Section 8   Testing data
Test name   FCC 15.712 Interference protection requirements (Fixed and personal/portable)
Specification   FCC Part 15 Subpart H

Figure 8.19-11: Received channel list for coordinates set in scenario (d). PLMRS/CMRS operations channel 16 at location coordinates 36.1N, 117.9W
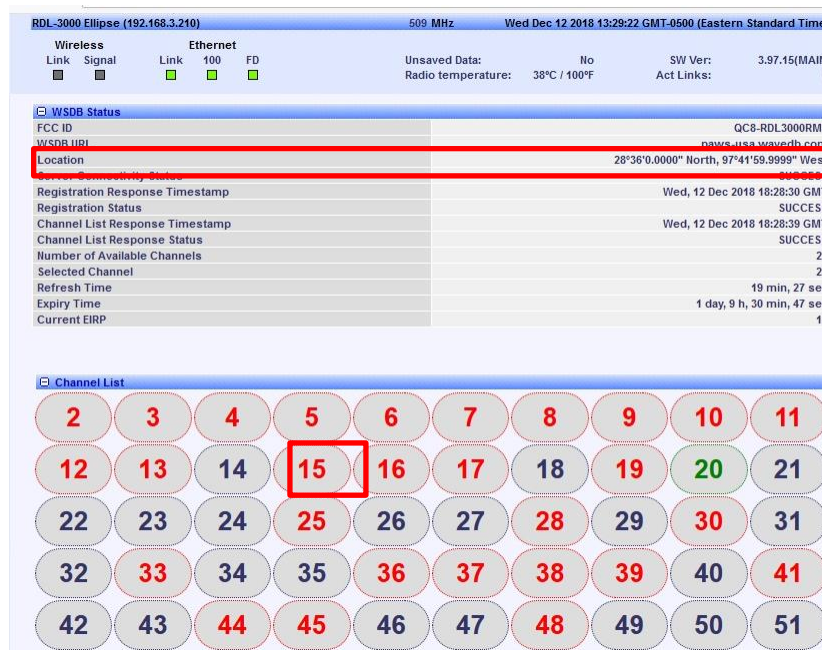

Figure 8.19-12: Received channel list for coordinates set in scenario (e). Offshore radiotelephone on channel 15 at location coordinates 28.6N, 97.1W
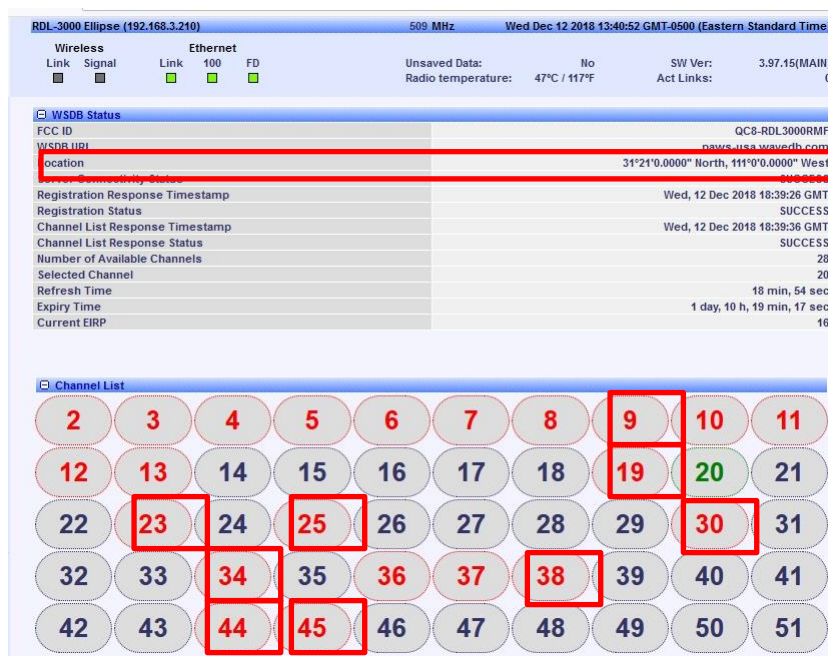
Figure 8.19-13: Received channel list for coordinates set in scenario (g). Mexico border at location coordinates 31.35N, 111.0W
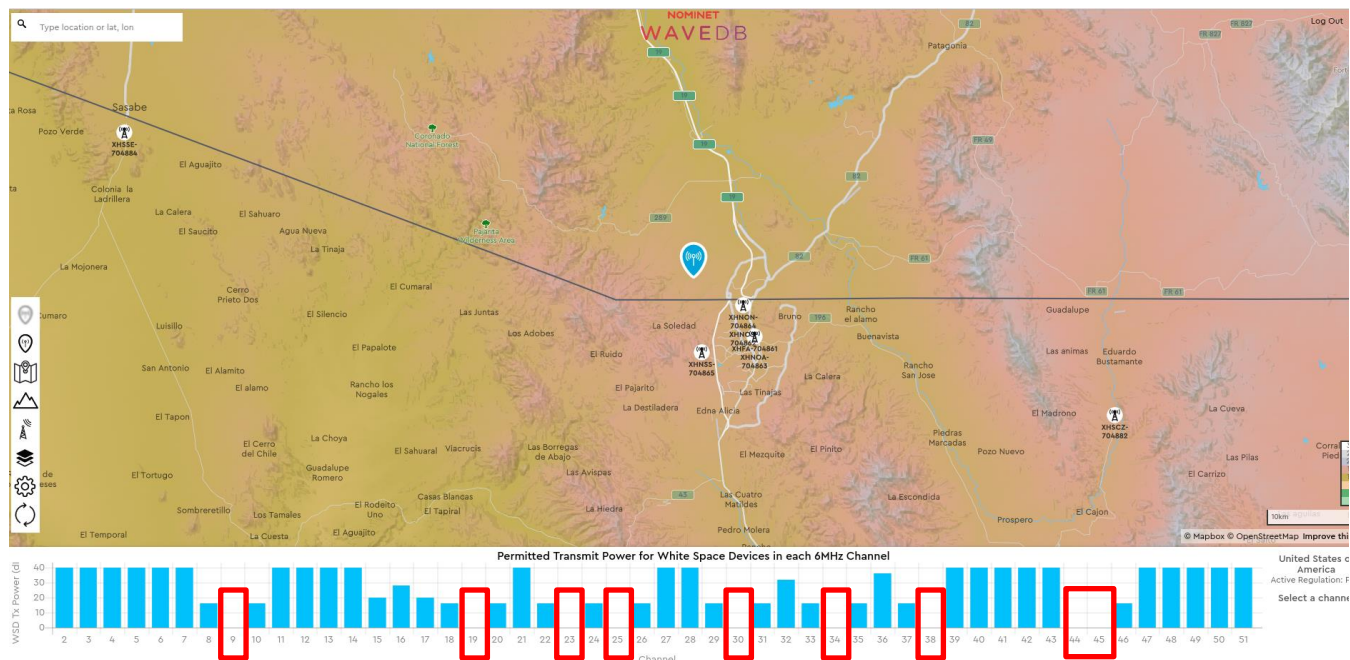

Figure 8.19-14: Channel availability for coordinates set in scenario (g). Mexico border at 31.35N, 111.0W
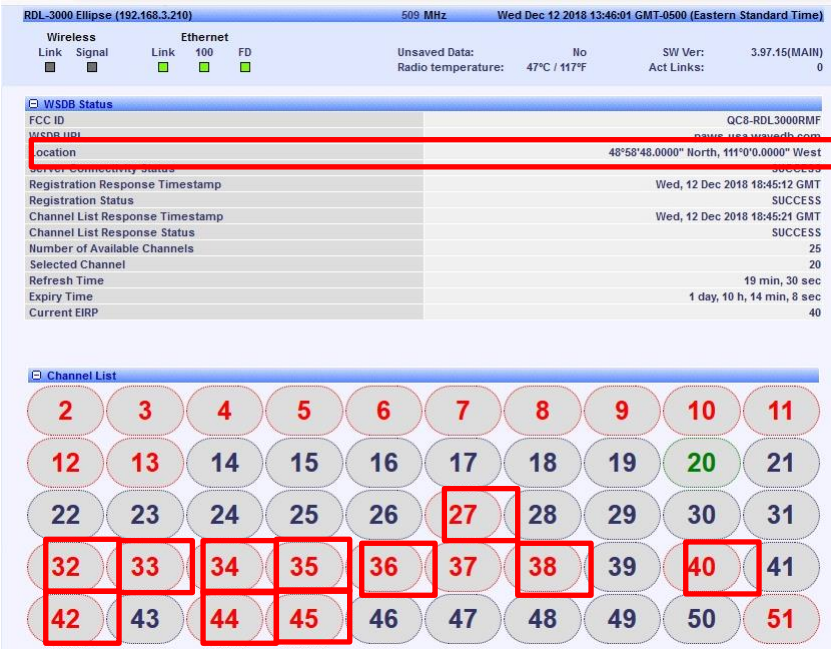
Figure 8.19-15: Received channel list for coordinates set in scenario (g). Canada border at location coordinates 48.98N, 111.0W
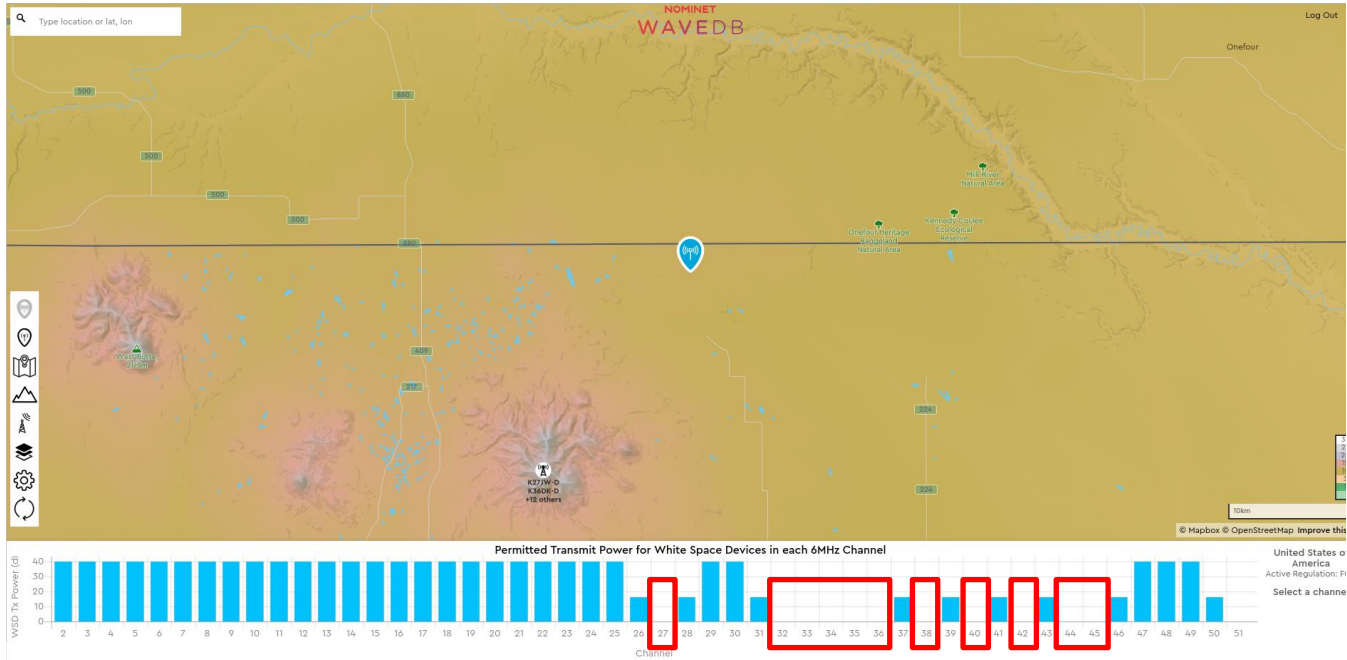

Figure 8.19-16: Channel availability for coordinates set in scenario (g). Canada border at 48.98N, 111.0W
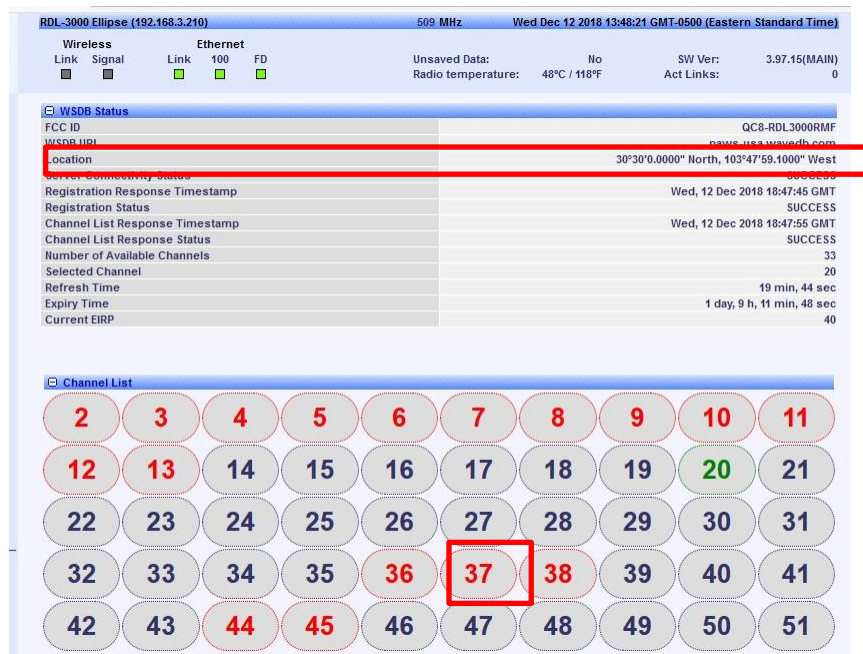
Figure 8.19-17: Received channel list for coordinates set in scenario (h). Radio astronomy services channel 37 at location coordinates 30.5N, 103.8W
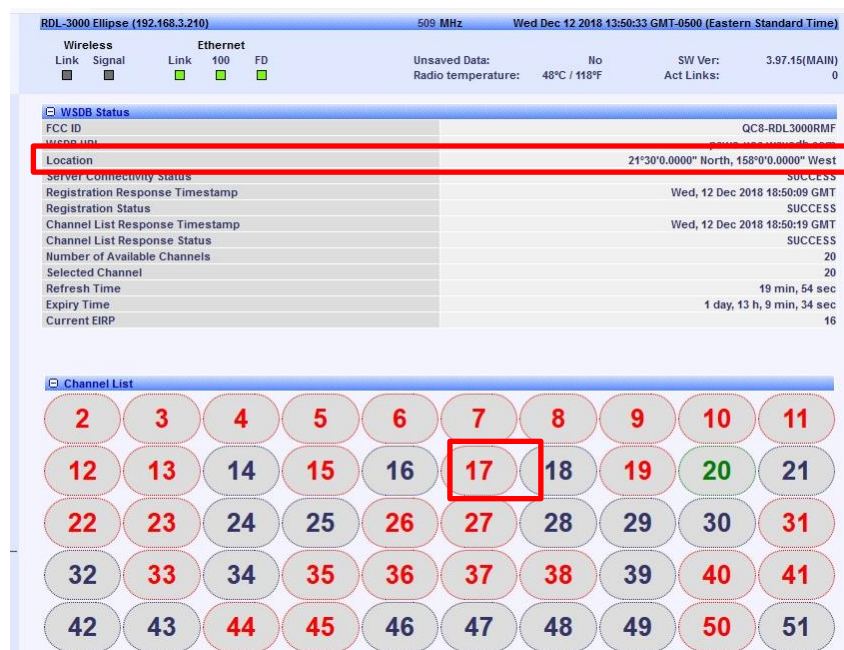

Figure 8.19-18: Received channel list for coordinates set in scenario (k). 488-494 MHz band in Hawaii channel 17 at location coordinates 21.5N, 158.0W

Section 8   Testing data
Test name   FCC 15.711(c)(2)(ii), (d)(3), 15.715(e) Fixed and Mode II Power level reduction
Specification   FCC Part 15 Subpart H

8.20 FCC 15.711(c)(2)(ii), (d)(3), 15.715(e) Fixed and Mode II Power level reduction

8.20.1 Definitions and limits

Using system management software, make a channel availability request to the database. Using the spectrum analyzer, confirm that the WSD operates at no more than the maximum power level indicated by the database and that the power level cannot be set to a higher level than indicated by the database at that specific location. If the device cannot reduce power, it must cease operation. Testing in accordance with KDB 416721 D01, III (2)(o).

8.20.2 Test summary

Test date	December 11, 2018

8.20.3 Observations, settings and special notes

EUT was configured with proper registration information and the successful registration was verified. After receiving channel EIRP limit, EUT Tx power and Antenna gain were modified to exceed the limit. It was verified that the output power was automatically reduced to comply with EIRP restriction for the operation channel used.
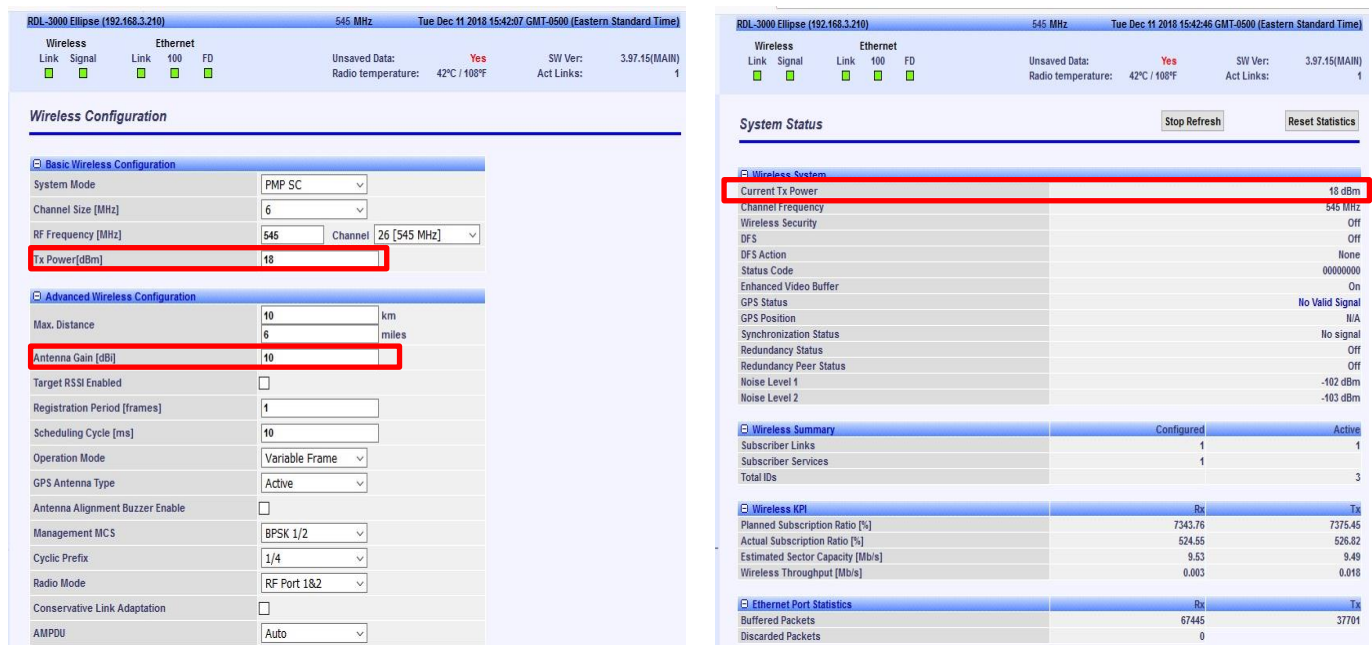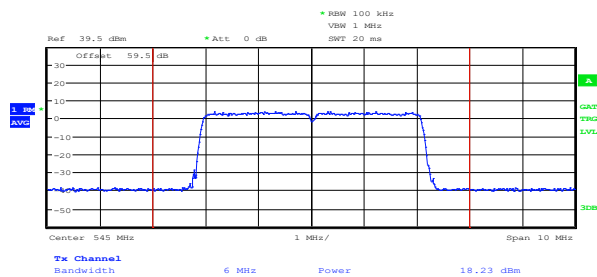
8.20.4 Test data

Figure 8.20-1: Tx power and Antenna gain settings to meet EIRP requirement of Base station device at the channel 26. EIRP limit received for this channel is 40 dBm.
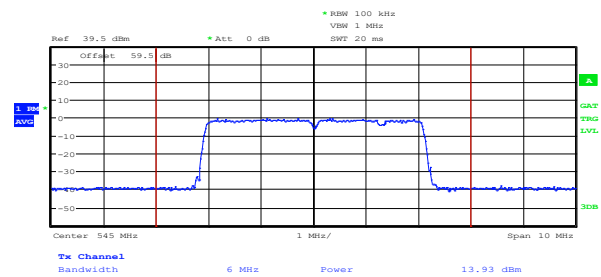
Section 8   Testing data
Test name   FCC 15.711(c)(2)(ii), (d)(3), 15.715(e) Fixed and Mode II Power level reduction
Specification   FCC Part 15 Subpart H

Date: 12.DEC.2018 15:41:50   Date: 12.DEC.2018 15:40:38

Figure 8.20-2: Output power of Base station device measurement on the channel 26 after registration and reception of 40 dBm EIRP limit. Output power = EIRP limit – Antenna gain = 40 dBm – 22 dBi= 18 dBm. Then antenna gain was raised to 26 dBi and output power dropped to 14 dBm.

Figure 8.20-3: Tx power and Antenna gain settings to exceed EIRP requirement of Base station device at the channel 26. EIRP limit received for this channel is 40 dBm. Output power = EIRP limit – Antenna gain = 40 dBm – 26 dBi= 14 dBm, despite the setting of 18 dBm.

Section 8   Testing data
Test name   FCC 15.711(c)(2)(ii), (d)(3), 15.715(e) Fixed and Mode II Power level reduction
Specification   FCC Part 15 Subpart H

Figure 8.20-4: Tx power and Antenna gain settings to exceed EIRP requirement of Subscriber device at the channel 36. EIRP limit received for this channel is 26 dBm.
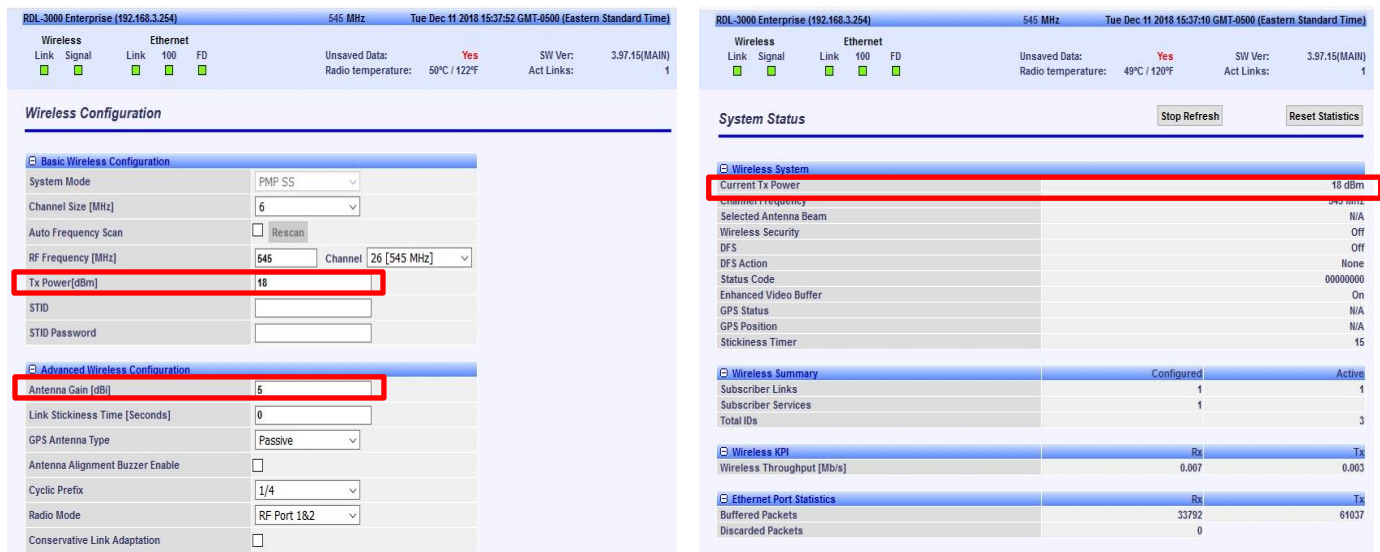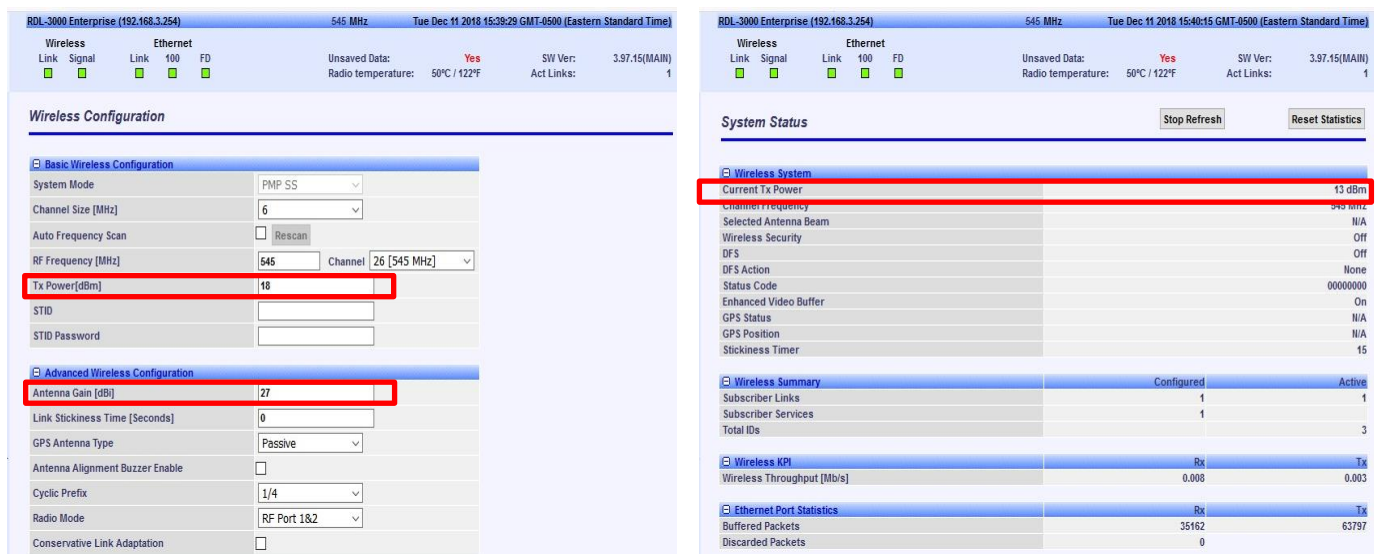

Figure 8.20-5: Tx power and Antenna gain settings to meet EIRP requirement of Subscriber device at the channel 36. EIRP limit received for this channel is 26 dBm. Output power = EIRP limit − Antenna gain = 40 dBm − 27 dBi= 13 dBm, despite the setting of 18 dBm.

Section 8   Testing data
Test name   FCC 15.711(c)(2)(ii), (d)(3), 15.715(e) Fixed and Mode II Power level reduction
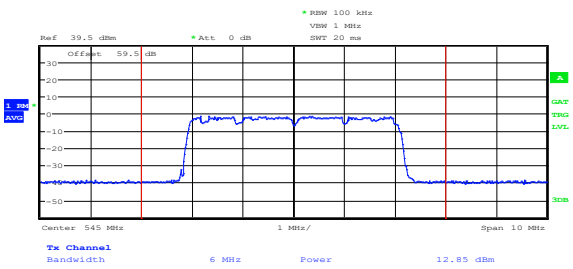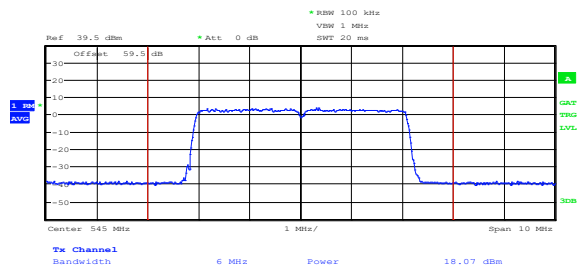**Specification**   FCC Part 15 Subpart H

Figure 8.20-6: Output power of Subscriber station device measurement on the channel 26 after registration and reception of 40 dBm EIRP limit. Output power = EIRP limit – Antenna gain = 40 dBm – 5 dBi= 35 dBm, setting was 18 dBm and measurement was 18 dBm. Then antenna gain was raised to 27 dBi and output power dropped to 13 dBm.

Section 8   Testing data
Test name   FCC 15.711(j) Security
Specification   FCC Part 15 Subpart H

8.21   FCC 15.711(j) Security

8.21.1   Definitions and limits

White space devices shall incorporate adequate security measures to ensure that they are capable of communicating for purposes of obtaining lists of available channels only with databases operated by administrators authorized by the Commission, and to ensure that communications between white space devices and databases are secure to prevent corruption or unauthorized interception of data. This requirement applies to communications of channel availability and other spectrum access information between the databases and fixed and Mode II devices (it is not necessary for white space devices to apply security coding to channel availability and channel access information where they are not the originating or terminating device and that they simply pass through).

8.21.2   Test summary

Test date	December 12, 2018

8.21.3   Observations, settings and special notes

Please see the attached document: RDL-3000-RMF Secure Communications.

Section 9.   Block diagrams of test set-ups

9.1   Test setup diagram