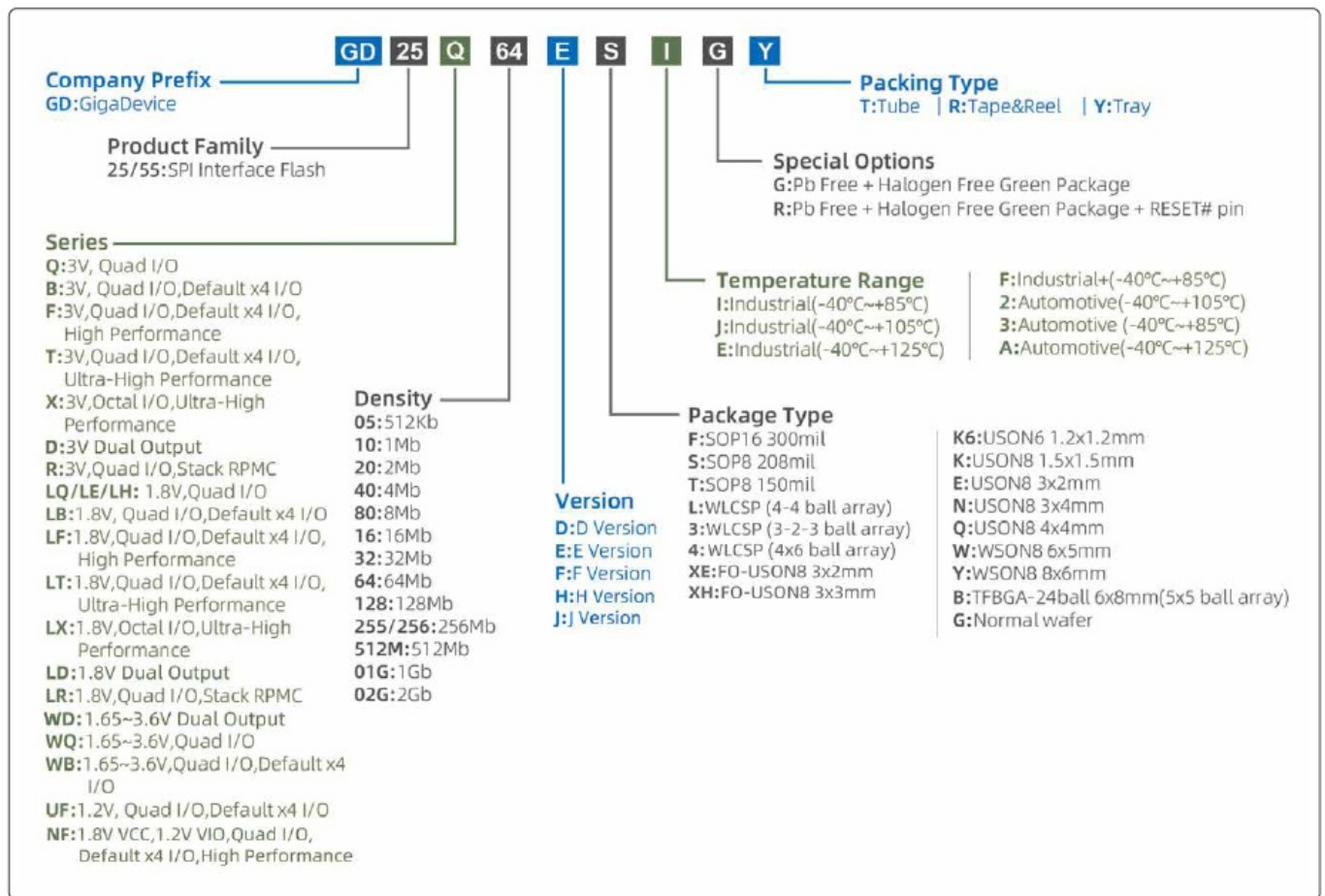
1.65VN3.6V

- Single Power Supply Voltage
 - Voltage range: 1.65V—3.6V
- High Speed Clock Frequency
 - Maximum 104MHz for fast read*
 - Dual 1/0 Data transfer up to 208Mbit/s
 - Quad 1/0 Data transfer up to 416Mbit/s
 - Continuous read with 8/16/ 32/64-Bytewrap
- Flexible Memory Architecture
 - Sector size: 4K-Byte
 - Block size: 32/64K-Byte

1.2V

- Single Power Supply Voltage
 - Voltage range: 1.14V—1.26V
- High Speed Clock Frequency
 - Maximum 120MHz for fast read*
 - Dual 1/0 Data transfer up to 240Mbit/s
 - Quad 1/0 Data transfer up to 480Mbit/s
 - QPI Data transfer up to 480Mbit/s
 - DTR Quad 1/0 Data transfer up to 640Mbit/s
 - Continuous read with 8/16/32/ 64-Byte wrap
- Flexible Memory Architecture
 - Sector size: 4K-Byte
 - Block size: 32/64K-Byte

GD SPI NOR Flash Part Number Definition



GD SPI NOR Flash Part Number Definition

Flash Voltage	1.8V										3V							1.65V-3.6V			1.2V
Family	LQ	LB	LF	LE	LX	LT	LR	LH	LD	NF	Q	B	F	X	T	R	D	WQ	WD	WB	UF
Part No.	xxD xxE xxH	xxE xxF	xxE xxF xxJ	xxE	xxE xxJ	xxE xxJ	xxE xxF	xxE	xxE	xxF	xxE xxH	xxE xxF xxH	xxF	xxE	xxE	xxE xxF	xxE	xxE xxH	xxE	xxE	xxE
Single I/O (1-1-1)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Dual Output (1-1-2)	*	*	*	*			*	*	*	*	*	*	*			*	*	*	*	*	*
Dual I/O (1-2-2)	*	*	*	*			*	*		*	*	*	*			*		*		*	*
Quad Output (1-1-4)	*	*	*	*		*	*	*		*	*	*	*		*	*		*		*	*
Quad I/O (1-4-4)	*	*	*	*		*	*	*		*	*	*	*		*	*		*		*	*
Octal Output (1-1-8)					*									*							
Octal I/O (1-8-8)					*									*							
QPI (4-4-4)	*	*	*	*	*	*		*		*		*			*						*
OPI (8-8-8)					*									*							*
H/W Reset (RESET# Pin)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		*		*	*
S/W Reset	*	*	*	*	*	*	*	*		*	*	*	*	*	*	*		*		*	*
H/W Write Protection (WP# Pin)	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
S/W Write Protection	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Volatile & Non-volatile Status Register Bit	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		*		*	*
Output Driver Strength	*	*	*	*	*	*	*			*	*	*	*	*	*	*		*		*	*
Security Registers with OTP Locks	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
SFDP Register	*	*	*	*	*	*	*	*		*	*	*	*	*	*	*		*		*	*
DTR		*	*		*	*				*		*	*	*	*						*
ECC			*		*	*				*			*	*	*						

* This feature is supported by part of family.

GD SPI NOR Flash Product List

Part No.	Density	Voltage	Orientation	I/O Bus	Frequency (MHz)	Package
GD25D005E	512Kb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual Output	104MHz(x1) 80MHz(x2)	SOPB 150mil US0N6 1.2x1.2mm US0N8 1.5x1.5mm US0N8 3x2mm
GD25D010E	1Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual Output	104MHz(x1) 80MHz(x2)	SOPB 150mil US0N6 1.2x1.2mm US0N8 1.5x1.5mm US0N8 3x2mm
GD25D020E	2Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)	SOPB 150mil SOPB 208mil US0N8 3x2mm
GD25D020E	2Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual Output	104MHz(x1) 80MHz(x2)	SOPB 150mil SOPB 208mil US0N8 1.5x1.5mm US0N8 3x2mm
GD25D040E	4Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)	SOPB 150mil SOPB 208mil US0N8 1.5x1.5mm US0N8 3x2mm
GD25D040E	4Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual Output	104MHz(x1) 80MHz(x2)	SOPB 150mil SOPB 208mil US0N8 1.5x1.5mm US0N8 3x2mm
GD25D080E	8Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)	SOPB 150mil SOPB 208mil US0N8 3x2mm
GD25D080E	8Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual Output	104MHz(x1) 80MHz(x2)	SOPB 150mil SOPB 208mil US0N8 1.5x1.5mm US0N8 3x2mm
GD25D160E	16Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)	SOPB 150mil SOPB 208mil US0N8 3x2mm US0N8 3x4mm
GD25D160E	16Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)	SOPB 150mil SOPB 208mil US0N8 3x2mm US0N8 3x4mm
GD25B3.2E	32Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)	SOPB 150mil SOPB 208mil US0N8 3x2mm US0N8 3x4mm
GD25D3.2E	32Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)	SOPB 150mil SOPB 208mil US0N8 3x2mm US0N8 3x4mm
GD25B6.4E	64Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)	SOPB 208mil US0N8 3x4mm US0N8 4x4mm US0N8 6x5mm
GD25B6.4E	64Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)	SOPB 208mil US0N8 3x4mm US0N8 4x4mm US0N8 6x5mm
GD25F6.4F	64Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	166MHz(x1, x2, x4) 104MHz(DTDR)	SOPB 208mil US0N8 4x4mm US0N8 6x5mm TBFGA24 8x6mm (5x5 ball array)
GD25G6.4E	64Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)	SOPB 208mil SOPB 208mil FO-US0N8 3x2mm US0N8 3x4mm US0N8 4x4mm US0N8 6x5mm
GD25B1.28E	128Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)	SOPB 208mil US0N8 4x4mm US0N8 6x5mm US0N8 8x6mm TBFGA24 8x6mm (5x5 ball array)
GD25B1.28H	128Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4)	SOPB 208mil US0N8 4x4mm US0N8 6x5mm US0N8 8x6mm TBFGA24 8x6mm (5x5 ball array)
GD25B1.28E	128Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)	SOPB 208mil US0N8 4x4mm US0N8 6x5mm US0N8 8x6mm TBFGA24 8x6mm (5x5 ball array)
GD25D1.28H	128Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)	SOPB 208mil US0N8 4x4mm US0N8 6x5mm US0N8 8x6mm TBFGA24 8x6mm (5x5 ball array)
GD25B1.28E	128Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)	SOPB 208mil US0N8 6x5mm US0N8 8x6mm
GD25F1.28H	128Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	166MHz(x1, x2, x4) 104MHz(DTDR)	SOPB 208mil SOPB 16 300mil US0N8 6x5mm TBFGA24 8x6mm (5x5 ball array)
GD25D2.56E	256Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)	SOPB 300mil US0N8 6x5mm US0N8 8x6mm
GD25F2.56F	256Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)	SOPB 300mil US0N8 6x5mm US0N8 8x6mm TBFGA24 8x6mm (5x5 ball array)
GD25F2.56F	256Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	166MHz(x1, x2, x4) 104MHz(DTDR)	SOPB 300mil US0N8 6x5mm US0N8 8x6mm TBFGA24 8x6mm (5x5 ball array)
GD25Q2.56E	256Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)	SOPB 300mil US0N8 6x5mm US0N8 8x6mm TBFGA24 8x6mm (5x5 ball array)
GD25F5.12ME	512Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Quad	166MHz(x1, x4) 200MHz(DTDR)	SOPB 300mil US0N8 8x6mm TBFGA24 8x6mm (5x5 ball array)
GD25F5.12ME	512Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Quad	200MHz(x1, x4) 200MHz(DTDR)	SOPB 300mil TBFGA24 8x6mm (5x5 ball array)
GD25B5.12ME	512Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Quad	133MHz(x1, x4)	SOPB 300mil US0N8 8x6mm TBFGA24 8x6mm (5x5 ball array)
GD25F5.12ME	512Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	166MHz(x1, x2, x4) 104MHz(DTDR)	SOPB 300mil US0N8 8x6mm TBFGA24 8x6mm (5x5 ball array)
GD25B5.12ME	512Mb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)	SOPB 300mil US0N8 8x6mm
GD58B0.1GE	1Gb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Quad	133MHz(x1, x4) 90MHz(DTDR)	SOPB 300mil US0N8 8x6mm TBFGA24 8x6mm (5x5 ball array)
GD58D0.1GE	1Gb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Quad	166MHz(x1, x4) 200MHz(DTDR)	SOPB 300mil TBFGA24 8x6mm (5x5 ball array)
GD58D0.1GE	1Gb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Quad	200MHz(x1, x4) 200MHz(DTDR)	SOPB 300mil TBFGA24 8x6mm (5x5 ball array)
GD58B0.1GF	1Gb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)	SOPB 300mil US0N8 8x6mm TBFGA24 8x6mm (5x5 ball array)
GD58F0.1GF	1Gb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	166MHz(x1, x2, x4) 104MHz(DTDR)	SOPB 300mil US0N8 8x6mm TBFGA24 8x6mm (5x5 ball array)
GD58B0.2GE	2Gb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Quad	133MHz(x1, x4) 90MHz(DTDR)	SOPB 300mil TBFGA24 8x6mm (5x5 ball array)
GD58D0.2GE	2Gb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Quad	166MHz(x1, x4) 200MHz(DTDR)	SOPB 300mil TBFGA24 8x6mm (5x5 ball array)
GD58D0.2GE	2Gb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Quad	200MHz(x1, x4) 200MHz(DTDR)	SOPB 300mil TBFGA24 8x6mm (5x5 ball array)
GD58D0.2GF	2Gb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)	SOPB 300mil TBFGA24 8x6mm (5x5 ball array)
GD58F0.2GF	2Gb	2.7V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	166MHz(x1, x2, x4) 104MHz(DTDR)	SOPB 300mil TBFGA24 8x6mm (5x5 ball array)
GD25D005E	512Kb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual Output	104MHz(x1) 80MHz(x2)	SOPB 150mil US0N6 1.2x1.2mm US0N8 3x2mm
GD25D010E	1Mb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual Output	104MHz(x1) 80MHz(x2)	SOPB 150mil US0N6 1.2x1.2mm US0N8 1.5x1.5mm US0N8 3x2mm
GD25D020E	2Mb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)	SOPB 150mil US0N6 1.2x1.2mm US0N8 3x2mm
GD25D020E	2Mb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual Output	104MHz(x1) 80MHz(x2)	SOPB 150mil US0N6 1.2x1.2mm US0N8 1.5x1.5mm US0N8 3x2mm
GD25D040E	4Mb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)	SOPB 150mil US0N6 1.2x1.2mm US0N8 3x2mm
GD25D040E	4Mb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual Output	104MHz(x1) 80MHz(x2)	SOPB 150mil US0N6 1.2x1.2mm US0N8 1.5x1.5mm US0N8 3x2mm
GD25D080E	8Mb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)	SOPB 150mil US0N6 1.2x1.2mm US0N8 3x2mm
GD25D080E	8Mb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual Output	104MHz(x1) 80MHz(x2)	SOPB 150mil US0N6 1.2x1.2mm US0N8 1.5x1.5mm US0N8 3x2mm
GD25D160E	16Mb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)	SOPB 150mil SOPB 208mil US0N8 3x2mm US0N8 3x4mm
GD25D160E	16Mb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)	SOPB 150mil SOPB 208mil US0N8 3x2mm US0N8 3x4mm
GD25B3.2E	32Mb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)	SOPB 150mil SOPB 208mil US0N8 3x2mm US0N8 3x4mm
GD25D3.2E	32Mb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)	SOPB 150mil SOPB 208mil US0N8 3x2mm US0N8 3x4mm
GD25D1.28H	128Mb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)	SOPB 208mil SOPB 16 300mil US0N8 4x4mm US0N8 6x5mm WLCSFP (3-2-3 ball array)
GD25D1.28H	128Mb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)	SOPB 208mil US0N8 4x4mm US0N8 6x5mm
GD25D2.56E	256Mb	1.65V-3.6V	4KB / 32KB / 64KB	Single / Dual / Quad	104MHz(x1, x2, x4)	SOPB 300mil US0N8 6x5mm US0N8 8x6mm
GD25F6.4E	64Mb	1.1V-1.26V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4) 80MHz(DTDR)	SOPB 208mil US0N8 3x4mm US0N8 4x4mm WLCSFP (4 ball array)
GD25F1.28H	128Mb	1.1V-1.26V	4KB / 32KB / 64KB	Single / Dual / Quad	120MHz(x1, x2, x4) 80MHz(DTDR)	SOPB 208mil US0N8 3x4mm US0N8 4x4mm TBFGA24 8x6mm (5x5 ball array)
GD25N25.6F	256Mb	1.65V-2.0V/1.10V-1.30V	4KB / 32KB / 64KB	Single / Dual / Quad	166MHz(x1, x2, x4) 104MHz(DTDR)	SOPB 300mil TBFGA24 8x6mm (5x5 ball array)
GD25N51.2MF	512Mb	1.65V-2.0V/1.10V-1.30V	4KB / 32KB / 64KB	Single / Dual / Quad	166MHz(x1, x2, x4) 104MHz(DTDR)	SOPB 300mil TBFGA24 8x6mm (5x5 ball array)

- LQ/LE/LH: Quad I/O
- LB: Quad I/O, Default x4 I/O
- LF: Quad I/O, Default x4 I/O, High Performance
- LT: Quad I/O, Default x4 I/O, Ultra-High Performance
- LX: Octal I/O, Ultra-High Performance
- LD: Dual Output

- LR: Quad I/O, Stack RPMC
- NF: 1.2V VIO, Quad I/O, Default x4 I/O, High Performance

3V

- Q: Quad I/O
- B: Quad I/O, Default x4 I/O
- F: Quad I/O, Default x4 I/O, High Performance
- T: Quad I/O, Default x4 I/O, Ultra-High Performance
- X: Octal I/O, Ultra-High Performance
- D: Dual Output
- R: Quad I/O, Stack RPMC

1.65V~3.6V

- WD: Dual Output
- WQ: Quad I/O
- WB: Quad I/O, Default x4 I/O

1.2V

UF Quad I/O, Default x4 I/O

GD SPI NOR Flash (Automotive) Product List

Part No.	Density	Voltage	Organization	I/O Bus	Frequency (MHz)	Packages
GD25 LQ20 E	2Mb	1.65 V-2.0 V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)	USON8 3x2mm
GD25 LQ80 E	8Mb	1.65 V-2.0 V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)	SOP8 150mil USON8 3x2mm
GD25 LQ16 E	16Mb	1.65 V-2.0 V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)	SOP8 150mil SOP8 208mil USON8 3x2mm
GD25 LQ32 E	32Mb	1.65 V-2.0 V	4KB / 32KB / 64KB	Single / Dual / Quad	133MHz(x1, x2, x4)	SOP8 150mil SOP8 208mil USON8 3x2mm USON8 3x4mm WSON8 6x5mm

GD25 LQ64 E	64Mb	1.65 V-2.0 V	4KB / 32K B / 64KB	Single / Dual / Q uad	133MHz(x1, x2, x4)	SOP8 150mil SOP8 208mil USON8 3x4 mm USON8 4x4mm WSON8 6x5mm TF BGA24 8x6mm (5x5 ball array)
GD25 LQ12 8D	128Mb	1.65 V-2.0 V	4KB / 32K B / 64KB	Single / Dual / Q uad	120MHz(x1, x2, x4)	SOP8 208mil WSON8 6x5mm TFBGA24 8x6mm (5x5 ball array)
GD25 LT256 E	256Mb	1.65 V-2.0 V	4KB / 32K B / 64KB	Single / Quad	166MHz(x1, x4) 200MHz(DTR)	SOP16 300mil WSON8 6x5mm WSON8 8x6mm TFBGA24 8x6mm (5x5 ball array)
GD25 LF256 F	256Mb	1.65 V-2.0 V	4KB / 32K B / 64KB	Single / Dual / Q uad	166MHz(x1, x2, x4) 104MHz(DT R)	SOP16 300mil WSON8 6x5mm WSON8 8x6mm TFBGA24 8x6mm (5x5 ball array)
GD25 LX51 2ME	512Mb	1.65 V-2.0 V	4KB / 32K B / 64KB	Single / Octal	200MHz(x1, x8) 200MHz(DTR)	SOP16 300mil TFBGA24 8x6mm (5x5 b all array)
GD55 LX01 GE	1Gb	1.65 V-2.0 V	4KB / 32K B / 64KB	Single / Octal	200MHz(x1, x8) 200MHz(DTR)	SOP16 300mil TFBGA24 8x6mm (5x5 b all array)
GD55 LX02 GE	2Gb	1.65 V-2.0 V	4KB / 32K B / 64KB	Single / Octal	200MHz(x1, x8) 200MHz(DTR)	SOP16 300mil TFBGA24 8x6mm (5x5 b all array)
GD25 Q40E	4Mb	2.7V- 3.6V	4KB / 32K B / 64KB	Single / Dual / Q uad	133MHz(x1, x2, x4)	SOP8 150mil USON8 3x2mm
GD25 B16E	16Mb	2.7V- 3.6V	4KB / 32K B / 64KB	Single / Dual / Q uad	133MHz(x1, x2, x4)	SOP8 150mil SOP8 208mil USON8 3x2 mm USON8 3x4mm
GD25 F64F	64Mb	2.7V- 3.6V	4KB / 32K B / 64KB	Single / Dual / Q uad	166MHz(x1, x2, x4) 104MHz(DT R)	SOP8 208mil USON8 4x4mm WSON8 6 x5mm
GD25 F256 F	256Mb	2.7V- 3.6V	4KB / 32K B / 64KB	Single / Dual / Q uad	166MHz(x1, x2, x4) 104MHz(DT R)	SOP16 300mil WSON8 6x5mm WSON8 8x6mm TFBGA24 8x6mm (5x5 ball array)

GD25 T512 ME	512Mb	2.7V- 3.6V	4KB / 32K B / 64KB	Single / Quad	166MHz(x1, x4) 200MHz(DTR)	SOP16 300mil WSON8 8x6mm TFBGA2 4 8x6mm (5×5 ball array)
GD55 T01G E	1Gb	2.7V- 3.6V	4KB / 32K B / 64KB	Single / Quad	166MHz(x1, x4) 200MHz(DTR)	SOP16 300mil WSON8 8x6mm TFBGA2 4 8x6mm (5×5 ball array)
GD55 T02G E	2Gb	2.7V- 3.6V	4KB / 32K B / 64KB	Single / Quad	166MHz(x1, x4) 200MHz(DTR)	SOP16 300mil TFBGA24 8x6mm (5×5 b all array)
GD55 X02G E	2Gb	2.7V- 3.6V	4KB / 32K B / 64KB	Single / Octal	200MHz(x1, x8) 200MHz(DTR)	SOP16 300mil TFBGA24 8x6mm (5×5 b all array)



GD SPI NAND Flash Features

3V

- Power Supply Voltage: 2.7V~3.6V
- High Speed Clock Frequency:
 - Up to 133MHz for fast read
 - Quad I/O Data transfer up to 532Mbit/s
- Flexible Memory Architecture:
 - 2K-Byte page for read and program
 - 128K-Byte per block for erase
- Enhanced Access Performance:
 - 2K-Byte cache for fast random read
- Advanced Feature for SPI NAND:
 - Internal ECC algorithm

- Support DTR

1.8V

- Power SupplyVo age: 1.7V- –
- High Speed Clock Frequency:
 - up to 104MHz for fast readv
 - Quad 1/0 Data transfer up to 416Mbit/s
- Flexible Memory Architecture:
 - 2K-Byte page for read and program
 - 128K-Byte per block for erase
- Enhanced Access Performance:
 - 2K-Byte cache for fast random read
- Advanced Feature for SPI NAND:
 - Internal ECC algorithm
 - Support DTR
 - Support Deep Power Down

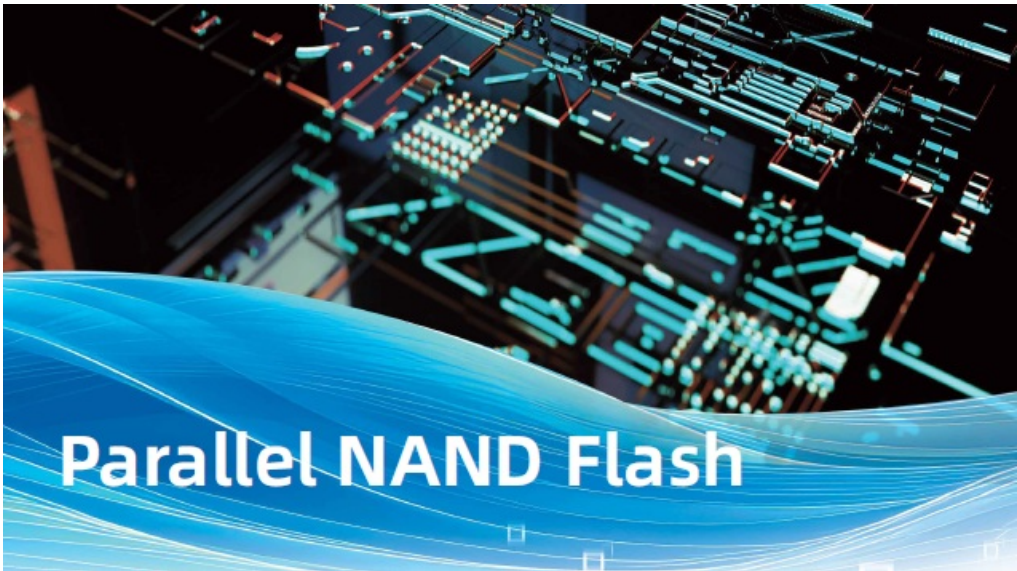
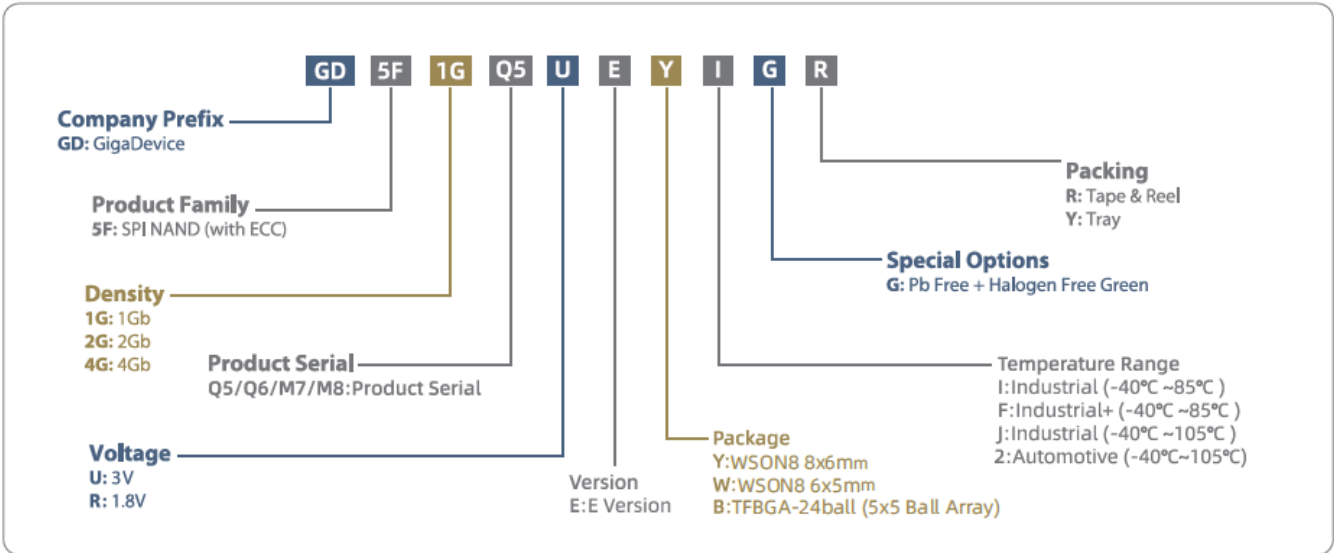
GD SPI NAND Flash Product List

GD5F1GQ5UE	1Gb	2.7V-3.6V	133MHz	x1/x2/x4	2KB	WS0N8 8x6mm
GD5F1GM7UE	1Gb	2.7V-3.6V	133MHz	x1/x2/x4	2KB	WS0N8 8x6mm/WS0N8 6x5mm/TFBGA24 8x6mm(5x5 ball array)
GD5F2GQ5UE	2Gb	2.7V-3.6V	104MHz	x1/x2/x4	2KB	WS0N8 8x6mm
GD5F2GM7UE	2Gb	2.7V-3.6V	133MHz	x1/x2/x4	2KB	WS0N8 8x6mm/WS0N8 6x5mm/TFBGA24 8x6mm(5x5 ball array)
GD5F4GQ6UE	4Gb	2.7V-3.6V	104MHz	x1/x2/x4	2KB	WS0N8 8x6mm
GD5F4GM8UE	4Gb	2.7V-3.6V	133MHz	x1/x2/x4	2KB	WS0N8 8x6mm/WS0N8 6x5mm/TFBGA24 8x6mm(5x5 ball array)
GD5F1GQ5RE	1Gb	1.7V-2.0V	104MHz	x1/x2/x4	2KB	WS0N8 8x6mm
GD5F1GM7RE	1Gb	1.7V-2.0V	104MHz	x1/x2/x4	2KB	WS0N8 8x6mm/WS0N8 6x5mm/TFBGA24 8x6mm(5x5 ball array)
GD5F2GQ5RE	2Gb	1.7V-2.0V	80MHz	x1/x2/x4	2KB	WS0N8 8x6mm
GD5F2GM7RE	2Gb	1.7V-2.0V	104MHz	x1/x2/x4	2KB	WS0N8 8x6mm/WS0N8 6x5mm/TFBGA24 8x6mm(5x5 ball array)
GD5F4GQ6RE	4Gb	1.7V-2.0V	80MHz	x1/x2/x4	2KB	WS0N8 8x6mm

GD SPI NAND Flash (Automotive) Product List

Part No.	Densi ty	Voltage	Freque ncy	I/O B us	Page Size	Package
GD5F1GQ 5UE	1Gb	2.7V-3. 6V	133MH z	x1/x2 /x4	2KB	WSO8 8x6mm
GD5F2GQ 5UE	2Gb	2.7V-3. 6V	104MH z	x1/x2 /x4	2KB	WSO8 8x6mm
GD5F4GQ 6UE	4Gb	2.7V-3. 6V	104MH z	x1/x2 /x4	2KB	WSO8 8x6mm
GD5F1GQ 5RE	1Gb	1.7V-2. 0V	104MH z	x1/x2 /x4	2KB	WSO8 8x6mm
GD5F2GQ 5RE	2Gb	1.7V-2. 0V	80MHz	x1/x2 /x4	2KB	WSO8 8x6mm

GD SPI NAND Flash Part Number Definition



GD Parallel NAND Flash Features

- supply. 2.71— 3.v
- Density: 16b / 26b / 46b EGb
- Size: 2KB+64B / 2KB+128B
- Flash Array to Register Time: 25us
- I/O Read performance: 12ns / 20ns /
- Bus Width: / options
- Temperature Range: -40° C to 85° C /
- ONN 1.0 compatible

1.8V

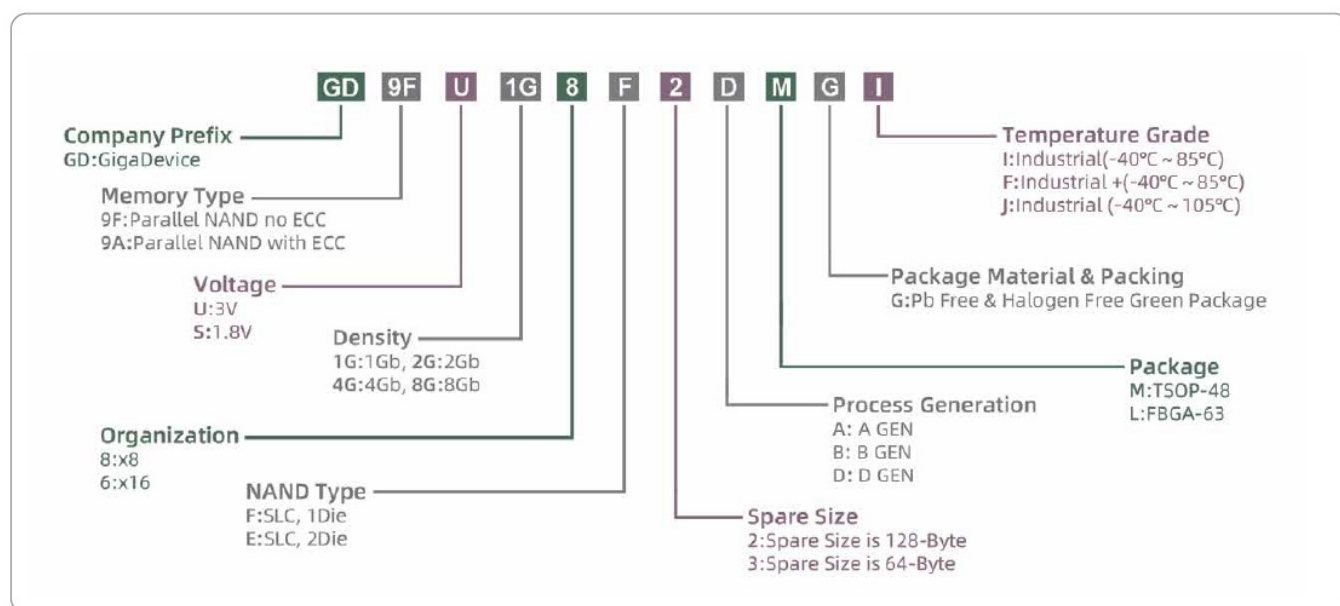
- Power Supply: 1.7V~1.95V
- Density: 1Gb/2Gb/4Gb/8Gb
- Page Size: 2KB+64B / 2KB+128B
- Flash Array to Register Time: 25us
- I/O Read Performance: 20ns/25ns/45ns
- Bus Width: x8 / x16 options
- Temperature Range: -40° C to 85° C / -40~105°C
- ONFI 1.0 compatible

GD Parallel NAND Flash Product List

Part No.	Density	Voltage	Sequential Access Time	I/O Bus	Page Size	ECC Requirement	Package
GD9FU1Gx3A	1Gb	2.7V-3.6V	25ns	x8/x16	2KB+64B	4bit/512B	TSOP48 20x12mm/BGA63 9x11mm
GD9FU2Gx3A	2Gb	2.7V-3.6V	20ns	x8/x16	2KB+64B	4bit/512B	TSOP48 20x12mm/BGA63 9x11mm
GD9FU4Gx3A	4Gb	2.7V-3.6V	20ns	x8/x16	2KB+64B	4bit/512B	TSOP48 20x12mm/BGA63 9x11mm
GD9AU2Gx3A	2Gb	2.7V-3.6V	20ns	x8/x16	2KB+64B	Internal 4bit/512B	TSOP48 20x12mm/BGA63 9x11mm

GD9AU8G xE3A	8Gb	2.7V-3 .6V	20ns	x8/x16	2KB+64B	Internal 4bit/5 12B	TSOP48 20x12mm/BGA63 9 x11mm
GD9FS1G 8F2D	1Gb	1.7V-1 .95V	20ns	x8	2KB+128 B	8bit/512B	TSOP48 20x12mm/BGA63 9 x11mm
GD9FS2G xF2A	2Gb	1.7V-1 .95V	25ns	x8/x16	2KB+128 B	4bit/512B	TSOP48 20x12mm/BGA63 9 x11mm
GD9FS8G xE3A	8Gb	1.7V-1 .95V	25ns	x8/x16	2KB+64B	4bit/512B	TSOP48 20x12mm/BGA63 9 x11mm
GD9AS4G xF3A	4Gb	1.7V-1 .95V	25ns	x8/x16	2KB+64B	Internal 4bit/5 12B	TSOP48 20x12mm/BGA63 9 x11mm
GD9AS8G xE3A	8Gb	1.7V-1 .95V	25ns	x8/x16	2KB+64B	Internal 4bit/5 12B	TSOP48 20x12mm/BGA63 9 x11mm

GD Parallel NAND Flash Part Number Definition



Flash Package Options

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

K		USON8 1.5x1.5mm	
		Length	1.50mm
		Width	1.50mm
		Height (Max)	0.50mm
		Pitch	0.40mm

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

XE		FO-USON8 3x2mm	
		Length	3.00mm
		Width	2.00mm
		Height (Max)	0.40mm
		Pitch	0.50mm

F		SOP16 300mil	
		Length	10.30mm
		Width	10.35mm
		Height (Max)	2.65mm
		Pitch	1.27mm

E		USON8 3x2mm	
		Length	3.00mm
		Width	2.00mm
		Height (Max)	0.50mm
		Pitch	0.50mm

K6		USON6 1.2x1.2mm	
		Length	1.20mm
		Width	1.20mm
		Height (Max)	0.40mm
		Pitch	0.40mm

XH		FO-USON8 3x3mm	
		Length	3.00mm
		Width	3.00mm
		Height (Max)	0.40mm
		Pitch	0.80mm

Note:

1. The values provided are the typical values for length, width and pitch, as well as the max values for Height.
2. The pictures are for reference only. Please always verify your selection with the product data sheet.

N		<table><tr><th colspan="2">USON8 3x4mm</th></tr><tr><td>Length</td><td>3.00mm</td></tr><tr><td>Width</td><td>4.00mm</td></tr><tr><td>Height (Max)</td><td>0.60mm</td></tr><tr><td>Pitch</td><td>0.80mm</td></tr></table>	USON8 3x4mm		Length	3.00mm	Width	4.00mm	Height (Max)	0.60mm	Pitch	0.80mm
USON8 3x4mm												
Length	3.00mm											
Width	4.00mm											
Height (Max)	0.60mm											
Pitch	0.80mm											
L		<table><tr><th colspan="2">WLCSP</th></tr><tr><td colspan="2">Depends on specific product</td></tr></table>	WLCSP		Depends on specific product							
WLCSP												
Depends on specific product												
Q		<table><tr><th colspan="2">USON8 4x4mm</th></tr><tr><td>Length</td><td>4.00mm</td></tr><tr><td>Width</td><td>4.00mm</td></tr><tr><td>Height (Max)</td><td>0.50mm</td></tr><tr><td>Pitch</td><td>0.80mm</td></tr></table>	USON8 4x4mm		Length	4.00mm	Width	4.00mm	Height (Max)	0.50mm	Pitch	0.80mm
USON8 4x4mm												
Length	4.00mm											
Width	4.00mm											
Height (Max)	0.50mm											
Pitch	0.80mm											
B		<table><tr><th colspan="2">TFBGA-24ball 6x8mm (5x5ball array)</th></tr><tr><td>Length</td><td>6.00mm</td></tr><tr><td>Width</td><td>8.00mm</td></tr><tr><td>Height (Max)</td><td>1.20mm</td></tr><tr><td>Pitch</td><td>1.00mm</td></tr></table>	TFBGA-24ball 6x8mm (5x5ball array)		Length	6.00mm	Width	8.00mm	Height (Max)	1.20mm	Pitch	1.00mm
TFBGA-24ball 6x8mm (5x5ball array)												
Length	6.00mm											
Width	8.00mm											
Height (Max)	1.20mm											
Pitch	1.00mm											
W		<table><tr><th colspan="2">WSON8 6x5mm</th></tr><tr><td>Length</td><td>6.00mm</td></tr><tr><td>Width</td><td>5.00mm</td></tr><tr><td>Height (Max)</td><td>0.80mm</td></tr><tr><td>Pitch</td><td>1.27mm</td></tr></table>	WSON8 6x5mm		Length	6.00mm	Width	5.00mm	Height (Max)	0.80mm	Pitch	1.27mm
WSON8 6x5mm												
Length	6.00mm											
Width	5.00mm											
Height (Max)	0.80mm											
Pitch	1.27mm											
L		<table><tr><th colspan="2">FBGA63</th></tr><tr><td>Length</td><td>9.00mm</td></tr><tr><td>Width</td><td>11.0mm</td></tr><tr><td>Height (Max)</td><td>1.00mm</td></tr><tr><td>Pitch</td><td>0.80mm</td></tr></table>	FBGA63		Length	9.00mm	Width	11.0mm	Height (Max)	1.00mm	Pitch	0.80mm
FBGA63												
Length	9.00mm											
Width	11.0mm											
Height (Max)	1.00mm											
Pitch	0.80mm											
Y		<table><tr><th colspan="2">WSON8 8x6mm</th></tr><tr><td>Length</td><td>8.00mm</td></tr><tr><td>Width</td><td>6.00mm</td></tr><tr><td>Height (Max)</td><td>0.80mm</td></tr><tr><td>Pitch</td><td>1.27mm</td></tr></table>	WSON8 8x6mm		Length	8.00mm	Width	6.00mm	Height (Max)	0.80mm	Pitch	1.27mm
WSON8 8x6mm												
Length	8.00mm											
Width	6.00mm											
Height (Max)	0.80mm											
Pitch	1.27mm											
M		<table><tr><th colspan="2">TSOP48</th></tr><tr><td>Length</td><td>20.00mm</td></tr><tr><td>Width</td><td>12.00mm</td></tr><tr><td>Height (Max)</td><td>1.20mm</td></tr><tr><td>Pitch</td><td>0.50mm</td></tr></table>	TSOP48		Length	20.00mm	Width	12.00mm	Height (Max)	1.20mm	Pitch	0.50mm
TSOP48												
Length	20.00mm											
Width	12.00mm											
Height (Max)	1.20mm											
Pitch	0.50mm											

Capacitive Touchscreen Controller

GD Capacitive Touchscreen Controller Features

- 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

GD Capacitive Touch IC for Mobile

Item	GSL1691	GSL2681	GSL915	GSL2338
Number of channels	18TX, 12RX	23TX, 12RX	26TX, 14RX	40 RX
Multi-touch points	5 points	5 points	5 points	2 points
Panel dimension	up to 7"	up to 7"	up to 7"	up to 5.5"
Wake-up gestures	Yes	Yes	Yes	Yes
TP compatible mode	Tx line Floating	Tx line Floating	GPIO(9 mode) + Tx line Floating	Rx line Floating
Panel dimension and pixel	5.0Inch(960*540) 5.0Inch(1280*720) 5.3Inch(800*480) 5.3Inch(960*540) 5.7Inch(1280*720) 6.0Inch(960*540) 6.0Inch(1280*720) 7Inch(800*480) 7Inch(1024*600)	5.0Inch(960*540) 5.0Inch(1280*720) 5.3Inch(800*480) 5.3Inch(960*540) 5.7Inch(1280*720) 6.0Inch(960*540) 6.0Inch(1280*720) 7Inch(800*480) 7Inch(1024*600)	5.0Inch(960*540) 5.0Inch(1280*720) 5.3Inch(800*480) 5.3Inch(960*540) 5.7Inch(1280*720) 6.0Inch(960*540) 6.0Inch(1280*720) 7Inch(800*480) 7Inch(1024*600)	5.0Inch(960*540) 5.0Inch(1280*720) 5.3Inch(800*480) 5.3Inch(960*540) 5.5Inch(1280*720)
Value proposition	Support single layer and multi-touch, high cost effectiveness	Support single layer and multi-touch, high performance	Support single layer and multi-touch, high performance	Self-capacitance, high cost effectiveness
Sensor profile	5*5*0.8mm	6*6*0.8mm	6*6*0.8mm	5*5*0.55mm
Package	QFN40	QFN48	QFN52	QFN48
High channel loading resistance support	Yes	Yes	Yes	Yes
Sensor pattern	OGS, SITO, DITO	OGS, SITO, DITO	OGS, SITO, DITO	SITO (duel segmentation)
Process support	1. Photolithography process 2. Laser process 3. Printing process	1. Photolithography process 2. Laser process 3. Printing process	1. Photolithography process 2. Laser process 3. Printing process	Printing process
Voltage	2.8V/3.0V/3.3V	2.8V/3.0V/3.3V	2.8V/3.0V/3.3V	2.8V/3.0V/3.3V
Communication	I2C	I2C	I2C	I2C

GD Capacitive Touch IC for Tablet Panel

Item	GSL1680	GSL1686	GSL2681	GSL3670	GSL3676	GSL3680	GSL3692	GSL5680
Number of channels	16TX, 10RX	16TX, 10RX	23TX, 12RX	26TX, 14RX	28TX, 18RX	31TX, 20RX	32TX, 24RX	40TX, 32RX
Multi-touch Points	5~10 point	5~10 point	5~10 point	5~10 point	5~10 point	5~10 point	5~10 point	5~10 point
Panel dimension	up to 7"	up to 7"	up to 8"	up to 10.1"	up to 10.1"	up to 13.5"	up to 13.5"	up to 15.6"
Wake-up gestures	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TP compatible mode	GPIO(2 modes)+ Tx line floating	GPIO(2 modes)+ Tx line floating	Tx line floating	GPIO(9 modes)+ Tx line floating	Tx line floating	GPIO(8 modes)+ Tx line floating	GPIO(6 modes)+ Tx line floating	GPIO(9 modes)+ Tx line floating
Panel dimension and pixel				7Inch(1280*800)	7Inch(1280*800)	7Inch(1280*800)	7Inch(1280*800)	7Inch(1280*800)
				7.85Inch(1024*768)	7.85Inch(1024*768)	7.85Inch(1024*768)	7.85Inch(1024*768)	7.85Inch(1024*768)
			7Inch(1024*600)	7.85Inch(1280*800)	7.85Inch(1280*800)	7.85Inch(1280*800)	7.85Inch(1280*800)	7.85Inch(1280*800)
	7Inch(800*480)	7Inch(800*480)	7Inch(1280*800)	8Inch(1024*768)	8Inch(1024*768)	8Inch(1024*768)	8Inch(1024*768)	8Inch(1024*768)
	7Inch(1024*600)	7Inch(1024*600)	7.85Inch(1024*768)	8Inch(1280*800)	8Inch(1280*800)	8Inch(1280*800)	8Inch(1280*800)	8Inch(1280*800)
	8Inch(800*480)	8Inch(800*480)	8Inch(800*480)	9Inch(800*480)	9Inch(800*480)	9Inch(800*480)	9Inch(800*480)	9Inch(800*480)
	8Inch(800*600)	8Inch(800*600)	8Inch(800*600)	9Inch(1024*600)	9Inch(1024*600)	9Inch(1024*600)	9Inch(1024*600)	9Inch(1024*600)
			8Inch(1024*768)	9Inch(1024*768)	9Inch(1024*768)	9Inch(1024*768)	9Inch(1024*768)	9Inch(1024*768)
			8Inch(1280*800)	9Inch(1280*800)	9Inch(1280*800)	9Inch(1280*800)	9Inch(1280*800)	9Inch(1280*800)
			9Inch(800*480)	9.7Inch(800*480)	9.7Inch(800*480)	9.7Inch(800*480)	9.7Inch(800*480)	9.7Inch(800*480)
			10.1Inch(1024*768)	10.1Inch(1024*768)	10.1Inch(1024*768)	10.1Inch(1024*768)	10.1Inch(1024*768)	10.1Inch(1024*768)
			10.1Inch(1366*768)	10.1Inch(1366*768)	10.1Inch(1366*768)	customer requirement	customer requirement	customer requirement
Sensor profile	5*5*0.8mm	5*5*0.8mm	6*6*0.8mm	6*6*0.8mm	7*7*0.8mm	8*8*0.8mm	8*8*0.8mm	10*10*0.8mm
Package	QFN40	QFN40	QFN48	QFN52	QFN56	QFN68	QFN68	QFN88
Value proposition	Support single layer and multi-touch, high cost effectiveness	Support single layer and multi-touch, high cost effectiveness, compatible with GSL1680	Support single layer and multi-touch, high cost effectiveness	Support single layer and multi-touch, high cost effectiveness	Support single layer and multi-touch, big panel size	Support single layer and multi-touch, big panel size	Support single layer and multi-touch, big panel size	Support single layer and multi-touch, big panel size
High channel loading resistance support	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sensor pattern	DITO	OGS, SITO, DITO	OGS, SITO, DITO	OGS, SITO, DITO	OGS, SITO, DITO	OGS, SITO, DITO	OGS, SITO, DITO	DITO
Process support	1. Photolithography process 2. Laser process 3. Printing process	1. Photolithography process 2. Laser process 3. Printing process	1. Photolithography process 2. Laser process 3. Printing process	1. Photolithography process 2. Laser process 3. Printing process	1. Photolithography process 2. Laser process 3. Printing process	1. Photolithography process 2. Laser process 3. Printing process	1. Photolithography process 2. Laser process 3. Printing process	1. Photolithography process 2. Laser process 3. Printing process
Voltage	2.8V/3.0V/3.3V	2.8V/3.0V/3.3V	2.8V/3.0V/3.3V	2.8V/3.0V/3.3V	2.8V/3.0V/3.3V	2.8V/3.0V/3.3V	2.8V/3.0V/3.3V	2.8V/3.0V/3.3V
Communication	I2C	I2C	I2C	I2C	I2C	I2C	I2C	I2C

Fingerprint Sensor GD Capacitive Fingerprint Sensor Features

- Diverse shapes: round, square, rectangular etc.
- All kinds of typical sizes: different diameters, different side lengths, especially ultra-slim
- Front/Back/Side-Mounted package sensor type

- 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
- 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 modul
- Smart wake-up feature
- FRR<2% @ FAR 1/50000

Electrical Properties

- Supply voltage: 2.6V ~ 3.6V
- VDDIO voltage: 1.8V ~ AVDD
- Power consumption:
Image scan mode (frame rate>20F/s or custom): 8.5mA (configurable) Sleep mode (before awoken): 100μA (typically)
Deep sleep mode: 30~100μA

Reliability

- Sensor ESD performance:
Air discharge: ±15.0 kV Direct discharge: ±8.0 kV
- Sensor Latch-up performance:±400.0mA

GD Capacitive Fingerprint Sensor

Part No.	Type	Position	LGA Size / Square	LGA Size / Round	Sensing Size	Pixel Array
GSL6157N	Matte / Glossy Coating	Side-Mounted	14.3*2.4mm		8 x 1.8mm	160 x 36
GSL6159N	Matte / Glossy Coating	Side-Mounted	13.5*2.12mm		8 x 1.6mm	160 x 32
GSL6157R	Matte / Glossy Coating	Curved Side-Mounted	14.3*2.4mm		8 x 1.8mm	160 x 36
GSL6191N	Matte / Glossy Coating	Side-Mounted	14.3*2.4 ~ 13.5*2.12		6.6 x 1.6mm	132 x 32
GSL6192	Matte / Glossy Coating	Side-Mounted	13.5*1.8		7.8 x 1.3mm	180 x 30
GSL6193	Matte / Glossy Coating	Side-Mounted	14.3*2.4 ~ 13.5*2.12		5.9 x 1.6mm	118 x 32
GSL6150N	Matte / Glossy Coating	Back-Mounted	Max:12x12mm Min:7.5x7.5mm	Max:φ12mm Min:φ8.5mm	4.0 x 3.2mm	80 x 64
GSL6135N	Matte / Glossy Coating	Back-Mounted	Max:12x12mm Min:7.5x7.5mm	Max:φ12 Min:φ8.5	3.2 x 3.2mm	64 x 64
GSL6182GS1	Matte / Glossy Coating	Smart door lock	Max:15x15mm Min:12.5x12.5mm	Max:φ15mm Min:φ12.5mm	5.7 x 6.6mm	128 x 112
GSL6186	Matte / Glossy Coating	Smart door lock	Max:13x13mm Min:10.5x10.5mm	Max:φ13mm Min:φ10.5mm	6.4 x 3.2mm	128 x 64
GSL6186C1	Matte / Glossy Coating	PC	Max:13x13mm Min:10.5x10.5mm	Max:φ13mm Min:φ10.5mm	4.0 x 3.2mm	80 x 64

GD Optical Fingerprint Sensor Features

- Different types of optical sensors under the display: CCM (CSM)
- 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



Under OLED Optical Fingerprint 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 CSP (Chip Scale Package) in under-display fingerprint application

GD Optical Fingerprint Sensor Under OLED

Part. No.	Finger Touch Size	Pixel Array
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GSL7000A 6.0 x 6.0 mm 320 x 320
GSL7001A 6.0 x 6.0 mm 250 x 250
GSL7002A 7.5 x 6.8 mm 200 x 180

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- www.gigadevice.com/about/sales

Documents / Resources

	GigaDevice GD32 MCU Microcon Trollers Solsta [pdf] User Guide GD32F207, GD32F205, GD32F470, GD32F425, GD32F407, GD32F403, GD32F427, GD32F450, GD32F405, GD32W515, GD32E508, GD32E507, GD32E505, GD32E503, GD32H759, GD32H757, GD32H737, GD32VW553, GD32L233, GD32F107, GD32F105, GD32F103, GD32F101, GD32F307, GD32F303, GD32E113, GD32E103, GD32F305, GD32C113, GD32C103, GD32E502, GD32E501, GD32VF103, GD32E232, GD32E230, GD32F150, GD32 MCU Microcon Trollers Solsta, GD32 MCU, Microcon Trollers Solsta, Trollers Solsta, Solsta
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References

- [Flash | MCU | Sensor | Analog | Solutions-GigaDevice.com](#)
- [Global Sales Network-GigaDevice.com](#)
- [Advanced Semiconductor Solutions-GigaDevice.com](#)
- [User Manual](#)

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