

## 3 Decoding Performance

### 3.1 Hardware for DSS Client

| Feature          | Minimum                                | High                                   |
|------------------|----------------------------------------|----------------------------------------|
| CPU              | Intel® Core™ i5-9500 CPU<br>@3.00 GHz  | Intel® Core™ i7-11700 CPU<br>@2.50 GHz |
| Memory           | 16 GB                                  | 16 GB                                  |
| Graphics Card    | GeForce GTX 1050 + UHD<br>Graphics 630 | GeForce RTX 3060 +UHD<br>Graphics 750  |
| Operating System | Windows 10 64-bit                      | Windows 10 64-bit                      |

### 3.2 Performance in Software and Hardware Decoding for Minimum Configuration

| Resolution        | Encoding Format | Frame Rate | Bit Rate  | PC Client         |                   | Web Client        |
|-------------------|-----------------|------------|-----------|-------------------|-------------------|-------------------|
|                   |                 |            |           | Software Decoding | Hardware Decoding | Hardware Decoding |
| 352 × 240 (CIF)   | H.264H          | 30         | 512 Kbps  | 117               | 127               | 16                |
|                   | H.265           | 30         | 256 Kbps  | 105               | 127               | 16                |
| 704 × 480 (D1)    | H.264H          | 30         | 1024 Kbps | 61                | 96                | 16                |
|                   | H.265           | 30         | 512 Kbps  | 47                | 80                | 16                |
| 1280 × 720 (720p) | H.264H          | 30         | 2048 Kbps | 30                | 39                | 11                |
|                   | Smart H.264     | 30         | 2048 Kbps | 32                | 34                | 15                |
|                   | H.265           | 30         | 1024 Kbps | 22                | 34                | 15                |

|                                              | Smart H.265     | 30         | 1024 Kbps | 22                | 34                | 12                |
|----------------------------------------------|-----------------|------------|-----------|-------------------|-------------------|-------------------|
| 1920 × 1080 (1080p)                          | H.264H          | 30         | 4096 Kbps | 14                | 23                | 7                 |
|                                              | Smart H.264     | 30         | 4096 Kbps | 13                | 24                | 9                 |
|                                              | H.265           | 30         | 2048 Kbps | 9                 | 18                | 9                 |
|                                              | Smart H.265     | 30         | 2048 Kbps | 10                | 20                | 9                 |
|                                              |                 |            |           |                   |                   |                   |
| 1920 × 1080 (1080p)<br>(Privacy Restoration) | H.264H          | 25         | 4096 Kbps | 7                 | 12                | /                 |
|                                              | Smart H.264     | 25         | 4096 Kbps | 9                 | 14                | /                 |
|                                              | H.265           | 25         | 2048 Kbps | 6                 | 8                 | /                 |
|                                              | Smart H.265     | 25         | 2048 Kbps | 6                 | 8                 | /                 |
| Resolution                                   | Encoding Format | Frame Rate | Bit Rate  | PC Client         |                   | Web Client        |
|                                              |                 |            |           | Software Decoding | Hardware Decoding | Hardware Decoding |
| 2688 × 1520 (4 MP)                           | H.264H          | 30         | 4096 Kbps | 7                 | 10                | 6                 |
|                                              | Smart H.264     | 30         | 4096 Kbps | 6                 | 10                | 6                 |
|                                              | H.265           | 30         | 2048 Kbps | 5                 | 10                | 8                 |
|                                              | Smart H.265     | 30         | 2048 Kbps | 5                 | 10                | 6                 |
| 3840 × 2160 (8 MP)                           | H.264H          | 30         | 8192 Kbps | 3                 | 5                 | 5                 |
|                                              | Smart H.264     | 30         | 8192 Kbps | 4                 | 5                 | 5                 |
|                                              | H.265           | 30         | 4096 Kbps | 2                 | 5                 | 5                 |
|                                              | Smart H.265     | 30         | 4096 Kbps | 3                 | 5                 | 5                 |

### 3.3 Performance in Software and Hardware Decoding for High Configuration

| Resolution                                   | Encoding Format | Frame Rate | Bit Rate  | PC Client         |                   | Web Client        |
|----------------------------------------------|-----------------|------------|-----------|-------------------|-------------------|-------------------|
|                                              |                 |            |           | Software Decoding | Hardware Decoding | Hardware Decoding |
| 352 × 240 (CIF)                              | H.264H          | 30         | 512 Kbps  | 128               | 142               | 16                |
|                                              | H.265           | 30         | 256 Kbps  | 119               | 142               | 16                |
| 704 × 480 (D1)                               | H.264H          | 30         | 1024 Kbps | 90                | 105               | 16                |
|                                              | H.265           | 30         | 512 Kbps  | 71                | 152               | 16                |
| 1280 × 720 (720p)                            | H.264H          | 30         | 2048 Kbps | 33                | 48                | 16                |
|                                              | Smart H.264     | 30         | 2048 Kbps | 33                | 48                | 16                |
|                                              | H.265           | 30         | 1024 Kbps | 29                | 92                | 16                |
|                                              | Smart H.265     | 30         | 1024 Kbps | 29                | 91                | 16                |
| 1920 × 1080 (1080p)                          | H.264H          | 30         | 4096 Kbps | 22                | 23                | 16                |
|                                              | Smart H.264     | 30         | 4096 Kbps | 21                | 23                | 16                |
|                                              | H.265           | 30         | 2048 Kbps | 12                | 48                | 15                |
|                                              | Smart H.265     | 30         | 2048 Kbps | 12                | 48                | 16                |
| 1920 × 1080 (1080p)<br>(Privacy Restoration) | H.264H          | 25         | 4096 Kbps | 9                 | 10                | /                 |
|                                              | Smart H.264     | 25         | 4096 Kbps | 11                | 10                | /                 |
|                                              | H.265           | 25         | 2048 Kbps | 6                 | 7                 | /                 |
|                                              | Smart H.265     | 25         | 2048 Kbps | 6                 | 7                 | /                 |

| Resolution         | Encoding Format | Frame Rate | Bit Rate  | PC Client         |                   | Web Client        |
|--------------------|-----------------|------------|-----------|-------------------|-------------------|-------------------|
|                    |                 |            |           | Software Decoding | Hardware Decoding | Hardware Decoding |
| 2688 × 1520 (4 MP) | H.264H          | 30         | 4096 Kbps | 11                | 11                | 11                |
|                    | Smart H.264     | 30         | 4096 Kbps | 12                | 12                | 11                |
|                    | H.265           | 30         | 2048 Kbps | 7                 | 24                | 16                |
|                    | Smart H.265     | 30         | 2048 Kbps | 7                 | 24                | 13                |
| 3840 × 2160 (8 MP) | H.264H          | 30         | 8192 Kbps | 5                 | 6                 | 5                 |
|                    | Smart H.264     | 30         | 8192 Kbps | 6                 | 6                 | 5                 |
|                    | H.265           | 30         | 4096 Kbps | 4                 | 12                | 6                 |
|                    | Smart H.265     | 30         | 4096 Kbps | 4                 | 12                | 6                 |