American Dynamics

From Tyco Security Products

# Release Notes

## Illustra 600 Series Box and Bullet format cameras

## Firmware Release 1.0.16

| Model | Description | Product Data |
|---|---|---|
| ADCi600LT-X011 | illustra 600LT, 720p/1.3MP, Box Camera | Visit the IP Cameras section of our web site – www.americandynamics.net – to download datasheets and other documentation in PDF format. |
| ADCi600LT-B021 | illustra 600LT, 720p/1.3MP, Bullet Camera | |
| ADCi600-X011 | illustra 600, 720p/1.3MP, Box Camera | |
| ADCi600-B021 | illustra 600, 720p/1.3MP, Bullet Camera | |
| ADCi600-B041 | illustra 600, 720p/1.3MP, Bullet Camera | |
| ADCi610-X011 | illustra 610, 1080p, Box Camera | |
| ADCi610-B021 | illustra 610, 1080p, Bullet Camera | |
| ADCi610-B041 | illustra 610, 1080p, Bullet Camera | |

March 2013

**Note**

**In case of discrepancy, the information in this document supersedes the information in any document referenced herein.**

8200-0995-04 A0

# Known Limitations

| Issue | Description |
|---|---|
| Browser Compatibility | Only IE version 8 and later is supported. Other browsers may show formatting or video streaming errors. |
| Non-IE Browser | Non-IE Browser without the ActiveX plug-in installed cannot get the live stream if the snapshot function is disabled. |
| AJAX | AJAX cannot display the live stream when the snapshot function is disabled. |
| AJAX Frame rate | AJAX is a type of JAVA application so the frame rate is not visibly as smooth as ActiveX with streaming. |
| Codec Reboot | The camera's AV server will reboot when Video/Audio settings such as resolution, quality, bit rate or frame rate are changed. Video streaming will stop until the AV server reboot is done. |
| MJPEG Frame rate issue | Due to large throughput necessary for MJPEG streaming, in a normal scenario, the frame rate for 720p MJPEG (single streaming) is 25/30 fps. In 1080p MJPEG (single streaming) it is around 13 to 15 fps. (Note: the 1080p is 2 times greater in size than 720p) |
| RTSP Frame rate | Due to large throughput necessary for MJPEG, when the frame rate is over conformance expectations I.E. 25 fps in the first profile/MJPEG/720p/1080p and 7 fps in the second profile/MJPEG/CIF, the frame rate of the RTSP streaming will not reach the expected FPS value set in the web pages. |
| GOP Issue | When the GOP is much greater than the frame rate in H.264 encoding, it will take more time to re-connect to the NVR because it has to wait for another I-Frame. Please adjust your GOP interval settings when you set the frame rate. For example, if the GOP is 30 and the frame rate 3, it will take 30/3=10 second to wait another I frame to continue streaming. |
| Audio non-sync issue | The system clock of DM368F (the processor of i6x0 model) is 432MHz and cannot be divided completely by 8000 (the base clock of the audio), and there is some remaining audio data in the sampling. The rate is about 0.004. The over-sampling audio data will be dropped automatically in the AV streaming and the rate is 0.004 as well. |
| The maximum frame rate | The frame rate 30 fps is open for all resolution; however at 1080p/H.264, the exact frame rate is under 30 fps. |

| | |
|---|---|
| Invalid video settings | In some video configuration, such as 2Mbps/H.264/CIF/3fps, the AV server is not able to generate the video streaming because the combination of Mbps, resolution and fps might be invalid. You must reconfigure to a valid bit rate and frame rate combination. |
| The H.264/1080p frame rate in 8Mbps | The frame rate of H.264/1080p/8Mbps will only reach around 21-22 fps due to the RTP server and AV server performance. For higher frame rates set the bit rate below 6Mbps. |
| 1280 * 1024 frame rate performance resolution | Although the 1280x1024 (1.3M) resolution is available in i600 model, the aspect ratio does not match 16:9 so cropping is necessary to stream the video. This consumes camera CPU resources so the frame rate is lower than the frame rates at 1080p even though the pixel number is smaller. |
| The web page does not refresh | The i6x0 web page does not have active communication in some settings. You may need to manually refresh the page if necessary. |
| The limitation of the bit rate | In the i6x0 firmware version 1.0.16 or later, the bit rate will be limited in the following scenarios. The maximum bit rate in D1 is 4Mbps, 2Mbps in 2CIF and 2Mbps in CIF. Note that the setting will not change manually, but will pass the limitation to the video encoder. |
| The SD card performance issue | The frame rate will drop down around 8 to 10 fps when you activate SD card recording or Email recording. |
| CISCO Switch issue | When using CISCO catalyst 2960/2960s, if you power the camera with 12VDC first and plug in the CISCO catalyst switch 2960/2960s as a normal switch not PoE instead, the network negotiation will fail. You should remove the 12VDC first and re-plug in the camera into the switch and act as a PoE switch. (defect no.2378) |
| Dry contact polling in NVR 4.2 and above | In case of polling the dry contact status by the NVR, the frame rate will drop down when using H.264 by 4 frames in i610 Box/Bullet 1080p resolution with 4Mbps or higher bit rate. This may cause the video jitter. |
| UDP Performance Issue | RTP streaming may have some problems when the settings are as follows:<br>1. The 1st streaming: 1080p/25fps/H.264/6 or 8Mbps<br>2. The 2nd streaming: CIF/7fps/MJPEG/Quality=80<br>3. Audio ON<br>4. Dry contact polling with 10Hz<br>So the total is 3 multi-media steams (including 1080p streaming/MJPG/audio) and one HTTP socket. Under this setup condition, the i6x0 WW/LT Box/Bullet model cannot provide all the services real-time due to RTP server performance limitations. To manage the streams the RTP server will drop some P frames and try to keep synchronization with NVR. As a result you may see the following: |

| | |
|---|---|
| | 1. Jitter because some P frames are lost.<br>2. Large timestamp gap because some P frames are lost.<br>3. The average frame rate will be 20-22 fps in average.<br>Lowering down the bit rate to 4Mbps or lowering the resolution to 720p (the default value of i600) will help to resolve the issue because lower bandwidth limit and/or lower resolution will free up camera resources allowing the camera to better balance for all the services requested. |