

## ASEK-20-T-KIT Quick Guide

The ASEK-20-T-KIT as described below is the base kit for evaluating Allegro Sensors

### ASEK-20-T-KIT Bill of Materials

- ASEK-20 Kit (Part # 85-0540-600)
  - ASEK-20 Chassis with main Motherboard inside (85-0540-004)
  - USB Communications Cable
  - DC Power Supply/Cable with AC Outlet Adapters
  - Proto Board ( Part # 85-0540-103)
  - Ribbon Cable (Part # 85-0540-300)



Figure 1: Contents of ASEK-20-T-Kit

## Instructions for Getting Started with ASEK-20-T-KIT

Ensure that your programmer's firmware is up to date! Firmware updates are issued to add compatibility for Allegro's advanced Sensor ICs.

### Downloading the Firmware Updater Application

1. Register for software on Allegro Microsystem's software portal:

<https://registration.allegromicro.com/login>

Google Chrome is the recommended browser (Internet explorer is not fully supported)

If this is your first time on the Allegro Software portal you will need to register as a user shown in the right hand box on the image below. Returning users may simply log into their accounts shown in the left hand box below.

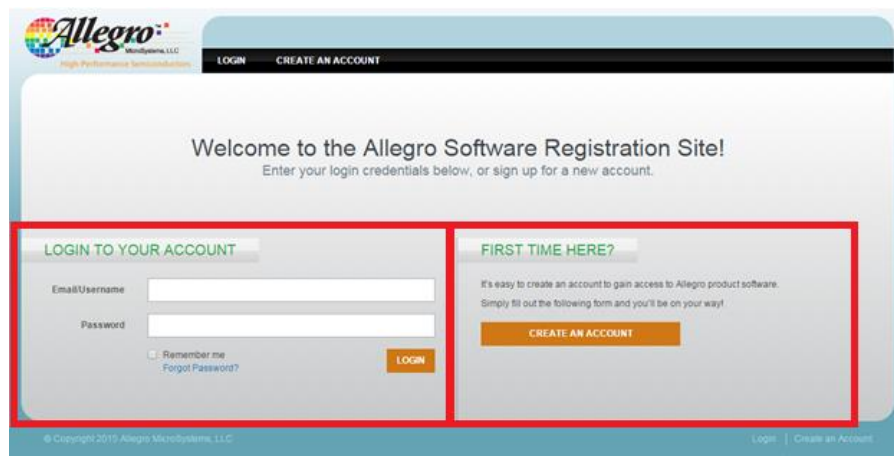


Figure 2: Registration & Login Page on Allegro's Software Portal

2. After registration and logging in the user will be greeted with the dashboard page. Choose the "Add Part" button highlighted in red below.

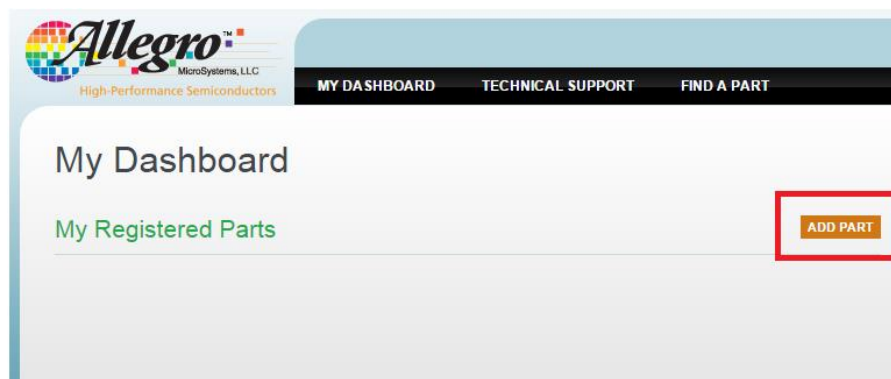


Figure 3: "Add Part" Button allows the user to register for specific devices

3. Within the drop down menu choose “Hardware Support” <sup>1</sup>, then “Allegro Sensor Evaluation Kit Tools” <sup>2</sup>, and finally choose “ASEK-20” <sup>3</sup>. Refer to the numbered steps highlighted below in red.

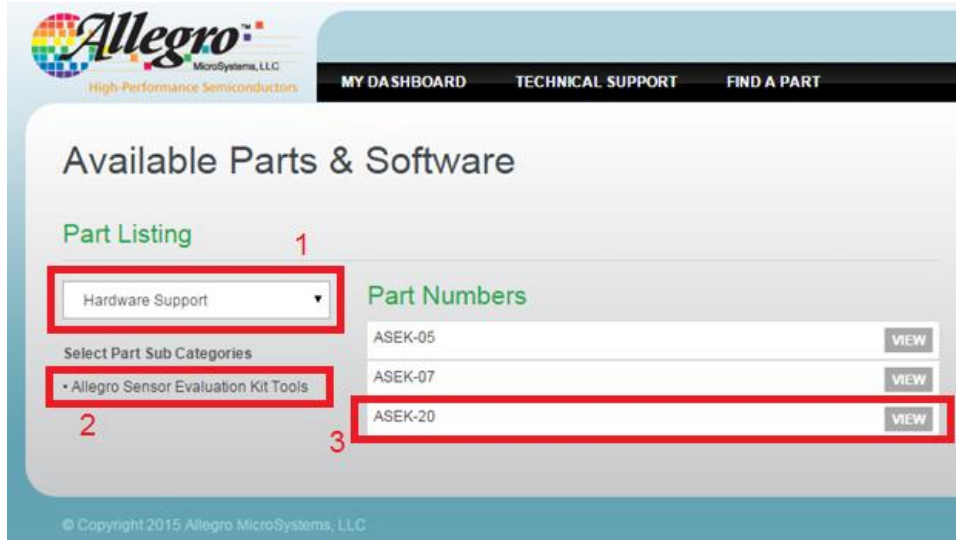


Figure 4: Shows how to choose Allegro's ASEK programmers

4. A list of files applicable to ASEK-20 will be shown. Choose “Register for Part” to gain access to these files. Once registered, you will be greeted with a page acknowledging registration. Choose “Back to Dashboard” button to view your registered devices.

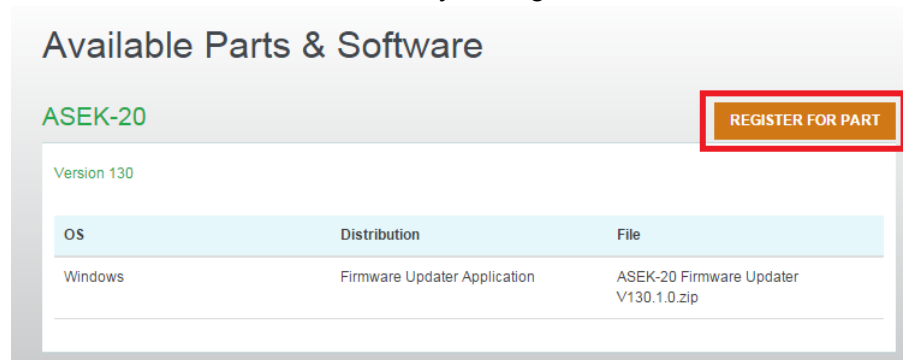


Figure 5: Registration button and the files associated with ASEK-20

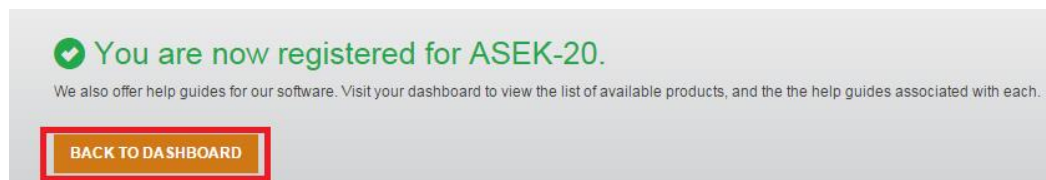


Figure 6: Page confirms registration was successful and option to return to dashboard

5. Back at the dashboard choose “ASEK-20”<sup>1</sup> device and select the most recent available firmware version<sup>2</sup>. In this case version 130 is the most up to date. Select the windows firmware updater<sup>3</sup> and finally choose “Download”<sup>4</sup>. See the image below for numbered steps highlighted in red.

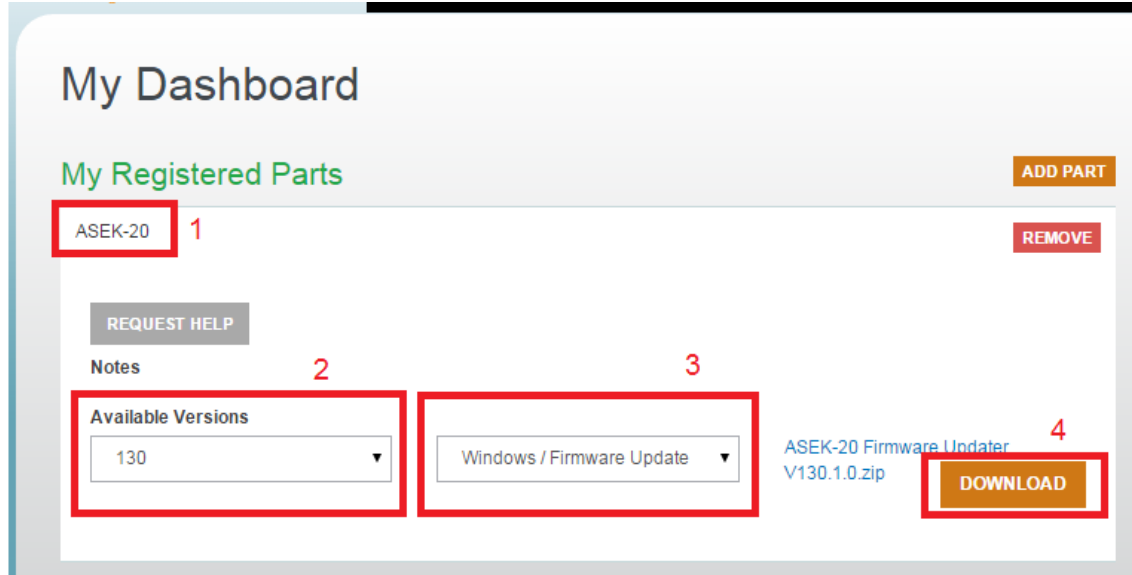


Figure 7: This page shows device selection, version chooser and download button

6. All files will be downloaded in a .zip format that must be extracted for use. Please extract this .zip file to your local drive. It is now time to connect the ASEK-20 to your computer.

## Connecting ASEK20 to the PC

1. Connect one end of the USB communications cable to a personal computer
2. Connect the other end of the USB communications cable to the “USB” port on the ASEK-20 chassis.
3. Connect the ribbon cable to the J2 connector on the protoboard (85-0540-103)
4. Connect the other end of the ribbon cable to the “Device Connection” port on the ASEK-20 chassis
5. Connect the DC Power Supply/Cable to the 5V port on the ASEK-20 chassis
6. Plug in the DC Power Supply to a 110V/220AC 60/50Hz outlet with the proper adapter



*Figure 8: Photo shows ASEK-20 with USB cable, 5V power, ribbon cable and daughter board connected.*

The ASEK-20 firmware can now be updated.

## Updating the Firmware

1. With ASEK-20 connected to the computer and powered on the firmware updater may be run. Navigate to where the .zip file was extracted and open the folder. You should see the following files. Run updater application “ASEK-20 Firmware Updater.exe” highlighted below in red.

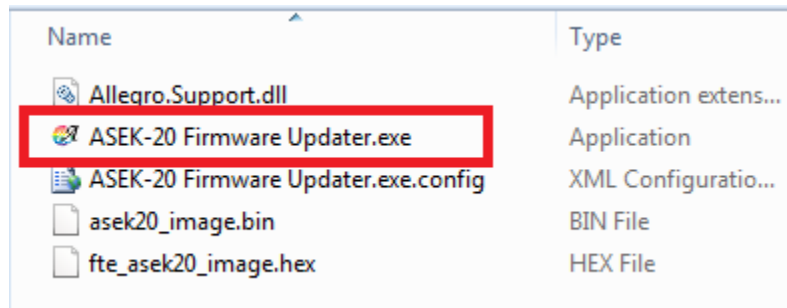


Figure 9: Navigate to the directory containing your extracted files

2. In the “COM Port:” dropdown menu<sup>1</sup> choose the USB COM port that corresponds to the ASEK-20 on your system. Windows’ device manager can be used to determine which COM port belongs to your ASEK-20 programmer. Choose “refresh”<sup>2</sup> to make a connection to the ASEK-20. The application will display the firmware version currently installed on your ASEK-20 programmer<sup>3</sup>. In this case, the firmware version was 122.6.3.1.
3. Choose “Update Firmware”<sup>4</sup> to begin the firmware updating process. A status box will inform the user of what is happening during the install<sup>5</sup>. There is also a progress bar showing percentage of completion<sup>6</sup>.

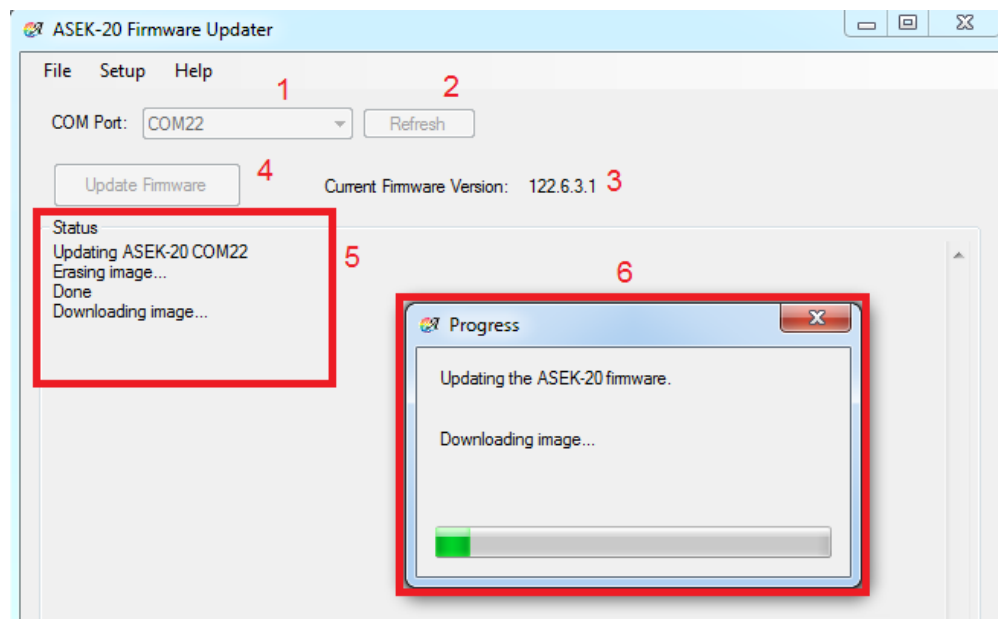


Figure 10: Using the Firmware updater

4. Upon completion the user will be notified that firmware has been installed and to Power cycle the ASEK-20 programmer<sup>1</sup>. Select refresh<sup>2</sup> and the application will return the firmware version that was just installed<sup>3</sup>. See the numbered instructions highlighted in red below.

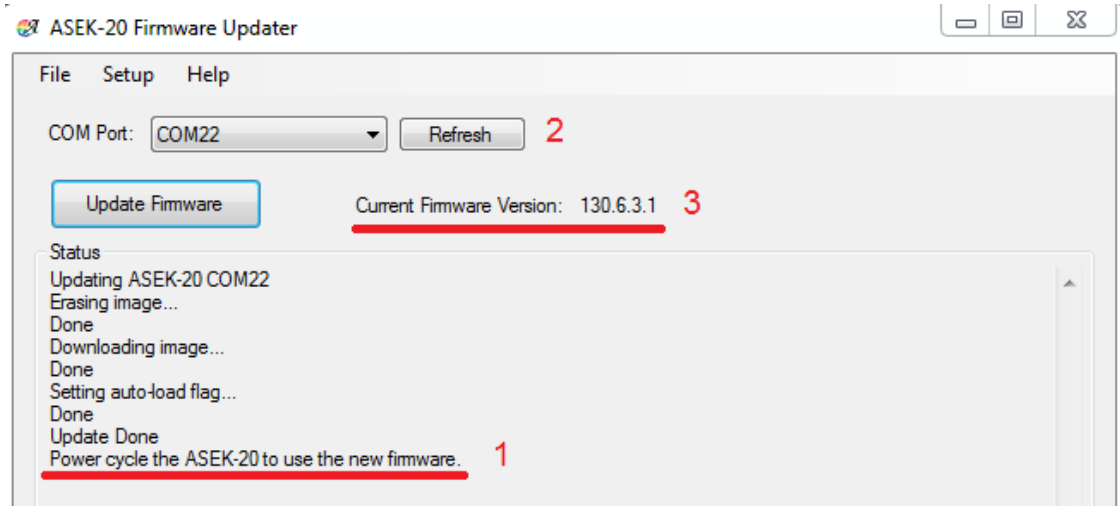


Figure 11: Application prompts the user to restart ASEK-20 when update is complete.

The ASEK-20 firmware is now up to date.

### Revision History Table

Revision	Change Description	Res.	Page(s)	Date
-	Original release	WB	All	7/13/2015
1.0	Added firmware section	WB	2-7	12/16/2015
1.1	Correct Typo on page 1	WB	1	8/13/2016