

Digital Image Storage

Camera Memory Cards

Professional Memory Card Storage Comparisons

	Device Settings	File Size (MB)	8GB	16GB	32GB	64GB	128GB	256GB
Number of Photos (RAW)	8 Megapixel	9.6	700	1500	3100	5900	11800	24100
	10 Megapixel	11.0	670	1300	2700	5100	10300	21000
	12 Megapixel	11.8	630	1200	2500	4800	9600	19600
	16 Megapixel	13.4	550	1100	2200	4200	8400	17300
	21 Megapixel	23.0	300	640	1300	2400	4900	10000
Number of Photos (JPEG)	5 Megapixel	1.5	5000	10000	20300	38800	77600	158300
	6 Megapixel	1.7	4300	8700	17300	33400	66900	136500
	7 Megapixel	2.0	3500	7100	14200	27400	54800	111900
	8 Megapixel	2.3	3200	6400	12900	24800	49600	101200
	10 Megapixel	2.9	2500	5000	10100	19400	38800	79100
	12 Megapixel	3.4	2000	4300	8600	16500	33000	67600
	14 Megapixel	4.0	1800	3600	7300	14000	28100	57400
	16 Megapixel	4.6	1600	3200	6400	12200	24500	50100
	21 Megapixel	6.4	1100	2300	4600	8800	17600	35900

Data Storage Comparisons

What can you store?					
Capacity	Digital Music (Songs)	Digital Photos (Files)	DVD-Quality Movies	Digital Videos (Hours)	HD Videos (Hours)
320 GB	up to 80,000	up to 60,000	up to 80	up to 320	up to 80
500 GB	up to 125,000	up to 100,000	up to 125	up to 500	up to 125
750 GB	up to 187,000	up to 150,000	up to 180	up to 750	up to 180
1.0 TB	up to 250,000	up to 200,000	up to 250	up to 1,000	up to 250
2.0 TB	up to 500,000	up to 400,000	up to 500	up to 2,000	up to 500
3.0 TB	up to 750,000	up to 600,000	up to 750	up to 3,000	up to 750
4.0 TB	up to 1,000,000	up to 800,000	up to 1,000	up to 4,000	up to 1,000
5.0 TB	up to 1,250,000	up to 1,000,000	up to 1,250	up to 5,000	up to 1,250
6.0 TB	up to 1,500,000	up to 1,200,000	up to 1,500	up to 6,000	up to 1,500

DIGITAL IMAGE STORAGE

Smallest piece of data = bit

Byte = 8 bits

Smallest piece of a digital image = pixel (from "picture element")

It takes many bits of data to describe a pixel (position, value, color, etc.)

KB	Kilobyte = 1,000 bytes (thousand)
MB	Megabyte = 1,000,000 (million)
GB	Gigabyte = 1,000,000,000 (billion)
TB	Terabyte = One million million bytes

CD: About 700+ MB storage space DVD: About 4.7 GB storage space
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ONSITE PHOTO STORAGE

External "local" storage connected to your computer (vulnerable to catastrophic damage like a house fire)

SSD: Solid State Drive. Like a memory stick, there are no moving parts to an SSD. Rather, information is stored in microchips. These are faster, less prone to failure, and much more expensive.

HDD: Hard Disk Drive These use a mechanical arm with a read/write head to move around and read information from the right location on a storage platter.

ONLINE PHOTO STORAGE

Amazon Photos Prime members get free unlimited photo storage and 5 GB of storage for videos, document and other files. Prime members get free unlimited photo storage and 5 GB of storage for videos, document and other files for themselves and up to 5 additional people through the Family Vault.



Apple iCloud is built into every Apple device. All files — photos, files, notes, and more — are stored in your account, and available at any location with internet access. Everyone gets 5GB of free iCloud storage to start, and it's easy to add more at any time. The iCloud Photo Library, which syncs your iOS devices to Apple's Photos app for Mac. If you are an Apple user, it's a good, cheap option at about \$1/month for 20 GB of space. Use Apple's Photo application on Apple or Windows computers to manage images.



Google Photos When you sign up for a free Google Drive account (using your gmail address), you get 15GB of storage space free. You can store any kind of document. Google Photos gives users free, unlimited storage for photos up to 16 megapixels and videos up to 1080p resolution. The service automatically analyzes photos, identifying various visual features and subjects.



Dropbox – like Google, you can store anything in this account – though the free limit is 2 GB, and there are limited applications for creating documents, like Google docs, sheets or slides. More space is reasonable. Documents and folders can be shared. Photos can be automatically uploaded to your account and can be accessed on any device with the mobile app – and can be viewed and organized anywhere.

Online Service Bureaus like Shutterfly, Snapfish, Photobucket, etc., are places where you can store images in "albums", share them, and turn your images into books, calendars, coffee mugs and t-shirts. The storage is free – they make money from your purchases of image-related products.