

<b>PCN Number:</b>		20190618000.0		<b>PCN Date:</b>		June 26, 2019	
<b>Title:</b>		CC3120 and CC3220 Fast Connect Issue Notification					
<b>Customer Contact:</b>		<a href="#">PCN Manager</a>		<b>Dept:</b>		Quality Services	
<b>Change Type:</b>							
<input type="checkbox"/>	<a href="#">Assembly Site</a>	<input type="checkbox"/>	<a href="#">Assembly Process</a>	<input type="checkbox"/>	<a href="#">Assembly Materials</a>	<input type="checkbox"/>	<a href="#">Mechanical Specification</a>
<input checked="" type="checkbox"/>	<a href="#">Software/Firmware</a>	<input type="checkbox"/>	<a href="#">Electrical Specification</a>	<input type="checkbox"/>	<a href="#">Test Process</a>	<input type="checkbox"/>	<a href="#">Wafer Bump Process</a>
<input type="checkbox"/>	<a href="#">Test Site</a>	<input type="checkbox"/>	<a href="#">Packing/Shipping/Labeling</a>	<input type="checkbox"/>	<a href="#">Wafer Bump Material</a>	<input type="checkbox"/>	<a href="#">Wafer Fab Process</a>
<input type="checkbox"/>	<a href="#">Wafer Bump Site</a>	<input type="checkbox"/>	<a href="#">Wafer Bump Material</a>	<input type="checkbox"/>	<a href="#">Wafer Fab Materials</a>	<input type="checkbox"/>	<a href="#">Wafer Fab Process</a>
<input type="checkbox"/>	<a href="#">Wafer Fab Site</a>	<input type="checkbox"/>	<a href="#">Wafer Fab Materials</a>	<input type="checkbox"/>	<a href="#">Part number change</a>	<input type="checkbox"/>	
<b>PCN Details</b>							
<b>Description of Change:</b>							
<p>This notification is to inform of a use-specific issue impacting the CC3120 and CC3220 where the network processor (NWP) of the device can potentially enter an unusable state. The issue only occurs in certain use scenarios: if using the <u>fast connect feature</u> available on CC3120 and CC3220 <u>in conjunction with</u> specific Access Point (AP) <u>authentication modes</u>.</p> <p>There are various ways to resolve this potential issue. (1) apply a NWP servicepack update (through device programming of the flash or OTA provisions) that fixes this issue, or (2) disable the fast connect feature or (3) limit/control the authentication mode of the AP. If the issue is encountered, it is recoverable through the HW restore to factory mechanism.</p> <p>This issue does not affect CC3100, CC3200, CC3135, or CC3235 devices.</p> <p><b>Issue description:</b></p> <p>This issue occurs when the fast connect feature is enabled on the affected devices <u>and</u> the AP that the device is connected to has <u>at least two</u> of the following authentication modes enabled:</p> <ul style="list-style-type: none"> <li>• WPA2/PSK</li> <li>• WPA2/EAP</li> <li>• WPA2/FT using PSK (802.11r fast transition/fast roaming)</li> </ul> <p>Only in these scenarios will the NWP encounter an error and halt execution when attempting to reconnect with fast connect to the AP. Based on the currently available information, it seems that [WPA2/PSK + WPA2/FT using PSK] is the most likely use case with regards to the issue, and this case can be encountered with mesh AP setups. This authentication combination is generally labelled as "802.11r", "fast transition", "fast roaming", or similar in the AP firmware.</p> <p>The error will happen immediately after the NWP is started because the fast connect operation is carried out directly after initialization. Once the error has occurred, this state is persistent across device reset, and the hardware restore to factory mechanism is needed to restore the device.</p> <p><b>Issue resolution:</b></p> <p>An NWP servicepack update for the CC3120 and CC3220 is available (see links below). Servicepack versions 3.11.1.0 and higher have the necessary fix, and it is highly recommended that devices running on older versions are updated as soon as possible.</p> <p>The issue can also be avoided by disabling the fast connect feature on affected devices. Other methods of associating with a Wi-Fi network such as auto connect are not affected. Disabling fast connect will avoid this issue while maintaining the functionality of the device. If the issue is encountered, it is recoverable through the HW restore to factory mechanism.</p>							

NWP servicepack updates are available at:

<http://www.ti.com/tool/download/SIMPLELINK-CC32XX-SDK>

<http://www.ti.com/tool/download/SIMPLELINK-SDK-WIFI-PLUGIN>

Questions about this issue may be directed to: [gen2\\_wifi\\_fastconnect@list.ti.com](mailto:gen2_wifi_fastconnect@list.ti.com)

**Reason for Change:**

SDK (Firmware) update to account for fast connect issue

**Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):**

None

**Changes to product identification resulting from this PCN:**

None

**Product Affected:**

CC3120MODRNMMOBR	CC3220MODSF12MOBR	CC3220SF12ARGKT	XCC3120RNMRGK
CC3120RNMRGKR	CC3220MODSM2MOBR	CC3220SF12RGKR	XCC3120RNMRGKT
CC3120RNMRGKT	CC3220RM2ARGKR	CC3220SF12RGKT	XCC3120ZNRGK
CC3120RNMRGKR	CC3220RM2ARGKT	CC3220SM2ARGKR	XCC3220RM2RGK
CC3120RNMRGKT	CC3220RM2RGKR	CC3220SM2ARGKT	XCC3220SF12RGK
CC3220MODASF12MONR	CC3220RM2RGKT	CC3220SM2RGKR	XCC3220SM2RGK
CC3220MODASM2MONR	CC3220SF12ARGKR	CC3220SM2RGKT	XCC3220ZM2RGK

For questions regarding this notice, e-mails can be sent to the regional contacts shown below or your local Field Sales Representative.

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