



# Standard

More at:

<https://www.sdcard.org/developers/sd-standard-overview/>

Made by Airoku (<https://i6c.at>)



## Form Factor (H x W x D [mm])

**SD**  
32 x 24 x 2.1

**mini**  
21.5 x 20 x 1.4

**micro**  
15 x 11 x 1.0

## Speed Class

Min. Sequential Write Speed [MB/s]

Speed Class

UHS Speed Class

**VIDEO SPEED CLASS**

**EX** SD Express Speed Class

Corresponding Video Format

2	4	6	10	30	60	90	150	300	450	600
Ⓜ	Ⓞ	Ⓟ	Ⓢ							
			Ⓤ	Ⓥ						
		V6	V10	V30	V60	V90				
							£150	£300	£450	£600
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SD (640 x 480)  
FHD (1920 x 1080)  
4K UHD (3840 x 2160)  
4K Multi Streams / Intra Video  
8K UHD (7680 x 4320)  
8K Multi Streams / Intra Video

Bus Interface Requirement

Ⓢ V6 V10 → **HS** or above  
Ⓤ Ⓥ V30 → **I** or above  
V60 V90 → **II** or **III**  
£150 £300 £450 £600 → **EX**

## Capacity / File System

	Standard Capacity	High Capacity	eXtended Capacity	Ultra Capacity
	<b>SD</b>	<b>SD HC</b>	<b>SD XC</b>	<b>SD UC</b>
	<b>mini</b>	<b>mini HC</b>		
	<b>micro</b>	<b>micro HC</b>	<b>micro XC</b>	<b>micro UC</b>
File System	FAT12 FAT16	FAT32	exFAT	exFAT
Min.	-	2 GB	32 GB	2 TB
Max.	2 GB	32 GB	2 TB	128 TB

2 GB 32 GB 128 TB  
2 TB = 2,048 GB  
= 131,072 GB  
= Entirety of this poster

## Bus Interface

**DS** through **III** are backward compatible.

**EX** are only backward compatible with **I** or below.

	<b>DS</b>	<b>HS</b>	<b>I</b>		<b>II</b>		<b>III</b>		<b>EX</b>			
	Default Speed	High Speed	UHS-I		UHS-II		UHS-III		SD Express			
									Gen.3x1	Gen.4x1	Gen.3x2	Gen.4x2
Bus Speed [MB/s]	12.5	25	50	104	156	312	312	624	985	1,970	1,970	3,940

Pin Layout

## App Performance Class

	Min. Speed	Random Read	Random Write	Sequential
<b>A1</b>	1500 IOPS	500 IOPS	10 MB/s	
<b>A2</b>	4000 IOPS	2000 IOPS	10 MB/s	

## Low Voltage Signaling



LVS cards/devices support both 3.3V and 1.8V signaling and have an icon above.



## Content Protection



SD cards without CPRM function shall have an above icon in Japan.