DJI Lightbridge Video Downlink Release Note

Date ：	**2015/5/11**
Ground system decoder：	**1.4.8**
Ground system main controller：	**1.1.9**
Air system encoder：	**1.1.10**
Air system main controller：	**1.0.6**
Ground system transmitter：	**1.2.0**
Air system transmitter：	**1.1.0**
Battery management：	**0x22**
Air system baseband：	**0x22**
Ground system baseband：	**0x29**
DJI Lightbridge Assistant：	**1.3**
DJI Lightbridge Android App:	**1.0.5**

Major New Features

- Ground System decoder firmware upgraded to version 1.4.8.

- Added support for 480p, 576p HDMI output for on-screen display.

DJI Lightbridge Video Downlink Release Note

Date ：	**2014/12/30**
Ground system decoder：	**1.4.7**
Ground system main controller：	**1.1.9**
Air system encoder：	**1.1.10**
Air system main controller：	**1.0.6**
Ground system transmitter：	**1.2.0**
Air system transmitter：	**1.1.0**
Battery management：	**0x22**
Air system baseband：	**0x22**
Ground system baseband：	**0x29**
DJI Lightbridge Assistant：	**1.3**
DJI Lightbridge Android App:	**1.0.5**

Major New Features

- Compatible with GroPro4 4K HDMI output setting.

DJI Lightbridge Video Downlink Release Note

Date：	**2014/10/13**
Ground system decoder：	**1.4.7**
Ground system main controller：	**1.1.9**
Air system encoder：	**1.1.9**
Air system main controller：	**1.0.6**
Ground system transmitter：	**1.2.0**
Air system transmitter：	**1.1.0**
Battery management：	**0x22**
Air system baseband：	**0x22**
Ground system baseband：	**0x29**
DJI Lightbridge Assistant：	**1.3**
DJI Lightbridge Android App:	**1.0.5**

Major New Features

- Increased compatibility with a wider range of HD display devices by automatically detecting the HDCP protocol.
- Added an auto mode, whereby the system will automatically detect the channel conditions and adjust the image quality automatically. Output modes may still be manually selected.

Notes:

- Upgrade the firmware of HD-AV module to the latest version for DJI BMPCC, GH4 and 5D HD gimbal users.

DJI Lightbridge Video Downlink Release Note

Date：	**2014/8/11**
Ground system decoder：	**1.4.6**
Ground system main controller：	**1.1.8**
Air system encoder：	**1.1.7**
Air system main controller：	**1.0.5**
Ground system transmitter：	**1.2.0**
Air system transmitter：	**1.1.0**
Battery management：	**0x22**
Air system baseband：	**0x22**
Ground system baseband：	**0x29**
DJI Lightbridge Assistant：	**1.3**
DJI Lightbridge Android App:	**1.0.4**

Major New Features

- 1080i HDMI output at 50 or 60 f/s supported. Transmission distance up to 600 meters (1968 feet).

- HDMI-SDI conversion supported.

- HDMI OSD can be toggled to display information in metric units

Notes:

- DJI Z15-BMPCC Gimbal users must upgrade their gimbal´s HD-AV module to V1.14 and GCU module to V1.4 through the Gimbal Assistant.

- DJI Z15-GH4 (HD) Gimbal users must upgrade their gimbal to the latest firmware through the Gimbal Assistant.

DJI Lightbridge Video Downlink Release Note

Date：	**2014/7/4**
Ground system decoder：	**1.4.5**
Ground system main controller：	**1.1.7**
Air system encoder：	**1.1.5**
Air system main controller：	**1.0.3**
Ground system transmitter：	**1.2.0**
Air system transmitter：	**1.1.0**
Battery management：	**0x22**
Air system baseband：	**0x22**
Ground system baseband：	**0x29**
DJI Lightbridge Assistant：	**1.3**
DJI Lightbridge Android App:	**1.03**

Major New Features

- The video lag/stutter issue will be resolved in most situations. Delays caused by the use of third party hardware or software may not be resolved.

- The available options in Video Transmission Mode Settings will change to "Real Time Mode" and "Smooth Mode" (currently only "Resolution Setting" is available). In Real Time Mode there will be no apparent lag, but image quality may be affected. In Smooth Mode the image quality will be optimized, but the lag may increase.

- Support for customizing On Screen Display settings. You can adjust the location of the top, bottom, left and right side of the display, ensuring the OSD parameters will be visible.

- Support HDMI output 720p frame rate setting at 50HZ or 60HZ.

- Available transmission channels changed from 32 to 10. The frequency of these 10 channels ranges from 2395MHz to 2486MHz. Select appropriate channels within this range to comply with local laws and regulations.

Notes:

- If you are using Lightbridge with a BMPCC Gimbal, you MUST upgrade the BMPCC HD-AV model to v1.12 through Gimbal Assistant.

- A firmware update for the ground system that will optimize 1080i video is coming soon.
  DJI is striving to improve the decoding performance of the DJI Lightbridge Android app on a number of mobile devices.

DJI Lightbridge Video Downlink Release Note

Date：	**2014/6/17**
Ground system decoder：	**1.4.4**
Ground system main controller：	**1.1.6**
Air system encoder：	**1.1.4**
Air system main controller：	**1.0.3**
Ground system transmitter：	**1.2.0**
Air system transmitter：	**1.1.0**
Battery management：	**0x22**
Air system baseband：	**0x22**
Ground system baseband：	**0x29**
DJI Lightbridge Assistant：	**1.3**
DJI Lightbridge Android App:	**1.02**

Major New Features

- Improved firmware upgrade speed.
- Addressed the issue of failure to refresh version number when upgrade are done.

DJI Lightbridge Video Downlink Release Note

Date：	**2014/6/13**
Ground system decoder：	**1.4.4**
Ground system main controller：	**1.1.6**
Air system encoder：	**1.1.4**
Air system main controller：	**1.0.3**
Ground system transmitter：	**1.2.0**
Air system transmitter：	**1.1.0**
Battery management：	**0x22**
Air system baseband：	**0x22**
Ground system baseband：	**0x29**
DJI Lightbridge Assistant：	**1.2**
DJI Lightbridge Android App:	**1.02**

Major New Features

- Optimize Lightbridge HDMI compatibility with different kinds of devices;
- Support OSD displaying on HDMI devices under 720p quality setting;
- Allows user to turn on/off the HDMI OSD displaying through latest Lightbridge App;
- Remove Full-HD mode, Full-HD mode will be optimized and released again in the future;
- Add antenna signal quality checking functionality.

Cautions:

- Must upgrade DJI Lightbridge Assistant to v1.2.
- Ground system decoder upgrade need about 15 mins, please DO NOT power off the Ground system or interrupt the USB connection during upgrade. If your Lightbridge device behaves abnormal after the upgrade, please contact DJI Service center for help.
- Must upgrade Android App to v1.02 to use with latest firmware.
- To use with BMPCC Gimbal, Must upgrade BMPCC HD-AV model to v1.8 through Gimbal Assistant.

DJI Lightbridge Video Downlink Release Note

Date：	**2014/5/26**
Ground system decoder：	**1.3.0**
Ground system main controller：	**1.1.5**
Air system encoder：	**1.0.4**
Air system main controller：	**1.0.1**
Ground system transmitter：	**1.2.0**
Air system transmitter：	**1.1.0**
Battery management：	**0x22**
Air system baseband：	**0x22**
Ground system baseband：	**0x29**
DJI Lightbridge Assistant：	**1.1**

Major New Features

- Optimized PPM channel collection function. Collect up to 16 PPM channels.
- Remote control calibration added. Calibration is required when switching remote control.
- Allow user to map redundant remote control channels to gimbal. This feature enable users to control aircraft and gimbal with single remote control.

Cautions:

- Must upgrade DJI Lightbridge Assistant to v1.1.
- **Calibrate remote control when it is connected to ground system for the first time and every time switch remote control.**

DJI Lightbridge Video Downlink Release Note

Date：	**2014/4/30**
Ground system decoder：	**1.3.0**
Ground system main controller：	**1.1.4**
Air system encoder：	**1.0.4**
Air system main controller：	**1.0.1**
Ground system transmitter：	**1.2.0**
Air system transmitter：	**1.1.0**
Battery management：	**0x22**
Air system baseband：	**0x22**
Ground system baseband：	**0x29**
DJI Lightbridge Assistant：	**1.0**

Features:

•2.4G Full HD digital transmission

- Video input support: Up to 1080p60

- Video output support: Up to 1080i60

•Low Latency

- 150ms delay

•Long Distance Transmission

- 100mw transmission power (CE and FCC compliant)

- 1.05 mile (1.7km) maximum transmission distance

•Multiple video input and output formats

- AV input

- HDMI input

- USB 2.0 Full HD video output: smart devices or HDMI monitor.

- Dual video source mode, select DJI HD gimbal or HDMI/AV signal for input.

- HDMI output;

DJI Lightbridge Video Downlink Release Note

•Built-in remote control link

- Ground system relays remote control signal through training port to reduce interference.
- Gimbal and remote control can be connected to ground system simultaneously. Signals from both modules are transmitted independently.
- Standalone video supported.

•Interference resistance

- Frequency hopping (FHSS) and spread spectrum (DSSS) used to reduce interference and maintain high transmission stability.
- Downlink MIMO multiple antenna technology with OFDM modulation and advanced algorithms to improve stability of data bandwidth in complex environments and improved overall dynamic performance.
- Near real-time downlink signal system dynamically selects the optimum channel (out of 32 channels) for transmission.

•Flight control system

- Work best with DJI NAZA V2, WKM and A2 flight control systems.

•Master-slave mode

- Multiple ground systems can be connected to a single air system. Master ground system receives both video and remote control signals. Slave system only receives video signals.

•Large capacity battery

- 4000mAh capacity