

Introduction

The hard disk capacity required for recording depends on camera configurations, recording times, and other factors. Determine the necessary hard disk capacity using the Required Disk Space Calculator available from the Canon website or by referring to the Data Size and Bit Rate Estimates tables.

Determine the following conditions beforehand.

- Number of cameras
- Video size, video quality, and frame rate of cameras
- Daily recording time

Important

- The actual data size may increase or decrease depending on the objects being recorded. Make sure to confirm the data size for the actual system environment before starting operation.
- Note that the actual recording file size may be different from the size in the table, depending on the weather conditions and the complexity of the scene. For example, video of an empty corridor would typically result in values smaller than the above values. Conversely, complex scenes, such as a crowded shopping mall, would result in larger values.

Note

The estimates assume continuous recording at a fixed frame rate (number of frames per second), video size, and quality.

Calculating the Hard Disk Capacity Required for Recording

The hard disk capacity required for recording is calculated using the data from the Data Size and Bit Rate Estimates tables and the following formulas (B: Byte, b: bit).

Important

We recommend that you add more than 20% space to the calculated hard disk capacity.

JPEG video

data size per frame × frame rate × number of cameras × 60 sec. × 60 min. × daily video recording time × number of video recording days

H.264 and MPEG-4 video

bit rate × number of cameras × 60 sec. × 60 min. × daily video recording time × number of video recording days

Audio

8 KB × number of cameras × 60 sec. × 60 min. × daily audio recording time × number of audio recording days

Calculation Examples

Sample calculations for each video format are shown below, assuming 1000 Kbps = 1 Mbps for the network bandwidth, and 1024 KB = 1 MB for the disk capacity.

Example 1: JPEG recording

- Video recording from 16 cameras (VB-R11VE).
- Video size is 320 x 240 and video quality is 6 (data size per frame: 12.04 KB).
- Recording frame rate is 2 fps.
- Data size per second is approximately 24.08 KB (= 12.04 KB x 2 fps).
Although the actual recording data size depends on the objects recorded by each camera, this calculation assumes the typical sizes given above.
- Audio is recorded from 2 cameras.

The required hard disk space for recording video is approximately 31.7 GB per day (= 24.08 KB x 16 cameras x 60 sec. x 60 min. x 24 hours = 33,288,192 KB).

The required hard disk space for recording audio is approximately 1.3 GB per day (= 8 KB x 2 cameras x 60 sec. x 60 min. x 24 hours = 1,382,400 KB).

Example 2: MPEG-4 recording

- Video recording from 8 cameras (VB-C60).
- Video size is 320 x 240 and video quality is 3.
- Recording frame rate is 30 fps.
- Bit rate is 1.20 Mbps.
Although the actual recording data size depends on the objects recorded by each camera, this calculation assumes the typical sizes given above.

The required hard disk space for recording video is approximately 101 GB per day (= 1.20 Mbps x 8 cameras x 60 sec. x 60 min. x 24 hours = 829,440 Mb=103,680 MB).

Example 3: H.264 recording

- Video recording from 8 cameras (VB-R11VE).
- Video size is 320 x 240 and video quality is 6.
- Recording frame rate is 30 fps.
- Bit rate is 0.53 Mbps.
Although the actual recording data size depends on the objects recorded by each camera, this calculation assumes the typical sizes given above.

The required hard disk space for recording video is approximately 45 GB per day (= 0.53 Mbps x 8 cameras x 60 sec. x 60 min. x 24 hours = 366,336 Mb=45,792 MB).

Data Size (JPEG Video) and Bit Rate (H.264/MPEG-4 Video) Estimates

The rough estimates of data size per frame (in KB unit) and bit rate (in Mbps unit) obtained from the combination of video quality and video size settings are as shown in the tables below.

However, the numeric values shown in the tables are just estimates. Actual numeric values may be far larger than the estimated values, depending on images (complexity, brightness and others). Therefore, it is necessary to take sufficient care when calculating the hard disk capacity and network load.

Depending on the frame rate and video quality settings, some frames may not be able to be streamed in GOP (Group of Pictures) units. This may lower the bit rate as a result.

VB-H45

Data size estimates (JPEG)

Video quality	Video size								
	1080p category			720p category			4:3 category		
	480 x 270	960 x 540	1920 x 1080	320 x 180	640 x 360	1280 x 720	320 x 240	640 x 480	1280 x 960
2	9.72	31.40	101.19	5.28	15.15	52.32	6.83	21.89	72.73
4	12.58	41.05	126.15	6.79	19.71	66.71	8.86	28.64	92.16
6	15.20	48.88	148.37	8.04	23.97	79.56	10.64	34.46	108.95
8	19.66	63.84	191.00	10.40	31.30	103.07	13.78	44.72	140.70
10	33.26	107.49	330.55	17.08	53.32	173.81	22.56	74.20	236.48

(Unit: KB)

Bit rate estimates (H.264)

Video size: 1080p category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080
2	0.07	0.19	0.46	0.14	0.38	1.06	0.19	0.53	1.56	0.23	0.64	1.92	0.31	0.87	2.62
4	0.09	0.23	0.57	0.17	0.48	1.33	0.24	0.67	2.01	0.28	0.81	2.51	0.38	1.09	3.43
6	0.11	0.28	0.69	0.21	0.60	1.70	0.30	0.85	2.58	0.35	1.02	3.27	0.47	1.38	4.51
8	0.15	0.40	0.99	0.31	0.89	2.66	0.44	1.30	4.27	0.53	1.60	5.50	0.70	2.18	7.85
10	0.20	0.54	1.40	0.44	1.33	4.20	0.64	2.01	7.08	0.78	2.54	9.43	1.05	3.57	14.16

(Unit: Mbps)

Video size: 4:3 category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960
2	0.05	0.14	0.37	0.09	0.27	0.76	0.13	0.37	1.07	0.15	0.44	1.30	0.20	0.58	1.73
4	0.06	0.18	0.45	0.12	0.34	0.96	0.16	0.46	1.38	0.19	0.55	1.68	0.25	0.73	2.28
6	0.07	0.21	0.55	0.14	0.42	1.22	0.19	0.58	1.79	0.23	0.69	2.19	0.31	0.92	3.00
8	0.10	0.30	0.78	0.21	0.63	1.89	0.29	0.89	2.92	0.34	1.07	3.71	0.45	1.44	5.29
10	0.14	0.40	1.04	0.29	0.90	2.83	0.41	1.31	4.57	0.50	1.62	5.98	0.66	2.24	8.96

(Unit: Mbps)

Data size estimates (JPEG)

Video quality	Video size					
	720p category			4:3 category		
	320 x 180	640 x 360	1280 x 720	320 x 240	640 x 480	1280 x 960
2	5.28	15.15	52.32	6.83	21.89	72.73
4	6.79	19.71	66.71	8.86	28.64	92.16
6	8.04	23.97	79.56	10.64	34.46	108.95
8	10.40	31.30	103.07	13.78	44.72	140.70
10	17.08	53.32	173.81	22.56	74.20	236.48

(Unit: KB)

Bit rate estimates (H.264)

Video size: 720p category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720
2	0.04	0.11	0.28	0.08	0.22	0.59	0.10	0.29	0.85	0.12	0.35	1.04	0.17	0.47	1.41
4	0.05	0.13	0.34	0.09	0.26	0.75	0.13	0.36	1.08	0.15	0.43	1.32	0.21	0.59	1.81
6	0.06	0.16	0.42	0.12	0.33	0.94	0.16	0.45	1.37	0.19	0.55	1.69	0.25	0.74	2.33
8	0.08	0.23	0.59	0.17	0.48	1.44	0.23	0.68	2.18	0.28	0.83	2.75	0.37	1.11	3.86
10	0.11	0.31	0.82	0.23	0.70	2.22	0.33	1.02	3.55	0.40	1.24	4.61	0.54	1.72	6.79

(Unit: Mbps)

Video size: 4:3 category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960
2	0.05	0.14	0.37	0.09	0.27	0.76	0.13	0.37	1.07	0.15	0.44	1.30	0.20	0.58	1.73
4	0.06	0.18	0.45	0.12	0.34	0.96	0.16	0.46	1.38	0.19	0.55	1.68	0.25	0.73	2.28
6	0.07	0.21	0.55	0.14	0.42	1.22	0.19	0.58	1.79	0.23	0.69	2.19	0.31	0.92	3.00
8	0.10	0.30	0.78	0.21	0.63	1.89	0.29	0.89	2.92	0.34	1.07	3.71	0.45	1.44	5.29
10	0.14	0.40	1.04	0.29	0.90	2.83	0.41	1.31	4.57	0.50	1.62	5.98	0.66	2.24	8.96

(Unit: Mbps)

Data size estimates (JPEG)

Video quality	Video size								
	1080p category			720p category			4:3 category		
	480 x 270	960 x 540	1920 x 1080	320 x 180	640 x 360	1280 x 720	320 x 240	640 x 480	1280 x 960
2	11.87	38.47	123.69	6.63	18.50	64.09	7.43	22.22	73.42
4	15.47	50.31	157.92	8.41	24.42	83.30	9.46	28.88	93.32
6	18.46	60.35	188.42	9.94	29.38	99.80	11.11	34.33	110.33
8	24.03	78.48	247.32	12.71	38.36	129.83	14.17	44.18	142.37
10	39.48	131.71	427.28	20.43	63.59	219.30	22.68	72.40	238.35

(Unit: KB)

Bit rate estimates (H.264)

Video size: 1080p category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080
2	0.09	0.29	0.78	0.16	0.53	1.67	0.21	0.71	2.37	0.24	0.83	2.88	0.31	1.07	3.85
4	0.11	0.35	0.96	0.20	0.67	2.16	0.27	0.90	3.19	0.31	1.07	3.92	0.40	1.39	5.40
6	0.14	0.43	1.18	0.26	0.86	2.80	0.34	1.18	4.28	0.40	1.40	5.38	0.51	1.84	7.70
8	0.19	0.60	1.66	0.39	1.32	4.57	0.52	1.87	7.39	0.62	2.29	9.70	0.79	3.12	14.85
10	0.26	0.81	2.34	0.57	2.02	7.43	0.78	3.03	12.81	0.93	3.86	17.42	1.22	5.50	28.33

(Unit: Mbps)

Video size: 4:3 category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960
2	0.05	0.17	0.52	0.09	0.31	1.02	0.12	0.39	1.39	0.13	0.47	1.66	0.17	0.59	2.17
4	0.06	0.21	0.63	0.11	0.39	1.31	0.15	0.51	1.82	0.17	0.60	2.21	0.22	0.77	2.97
6	0.08	0.26	0.77	0.14	0.50	1.68	0.19	0.66	2.43	0.22	0.78	2.99	0.28	1.00	4.16
8	0.11	0.37	1.08	0.21	0.75	2.68	0.28	1.03	4.12	0.33	1.24	5.29	0.42	1.61	7.90
10	0.15	0.49	1.49	0.30	1.13	4.28	0.41	1.62	7.06	0.50	1.98	9.38	0.64	2.72	15.00

(Unit: Mbps)

Data size estimates (JPEG)

Video quality	Video size								
	1080p category			720p category			4:3 category		
	480 x 270	960 x 540	1920 x 1080	320 x 180	640 x 360	1280 x 720	320 x 240	640 x 480	1280 x 960
2	9.66	30.88	98.68	5.29	15.05	50.30	6.33	19.66	64.62
4	12.73	40.33	124.92	6.89	19.88	64.95	8.25	25.38	81.29
6	15.26	48.44	147.72	8.20	24.03	77.68	9.86	30.45	95.25
8	20.03	63.70	193.90	10.60	31.66	101.89	12.87	39.73	123.49
10	33.74	109.30	350.63	17.43	53.65	176.98	21.38	67.54	218.74

(Unit: KB)

Bit rate estimates (H.264)

Video size: 1080p category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080
2	0.07	0.21	0.55	0.12	0.37	1.09	0.16	0.48	1.50	0.18	0.57	1.79	0.26	0.76	2.48
4	0.10	0.28	0.76	0.17	0.54	1.63	0.23	0.71	2.31	0.27	0.84	2.84	0.37	1.15	4.05
6	0.12	0.34	0.91	0.21	0.66	2.07	0.28	0.88	2.93	0.33	1.05	3.70	0.45	1.43	5.40
8	0.18	0.53	1.46	0.36	1.12	3.81	0.48	1.57	6.00	0.57	1.93	7.81	0.80	2.69	12.63
10	0.24	0.73	2.12	0.52	1.71	6.36	0.72	2.51	10.63	0.85	3.13	14.52	1.22	4.68	24.18

(Unit: Mbps)

Video size: 4:3 category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960
2	0.04	0.13	0.36	0.08	0.24	0.70	0.11	0.32	0.97	0.12	0.37	1.13	0.18	0.50	1.60
4	0.06	0.18	0.48	0.11	0.34	1.01	0.15	0.46	1.42	0.18	0.55	1.73	0.25	0.73	2.52
6	0.07	0.22	0.58	0.13	0.41	1.25	0.18	0.56	1.81	0.22	0.67	2.26	0.31	0.92	3.27
8	0.11	0.33	0.92	0.22	0.70	2.33	0.30	0.98	3.54	0.36	1.18	4.61	0.51	1.67	7.38
10	0.15	0.46	1.31	0.31	1.04	3.79	0.44	1.51	6.28	0.53	1.87	8.50	0.76	2.76	14.15

(Unit: Mbps)

Data size estimates (JPEG)

Video quality	Video size								
	1080p category			720p category			4:3 category		
	480 x 270	960 x 540	1920 x 1080	320 x 180	640 x 360	1280 x 720	320 x 240	640 x 480	1280 x 960
2	9.46	29.35	89.83	5.21	14.65	46.86	6.35	19.39	60.92
4	12.34	38.03	112.14	6.70	19.33	60.02	8.28	25.31	76.92
6	14.86	45.59	132.44	7.95	23.26	71.55	9.88	30.42	90.94
8	19.48	59.59	173.50	10.35	30.49	93.53	12.85	39.92	118.94
10	32.63	101.72	312.94	17.09	51.67	164.46	21.37	67.39	210.87

(Unit: KB)

Bit rate estimates (H.264)

Video size: 1080p category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080
2	0.06	0.19	0.50	0.11	0.33	0.96	0.14	0.44	1.30	0.16	0.50	1.55	0.23	0.66	2.05
4	0.09	0.26	0.69	0.16	0.49	1.42	0.21	0.64	1.96	0.24	0.74	2.35	0.33	0.99	3.18
6	0.10	0.32	0.83	0.19	0.59	1.77	0.25	0.78	2.45	0.29	0.93	2.95	0.41	1.22	4.16
8	0.17	0.49	1.30	0.32	1.01	3.06	0.43	1.38	4.53	0.52	1.65	5.74	0.71	2.22	8.34
10	0.23	0.68	1.83	0.47	1.51	4.80	0.65	2.12	7.50	0.77	2.62	9.74	1.08	3.66	14.53

(Unit: Mbps)

Video size: 4:3 category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960
2	0.04	0.13	0.35	0.07	0.23	0.67	0.10	0.30	0.91	0.12	0.35	1.08	0.17	0.47	1.49
4	0.06	0.17	0.48	0.11	0.32	0.96	0.14	0.44	1.33	0.17	0.52	1.63	0.24	0.69	2.22
6	0.07	0.21	0.57	0.13	0.40	1.20	0.17	0.53	1.67	0.20	0.63	2.02	0.29	0.85	2.84
8	0.11	0.32	0.88	0.21	0.66	2.07	0.29	0.92	3.11	0.35	1.10	3.88	0.49	1.51	5.65
10	0.14	0.44	1.23	0.30	0.97	3.19	0.42	1.38	4.98	0.51	1.73	6.48	0.72	2.42	9.86

(Unit: Mbps)

Data size estimates (JPEG)

Video quality	Video size								
	1080p category			720p category			4:3 category		
	480 x 270	960 x 540	1920 x 1080	320 x 180	640 x 360	1280 x 720	320 x 240	640 x 480	1280 x 960
2	9.46	29.35	89.83	5.21	14.65	46.86	6.35	19.39	60.92
4	12.34	38.03	112.14	6.70	19.33	60.02	8.28	25.31	76.92
6	14.86	45.59	132.44	7.95	23.26	71.55	9.88	30.42	90.94
8	19.48	59.59	173.50	10.35	30.49	93.53	12.85	39.92	118.94
10	32.63	101.72	312.94	17.09	51.67	164.46	21.37	67.39	210.87

(Unit: KB)

Bit rate estimates (H.264)

Video size: 1080p category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080
2	0.06	0.19	0.50	0.11	0.33	0.96	0.14	0.44	1.30	0.16	0.50	1.55	0.23	0.66	2.05
4	0.09	0.26	0.69	0.16	0.49	1.42	0.21	0.64	1.96	0.24	0.74	2.35	0.33	0.99	3.18
6	0.10	0.32	0.83	0.19	0.59	1.77	0.25	0.78	2.45	0.29	0.93	2.95	0.41	1.22	4.16
8	0.17	0.49	1.30	0.32	1.01	3.06	0.43	1.38	4.53	0.52	1.65	5.74	0.71	2.22	8.34
10	0.23	0.68	1.83	0.47	1.51	4.80	0.65	2.12	7.50	0.77	2.62	9.74	1.08	3.66	14.53

(Unit: Mbps)

Video size: 4:3 category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960
2	0.04	0.13	0.35	0.07	0.23	0.67	0.10	0.30	0.91	0.12	0.35	1.08	0.17	0.47	1.49
4	0.06	0.17	0.48	0.11	0.32	0.96	0.14	0.44	1.33	0.17	0.52	1.63	0.24	0.69	2.22
6	0.07	0.21	0.57	0.13	0.40	1.20	0.17	0.53	1.67	0.20	0.63	2.02	0.29	0.85	2.84
8	0.11	0.32	0.88	0.21	0.66	2.07	0.29	0.92	3.11	0.35	1.10	3.88	0.49	1.51	5.65
10	0.14	0.44	1.23	0.30	0.97	3.19	0.42	1.38	4.98	0.51	1.73	6.48	0.72	2.42	9.86

(Unit: Mbps)

Data size estimates (JPEG)

Video quality	Video size								
	1080p category			720p category			4:3 category		
	480 x 270	960 x 540	1920 x 1080	320 x 180	640 x 360	1280 x 720	320 x 240	640 x 480	1280 x 960
2	9.46	29.35	89.83	5.21	14.65	46.86	6.35	19.39	60.92
4	12.34	38.03	112.14	6.70	19.33	60.02	8.28	25.31	76.92
6	14.86	45.59	132.44	7.95	23.26	71.55	9.88	30.42	90.94
8	19.48	59.59	173.50	10.35	30.49	93.53	12.85	39.92	118.94
10	32.63	101.72	312.94	17.09	51.67	164.46	21.37	67.39	210.87

(Unit: KB)

Bit rate estimates (H.264)

Video size: 1080p category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080
2	0.06	0.19	0.50	0.11	0.33	0.96	0.14	0.44	1.30	0.16	0.50	1.55	0.23	0.66	2.05
4	0.09	0.26	0.69	0.16	0.49	1.42	0.21	0.64	1.96	0.24	0.74	2.35	0.33	0.99	3.18
6	0.10	0.32	0.83	0.19	0.59	1.77	0.25	0.78	2.45	0.29	0.93	2.95	0.41	1.22	4.16
8	0.17	0.49	1.30	0.32	1.01	3.06	0.43	1.38	4.53	0.52	1.65	5.74	0.71	2.22	8.34
10	0.23	0.68	1.83	0.47	1.51	4.80	0.65	2.12	7.50	0.77	2.62	9.74	1.08	3.66	14.53

(Unit: Mbps)

Video size: 4:3 category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960
2	0.04	0.13	0.35	0.07	0.23	0.67	0.10	0.30	0.91	0.12	0.35	1.08	0.17	0.47	1.49
4	0.06	0.17	0.48	0.11	0.32	0.96	0.14	0.44	1.33	0.17	0.52	1.63	0.24	0.69	2.22
6	0.07	0.21	0.57	0.13	0.40	1.20	0.17	0.53	1.67	0.20	0.63	2.02	0.29	0.85	2.84
8	0.11	0.32	0.88	0.21	0.66	2.07	0.29	0.92	3.11	0.35	1.10	3.88	0.49	1.51	5.65
10	0.14	0.44	1.23	0.30	0.97	3.19	0.42	1.38	4.98	0.51	1.73	6.48	0.72	2.42	9.86

(Unit: Mbps)

Data size estimates (JPEG)

Video quality	Video size					
	720p category			4:3 category		
	320 x 180	640 x 360	1280 x 720	320 x 240	640 x 480	1280 x 960
2	5.21	14.65	46.86	6.35	19.39	60.92
4	6.70	19.33	60.02	8.28	25.31	76.92
6	7.95	23.26	71.55	9.88	30.42	90.94
8	10.35	30.49	93.53	12.85	39.92	118.94
10	17.09	51.67	164.46	21.37	67.39	210.87

(Unit: KB)

Bit rate estimates (H.264)

Video size: 720p category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720
2	0.03	0.10	0.30	0.06	0.18	0.55	0.07	0.23	0.71	0.09	0.26	0.83	0.13	0.35	1.12
4	0.04	0.14	0.41	0.08	0.25	0.78	0.11	0.33	1.05	0.13	0.39	1.25	0.17	0.52	1.67
6	0.05	0.17	0.49	0.10	0.31	0.96	0.13	0.41	1.29	0.16	0.48	1.54	0.21	0.65	2.08
8	0.08	0.27	0.77	0.16	0.53	1.66	0.22	0.71	2.35	0.26	0.84	2.89	0.36	1.16	4.03
10	0.12	0.37	1.07	0.23	0.77	2.57	0.32	1.07	3.76	0.39	1.29	4.77	0.53	1.77	7.05

(Unit: Mbps)

Video size: 4:3 category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960
2	0.04	0.13	0.35	0.07	0.23	0.67	0.10	0.30	0.91	0.12	0.35	1.08	0.17	0.47	1.49
4	0.06	0.17	0.48	0.11	0.32	0.96	0.14	0.44	1.33	0.17	0.52	1.63	0.24	0.69	2.22
6	0.07	0.21	0.57	0.13	0.40	1.20	0.17	0.53	1.67	0.20	0.63	2.02	0.29	0.85	2.84
8	0.11	0.32	0.88	0.21	0.66	2.07	0.29	0.92	3.11	0.35	1.10	3.88	0.49	1.51	5.65
10	0.14	0.44	1.23	0.30	0.97	3.19	0.42	1.38	4.98	0.51	1.73	6.48	0.72	2.42	9.86

(Unit: Mbps)

Data size estimates (JPEG)

Video quality	Video size					
	720p category			4:3 category		
	320 x 180	640 x 360	1280 x 720	320 x 240	640 x 480	1280 x 960
2	5.21	14.65	46.86	6.35	19.39	60.92
4	6.70	19.33	60.02	8.28	25.31	76.92
6	7.95	23.26	71.55	9.88	30.42	90.94
8	10.35	30.49	93.53	12.85	39.92	118.94
10	17.09	51.67	164.46	21.37	67.39	210.87

(Unit: KB)

Bit rate estimates (H.264)

Video size: 720p category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720
2	0.03	0.10	0.30	0.06	0.18	0.55	0.07	0.23	0.71	0.09	0.26	0.83	0.13	0.35	1.12
4	0.04	0.14	0.41	0.08	0.25	0.78	0.11	0.33	1.05	0.13	0.39	1.25	0.17	0.52	1.67
6	0.05	0.17	0.49	0.10	0.31	0.96	0.13	0.41	1.29	0.16	0.48	1.54	0.21	0.65	2.08
8	0.08	0.27	0.77	0.16	0.53	1.66	0.22	0.71	2.35	0.26	0.84	2.89	0.36	1.16	4.03
10	0.12	0.37	1.07	0.23	0.77	2.57	0.32	1.07	3.76	0.39	1.29	4.77	0.53	1.77	7.05

(Unit: Mbps)

Video size: 4:3 category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960
2	0.04	0.13	0.35	0.07	0.23	0.67	0.10	0.30	0.91	0.12	0.35	1.08	0.17	0.47	1.49
4	0.06	0.17	0.48	0.11	0.32	0.96	0.14	0.44	1.33	0.17	0.52	1.63	0.24	0.69	2.22
6	0.07	0.21	0.57	0.13	0.40	1.20	0.17	0.53	1.67	0.20	0.63	2.02	0.29	0.85	2.84
8	0.11	0.32	0.88	0.21	0.66	2.07	0.29	0.92	3.11	0.35	1.10	3.88	0.49	1.51	5.65
10	0.14	0.44	1.23	0.30	0.97	3.19	0.42	1.38	4.98	0.51	1.73	6.48	0.72	2.42	9.86

(Unit: Mbps)

Data size estimates (JPEG)

Video quality	Video size								
	1080p category			720p category			4:3 category		
	480 x 270	960 x 540	1920 x 1080	320 x 180	640 x 360	1280 x 720	320 x 240	640 x 480	1280 x 960
2	9.66	30.88	98.68	5.29	15.05	50.30	6.33	19.66	64.62
4	12.73	40.33	124.92	6.89	19.88	64.95	8.25	25.38	81.29
6	15.26	48.44	147.72	8.20	24.03	77.68	9.86	30.45	95.25
8	20.03	63.70	193.90	10.60	31.66	101.89	12.87	39.73	123.49
10	33.74	109.30	350.63	17.43	53.65	176.98	21.38	67.54	218.74

(Unit: KB)

Bit rate estimates (H.264)

Video size: 1080p category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080
2	0.07	0.21	0.55	0.12	0.37	1.09	0.16	0.48	1.50	0.18	0.57	1.79	0.26	0.76	2.48
4	0.10	0.28	0.76	0.17	0.54	1.63	0.23	0.71	2.31	0.27	0.84	2.84	0.37	1.15	4.05
6	0.12	0.34	0.91	0.21	0.66	2.07	0.28	0.88	2.93	0.33	1.05	3.70	0.45	1.43	5.40
8	0.18	0.53	1.46	0.36	1.12	3.81	0.48	1.57	6.00	0.57	1.93	7.81	0.80	2.69	12.63
10	0.24	0.73	2.12	0.52	1.71	6.36	0.72	2.51	10.63	0.85	3.13	14.52	1.22	4.68	24.18

(Unit: Mbps)

Video size: 4:3 category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960
2	0.04	0.13	0.36	0.08	0.24	0.70	0.11	0.32	0.97	0.12	0.37	1.13	0.18	0.50	1.60
4	0.06	0.18	0.48	0.11	0.34	1.01	0.15	0.46	1.42	0.18	0.55	1.73	0.25	0.73	2.52
6	0.07	0.22	0.58	0.13	0.41	1.25	0.18	0.56	1.81	0.22	0.67	2.26	0.31	0.92	3.27
8	0.11	0.33	0.92	0.22	0.70	2.33	0.30	0.98	3.54	0.36	1.18	4.61	0.51	1.67	7.38
10	0.15	0.46	1.31	0.31	1.04	3.79	0.44	1.51	6.28	0.53	1.87	8.50	0.76	2.76	14.15

(Unit: Mbps)

Data size estimates (JPEG)

Video quality	Video size								
	1080p category			720p category			4:3 category		
	480 x 270	960 x 540	1920 x 1080	320 x 180	640 x 360	1280 x 720	320 x 240	640 x 480	1280 x 960
2	9.46	29.35	89.83	5.21	14.65	46.86	6.35	19.39	60.92
4	12.34	38.03	112.14	6.70	19.33	60.02	8.28	25.31	76.92
6	14.86	45.59	132.44	7.95	23.26	71.55	9.88	30.42	90.94
8	19.48	59.59	173.50	10.35	30.49	93.53	12.85	39.92	118.94
10	32.63	101.72	312.94	17.09	51.67	164.46	21.37	67.39	210.87

(Unit: KB)

Bit rate estimates (H.264)

Video size: 1080p category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080
2	0.06	0.19	0.50	0.11	0.33	0.96	0.14	0.44	1.30	0.16	0.50	1.55	0.23	0.66	2.05
4	0.09	0.26	0.69	0.16	0.49	1.42	0.21	0.64	1.96	0.24	0.74	2.35	0.33	0.99	3.18
6	0.10	0.32	0.83	0.19	0.59	1.77	0.25	0.78	2.45	0.29	0.93	2.95	0.41	1.22	4.16
8	0.17	0.49	1.30	0.32	1.01	3.06	0.43	1.38	4.53	0.52	1.65	5.74	0.71	2.22	8.34
10	0.23	0.68	1.83	0.47	1.51	4.80	0.65	2.12	7.50	0.77	2.62	9.74	1.08	3.66	14.53

(Unit: Mbps)

Video size: 4:3 category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960
2	0.04	0.13	0.35	0.07	0.23	0.67	0.10	0.30	0.91	0.12	0.35	1.08	0.17	0.47	1.49
4	0.06	0.17	0.48	0.11	0.32	0.96	0.14	0.44	1.33	0.17	0.52	1.63	0.24	0.69	2.22
6	0.07	0.21	0.57	0.13	0.40	1.20	0.17	0.53	1.67	0.20	0.63	2.02	0.29	0.85	2.84
8	0.11	0.32	0.88	0.21	0.66	2.07	0.29	0.92	3.11	0.35	1.10	3.88	0.49	1.51	5.65
10	0.14	0.44	1.23	0.30	0.97	3.19	0.42	1.38	4.98	0.51	1.73	6.48	0.72	2.42	9.86

(Unit: Mbps)

Data size estimates (JPEG)

Video quality	Video size								
	1080p category			720p category			4:3 category		
	480 x 270	960 x 540	1920 x 1080	320 x 180	640 x 360	1280 x 720	320 x 240	640 x 480	1280 x 960
2	9.55	30.46	97.10	5.20	14.91	49.37	6.31	19.54	64.49
4	12.60	39.62	122.98	6.80	19.63	63.83	8.17	25.40	81.88
6	15.19	47.59	145.74	8.11	23.67	76.53	9.77	30.41	96.83
8	19.96	62.46	191.77	10.51	31.29	100.62	12.77	39.94	126.50
10	33.49	107.83	349.99	17.31	53.03	175.46	21.20	68.23	225.46

(Unit: KB)

Bit rate estimates (H.264)

Video size: 1080p category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080
2	0.07	0.20	0.53	0.12	0.36	1.06	0.15	0.47	1.40	0.18	0.55	1.71	0.25	0.74	2.32
4	0.09	0.28	0.72	0.17	0.52	1.53	0.22	0.69	2.15	0.26	0.82	2.62	0.36	1.09	3.73
6	0.11	0.34	0.87	0.21	0.63	1.89	0.27	0.85	2.73	0.32	1.02	3.44	0.45	1.35	4.83
8	0.18	0.52	1.39	0.35	1.10	3.59	0.47	1.51	5.48	0.56	1.84	7.11	0.78	2.53	11.26
10	0.25	0.71	1.98	0.51	1.64	5.85	0.70	2.40	9.54	0.84	3.01	12.97	1.18	4.33	21.72

(Unit: Mbps)

Video size: 4:3 category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960
2	0.04	0.13	0.36	0.08	0.24	0.69	0.10	0.31	0.93	0.12	0.37	1.12	0.17	0.49	1.53
4	0.06	0.18	0.49	0.11	0.34	1.00	0.15	0.45	1.39	0.17	0.53	1.69	0.25	0.73	2.35
6	0.07	0.22	0.58	0.13	0.41	1.23	0.18	0.55	1.76	0.21	0.65	2.13	0.30	0.89	3.12
8	0.11	0.34	0.91	0.22	0.70	2.24	0.29	0.96	3.42	0.35	1.17	4.46	0.51	1.62	6.93
10	0.15	0.46	1.28	0.31	1.03	3.65	0.43	1.46	5.93	0.52	1.83	7.90	0.74	2.64	12.95

(Unit: Mbps)

Data size estimates (JPEG)

Video quality	Video size								
	1080p category			720p category			4:3 category		
	480 x 270	960 x 540	1920 x 1080	320 x 180	640 x 360	1280 x 720	320 x 240	640 x 480	1280 x 960
2	9.74	33.34	112.98	5.29	15.59	56.68	6.30	21.06	74.41
4	12.90	44.16	145.01	6.89	20.83	74.42	8.29	27.88	96.06
6	15.66	53.30	173.39	8.24	25.26	89.78	9.98	33.94	114.86
8	20.64	70.38	232.20	10.65	33.65	118.74	13.08	44.74	152.69
10	34.77	121.61	419.68	17.55	57.09	209.99	21.77	76.30	274.23

(Unit: KB)

Bit rate estimates (H.264)

Video size: 1080p category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080
2	0.08	0.26	0.72	0.14	0.47	1.51	0.19	0.63	2.10	0.22	0.74	2.56	0.30	0.98	3.56
4	0.11	0.35	0.97	0.20	0.67	2.23	0.27	0.92	3.27	0.32	1.09	4.12	0.43	1.46	6.01
6	0.15	0.47	1.31	0.28	0.96	3.28	0.38	1.32	5.09	0.45	1.60	6.61	0.62	2.18	10.15
8	0.22	0.71	2.09	0.47	1.65	6.38	0.64	2.44	10.88	0.77	3.07	14.96	1.07	4.50	25.07
10	0.46	1.59	5.26	1.25	5.42	22.42	1.91	9.52	29.12	2.45	13.23	30.86	3.71	22.73	31.26

(Unit: Mbps)

Video size: 4:3 category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960
2	0.05	0.17	0.49	0.09	0.31	1.01	0.13	0.42	1.41	0.15	0.49	1.72	0.21	0.67	2.40
4	0.07	0.23	0.65	0.13	0.44	1.48	0.18	0.61	2.17	0.21	0.72	2.72	0.30	0.98	4.01
6	0.09	0.31	0.87	0.18	0.62	2.16	0.24	0.86	3.31	0.29	1.03	4.29	0.42	1.43	6.64
8	0.14	0.45	1.36	0.29	1.04	4.09	0.40	1.53	6.91	0.49	1.90	9.39	0.69	2.77	15.85
10	0.28	0.97	3.33	0.74	3.18	13.99	1.12	5.47	26.66	1.43	7.51	30.14	2.18	12.72	31.23

(Unit: Mbps)

Data size estimates (JPEG)

Video quality	Video size								
	1080p category			720p category			4:3 category		
	480 x 270	960 x 540	1920 x 1080	320 x 180	640 x 360	1280 x 720	320 x 240	640 x 480	1280 x 960
2	9.74	33.34	112.98	5.29	15.59	56.68	6.30	21.06	74.41
4	12.90	44.16	145.01	6.89	20.83	74.42	8.29	27.88	96.06
6	15.66	53.30	173.39	8.24	25.26	89.78	9.98	33.94	114.86
8	20.64	70.38	232.20	10.65	33.65	118.74	13.08	44.74	152.69
10	34.77	121.61	419.68	17.55	57.09	209.99	21.77	76.30	274.23

(Unit: KB)

Bit rate estimates (H.264)

Video size: 1080p category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080
2	0.08	0.26	0.72	0.14	0.47	1.51	0.19	0.63	2.10	0.22	0.74	2.56	0.30	0.98	3.56
4	0.11	0.35	0.97	0.20	0.67	2.23	0.27	0.92	3.27	0.32	1.09	4.12	0.43	1.46	6.01
6	0.15	0.47	1.31	0.28	0.96	3.28	0.38	1.32	5.09	0.45	1.60	6.61	0.62	2.18	10.15
8	0.22	0.71	2.09	0.47	1.65	6.38	0.64	2.44	10.88	0.77	3.07	14.96	1.07	4.50	25.07
10	0.46	1.59	5.26	1.25	5.42	22.42	1.91	9.52	29.12	2.45	13.23	30.86	3.71	22.73	31.26

(Unit: Mbps)

Video size: 4:3 category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960
2	0.05	0.17	0.49	0.09	0.31	1.01	0.13	0.42	1.41	0.15	0.49	1.72	0.21	0.67	2.40
4	0.07	0.23	0.65	0.13	0.44	1.48	0.18	0.61	2.17	0.21	0.72	2.72	0.30	0.98	4.01
6	0.09	0.31	0.87	0.18	0.62	2.16	0.24	0.86	3.31	0.29	1.03	4.29	0.42	1.43	6.64
8	0.14	0.45	1.36	0.29	1.04	4.09	0.40	1.53	6.91	0.49	1.90	9.39	0.69	2.77	15.85
10	0.28	0.97	3.33	0.74	3.18	13.99	1.12	5.47	26.66	1.43	7.51	30.14	2.18	12.72	31.23

(Unit: Mbps)

Data size estimates (JPEG)

Video quality	Video size					
	720p category			4:3 category		
	320 x 180	640 x 360	1280 x 720	320 x 240	640 x 480	1280 x 960
2	6.21	18.72	62.33	7.71	25.22	84.52
4	8.06	24.75	79.39	10.11	33.38	107.29
6	9.68	30.05	93.95	12.18	40.33	126.69
8	12.59	39.60	121.71	15.92	53.02	164.01
10	21.01	66.73	207.83	26.50	89.18	280.30

(Unit: KB)

Bit rate estimates (H.264)

Video size: 720p category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720
2	0.04	0.14	0.40	0.08	0.27	0.81	0.11	0.36	1.12	0.13	0.43	1.34	0.19	0.57	1.88
4	0.06	0.19	0.52	0.11	0.37	1.14	0.15	0.52	1.60	0.18	0.61	2.04	0.26	0.84	2.76
6	0.08	0.25	0.69	0.15	0.51	1.58	0.21	0.70	2.36	0.25	0.87	3.01	0.36	1.20	4.26
8	0.11	0.36	1.02	0.24	0.84	2.73	0.33	1.21	4.30	0.41	1.51	5.54	0.59	2.08	8.90
10	0.22	0.74	2.27	0.58	2.24	8.31	0.87	3.64	14.52	1.09	4.89	20.94	1.63	7.97	31.17

(Unit: Mbps)

Video size: 4:3 category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960
2	0.05	0.17	0.50	0.10	0.33	1.16	0.13	0.46	1.65	0.16	0.57	2.04	0.22	0.73	3.29
4	0.07	0.23	0.67	0.14	0.48	1.50	0.19	0.68	2.17	0.25	0.88	3.20	0.34	1.27	5.24
6	0.10	0.31	0.86	0.19	0.65	2.06	0.25	0.88	3.02	0.31	1.09	4.01	0.43	1.51	5.79
8	0.14	0.46	1.33	0.30	1.07	3.65	0.42	1.53	5.60	0.55	1.94	7.27	0.72	2.76	12.21
10	0.28	0.96	3.02	0.75	2.95	10.78	1.11	4.80	19.51	1.41	6.65	27.22	2.15	10.57	31.21

(Unit: Mbps)

Data size estimates (JPEG)

Video quality	Video size								
	1080p category			720p category			4:3 category		
	480 x 270	960 x 540	1920 x 1080	320 x 180	640 x 360	1280 x 720	320 x 240	640 x 480	1280 x 960
2	9.81	32.35	105.11	5.40	15.64	54.33	6.42	20.84	71.46
4	13.02	42.52	133.79	7.03	20.68	70.97	8.44	27.52	91.56
6	15.75	51.20	159.28	8.37	25.11	85.25	10.17	33.26	109.40
8	20.74	67.25	212.44	10.90	33.27	112.28	13.30	43.82	145.22
10	34.69	115.65	386.79	17.92	56.61	198.51	22.08	74.70	261.30

(Unit: KB)

Bit rate estimates (H.264)

Video size: 1080p category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080
2	0.08	0.27	0.75	0.14	0.48	1.49	0.19	0.62	2.07	0.22	0.73	2.52	0.30	0.96	3.72
4	0.11	0.36	1.01	0.21	0.68	2.20	0.27	0.90	3.20	0.32	1.06	4.00	0.43	1.44	6.12
6	0.16	0.49	1.38	0.29	0.96	3.27	0.38	1.32	4.94	0.44	1.58	6.30	0.61	2.17	10.02
8	0.23	0.76	2.21	0.47	1.68	6.27	0.64	2.44	10.43	0.76	3.03	14.06	1.05	4.39	24.09
10	0.48	1.68	5.42	1.23	5.44	21.92	1.86	9.49	29.55	2.36	13.10	30.89	3.57	22.36	31.04

(Unit: Mbps)

Video size: 4:3 category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960
2	0.05	0.17	0.47	0.09	0.30	0.94	0.12	0.39	1.33	0.15	0.46	1.64	0.20	0.58	2.08
4	0.07	0.22	0.64	0.13	0.42	1.40	0.17	0.56	2.06	0.20	0.67	2.63	0.28	0.84	3.40
6	0.09	0.30	0.88	0.18	0.58	2.09	0.24	0.80	3.22	0.28	0.96	4.12	0.38	1.19	5.53
8	0.14	0.46	1.41	0.28	0.99	4.02	0.38	1.44	6.78	0.47	1.78	9.34	0.63	2.25	13.03
10	0.28	1.00	3.44	0.70	3.15	14.05	1.06	5.44	26.74	1.35	7.50	30.24	1.93	10.92	31.28

(Unit: Mbps)

Data size estimates (JPEG)

Video quality	Video size								
	1080p category			720p category			4:3 category		
	480 x 270	960 x 540	1920 x 1080	320 x 180	640 x 360	1280 x 720	320 x 240	640 x 480	1280 x 960
2	11.91	38.96	125.68	6.45	18.78	64.78	7.74	24.77	83.47
4	15.72	51.54	159.74	8.40	24.97	84.51	10.15	32.83	106.99
6	19.03	61.99	189.83	10.04	30.26	101.46	12.19	39.79	127.41
8	25.06	81.57	250.71	12.97	40.13	133.31	15.96	52.41	167.53
10	42.00	139.60	453.11	21.49	68.05	233.76	26.56	88.91	299.97

(Unit: KB)

Bit rate estimates (H.264)

Video size: 1080p category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080
2	0.08	0.26	0.73	0.14	0.46	1.49	0.19	0.62	2.09	0.22	0.73	2.56	0.30	0.95	3.61
4	0.11	0.35	1.00	0.20	0.67	2.24	0.27	0.90	3.30	0.31	1.07	4.14	0.42	1.42	6.05
6	0.15	0.48	1.39	0.28	0.95	3.33	0.37	1.31	5.13	0.44	1.58	6.65	0.61	2.14	10.09
8	0.23	0.74	2.22	0.46	1.67	6.45	0.64	2.43	10.82	0.76	3.03	14.74	1.05	4.43	24.19
10	0.48	1.67	5.44	1.23	5.48	22.16	1.83	9.52	29.38	2.34	13.15	31.01	3.50	22.36	30.83

(Unit: Mbps)

Video size: 4:3 category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960
2	0.04	0.14	0.42	0.07	0.24	0.80	0.09	0.31	1.08	0.11	0.36	1.29	0.16	0.49	1.76
4	0.06	0.19	0.58	0.10	0.34	1.17	0.13	0.45	1.62	0.16	0.54	1.97	0.22	0.71	2.78
6	0.08	0.25	0.79	0.14	0.48	1.71	0.19	0.65	2.50	0.23	0.77	3.09	0.31	1.03	4.49
8	0.11	0.38	1.24	0.23	0.80	3.26	0.31	1.11	5.16	0.37	1.35	6.79	0.51	1.85	10.51
10	0.23	0.81	2.94	0.56	2.29	11.27	0.80	3.63	21.01	1.00	4.77	29.64	1.43	7.50	31.24

(Unit: Mbps)

Data size estimates (JPEG)

Video quality	Video size								
	1080p category			720p category			4:3 category		
	480 x 270	960 x 540	1920 x 1080	320 x 180	640 x 360	1280 x 720	320 x 240	640 x 480	1280 x 960
2	9.61	32.48	108.72	5.21	15.30	54.67	6.33	20.53	70.82
4	12.75	42.75	138.42	6.78	20.43	71.42	8.30	27.15	90.76
6	15.48	51.72	164.91	8.07	24.77	85.72	9.93	32.81	108.26
8	20.32	68.04	219.02	10.45	32.77	113.10	13.09	43.19	142.84
10	34.08	116.94	396.36	17.23	55.71	198.62	21.69	73.54	261.67

(Unit: KB)

Bit rate estimates (H.264)

Video size: 1080p category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080
2	0.08	0.28	0.77	0.15	0.51	1.57	0.19	0.66	2.16	0.22	0.77	2.60	0.31	1.01	3.57
4	0.12	0.38	1.04	0.22	0.72	2.28	0.28	0.96	3.27	0.33	1.14	4.04	0.45	1.51	5.75
6	0.16	0.50	1.38	0.30	1.01	3.28	0.39	1.38	4.90	0.46	1.65	6.21	0.64	2.22	9.26
8	0.24	0.75	2.16	0.49	1.72	6.08	0.67	2.48	9.88	0.80	3.06	13.22	1.10	4.36	21.25
10	0.49	1.64	5.19	1.26	5.26	20.62	1.89	8.98	29.48	2.39	12.27	30.97	3.56	20.42	30.68

(Unit: Mbps)

Video size: 4:3 category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960
2	0.05	0.17	0.48	0.09	0.31	0.96	0.13	0.41	1.32	0.15	0.49	1.60	0.21	0.65	2.22
4	0.07	0.23	0.64	0.13	0.43	1.39	0.18	0.59	1.97	0.21	0.70	2.43	0.30	0.94	3.49
6	0.09	0.30	0.85	0.18	0.60	1.97	0.25	0.83	2.95	0.29	0.99	3.71	0.41	1.35	5.54
8	0.14	0.45	1.32	0.29	1.00	3.62	0.40	1.43	5.85	0.48	1.76	7.76	0.68	2.50	12.56
10	0.28	0.96	3.15	0.72	2.93	12.40	1.07	4.92	23.14	1.35	6.65	29.83	2.02	10.88	31.20

(Unit: Mbps)

Data size estimates (JPEG)

Video quality	Video size								
	1080p category			720p category			4:3 category		
	480 x 270	960 x 540	1920 x 1080	320 x 180	640 x 360	1280 x 720	320 x 240	640 x 480	1280 x 960
2	9.70	32.40	106.68	5.27	15.34	54.07	6.29	20.48	70.88
4	12.78	42.68	135.85	6.88	20.55	70.70	8.25	27.14	90.81
6	15.50	51.41	159.99	8.24	24.88	84.97	9.98	32.94	109.91
8	20.44	67.57	211.81	10.68	32.89	111.63	13.05	43.41	144.97
10	34.37	116.09	383.49	17.65	55.83	196.27	21.75	73.71	255.62

(Unit: KB)

Bit rate estimates (H.264)

Video size: 1080p category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080
2	0.08	0.26	0.71	0.14	0.46	1.42	0.19	0.61	1.95	0.22	0.72	2.33	0.29	0.93	3.15
4	0.11	0.35	0.95	0.20	0.67	2.07	0.27	0.89	2.98	0.31	1.06	3.68	0.42	1.40	5.21
6	0.15	0.47	1.28	0.28	0.94	3.00	0.38	1.29	4.54	0.45	1.54	5.77	0.60	2.08	8.53
8	0.23	0.72	2.02	0.47	1.62	5.71	0.63	2.35	9.38	0.76	2.91	12.57	1.05	4.13	20.36
10	0.48	1.60	5.08	1.22	5.16	20.51	1.84	8.89	29.37	2.32	12.28	30.88	3.44	20.65	31.23

(Unit: Mbps)

Video size: 4:3 category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960
2	0.05	0.16	0.44	0.09	0.29	0.88	0.12	0.38	1.21	0.15	0.45	1.45	0.20	0.61	1.97
4	0.07	0.22	0.59	0.13	0.41	1.26	0.17	0.56	1.81	0.21	0.67	2.22	0.29	0.89	3.12
6	0.09	0.29	0.79	0.18	0.57	1.82	0.24	0.78	2.68	0.28	0.93	3.36	0.39	1.26	4.93
8	0.14	0.43	1.23	0.29	0.96	3.39	0.39	1.37	5.49	0.48	1.68	7.30	0.65	2.33	11.72
10	0.28	0.95	3.08	0.71	2.92	12.33	1.07	4.92	23.23	1.36	6.69	29.75	2.01	11.07	31.28

(Unit: Mbps)

Data size estimates (JPEG)

Video quality	Video size					
	720p category			4:3 category		
	320 x 180	640 x 360	1280 x 720	320 x 240	640 x 480	1280 x 960
2	5.85	17.42	58.15	7.57	25.27	86.66
4	7.57	23.02	74.14	9.99	33.53	110.73
6	9.05	27.83	88.01	12.04	40.46	131.36
8	11.84	36.70	115.02	15.74	53.17	170.89
10	19.72	62.48	200.82	26.18	89.33	294.23

(Unit: KB)

Bit rate estimates (H.264)

Video size: 720p category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720
2	0.05	0.14	0.36	0.09	0.26	0.74	0.12	0.35	1.04	0.14	0.42	1.27	0.21	0.57	1.73
4	0.07	0.21	0.53	0.14	0.41	1.21	0.19	0.56	1.74	0.22	0.67	2.12	0.31	0.94	3.00
6	0.10	0.29	0.76	0.20	0.61	1.84	0.28	0.86	2.78	0.33	1.04	3.57	0.47	1.44	5.20
8	0.13	0.40	1.07	0.29	0.90	2.85	0.39	1.29	4.47	0.49	1.59	5.79	0.68	2.30	9.24
10	0.27	0.83	2.45	0.66	2.34	8.51	0.98	3.78	15.21	1.23	5.01	21.31	1.83	8.05	38.07

(Unit: Mbps)

Video size: 4:3 category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960
2	0.05	0.16	0.44	0.10	0.30	0.90	0.13	0.40	1.23	0.16	0.47	1.48	0.22	0.64	2.00
4	0.08	0.25	0.67	0.16	0.48	1.46	0.21	0.65	2.07	0.25	0.78	2.53	0.35	1.06	3.56
6	0.12	0.36	0.96	0.23	0.73	2.26	0.32	1.01	3.35	0.38	1.21	4.23	0.53	1.68	6.18
8	0.17	0.50	1.36	0.34	1.09	3.54	0.47	1.54	5.52	0.57	1.89	7.17	0.80	2.70	10.98
10	0.34	1.06	3.16	0.82	2.94	11.02	1.21	4.71	19.68	1.52	6.27	27.75	2.23	10.04	49.27

(Unit: Mbps)

Data size estimates (JPEG)

Video quality	Video size								
	1080p category*			720p category			4:3 category		
	480 x 270	960 x 540	1920 x 1080	320 x 180	640 x 360	1280 x 720	320 x 240	640 x 480	1280 x 960
1	8.61	27.20	88.29	4.81	13.53	44.73	5.72	17.65	59.38
2	12.74	39.21	122.03	7.03	19.85	63.67	8.30	25.56	82.81
3	16.21	49.54	153.13	8.86	25.31	80.23	10.48	32.32	103.27
4	21.23	65.16	206.25	11.43	33.45	105.81	13.64	42.51	137.26
5	35.95	117.00	392.44	18.85	57.50	192.90	22.84	74.73	256.15

* VB-S805D / VB-S905F not supported.

(Unit: KB)

Bit rate estimates (H.264)

Firmware: V1.2.0 or later; Video size: 1080p category*

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080
1	0.06	0.17	0.46	0.10	0.31	0.93	0.13	0.40	1.27	0.15	0.47	1.51	0.20	0.61	2.03
2	0.08	0.23	0.62	0.14	0.43	1.34	0.18	0.58	1.86	0.21	0.68	2.25	0.29	0.88	3.08
3	0.13	0.39	1.04	0.24	0.76	2.54	0.32	1.04	3.84	0.38	1.25	4.89	0.52	1.72	7.33
4	0.16	0.47	1.29	0.30	0.95	3.34	0.41	1.32	5.25	0.48	1.62	6.86	0.67	2.24	10.77
5	0.21	0.62	1.75	0.42	1.31	4.93	0.56	1.88	8.19	0.67	2.33	11.18	0.93	3.34	18.57

* VB-S805D / VB-S905F not supported.

(Unit: Mbps)

Firmware: V1.2.0 or later; Video size: 720p category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720
1	0.03	0.09	0.27	0.05	0.16	0.51	0.07	0.21	0.67	0.08	0.24	0.78	0.12	0.32	1.02
2	0.04	0.13	0.38	0.07	0.23	0.72	0.09	0.30	0.96	0.11	0.34	1.15	0.16	0.46	1.52
3	0.07	0.22	0.62	0.12	0.40	1.31	0.16	0.53	1.88	0.20	0.63	2.30	0.27	0.86	3.26
4	0.08	0.26	0.76	0.15	0.49	1.69	0.20	0.67	2.47	0.25	0.80	3.16	0.34	1.09	4.58
5	0.11	0.34	1.00	0.21	0.67	2.46	0.28	0.92	3.81	0.33	1.11	4.94	0.46	1.55	7.83

(Unit: Mbps)

Firmware: V1.2.0 or later; Video size: 4:3 category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960
1	0.04	0.11	0.28	0.07	0.19	0.58	0.09	0.25	0.78	0.11	0.30	0.95	0.15	0.41	1.27
2	0.05	0.14	0.38	0.09	0.27	0.81	0.12	0.36	1.12	0.14	0.42	1.37	0.20	0.57	1.86
3	0.08	0.24	0.62	0.15	0.46	1.44	0.21	0.63	2.20	0.25	0.77	2.78	0.35	1.04	4.11
4	0.10	0.28	0.76	0.19	0.57	1.87	0.25	0.79	2.92	0.31	0.97	3.82	0.44	1.34	5.98
5	0.13	0.37	1.02	0.25	0.77	2.70	0.34	1.10	4.42	0.41	1.34	5.92	0.59	1.92	9.95

(Unit: Mbps)

Firmware: Earlier than V1.2.0; Video size: 1080p category*

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080
1	0.06	0.17	0.46	0.10	0.32	1.03	0.13	0.43	1.58	0.16	0.52	2.04	0.22	0.74	3.21
2	0.08	0.23	0.62	0.14	0.43	1.42	0.18	0.58	2.12	0.22	0.70	2.73	0.30	0.97	4.17
3	0.13	0.39	1.04	0.24	0.76	2.54	0.32	1.04	3.94	0.38	1.25	5.17	0.53	1.73	8.10
4	0.16	0.47	1.29	0.30	0.95	3.34	0.41	1.32	5.30	0.48	1.62	7.07	0.67	2.24	11.40
5	0.21	0.62	1.75	0.42	1.31	4.93	0.56	1.88	8.19	0.67	2.33	11.18	0.93	3.34	18.84

* VB-S805D / VB-S905F not supported.

(Unit: Mbps)

Firmware: Earlier than V1.2.0; Video size: 720p category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720
1	0.03	0.09	0.27	0.05	0.16	0.53	0.07	0.22	0.74	0.08	0.26	0.92	0.12	0.36	1.35
2	0.04	0.13	0.38	0.07	0.23	0.73	0.10	0.30	1.02	0.11	0.36	1.26	0.16	0.49	1.78
3	0.07	0.22	0.62	0.12	0.40	1.31	0.16	0.53	1.90	0.20	0.63	2.34	0.28	0.86	3.43
4	0.08	0.26	0.76	0.15	0.49	1.69	0.20	0.67	2.47	0.25	0.80	3.16	0.34	1.09	4.67
5	0.11	0.34	1.00	0.21	0.67	2.46	0.28	0.92	3.81	0.33	1.11	4.94	0.47	1.55	7.83

(Unit: Mbps)

Firmware: Earlier than V1.2.0; Video size: 4:3 category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960
1	0.04	0.11	0.28	0.07	0.20	0.62	0.09	0.27	0.95	0.11	0.34	1.23	0.16	0.48	1.95
2	0.05	0.14	0.38	0.09	0.27	0.82	0.12	0.37	1.25	0.15	0.45	1.60	0.21	0.63	2.45
3	0.08	0.24	0.62	0.15	0.46	1.44	0.21	0.63	2.20	0.25	0.77	2.88	0.35	1.06	4.48
4	0.10	0.28	0.76	0.19	0.57	1.87	0.25	0.79	2.92	0.31	0.97	3.82	0.44	1.35	6.07
5	0.13	0.37	1.02	0.25	0.77	2.70	0.34	1.10	4.42	0.41	1.34	5.92	0.59	1.92	9.95

(Unit: Mbps)

Data size estimates (JPEG)

Video quality	Video size								
	1080p category*			720p category			4:3 category		
	480 x 270	960 x 540	1920 x 1080	320 x 180	640 x 360	1280 x 720	320 x 240	640 x 480	1280 x 960
1	9.41	31.58	106.54	5.22	15.08	53.01	6.25	20.11	70.14
2	14.22	47.37	151.37	7.69	22.94	78.52	9.33	30.40	101.32
3	18.38	60.59	190.30	9.74	29.58	99.89	11.95	39.08	127.78
4	24.22	79.96	252.56	12.62	39.14	131.42	15.57	51.54	168.77
5	40.78	139.10	464.17	20.86	66.61	232.87	25.99	88.50	305.32

* VB-M42 / VB-M620VE / VB-M620D / VB-M720F not supported.

(Unit: KB)

Bit rate estimates (H.264)

Video size: 1080p category (VB-H43 / VB-H630VE / VB-H630D / VB-H730F only)

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080
1	0.07	0.22	0.60	0.13	0.40	1.21	0.16	0.51	1.62	0.19	0.59	1.91	0.26	0.77	2.57
2	0.09	0.28	0.74	0.16	0.50	1.50	0.21	0.65	2.06	0.24	0.76	2.47	0.33	0.99	3.39
3	0.14	0.43	1.13	0.26	0.82	2.55	0.34	1.09	3.70	0.40	1.29	4.57	0.55	1.71	6.60
4	0.19	0.57	1.54	0.36	1.16	3.77	0.49	1.60	5.77	0.57	1.93	7.39	0.79	2.62	11.35
5	0.29	0.87	2.42	0.59	1.98	6.97	0.80	2.88	11.53	0.96	3.56	15.59	1.34	5.21	26.35

(Unit: Mbps)

Video size: 720p category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720	320 x 180	640 x 360	1280 x 720
1	0.04	0.12	0.35	0.06	0.21	0.64	0.08	0.26	0.84	0.10	0.31	0.99	0.14	0.41	1.30
2	0.05	0.15	0.43	0.08	0.26	0.81	0.11	0.34	1.08	0.13	0.39	1.27	0.18	0.52	1.68
3	0.07	0.23	0.67	0.13	0.43	1.35	0.17	0.56	1.86	0.21	0.66	2.24	0.28	0.88	3.06
4	0.10	0.31	0.89	0.18	0.60	1.97	0.24	0.80	2.81	0.29	0.95	3.47	0.39	1.29	5.01
5	0.15	0.47	1.37	0.29	0.97	3.51	0.39	1.35	5.55	0.48	1.63	7.16	0.65	2.27	11.42

(Unit: Mbps)

Video size: 4:3 category

Video quality	I-Frame Interval: 1 sec.														
	1 fps			5 fps			10 fps			15 fps			30 fps		
	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960
1	0.05	0.14	0.38	0.08	0.25	0.76	0.11	0.33	1.03	0.13	0.39	1.24	0.19	0.52	1.67
2	0.06	0.17	0.47	0.10	0.32	0.94	0.14	0.42	1.31	0.16	0.49	1.58	0.23	0.65	2.16
3	0.09	0.26	0.71	0.16	0.50	1.55	0.22	0.68	2.22	0.26	0.80	2.77	0.37	1.08	4.02
4	0.12	0.34	0.95	0.22	0.70	2.28	0.30	0.96	3.46	0.36	1.15	4.41	0.51	1.59	6.73
5	0.17	0.52	1.46	0.35	1.15	4.13	0.48	1.66	6.72	0.59	2.03	9.03	0.83	2.90	15.05

(Unit: Mbps)

VB-H41 / VB-H610VE / VB-H610D / VB-H710F

Data size estimates (JPEG)

Video quality	Video size			
	320 x 240	480 x 270	960 x 540	1920 x 1080
1	5.61	9.55	32.89	114.04
2	8.09	14.50	49.92	164.28
3	10.02	18.74	64.10	210.29
4	12.91	24.75	84.59	285.32
5	20.91	41.63	148.50	528.67

(Unit: KB)

Bit rate estimates (H.264)

Firmware: V1.3.0 or later

Video quality	I-Frame Interval: 0.5 sec.											
	5 fps			10 fps			15 fps			30 fps		
	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080
1	0.23	0.77	2.31	0.24	0.82	2.65	0.28	0.95	3.18	0.34	1.13	4.13
2	0.33	1.10	3.33	0.35	1.19	4.03	0.41	1.41	4.95	0.51	1.72	6.73
3	0.50	1.64	5.13	0.54	1.87	6.71	0.64	2.24	8.65	0.80	2.84	12.64
4	0.74	2.42	8.02	0.82	2.96	11.62	0.98	3.63	15.40	1.23	4.83	25.01
5	1.08	3.71	12.93	1.26	4.89	20.68	1.51	6.23	28.55	1.96	9.20	40.18

(Unit: Mbps)

Firmware: Earlier than V1.3.0

Video quality	I-Frame Interval: 0.5 sec.											
	5 fps			10 fps			15 fps			30 fps		
	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080	480 x 270	960 x 540	1920 x 1080
1	0.23	0.77	2.35	0.24	0.84	2.88	0.29	0.99	3.58	0.36	1.21	5.04
2	0.34	1.11	3.37	0.36	1.22	4.22	0.42	1.45	5.37	0.53	1.80	7.65
3	0.51	1.66	5.17	0.55	1.91	7.02	0.65	2.31	9.13	0.82	2.95	13.74
4	0.74	2.45	8.12	0.83	2.99	12.01	0.99	3.72	16.29	1.27	5.01	26.73
5	1.08	3.78	13.30	1.27	5.01	21.62	1.53	6.41	30.26	2.00	9.58	43.06

(Unit: Mbps)

VB-M40 / VB-M600VE / VB-M600D / VB-M700F

Data size estimates (JPEG)

Video quality	Video size			
	160 x 120	320 x 240	640 x 480	1280 x 960
1	2.33	5.89	19.73	69.59
2	3.55	10.01	33.82	111.71
3	4.37	12.83	43.37	141.96
4	5.47	16.76	57.03	190.44
5	8.65	27.72	97.08	338.58

(Unit: KB)

Bit rate estimates (H.264)

Video quality	Video size and frame rate								
	10 fps			15 fps			30 fps		
	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960	320 x 240	640 x 480	1280 x 960
1	0.07	0.24	0.84	0.10	0.33	1.20	0.18	0.59	2.21
2	0.12	0.39	1.27	0.16	0.53	1.77	0.28	0.91	3.31
3	0.21	0.67	2.15	0.28	0.91	3.05	0.47	1.56	5.54
4	0.29	0.97	3.23	0.38	1.31	4.56	0.65	2.18	8.20
5	0.38	1.36	4.87	0.52	1.88	6.93	0.87	3.14	12.39

(Unit: Mbps)

VB-C500VD / VB-C500D / VB-C60

Data size estimates (JPEG)

Video quality	Video size		
	160 x 120	320 x 240	640 x 480
1	3.5	9.6	27.5
2	4.0	11.0	31.7
3	4.4	12.5	35.8
4	5.6	16.4	47.8
5	15.8	52.7	171.4

(Unit: KB)

VB-C500VD / VB-C500D / VB-C60

Bit rate estimates (MPEG-4)

Video quality	Video size and frame rate					
	10 fps		15 fps		30 fps	
	320 x 240	640 x 480	320 x 240	640 x 480	320 x 240	640 x 480
1	0.28	0.76	0.35	0.94	0.54	1.43
2	0.39	1.08	0.50	1.30	0.78	2.02
3	0.60	1.67	0.75	2.02	1.20	3.31
4	0.69	1.93	0.91	2.43	1.38	3.98
5	0.81	2.31	1.05	2.87	1.68	4.86

(Unit: Mbps)

VB-C300

Data size estimates (JPEG)

Video quality	Video size		
	160 x 120	320 x 240	640 x 480
1	3.2	8.8	24.2
2	3.7	10.2	28.3
3	4.1	11.5	32.0
4	5.3	15.4	43.2
5	15.5	52.8	170.6

(Unit: KB)

VB-C50i, VB-C50iR, VB-C50FSi

Data size estimates (JPEG)

Video quality	Video size		
	160 x 120	320 x 240	640 x 480
30	3.1	8.2	24.7
40	3.6	9.7	29.8
50	4.1	10.9	34.2
60	4.6	12.5	40.3
70	5.3	14.8	49.7
80	6.5	18.8	64.9
90	9.4	28.4	106.4

(Unit: KB)

C50F C50i

Note that the data size may increase significantly when the video quality is set to [100].