

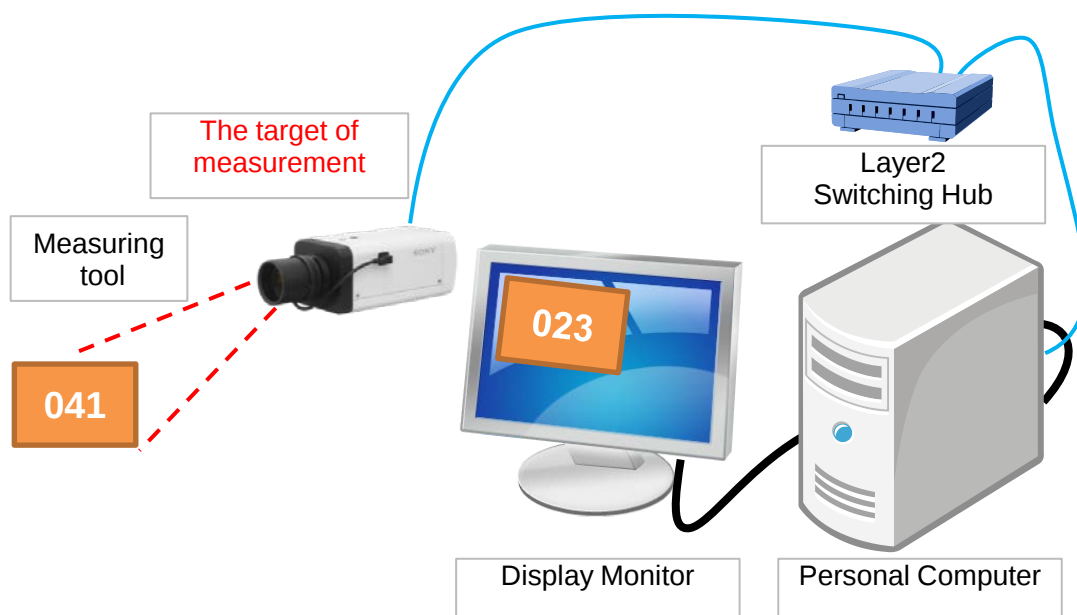
## About this document

This document describes “video latency” which occurs when Sony network camera is used for shooting a subject. Numerical values shown in this document are based on actual measured values in our measurement environment. So we cannot guarantee that the same performance will be achieved in your customer's environment. Please note that performance may also differ according to specification change of software.

## Definition of “video latency”

Video latency indicates the time interval between the time when a subject is shot by a network camera and the time when the actually shot image is displayed on a display device. It also contains the time for data to be transmitted via a network, and that for the image to be displayed on a display device as well as the processing times inside the network camera and inside the computer for monitoring.

## System configuration



## Measuring method

Shoot a measuring tool which reads time, with the target network camera. Using a PC which ActiveX viewer was installed in, display the shot image on the viewer. Video latency is measured by evaluating the time difference between the time actually displayed on the tool and the displayed one on the viewer.

Video Latency for SNC-640 Series

Measurement environment:

Personal Computer  
Vendor/Model Name: Dell/Optiplex 990  
CPU: Intel (R) Core(TM) i7-2600 CPU @ 3.4GHz  
Memory: 8GB  
Operating System: Microsoft Windows 8.1 Pro 64bit  
Browser: Microsoft Internet Explorer 11

Video Adaptor Settings:  
Resolution: 3840x2160 Pixels  
Colors: 32bit  
Refresh Rate: 60Hz

Display device (monitor):  
Vendor/Model name: DELL/P2415Q  
Maximum Resolution: 3840x2160 Pixels

Network Camera Condition/Settings:  
Firmware Version:  
Audio function: OFF

|                |                     | Test conditions |            |            |                                      | Delay time (ms) |         |     | Test results (ms) *Frequency of test performed: 15 times |      |      |      |      |
|----------------|---------------------|-----------------|------------|------------|--------------------------------------|-----------------|---------|-----|----------------------------------------------------------|------|------|------|------|
| Model          | High Framerate mode | Codec           | Image size | Frame rate | Image quality (level)/Bit rate(kbps) | MIN             | AVERAGE | MAX | 1/15                                                     | 2/15 | 3/15 | 4/15 | 5/15 |
| VM642R/ VB642D | ON                  | JPEG            | 640x480    | 30         | 5                                    | 176             | 191.20  | 219 | 219                                                      | 208  | 176  | 177  | 176  |
|                |                     |                 | 1280x720   | 30         | 5                                    | 192             | 220.80  | 240 | 235                                                      | 235  | 202  | 240  | 192  |
|                |                     | H.264           | 640x480    | 30         | 8000                                 | 219             | 235.80  | 260 | 219                                                      | 256  | 260  | 224  | 220  |
|                |                     |                 | 1280x720   | 30         | 8000                                 | 229             | 246.60  | 273 | 229                                                      | 273  | 244  | 240  | 247  |
|                |                     |                 | 1920x1080  | 30         | 8000                                 | 221             | 259.20  | 275 | 269                                                      | 262  | 221  | 275  | 269  |
|                | OFF                 | JPEG            | 640x480    | 30         | 5                                    | 208             | 223.60  | 246 | 240                                                      | 209  | 215  | 208  | 246  |
|                |                     |                 | 1280x720   | 30         | 5                                    | 226             | 245.20  | 261 | 226                                                      | 254  | 261  | 255  | 230  |
|                |                     | H.264           | 640x480    | 30         | 8000                                 | 217             | 242.20  | 265 | 261                                                      | 217  | 265  | 235  | 233  |
|                |                     |                 | 1280x720   | 30         | 8000                                 | 236             | 251.20  | 277 | 277                                                      | 260  | 242  | 236  | 241  |
|                |                     |                 | 1920x1080  | 30         | 8000                                 | 279             | 306.20  | 322 | 322                                                      | 294  | 279  | 321  | 315  |
| VB640/ VM641   | ON                  | JPEG            | 640x480    | 30         | 5                                    | 150             | 161.60  | 176 | 157                                                      | 176  | 150  | 152  | 173  |
|                |                     |                 | 1280x720   | 20         | 5                                    | 162             | 173.20  | 182 | 162                                                      | 180  | 182  | 175  | 167  |
|                |                     |                 | 1920x1080  | 8          | 5                                    | 205             | 213.00  | 228 | 218                                                      | 206  | 208  | 205  | 228  |
|                |                     | H.264           | 640x480    | 30         | 8000                                 | 147             | 178.20  | 212 | 147                                                      | 170  | 173  | 212  | 189  |
|                |                     |                 | 1280x720   | 30         | 8000                                 | 165             | 177.00  | 186 | 171                                                      | 184  | 186  | 179  | 165  |
|                | OFF                 | JPEG            | 1920x1080  | 30         | 8000                                 | 199             | 222.80  | 239 | 226                                                      | 239  | 199  | 238  | 212  |
|                |                     |                 | 640x480    | 30         | 5                                    | 169             | 186.20  | 216 | 169                                                      | 181  | 177  | 216  | 188  |
|                |                     |                 | 1280x720   | 20         | 5                                    | 189             | 211.40  | 226 | 226                                                      | 189  | 211  | 223  | 208  |
|                |                     | H.264           | 1920x1080  | 8          | 5                                    | 220             | 241.00  | 249 | 244                                                      | 244  | 248  | 249  | 220  |
|                |                     |                 | 640x480    | 30         | 8000                                 | 180             | 204.20  | 221 | 180                                                      | 197  | 211  | 221  | 212  |
| EM642R/ EB642R | ON                  | JPEG            | 1280x720   | 30         | 5                                    | 115             | 160.40  | 202 | 115                                                      | 152  | 153  | 202  | 180  |
|                |                     |                 | 1920x1080  | 30         | 3                                    | 194             | 205.40  | 235 | 235                                                      | 201  | 199  | 198  | 194  |
|                |                     |                 | 640x480    | 30         | 8000                                 | 164             | 174.40  | 180 | 175                                                      | 164  | 174  | 179  | 180  |
|                |                     | H.264           | 1280x720   | 30         | 8000                                 | 176             | 194.40  | 215 | 215                                                      | 186  | 211  | 176  | 184  |
|                |                     |                 | 1920x1080  | 30         | 8000                                 | 224             | 231.20  | 256 | 256                                                      | 226  | 225  | 224  | 225  |
|                | OFF                 | JPEG            | 640x480    | 30         | 5                                    | 154             | 155.20  | 156 | 156                                                      | 156  | 155  | 154  | 155  |
|                |                     |                 | 1280x720   | 30         | 5                                    | 164             | 175.60  | 192 | 174                                                      | 179  | 192  | 169  | 164  |
|                |                     |                 | 1920x1080  | 30         | 3                                    | 181             | 208.60  | 245 | 206                                                      | 207  | 204  | 245  | 181  |
|                |                     | H.264           | 640x480    | 30         | 8000                                 | 171             | 198.80  | 209 | 204                                                      | 203  | 207  | 209  | 171  |
|                |                     |                 | 1280x720   | 30         | 8000                                 | 185             | 219.60  | 262 | 219                                                      | 185  | 262  | 216  | 216  |
| EB640/ EM641   | ON                  | JPEG            | 1920x1080  | 30         | 8000                                 | 214             | 226.80  | 255 | 255                                                      | 214  | 214  | 237  | 214  |
|                |                     |                 | 640x480    | 30         | 5                                    | 161             | 171.80  | 196 | 161                                                      | 168  | 169  | 196  | 165  |
|                |                     |                 | 1280x720   | 30         | 5                                    | 173             | 190.80  | 207 | 186                                                      | 191  | 173  | 207  | 197  |
|                |                     | H.264           | 1920x1080  | 20         | 5                                    | 185             | 191.60  | 200 | 185                                                      | 200  | 189  | 196  | 188  |
|                |                     |                 | 640x480    | 30         | 8000                                 | 160             | 178.80  | 197 | 160                                                      | 179  | 197  | 174  | 184  |
|                | OFF                 | JPEG            | 1280x720   | 30         | 8000                                 | 165             | 186.00  | 212 | 178                                                      | 165  | 212  | 196  | 179  |
|                |                     |                 | 1920x1080  | 30         | 8000                                 | 202             | 220.80  | 235 | 215                                                      | 220  | 235  | 232  | 202  |
|                |                     |                 | 640x480    | 30         | 3                                    | 180             | 193.20  | 214 | 214                                                      | 183  | 193  | 196  | 180  |
|                |                     | H.264           | 1280x720   | 30         | 3                                    | 186             | 204.00  | 216 | 188                                                      | 215  | 216  | 186  | 215  |
|                |                     |                 | 1920x1080  | 20         | 3                                    | 186             | 207.00  | 232 | 232                                                      | 209  | 198  | 186  | 210  |