

SC600Y&SC600T

Android Burning

User Guide

Smart LTE Module Series

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About the Document

History

Revision	Date	Author	Description
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1 Introduction

This document provides instructions on Android burning for Quectel SC600Y&SC600T modules. It mainly includes how to burn the entire SC600Y&SC600T Android images via QFIL tool and how to burn each Android image one by one via Fastboot commands.

2 Burn Android Images via QFIL Tool

This chapter mainly introduces how to burn the entire SC600Y&SC600T Android images with QFIL Tool.

1. First, please make sure that QPST (Qualcomm Product Support Tool) software and USB driver have been installed on customers' computer.
2. Unzip the prebuilt package (*SC600_Android_XXX_prebuilt_for_QFIL_XXX.zip*). The package includes the following files:

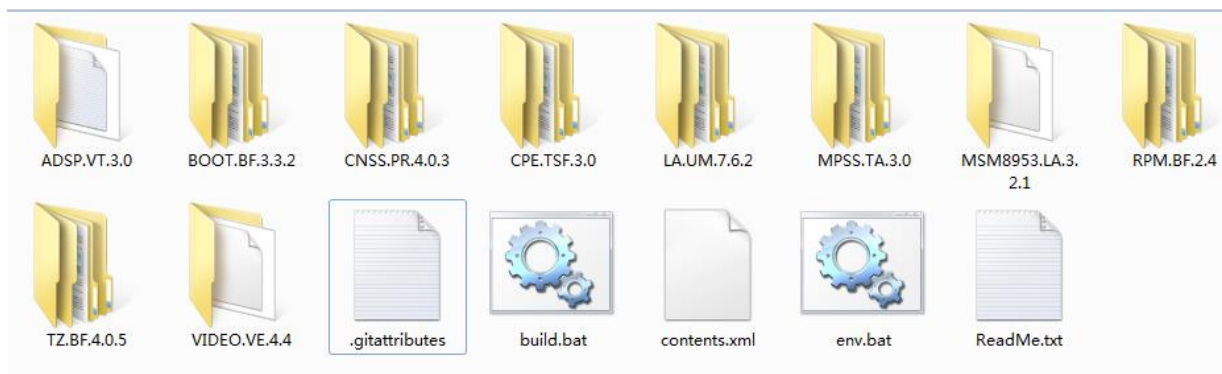


Figure 1: Files in Package

3. Install Python 2.7.6 on customers' computer, open the *env.bat* file, and set the environment variables "PYTHON_PATH" and "PYTHONPATH" in the file. The "PYTHON_PATH" and "PYTHONPATH" are consistent with the installation path of Python 2.7.6.
4. Copy the following Android image files (compiled on Ubuntu by using Android source codes) to the directory `LA.UM.7.6.2\Linux\android\out\target\product\msm8953_64`.

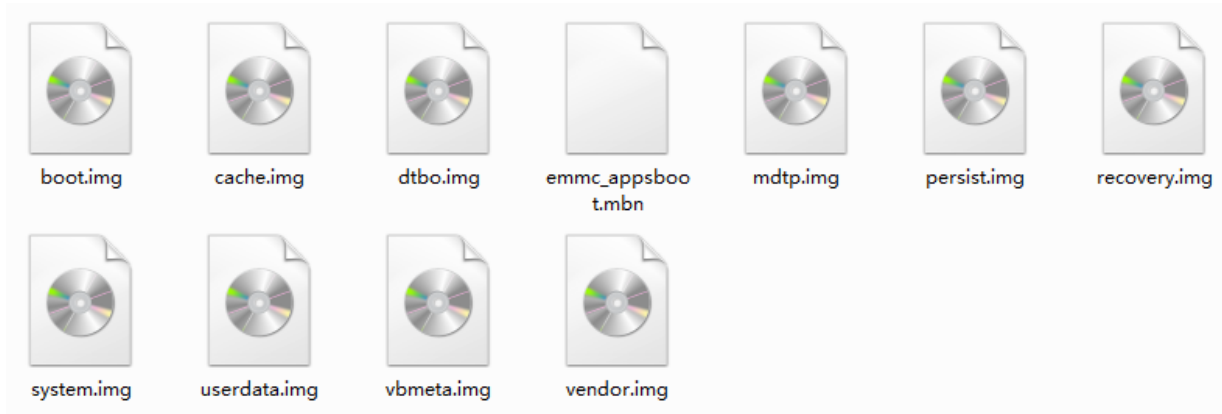


Figure 2: Android Image Files

- Run *build.bat*. If it runs successfully, the “**COMPLETE**” will appear as indicated below.

```
H:\SC600_Android_9.0.0_prebuilt_for_QFIL_20190301>
H:\SC600_Android_9.0.0_prebuilt_for_QFIL_20190301>
H:\SC600_Android_9.0.0_prebuilt_for_QFIL_20190301>
H:\SC600_Android_9.0.0_prebuilt_for_QFIL_20190301>build.bat
```

Figure 3: Run “*build.bat*”

```
Writing file list for WCNSS_BINARY
Writing file list for APPSBOOT_ELF
Writing file list for CPE_BINARY
Writing file list for APPS_BINARY
Writing file list for RPM_BINARY
Writing file list for BOOT_ELF
Writing file list for GFX_ELF
Writing file list for ADSP_BINARY
Writing file list for BOOT_BINARY
Saving cmm script.
[10:55:47] - update_common_info.py:===== UPDATE COMMON INFO COMPLETE=====
H:\SC600_Android_9.0.0_prebuilt_for_QFIL_20190301>
```

Figure 4: Run Successfully

- Quectel provides two versions of QPST software packages in its SharePoint, one is *qpst.win.2.7_installer_00458.1.zip*, and the other is *qpst.win.2.7_installer_00479.16.zip*.
 - If *qpst.win.2.7_installer_00458.1.zip* is installed on customers' computer, the version of QFIL will be V2.0.1.1 as indicated below.

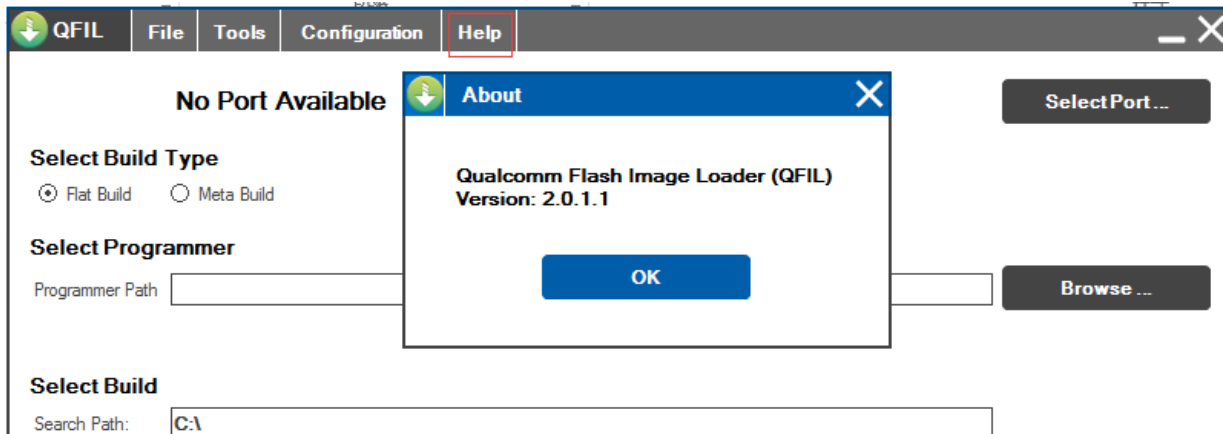


Figure 5: QFIL Version 2.0.1.1

Run QFIL tool. Select “**Tools**”, and then choose “**Flat Meta Build**”. Select “*\$Root\ content.xml*” from “**Content XML**” field and choose a folder to store the target files in “**Flat Build Path**”. Then Click “**OK**”. The building steps and running status are shown in the following figures.

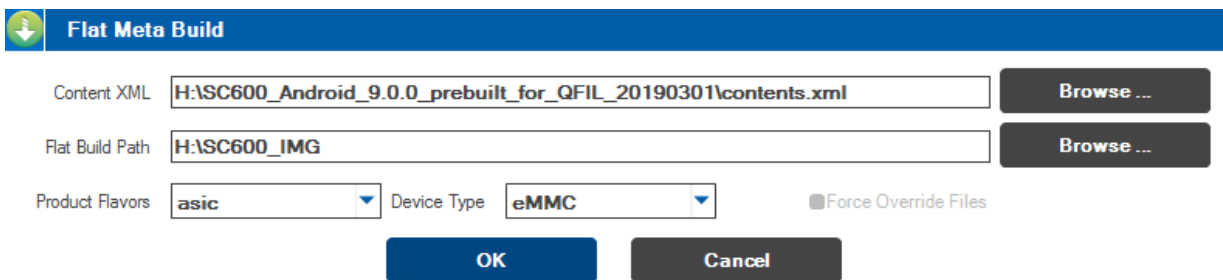


Figure 6: Flat Meta Build

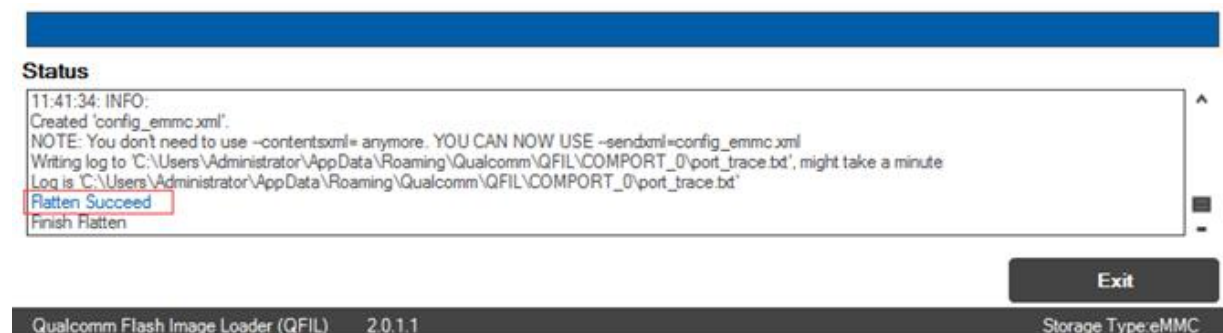


Figure 7: Running Status

- If *qpst.win.2.7_installer_00479.16.zip* is installed on customers' computer, the version of QFIL will be V2.0.2.2 as indicated below.

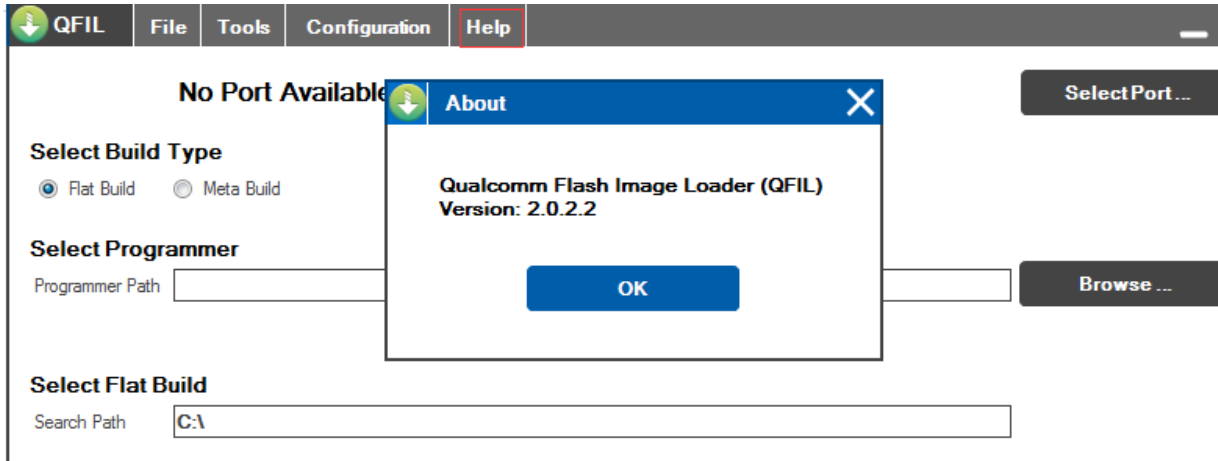


Figure 8: QFIL Version 2.0.2.2

Run QFIL tool. Select “**Tools**”, and then choose “**Flat Meta Build**”. Select “*\$Root\ content.xml*” from “**Content XML**” field and choose a folder to store the target files in “**Flat Build Path**”. Then Click “**OK**”. The building steps and running status are shown in the following figures.

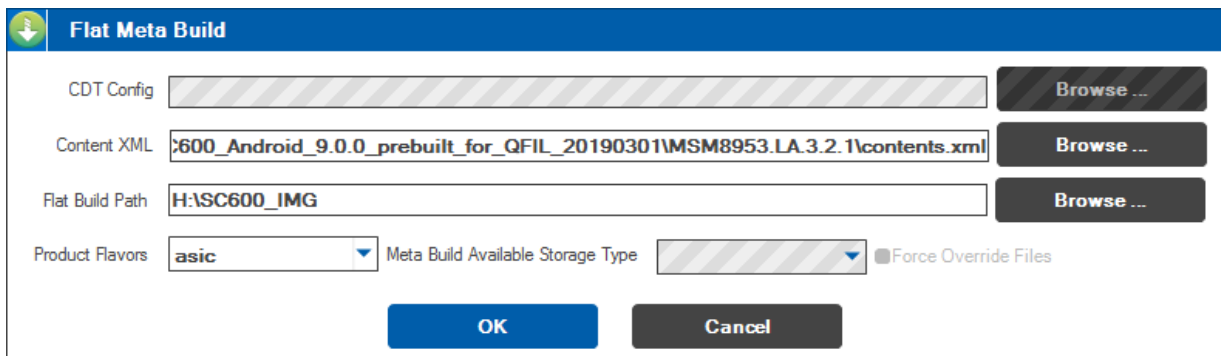


Figure 9: Flat Meta Build

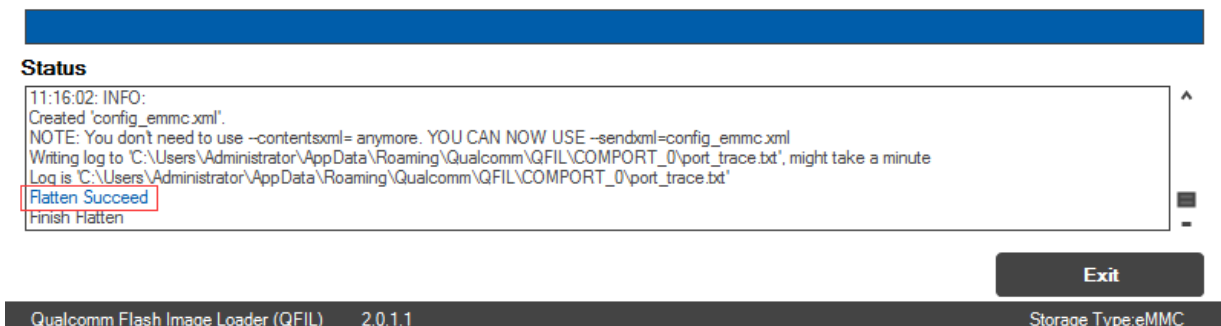


Figure 10: Running Status

7. Target files, downloaded via QFIL, are shown below.

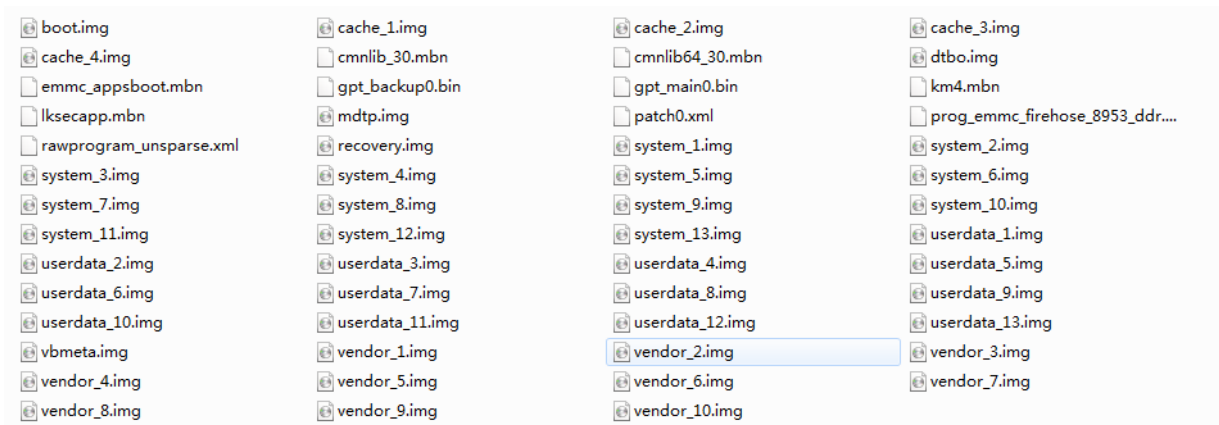


Figure 11: Target Files

8. Turn on **“FORCE USB BOOT”** on Smart EVB G2, switch on the EVB and power on SC600Y&SC600T modules. These modules will enter USB QDLoader 9008 status.
9. Run QFIL and click **“SelectPort”** to select port. Choose **“Flat Build”** and Select an appropriate file from **“Programmer Path”** field. Click **“Download”**.

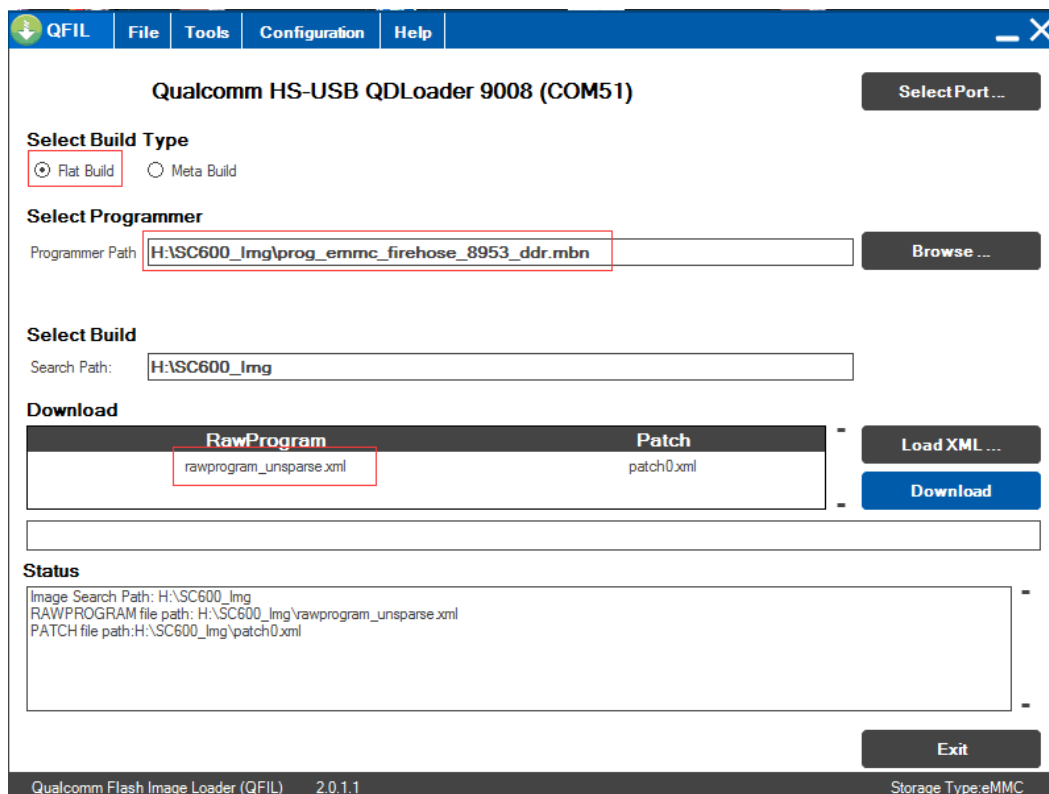


Figure 12: Download Images

If Android images are downloaded successfully, “Download Succeed” will appear, meaning that the Android images have been burnt successfully.

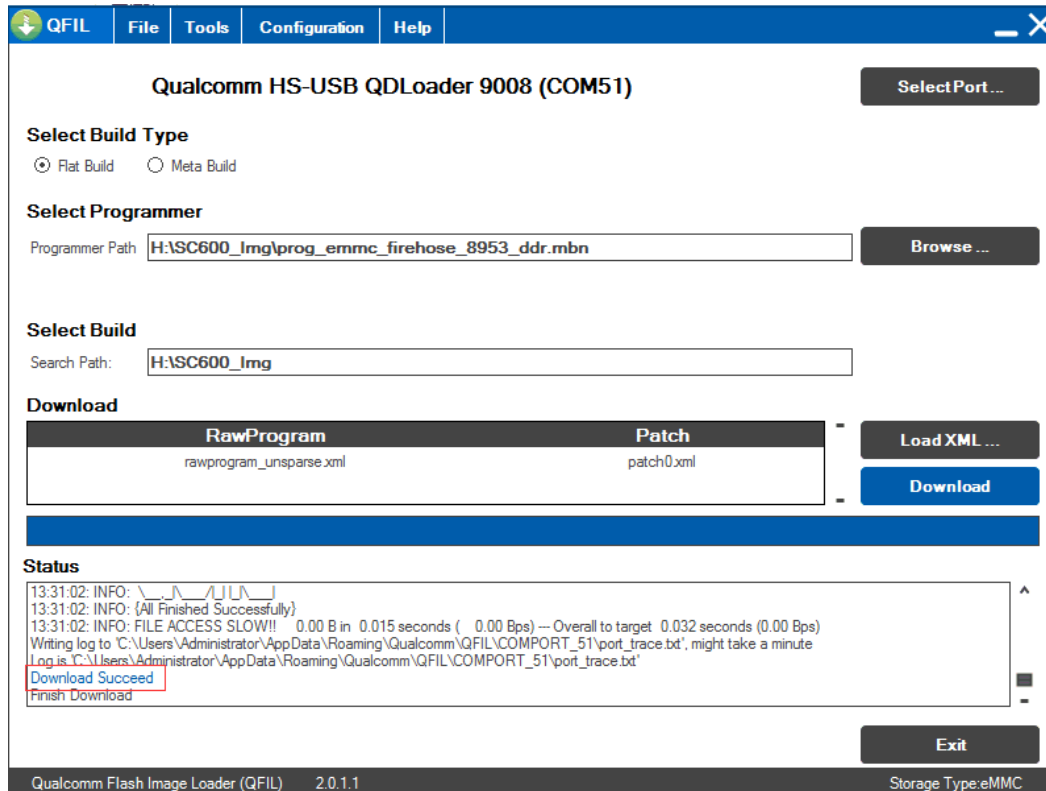


Figure 13: Download Successfully

3 Burn Android Images via Fastboot

During developing and debugging, Fastboot could be used to burn each Android image one by one. Corresponding commands are listed below:

1. Burn *emmc_appsboot.mbn*:

```
adb reboot bootloader
fastboot flash about <path to emmc_appsboot.mbn >
fastboot reboot
```

2. Burn *boot.img*:

```
adb reboot bootloader
fastboot flash boot <path to boot.img>
fastboot reboot
```

3. Burn *system.img*:

```
adb reboot bootloader
fastboot flash system <path to system.img>
fastboot reboot
```

4. Burn *userdata.img*:

```
adb reboot bootloader
fastboot flash userdata <path to userdata.img>
fastboot reboot
```

5. Burn *recovery.img*:

```
adb reboot bootloader
fastboot flash recovery <path to recovery.img>
fastboot reboot
```

6. Burn *cache.img*:

```
adb reboot bootloader
fastboot flash cache <path to cache.img>
fastboot reboot
```

7. Burn *dtbo.img*:

```
adb reboot bootloader  
fastboot flash dtbo <path to dtbo.img>  
fastboot reboot
```

8. Burn *mdtp.img*:

```
adb reboot bootloader  
fastboot flash mdtp <path to mdtp.img>  
fastboot reboot
```

9. Burn *persist.img*:

```
adb reboot bootloader  
fastboot flash persist <path to persist.img>  
fastboot reboot
```

10. Burn *vbmeta.img*:

```
adb reboot bootloader  
fastboot flash vbmeta <path to vbmeta.img>  
fastboot reboot
```

11. Burn *vendor.img*:

```
adb reboot bootloader  
fastboot flash vendor <path to vendor.img>  
fastboot reboot
```

4 Appendix A Reference

Table 1: Related Document

SN	Document name	Remark
[1]	Quectel_Smart_EVB_G2_User_Guide	Smart EVB G2 user guide
