Client:	Zebra Technologies	Job Number:	JD100761
Product	AP-7532	T-Log Number:	T100809
System Configuration:	-	Project Manager:	Christine Krebill
Contact:	Mark Luksich	Project Coordinator:	-
Emissions Standard(s):	Client Defined Requirements	Class:	-
Immunity Standard(s):	-	Environment:	-

EMC Test Data

For The

Zebra Technologies

Product

AP-7532

Date of Last Test: 2/4/2016

Client:	Zebra Technologies	Job Number:	JD100761
Model:	AP-7532	T-Log Number:	T100809
		Project Manager:	Christine Krebill
Contact:	Mark Luksich	Project Coordinator:	-
Standard:	Client Defined Requirements	Class:	N/A

Client Specific Requirements

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Date of Test: 2/4/2016
Test Engineer: Mark Hill
Test Location: FT Lab#4

Config. Used: See Below
Config Change: -
EUT Voltage: POE

General Test Configuration

The AP-7532 (2.4/5GHz IEEE 802.11 access point) allows for an external, 3rd party device, to set the country code via SNMP command. The 3rd party device uses GPS to determine the location of the AP-7532. Within the AP-7532, the country code determines the available channels and the allowed output power and DFS operation to ensure compliance with the appropriate regulatory approval for the country. The country code can change on the fly without a reboot/reset.

Testing was performed to ensure that the AP-7532 will (1) default to a state that complies with all regulatory approvals (least channel set, highest power that complies with any and all regulatory restrictions, (2) set the allowed channels and output power to the appropriate regulatory restrictions for particular countries when instructed to by the 3rd party geo-location device.

The testing was performed as discussed in KDB 447197 and IC guidance received by Zebra on 11/25/2015.

Summary of Results

Run #	Test Performed	Pass/Fail	Comments
1	Confirmation of Default Settings	Pass	
2	Japan Settings	Pass	
3	US Settings	Pass	
4	Canada Settings	Pass	
5	Great Britain settings	Pass	

Modifications Made During Testing

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.

Client:	Zebra Technologies	Job Number:	JD100761
Model:	AP-7532	T-Log Number:	T100809
		Project Manager:	Christine Krebill
Contact:	Mark Luksich	Project Coordinator:	-
Standard:	Client Defined Requirements	Class:	N/A

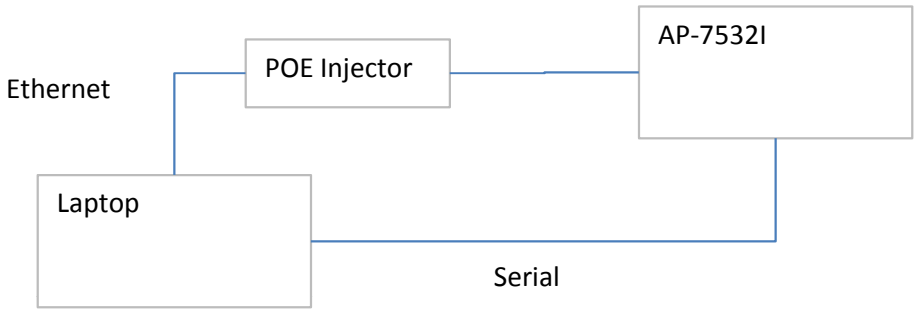
EQUIPMENT UNDER TEST

Company	Model	Description	Serial Number	FCC ID
Motorola Solutions	AP-7532I*	Dual Radio AP	14106522200777	UZ7AP7532I

* - the AP-7532I uses the same firmware as the AP-7532 (FCC IDL UZ7AP7532). Results considered representative for both models

Support Equipment

Company	Model	Description	Serial Number	FCC ID
HP	Elitebook 8460p	Laptop Computer	-	-



Laptop Setup:

The laptop was running two applications. (1) SNMP read/write application used to simulate the 3rd party device that would provide the country code information to the AP-7532, (2) PUTTY - terminal program used to enter CLI instructions to configure and determine the status of the AP-7532.

Notes:

The AP-7532 utilizes a "smartRF" function that allows the radios to determines the best channel and output power settings, within the country code restrictions. This function can be disabled by CLI instructions that set the channel and power manually. The AP-7532 can also be configured for indoor or outdoor installations via CLI/SNMP.

Assumptions:

RF spectrum and power was not observed. It is assumed that the CLI information accurately displays the operation of the test sample. The specific country code system restrictions are consistent with the respective regulatory approvals.

Client:	Zebra Technologies	Job Number:	JD100761
Model:	AP-7532	T-Log Number:	T100809
		Project Manager:	Christine Krebill
Contact:	Mark Luksich	Project Coordinator:	-
Standard:	Client Defined Requirements	Class:	N/A

Run #1: Confirmation of Default Settings

Procedure:

1) EUT was reset to factory configuration
2) Created a VLAN, assigned SSID and IP address (done by the customer prior to install)
3) Verified Radio status
To confirm that CLI commands could not result in channel/power in operation beyond the default regulatory restrictions the following tests were performed:
4) Instructed R1 (2.4GHz radio) to move to channel 13
5) Instructed R1 to set power to 18dBm conducted
6) Instructed R2 (5GHz radio) to channel 36
7) Instructed R2 to set power at 20dBm conducted

Limit:

Ensure that the default configuration results in an configuration that would meet any regulatory requirements, independent of country.

Results:

1. Reset to Factory Configuration
Result: Sample was reset to factory configuration

2. VLAN created, SSID and IP address assigned
Result: Sample was configured for default operation, no country code was entered in at this time

3a. Verification of Regulatory Domain Setting

```
ap7532-15E604(config-rf-domain-default)#show context

rf-domain default
 country-code g7
 use nsight-policy default
ap7532-15E604(config-rf-domain-default)#
```

Result: Country code is set to g7, default country code

Client:	Zebra Technologies	Job Number:	JD100761
Model:	AP-7532	T-Log Number:	T100809
		Project Manager:	Christine Krebill
Contact:	Mark Luksich	Project Coordinator:	-
Standard:	Client Defined Requirements	Class:	N/A

3b. Radio Status for Default Configuration (g7)
Power listed is Conducted Power

```
ap7532-15E604#show wireless radio

-------------------------------------------------------------------------------------------
RADIO              RADIO-MAC           RF-MODE       STATE      CHANNEL    POWER #CLIENT
-------------------------------------------------------------------------------------------
ap7532-15E604:R1   FC-0A-81-A3-20-E0 2.4GHz-wlan         On    11 (  smt) 16 (smt)      0
ap7532-15E604:R2   FC-0A-81-A3-0B-30   5GHz-wlan        Off   N/A (  smt)  0 (smt)      0
-------------------------------------------------------------------------------------------
Total number of radios displayed: 2
ap7532-15E604#
```

Result: R1 operation on channel 11 at 16dBm conducted (4dBi antenna gain) - R2 is off

3c. Allowed Channel/Power Output for Default Configuration (g7)
Power listed is EIRP

```
ap7532-15E604#show wireless regulatory device-type ap7532 g7

-------------------------------------------------------------------------------------------
 #  Channel Set Power(mW) Power (dBm)    Placement         DFS      CAC(mins)       TPC
-------------------------------------------------------------------------------------------
 1   1-11       100       20          Indoor/Outdoor   NA            NA        NA
 2   0-0        0         0           Indoor           Not Required  0         Not Required
-------------------------------------------------------------------------------------------
ap7532-15E604#
```

Result: R1 operation limited to channel 1-11 at a maximum output of 20dBm eirp, R2 has no available channels

4. CLI command to move R1 to channel 13

```
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio1)#
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio1)#channel 13
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio1)#com
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio1)#show wireless radio
-------------------------------------------------------------------------------------------
RADIO              RADIO-MAC           RF-MODE       STATE      CHANNEL    POWER #CLIENT
-------------------------------------------------------------------------------------------
ap7532-15E604:R1   FC-0A-81-A3-20-E0 2.4GHz-wlan        Off   N/A (   13)  0 (smt)      0
ap7532-15E604:R2   FC-0A-81-A3-0B-30   5GHz-wlan        Off   N/A (  smt)  0 (smt)      0
```

Result: R1 switches to an off state and prevented operation on Channel 13

Client:	Zebra Technologies	Job Number:	JD100761
Model:	AP-7532	T-Log Number:	T100809
		Project Manager:	Christine Krebill
Contact:	Mark Luksich	Project Coordinator:	-
Standard:	Client Defined Requirements	Class:	N/A

5. CLI command to set R1 power to 18dBm conducted (limited 16dBm conducted, based on 4dBi antenna gain). Channel reset to Channel 1

```
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio1)#show wireless radio
-------------------------------------------------------------------------------------------
RADIO            RADIO-MAC          RF-MODE      STATE     CHANNEL    POWER #CLIENT
-------------------------------------------------------------------------------------------
ap7532-15E604:R1    FC-0A-81-A3-20-E0 2.4GHz-wlan         On    1 (   1) 16 (smt)      0
ap7532-15E604:R2    FC-0A-81-A3-0B-30   5GHz-wlan        Off   N/A (  smt)  0 (smt)      0
-------------------------------------------------------------------------------------------
Total number of radios displayed: 2
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio1)#
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio1)#power 18
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio1)#commit
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio1)#show wireless radio
-------------------------------------------------------------------------------------------
RADIO            RADIO-MAC          RF-MODE      STATE     CHANNEL    POWER #CLIENT
-------------------------------------------------------------------------------------------
ap7532-15E604:R1    FC-0A-81-A3-20-E0 2.4GHz-wlan         On    1 (   1) 16 ( 18)      0
ap7532-15E604:R2    FC-0A-81-A3-0B-30   5GHz-wlan        Off   N/A (  smt)  0 (smt)      0
-------------------------------------------------------------------------------------------
Total number of radios displayed: 2
dap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio1)#..
```

Result: R1 moves to channel 1, power is limited to 16dBm conducted, the (18) indicates the requested setting

6. R2 (5GHz radio) set to channel 36

```
p7532-15E604(config-device-84-24-8D-15-E6-04-if-radio2)#channel 36
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio2)#commit
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio2)#show wireless radio
-------------------------------------------------------------------------------------------
RADIO            RADIO-MAC          RF-MODE      STATE     CHANNEL    POWER #CLIENT
-------------------------------------------------------------------------------------------
ap7532-15E604:R1    FC-0A-81-A3-20-E0 2.4GHz-wlan         On    1 (   1) 16 ( 18)      0
ap7532-15E604:R2    FC-0A-81-A3-0B-30   5GHz-wlan        Off   N/A (  36)  0 (smt)      0
-------------------------------------------------------------------------------------------
Total number of radios displayed: 2
```

Result: R2 remains in an off state

Client:	Zebra Technologies	Job Number:	JD100761
Model:	AP-7532	T-Log Number:	T100809
		Project Manager:	Christine Krebill
Contact:	Mark Luksich	Project Coordinator:	-
Standard:	Client Defined Requirements	Class:	N/A

7. R2 (5GHz radio) power is set to 20dBm conducted

```
p7532-15E604(config-device-84-24-8D-15-E6-04-if-radio2)#power 20
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio2)#commit
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio2)#show wireless radio
-------------------------------------------------------------------------------------------
RADIO            RADIO-MAC          RF-MODE      STATE     CHANNEL    POWER #CLIENT
-------------------------------------------------------------------------------------------
ap7532-15E604:R1   FC-0A-81-A3-20-E0 2.4GHz-wlan        On    1 (   1) 16 ( 18)      0
ap7532-15E604:R2   FC-0A-81-A3-0B-30  5GHz-wlan        Off  N/A (  36)  0 ( 20)      0
-------------------------------------------------------------------------------------------
Total number of radios displayed: 2
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio2)#
```

Result: R2 remains in an off state

Summary of results for Default Configuration Assessment:

The default configuration limits operation to channels 1-11 in the 2.4GHz band. Power is limited to 20dBm EIRP. Attempts to enable R2, set R1 to a channel outside of the country code restrictions or at a higher power resulted in the radios remaining in or changing to an off-state. We were unable to force the radio to operate outside of the default channel/power restrictions.

Client:	Zebra Technologies	Job Number:	JD100761
Model:	AP-7532	T-Log Number:	T100809
		Project Manager:	Christine Krebill
Contact:	Mark Luksich	Project Coordinator:	-
Standard:	Client Defined Requirements	Class:	N/A

Run #2: Confirmation of Japan Settings

Procedure:

Starting with the system in a default configuration, with "smartRF" turned off (per the end of Run #1)
1) SNMP application was configured to write the Japan (jp) country-code to the EUT
2) Verified the radio status
3) Change placement flag from indoor to outdoor
4) R1 channel set to 13
5) R2 channel set to 100

Limit:

Ensure that the system correctly changes from the default setting to the Japan setting, and that the Japan configuration results in operated restricted appropriately.

Results:

2a. Verification of Regulatory Domain Setting

```
ap7532-15E604(config-rf-domain-default)#show context rf-domain default
 country-code jp
 use nsight-policy default
ap7532-15E604(config-rf-domain-default)#
ap7532-15E604(config-rf-domain-default)#
```

Result: Country code is set to jp

Client:	Zebra Technologies	Job Number:	JD100761
Model:	AP-7532	T-Log Number:	T100809
		Project Manager:	Christine Krebill
Contact:	Mark Luksich	Project Coordinator:	-
Standard:	Client Defined Requirements	Class:	N/A

2b. Radio Status for Japan Configuration (jp)
Power listed is Conducted Power

```
ap7532-15E604(config-rf-domain-default)#show wireless radio
-------------------------------------------------------------------------------------------
RADIO              RADIO-MAC           RF-MODE       STATE      CHANNEL    POWER #CLIENT
-------------------------------------------------------------------------------------------
ap7532-15E604:R1   FC-0A-81-A3-20-E0 2.4GHz-wlan        On     1 (    1) 16 ( 18)       0
ap7532-15E604:R2   FC-0A-81-A3-0B-30   5GHz-wlan        On    36 (   36) 15 ( 20)       0
-------------------------------------------------------------------------------------------
Total number of radios displayed: 2
```

Result: R1 operation on channel 1 at 16dBm conducted, R2 operation is on channel 36 at 15dBm conducted. Note the "smartRF" feature is off due to the forced channel/power settings done in evaluation of the default configuration. Values in the parentheses ( ) are the user desired settings

2c. Allowed Channel/Power Output for Japan Configuration (jp)
Power listed is EIRP

```
ap7532-15E604(config-rf-domain-default)#show wireless regulatory device-type ap7532 jp
-------------------------------------------------------------------------------------------
 #  Channel Set Power(mW) Power (dBm)    Placement         DFS      CAC(mins)       TPC
-------------------------------------------------------------------------------------------
 1   1-11       200      23          Indoor/Outdoor   NA            NA       NA
 2   12-13      200      23          Indoor/Outdoor   NA            NA       NA
 3   36-48      200      23          Indoor           Not Required  0        Not Required
 4   52-64      200      23          Indoor           Required      1        Required
 5   52-64      100      20          Indoor           Required      1        Not Required
 6   100-136    900      29          Indoor/Outdoor   Required      1        Required
 7   100-136    450      26          Indoor/Outdoor   Required      1        Not Required
 8   140-140    900      29          Indoor/Outdoor   Required      1        Required
 9   140-140    450      26          Indoor/Outdoor   Required      1      --More--          Not Required
--More--         -------------------------------------------------------------------------------------------
ap7532-15E604(config-rf-domain-default)#
```

Result: R1 operation limited to channel 1-13 at a maximum output of 23dBm eirp, R2 has channels 36-64, 100-136, and 140. Channels 36-64 are limited to indoor use.

Client:	Zebra Technologies	Job Number:	JD100761
Model:	AP-7532	T-Log Number:	T100809
		Project Manager:	Christine Krebill
Contact:	Mark Luksich	Project Coordinator:	-
Standard:	Client Defined Requirements	Class:	N/A

3. Changed placement flag from indoor to outdoor (jp)

```
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio2)#show ishow wireless radio
-----------------------------------------------------------------------------------------------
RADIO             RADIO-MAC           RF-MODE       STATE      CHANNEL    POWER #CLIENT
-----------------------------------------------------------------------------------------------
ap7532-15E604:R1    FC-0A-81-A3-20-E0 2.4GHz-wlan          On     1 (    1) 16 ( 18)      0
ap7532-15E604:R2    FC-0A-81-A3-0B-30   5GHz-wlan         Off   N/A (   36)  0 ( 20)      0
-----------------------------------------------------------------------------------------------
Total number of radios displayed: 2
```

Result: R2 operation set to off, due to fixed channel 36 setting. Channel 36 not allowed outdoors. See 2c result above.

4. R1 channel set to 13 (jp)

```
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio1)#show wireless radio
-----------------------------------------------------------------------------------------------
RADIO             RADIO-MAC           RF-MODE       STATE      CHANNEL    POWER #CLIENT
-----------------------------------------------------------------------------------------------
ap7532-15E604:R1    FC-0A-81-A3-20-E0 2.4GHz-wlan          On    13 (   13) 16 ( 18)      0
ap7532-15E604:R2    FC-0A-81-A3-0B-30   5GHz-wlan         Off   N/A (   36)  0 ( 20)      0
-----------------------------------------------------------------------------------------------
Total number of radios displayed: 2
```

Result: R1 moved to channel 13 (under default configuration this was prohibited and resulted in the R1 turning off)

Client:	Zebra Technologies	Job Number:	JD100761
Model:	AP-7532	T-Log Number:	T100809
		Project Manager:	Christine Krebill
Contact:	Mark Luksich	Project Coordinator:	-
Standard:	Client Defined Requirements	Class:	N/A

5. R2 channel set to 100 (jp)

```
ap7532-15E604(config-device-84-24-8D-15-E6-04)#interface radio 2
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio2)#channel 100
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio2)#com
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio2)#show wireless radio
-------------------------------------------------------------------------------------------
RADIO            RADIO-MAC          RF-MODE      STATE      CHANNEL    POWER #CLIENT
-------------------------------------------------------------------------------------------
ap7532-15E604:R1    FC-0A-81-A3-20-E0 2.4GHz-wlan         On    13 (   13) 16 ( 18)      0
ap7532-15E604:R2    FC-0A-81-A3-0B-30   5GHz-wlan   Radar Scan   100 (  100) 15 ( 20)      0
-------------------------------------------------------------------------------------------
Total number of radios displayed: 2
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio2)#
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio2)#show wireless radio
-------------------------------------------------------------------------------------------
RADIO            RADIO-MAC          RF-MODE      STATE      CHANNEL    POWER #CLIENT
-------------------------------------------------------------------------------------------
ap7532-15E604:R1    FC-0A-81-A3-20-E0 2.4GHz-wlan         On    13 (   13) 16 ( 18)      0
ap7532-15E604:R2    FC-0A-81-A3-0B-30   5GHz-wlan   Radar Scan   100 (  100) 15 ( 20)      0
-------------------------------------------------------------------------------------------
Total number of radios displayed: 2
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio2)#show wireless radio

-------------------------------------------------------------------------------------------
RADIO            RADIO-MAC          RF-MODE      STATE      CHANNEL    POWER #CLIENT
-------------------------------------------------------------------------------------------
ap7532-15E604:R1    FC-0A-81-A3-20-E0 2.4GHz-wlan         On    13 (   13) 16 ( 18)      0
ap7532-15E604:R2    FC-0A-81-A3-0B-30   5GHz-wlan         On   100 (  100) 15 ( 20)      0
-------------------------------------------------------------------------------------------
Total number of radios displayed: 2
```

Result: R2 moved to channel 100 and started a DFS CAC check. Afterwards, R2 changed to an on state after CAC.

Summary of results for Japan Configuration Assessment:

The Japan configuration limits operation to channels those allowed by the Japan allocation. The maximum allowed powers increase from the default configuration. If the placement flag is set to outdoors on a channel not allocated for outdoor use, the EUT turns the radio off.

Client:	Zebra Technologies	Job Number:	JD100761
Model:	AP-7532	T-Log Number:	T100809
		Project Manager:	Christine Krebill
Contact:	Mark Luksich	Project Coordinator:	-
Standard:	Client Defined Requirements	Class:	N/A

Run #3: Confirmation of United States Settings

Procedure:

Starting with the system in a JP configuration, with "smartRF" turned off (per the end of Run #2). R1 channel is set to 13, and R2 is set to 100. Outdoor position setting.
1) SNMP application was configured to write the United States (US) country-code to the EUT
2) Verified the radio status
3) Changed R1 and R2 to enable "smartRF", allowing the system to auto selection channel/power

Limit:

Ensure that the system correctly changes to the US setting, and that the US configuration results in operated restricted appropriately.

Results:

2a. Verification of Regulatory Domain Setting

```
ap7532-15E604(config-rf-domain-default)#show context
rf-domain default
 country-code us
 use nsight-policy default
```

Result: Country code is set to US

Client:	Zebra Technologies	Job Number:	JD100761
Model:	AP-7532	T-Log Number:	T100809
		Project Manager:	Christine Krebill
Contact:	Mark Luksich	Project Coordinator:	-
Standard:	Client Defined Requirements	Class:	N/A

2b. Radio Status for United States Configuration (us)
Power listed is Conducted Power

```
ap7532-15E604(config-rf-domain-default)#show wireless radio
-------------------------------------------------------------------------------------------
RADIO             RADIO-MAC          RF-MODE       STATE      CHANNEL    POWER #CLIENT
-------------------------------------------------------------------------------------------
ap7532-15E604:R1    FC-0A-81-A3-20-E0 2.4GHz-wlan         Off   N/A (   13)  0 ( 18)      0
ap7532-15E604:R2    FC-0A-81-A3-0B-30   5GHz-wlan   Radar Scan   100 (  100) 15 ( 20)      0
-------------------------------------------------------------------------------------------
Total number of radios displayed: 2
ap7532-15E604(config-rf-domain-default)#show wireless regulatory device-type ap7
532 g7
show wireless regulatory device-type ap7
532 usadio
-------------------------------------------------------------------------------------------
RADIO             RADIO-MAC          RF-MODE       STATE      CHANNEL    POWER #CLIENT
-------------------------------------------------------------------------------------------
ap7532-15E604:R1    FC-0A-81-A3-20-E0 2.4GHz-wlan         Off   N/A (   13)  0 ( 18)      0
ap7532-15E604:R2    FC-0A-81-A3-0B-30   5GHz-wlan         On   100 (  100) 15 ( 20)      0
-------------------------------------------------------------------------------------------
Total number of radios displayed: 2
 ap7532-15E604(config-rf-domain-default)#
```

Result: R1 was in off state (channel fixed to outside the US allocation). R2 started a new DFS CAC scan, due being on channel 100. Afterwards, R2 changed to an on state after CAC.

Client:	Zebra Technologies	Job Number:	JD100761
Model:	AP-7532	T-Log Number:	T100809
		Project Manager:	Christine Krebill
Contact:	Mark Luksich	Project Coordinator:	-
Standard:	Client Defined Requirements	Class:	N/A

2c. Allowed Channel/Power Output for United States Configuration (us)
Power listed is EIRP

ap7532-15E604(config-rf-domain-default)#show wireless regulatory device-type ap7532 us

#	Channel Set	Power(mW)	Power (dBm)	Placement	DFS	CAC(mins)	TPC
1	1-11	4000	36	Indoor/Outdoor	NA	NA	NA
2	36-48	4000	36	Indoor/Outdoor	Not Required	0	Not Required
3	52-64	1000	30	Indoor/Outdoor	Required	1	Required
4	52-64	500	27	Indoor/Outdoor	Required	1	Not Required
5	100-140	1000	30	Indoor/Outdoor	Required	1	Required
6	100-140	500	27	Indoor/Outdoor	Required	1	Not Required
7	149-165	4000	36	Indoor/Outdoor	Not Required	0	Not Required

ap7532-15E604(config-rf-domain-default)#

Result: R1 operation limited to channel 1-11 at a maximum output of 36dBm eirp, R2 has channels 36-64, 100-140, and 149-165.

Client:	Zebra Technologies	Job Number:	JD100761
Model:	AP-7532	T-Log Number:	T100809
		Project Manager:	Christine Krebill
Contact:	Mark Luksich	Project Coordinator:	-
Standard:	Client Defined Requirements	Class:	N/A

3. Set R1 and R2 to "smartRF" mode
Power listed is EIRP

```
ap7532-15E604(config-device-84-24-8D-15-E6-04)#interface arradio 1
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio1)#channel smart
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio1)#power smart
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio1)#..
ap7532-15E604(config-device-84-24-8D-15-E6-04)#interface radio 2
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio2)#channel smart
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio2)#power smart
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio2)#commit
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio2)#
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio2)#show wireless radio
-------------------------------------------------------------------------------------------
RADIO             RADIO-MAC           RF-MODE       STATE      CHANNEL    POWER #CLIENT
-------------------------------------------------------------------------------------------
ap7532-15E604:R1    FC-0A-81-A3-20-E0 2.4GHz-wlan          On     1 (  smt) 16 (smt)       0
ap7532-15E604:R2    FC-0A-81-A3-0B-30   5GHz-wlan          On   100 (  smt) 15 (smt)       0
-------------------------------------------------------------------------------------------
Total number of radios displayed: 2


ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio2)#show contextwireless radio
-------------------------------------------------------------------------------------------
RADIO             RADIO-MAC           RF-MODE       STATE      CHANNEL    POWER #CLIENT
-------------------------------------------------------------------------------------------
ap7532-15E604:R1    FC-0A-81-A3-20-E0 2.4GHz-wlan          On    11 (  smt) 16 (smt)       0
ap7532-15E604:R2    FC-0A-81-A3-0B-30   5GHz-wlan          On   36w (  smt) 13 (smt)       0
-------------------------------------------------------------------------------------------
Total number of radios displayed: 2
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio2)#
```

Result: R1 moved to channel 1 and set power at 16dBm conducted. R2 stayed on channel 100, but then moved to channel 36 (in a 40MHz mode) at a power of 13dBm conducted.

Summary of results for US Configuration Assessment:
The US configuration limits operation to channels those allowed by the US allocation. If configured on a DFS channel, the system performed a new CAC test. The "smartRF" selected channels within the allowed allocated channels and at operated at an acceptable power level.

Client:	Zebra Technologies	Job Number:	JD100761
Model:	AP-7532	T-Log Number:	T100809
		Project Manager:	Christine Krebill
Contact:	Mark Luksich	Project Coordinator:	-
Standard:	Client Defined Requirements	Class:	N/A

Run #4: Confirmation of Canada Settings

Procedure:

Starting with the system in a US configuration, with "smartRF" turned enabled (per the end of Run #3). Outdoor position setting.
1) SNMP application was configured to write the Canada (CA) country-code to the EUT
2) Verified the radio status

Limit:

Ensure that the system correctly changes to the CA setting, and that the CA configuration results in operated restricted appropriately.

Results:

2a. Verification of Regulatory Domain Setting

```
ap7532-15E604(config)#rf-domain default
ap7532-15E604(config-rf-domain-default)#show context rf-domain default
 country-code ca
 use nsight-policy default
ap7532-15E604(config-rf-domain-default)#
```

Result: Country code is set to CA

Client:	Zebra Technologies	Job Number:	JD100761
Model:	AP-7532	T-Log Number:	T100809
		Project Manager:	Christine Krebill
Contact:	Mark Luksich	Project Coordinator:	-
Standard:	Client Defined Requirements	Class:	N/A

2b. Radio Status for Canada Configuration (ca)
Power listed is Conducted Power

```
ap7532-15E604(config-rf-domain-default)#show wireless radio
-------------------------------------------------------------------------------------------
RADIO            RADIO-MAC          RF-MODE      STATE      CHANNEL    POWER #CLIENT
-------------------------------------------------------------------------------------------
ap7532-15E604:R1    FC-0A-81-A3-20-E0 2.4GHz-wlan         On    11 (  smt) 16 (smt)      0
ap7532-15E604:R2    FC-0A-81-A3-0B-30   5GHz-wlan   Radar Scan    52 (  smt) 15 (smt)      0
-------------------------------------------------------------------------------------------
Total number of radios displayed: 2
ap7532-15E604(config-rf-domain-default)#show wireless radio
-------------------------------------------------------------------------------------------
RADIO            RADIO-MAC          RF-MODE      STATE      CHANNEL    POWER #CLIENT
-------------------------------------------------------------------------------------------
ap7532-15E604:R1    FC-0A-81-A3-20-E0 2.4GHz-wlan         On    11 (  smt) 16 (smt)      0
ap7532-15E604:R2    FC-0A-81-A3-0B-30   5GHz-wlan   Radar Scan    52 (  smt) 15 (smt)      0
-------------------------------------------------------------------------------------------
Total number of radios displayed: 2
-------------------------------------------------------------------------------------------
RADIO            RADIO-MAC          RF-MODE      STATE      CHANNEL    POWER #CLIENT
-------------------------------------------------------------------------------------------
ap7532-15E604:R1    FC-0A-81-A3-20-E0 2.4GHz-wlan         On    11 (  smt) 16 (smt)      0
ap7532-15E604:R2    FC-0A-81-A3-0B-30   5GHz-wlan         On    52 (  smt) 15 (smt)      0
-------------------------------------------------------------------------------------------
Total number of radios displayed: 2
ap7532-15E604(config-rf-domain-default)#
```

Result: R1 remained on channel 11 (auto selected). R2 moved to channel 52, since channel 36 is not allocated for Canada outdoors. R2 started a DFS CAC scan. Afterwards, R2 changed to an on state after CAC.

Client:	Zebra Technologies	Job Number:	JD100761
Model:	AP-7532	T-Log Number:	T100809
		Project Manager:	Christine Krebill
Contact:	Mark Luksich	Project Coordinator:	-
Standard:	Client Defined Requirements	Class:	N/A

2c. Allowed Channel/Power Output for United States Configuration (ca)
Power listed is EIRP

ap7532-15E604(config-rf-domain-default)#show wireless radioregulatory device-type ap7532 ca

#	Channel Set	Power(mW)	Power (dBm)	Placement	DFS	CAC(mins)	TPC
1	1-11	4000	36	Indoor/Outdoor	NA	NA	NA
2	36-48	200	23	Indoor	Not Required	0	Not Required
3	52-64	1000	30	Indoor/Outdoor	Required	1	Required
4	52-64	500	27	Indoor/Outdoor	Required	1	Not Required
5	100-116	1000	30	Indoor/Outdoor	Required	1	Required
6	100-116	500	27	Indoor/Outdoor	Required	1	Not Required
7	132-140	1000	30	Indoor/Outdoor	Required	1	Required
8	132-140	500	27	Indoor/Outdoor	Required	1	Not Required
9	149-165	4000	36	Indoor/Outdoor	Not Required	0	--More-- Not Required

ap7532-15E604(config-rf-domain-default)#

Result: R1 operation limited to channel 1-11 at a maximum output of 36dBm eirp, R2 has channels 36-64, 100-116, 132-140 and 149-165. Channels 36-48 are limited to indoor use.

Summary of results for CA Configuration Assessment:

The Canada configuration limits operation to channels those allowed by the Canadian allocation. If configured on a DFS channel, the system performed a new CAC test. The system moved correctly off a non-allocated channel to a new channel.

Client:	Zebra Technologies	Job Number:	JD100761
Model:	AP-7532	T-Log Number:	T100809
		Project Manager:	Christine Krebill
Contact:	Mark Luksich	Project Coordinator:	-
Standard:	Client Defined Requirements	Class:	N/A

Run #5: Confirmation of Great Britain Settings

Procedure: Starting with the system in a GB configuration, with "smartRF" turned enabled (per the end of Run #4). Outdoor position setting.
1) SNMP application was configured to write the United Kingdom (UK) country-code to the EUT
2) Verified the radio status

Limit: Ensure that the system correctly changes to the GB setting, and that the GB configuration results in operated restricted appropriately.

Results:

2a. Verification of Regulatory Domain Setting

```
ap7532-15E604(config)#rf-domain default
ap7532-15E604(config-rf-domain-default)#conshow context rf-domain default
 country-code gb
 use nsight-policy default
ap7532-15E604(config-rf-domain-default)#
```

Result: Country code is set to GB

Client:	Zebra Technologies	Job Number:	JD100761
Model:	AP-7532	T-Log Number:	T100809
		Project Manager:	Christine Krebill
Contact:	Mark Luksich	Project Coordinator:	-
Standard:	Client Defined Requirements	Class:	N/A

2b. Radio Status for Great Britain Configuration (gb)
Power listed is Conducted Power

```
p7532-15E604(config-rf-domain-default)#show wireless radio
-------------------------------------------------------------------------------------------
RADIO            RADIO-MAC          RF-MODE      STATE      CHANNEL    POWER #CLIENT
-------------------------------------------------------------------------------------------
ap7532-15E604:R1    FC-0A-81-A3-20-E0 2.4GHz-wlan         On    11 (  smt) 16 (smt)      0
ap7532-15E604:R2    FC-0A-81-A3-0B-30   5GHz-wlan   Radar Scan   100 (  smt) 15 (smt)      0
-------------------------------------------------------------------------------------------
Total number of radios displayed: 2
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio2)#show context interface radio 2selhow wireless regulator
y device-type ap7532 gbadio
-------------------------------------------------------------------------------------------
RADIO            RADIO-MAC          RF-MODE      STATE      CHANNEL    POWER #CLIENT
-------------------------------------------------------------------------------------------
ap7532-15E604:R1    FC-0A-81-A3-20-E0 2.4GHz-wlan         On    11 (  smt) 16 (smt)      0
ap7532-15E604:R2    FC-0A-81-A3-0B-30   5GHz-wlan         On   100 (  smt) 15 (smt)      0
-------------------------------------------------------------------------------------------
Total number of radios displayed: 2
ap7532-15E604(config-device-84-24-8D-15-E6-04-if-radio2)#
```

Result: R1 remained on channel 11 (auto selected). R2 moved to channel 100, since channel 52 is not allocated for GB outdoors. R2 started a DFS CAC scan. Afterwards, R2 changed to an on state after CAC.

Client:	Zebra Technologies	Job Number:	JD100761
Model:	AP-7532	T-Log Number:	T100809
		Project Manager:	Christine Krebill
Contact:	Mark Luksich	Project Coordinator:	-
Standard:	Client Defined Requirements	Class:	N/A

2c. Allowed Channel/Power Output for United States Configuration (ca)
Power listed is EIRP

ap7532-15E604(config-rf-domain-default)#show wireless radiocontextrf-domain default ..commit no logging onselfhow wireless regulatory device-type ap7532 gb

#	Channel Set	Power(mW)	Power (dBm)	Placement	DFS	CAC(mins)	TPC
1	1-13	100	20	Indoor/Outdoor	NA	NA	NA
2	36-48	200	23	Indoor	Not Required	0	Not Required
3	52-64	200	23	Indoor	Required	1	Required
4	52-64	100	20	Indoor	Required	1	Not Required
5	100-116	1000	30	Indoor/Outdoor	Required	1	Required
6	100-116	500	27	Indoor/Outdoor	Required	1	Not Required
7	120-128	1000	30	Indoor/Outdoor	Required	10	Required
8	120-128	500	27	Indoor/Outdoor	Required	10	Not Required
9	132-140	1000	30	Indoor/Outdoor	Required	1	--More-- Required
10	132-140	500	27	Indoor/Outdoor	Required	1	Not Required

ap7532-15E604(config-rf-domain-default)#

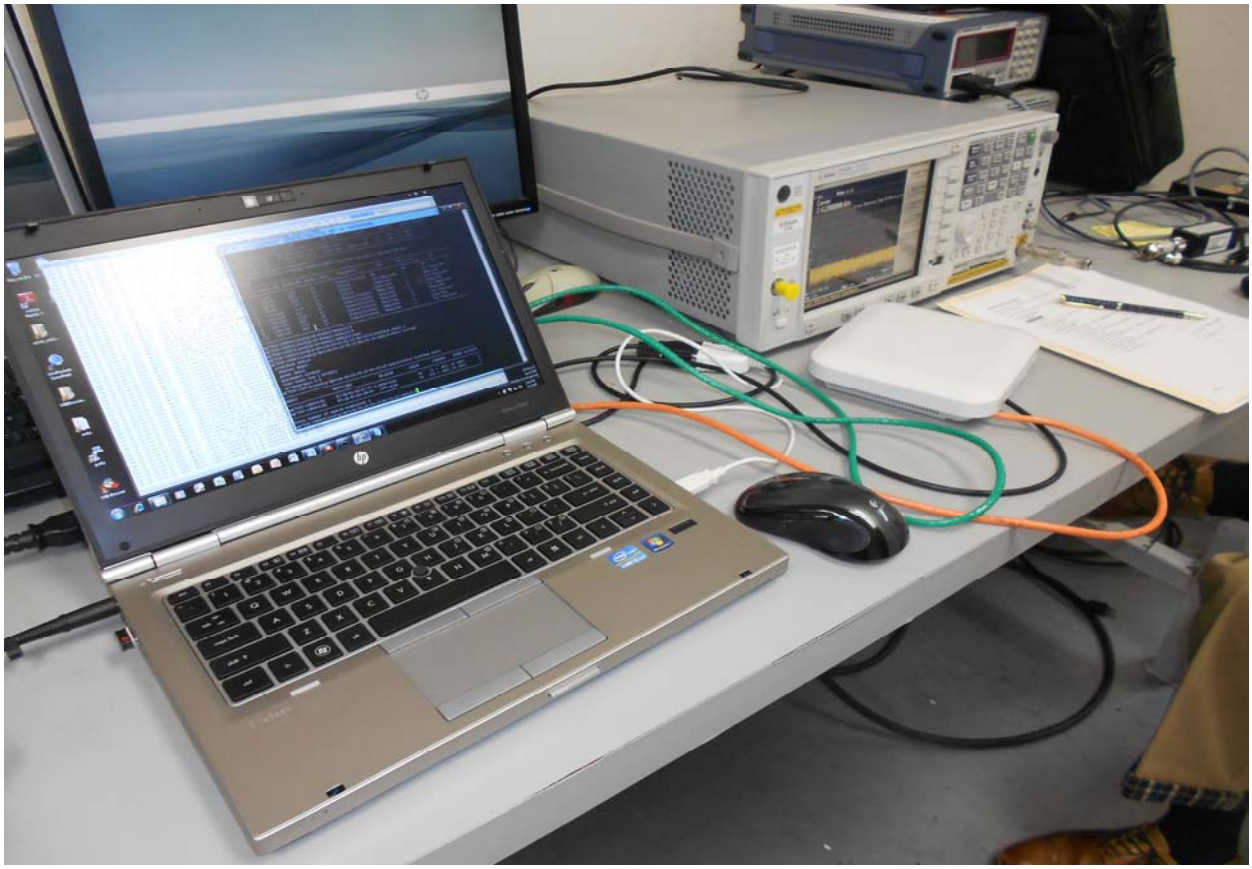
Result: R1 operation limited to channel 1-13 at a maximum output of 20dBm eirp, R2 has channels 36-64, 100-116, 120-128, and 132-140. Channels 36-64 are limited to indoor use.

Summary of results for GB Configuration Assessment:

The Great Britain configuration limits operation to channels those allowed by the EU allocation. If configured on a DFS channel, the system performed a new CAC test. The system moved correctly off a non-allocated channel to a new channel.

Client:	Zebra Technologies	Job Number:	JD100761
Model:	AP-7532	T-Log Number:	T100809
		Project Manager:	Christine Krebill
Contact:	Mark Luksich	Project Coordinator:	-
Standard:	Client Defined Requirements	Class:	N/A

Test Configuration Photographs



Client:	Zebra Technologies	Job Number:	JD100761
Model:	AP-7532	T-Log Number:	T100809
		Project Manager:	Christine Krebill
Contact:	Mark Luksich	Project Coordinator:	-
Standard:	Client Defined Requirements	Class:	N/A