



DigiLink EMS, Software and Firmware Package June 2022

This package contains software and firmware updates for all supported DigiLink modules. To install the updates please reference the DL Manager Setup and Operations Guide or instructions included in this document. Software and firmware updates require an EMS management module to be installed in the chassis. This package also contains the current version of DL Manager Agent. Update instructions are included in this document.

File Name	Description	Rev	Rel Date
AutoUpdate.exe	File to update EMS agent	2.2	06/17/2015
TcpUpdate.exe	File to update EMS agent over gateway	1.0	03/23/2016
AV_5234Agent_4_0_2_0_APP.s19	DL Manager EMS for 5234 Mod	4.0.2.0	10/10/2016
AV_5441XAgent_4_4_2_1_APP.s19	DL Manager EMS for 5441x Mod	4.4.2.1	06/18/2022
DL4000_0306.hex	DL4000 software	3.06	08/01/2011
DL4300_0306.hex	DL4300 software	3.06	08/01/2011
DLC055_0101.hex	DLC055 software	1.01	02/03/2014
DLC100_0311.hex	DLC100 software	3.11	10/12/2011
DLC103_0102.hex	DLC103 software	1.02	04/09/2012
DLC105_0103.hex	DLC105 software	1.03	03/25/2014
DLC150E_0307.hex	DLC150E software	3.07	10/12/2011
DLC156D2_0301.hex	DLC156D+ software	3.01	07/27/2015
DLC156M2_0217.hex	DLC156M+ software	2.17	07/27/2015
DLC170AD_0314.hex	DLC170AD software	3.14	12/13/2010
DLC170DA_0314.hex	DLC170DA software	3.14	12/13/2010
DLC200_0307.hex	DLC200 software	3.07	11/14/2011
DLC205_0207.hex	DLC205 software	2.07	06/18/2018
DLC274D_0309.hex	DLC274D software	3.09	12/01/2015
DLC274M_0309.hex	DLC274M software	3.09	12/01/2015
DLC300_0109.hex	DLC300 software	1.09	12/22/2010
DLC410_0104.hex	DLC410 software	1.04	05/25/2012
DLC450_0300.hex	DLC450 software	3.00	07/15/2016
DLC450_02030206.xml	DLC450 fpga update	2.3.2.6	07/15/2016



DLC510_0118.hex	DLC510 software	1.18	12/05/2016
DLC910_0106.hex	DLC910 software	1.06	04/04/2016
DLC910_02040315.xml	DLC910 fpga update	2.4.3.15	04/04/2016
DLFM010_0115.hex	DLFM010 software	1.15	06/18/2022
DLM130_0312.hex	DLM130 software	3.12	10/10/2014
DLM205_0205.hex	DLM205 software	2.07	06/18/2018
DLM301_0312.hex	DLM301 software	3.12	10/10/2014
DLM302_0312.hex	DLM302 software	3.12	10/10/2014
DLOSW1_0200.hex	DLOSW1 software	2.00	12/05/2016
DLOx_0101.hex	DLOxxxx software	1.01	02/18/2014
DLP001A_0100.hex	DLP001A software	1.00	06/09/2016
DLP002A_0100.hex	DLP002A software	1.00	06/09/2016
DLP001_0304.hex	DLP001 software	3.04	10/10/2014
DLP002_0304.hex	DLP002 software	3.04	10/10/2014
DLP360_0110.hex	DLP360 software	1.10	06/04/2019
DLP361_0110.hex	DLP361 software	1.10	06/04/2019
DLT710_0107.hex	DLT710 software	1.07	04/01/2011
DLX001_0104.hex	DLX001 software	1.04	02/03/2014
SMART_V0205_J2K	SMART-V0205-J2K firmware	2.05	07/07/2022
SMART_V0205_SW	SMART-V0205-SW software	2.05	07/07/2022
SMART_2022_TX	SMART 2022 TX FPGA	2.4	07/07/2022
SMART_2022_RX	SMART 2022 RX FPGA	2.2	07/07/2022
SMART_J2K_ENC	SMARTJ2K ENC FPGA	1.3	07/07/2022
SMART_J2K_DEC	SMARTJ2K DEC FPGA	1.3	07/07/2022



Updating the DL Manager Agent Software

Check the revision level of currently installed DL Manager before updating. Start in the DL Manager home page, select **About Agent**. The **About** screen lists the revisions of DL Manager Agent software and SNMP MIBs that are currently installed. Artel recommends you always use the latest revision of the DL Manager agent.

Updating the DL Manager Agent Software

The DL Manager Agent update must be done from a computer running Windows 7 or greater.

Before beginning the update process, make sure you have the latest set of DL Manager Agent update files which are included in this update package. You can download the latest update package in a zip file from the Artel website www.artel.com. When you get the zip file, extract files to the computer used for the update process.

To update the DL Manager Agent software, perform the following steps:

1. **Warning: Before updating DL Manager Agent software on DLM205 module make sure that the Module software is at version 2.07 or greater (See Updating Module Software below).**
2. Apply power to Chassis.
3. From the computer, navigate to where you unzipped the update files and double-click on the AutoUpdate.exe file. The **AutoUpdate** dialog box will appear.
4. Click on the **Find** button. The software will use an auto-search process to find the management module IP address. The **Find** dialog box will appear. If any Windows security windows appear, click Unblock to disable the firewall temporarily for the update process.
5. Choose the IP address of the management module you want to update and click **OK**. The **Find** dialog box will close and the **AutoUpdate** dialog box will display the selected IP address.
6. If there are multiple DL Managers on the same IP subnet, make sure that you select the unit that you want to update.
7. From the **AutoUpdate** dialog box, click **Browse**. The browse window appears, so you can select the update file.
8. Navigate to and choose the DL Manager agent:
For modules displaying the number 5234, select AV_5234Agent_4_0_2_0_APP.s19.
For modules displaying the number 5441X, select AV_5441XAgent_4_4_2_1_APP.s19.
9. Click **Open**. The browse window will close and the **AutoUpdate** dialog box will display the path and filename of the DL Manager Agent file.
10. (Optional) Select **Reboot when complete**. This option enables an automatic reboot of the DL Manager software after the update file is installed. Note: The DL Manager Agent software update does not take effect until DL Manager is rebooted. If you do not choose this option, you must manually reboot DL Manager after the software update file has been uploaded to the module.
11. Click **Update**. The progress bar displays the progress of the software update. The **Programming Complete** message displays when the update is complete.
12. If you enabled the **Reboot when complete** option, the EMS software status LED on the rear panel turns yellow to indicate that the EMS (DL Manager) is rebooting. The LED turns green when the reboot process is complete.

Note: This process takes several seconds; during this time attempts to access a DL Manager screen may be slowed or may time out. You may have to reload any screens that time out during this process.



Updating Module Software

From DL Manager home page, choose the **Software Update** the table will list all the revision levels of the installed software in each function module, power supply module, and chassis backplane, to determine which modules need to be updated. Always update module software if the revision is below the minimum required revision. It is optional to update the software if the revision is higher than the current revision of your module.

The display will highlight any function module that has software which must be updated to support the DL Manager. If a modules software needs updating, perform the update using the procedure in this section and the update file included in this package. You can always download the latest package from <http://www.artel.com/support/firmware-updates>.

Displaying the Revision Level and Updating the Software

To update the software on a module, perform the following steps:

1. Start at the DL Manager home page, choose the **Software Update** button. You may be prompted to log in as the administrator or power user.
2. The **Software Update** screen will appear and display a table with the following information:
 - Slot—Chassis slot number of the installed function module. Slot A+B are power supply modules, Slot 0 is the chassis backplane.
 - Module Type—Module model number.
 - Slot Name—User-defined name for the shelf slot.
 - Current Rev—Installed software revision level. If this is red, then the revision level is below the required minimum level for proper DL Manager operation.
 - Min Required Rev—Minimum software revision level.
3. If you need to update a module, click the button to the left of the desired slot.
4. Click on the file browse button below the table, browse to the location of the software file on your computer and select the required file.
5. Click the **Upload File** button.

The DL Manager will check to ensure that the software file you selected matches the selected function module. If the type check passes, the update process begins. When the update process is complete, the **Flash Complete** screen will appear. If the check fails, a screen labeled **Flash Error** will appear, re-check your selections and try again.

Caution:

Do not interrupt the software update process. Interruptions can corrupt the function module software, which will require you to ship the function module back to Artel for repair.



Updating Function Module Firmware

From DL Manager home page, choose the **Firmware Update** the table displayed will list any function module that has firmware which can be updated. If a module firmware needs updating, perform the update using the procedure in this section and the update file included in this package. You can always download the latest package from <http://www.artel.com/support/firmware-updates>.

Displaying the Revision Level and Updating the Firmware

To update the firmware on a module, perform the following steps:

6. Start with updating the DL Manager **before** proceeding to update Firmware.
7. Download Firmware image and store it where it will be locally accessible.
8. Bring up Windows file explorer and set location (IP address of the unit) to ftp://xxx.xxx.xxx.xxx/ (You will see the FTP file directory on the DL Manager)

You may be prompted for user name and password

If so you must enter either the Administrator or Power User information for DL Manager

You will see three folders:



9. If there is not a folder labeled **fpga** (lowercase), create one.
10. Open **fpga** folder, then drag and drop the downloaded image in to folder.
11. From the DL Manager home page; choose the Firmware Update button. You may be prompted to log in as the Administrator or Power User.
12. The **Firmware Update** screen will appear and display a table with the following information:
 - Only modules that are field updatable will appear in the table.
 - Slot—Chassis slot number of the installed function module.
 - Module Type—Module model number.
 - Slot Name—User-defined name for the shelf slot.
 - Current Rev—Installed firmware revision level.
13. If you need to update a module, click the button to the left of the desired slot.
14. In the Firmware File Selection, select the File to process below the table, browse to the drop down list for the firmware file on DL Manager, and select the required file.
15. Click the **Submit** button.



The DL Manager will check to ensure that the firmware file you selected matches the selected function module. If the type check passes, the update process begins. When the update process is complete, the **FPGA successfully updated** screen will appear. If the check fails, a screen labeled **FPGA update failed** will appear with instructions on what to do next.

Caution:

Do not interrupt the firmware update process. Interruptions can corrupt the function module firmware, which will require you to ship the function module back to Artel for repair.