Bilinx Technology FAQs

(April 2004)

1. Which Dinion series cameras are compatible with Bilinx Technology?
Any Dinion series camera that is BOSCH branded can be used in a Bilinx system, but only those manufactured in April 2004 or later will respond to menu commands sent over the coax. If necessary, the firmware of Dinion XF series purchased prior to April 2004 can be upgraded over the coax from a PC using the Bilinx Configuration tool software.

2. How does the LTC 8016 Allegiant Bilinx Data Interface unit know when the physical BNC number of an Allegiant camera has been re-designated to some other logical camera number?
When using an Allegiant data interface connection, the LTC 8016 Allegiant Bilinx Data Interface is designed to automatically obtain and remember the physical-to-logical camera table from an Allegiant system. This ensures that the correct physical camera will respond properly to camera control commands and events when the re-designated logical camera number is selected on a system keyboard.
When using the biphase data interface to the LTC 8016, the Group ID switches of the LTC 8016 are used to match the unit to the desired 'logical' camera number range used by the control system. In this configuration, the controller must be programmed to use a range of 16 sequential camera numbers that begin at a multiple of 16. For example, the starting camera number would be set to the first number within a group of cameras such as 1-16, 17-32, 33-48 and so on, up to 9984-9999.

3. How can Bilinx be used in large CCTV systems?
When connected to a large Allegiant system, up to 31 LTC 8016 Allegiant Bilinx Data Interface units can be cascaded together providing bi-directional Bilinx features (i.e., control and camera event data) for up to 496 cameras.
If using the biphase data interface of the LTC 8016, control over any group of 16 cameras ranging from 1-16 to 9984-9999 will be possible, but no support for camera event features will be available due to the single direction nature of biphase code.

4. Why can't video motion detectors be used with Bilinx?
If a video motion detector containing an active video loop through connection is installed in the coax between a Bilinx camera and Bilinx controller, it will block the transmission of Bilinx data. Instead of connecting a motion detector in the coax between the camera and the controller, place the device in the video looping output from the Bilinx controller.

5. When my DVR is connected to the LTC 8016 using the biphase interface, it is not able to receive camera alarms sent through the coax. Why is this?
Since biphase protocol is only designed to transmit data in a single direction, any device that is connected to the LTC 8016 Allegiant Bilinx Data Interface using its

biphase input port would not be able to receive event or other data from Bilinx enabled cameras. Single direction commands such as those used to control pan/tilt/zoom and access the on-screen camera menus are supported.

6. Why does my pan/tilt operate when I use the keyboard joystick to navigate up/down through the menu of my Dinion camera?

This behavior will occur when a controller is interfaced to the LTC 8016 Allegiant Bilinx Data Interface using its biphase data interface. The same up/down commands being sent to the LTC 8016 to navigate through the camera's on-screen menu are also be received by the receiver/driver unit. Since biphase data can only transmit data in a single direction, it is not possible for the LTC 8016 to inform the controller to alter its behavior in any way.

On the other hand, when a LTC 8016 is connected to an Allegiant system using the Allegiant data interface, the Allegiant is notified by the LTC 8016 whenever a Dinion camera is in menu mode. This capability allows the Allegiant to cease transmissions of biphase data for that camera address until the menu mode is exited.

7. Why can't I use Bilinx cameras with active balun devices to extend the camera-to-controller distance when using CAT5 cable.

Active balun devices will block the Bilinx data transmissions, so only passive balun devices are allowed.

8. How can I see that a Bilinx compatible camera is connected?

The LTC 8016 Allegiant Bilinx Data Interface provides an LED indicator for each video input channel. This LED will light steady to indicate an acceptable level (i.e, 15 IRE) of video signal is being received. The LED will not light if the video level is below the acceptable level. This behavior is supported with video signals from Bilinx enabled and standard cameras.

If a Bilinx enabled camera is connected to the input, the LED will blink frequently to indicate Bilinx communication is present. It will also flash rapidly whenever Bilinx data is being sent to/from the camera.

9. To use Bilinx do I need to upgrade the software of the Allegiant Matrix?

The Allegiant CPU must be loaded with firmware version 8.5 or later (released April 2004). (Keyboard User function code 23 will display the software revision of the Allegiant Matrix).

Older LTC 8100, LTC 8200, LTC 8300 and LTC 8900 model Allegiant systems can be upgraded using a PC to download the latest firmware into the CPU.

Older LTC 8500, LTC 8600 and LTC 8800 system can also be upgraded if the CPU module contains two 8-position dip switches. If the CPU only contains a single 8-position dip switch, replacement of the CPU module to a current version will be necessary.

10. How can I program the reaction of the Allegiant matrix when there is motion or alarm on a Bilinx camera?

By default, an Allegiant matrix system is programmed to activate a standard Allegiant alarm response when alarm input 1 of the camera is activated/deactivated.
The response for up to 4 alarm inputs from compatible cameras can be customized using the optional Allegiant LTC 8059 Master Control Software (version 2.70 or later). The 'Bilinx Actions' table in the Master Control Software is programmed using standard Allegiant Command Console Language commands (CCL). This allows a wide variety of system responses to be activated including Allegiant command script functions.
The Bilinx Actions table also includes an option to define the Allegiant system's response to a 'Dark Alarm' video situation when detected by the LTC 8016 Allegiant Bilinx Data Interface unit.

11. It is possible to use Video Distribution Amplifiers with a Bilinx camera?
No. Unless the Video Distribution amplifier is specifically designed to be compatible with Bilinx technology, Bilinx communication data will be blocked and no control over the camera will be possible.

12. Can I use ACTS when I upgrade to Bilinx?
No. Allegiant systems and software that support Bilinx functions are not compatible with ACTS products. The last Allegiant software releases that provide support for ACTS systems are version 8.4 for the Allegiant series CPUs and 2.6 of the LTC 8059 Master Control Software.

13. How can I use Bilinx over a distance longer than 1000 meter (3000 ft)?
Theoretically, Bilinx will not work when the distance between the camera and the Bilinx controller is more than 1000 meter (3000 ft) because of timing restraints inherent to the protocol.
Practically, when using a good grade of CCTV coax, the maximum distance is 750 meters (2000 ft). For compatible fiber optic video transmission links, distances of up to 850 meters (2500 ft) can be achieved.
If necessary, it is possible to remote the LTC 8016 Allegiant Bilinx Data Interface unit so that the distance between the LTC 8016 and the farthest camera is kept within the limits above. Conventional video and data transmission links can then be used to connect the signals to/from the LTC 8016 to the Allegiant system or other head-end control unit.

14. Can I also connect regular cameras to the Bilinx interface?
Yes, but those cameras will not react to Bilinx control commands and it will not be possible to receive any camera event related data transmissions.

15. Can I connect the Bilinx VP-CFGSFT software program to a camera when it is connected to the LTC 8016 Allegiant Bilinx Data Interface?
Yes. The BNC adapter device supplied with the VP-CFGSFT software package can be "T" connected into the coax of a Bilinx camera at the same time the coax is connected to the LTC 8016 unit. This way, either device will be able to

communicate with the camera, but operator contention may result because there is no way for one device to override the other.

16. What is the maximum distance when I connect the output of a Bilinx camera to a UTP communication link?
When using passive twisted pair Balun devices such as NV-211 or NV-231A with CAT5e grade cable, the maximum distance will be 225 meter (750 ft). Any longer distances will result in significant degradation of the video signal.

17. Can I also control a Pan & Tilt head via Bilinx?
No. The current Allegiant series of receiver/drivers are not able to receive Bilinx communications. If a Bilinx enabled camera is mounted on a pan/tilt that is connected to a receiver/driver, a biphase data line coming from the main control unit must be connected to the receiver/driver.

18. What is the Ethernet port on the rear panel of the LTC 8016 Allegiant Bilinx Data Interface unit used for?
Nothing. Support for network connections has not yet been implemented.

19. Can I use Bilinx cameras on a non Bosch controller?
Yes. As long as a controller is able to generate Allegiant biphase control code protocol, it can be connected to the LTC 8016 Allegiant Bilinx Data Interface unit to control Bilinx enabled cameras. Although the controller will be able to operate pan/tilt/zoom and access the on-screen camera menus, it will not be able to receive event or other data from Bilinx enabled cameras over the biphase data interface.

20. Can camera configurations be downloaded/uploaded using Bilinx?
A single camera can be configured and its settings can be uploaded/downloaded with the help of the Bilinx VP-CFGSFT software program. This program is designed to run on a Windows based computer that supports a USB interface port.