

1 Takumi-cho, Sakai-ku, Sakai City, Osaka 590-8522, Japan
Tel : 81-50-5433-4157

WLAN Channel 12 & 13 Declaration Letter

To whom it may concern:

We have declared below featured for FCC equipment authorization in regard to 802.11b/g/n channel 12 & 13 operating capability for FCC ID: APYHRO00307.

Please check	
☐	Product hardware does not have the capability to operate on channel 12 & 13
☐	Product hardware has the capability to operate on channel 12 & 13. However, these 2 channels will be disabled via software and user will not be able to enable these 2 channels
☒	Product hardware has the capability to operate on channel 12 & 13. And meeting KDB 594280 D01 requirement. Pls explain detail here. The control of the WLAN function equipped in this device is not dependent on the information from the Access Point but is performed by "MCC" and "MNC" directly acquired from the network carrier and this operation is according to clause IV.B.1 (b) - (2) of the KDB594280 D01. Refer to a separate submitted report for actual operation of this device. <i>12-2_WLAN_Software configuration information for restriction_APYHRO00307.pdf</i>
☐	Others Pls explain detail here.

Company Name: Sharp Corporation

Address : 1 Takumi-cho, Sakai-ku, Sakai City Osaka Japan 590-8522

Name / Title : Taihei Ohtsuka / General Manager, Quality Promotion Division,
Quality and Environmental Promotion Office

Signature : 

Email : fcc-contact@sharp.co.jp

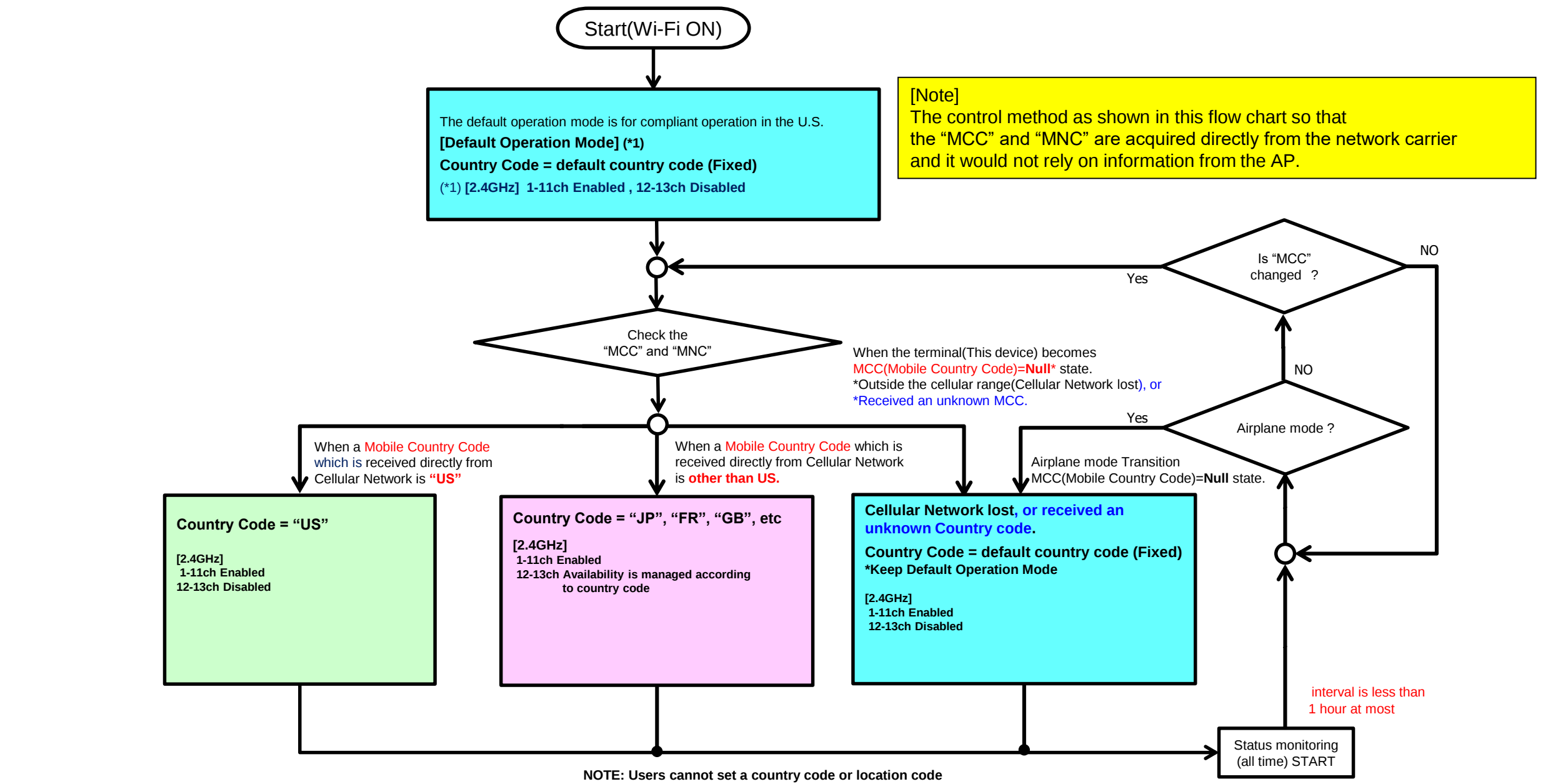
Date : March 11, 2022

Verification report of control algorithm is accordance with KDB594280

FCC ID : APYHRO00307

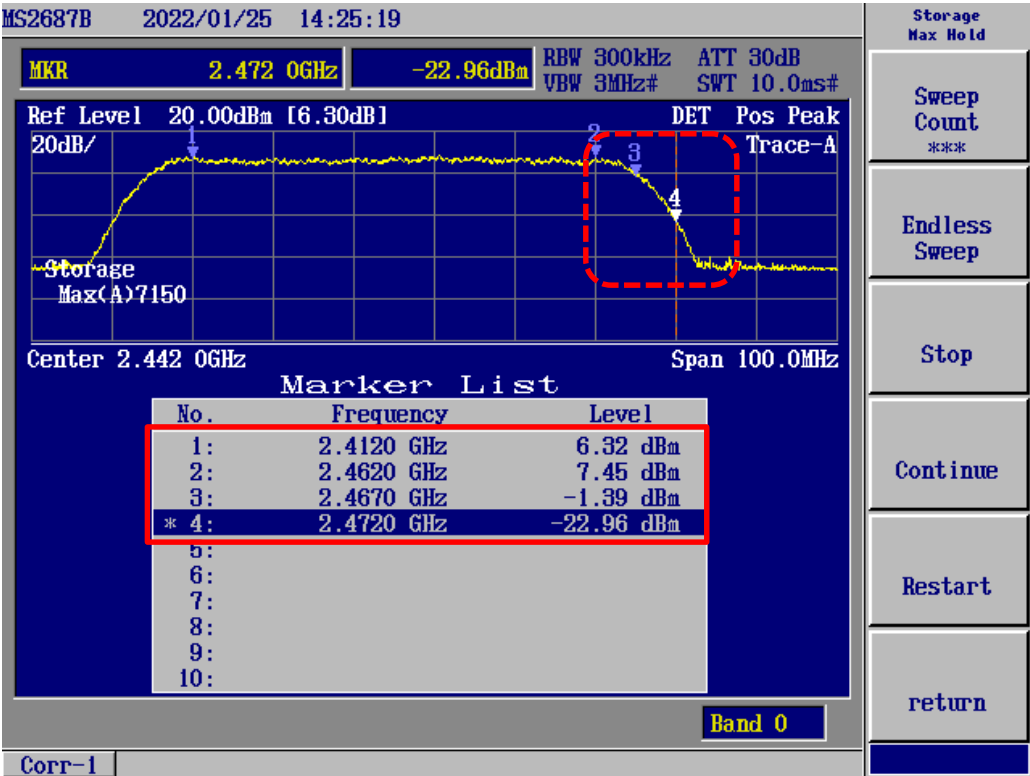
Date : 2022 February-17th

◆Channel Control Algorithm Flowchart

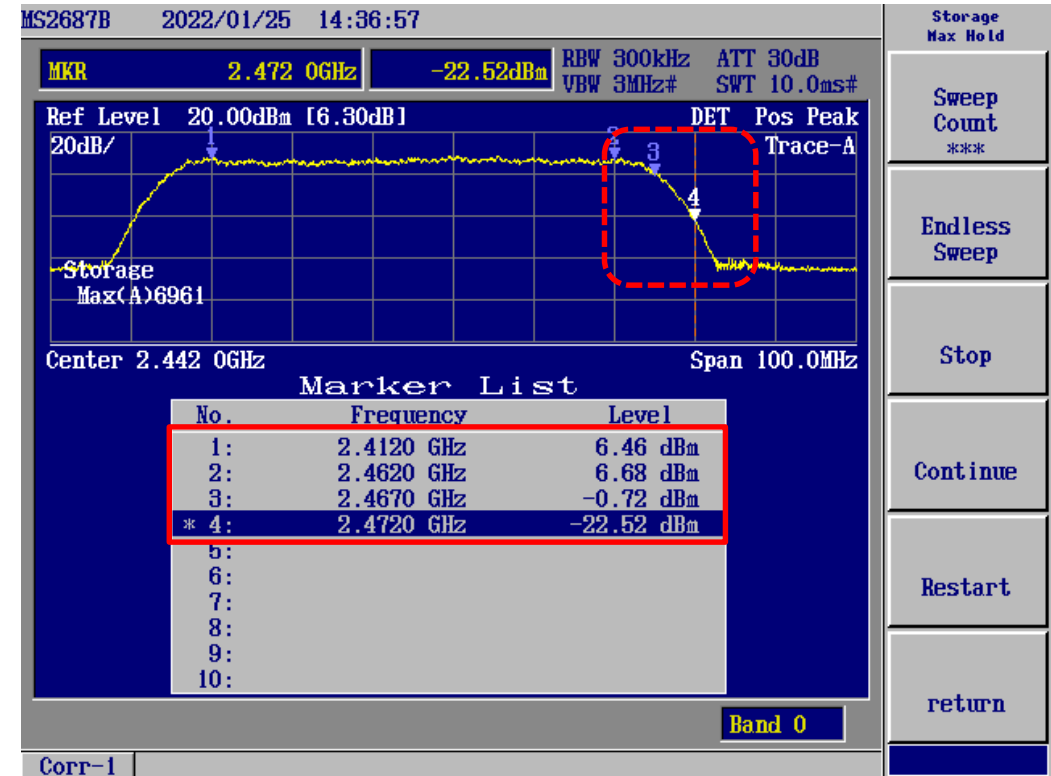


◆Scan Waveform on 2.4GHz(Country Code=default country code, US)

[CC=default country code]



[CC="US"]

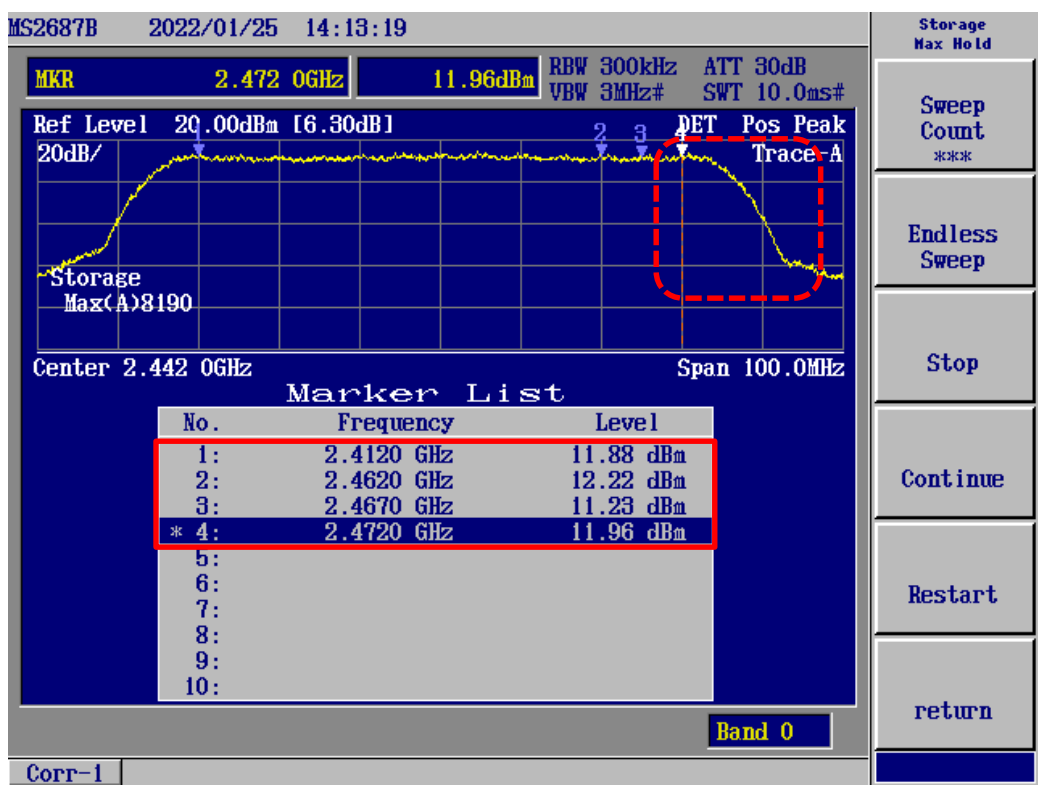


1-11ch = Enabled
12-13ch = Disabled
⇒ Operation Check Result = OK

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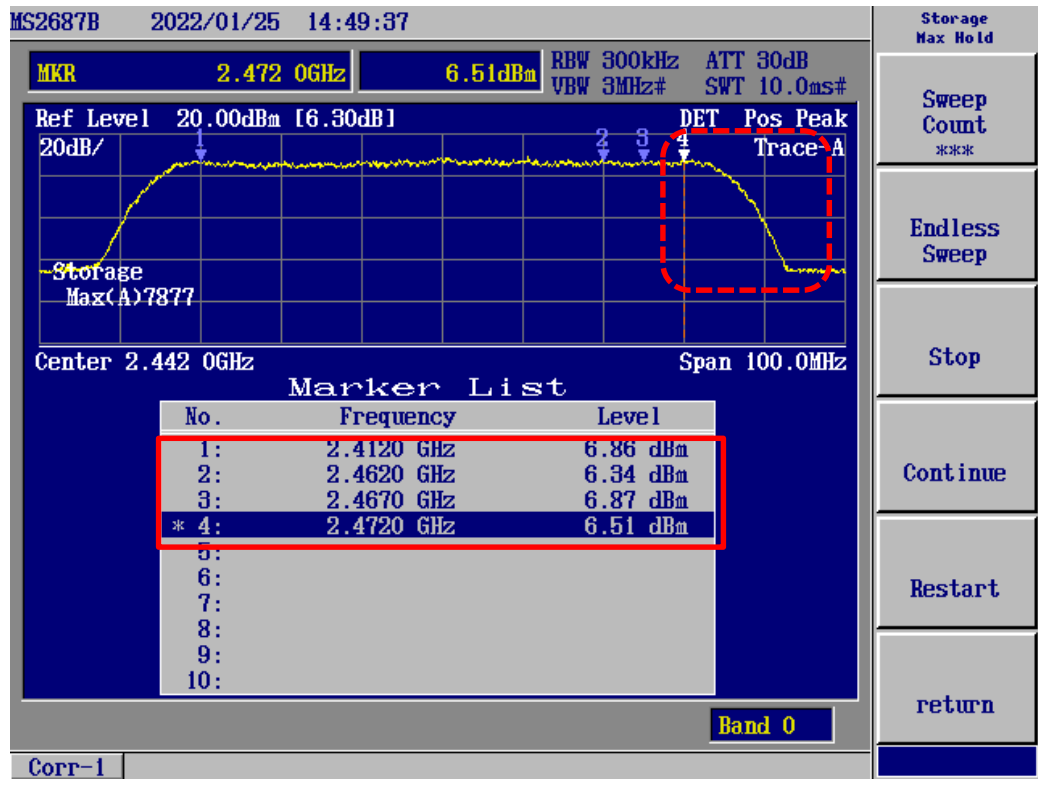
◆Scan Waveform on 2.4GHz(Country Code=JP, FR)

[CC="JP"]



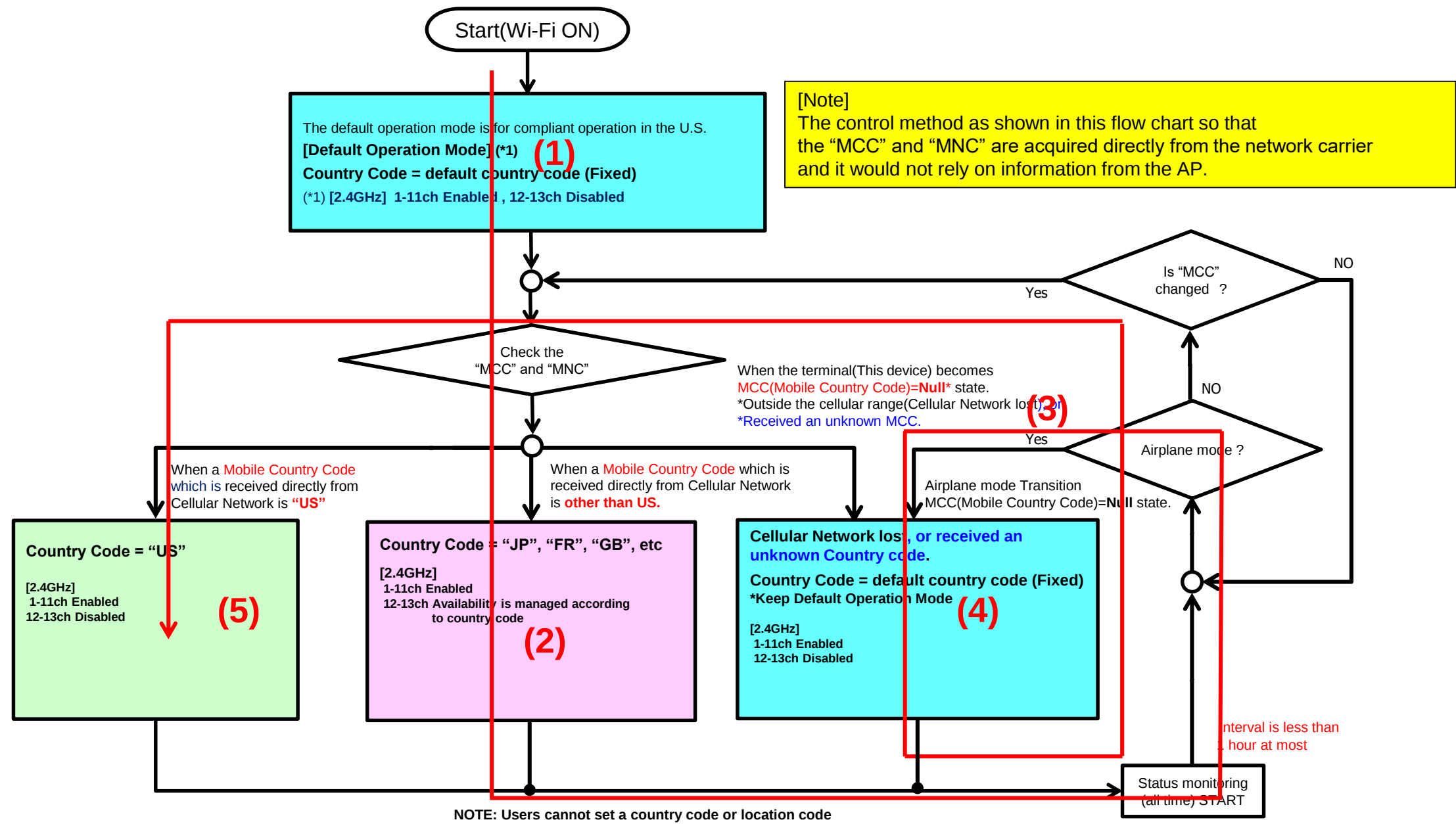
1-13ch = Enabled
⇒ Operation Check Result = OK

[CC="FR"]



1-13ch = Enabled
⇒ Operation Check Result = OK

◆Channel Control Algorithm Flowchart



◆Verification Pattern (Operation check result)

Check Result = OK

Result.txt - メモ帳

ファイル(E) 編集(E) 書式(O) 表示(V) ヘルプ(H)

```
02-15 19:26:22.928 D/wpa_supplicant(18749): wpa_driver_nl80211_driver_cmd COUNTRY 03 len = 0, 4096
02-15 19:26:22.934 D/wpa_supplicant(18749): nl80211: Regulatory information - country=03 (DFS-FCC)
```

- (1) 1; Terminal start-up and Wi-Fi startup, Start default Country Code (ex."03" : Ch-12,13 are disabled)
Effective frequency range = 2402-2472MHz(1-11ch=enable,12-13ch=disable)

```
02-15 19:26:25.738 D/LocaleTracker-0( 2739): updateLocale: countryIso = jp, countryIsoDebugInfo = OperatorNumeric(44051): MccTable.countryCodeForMcc("440")
02-15 19:26:25.741 D/wpa_supplicant(18749): wpa_driver_nl80211_driver_cmd COUNTRY JP len = 0, 4096
02-15 19:26:25.743 D/wpa_supplicant(18749): nl80211: Regulatory information - country=JP (DFS-JP)
```

- (2) 2; Get MCC from Cellular network (Japan Operator-C),
Change Country Code(default country code -> "JP") (Ch-12,13 are enabled)
Effective frequency range = 2402-2482MHz(1-13ch=enable)

```
2-15 19:26:27.769 I/DeviceStatusMonitor(12430): DeviceStatusMonitor.notifyIfNetworkChanged():180 notifyIfNetworkChanged: newState = NO_CONNECTION, airplaneModeOn = true, notifyAnyway = false
```

- (3) 3; Airplane mode transition (MCC : "JP"->"NULL")

```
02-15 19:26:29.639 D/wpa_supplicant(18879): wpa_driver_nl80211_driver_cmd COUNTRY 03 len = 0, 4096
02-15 19:26:29.640 D/wpa_supplicant(18879): nl80211: Regulatory information - country=03 (DFS-FCC)
```

- (4) 4; Lost MCC from Cellular network (with Outside of the Cellular network),
Change Country Code ("JP" -> default country code) (Ch-12,13 are disabled)
Effective frequency range = 2402-2472MHz(1-11ch=enable,12-13ch=disable)

```
02-15 19:26:32.680 D/LocaleTracker-0( 2739): updateLocale: countryIso = jp, countryIsoDebugInfo = OperatorNumeric(31010): MccTable.countryCodeForMcc("310")
02-15 19:26:32.685 D/wpa_supplicant(18879): wpa_driver_nl80211_driver_cmd COUNTRY US len = 0, 4096
02-15 19:26:32.687 D/wpa_supplicant(18879): nl80211: Regulatory information - country=US (DFS-FCC)
```

- (5) 5; Airplane mode Release and Get MCC from Cellular network (US Operator-A*) *Base station simulator
Change Country Code (default country code -> "US")(Ch-12,13 are disabled)
Effective frequency range = 2402-2472MHz(1-11ch=enable,12-13ch=disable)