dialog DA16200 Provisioning the Mobile App for Android/iOS User Manual

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Contents

Terms and Definitions

TCP	Transmission Control Protocol
TLS	Transport Layer Security
AP	Access Point
IDE	Integrated Development Environment
SDK	Software Development Kit
AWS	Amazon Web Service
IoT	Internet of Things

Overview

This document describes how to configure the DA16200 Wi-Fi profile information using the Dialog's Wi-Fi provisioning mobile app for Android/iOS.

System Requirements

Table 1: DA16200

Supported SDK Version	2.3.4.1 or higher

You can check the SDK version using the ver command in the serial console.

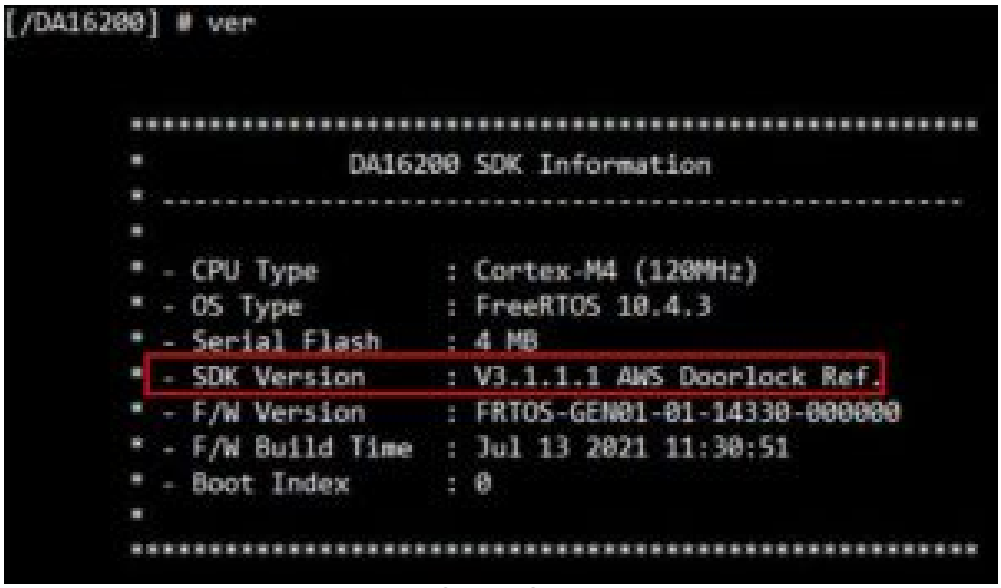


Figure 1: Check SDK Version

Table 2: Android

Android OS Version	5.0 (Lollipop) and higher
IDE	Android Studio 4.1.2
Compile SDK Version	30
Language	Java
Gradle Version	4.0.0

Table 3: iOS

Deployment Version	iOS 12.0 and higher
IDE	Xcode 12.4
Swift Language Version	Swift 5

Sequence Diagram for Wi-Fi Provisioning

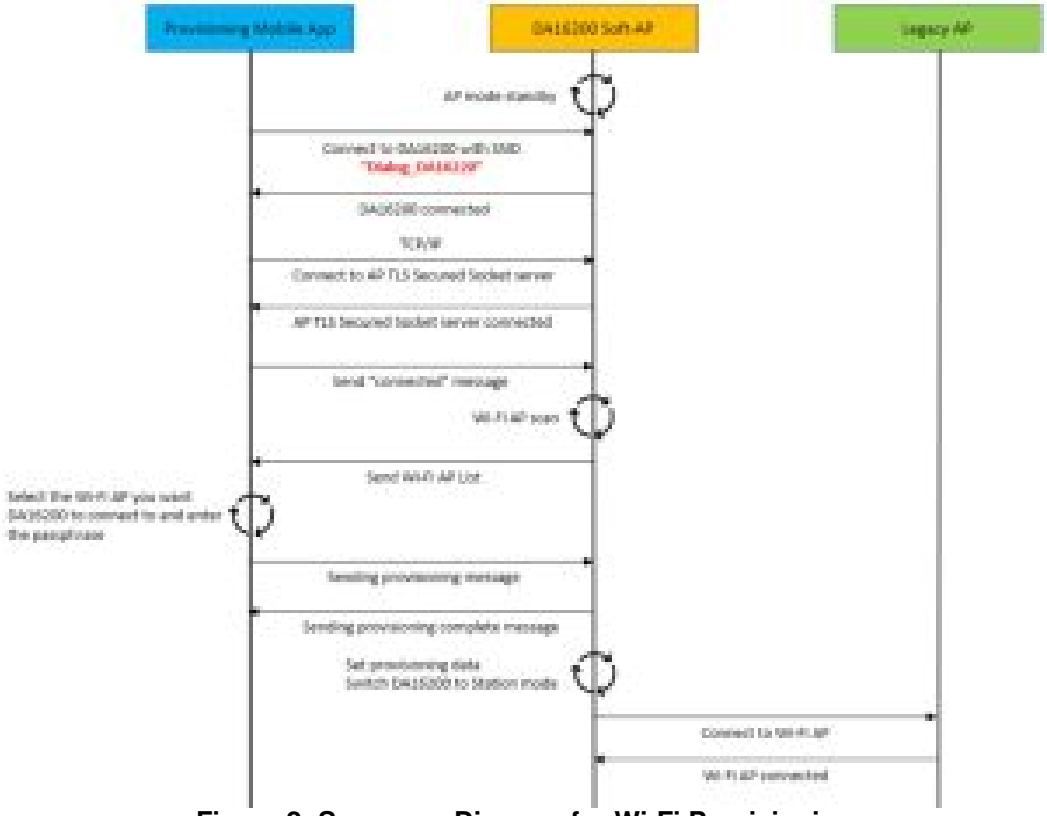


Figure 2: Sequence Diagram for Wi-Fi Provisioning

Install Mobile Application

Android Application

You can find and install the **Dialog WiFi Provisioning** app on **Google Play Store** using the keyword “da16200”.

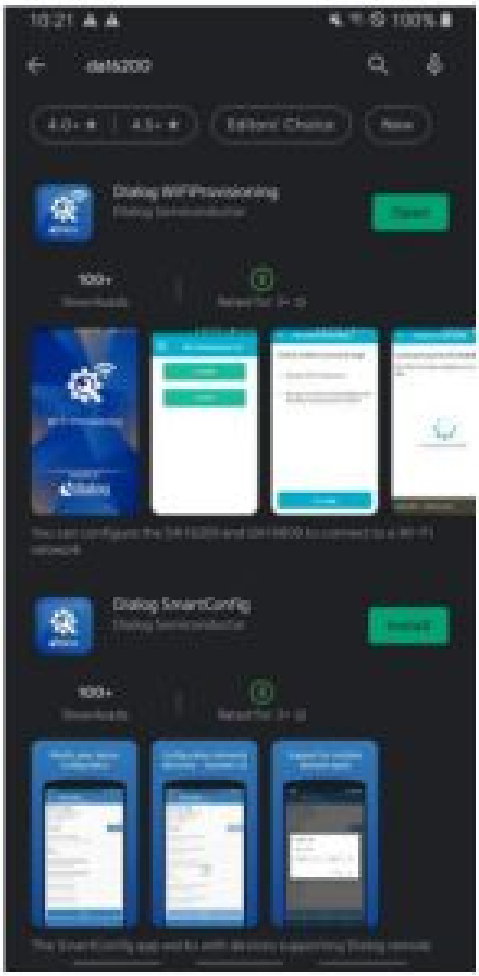


Figure 3: Dialog WiFiProvisioning App on Play Store

iOS Application

You can find and install the **Dialog WiFi Provisionin**g app on **Apple App Store** using the keyword “da16200”.

Figure 4: Dialog WiFiProvisioning App on App Store

Test Provisioning

Use the Factory Reset or Switch button (depends on the device option) to switch the DA16200 to AP Mode.

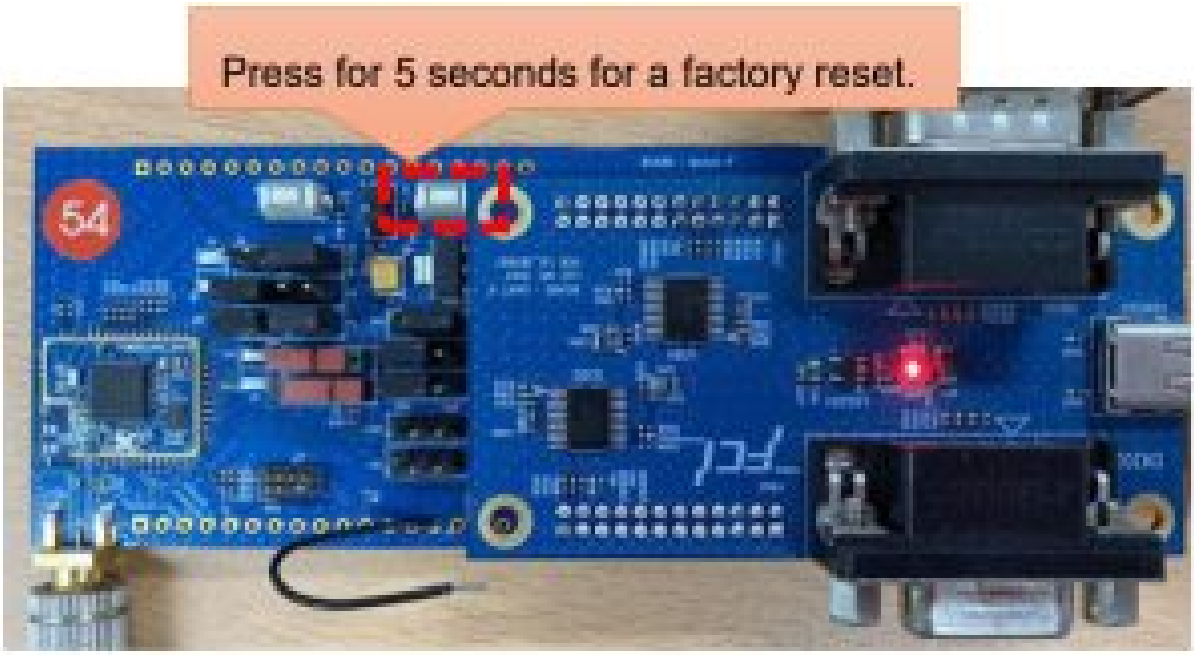
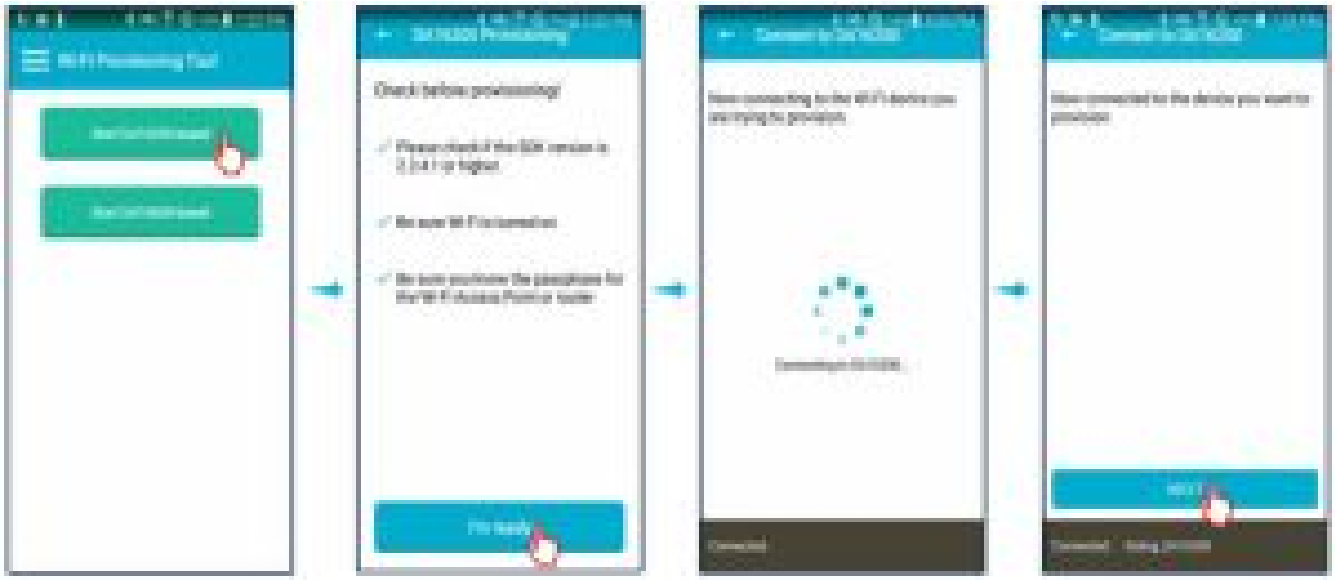
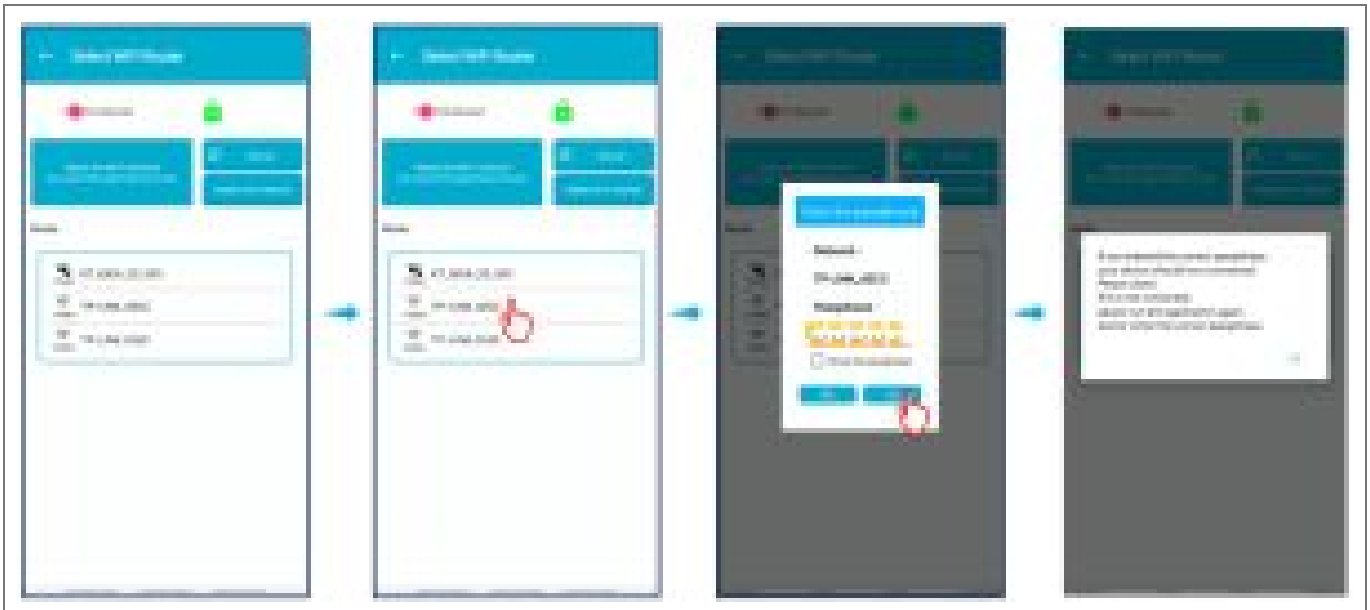


Figure 5: DA16200 Factory Reset or Switch Button

Test Provisioning on Android Phone

Start the Dialog Provisioning Tool for Android and find the DA16200, and then do the following steps on your Android device:

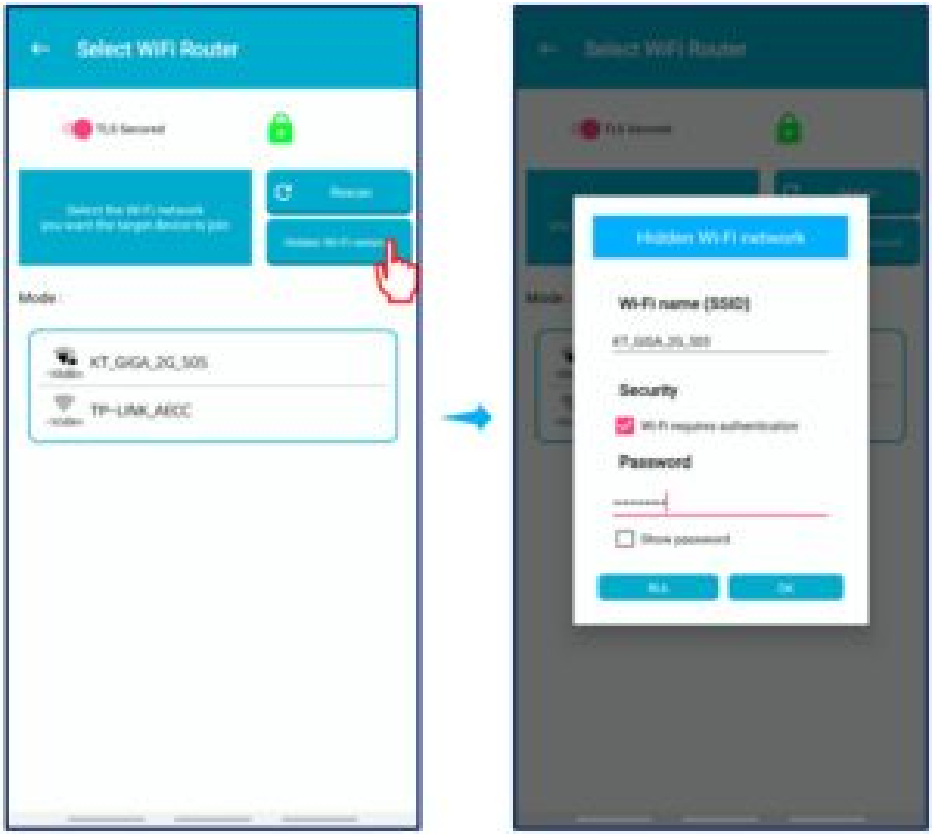
<table>
<tr><td colspan="4">  </td></tr>
<tr><td>1. Click the Start DA16200-based button.</td><td>2. Click the I’m ready to button.</td><td>3. DA16200 with “Dialog_DA16200” SSID automatically connects to app.</td><td>4. When the DA16200 and the phone are connected, click the NEXT button.</td></tr>
</table>



5. When the DA16200 and the phone socket are connected, the app receives Wi-Fi network information from the DA16200, and a list appears.	6. Click the name of the Wi-Fi network you want to connect to in the list.	7. Enter the password and click the **Go!** button.	Wi-Fi provisioning is completed.

Provisioning to Hidden Wi-Fi Network

You can connect the DA16200 to a hidden Wi-Fi network by directly entering the SSID and password of Wi-Fi network.



1. After the app is connected to the DA16200 Wi-Fi, click the Hidden Wi-Fi network button.	2. Enter the SSID and the password of Wi-Fi select the security option if needed, and then

Socket Switching

You can switch between TLS secured socket and an unsecured socket.
A green lock icon is displayed when a secure connection is established; a red lock is displayed if the connection is not secure.

Test Provisioning on iPhone

Start the Dialog Provisioning Tool for iOS and find the DA16200, and then do the following steps on your iPhone:

1. Click the **Start DA16200-based** button.	2. Click the **I'm ready** button.	3. Click the **Join** button to connect to the DA16200 with "Dialog_DA16200"	4. When the DA16200 and the phone are connected, click the **NEXT** button.

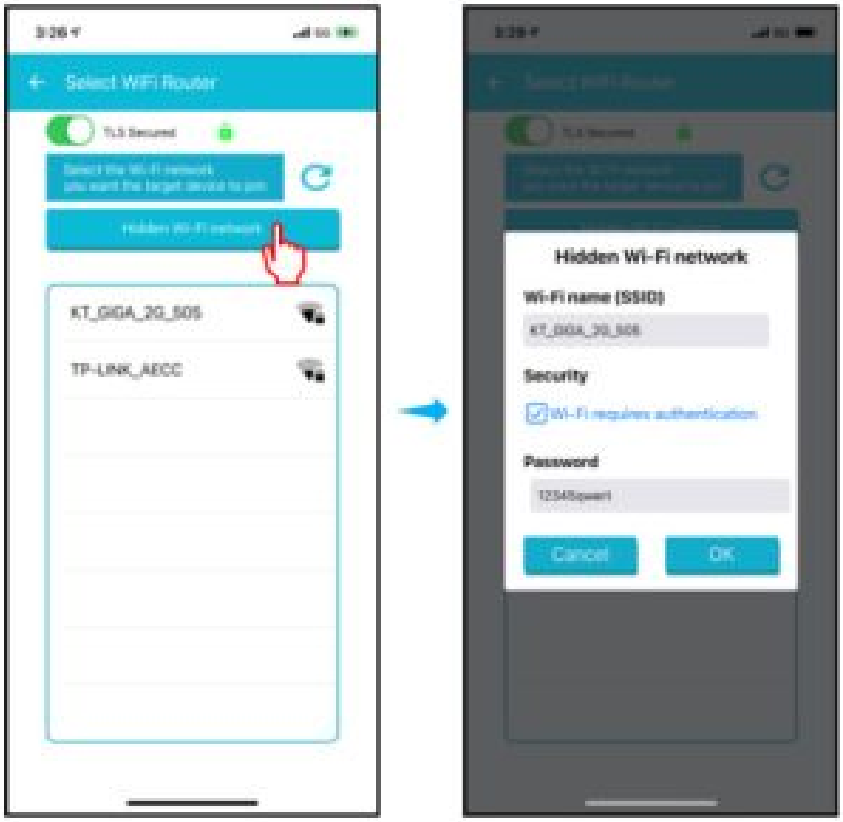
5. When the DA16200 and the phone socket are connected, the app receives Wi-Fi network information from the DA16200, and a list appears.	6. Click the name of the Wi-Fi network you want to connect to in the list.	7. Enter the password, and then click the **Go!** button.	Wi-Fi provisioning is completed.

When provisioning is completed successfully, the DA16200 is assigned an IP address as shown in Figure 6.

Figure 6: Console Log with Assigned IP Address

Provisioning to Hidden Wi-Fi Network

You can connect the DA16200 to a hidden Wi-Fi network by directly entering the SSID and password of Wi-Fi network.



1. After the app is connected to the DA16200 Wi-Fi, click the **Hidden Wi-Fi network** button.	2. Enter the SSID and the password of the Wi-F he security option if needed, and then click the

Socket Switching

You can switch between TLS secured socket and an unsecured socket.

A green lock icon is displayed when a secure connection is established; a red lock is displayed if the connection is not secure.

Test AWS IoT on Mobile Phone

If the DA16200 is provisioned using an SDK that supports AWS IoT, you can test AWS IoT with “Thing” pre-registered by Dialog Semiconductor.

NOTE
Contact Dialog Semiconductor to be assigned a test “Thing” name.

The AWS IoT application works in an environment as shown in Figure 7.

Figure 7: Architecture of AWS for IoT

Do the following steps on your mobile phone:

			
1. Click the **Menu** icon.	2. Click the **AWS IoT** button.	3. Click the lock icon to open the closed door.	4. The door status changes to open.

If provisioning is not performed in the SDK that supports AWS IoT or if the SDK that does not support AWS IoT is used, a pop-up window appears as shown in Figure 8.

Figure 8: Does not Support AWS IoT

Revision History

Revision	Date	Description
1.6	19-Jul-2021	• Added how to check the SDK version • Added information about the installation of mobile app • Added console log when provisioning completed successfully
1.5	14-Jul-2021	Added provisioning to hidden Wi-Fi network.
1.4	13-May-2021	Added AWS IoT application on DA16200.
1.3	21-Apr-2021	Added text to show supported SDK version.
1.2	05-Apr-2021	Changed UI according to operation scenario change.
1.1	24-Mar-2021	Changed UI text.
1.0	05-Mar-2021	First Release.

Status Definitions

Status	Definition
DRAFT	The content of this document is under review and subject to formal approval, which may result in modifications or additions.
APPROVED or unmarked	The content of this document has been approved for publication.

Disclaimer

RoHS Compliance

Dialog Semiconductor's suppliers certify that its products are in compliance with the requirements of Directive 2011/65/EU of the European Parliament on the restriction of the use of certain hazardous substances in electrical and electronic equipment. RoHS certificates from our suppliers are available on request.

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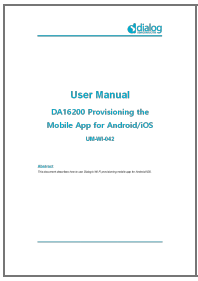
https://www.dialog-semiconductor.com/contact/sales-offices

Documents / Resources

	**dialog DA16200 Provisioning the Mobile App for Android/iOS** [pdf] User Manual DA16200 Provisioning the Mobile App for Android-iOS, DA16200, Provisioning the Mobile App for Android-iOS