

Replacement Cycle (Guideline)

SD Memory Card for Business use in the case of continuous H.264 writing

As of January 30, 2019

Precaution

In this document, it is described as "SD memory card" as a generic name of (micro)SD memory card / (micro)SDHC memory card / (micro)SDXC memory card.

■ About this document

- SD memory card is consumable item that has an upper limit of rewritings.
- This document shows the replacement cycle (guideline) of the SD memory card when SD memory card is attached to the camera and continuous writing is performed by H.264 method (H.264/H.265 in Groups 5, 6, 7 and 8).
- In JPEG writing, please note that the replacement cycle (guideline) is much shorter than the one in H.264/H.265.

■ Notes on replacement cycle (guideline)

- It is calculated based on the upper limit of the number of times of rewriting of the SD memory card as a guide and **does not guarantee the endurance period**.
The endurance period will vary depending on the installation environment, operational environment, etc.
- On SD memory cards, media and stored data may be damaged due to power off during access. Faults on the SD memory card are notified to the outside by mail / alarm notification / LED etc.
Please periodically check the operation if these cannot be received and confirmed.
- If you record the data on the SD memory card for a long time, it may be lost.
We recommend you to backup data that you need to save promptly.
- The replacement cycle (guideline) is an estimated value **applied only to the SD memory cards for business use with part numbers listed in the table.**

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■ About File Size in H.264 Recording onto SD Memory Cards

- Continuous H.264 (H/264/H.265 in Group 5, 6, 7 and 8) recording onto SD memory card, the files of video are divided by prior defined maximum file size.
- There are 2 sizes depends on the model as follow.
- The replacement cycle (Guideline) is depending on the file size, above.

Group Numbers	Models	Versions	File Sizes
1	WV-SW395A/SW395/SC385/SC384/SW155MA/SW155/SW152M/SW152/SW115 WV-SW175/SW172/ST165/ST162	V1.81 and later	2MB
2	WV-SW458MA/SW458/SF438/SF448E/SW158/SF138 WV-SW598/SW598A/SW397B/SC588A/SC387A	V1.02 and later	Choice between 2MB and 20MB (Factory Default: 20MB)
3	WV-SFN631L/SFN611L/SFV631L/SFV611L/SFV631LT/SFR631L/SFR611L/SPN631/SPN611 WV-SPW631LT/SPW631L/SPW611L/SPW611/SFV531/SFN531/SFR531/SPW532L/SPW531AL/SPN531A WV-SFV311A/SFV310A/SFR311A/SFR310A/SFN311L/SFN311A/SFN310A/SPW312L/SPW311AL WV-SPN311A/SPN310A/SFV130M/SFV130/SFV110M/SFV110/SFN130/SFN110 WV-SBV131M/SBV111M	V1.19 and later	20MB
4	WV-SFV481/SFN480/SFV781L/SPV781L	V1.02 and later	20MB
5	WV-S2531LTN/S2531LN/S2511LN/S2231L/S2211L/S2131L/S2131/S2111L/S1531LTN/S1531LN WV-S1531LNS/S1511LN/S1132/S1131/S1112/S1111	V1.42 and later	20MB
6	WV-X6531NS/X6531N/X6511N/S6530N/S6131/S6111/S6130	V1.11 and later	20MB
7	WV-S4550L(M)/S4150/X4571L(M)/X4171/X4170/S2550L/S1550L/S2250L/X8570N/S8530N	V1.01 and later	20MB
8	WV-S3531L/S3511L/S3131L/S3111L/S3532LM/S3512LM	V4.00 and later	20MB

Replacement Cycle (Guideline)

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- Replacement cycle (estimate) : In Group 1 or Choose “2MB” in Group 2
- It is calculated based on the upper limit of the number of times of rewriting of the SD memory card as a guide and **does not guarantee the endurance period**.
- The endurance period will vary depending on the installation environment, operational environment, etc.

Frame rate at bandwidth as right (fps)			Bandwidth (kbps)	SD Memory Card		
1280x960	VGA	QVGA		RP-SDGD32DA1	* RP-SDGD64DA1	* RP-SDUE12DA1
-	-	-	64	5-year	5-year	5-year
-	-	1	128			
-	1	7.5	256			
-	5	15	384			
-	15	30	512			
1	30	30	768	3-year 6-month		
7.5	30	30	1,024	2-year 7-month		
20	30	30	1,536	1-year 9-month		
30	30	30	2,048	1-tyear 4-month	4-year	

*: Not usable on the cameras of Group 1.

Replacement Cycle (Guideline)

SD Memory Card for Business use in the case of continuous H.264 writing

- Replacement cycle (estimate) : In Group 3, Group 4 or Choose “20MB” in Group 2
- It is calculated based on the upper limit of the number of times of rewriting of the SD memory card as a guide and **does not guarantee the endurance period**.
- The endurance period will vary depending on the installation environment, operational environment, etc.

Frame rate at bandwidth as right (fps)				Bandwidth (kbps)	SD Memory Card		
1920x1080	1280x960	640x360	20x180		RP-SDGD32DA1	RP-SDGD64DA1	RP-SDUE12DA1
-	-	-	-	64	5-year	5-year	5-year
-	-	-	1	128			
-	-	1	15	256			
-	-	15	30	384			
-	1	30	30	512			
-	7.5	30	30	768			
1	20	30	30	1,024			
7.5	30	30	30	1,536			
15	30	30	30	2,048			
30	30	30	30	* 3,072			
30	30	30	30	* 4,096			
30	30	30	30	* 6,144			
30	30	30	30	* 8,192			
30	30	30	30	* 10,240			
30	30	30	30	* 12,288			
30	30	30	30	* 14,336			
30	30	30	30	* 16,384			

*: Not usable on the cameras of Group 2.

Replacement Cycle (Guideline)

SD Memory Card for Business use in the case of continuous H.264/H.265 writing

- Replacement cycle (estimate) : **In Group 5, Group 6 and Group 7 [H.264/H.265]**
- It is calculated based on the upper limit of the number of times of rewriting of the SD memory card as a guide and **does not guarantee the endurance period.**
- The endurance period will vary depending on the installation environment, operational environment, etc.

Frame rate at bandwidth in H.265 as right (fps)				Bandwidth (kbps)	SD Memory Card			
1920x1080	1280x960	640x360	20x180		RP-SDGD32DA1	RP-SDGD64DA1	RP-SDUE12DA1	RP-SDXE25DA1
-	-	-	-	64				
-	-	-	1	96				
-	-	-	1	112				
-	-	-	1	128				
-	-	-	12	192				
-	-	1	20	224				
-	-	1	20	256				
-	-	10	30	320				
-	1	15	30	352	5-year	5-year		
-	1	15	30	384			5-year	
-	1	30	30	448				5-year
-	7.5	30	30	480				
-	7.5	30	30	512				
1	20	30	30	640				
5	20	30	30	768				
7.5	30	30	30	1,024				
15	30	30	30	1,280		4-year 10-month		
30	30	30	30	1,536	4-year 7-month	4-year 4-month		
30	30	30	30	1,792	3-year 10-month	3-year 9-month		
30	30	30	30	2,048	3-year 5-month	3-year 3-month		
30	30	30	30	3,072	2-year 3-month	2-year 2-month	4-year 4-month	
30	30	30	30	4,096	1-year 9-month	1-year 7-month	3-year 3-month	
30	30	30	30	6,144	1-year 1-month	1-year 1-month	2-year 2-month	4-year 3-month
30	30	30	30	8,192	10-month	9-month	1-year 6-month	3-year 8-month
30	30	30	30	10,240	8-month	7-month	1-year 3-month	3-year 4-month
30	30	30	30	12,288	6-month	6-month	1-year	3-year

Replacement Cycle (Guideline)

SD Memory Card for Business use in the case of continuous H.264/H.265 writing

- Replacement cycle (estimate) : **In Group 8 [H.264/H.265]**
- It is calculated based on the upper limit of the number of times of rewriting of the SD memory card as a guide and **does not guarantee the endurance period.**
- The endurance period will vary depending on the installation environment, operational environment, etc.

Frame rate at bandwidth in H.265 as right (fps)				Bandwidth (kbps)	SD Memory Card	
1920x1080	1280x960	640x360	20x180		RP-SMTT32DA1 *1	RP-SMTT64DA1 *1
-	-	-	-	64	5-year	5-year
-	-	-	1	96		
-	-	-	1	112		
-	-	-	1	128		
-	-	-	12	192		
-	-	1	20	224		
-	-	1	20	256		
-	-	10	30	320		
-	1	15	30	352		
-	1	15	30	384		
-	1	30	30	448	4-year 10-month	4-year 10-month
-	7.5	30	30	480	3-year 11-month	
-	7.5	30	30	512	3-year 5-month	
1	20	30	30	640	2-year 8-month	
5	20	30	30	768	2-year 4-month	
7.5	30	30	30	1,024	1-year 7-month	
15	30	30	30	1,280	1-year 3-month	
30	30	30	30	1,536	1-year 1-month	
30	30	30	30	1,792	11-month	
30	30	30	30	2,048	10-month	
30	30	30	30	3,072	8-month	
30	30	30	30	4,096	5-month	
30	30	30	30	6,144	5-month	
30	30	30	30	8,192	4-month	
30	30	30	30	10,240	3-month	
30	30	30	30	12,288	2-month	

*1:RP-SMTT32DA1 is microSDHC memory card and RP-SMTT64DA1 is microSDXC memory card. Compared under the same writing conditions, the replacement cycle (estimate) is same or shorter than SDHC / SDXC memory cards of the same capacity.

◇ Revision History

Date	Description
Apr. 18, 2018	◆First edition
Jan. 30, 2019	◆Add product part numbers (Group7) - WV-S2550L/S1550L/S2250L/X8570N/S8530N ◆Add product part numbers (Group8) - WV-S3531L/S3511L/S3131L/S3111L/S3532LM/S3512LM ◆On Groups 5, 6 and 7, corrected some values of “Frame rate at bandwidth in H.265 as right (fps)”.