

CompactFlash Card

Fixed Disk Type
HFD10P-GR / XFD10P-GR Series

Removable Disk Type
HCF10P-GR / XCF10P-GR / LCF10P-GR Series



Two types are available a removable disk used mainly for data storage and a fixed disk used as an operating system boot device.

Product features

● Lineup Range From Low Capacity 512MB to the Largest 128GB

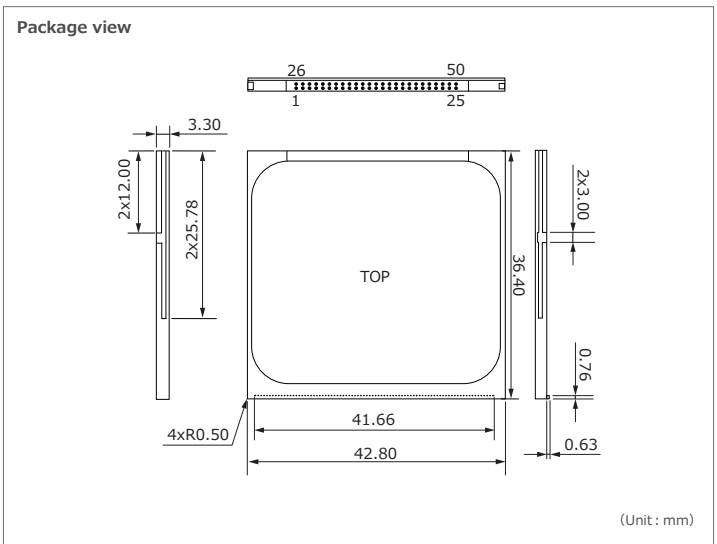
Compact Flash has been in regular use for many years. However, the increase in speed and capacity are still in progress today; as a result, low capacity types are disappearing from the lineup. Therefore, conventional devices will frequently have problems in recognition of a large capacity device. As a solution to such problems, we offer the product lineup with capacities as low as 512MB.

● High reliability specialized for industrial grade

Our high quality circuit design offers good performance and quality in response to industry demands, and all products pass reliability tests.

● Long Awaited Q-MLC models Lineup

The Q-MLC is a new generation three-in-one memory for performance, reliability, and cost-performance. With higher read/write speed than SLCs and MLCs, the Q-MLC superior performance, especially for random accessing speed. In addition, the device has approximately 10 times the high rewrite durability of MLCs.



	Static wear leveling	Refresh Function	Read retry Function	Power loss guard Function	Off line scan	Fixed specifications	RoHS	RoHS compatibility	FDE (Encryption)	Live Monitor
SLC	●	●	●	-	-	●	●	-	-	●
Q-MLC	●	●	●	-	-	●	●	-	-	●
MLC	●	●	●	-	-	●	●	-	-	●

■ Static wear leveling ■ Refresh Function ■ Read retry Function ▲ Power loss guard Function ● Off line scan ▲ Fixed specifications **RoHS** RoHS compatibility 🔑 FDE (Encryption) ● Implementation ○ Option
 🛡️ TCG Opal2.0 🗣️ Lifetime Notification Function 🌟 Lifetime Notification LED 🛌 DevSleep Function ⚡ Power Shut Off Durability 🌡️ Wide temperature 📄 Environmental Documents 📺 LiveMonitor



Product Specifications

Flash Type		SLC	Q-MLC	MLC
Capacity		512MB~64GB ※1	16GB~64GB	16GB~128GB
interface		Parallel ATA[Ultra ATA/66] CFA6.0		
Operating Mode		Fixed Disk / Removable Disk		Removable Disk Type
Transfer Mode		PIO mode0-4 / Multiword DMA mode 0-2 / Ultra DMA mode 0-4		
Power SUPPLY Voltage		3.3V±5% / 5.0V±10%		
Operating temperature	Standard	0°C~70°C		
	Wide temperature	-40°C~85°C		-25°C~85°C
Storage temperature		-45°C~90°C		
Operating Humidity		~85% (non condensing)		
Storage Humidity		~95% (non condensing)		
Dimensions (mm)		42.8 × 36.4 × 3.3		
DRAM Cache		-		
Performance	Sequential read (MB/s)	55	50	55
	Sequential write (MB/s)	50	45	45
	Random read (IOPS)	-	-	-
	Random write (IOPS)	-	-	-
Current consumption (mA) (UDMA mode 4 operation)	Read (5V operation)	150	105	125
	Write (5V operation)	165	120	150
	Idle mode (5V operation)	10	10	10
	Read (3.3V operation)	185	135	160
	Write (3.3V operation)	205	155	200
	Idle mode (3.3V operation)	5	5	5
Warranty period		1 year		

※1 512MB~8GB is lineup only for wide temperature model.

Product lineup

		512MB	1GB	2GB	4GB	8GB	16GB	32GB	64GB	128GB
SLC	0~70°C	-	-	-	-	-	[Fixed]HFD10P-016GR(A**AE) [Removable] HCF10P-016GR(A**AE)	[Fixed]HFD10P-032GR(A**AE) [Removable] HCF10P-032GR(A**AE)	[Fixed]HFD10P-064GR(A**AE) [Removable] HCF10P-064GR(A**AE)	-
	-40~85°C	[Fixed]HFD10P-512MR(A**AEI) [Removable] HCF10P-512MR(A**AEI)	[Fixed]HFD10P-A01GR(A**AEI) [Removable] HCF10P-A01GR(A**AEI)	[Fixed]HFD10P-A02GR(A**AEI) [Removable] HCF10P-A02GR(A**AEI)	[Fixed]HFD10P-A04GR(A**AEI) [Removable] HCF10P-A04GR(A**AEI)	[Fixed]HFD10P-A08GR(A**AEI) [Removable] HCF10P-A08GR(A**AEI)	[Fixed]HFD10P-016GR(A**AEI) [Removable] HCF10P-016GR(A**AEI)	[Fixed]HFD10P-032GR(A**AEI) [Removable] HCF10P-032GR(A**AEI)	[Fixed]HFD10P-064GR(A**AEI) [Removable] HCF10P-064GR(A**AEI)	-
Q-MLC	0~70°C	-	-	-	-	-	[Fixed]XFD10P-016GR(A**AH) [Removable] XCF10P-016GR(A**AH)	[Fixed]XFD10P-032GR(A**AH) [Removable] XCF10P-032GR(A**AH)	[Fixed]XFD10P-064GR(A**AH) [Removable] XCF10P-064GR(A**AH)	-
	-25~85°C	-	-	-	-	-	[Fixed]XFD10P-016GR(A**AHS) [Removable] XCF10P-016GR(A**AHS)	[Fixed]XFD10P-032GR(A**AHS) [Removable] XCF10P-032GR(A**AHS)	[Fixed]XFD10P-064GR(A**AHS) [Removable] XCF10P-064GR(A**AHS)	-
MLC	0~70°C	-	-	-	-	-	[Removable] LCF10P-016GR(A**AH)	[Removable] LCF10P-032GR(A**AH)	[Removable] LCF10P-064GR(A**AH)	[Removable] LCF10P-128GR(A**AH)
	-25~85°C	-	-	-	-	-	[Removable] LCF10P-016GR(A**AHS)	[Removable] LCF10P-032GR(A**AHS)	[Removable] LCF10P-064GR(A**AHS)	[Removable] LCF10P-128GR(A**AHS)

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