

## Test Logs

**FCC ID:** P27-SCE5164-B48

**Test Model:** SCE5164-B48

**Received Date:** Nov. 03, 2022

**Test Date:** Nov. 22, 2022 ~ Feb. 04, 2023

**Issued Date:** Feb. 15, 2023

**Applicant:** Sercomm Corp.

**Address:** 8F, No. 3-1, YuanQu St., NanKang, Taipei 115, Taiwan, R.O.C.

**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
Lin Kou Laboratories

**Lab Address:** No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan

**Test Location:** No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City  
33383, TAIWAN

**Note:** A placeholder FCC ID is used in test logs. EUT has been verified to report correct FCC ID (P27-SCE5164-B48) to the SAS.

## Table of Contents

<b>1. CBSD Registration Process.....</b>	<b>3</b>
WINNF.FT.C.REG.1.....	3
WINNF.FT.C.REG.3.....	4
WINNF.FT.C.REG.8.....	5
WINNF.FT.C.REG.10.....	6
WINNF.FT.C.REG.12.....	7
WINNF.FT.C.REG.14.....	8
WINNF.FT.C.REG.16.....	9
WINNF.FT.C.REG.18.....	10
WINNF.FT.C.REG.20.....	11
WINNF.FT.C.GRA.1.....	21
WINNF.FT.C.GRA.2.....	24
<b>2. CBSD Heart Beat Process.....</b>	<b>27</b>
WINNF.FT.C.HBT.1.....	27
WINNF.FT.C.HBT.3.....	32
WINNF.FT.C.HBT.4.....	36
WINNF.FT.C.HBT.5.....	41
WINNF.FT.C.HBT.6.....	44
WINNF.FT.C.HBT.7.....	49
WINNF.FT.C.HBT.9.....	54
WINNF.FT.C.HBT.10.....	58
<b>3. CBSD Relinquishment Process.....</b>	<b>63</b>
WINNF.FT.C.RLQ.1.....	63
<b>4. CBSD Deregistration Process.....</b>	<b>67</b>
WINNF.FT.C.DRG.1.....	67
<b>5. CBSD Security Validation.....</b>	<b>71</b>
WINNF.FT.C.SCS.1.....	71
WINNF.FT.C.SCS.2.....	73
WINNF.FT.C.SCS.3.....	73
WINNF.FT.C.SCS.4.....	73
WINNF.FT.C.SCS.5.....	73
WINNF.PT.C.HBT.1(Max Eirp = 0 dBm/MHz).....	74
WINNF.PT.C.HBT.1(Max Eirp = 10 dBm/MHz).....	91
WINNF.PT.C.HBT.1(Max Eirp = 20 dBm/MHz).....	96

## 1. CBSD Registration Process

### WINNF.FT.C.REG.1

2022-12-15T05:56:28.605Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-12-15T05:56:28.605Z - INFO - the selected test from the user : WINNF.FT.C.REG.1 is starting now

2022-12-15T06:00:27.467Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "CAMBIUM_NETWORKS",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "2208DR6000016",
    "fccId": "P27-SCE4255W",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
```

2022-12-15T06:00:27.506Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "response": {
      "responseCode": 0
    }
  }
]
```

2022-12-15T06:00:28.937Z - INFO - arrived to nstep starting question answer session with the technician

2022-12-15T06:00:28.937Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2022-12-15T06:03:40.378Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2022-12-15T06:03:40.878Z - INFO - The final result of the test : WINNF.FT.C.REG.1 is - passed

### WINNF.FT.C.REG.3

2022-12-15T06:15:12.842Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13  
2022-12-15T06:15:12.851Z - INFO - the selected test from the user : WINNF.FT.C.REG.3 is starting now  
2022-12-15T06:19:31.147Z - INFO - registration request from CBRS : {

```
"registrationRequest": [  
  {  
    "airInterface": {  
      "radioTechnology": "CAMBIUM_NETWORKS",  
      "supportedSpec": "FFS"  
    },  
    "callSign": "",  
    "cbsdCategory": "A",  
    "cbsdSerialNumber": "2208DR6000016",  
    "fccId": "P27-SCE4255W",  
    "groupingParam": [  
      {  
        "groupId": "SERCOMM_111",  
        "groupType": "INTERFERENCE_COORDINATION"  
      }  
    ],  
    "installationParam": {  
      "antennaAzimuth": 0,  
      "antennaBeamwidth": 60,  
      "antennaDowntilt": 0,  
      "antennaGain": 6,  
      "antennaModel": "",  
      "eirpCapability": 26,  
      "height": 1.0,  
      "heightType": "AGL",  
      "horizontalAccuracy": 3,  
      "indoorDeployment": true,  
      "latitude": 25.030478,  
      "longitude": 121.227043,  
      "verticalAccuracy": 3  
    },  
    "measCapability": [],  
    "userId": "W8QZWf"  
  }  
]
```

2022-12-15T06:19:31.167Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [  
  {  
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
    "response": {  
      "responseCode": 0  
    }  
  }  
]
```

2022-12-15T06:19:32.377Z - INFO - arrived to nstep starting question answer session with the technician  
2022-12-15T06:19:32.377Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :  
2022-12-15T06:22:16.519Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n  
2022-12-15T06:22:16.910Z - INFO - The final result of the test : WINNF.FT.C.REG.3 is - passed

## WINNF.FT.C.REG.8

2022-12-15T06:39:55.819Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-12-15T06:39:55.819Z - INFO - the selected test from the user : WINNF.FT.C.REG.8 is starting now

2022-12-15T06:43:08.417Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "CAMBIUM_NETWORKS",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "2208DR6000016",
    "fccId": "P27-SCE4255W",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 26,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 25.030884,
      "longitude": 121.226764,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
```

2022-12-15T06:43:08.457Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "response": {
      "responseCode": 102
    }
  }
]
```

2022-12-15T06:43:09.917Z - INFO - arrived to nstep starting question answer session with the technician

2022-12-15T06:43:09.917Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2022-12-15T06:51:54.348Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2022-12-15T06:51:54.608Z - INFO - The final result of the test : WINNF.FT.C.REG.8 is - passed

## WINNF.FT.C.REG.10

2022-12-15T07:06:24.289Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-12-15T07:06:24.289Z - INFO - the selected test from the user : WINNF.FT.C.REG.10 is starting now

2022-12-15T07:10:28.144Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "CAMBIUM_NETWORKS",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "2208DR6000016",
    "fccId": "P27-SCE4255W",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 26,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 25.028931,
      "longitude": 121.226282,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
```

2022-12-15T07:10:28.174Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "response": {
      "responseCode": 200
    }
  }
]
```

2022-12-15T07:10:29.694Z - INFO - arrived to nstep starting question answer session with the technician

2022-12-15T07:10:29.694Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2022-12-15T07:15:20.226Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2022-12-15T07:15:20.575Z - INFO - The final result of the test : WINNF.FT.C.REG.10 is - passed

## WINNF.FT.C.REG.12

2022-12-15T07:22:06.596Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-12-15T07:22:06.607Z - INFO - the selected test from the user : WINNF.FT.C.REG.12 is starting now

2022-12-15T07:25:41.846Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "CAMBIUM_NETWORKS",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "2208DR6000016",
    "fccId": "P27-SCE4255W",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 26,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 25.030096,
      "longitude": 121.227268,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
```

2022-12-15T07:25:41.877Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "response": {
      "responseCode": 103
    }
  }
]
```

2022-12-15T07:25:43.726Z - INFO - arrived to nstep starting question answer session with the technician

2022-12-15T07:25:43.726Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2022-12-15T07:31:22.951Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2022-12-15T07:31:23.302Z - INFO - The final result of the test : WINNF.FT.C.REG.12 is - passed

## WINNF.FT.C.REG.14

2022-12-15T07:41:14.153Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-12-15T07:41:14.153Z - INFO - the selected test from the user : WINNF.FT.C.REG.14 is starting now

2022-12-15T07:45:13.410Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "CAMBIUM_NETWORKS",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "2208DR6000016",
    "fccId": "P27-SCE4255W",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 26,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 25.031287,
      "longitude": 121.22641,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
```

2022-12-15T07:45:13.440Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "response": {
      "responseCode": 101
    }
  }
]
```

2022-12-15T07:45:14.490Z - INFO - arrived to nstep starting question answer session with the technician

2022-12-15T07:45:14.490Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2022-12-15T07:47:18.469Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2022-12-15T07:47:18.769Z - INFO - The final result of the test : WINNF.FT.C.REG.14 is - passed



## WINNF.FT.C.REG.16

2022-12-15T08:00:31.522Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-12-15T08:00:31.522Z - INFO - the selected test from the user : WINNF.FT.C.REG.16 is starting now

2022-12-15T08:04:29.447Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "CAMBIUM_NETWORKS",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "2208DR6000016",
    "fccId": "P27-SCE4255W",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 26,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 25.030587,
      "longitude": 121.227058,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
```

2022-12-15T08:04:29.477Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "response": {
      "responseCode": 100
    }
  }
]
```

2022-12-15T08:04:30.848Z - INFO - arrived to nstep starting question answer session with the technician

2022-12-15T08:04:30.848Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2022-12-15T08:07:19.591Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2022-12-15T08:07:19.881Z - INFO - The final result of the test : WINNF.FT.C.REG.16 is – passed

## WINNF.FT.C.REG.18

2022-12-15T08:19:29.428Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-12-15T08:19:29.428Z - INFO - the selected test from the user : WINNF.FT.C.REG.18 is starting now

2022-12-15T08:23:12.388Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "CAMBIUM_NETWORKS",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "2208DR6000016",
    "fccId": "P27-SCE4255W",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 26,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 25.030608,
      "longitude": 121.226984,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
```

2022-12-15T08:23:12.427Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "response": {
      "responseCode": 201
    }
  }
]
```

2022-12-15T08:23:13.618Z - INFO - arrived to nstep starting question answer session with the technician

2022-12-15T08:23:13.618Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2022-12-15T08:28:04.400Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2022-12-15T08:28:04.759Z - INFO - The final result of the test : WINNF.FT.C.REG.18 is - passed

## WINNF.FT.C.REG.20

2022-12-15T09:05:33.313Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-12-15T09:05:33.313Z - INFO - the selected test from the user : WINNF.FT.C.REG.20\_1 is starting now

2022-12-15T09:07:39.522Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "CAMBIUM_NETWORKS",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "2208DR6000016",
    "fccId": "P27-SCE4255W",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 26,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 41.570838,
      "longitude": -90.602715,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
```

2022-12-15T09:07:39.562Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "response": {
      "responseCode": 0
    }
  }
]
```

2022-12-15T09:07:39.611Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "inquiredSpectrum": [

```

```
        "highFrequency": 3700000000,
        "lowFrequency": 3550000000
      }
    ],
    "measReport": {
      "rcvdPowerMeasReports": []
    }
  }
]
}
2022-12-15T09:07:39.611Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-12-15T09:07:39.671Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "operationParam": {
        "maxEirp": 13,
        "operationFrequencyRange": {
          "highFrequency": 3645000000,
          "lowFrequency": 3605000000
        }
      }
    }
  ]
}
2022-12-15T09:07:39.671Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "channelType": "GAA",
      "grantExpireTime": "2022-12-22T09:07:39Z",
      "grantId": "919042170",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
```

```
2022-12-15T09:07:39.721Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "919042170",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-12-15T09:07:39.732Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "919042170",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-15T09:10:59Z"
    }
  ]
}
2022-12-15T09:08:19.858Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "919042170",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-15T09:08:19.858Z - INFO - Time interval between two heartbeat request messages is: 40.136, limit
is: 65.0
2022-12-15T09:08:19.868Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "919042170",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-15T09:11:39Z"
    }
  ]
}
2022-12-15T09:08:59.924Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "919042170",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-15T09:08:59.924Z - INFO - Time interval between two heartbeat request messages is: 40.066, limit
is: 65.0
```

```
2022-12-15T09:08:59.924Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "919042170",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-15T09:12:19Z"
    }
  ]
}
2022-12-15T09:09:39.979Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "919042170",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-15T09:09:39.979Z - INFO - Time interval between two heartbeat request messages is: 40.055, limit
is: 65.0
2022-12-15T09:09:39.979Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "919042170",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-15T09:12:59Z"
    }
  ]
}
2022-12-15T09:10:20.035Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "919042170",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-15T09:10:20.035Z - INFO - Time interval between two heartbeat request messages is: 40.056, limit
is: 65.0
2022-12-15T09:10:20.045Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "919042170",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-15T09:13:40Z"
    }
  ]
}
```

```

    ]
  }
2022-12-15T09:11:00.091Z - INFO - heartbeat request from CBRS  :{
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "919042170",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-15T09:11:00.101Z - INFO - Time interval between two heartbeat request messages is: 40.056, limit
is: 65.0
2022-12-15T09:11:00.101Z - INFO - engine sent successfully, the response to CBRS  :{
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "919042170",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-15T09:14:20Z"
    }
  ]
}
2022-12-15T09:11:01.530Z - INFO - arrived to nstep starting question answer session with the technician
2022-12-15T09:11:01.530Z - INFO - the question is : Did CBSD1 transmit power prior to AUTHORIZED state
(first successful HBT response)? please choose one of the answers :
2022-12-15T09:15:03.247Z - INFO - for the question : Did CBSD1 transmit power prior to AUTHORIZED state
(first successful HBT response)? , the user choose n
2022-12-15T09:15:03.247Z - INFO - the question is : Did CBSD1 transmit only within the frequency range
specified in its grantRequest message? please choose one of the answers :
2022-12-15T09:15:04.007Z - INFO - for the question : Did CBSD1 transmit only within the frequency range
specified in its grantRequest message? , the user choose y
2022-12-15T09:15:04.437Z - INFO - The final result of the test : WINNF.FT.C.REG.20_1 is – passed

```

2022-12-15T09:22:06.957Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13  
2022-12-15T09:22:06.957Z - INFO - the selected test from the user : WINNF.FT.C.REG.20\_2 is starting now  
2022-12-15T09:24:23.211Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "CAMBIUM_NETWORKS",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "2208DR6000016",
    "fccId": "P27-SCE4255W",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 26,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 41.570938,
      "longitude": -90.602715,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
```

2022-12-15T09:24:23.242Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "response": {
      "responseCode": 0
    }
  }
]
```

2022-12-15T09:24:23.292Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "inquiredSpectrum": [
      {
        "highFrequency": 3700000000,
        "lowFrequency": 3550000000
      }
    ]
  }
]
```



```

    ],
    "measReport": {
      "rcvdPowerMeasReports": []
    }
  }
]
}
2022-12-15T09:24:23.302Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-12-15T09:24:23.361Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "operationParam": {
        "maxEirp": 13,
        "operationFrequencyRange": {
          "highFrequency": 3645000000,
          "lowFrequency": 3605000000
        }
      }
    }
  ]
}
2022-12-15T09:24:23.361Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "channelType": "GAA",
      "grantExpireTime": "2022-12-22T09:24:23Z",
      "grantId": "346660034",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-12-15T09:24:23.411Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {

```

```

        "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
        "grantId": "346660034",
        "grantRenew": false,
        "operationState": "GRANTED"
    }
]
}
2022-12-15T09:24:23.421Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "346660034",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2022-12-15T09:27:43Z"
        }
    ]
}
2022-12-15T09:25:03.588Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "346660034",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2022-12-15T09:25:03.588Z - INFO - Time interval between two heartbeat request messages is: 40.177, limit is: 65.0
2022-12-15T09:25:03.588Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "346660034",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2022-12-15T09:28:23Z"
        }
    ]
}
2022-12-15T09:25:43.644Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "346660034",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2022-12-15T09:25:43.644Z - INFO - Time interval between two heartbeat request messages is: 40.055, limit is: 65.0
2022-12-15T09:25:43.654Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {

```

```

    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "grantId": "346660034",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2022-12-15T09:29:03Z"
  }
]
}
2022-12-15T09:26:23.700Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "346660034",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-15T09:26:23.700Z - INFO - Time interval between two heartbeat request messages is: 40.057, limit
is: 65.0
2022-12-15T09:26:23.710Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "346660034",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-15T09:29:43Z"
    }
  ]
}
}
2022-12-15T09:27:03.756Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "346660034",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2022-12-15T09:27:03.766Z - INFO - Time interval between two heartbeat request messages is: 40.066, limit
is: 65.0
2022-12-15T09:27:03.766Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "346660034",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-15T09:30:23Z"
    }
  ]
}
}
2022-12-15T09:27:43.822Z - INFO - heartbeat request from CBRS : {

```

```
"heartbeatRequest": [  
  {  
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
    "grantId": "346660034",  
    "grantRenew": false,  
    "operationState": "AUTHORIZED"  
  }  
]
```

```
}  
2022-12-15T09:27:43.822Z - INFO - Time interval between two heartbeat request messages is: 40.056, limit  
is: 65.0
```

```
2022-12-15T09:27:43.822Z - INFO - engine sent successfully, the response to CBRS : {
```

```
  "heartbeatResponse": [  
    {  
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
      "grantId": "346660034",  
      "response": {  
        "responseCode": 0  
      },  
      "transmitExpireTime": "2022-12-15T09:31:03Z"  
    }  
  ]  
}
```

```
}  
2022-12-15T09:27:45.262Z - INFO - arrived to nstep starting question answer session with the technician  
2022-12-15T09:27:45.262Z - INFO - the question is : Did CBSD1 transmit power prior to AUTHORIZED state  
(first successful HBT response)? please choose one of the answers :  
2022-12-15T09:31:43.145Z - INFO - for the question : Did CBSD1 transmit power prior to AUTHORIZED state  
(first successful HBT response)? , the user choose n  
2022-12-15T09:31:43.155Z - INFO - the question is : Did CBSD1 transmit only within the frequency range  
specified in its grantRequest message? please choose one of the answers :  
2022-12-15T09:31:43.516Z - INFO - for the question : Did CBSD1 transmit only within the frequency range  
specified in its grantRequest message? , the user choose y  
2022-12-15T09:31:43.966Z - INFO - The final result of the test : WINNF.FT.C.REG.20_2 is – passed
```

## CBSD Spectrum Grant Process

### WINNF.FT.C.GRA.1

2022-12-15T09:39:19.210Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-12-15T09:39:19.210Z - INFO - the selected test from the user : WINNF.FT.C.GRA.1 is starting now

2022-12-15T09:42:43.520Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "CAMBIUM_NETWORKS",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "2208DR6000016",
    "fccId": "P27-SCE4255W",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 26,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 25.030751,
      "longitude": 121.22714,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
```

2022-12-15T09:42:43.561Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "response": {
      "responseCode": 0
    }
  }
]
```

2022-12-15T09:42:43.621Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "inquiredSpectrum": [
```

```

        {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
        }
    ],
    "measReport": {
        "rcvdPowerMeasReports": []
    }
}
]
}
2022-12-15T09:42:43.621Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {
                    "channelType": "GAA",
                    "frequencyRange": {
                        "highFrequency": 3700000000,
                        "lowFrequency": 3550000000
                    },
                    "ruleApplied": "FCC_PART_96"
                }
            ],
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2022-12-15T09:42:43.680Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "operationParam": {
                "maxEirp": 13,
                "operationFrequencyRange": {
                    "highFrequency": 3645000000,
                    "lowFrequency": 3605000000
                }
            }
        }
    ]
}
2022-12-15T09:42:43.680Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "response": {
                "responseCode": 400
            }
        }
    ]
}
2022-12-15T09:42:45.220Z - INFO - arrived to nstep starting question answer session with the technician
2022-12-15T09:42:45.220Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :

```

2022-12-15T09:47:31.424Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n  
2022-12-15T09:47:31.744Z - INFO - The final result of the test : WINNF.FT.C.GRA.1 is – passed

## WINNF.FT.C.GRA.2

2022-12-15T09:54:24.253Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-12-15T09:54:24.263Z - INFO - the selected test from the user : WINNF.FT.C.GRA.2 is starting now

2022-12-15T09:58:02.940Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "CAMBIUM_NETWORKS",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "2208DR6000016",
    "fccId": "P27-SCE4255W",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 26,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 25.030441,
      "longitude": 121.227055,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
```

2022-12-15T09:58:02.990Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "response": {
      "responseCode": 0
    }
  }
]
```

2022-12-15T09:58:03.039Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "inquiredSpectrum": [
      {
```



```
        "highFrequency": 3700000000,
        "lowFrequency": 3550000000
      }
    ],
    "measReport": {
      "rcvdPowerMeasReports": []
    }
  }
]
}
2022-12-15T09:58:03.049Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-12-15T09:58:03.099Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "operationParam": {
        "maxEirp": 13,
        "operationFrequencyRange": {
          "highFrequency": 3645000000,
          "lowFrequency": 3605000000
        }
      }
    }
  ]
}
2022-12-15T09:58:03.109Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "response": {
        "responseCode": 401
      }
    }
  ]
}
2022-12-15T09:58:04.410Z - INFO - arrived to nstep starting question answer session with the technician
2022-12-15T09:58:04.410Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2022-12-15T10:01:04.174Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
```

the test? , the user choose n

2022-12-15T10:01:04.444Z - INFO - The final result of the test : WINNF.FT.C.GRA.2 is – passed

## 2. CBSD Heart Beat Process

### WINNF.FT.C.HBT.1

2022-12-19T05:54:22.799Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-12-19T05:54:22.799Z - INFO - the selected test from the user : WINNF.FT.C.HBT.1 is starting now

2022-12-19T05:57:28.867Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "CAMBIUM_NETWORKS",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "2208DR6000016",
    "fccId": "P27-SCE4255W",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 26,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 25.030508,
      "longitude": 121.226923,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
```

2022-12-19T05:57:28.946Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "response": {
      "responseCode": 0
    }
  }
]
```

2022-12-19T05:57:28.992Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
```

```

    "inquiredSpectrum": [
      {
        "highFrequency": 3700000000,
        "lowFrequency": 3550000000
      }
    ],
    "measReport": {
      "rcvdPowerMeasReports": []
    }
  }
]
}
2022-12-19T05:57:29.007Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-12-19T05:57:29.071Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "operationParam": {
        "maxEirp": 13,
        "operationFrequencyRange": {
          "highFrequency": 3645000000,
          "lowFrequency": 3605000000
        }
      }
    }
  ]
}
2022-12-19T05:57:29.071Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "channelType": "GAA",
      "grantExpireTime": "2022-12-26T05:57:29Z",
      "grantId": "65240232",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```
]
}
2022-12-19T05:57:29.132Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "65240232",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-12-19T05:57:29.132Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "65240232",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-19T06:00:49Z"
    }
  ]
}
2022-12-19T05:58:09.282Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "65240232",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-19T05:58:09.282Z - INFO - Time interval between two heartbeat request messages is: 40.15, limit is:
65.0
2022-12-19T05:58:09.282Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "65240232",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-19T06:01:29Z"
    }
  ]
}
2022-12-19T05:58:49.348Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "65240232",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
}
```

2022-12-19T05:58:49.348Z - INFO - Time interval between two heartbeat request messages is: 40.065, limit is: 65.0

2022-12-19T05:58:49.348Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [  
  {  
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
    "grantId": "65240232",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2022-12-19T06:02:09Z"  
  }  
]
```

}  
2022-12-19T05:59:29.395Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [  
  {  
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
    "grantId": "65240232",  
    "grantRenew": false,  
    "operationState": "AUTHORIZED"  
  }  
]
```

}  
2022-12-19T05:59:29.395Z - INFO - Time interval between two heartbeat request messages is: 40.048, limit is: 65.0

2022-12-19T05:59:29.411Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [  
  {  
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
    "grantId": "65240232",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2022-12-19T06:02:49Z"  
  }  
]
```

}  
2022-12-19T06:00:09.456Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [  
  {  
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
    "grantId": "65240232",  
    "grantRenew": false,  
    "operationState": "AUTHORIZED"  
  }  
]
```

}  
2022-12-19T06:00:09.456Z - INFO - Time interval between two heartbeat request messages is: 40.06, limit is: 65.0

2022-12-19T06:00:09.470Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [  
  {  
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
    "grantId": "65240232",  
    "response": {  
      "responseCode": 0  
    },  
  }  
]
```

```

        "transmitExpireTime": "2022-12-19T06:03:29Z"
    }
]
}
2022-12-19T06:00:49.517Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "65240232",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2022-12-19T06:00:49.517Z - INFO - Time interval between two heartbeat request messages is: 40.062, limit
is: 65.0
2022-12-19T06:00:49.517Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "65240232",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2022-12-19T06:04:09Z"
        }
    ]
}
}
2022-12-19T06:00:50.871Z - INFO - arrived to nstep starting question answer session with the technician
2022-12-19T06:00:50.871Z - INFO - the question is : Did CBSD1 transmit power prior to AUTHORIZED state
(first successful HBT response)? please choose one of the answers :
2022-12-19T06:24:31.755Z - INFO - for the question : Did CBSD1 transmit power prior to AUTHORIZED state
(first successful HBT response)? , the user choose n
2022-12-19T06:24:31.755Z - INFO - the question is : Did CBSD1 transmit only within the frequency range
specified in its grantRequest message? please choose one of the answers :
2022-12-19T06:24:32.380Z - INFO - for the question : Did CBSD1 transmit only within the frequency range
specified in its grantRequest message? , the user choose y
2022-12-19T06:24:32.661Z - INFO - The final result of the test : WINNF.FT.C.HBT.1 is - passed

```

### WINNF.FT.C.HBT.3

2022-12-19T08:10:56.198Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-12-19T08:10:56.198Z - INFO - the selected test from the user : WINNF.FT.C.HBT.3 is starting now

2022-12-19T08:14:17.332Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "CAMBIUM_NETWORKS",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "2208DR6000016",
    "fccId": "P27-SCE4255W",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 26,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 25.030617,
      "longitude": 121.227013,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
```

2022-12-19T08:14:17.364Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "response": {
      "responseCode": 0
    }
  }
]
```

2022-12-19T08:14:17.411Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "inquiredSpectrum": [
      {

```



```

    "highFrequency": 3700000000,
    "lowFrequency": 3550000000
  }
],
"measReport": {
  "rcvdPowerMeasReports": []
}
}
]
}
2022-12-19T08:14:17.411Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-12-19T08:14:17.473Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "operationParam": {
        "maxEirp": 13,
        "operationFrequencyRange": {
          "highFrequency": 3645000000,
          "lowFrequency": 3605000000
        }
      }
    }
  ]
}
2022-12-19T08:14:17.473Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "channelType": "GAA",
      "grantExpireTime": "2022-12-26T08:14:17Z",
      "grantId": "48180289",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```
2022-12-19T08:14:17.536Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "48180289",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-12-19T08:14:17.536Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "48180289",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-19T08:17:37Z"
    }
  ]
}
2022-12-19T08:14:57.674Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "48180289",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-19T08:14:57.674Z - INFO - Time interval between two heartbeat request messages is: 40.139, limit is: 65.0
2022-12-19T08:14:57.674Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "48180289",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-19T08:18:17Z"
    }
  ]
}
2022-12-19T08:15:37.720Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "48180289",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-19T08:15:37.736Z - INFO - Time interval between two heartbeat request messages is: 40.045, limit is: 65.0
```

2022-12-19T08:15:37.736Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [  
  {  
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
    "grantId": "48180289",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2022-12-19T08:18:57Z"  
  }  
]
```

```
}  
2022-12-19T08:16:17.782Z - INFO - heartbeat request from CBRS : {
```

```
"heartbeatRequest": [  
  {  
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
    "grantId": "48180289",  
    "grantRenew": false,  
    "operationState": "AUTHORIZED"  
  }  
]
```

```
}  
2022-12-19T08:16:17.782Z - INFO - Time interval between two heartbeat request messages is: 40.062, limit is: 65.0
```

2022-12-19T08:16:17.796Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [  
  {  
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
    "grantId": "48180289",  
    "response": {  
      "responseCode": 105  
    },  
    "transmitExpireTime": "2022-12-19T08:16:17Z"  
  }  
]
```

```
}  
2022-12-19T08:16:19.155Z - INFO - arrived to nstep starting question answer session with the technician
```

2022-12-19T08:16:19.155Z - INFO - the question is : Did the CBSD stop RF transmission within 60 seconds of receiving Heartbeat response with responseCode = 105? please choose one of the answers :

2022-12-19T08:19:29.727Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds of receiving Heartbeat response with responseCode = 105? , the user choose y

2022-12-19T08:19:30.102Z - INFO - The final result of the test : WINNF.FT.C.HBT.3 is – passed

#### WINNF.FT.C.HBT.4

2022-12-19T08:56:32.325Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-12-19T08:56:32.325Z - INFO - the selected test from the user : WINNF.FT.C.HBT.4 is starting now

2022-12-19T08:59:48.538Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "CAMBIUM_NETWORKS",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "2208DR6000016",
    "fccId": "P27-SCE4255W",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 26,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 25.029142,
      "longitude": 121.228256,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
```

2022-12-19T08:59:48.569Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "response": {
      "responseCode": 0
    }
  }
]
```

2022-12-19T08:59:48.615Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "inquiredSpectrum": [

```

```

        "highFrequency": 3700000000,
        "lowFrequency": 3550000000
      }
    ],
    "measReport": {
      "rcvdPowerMeasReports": []
    }
  }
]
}
2022-12-19T08:59:48.631Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-12-19T08:59:48.678Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "operationParam": {
        "maxEirp": 13,
        "operationFrequencyRange": {
          "highFrequency": 3645000000,
          "lowFrequency": 3605000000
        }
      }
    }
  ]
}
2022-12-19T08:59:48.694Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "channelType": "GAA",
      "grantExpireTime": "2022-12-26T08:59:48Z",
      "grantId": "92331608",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```
2022-12-19T08:59:48.740Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "92331608",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-12-19T08:59:48.756Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "92331608",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-19T09:03:08Z"
    }
  ]
}
2022-12-19T09:00:28.881Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "92331608",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-19T09:00:28.881Z - INFO - Time interval between two heartbeat request messages is: 40.14, limit is:
65.0
2022-12-19T09:00:28.895Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "92331608",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-19T09:03:48Z"
    }
  ]
}
2022-12-19T09:01:08.941Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "92331608",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-19T09:01:08.941Z - INFO - Time interval between two heartbeat request messages is: 40.061, limit
is: 65.0
```

```
2022-12-19T09:01:08.941Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "92331608",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-19T09:04:28Z"
    }
  ]
}
2022-12-19T09:01:49.003Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "92331608",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-19T09:01:49.003Z - INFO - Time interval between two heartbeat request messages is: 40.061, limit
is: 65.0
2022-12-19T09:01:49.003Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "92331608",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-19T09:05:09Z"
    }
  ]
}
2022-12-19T09:02:29.048Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "92331608",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-19T09:02:29.063Z - INFO - Time interval between two heartbeat request messages is: 40.061, limit
is: 65.0
2022-12-19T09:02:29.063Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "92331608",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-19T09:05:49Z"
    }
  ]
}
```

```

    ]
  }
2022-12-19T09:03:09.109Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "92331608",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-19T09:03:09.109Z - INFO - Time interval between two heartbeat request messages is: 40.046, limit
is: 65.0
2022-12-19T09:03:09.125Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "92331608",
      "response": {
        "responseCode": 500
      },
      "transmitExpireTime": "2022-12-19T09:03:09Z"
    }
  ]
}
}
2022-12-19T09:03:10.437Z - INFO - arrived to nstep starting question answer session with the technician
2022-12-19T09:03:10.437Z - INFO - the question is : Did the CBSD1 stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 500? please choose one of the answers :
2022-12-19T09:14:20.134Z - INFO - for the question : Did the CBSD1 stop RF transmission within 60
seconds of receiving Heartbeat response with responseCode = 500? , the user choose y
2022-12-19T09:14:20.414Z - INFO - The final result of the test : WINNF.FT.C.HBT.4 is – passed

```



## WINNF.FT.C.HBT.5

2022-12-19T09:23:40.944Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-12-19T09:23:40.944Z - INFO - the selected test from the user : WINNF.FT.C.HBT.5 is starting now

2022-12-19T09:27:10.640Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "CAMBIUM_NETWORKS",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "2208DR6000016",
    "fccId": "P27-SCE4255W",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 26,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 25.030443,
      "longitude": 121.226926,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
```

2022-12-19T09:27:10.671Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "response": {
      "responseCode": 0
    }
  }
]
```

2022-12-19T09:27:10.733Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "inquiredSpectrum": [
      {
```

```

        "highFrequency": 3700000000,
        "lowFrequency": 3550000000
    }
    ],
    "measReport": {
        "rcvdPowerMeasReports": []
    }
}
]
}
2022-12-19T09:27:10.733Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {
                    "channelType": "GAA",
                    "frequencyRange": {
                        "highFrequency": 3700000000,
                        "lowFrequency": 3550000000
                    },
                    "ruleApplied": "FCC_PART_96"
                }
            ],
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2022-12-19T09:27:10.796Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "operationParam": {
                "maxEirp": 13,
                "operationFrequencyRange": {
                    "highFrequency": 3645000000,
                    "lowFrequency": 3605000000
                }
            }
        }
    ]
}
2022-12-19T09:27:10.796Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "channelType": "GAA",
            "grantExpireTime": "2022-12-26T09:27:10Z",
            "grantId": "830185739",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}

```

```

2022-12-19T09:27:10.842Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "830185739",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-12-19T09:27:10.858Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "830185739",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2022-12-19T09:27:10Z"
    }
  ]
}
2022-12-19T09:27:50.950Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "830185739",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-12-19T09:27:50.950Z - INFO - Time interval between two heartbeat request messages is: 40.108, limit
is: 65.0
2022-12-19T09:27:50.950Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "830185739",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2022-12-19T09:27:50Z"
    }
  ]
}
2022-12-19T09:27:52.809Z - INFO - arrived to nstep starting question answer session with the technician
2022-12-19T09:27:52.809Z - INFO - the question is : Did the CBSD transmit at any time during the test?
please choose one of the answers :
2022-12-19T09:32:30.394Z - INFO - for the question : Did the CBSD transmit at any time during the test? , the
user choose n
2022-12-19T09:32:30.769Z - INFO - The final result of the test : WINNF.FT.C.HBT.5 is - passed

```

## WINNF.FT.C.HBT.6

2022-12-20T06:33:28.309Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-12-20T06:33:28.309Z - INFO - the selected test from the user : WINNF.FT.C.HBT.6 is starting now

2022-12-20T06:36:58.703Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "CAMBIUM_NETWORKS",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "2208DR6000016",
    "fccId": "P27-SCE4255W",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 26,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 25.030971,
      "longitude": 121.226779,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
```

2022-12-20T06:36:58.734Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "response": {
      "responseCode": 0
    }
  }
]
```

2022-12-20T06:36:58.782Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "inquiredSpectrum": [
      {
```

```

        "highFrequency": 3700000000,
        "lowFrequency": 3550000000
      }
    ],
    "measReport": {
      "rcvdPowerMeasReports": []
    }
  }
]
}
2022-12-20T06:36:58.782Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-12-20T06:36:58.844Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "operationParam": {
        "maxEirp": 13,
        "operationFrequencyRange": {
          "highFrequency": 3645000000,
          "lowFrequency": 3605000000
        }
      }
    }
  ]
}
2022-12-20T06:36:58.844Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "channelType": "GAA",
      "grantExpireTime": "2022-12-27T06:36:58Z",
      "grantId": "638298565",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```
2022-12-20T06:36:58.891Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "638298565",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-12-20T06:36:58.905Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "638298565",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-20T06:40:18Z"
    }
  ]
}
2022-12-20T06:37:39.020Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "638298565",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-20T06:37:39.036Z - INFO - Time interval between two heartbeat request messages is: 40.146, limit
is: 65.0
2022-12-20T06:37:39.036Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "638298565",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-20T06:40:59Z"
    }
  ]
}
2022-12-20T06:38:19.084Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "638298565",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-20T06:38:19.084Z - INFO - Time interval between two heartbeat request messages is: 40.047, limit
is: 65.0
```

```
2022-12-20T06:38:19.099Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "638298565",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-20T06:41:39Z"
    }
  ]
}
2022-12-20T06:38:59.148Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "638298565",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-20T06:38:59.148Z - INFO - Time interval between two heartbeat request messages is: 40.065, limit
is: 65.0
2022-12-20T06:38:59.148Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "638298565",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2022-12-20T06:38:59Z"
    }
  ]
}
2022-12-20T06:39:39.200Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "638298565",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-12-20T06:39:39.216Z - INFO - Time interval between two heartbeat request messages is: 40.051, limit
is: 65.0
2022-12-20T06:39:39.216Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "638298565",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2022-12-20T06:39:39Z"
    }
  ]
}
```

] }  
}

2022-12-20T06:39:40.996Z - INFO - arrived to nstep starting question answer session with the technician

2022-12-20T06:39:40.996Z - INFO - the question is : Did the CBSD stop RF transmission within 60 seconds of receiving Heartbeat response with responseCode = 501? please choose one of the answers :

2022-12-20T06:48:45.648Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds of receiving Heartbeat response with responseCode = 501? , the user choose y

2022-12-20T06:48:45.930Z - INFO - The final result of the test : WINNF.FT.C.HBT.6 is – passed



## WINNF.FT.C.HBT.7

2022-12-20T06:59:15.946Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-12-20T06:59:15.946Z - INFO - the selected test from the user : WINNF.FT.C.HBT.7 is starting now

2022-12-20T07:02:56.934Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "CAMBIUM_NETWORKS",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "2208DR6000016",
    "fccId": "P27-SCE4255W",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 26,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 25.030557,
      "longitude": 121.226984,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
```

2022-12-20T07:02:56.980Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "response": {
      "responseCode": 0
    }
  }
]
```

2022-12-20T07:02:57.028Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "inquiredSpectrum": [
      {
```

```

        "highFrequency": 3700000000,
        "lowFrequency": 3550000000
      }
    ],
    "measReport": {
      "rcvdPowerMeasReports": []
    }
  }
]
}
2022-12-20T07:02:57.028Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-12-20T07:02:57.091Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "operationParam": {
        "maxEirp": 13,
        "operationFrequencyRange": {
          "highFrequency": 3645000000,
          "lowFrequency": 3605000000
        }
      }
    }
  ]
}
2022-12-20T07:02:57.091Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "channelType": "GAA",
      "grantExpireTime": "2022-12-27T07:02:57Z",
      "grantId": "244692690",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```
2022-12-20T07:02:57.153Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "244692690",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-12-20T07:02:57.153Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "244692690",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-20T07:06:17Z"
    }
  ]
}
2022-12-20T07:03:37.313Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "244692690",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-20T07:03:37.313Z - INFO - Time interval between two heartbeat request messages is: 40.161, limit
is: 65.0
2022-12-20T07:03:37.313Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "244692690",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-20T07:06:57Z"
    }
  ]
}
2022-12-20T07:04:17.358Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "244692690",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-20T07:04:17.358Z - INFO - Time interval between two heartbeat request messages is: 40.044, limit
is: 65.0
```

```

2022-12-20T07:04:17.374Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "244692690",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-20T07:07:37Z"
    }
  ]
}
2022-12-20T07:04:57.421Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "244692690",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-20T07:04:57.421Z - INFO - Time interval between two heartbeat request messages is: 40.063, limit
is: 65.0
2022-12-20T07:04:57.437Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "244692690",
      "response": {
        "responseCode": 502
      },
      "transmitExpireTime": "2022-12-20T07:04:57Z"
    }
  ]
}
2022-12-20T07:04:57.453Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "244692690"
    }
  ]
}
2022-12-20T07:04:57.467Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "244692690",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-12-20T07:04:58.513Z - INFO - arrived to nstep starting question answer session with the technician
2022-12-20T07:04:58.513Z - INFO - the question is : Did the CBSD stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 502? please choose one of the answers :

```

2022-12-20T07:10:05.953Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds of receiving Heartbeat response with responseCode = 502? , the user choose y  
2022-12-20T07:10:06.437Z - INFO - The final result of the test : WINNF.FT.C.HBT.7 is – passed

## WINNF.FT.C.HBT.9

2022-12-20T07:49:55.588Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-12-20T07:49:55.588Z - INFO - the selected test from the user : WINNF.FT.C.HBT.9 is starting now

2022-12-20T07:53:32.279Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "CAMBIUM_NETWORKS",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "2208DR6000016",
    "fccId": "P27-SCE4255W",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 26,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 25.031046,
      "longitude": 121.227298,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
```

2022-12-20T07:53:32.325Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "response": {
      "responseCode": 0
    }
  }
]
```

2022-12-20T07:53:32.372Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "inquiredSpectrum": [

```

```

        "highFrequency": 3700000000,
        "lowFrequency": 3550000000
    }
    ],
    "measReport": {
        "rcvdPowerMeasReports": []
    }
}
]
}
2022-12-20T07:53:32.372Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {
                    "channelType": "GAA",
                    "frequencyRange": {
                        "highFrequency": 3700000000,
                        "lowFrequency": 3550000000
                    },
                    "ruleApplied": "FCC_PART_96"
                }
            ],
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2022-12-20T07:53:32.420Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "operationParam": {
                "maxEirp": 13,
                "operationFrequencyRange": {
                    "highFrequency": 3645000000,
                    "lowFrequency": 3605000000
                }
            }
        }
    ]
}
2022-12-20T07:53:32.434Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "channelType": "GAA",
            "grantExpireTime": "2022-12-27T07:53:32Z",
            "grantId": "885462490",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
}

```

```
2022-12-20T07:53:32.482Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "885462490",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-12-20T07:54:02.487Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "885462490",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-12-20T07:54:02.487Z - INFO - request message received while HBT is absent, sleep 175 sec before
responding
2022-12-20T07:54:32.486Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "885462490",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-12-20T07:54:32.486Z - INFO - request message received while HBT is absent, sleep 145 sec before
responding
2022-12-20T07:55:02.493Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "885462490",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-12-20T07:55:02.493Z - INFO - request message received while HBT is absent, sleep 115 sec before
responding
2022-12-20T07:55:32.490Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "885462490",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-12-20T07:55:32.490Z - INFO - request message received while HBT is absent, sleep 85 sec before
responding
```



```

2022-12-20T07:56:02.489Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "885462490",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-12-20T07:56:02.489Z - INFO - request message received while HBT is absent, sleep 55 sec before
responding
2022-12-20T07:56:32.503Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "885462490",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-12-20T07:56:32.503Z - INFO - request message received while HBT is absent, sleep 24 sec before
responding
2022-12-20T07:56:52.503Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "885462490",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2022-12-20T07:56:52Z"
    }
  ]
}
2022-12-20T07:56:53.992Z - INFO - arrived to nstep starting question answer session with the technician
2022-12-20T07:56:53.992Z - INFO - the question is : Were there RF transmissions from the CBSD during the
test? please choose one of the answers :
2022-12-20T07:56:56.519Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2022-12-20T07:56:57.513Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2022-12-20T07:56:57.513Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2022-12-20T07:56:57.513Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2022-12-20T07:56:57.513Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2022-12-20T07:56:57.513Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2022-12-20T07:57:17.263Z - INFO - for the question : Were there RF transmissions from the CBSD during
the test? , the user choose n
2022-12-20T07:57:17.976Z - INFO - The final result of the test : WINNF.FT.C.HBT.9 is – passed

```

## WINNF.FT.C.HBT.10

2022-12-20T09:37:15.982Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-12-20T09:37:15.997Z - INFO - the selected test from the user : WINNF.FT.C.HBT.10 is starting now

2022-12-20T09:40:57.434Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "CAMBIUM_NETWORKS",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "2208DR6000016",
    "fccId": "P27-SCE4255W",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 26,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 25.031126,
      "longitude": 121.227176,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
```

2022-12-20T09:40:57.466Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "response": {
      "responseCode": 0
    }
  }
]
```

2022-12-20T09:40:57.512Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "inquiredSpectrum": [
      {
```

```

        "highFrequency": 3700000000,
        "lowFrequency": 3550000000
    }
  ],
  "measReport": {
    "rcvdPowerMeasReports": []
  }
}
]
}
2022-12-20T09:40:57.512Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-12-20T09:40:57.575Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "operationParam": {
        "maxEirp": 13,
        "operationFrequencyRange": {
          "highFrequency": 3645000000,
          "lowFrequency": 3605000000
        }
      }
    }
  ]
}
2022-12-20T09:40:57.575Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "channelType": "GAA",
      "grantExpireTime": "2022-12-27T09:40:57Z",
      "grantId": "446180479",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```
2022-12-20T09:40:57.637Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "446180479",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-12-20T09:40:57.637Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "446180479",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-20T09:44:17Z"
    }
  ]
}
2022-12-20T09:41:37.769Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "446180479",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-20T09:41:37.769Z - INFO - Time interval between two heartbeat request messages is: 40.132, limit
is: 65.0
2022-12-20T09:41:37.769Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "446180479",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-20T09:44:57Z"
    }
  ]
}
2022-12-20T09:42:17.821Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "446180479",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-20T09:42:17.821Z - INFO - Time interval between two heartbeat request messages is: 40.052, limit
is: 65.0
```

```
2022-12-20T09:42:17.821Z - INFO - LAST HBT RESPONSE THAT SET TRANSMIT_EXPIRE_TIME WAS AT:
2022-12-20 09:41:37.769000
2022-12-20T09:42:47.836Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "446180479",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-20T09:42:47.836Z - INFO - request message received while HBT is absent, sleep 174 sec before
responding
2022-12-20T09:43:17.832Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "446180479",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-20T09:43:17.832Z - INFO - request message received while HBT is absent, sleep 144 sec before
responding
2022-12-20T09:43:47.829Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "446180479",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-20T09:43:47.829Z - INFO - request message received while HBT is absent, sleep 114 sec before
responding
2022-12-20T09:44:17.844Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "446180479",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-20T09:44:17.844Z - INFO - request message received while HBT is absent, sleep 84 sec before
responding
2022-12-20T09:44:47.835Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "446180479",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
```

```

    ]
  }
2022-12-20T09:44:47.835Z - INFO - request message received while HBT is absent, sleep 54 sec before
responding
2022-12-20T09:45:16.868Z - INFO - relinquishment request from CBRS  : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "446180479"
    }
  ]
}
2022-12-20T09:45:16.868Z - INFO - request message received while HBT is absent, sleep 25 sec before
responding
2022-12-20T09:45:37.836Z - INFO - engine sent successfully, the response to CBRS  : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "446180479",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2022-12-20T09:45:37Z"
    }
  ]
}
2022-12-20T09:45:39.118Z - INFO - arrived to nstep starting question answer session with the technician
2022-12-20T09:45:39.118Z - INFO - the question is : Did the CBSD stop RF transmissions within
(transmitExpireTime + 60seconds) of last valid heartbeat response? please choose one of the answers :
2022-12-20T09:45:41.852Z - INFO - engine sent successfully, the response to CBRS  : "list index out of
range"
2022-12-20T09:45:41.852Z - INFO - engine sent successfully, the response to CBRS  : "list index out of
range"
2022-12-20T09:45:41.852Z - INFO - engine sent successfully, the response to CBRS  : "list index out of
range"
2022-12-20T09:45:41.852Z - INFO - engine sent successfully, the response to CBRS  : "list index out of
range"
2022-12-20T09:45:41.852Z - INFO - engine sent successfully, the response to CBRS  : "list index out of
range"
2022-12-20T09:45:41.884Z - INFO - engine sent successfully, the response to CBRS  : "list index out of
range"
2022-12-20T09:46:37.292Z - INFO - for the question : Did the CBSD stop RF transmissions within
(transmitExpireTime + 60seconds) of last valid heartbeat response? , the user choose y
2022-12-20T09:46:37.821Z - INFO - The final result of the test : WINNF.FT.C.HBT.10 is – passed

```

### 3. CBSD Relinquishment Process

#### WINNF.FT.C.RLQ.1

2022-12-22T07:19:07.174Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-12-22T07:19:07.174Z - INFO - the selected test from the user : WINNF.FT.C.RLQ.1 is starting now

2022-12-22T07:24:18.151Z - INFO - registration request from CBRS : {

```

"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "CAMBIUM_NETWORKS",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "2208DR6000016",
    "fccId": "P27-SCE4255W",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 26,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 25.030576,
      "longitude": 121.227155,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]

```

2022-12-22T07:24:18.181Z - INFO - engine sent successfully, the response to CBRS : {

```

"registrationResponse": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "response": {
      "responseCode": 0
    }
  }
]

```

2022-12-22T07:24:18.229Z - INFO - spectrumInquiry request from CBRS : {

```

"spectrumInquiryRequest": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",

```

```
        "inquiredSpectrum": [
            {
                "highFrequency": 3700000000,
                "lowFrequency": 3550000000
            }
        ],
        "measReport": {
            "rcvdPowerMeasReports": []
        }
    }
}
]
}
2022-12-22T07:24:18.244Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {
                    "channelType": "GAA",
                    "frequencyRange": {
                        "highFrequency": 3700000000,
                        "lowFrequency": 3550000000
                    },
                    "ruleApplied": "FCC_PART_96"
                }
            ],
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
]
}
2022-12-22T07:24:18.292Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "operationParam": {
                "maxEirp": 13,
                "operationFrequencyRange": {
                    "highFrequency": 3645000000,
                    "lowFrequency": 3605000000
                }
            }
        }
    ]
}
]
}
2022-12-22T07:24:18.292Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "channelType": "GAA",
            "grantExpireTime": "2022-12-29T07:24:18Z",
            "grantId": "342977986",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
```



```
]
}
2022-12-22T07:24:18.338Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "342977986",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-12-22T07:24:18.354Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "342977986",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-22T07:27:38Z"
    }
  ]
}
2022-12-22T07:24:58.486Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "342977986",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-22T07:24:58.486Z - INFO - Time interval between two heartbeat request messages is: 40.148, limit
is: 65.0
2022-12-22T07:24:58.503Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "342977986",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-22T07:28:18Z"
    }
  ]
}
2022-12-22T07:25:38.556Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "342977986",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
```

2022-12-22T07:25:38.556Z - INFO - Time interval between two heartbeat request messages is: 40.07, limit is: 65.0

2022-12-22T07:25:38.556Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [  
  {  
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
    "grantId": "342977986",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2022-12-22T07:28:58Z"  
  }  
]
```

2022-12-22T07:29:32.934Z - INFO - relinquishment request from CBRS : {

```
"relinquishmentRequest": [  
  {  
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
    "grantId": "342977986"  
  }  
]
```

2022-12-22T07:29:32.950Z - INFO - engine sent successfully, the response to CBRS : {

```
"relinquishmentResponse": [  
  {  
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
    "grantId": "342977986",  
    "response": {  
      "responseCode": 0  
    }  
  }  
]
```

2022-12-22T07:29:34.607Z - INFO - arrived to nstep starting question answer session with the technician

2022-12-22T07:29:34.607Z - INFO - the question is : Did CBSD1 cease RF transmission before receipt of Relinquishment Request by Test Harness? please choose one of the answers :

2022-12-22T07:31:31.279Z - INFO - for the question : Did CBSD1 cease RF transmission before receipt of Relinquishment Request by Test Harness? , the user choose y

2022-12-22T07:31:31.763Z - INFO - The final result of the test : WINNF.FT.C.RLQ.1 is - passed

#### 4. CBSD Deregistration Process

##### WINNF.FT.C.DRG.1

2022-12-22T08:23:19.161Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-12-22T08:23:19.161Z - INFO - the selected test from the user : WINNF.FT.C.DRG.1 is starting now

2022-12-22T08:26:47.471Z - INFO - registration request from CBRS : {

```

"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "CAMBIUM_NETWORKS",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "2208DR6000016",
    "fccId": "P27-SCE4255W",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 26,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 25.030814,
      "longitude": 121.226661,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]

```

2022-12-22T08:26:47.565Z - INFO - engine sent successfully, the response to CBRS : {

```

"registrationResponse": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "response": {
      "responseCode": 0
    }
  }
]

```

2022-12-22T08:26:47.612Z - INFO - spectrumInquiry request from CBRS : {

```

"spectrumInquiryRequest": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",

```

```

    "inquiredSpectrum": [
      {
        "highFrequency": 3700000000,
        "lowFrequency": 3550000000
      }
    ],
    "measReport": {
      "rcvdPowerMeasReports": []
    }
  }
]
}
2022-12-22T08:26:47.628Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-12-22T08:26:47.674Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "operationParam": {
        "maxEirp": 13,
        "operationFrequencyRange": {
          "highFrequency": 3645000000,
          "lowFrequency": 3605000000
        }
      }
    }
  ]
}
2022-12-22T08:26:47.690Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "channelType": "GAA",
      "grantExpireTime": "2022-12-29T08:26:47Z",
      "grantId": "896220785",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```
]
}
2022-12-22T08:26:47.753Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "896220785",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-12-22T08:26:47.753Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "896220785",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-22T08:30:07Z"
    }
  ]
}
2022-12-22T08:27:27.892Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "896220785",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-12-22T08:27:27.892Z - INFO - Time interval between two heartbeat request messages is: 40.14, limit is:
65.0
2022-12-22T08:27:27.907Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "896220785",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-12-22T08:30:47Z"
    }
  ]
}
2022-12-22T08:28:07.953Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "896220785",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
}
```

2022-12-22T08:28:07.953Z - INFO - Time interval between two heartbeat request messages is: 40.061, limit is: 65.0

2022-12-22T08:28:07.969Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [  
  {  
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
    "grantId": "896220785",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2022-12-22T08:31:27Z"  
  }  
]
```

2022-12-22T08:31:35.977Z - INFO - relinquishment request from CBRS : {

```
"relinquishmentRequest": [  
  {  
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
    "grantId": "896220785"  
  }  
]
```

2022-12-22T08:31:35.977Z - INFO - engine sent successfully, the response to CBRS : {

```
"relinquishmentResponse": [  
  {  
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
    "grantId": "896220785",  
    "response": {  
      "responseCode": 0  
    }  
  }  
]
```

2022-12-22T08:31:36.025Z - INFO - deregistration request from CBRS : {

```
"deregistrationRequest": [  
  {  
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016"  
  }  
]
```

2022-12-22T08:31:36.039Z - INFO - engine sent successfully, the response to CBRS : {

```
"deregistrationResponse": [  
  {  
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
    "response": {  
      "responseCode": 0  
    }  
  }  
]
```

2022-12-22T08:31:37.664Z - INFO - arrived to nstep starting question answer session with the technician  
2022-12-22T08:31:37.664Z - INFO - the question is : Did CBSD1 cease RF transmission before receipt of Relinquishment request (if sent) or Deregistration request at Test Harness? please choose one of the answers :

2022-12-22T08:32:06.753Z - INFO - for the question : Did CBSD1 cease RF transmission before receipt of Relinquishment request (if sent) or Deregistration request at Test Harness? , the user choose y

2022-12-22T08:32:07.128Z - INFO - The final result of the test : WINNF.FT.C.DRG.1 is – passed

## 5. CBSD Security Validation

### WINNF.FT.C.SCS.1

2022-12-23T06:10:20.262Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-12-23T06:10:20.278Z - INFO - the selected test from the user : WINNF.FT.C.SCS.1 is starting now

2022-12-23T06:14:04.990Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "CAMBIUM_NETWORKS",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "2208DR6000016",
    "fccId": "P27-SCE4255W",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 26,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 25.030488,
      "longitude": 121.226934,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
```

2022-12-23T06:14:05.053Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "response": {
      "responseCode": 0
    }
  }
]
```

2022-12-23T06:14:06.131Z - INFO - arrived to nstep starting question answer session with the technician  
 2022-12-23T06:14:06.131Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :  
 2022-12-23T06:14:54.138Z - INFO - for the question : Were there RF transmissions from the CBSD1 during

the test? , the user choose n

2022-12-23T06:14:54.513Z - INFO - The final result of the test : WINNF.FT.C.SCS.1 is – passed



#### **WINNF.FT.C.SCS.2**

2022-12-23T09:41:41.265Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13  
2022-12-23T09:41:41.265Z - INFO - the selected test from the user : WINNF.FT.C.SCS.2 is starting now

#### **WINNF.FT.C.SCS.3**

2022-12-23T11:15:50.168Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13  
2022-12-23T11:15:50.170Z - INFO - the selected test from the user : WINNF.FT.C.SCS.3 is starting now

#### **WINNF.FT.C.SCS.4**

2022-12-23T11:38:06.184Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13  
2022-12-23T11:38:06.186Z - INFO - the selected test from the user : WINNF.FT.C.SCS.4 is starting now

#### **WINNF.FT.C.SCS.5**

2022-12-23T12:14:18.286Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13  
2022-12-23T12:14:18.288Z - INFO - the selected test from the user : WINNF.FT.C.SCS.5 is starting now

## CBSD RF POWER MEASUREMENT

### WINNF.PT.C.HBT.1(Max Eirp = 0 dBm/MHz)

2023-02-03T09:40:58.296Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2023-02-03T09:40:58.296Z - INFO - Selected spectrum frequency is {'lowFrequency': 361500000L, 'highFrequency': 3635000000L}

2023-02-03T09:40:58.296Z - INFO - Granted Spectrum Max Eirp = 0dBm/MHz

2023-02-03T09:40:58.296Z - INFO - the selected test from the user : PowerMeasTest is starting now

2023-02-03T09:45:27.200Z - INFO - registration request from CBRS : {

```

"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "CAMBIUM_NETWORKS",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "2208DR6000016",
    "fccId": "P27-SCE4255W",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 6,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 25.032466,
      "longitude": 121.227735,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
}

```

2023-02-03T09:45:27.230Z - INFO - engine sent successfully, the response to CBRS : {

```

"registrationResponse": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "response": {
      "responseCode": 0
    }
  }
]
}

```

2023-02-03T09:45:27.279Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "inquiredSpectrum": [
      {
        "highFrequency": 3700000000,
        "lowFrequency": 3550000000
      }
    ],
    "measReport": {
      "rcvdPowerMeasReports": []
    }
  }
]
```

2023-02-03T09:45:27.279Z - INFO - The requested spectrum is out of the range, availableChannel is sent out  
 2023-02-03T09:45:27.279Z - INFO - engine sent successfully, the response to CBRS : {

```
"spectrumInquiryResponse": [
  {
    "availableChannel": [
      {
        "channelType": "GAA",
        "frequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        },
        "maxEirp": 0,
        "ruleApplied": "FCC_PART_96"
      }
    ],
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "response": {
      "responseCode": 0
    }
  }
]
```

2023-02-03T09:45:27.338Z - INFO - grant request from CBRS : {

```
"grantRequest": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "operationParam": {
      "maxEirp": -4,
      "operationFrequencyRange": {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      }
    }
  }
]
```

2023-02-03T09:45:27.338Z - INFO - engine sent successfully, the response to CBRS : {

```
"grantResponse": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "channelType": "GAA",
    "grantExpireTime": "2023-02-10T09:45:27Z",
    "grantId": "217129225",
  }
]
```

```
        "heartbeatInterval": 60,
        "response": {
            "responseCode": 0
        }
    ]
}
2023-02-03T09:45:27.388Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "217129225",
            "grantRenew": false,
            "operationState": "GRANTED"
        }
    ]
}
2023-02-03T09:45:27.388Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "217129225",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2023-02-03T09:48:47Z"
        }
    ]
}
2023-02-03T09:46:07.535Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "217129225",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2023-02-03T09:46:07.535Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "217129225",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2023-02-03T09:49:27Z"
        }
    ]
}
2023-02-03T09:46:47.591Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "217129225",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
```

```
    }
  ]
}
2023-02-03T09:46:47.601Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T09:50:07Z"
    }
  ]
}
2023-02-03T09:47:27.647Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T09:47:27.657Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T09:50:47Z"
    }
  ]
}
2023-02-03T09:48:07.711Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T09:48:07.711Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T09:51:27Z"
    }
  ]
}
```

```
}
2023-02-03T09:48:47.767Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T09:48:47.767Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T09:52:07Z"
    }
  ]
}
2023-02-03T09:49:27.823Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T09:49:27.834Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T09:52:47Z"
    }
  ]
}
2023-02-03T09:50:07.878Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T09:50:07.888Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
```

```
        "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
        "grantId": "217129225",
        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2023-02-03T09:53:27Z"
    }
]
}
2023-02-03T09:50:55.164Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "217129225",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2023-02-03T09:50:55.174Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "217129225",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2023-02-03T09:54:15Z"
        }
    ]
}
2023-02-03T09:51:42.219Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "217129225",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2023-02-03T09:51:42.229Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "217129225",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2023-02-03T09:55:02Z"
        }
    ]
}
2023-02-03T09:52:36.163Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "217129225",
```

```
        "grantRenew": false,
        "operationState": "AUTHORIZED"
    }
]
}
2023-02-03T09:52:36.173Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T09:55:56Z"
    }
  ]
}
2023-02-03T09:53:23.987Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T09:53:23.997Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T09:56:43Z"
    }
  ]
}
2023-02-03T09:54:18.122Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T09:54:18.122Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T09:57:38Z"
    }
  ]
}
```



```
    }
  ]
}
2023-02-03T09:55:12.377Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T09:55:12.377Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T09:58:32Z"
    }
  ]
}
2023-02-03T09:56:06.884Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T09:56:06.894Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T09:59:26Z"
    }
  ]
}
2023-02-03T09:57:00.989Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T09:57:00.999Z - INFO - engine sent successfully, the response to CBRS : {
```

```
"heartbeatResponse": [  
  {  
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
    "grantId": "217129225",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2023-02-03T10:00:20Z"  
  }  
]  
}  
2023-02-03T09:57:55.622Z - INFO - heartbeat request from CBRS : {  
  "heartbeatRequest": [  
    {  
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
      "grantId": "217129225",  
      "grantRenew": false,  
      "operationState": "AUTHORIZED"  
    }  
  ]  
}  
2023-02-03T09:57:55.632Z - INFO - engine sent successfully, the response to CBRS : {  
  "heartbeatResponse": [  
    {  
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
      "grantId": "217129225",  
      "response": {  
        "responseCode": 0  
      },  
      "transmitExpireTime": "2023-02-03T10:01:15Z"  
    }  
  ]  
}  
2023-02-03T09:58:50.578Z - INFO - heartbeat request from CBRS : {  
  "heartbeatRequest": [  
    {  
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
      "grantId": "217129225",  
      "grantRenew": false,  
      "operationState": "AUTHORIZED"  
    }  
  ]  
}  
2023-02-03T09:58:50.588Z - INFO - engine sent successfully, the response to CBRS : {  
  "heartbeatResponse": [  
    {  
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
      "grantId": "217129225",  
      "response": {  
        "responseCode": 0  
      },  
      "transmitExpireTime": "2023-02-03T10:02:10Z"  
    }  
  ]  
}  
2023-02-03T09:59:44.941Z - INFO - heartbeat request from CBRS : {  
  "heartbeatRequest": [  
    {
```

```
        "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
        "grantId": "217129225",
        "grantRenew": false,
        "operationState": "AUTHORIZED"
    }
]
}
2023-02-03T09:59:44.941Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T10:03:04Z"
    }
  ]
}
2023-02-03T10:00:39.446Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T10:00:39.456Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T10:03:59Z"
    }
  ]
}
2023-02-03T10:01:33.750Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T10:01:33.750Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
```

```
    },
    "transmitExpireTime": "2023-02-03T10:04:53Z"
  }
]
}
2023-02-03T10:02:20.736Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T10:02:20.736Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T10:05:40Z"
    }
  ]
}
2023-02-03T10:03:00.792Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T10:03:00.802Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T10:06:20Z"
    }
  ]
}
2023-02-03T10:03:40.848Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
```

```
}
2023-02-03T10:03:40.858Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T10:07:00Z"
    }
  ]
}
2023-02-03T10:04:20.903Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T10:04:20.913Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T10:07:40Z"
    }
  ]
}
2023-02-03T10:05:00.969Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T10:05:00.969Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T10:08:20Z"
    }
  ]
}
2023-02-03T10:05:41.025Z - INFO - heartbeat request from CBRS : {
```

```
"heartbeatRequest": [  
  {  
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
    "grantId": "217129225",  
    "grantRenew": false,  
    "operationState": "AUTHORIZED"  
  }  
]  
}  
2023-02-03T10:05:41.025Z - INFO - engine sent successfully, the response to CBRS : {  
  "heartbeatResponse": [  
    {  
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
      "grantId": "217129225",  
      "response": {  
        "responseCode": 0  
      },  
      "transmitExpireTime": "2023-02-03T10:09:01Z"  
    }  
  ]  
}  
2023-02-03T10:06:21.079Z - INFO - heartbeat request from CBRS : {  
  "heartbeatRequest": [  
    {  
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
      "grantId": "217129225",  
      "grantRenew": false,  
      "operationState": "AUTHORIZED"  
    }  
  ]  
}  
2023-02-03T10:06:21.089Z - INFO - engine sent successfully, the response to CBRS : {  
  "heartbeatResponse": [  
    {  
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
      "grantId": "217129225",  
      "response": {  
        "responseCode": 0  
      },  
      "transmitExpireTime": "2023-02-03T10:09:41Z"  
    }  
  ]  
}  
2023-02-03T10:07:01.135Z - INFO - heartbeat request from CBRS : {  
  "heartbeatRequest": [  
    {  
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
      "grantId": "217129225",  
      "grantRenew": false,  
      "operationState": "AUTHORIZED"  
    }  
  ]  
}  
2023-02-03T10:07:01.145Z - INFO - engine sent successfully, the response to CBRS : {  
  "heartbeatResponse": [  
    {  
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",  
      "grantId": "217129225",  
      "response": {  
        "responseCode": 0  
      },  
      "transmitExpireTime": "2023-02-03T10:09:41Z"  
    }  
  ]  
}
```

```
        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2023-02-03T10:10:21Z"
    }
]
}
2023-02-03T10:07:41.191Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "217129225",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2023-02-03T10:07:41.201Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "217129225",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2023-02-03T10:11:01Z"
        }
    ]
}
2023-02-03T10:08:21.257Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "217129225",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2023-02-03T10:08:21.257Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "217129225",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2023-02-03T10:11:41Z"
        }
    ]
}
2023-02-03T10:09:01.312Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "217129225",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
```

```
    }
  ]
}
2023-02-03T10:09:01.312Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T10:12:21Z"
    }
  ]
}
2023-02-03T10:09:41.368Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T10:09:41.378Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T10:13:01Z"
    }
  ]
}
2023-02-03T10:10:21.444Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T10:10:21.454Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T10:13:41Z"
    }
  ]
}
```



```
}
2023-02-03T10:11:01.509Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T10:11:01.509Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T10:14:21Z"
    }
  ]
}
2023-02-03T10:11:41.565Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T10:11:41.565Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T10:15:01Z"
    }
  ]
}
2023-02-03T10:12:21.621Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "217129225",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T10:12:21.631Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
```

```
        "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
        "grantId": "217129225",
        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2023-02-03T10:15:41Z"
    }
]
}
2023-02-03T10:13:01.680Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "217129225",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2023-02-03T10:13:01.690Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "217129225",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2023-02-03T10:16:21Z"
        }
    ]
}
}
```

### WINNF.PT.C.HBT.1(Max Eirp = 10 dBm/MHz)

2023-02-03T09:26:00.082Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2023-02-03T09:26:00.082Z - INFO - Selected spectrum frequency is {'lowFrequency': 361500000L, 'highFrequency': 3635000000L}

2023-02-03T09:26:00.082Z - INFO - Granted Spectrum Max Eirp = 10dBm/MHz

2023-02-03T09:26:00.082Z - INFO - the selected test from the user : PowerMeasTest is starting now

2023-02-03T09:30:57.151Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "CAMBIUM_NETWORKS",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "2208DR6000016",
    "fccId": "P27-SCE4255W",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 16,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 25.032152,
      "longitude": 121.227741,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
```

2023-02-03T09:30:57.181Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "response": {
      "responseCode": 0
    }
  }
]
```

2023-02-03T09:30:57.232Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
```

```

        "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
        "inquiredSpectrum": [
            {
                "highFrequency": 3700000000,
                "lowFrequency": 3550000000
            }
        ],
        "measReport": {
            "rcvdPowerMeasReports": []
        }
    }
]
}
2023-02-03T09:30:57.232Z - INFO - The requested spectrum is out of the range, availableChannel is sent out
2023-02-03T09:30:57.232Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {
                    "channelType": "GAA",
                    "frequencyRange": {
                        "highFrequency": 3635000000,
                        "lowFrequency": 3615000000
                    },
                    "maxEirp": 10,
                    "ruleApplied": "FCC_PART_96"
                }
            ],
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2023-02-03T09:30:57.292Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "operationParam": {
                "maxEirp": 6,
                "operationFrequencyRange": {
                    "highFrequency": 3635000000,
                    "lowFrequency": 3615000000
                }
            }
        }
    ]
}
2023-02-03T09:30:57.292Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "channelType": "GAA",
            "grantExpireTime": "2023-02-10T09:30:57Z",
            "grantId": "613623227",
            "heartbeatInterval": 60,
            "response": {

```

```
        "responseCode": 0
      }
    ]
  }
}
2023-02-03T09:30:57.342Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "613623227",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2023-02-03T09:30:57.351Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "613623227",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T09:34:17Z"
    }
  ]
}
2023-02-03T09:31:37.476Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "613623227",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T09:31:37.486Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "613623227",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T09:34:57Z"
    }
  ]
}
2023-02-03T09:32:17.532Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "613623227",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
```

```
}
2023-02-03T09:32:17.542Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "613623227",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T09:35:37Z"
    }
  ]
}
2023-02-03T09:32:57.598Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "613623227",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T09:32:57.598Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "613623227",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T09:36:17Z"
    }
  ]
}
2023-02-03T09:33:37.653Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "613623227",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T09:33:37.663Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "613623227",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T09:36:57Z"
    }
  ]
}
2023-02-03T09:34:21.098Z - INFO - heartbeat request from CBRS : {
```

```
"heartbeatRequest": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "grantId": "613623227",
    "grantRenew": false,
    "operationState": "AUTHORIZED"
  }
]
}
2023-02-03T09:34:21.108Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "613623227",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T09:37:41Z"
    }
  ]
}
2023-02-03T09:35:01.157Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "613623227",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T09:35:01.167Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "613623227",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T09:38:21Z"
    }
  ]
}
}
```

### WINNF.PT.C.HBT.1(Max Eirp = 20 dBm/MHz)

2023-02-03T07:50:35.055Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2023-02-03T07:50:35.055Z - INFO - Selected spectrum frequency is {'lowFrequency': 361500000L, 'highFrequency': 3635000000L}

2023-02-03T07:50:35.055Z - INFO - Granted Spectrum Max Eirp = 20dBm/MHz

2023-02-03T07:50:35.055Z - INFO - the selected test from the user : PowerMeasTest is starting now

2023-02-03T07:54:20.351Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "CAMBIUM_NETWORKS",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "2208DR6000016",
    "fccId": "P27-SCE4255W",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 26,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 25.031129,
      "longitude": 121.227534,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
```

2023-02-03T07:54:20.401Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "response": {
      "responseCode": 0
    }
  }
]
```

2023-02-03T07:54:20.441Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
```



```

    "inquiredSpectrum": [
      {
        "highFrequency": 3700000000,
        "lowFrequency": 3550000000
      }
    ],
    "measReport": {
      "rcvdPowerMeasReports": []
    }
  }
]
}
2023-02-03T07:54:20.461Z - INFO - The requested spectrum is out of the range, availableChannel is sent out
2023-02-03T07:54:20.461Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "maxEirp": 20,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2023-02-03T07:54:20.522Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "operationParam": {
        "maxEirp": 16,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2023-02-03T07:54:20.542Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "channelType": "GAA",
      "grantExpireTime": "2023-02-10T07:54:20Z",
      "grantId": "356107452",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```
    }
  ]
}
2023-02-03T07:54:20.592Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2023-02-03T07:54:20.611Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T07:57:40Z"
    }
  ]
}
2023-02-03T07:55:00.747Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T07:55:00.757Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T07:58:20Z"
    }
  ]
}
2023-02-03T07:55:40.803Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
```

```
2023-02-03T07:55:40.813Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T07:59:00Z"
    }
  ]
}
2023-02-03T07:56:20.868Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T07:56:20.868Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T07:59:40Z"
    }
  ]
}
2023-02-03T07:57:00.924Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T07:57:00.934Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:00:20Z"
    }
  ]
}
2023-02-03T07:57:40.990Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
```

```
{
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "grantId": "356107452",
    "grantRenew": false,
    "operationState": "AUTHORIZED"
  }
]
}
2023-02-03T07:57:40.990Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:01:00Z"
    }
  ]
}
2023-02-03T07:58:21.046Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T07:58:21.056Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:01:41Z"
    }
  ]
}
2023-02-03T07:59:01.102Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T07:59:01.112Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
```

```
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:02:21Z"
    }
  ]
}
2023-02-03T07:59:42.058Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T07:59:42.058Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:03:02Z"
    }
  ]
}
2023-02-03T08:00:29.392Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:00:29.403Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:03:49Z"
    }
  ]
}
2023-02-03T08:01:19.007Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
```

```
]
}
2023-02-03T08:01:19.017Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:04:39Z"
    }
  ]
}
2023-02-03T08:02:13.951Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:02:13.961Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:05:33Z"
    }
  ]
}
2023-02-03T08:03:06.167Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:03:06.177Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:06:26Z"
    }
  ]
}
}
```

```
2023-02-03T08:04:00.299Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:04:00.309Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:07:20Z"
    }
  ]
}
2023-02-03T08:04:55.354Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:04:55.364Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:08:15Z"
    }
  ]
}
2023-02-03T08:05:49.588Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:05:49.588Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
```

```
        "grantId": "356107452",
        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2023-02-03T08:09:09Z"
    }
]
}
2023-02-03T08:06:44.522Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "356107452",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2023-02-03T08:06:44.522Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "356107452",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2023-02-03T08:10:04Z"
        }
    ]
}
2023-02-03T08:07:39.457Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "356107452",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2023-02-03T08:07:39.457Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "356107452",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2023-02-03T08:10:59Z"
        }
    ]
}
2023-02-03T08:08:33.831Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "356107452",
            "grantRenew": false,
```



```
        "operationState": "AUTHORIZED"
      }
    ]
  }
2023-02-03T08:08:33.841Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:11:53Z"
    }
  ]
}
2023-02-03T08:09:28.484Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:09:28.484Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:12:48Z"
    }
  ]
}
2023-02-03T08:10:22.628Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:10:22.628Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:13:42Z"
    }
  ]
}
```

```
]
}
2023-02-03T08:11:16.953Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:11:16.953Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:14:36Z"
    }
  ]
}
2023-02-03T08:12:11.217Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:12:11.226Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:15:31Z"
    }
  ]
}
2023-02-03T08:13:05.332Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:13:05.342Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
```

```
{
  {
    "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
    "grantId": "356107452",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2023-02-03T08:16:25Z"
  }
]
}
2023-02-03T08:14:00.095Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:14:00.105Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:17:20Z"
    }
  ]
}
2023-02-03T08:14:47.036Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:14:47.046Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:18:07Z"
    }
  ]
}
2023-02-03T08:15:27.098Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
```

```
        "grantId": "356107452",
        "grantRenew": false,
        "operationState": "AUTHORIZED"
    }
]
}
2023-02-03T08:15:27.108Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:18:47Z"
    }
  ]
}
2023-02-03T08:16:14.282Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:16:14.292Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:19:34Z"
    }
  ]
}
2023-02-03T08:17:09.167Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:17:09.177Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
    }
  ]
}
```

```
        "transmitExpireTime": "2023-02-03T08:20:29Z"
      }
    ]
  }
2023-02-03T08:18:04.062Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:18:04.072Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:21:24Z"
    }
  ]
}
2023-02-03T08:18:59.036Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:18:59.036Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:22:19Z"
    }
  ]
}
2023-02-03T08:19:53.137Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
```

```
2023-02-03T08:19:53.137Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:23:13Z"
    }
  ]
}
2023-02-03T08:20:47.259Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:20:47.269Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:24:07Z"
    }
  ]
}
2023-02-03T08:21:42.119Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:21:42.130Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:25:02Z"
    }
  ]
}
2023-02-03T08:22:37.073Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
```

```
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:22:37.073Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:25:57Z"
    }
  ]
}
2023-02-03T08:23:31.825Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:23:31.835Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:26:51Z"
    }
  ]
}
2023-02-03T08:24:26.809Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:24:26.809Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
```

```
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:27:46Z"
    }
  ]
}
2023-02-03T08:25:21.753Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:25:21.763Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:28:41Z"
    }
  ]
}
2023-02-03T08:26:16.803Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:26:16.813Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:29:36Z"
    }
  ]
}
2023-02-03T08:27:10.967Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
```



```
]
}
2023-02-03T08:27:10.977Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:30:30Z"
    }
  ]
}
2023-02-03T08:28:05.302Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:28:05.312Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:31:25Z"
    }
  ]
}
2023-02-03T08:28:59.482Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:28:59.492Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:32:19Z"
    }
  ]
}
}
```

```
2023-02-03T08:29:53.805Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:29:53.805Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:33:13Z"
    }
  ]
}
2023-02-03T08:30:48.029Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:30:48.029Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:34:08Z"
    }
  ]
}
2023-02-03T08:31:42.354Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:31:42.354Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
```

```
        "grantId": "356107452",
        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2023-02-03T08:35:02Z"
    }
]
}
2023-02-03T08:32:36.698Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "356107452",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2023-02-03T08:32:36.709Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "356107452",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2023-02-03T08:35:56Z"
        }
    ]
}
2023-02-03T08:33:30.757Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "356107452",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2023-02-03T08:33:30.767Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "356107452",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2023-02-03T08:36:50Z"
        }
    ]
}
2023-02-03T08:34:17.924Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
            "grantId": "356107452",
            "grantRenew": false,
```

```
        "operationState": "AUTHORIZED"
      }
    ]
  }
2023-02-03T08:34:17.924Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:37:37Z"
    }
  ]
}
2023-02-03T08:34:57.983Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:34:57.983Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:38:17Z"
    }
  ]
}
2023-02-03T08:35:38.038Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:35:38.048Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:38:58Z"
    }
  ]
}
```

```
]
}
2023-02-03T08:36:18.095Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2023-02-03T08:36:18.104Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE4255WMock-SAS2208DR6000016",
      "grantId": "356107452",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2023-02-03T08:39:38Z"
    }
  ]
}
```