

Test Logs

FCC ID: P27SCO5165P

Test Model: SCO5165P

Received Date: Feb. 20, 2024

Test Date: Mar. 02, 2024 ~ Apr. 23, 2024

Issued Date: May 14, 2024

Applicant: Sercomm Corp.

Address: 8F, No. 3-1, YuanQu St., NanKang, Taipei 115, Taiwan, R.O.C. (NanKang Software Park)

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

**FCC Registration/
Designation Number:** 788550 / TW0003

Table of Contents

1	CBSD Registration Process.....	3
1.1	WINNF.FT.C.REG.1	3
1.2	WINNF.FT.C.REG.5	5
1.3	WINNF.FT.C.REG.8	7
1.4	WINNF.FT.C.REG.10	9
1.5	WINNF.FT.C.REG.12	11
1.6	WINNF.FT.C.REG.14	13
1.7	WINNF.FT.C.REG.16	15
1.8	WINNF.FT.C.REG.18	17
2	CBSD Spectrum Grant Process	19
2.1	WINNF.FT.C.GRA.1	19
2.2	WINNF.FT.C.GRA.2	22
3	CBSD Heart Beat Process.....	25
3.1	WINNF.FT.C.HBT.1	25
3.2	WINNF.FT.C.HBT.3	31
3.3	WINNF.FT.C.HBT.4	36
3.4	WINNF.FT.C.HBT.5	41
3.5	WINNF.FT.C.HBT.6	45
3.6	WINNF.FT.C.HBT.7	50
3.7	WINNF.FT.C.HBT.9	55
3.8	WINNF.FT.C.HBT.10	60
4	CBSD Relinquishment Process.....	65
4.1	WINNF.FT.C.RLQ.1	65
5	CBSD Deregistration Process	69
5.1	WINNF.FT.C.DRG.1	69
6	CBSD Security Validation	74
6.1	WINNF.FT.C.SCS.1	74
6.2	WINNF.FT.C.SCS.2	76
6.3	WINNF.FT.C.SCS.3	76
6.4	WINNF.FT.C.SCS.4	76
6.5	WINNF.FT.C.SCS.5	76
7	CBSD RF Power Measurement.....	77
7.1	WINNF.PT.C.HBT.1(Max Eirp = 0 dBm/MHz)	77
7.2	WINNF.PT.C.HBT.1(Max Eirp = 16 dBm/MHz)	82
7.3	WINNF.PT.C.HBT.1(Max Eirp = 32 dBm/MHz)	86

1 CBSD Registration Process

1.1 WINNF.FT.C.REG.1

2024-04-28T05:48:39.328Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-04-28T05:48:39.328Z - INFO - the selected test from the user : WINNF.FT.C.REG.1 is starting now

2024-04-28T05:53:16.576Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "NR",

"supportedSpec": "FFS"

},

"callSign": "",

"cbsdCategory": "B",

"cbsdSerialNumber": "DV1XQE0000020",

"cpiSignatureData": {

"digitalSignature":

"UDfU16j87jOZlZqEkM47NkUdiNTfjHmQ88bJVK-hMhYZ7GYZe0051mahchmvqeNsYEuiwtp7pEyVbetvRjrTI0oqIBFemckDLn0aTmkx55H--2xsTSZMnI_orDeadau7k4Kn6bbhls1UAkugkEBizPolCNzP09F2ZOAk4qWz5vyEY3uVduwGy9AEeEcSP-YAiWzerG2Y5it7aywjQMaeeAbMpAzQPRGuFXfisLVvTNS0iyTMHBH0ECgqkmp9JQmS04yXywrjZg-52aUHfXWqNNSPyoZrDzGjdM2ltMzM_03rM4LaMM5yTNaKAFVCzj6-kTIXi2qPcMd2yzyUSBgCnw",

"encodedCpiSignedData":

"eyJpbN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGI0eSI6NDcslmhlaWdodFR5cGUiOiJBR0wiLCJhbnRlbn5hR2Fpbil6MTIsImhvcml6b250YWxkY2N1cmFjeSI6MywiYW50ZW5uYURvd250aWx0IjowLCJhbnRlbn5hQmVhbXdpZHRoljo2MCIwGVPZ2h0IjoxOCwidmVydGljYWxkY2N1cmFjeSI6MywiYW50ZW5uYUUF6aW11dGgiOiJAsImxvbmtpdHVkZSI6LTkwLjYwMjcXNSwiaW5kb29yRGVwbG95bWVudCI6ZmFsc2UsImxhdGIdWRlljo0MS41NzA3Mzh9LjY2NjZCI6IiAyN1NDTzUxNjVQIiwicHJvZmVzc2lvdjVbmFsSW5zdGFsbGVyRGF0YSI6eyJjcGLOYW11IjoiQlYgSW5zdGFsbGVyIENlcnRpZmljYXRlliwiaW5zdGFsbENlcnRpZmljYXRpb25UaW11IjoiMjAyNC0wNC0yNlQxNjZjMzowOS4wNjI3NjIjIiwiaWF0Ij0iY3BpSWQlOiJjcGk5MDAxIn0sImNic2RTZXJpYWxOdW1iZXliOiJlJEVjYUUYUwMDAwMDIwIn0",

"protectedHeader": "eyJhbnRlbn5hR2Fpbil6MTIsImhvcml6b250YWxkY2N1cmFjeSI6MywiYW50ZW5uYUUF6aW11dGgiOiJAsImxvbmtpdHVkZSI6LTkwLjYwMjcXNSwiaW5kb29yRGVwbG95bWVudCI6ZmFsc2UsImxhdGIdWRlljo0MS41NzA3Mzh9LjY2NjZCI6IiAyN1NDTzUxNjVQIiwicHJvZmVzc2lvdjVbmFsSW5zdGFsbGVyRGF0YSI6eyJjcGLOYW11IjoiQlYgSW5zdGFsbGVyIENlcnRpZmljYXRlliwiaW5zdGFsbENlcnRpZmljYXRpb25UaW11IjoiMjAyNC0wNC0yNlQxNjZjMzowOS4wNjI3NjIjIiwiaWF0Ij0iY3BpSWQlOiJjcGk5MDAxIn0sImNic2RTZXJpYWxOdW1iZXliOiJlJEVjYUUYUwMDAwMDIwIn0",

},

"fccId": "P27SCO5165P",

"groupingParam": [

{

"groupId": "SERCOMM_111",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "W8QZWf"

}

]

}

2024-04-28T05:53:16.632Z - INFO - Registration message contains cpiSignatureData

2024-04-28T05:53:16.632Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2024-04-28T05:53:16.634Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"eirpCapability": 47,

"antennaAzimuth": 0,

"heightType": "AGL",

"longitude": -90.602715,

"antennaGain": 12,

"indoorDeployment": false,

"latitude": 41.570738,

```

    "horizontalAccuracy": 3,
    "antennaDowntilt": 0,
    "antennaBeamwidth": 60,
    "height": 18,
    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-04-26T16:33:09.062769Z",
    "cpild": "cpi9001"
  },
  "fccId": "P27SCO5165P",
  "cbidSerialNumber": "DV1XQE0000020"
}
2024-04-28T05:53:17.096Z - INFO - verified signature on cpiSignatureData
2024-04-28T05:53:17.108Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-04-28T05:53:17.111Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbidId": "P27SCO5165PMock-SASDV1XQE0000020",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2024-04-28T05:53:18.424Z - INFO - arrived to nstep starting question answer session with the technician
2024-04-28T05:53:18.426Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2024-04-28T05:53:35.994Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2024-04-28T05:53:36.500Z - INFO - The final result of the test : WINNF.FT.C.REG.1 is - passed

```



```

      "antennaBeamwidth": 60,
      "height": 18,
      "verticalAccuracy": 3
    },
    "professionalInstallerData": {
      "cpiName": "BV Installer Certificate",
      "installCertificationTime": "2024-04-26T16:33:09.062769Z",
      "cpild": "cpi9001"
    },
    "fccId": "P27SCO5165P",
    "cbid": "DV1XQE0000020"
  }
}
2024-04-28T06:02:23.640Z - INFO - verified signature on cpiSignatureData
2024-04-28T06:02:23.642Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-04-28T06:02:23.644Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbid": "P27SCO5165PMock-SASDV1XQE0000020",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2024-04-28T06:02:25.230Z - INFO - arrived to nstep starting question answer session with the technician
2024-04-28T06:02:25.230Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2024-04-28T06:05:01.569Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2024-04-28T06:05:02.013Z - INFO - The final result of the test : WINNF.FT.C.REG.5 is - passed

```



```

    "antennaBeamwidth": 60,
    "height": 18,
    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-04-26T16:33:09.062769Z",
    "cpild": "cpi9001"
  },
  "fcclId": "P27SCO5165P",
  "cbbsdSerialNumber": "DV1XQE0000020"
}

```

2024-04-28T06:10:23.125Z - INFO - verified signature on cpiSignatureData

2024-04-28T06:10:23.128Z - INFO - cpiSignatureData data successfully validated against jsonschema

2024-04-28T06:10:23.131Z - INFO - engine sent successfully, the response to CBRS : {

```

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

```

2024-04-28T06:10:25.051Z - INFO - arrived to nstep starting question answer session with the technician

2024-04-28T06:10:25.052Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2024-04-28T06:10:30.138Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2024-04-28T06:10:30.430Z - INFO - The final result of the test : WINNF.FT.C.REG.8 is - passed


```
"antennaBeamwidth": 60,
"height": 18,
"verticalAccuracy": 3
},
"professionalInstallerData": {
  "cpiName": "BV Installer Certificate",
  "installCertificationTime": "2024-04-26T16:33:09.062769Z",
  "cpild": "cpi9001"
},
"fcclId": "P27SCO5165P",
"cbbsdSerialNumber": "DV1XQE0000020"
}
2024-04-28T06:15:52.628Z - INFO - verified signature on cpiSignatureData
2024-04-28T06:15:52.631Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-04-28T06:15:52.634Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 200
      }
    }
  ]
}
}
2024-04-28T06:15:54.427Z - INFO - arrived to nstep starting question answer session with the technician
2024-04-28T06:15:54.428Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2024-04-28T06:17:47.711Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2024-04-28T06:17:48.017Z - INFO - The final result of the test : WINNF.FT.C.REG.10 is - passed
```



```

    "antennaBeamwidth": 60,
    "height": 18,
    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-04-26T16:33:09.062769Z",
    "cpild": "cpi9001"
  },
  "fcclId": "P27SCO5165P",
  "cbsdSerialNumber": "DV1XQE0000020"
}
2024-04-28T06:23:07.424Z - INFO - verified signature on cpiSignatureData
2024-04-28T06:23:07.427Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-04-28T06:23:07.428Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 103
      }
    }
  ]
}
2024-04-28T06:23:08.749Z - INFO - arrived to nstep starting question answer session with the technician
2024-04-28T06:23:08.750Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2024-04-28T06:27:28.790Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2024-04-28T06:27:29.138Z - INFO - The final result of the test : WINNF.FT.C.REG.12 is - passed

```



```

    "antennaBeamwidth": 60,
    "height": 18,
    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-04-26T16:33:09.062769Z",
    "cpild": "cpi9001"
  },
  "fcclId": "P27SCO5165P",
  "cbsdSerialNumber": "DV1XQE0000020"
}
2024-04-28T06:34:21.355Z - INFO - verified signature on cpiSignatureData
2024-04-28T06:34:21.358Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-04-28T06:34:21.359Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 101
      }
    }
  ]
}
}
2024-04-28T06:34:23.269Z - INFO - arrived to nstep starting question answer session with the technician
2024-04-28T06:34:23.269Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2024-04-28T06:39:00.348Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2024-04-28T06:39:00.542Z - INFO - The final result of the test : WINNF.FT.C.REG.14 is - passed

```



```

    "antennaBeamwidth": 60,
    "height": 18,
    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-04-26T16:33:09.062769Z",
    "cpild": "cpi9001"
  },
  "fcclId": "P27SCO5165P",
  "cbbsdSerialNumber": "DV1XQE0000020"
}

```

2024-04-28T06:44:12.959Z - INFO - verified signature on cpiSignatureData
 2024-04-28T06:44:12.963Z - INFO - cpiSignatureData data successfully validated against jsonschema
 2024-04-28T06:44:12.964Z - INFO - engine sent successfully, the response to CBRS : {

```

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

```

2024-04-28T06:44:14.035Z - INFO - arrived to nstep starting question answer session with the technician
 2024-04-28T06:44:14.035Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :
 2024-04-28T06:46:02.688Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n
 2024-04-28T06:46:02.983Z - INFO - The final result of the test : WINNF.FT.C.REG.16 is - passed


```
"antennaBeamwidth": 60,
"height": 18,
"verticalAccuracy": 3
},
"professionalInstallerData": {
  "cpiName": "BV Installer Certificate",
  "installCertificationTime": "2024-04-26T16:33:09.062769Z",
  "cpild": "cpi9001"
},
"fcclId": "P27SCO5165P",
"cbbsdSerialNumber": "DV1XQE0000020"
}
2024-04-28T06:51:17.338Z - INFO - verified signature on cpiSignatureData
2024-04-28T06:51:17.344Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-04-28T06:51:17.345Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 201
      }
    }
  ]
}
}
2024-04-28T06:51:18.561Z - INFO - arrived to nstep starting question answer session with the technician
2024-04-28T06:51:18.562Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2024-04-28T07:08:05.903Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2024-04-28T07:08:06.207Z - INFO - The final result of the test : WINNF.FT.C.REG.18 is - passed
```



```

        "latitude": 41.570738,
        "horizontalAccuracy": 3,
        "antennaDowntilt": 0,
        "antennaBeamwidth": 60,
        "height": 18,
        "verticalAccuracy": 3
    },
    "professionalInstallerData": {
        "cpiName": "BV Installer Certificate",
        "installCertificationTime": "2024-04-26T16:33:09.062769Z",
        "cpild": "cpi9001"
    },
    "fcclId": "P27SCO5165P",
    "cbsdSerialNumber": "DV1XQE0000020"
}
2024-04-28T08:58:10.566Z - INFO - verified signature on cpiSignatureData
2024-04-28T08:58:10.572Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-04-28T08:58:10.573Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2024-04-28T08:58:10.641Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3640000000,
                    "lowFrequency": 3600000000
                }
            ]
        }
    ]
}
2024-04-28T08:58:10.648Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {
                    "channelType": "GAA",
                    "frequencyRange": {
                        "highFrequency": 3640000000,
                        "lowFrequency": 3600000000
                    },
                    "ruleApplied": "FCC_PART_96"
                }
            ],
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "response": {
                "responseCode": 0
            }
        }
    ]
}

```

```
]
}
2024-04-28T08:58:10.700Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "operationParam": {
        "maxEirp": 31,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
}
2024-04-28T08:58:10.707Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "response": {
        "responseCode": 400
      }
    }
  ]
}
}
2024-04-28T08:58:11.891Z - INFO - arrived to nstep starting question answer session with the technician
2024-04-28T08:58:11.892Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2024-04-28T09:03:02.694Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2024-04-28T09:03:02.936Z - INFO - The final result of the test : WINNF.FT.C.GRA.1 is - passed
```



```

    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-04-26T16:33:09.062769Z",
    "cpild": "cpi9001"
  },
  "fcclId": "P27SCO5165P",
  "cbsdSerialNumber": "DV1XQE0000020"
}
2024-04-28T09:08:15.801Z - INFO - verified signature on cpiSignatureData
2024-04-28T09:08:15.803Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-04-28T09:08:15.805Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T09:08:15.874Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      ]
    }
  ]
}
2024-04-28T09:08:15.881Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T09:08:15.931Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {

```

```
"cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
"operationParam": {
  "maxEirp": 31,
  "operationFrequencyRange": {
    "highFrequency": 3640000000,
    "lowFrequency": 3600000000
  }
}
]
```

2024-04-28T09:08:15.937Z - INFO - engine sent successfully, the response to CBRS : {
 "grantResponse": [
 {
 "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
 "response": {
 "responseCode": 401
 }
 }
]
}

2024-04-28T09:08:17.453Z - INFO - arrived to nstep starting question answer session with the technician
2024-04-28T09:08:17.453Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :
2024-04-28T09:08:20.349Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n
2024-04-28T09:08:20.650Z - INFO - The final result of the test : WINNF.FT.C.GRA.2 is - passed

Reference No.: RFBEIH-WTW-P23120633 Test Logs Page No. 25 / 90

```

        "antennaBeamwidth": 60,
        "height": 18,
        "verticalAccuracy": 3
    },
    "professionalInstallerData": {
        "cpiName": "BV Installer Certificate",
        "installCertificationTime": "2024-04-26T16:33:09.062769Z",
        "cpild": "cpi9001"
    },
    "fccId": "P27SCO5165P",
    "cbsdSerialNumber": "DV1XQE0000020"
}
2024-04-28T07:13:22.062Z - INFO - verified signature on cpiSignatureData
2024-04-28T07:13:22.066Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-04-28T07:13:22.068Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2024-04-28T07:13:22.137Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3640000000,
                    "lowFrequency": 3600000000
                }
            ]
        }
    ]
}
2024-04-28T07:13:22.158Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {
                    "channelType": "GAA",
                    "frequencyRange": {
                        "highFrequency": 3640000000,
                        "lowFrequency": 3600000000
                    },
                    "ruleApplied": "FCC_PART_96"
                }
            ],
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2024-04-28T07:13:22.217Z - INFO - grant request from CBRS : {

```

```

    "grantRequest": [
      {
        "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
        "operationParam": {
          "maxEirp": 31,
          "operationFrequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          }
        }
      }
    ]
  }
}
2024-04-28T07:13:22.237Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "channelType": "GAA",
      "grantExpireTime": "2024-05-05T07:13:22Z",
      "grantId": "128261514",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T07:13:22.308Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "128261514",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-04-28T07:13:22.328Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "128261514",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T07:16:42Z"
    }
  ]
}
2024-04-28T07:14:02.621Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "128261514",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}

```

```

}
2024-04-28T07:14:02.622Z - INFO - Time interval between two heartbeat request messages is: 40.314, limit
is: 65.0
2024-04-28T07:14:02.630Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "128261514",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T07:17:22Z"
    }
  ]
}
2024-04-28T07:14:42.683Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "128261514",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-04-28T07:14:42.684Z - INFO - Time interval between two heartbeat request messages is: 40.062, limit
is: 65.0
2024-04-28T07:14:42.690Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "128261514",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T07:18:02Z"
    }
  ]
}
2024-04-28T07:15:22.740Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "128261514",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-04-28T07:15:22.742Z - INFO - Time interval between two heartbeat request messages is: 40.057, limit
is: 65.0
2024-04-28T07:15:22.749Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "128261514",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    },
    "transmitExpireTime": "2024-04-28T07:18:42Z"
  }
]
}
2024-04-28T07:16:02.799Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "128261514",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-04-28T07:16:02.801Z - INFO - Time interval between two heartbeat request messages is: 40.059, limit
is: 65.0
2024-04-28T07:16:02.808Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "128261514",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T07:19:22Z"
    }
  ]
}
2024-04-28T07:16:42.862Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "128261514",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-04-28T07:16:42.865Z - INFO - Time interval between two heartbeat request messages is: 40.064, limit
is: 65.0
2024-04-28T07:16:42.874Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "128261514",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T07:20:02Z"
    }
  ]
}
2024-04-28T07:16:44.555Z - INFO - arrived to nstep starting question answer session with the technician
2024-04-28T07:16:44.556Z - INFO - the question is : Did CBSD1 transmit power prior to AUTHORIZED state
(first successful HBT response)? please choose one of the answers :
2024-04-28T07:17:47.385Z - INFO - for the question : Did CBSD1 transmit power prior to AUTHORIZED state
(first successful HBT response)? , the user choose n

```

2024-04-28T07:17:47.387Z - INFO - the question is : Did CBSD1 transmit only within the frequency range specified in its grantRequest message? please choose one of the answers :

2024-04-28T07:17:48.334Z - INFO - for the question : Did CBSD1 transmit only within the frequency range specified in its grantRequest message? , the user choose y

2024-04-28T07:17:48.842Z - INFO - The final result of the test : WINNF.FT.C.HBT.1 is - passed


```

    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-04-26T16:33:09.062769Z",
    "cpild": "cpi9001"
  },
  "fcclId": "P27SCO5165P",
  "cbsdSerialNumber": "DV1XQE0000020"
}
2024-04-28T07:36:09.091Z - INFO - verified signature on cpiSignatureData
2024-04-28T07:36:09.094Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-04-28T07:36:09.095Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T07:36:09.161Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      ]
    }
  ]
}
2024-04-28T07:36:09.168Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T07:36:09.220Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {

```

```

        "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
        "operationParam": {
            "maxEirp": 31,
            "operationFrequencyRange": {
                "highFrequency": 3640000000,
                "lowFrequency": 3600000000
            }
        }
    }
}
2024-04-28T07:36:09.227Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "channelType": "GAA",
            "grantExpireTime": "2024-05-05T07:36:09Z",
            "grantId": "799476707",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2024-04-28T07:36:09.301Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "grantId": "799476707",
            "grantRenew": false,
            "operationState": "GRANTED"
        }
    ]
}
2024-04-28T07:36:09.306Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "grantId": "799476707",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-04-28T07:39:29Z"
        }
    ]
}
2024-04-28T07:36:49.647Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "grantId": "799476707",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-04-28T07:36:49.648Z - INFO - Time interval between two heartbeat request messages is: 40.346, limit

```

is: 65.0

2024-04-28T07:36:49.653Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "799476707",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-04-28T07:40:09Z"
  }
]
```

2024-04-28T07:37:29.703Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "799476707",
    "grantRenew": false,
    "operationState": "AUTHORIZED"
  }
]
```

2024-04-28T07:37:29.704Z - INFO - Time interval between two heartbeat request messages is: 40.056, limit is: 65.0

2024-04-28T07:37:29.710Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "799476707",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-04-28T07:40:49Z"
  }
]
```

2024-04-28T07:38:09.759Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "799476707",
    "grantRenew": false,
    "operationState": "AUTHORIZED"
  }
]
```

2024-04-28T07:38:09.762Z - INFO - Time interval between two heartbeat request messages is: 40.058, limit is: 65.0

2024-04-28T07:38:09.767Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "799476707",
    "response": {
      "responseCode": 105
    },
    "transmitExpireTime": "2024-04-28T07:38:09Z"
  }
]
```

```
}  
]  
}
```

2024-04-28T07:38:11.065Z - INFO - arrived to nstep starting question answer session with the technician

2024-04-28T07:38:11.066Z - 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 :

2024-04-28T07:45:25.325Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds of receiving Heartbeat response with responseCode = 105? , the user choose y

2024-04-28T07:45:25.627Z - INFO - The final result of the test : WINNF.FT.C.HBT.3 is - passed


```

    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-04-26T16:33:09.062769Z",
    "cpild": "cpi9001"
  },
  "fccId": "P27SCO5165P",
  "cbsdSerialNumber": "DV1XQE0000020"
}
2024-04-28T07:50:55.703Z - INFO - verified signature on cpiSignatureData
2024-04-28T07:50:55.707Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-04-28T07:50:55.709Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T07:50:55.779Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      ]
    }
  ]
}
2024-04-28T07:50:55.786Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T07:50:55.838Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {

```

```

    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "operationParam": {
      "maxEirp": 31,
      "operationFrequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3600000000
      }
    }
  }
]
}
2024-04-28T07:50:55.842Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "channelType": "GAA",
      "grantExpireTime": "2024-05-05T07:50:55Z",
      "grantId": "188613582",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T07:50:55.914Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "188613582",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-04-28T07:50:55.921Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "188613582",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T07:54:15Z"
    }
  ]
}
2024-04-28T07:51:36.184Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "188613582",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-04-28T07:51:36.184Z - INFO - Time interval between two heartbeat request messages is: 40.27, limit is:

```

65.0

2024-04-28T07:51:36.190Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "188613582",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-04-28T07:54:56Z"
  }
]
```

2024-04-28T07:52:16.240Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "188613582",
    "grantRenew": false,
    "operationState": "AUTHORIZED"
  }
]
```

2024-04-28T07:52:16.243Z - INFO - Time interval between two heartbeat request messages is: 40.058, limit is: 65.0

2024-04-28T07:52:16.247Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "188613582",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-04-28T07:55:36Z"
  }
]
```

2024-04-28T07:52:56.298Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "188613582",
    "grantRenew": false,
    "operationState": "AUTHORIZED"
  }
]
```

2024-04-28T07:52:56.299Z - INFO - Time interval between two heartbeat request messages is: 40.056, limit is: 65.0

2024-04-28T07:52:56.305Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "188613582",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-04-28T07:56:16Z"
  }
]
```

```

    }
  ]
}
2024-04-28T07:53:36.355Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "188613582",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-04-28T07:53:36.357Z - INFO - Time interval between two heartbeat request messages is: 40.058, limit
is: 65.0
2024-04-28T07:53:36.361Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "188613582",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T07:56:56Z"
    }
  ]
}
2024-04-28T07:54:16.414Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "188613582",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-04-28T07:54:16.415Z - INFO - Time interval between two heartbeat request messages is: 40.058, limit
is: 65.0
2024-04-28T07:54:16.421Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "188613582",
      "response": {
        "responseCode": 500
      },
      "transmitExpireTime": "2024-04-28T07:54:16Z"
    }
  ]
}
2024-04-28T07:54:18.244Z - INFO - arrived to nstep starting question answer session with the technician
2024-04-28T07:54:18.246Z - 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 :
2024-04-28T07:54:39.427Z - INFO - for the question : Did the CBSD1 stop RF transmission within 60
seconds of receiving Heartbeat response with responseCode = 500? , the user choose y
2024-04-28T07:54:39.671Z - INFO - The final result of the test : WINNF.FT.C.HBT.4 is - passed

```



```

    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-04-26T16:33:09.062769Z",
    "cpild": "cpi9001"
  },
  "fccId": "P27SCO5165P",
  "cbsdSerialNumber": "DV1XQE0000020"
}
2024-04-28T07:59:51.395Z - INFO - verified signature on cpiSignatureData
2024-04-28T07:59:51.400Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-04-28T07:59:51.401Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T07:59:51.470Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      ]
    }
  ]
}
2024-04-28T07:59:51.476Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T07:59:51.529Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {

```

```

    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "operationParam": {
      "maxEirp": 31,
      "operationFrequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3600000000
      }
    }
  }
]
}
2024-04-28T07:59:51.535Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "channelType": "GAA",
      "grantExpireTime": "2024-05-05T07:59:51Z",
      "grantId": "164983742",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T07:59:51.605Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "164983742",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-04-28T07:59:51.611Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "164983742",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2024-04-28T07:59:51Z"
    }
  ]
}
2024-04-28T08:00:31.704Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "164983742",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-04-28T08:00:31.707Z - INFO - Time interval between two heartbeat request messages is: 40.1, limit is:

```

65.0

2024-04-28T08:00:31.713Z - INFO - engine sent successfully, the response to CBRS : {

"heartbeatResponse": [

{

"cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",

"grantId": "164983742",

"response": {

"responseCode": 501

},

"transmitExpireTime": "2024-04-28T08:00:31Z"

}

]

}

2024-04-28T08:00:32.868Z - INFO - arrived to nstep starting question answer session with the technician

2024-04-28T08:00:32.868Z - INFO - the question is : Did the CBSD transmit at any time during the test?

please choose one of the answers :

2024-04-28T08:08:14.835Z - INFO - for the question : Did the CBSD transmit at any time during the test? , the user choose n

2024-04-28T08:08:15.157Z - INFO - The final result of the test : WINNF.FT.C.HBT.5 is - passed


```

    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-04-26T16:33:09.062769Z",
    "cpild": "cpi9001"
  },
  "fccId": "P27SCO5165P",
  "cbsdSerialNumber": "DV1XQE0000020"
}
2024-04-28T08:14:39.635Z - INFO - verified signature on cpiSignatureData
2024-04-28T08:14:39.640Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-04-28T08:14:39.641Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T08:14:39.710Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      ]
    }
  ]
}
2024-04-28T08:14:39.716Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T08:14:39.767Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {

```

```

        "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
        "operationParam": {
            "maxEirp": 31,
            "operationFrequencyRange": {
                "highFrequency": 3640000000,
                "lowFrequency": 3600000000
            }
        }
    }
}
2024-04-28T08:14:39.773Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "channelType": "GAA",
            "grantExpireTime": "2024-05-05T08:14:39Z",
            "grantId": "559432344",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2024-04-28T08:14:39.842Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "grantId": "559432344",
            "grantRenew": false,
            "operationState": "GRANTED"
        }
    ]
}
2024-04-28T08:14:39.848Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "grantId": "559432344",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-04-28T08:17:59Z"
        }
    ]
}
2024-04-28T08:15:20.177Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "grantId": "559432344",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-04-28T08:15:20.178Z - INFO - Time interval between two heartbeat request messages is: 40.335, limit

```

is: 65.0

2024-04-28T08:15:20.184Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "559432344",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-04-28T08:18:40Z"
  }
]
```

}

2024-04-28T08:16:00.236Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "559432344",
    "grantRenew": false,
    "operationState": "AUTHORIZED"
  }
]
```

}

2024-04-28T08:16:00.237Z - INFO - Time interval between two heartbeat request messages is: 40.058, limit is: 65.0

2024-04-28T08:16:00.246Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "559432344",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-04-28T08:19:20Z"
  }
]
```

}

2024-04-28T08:16:40.299Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "559432344",
    "grantRenew": false,
    "operationState": "AUTHORIZED"
  }
]
```

}

2024-04-28T08:16:40.299Z - INFO - Time interval between two heartbeat request messages is: 40.063, limit is: 65.0

2024-04-28T08:16:40.305Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "559432344",
    "response": {
      "responseCode": 501
    },
    "transmitExpireTime": "2024-04-28T08:16:40Z"
  }
]
```

```
    }  
  ]  
}  
2024-04-28T08:17:20.372Z - INFO - heartbeat request from CBRS : {  
  "heartbeatRequest": [  
    {  
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",  
      "grantId": "559432344",  
      "grantRenew": false,  
      "operationState": "GRANTED"  
    }  
  ]  
}  
2024-04-28T08:17:20.377Z - INFO - Time interval between two heartbeat request messages is: 40.074, limit  
is: 65.0  
2024-04-28T08:17:20.384Z - INFO - engine sent successfully, the response to CBRS : {  
  "heartbeatResponse": [  
    {  
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",  
      "grantId": "559432344",  
      "response": {  
        "responseCode": 501  
      },  
      "transmitExpireTime": "2024-04-28T08:17:20Z"  
    }  
  ]  
}  
2024-04-28T08:17:22.158Z - INFO - arrived to nstep starting question answer session with the technician  
2024-04-28T08:17:22.160Z - 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 :  
2024-04-28T08:17:37.239Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds  
of receiving Heartbeat response with responseCode = 501? , the user choose y  
2024-04-28T08:17:37.490Z - INFO - The final result of the test : WINNF.FT.C.HBT.6 is - passed
```



```

    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-04-26T16:33:09.062769Z",
    "cpild": "cpi9001"
  },
  "fccId": "P27SCO5165P",
  "cbsdSerialNumber": "DV1XQE0000020"
}
2024-04-28T08:22:49.586Z - INFO - verified signature on cpiSignatureData
2024-04-28T08:22:49.595Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-04-28T08:22:49.596Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T08:22:49.667Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      ]
    }
  ]
}
2024-04-28T08:22:49.674Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T08:22:49.732Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {

```

```

        "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
        "operationParam": {
            "maxEirp": 31,
            "operationFrequencyRange": {
                "highFrequency": 3640000000,
                "lowFrequency": 3600000000
            }
        }
    }
]
}
2024-04-28T08:22:49.737Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "channelType": "GAA",
            "grantExpireTime": "2024-05-05T08:22:49Z",
            "grantId": "107170509",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2024-04-28T08:22:49.811Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "grantId": "107170509",
            "grantRenew": false,
            "operationState": "GRANTED"
        }
    ]
}
2024-04-28T08:22:49.816Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "grantId": "107170509",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-04-28T08:26:09Z"
        }
    ]
}
2024-04-28T08:23:30.128Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "grantId": "107170509",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-04-28T08:23:30.131Z - INFO - Time interval between two heartbeat request messages is: 40.318, limit

```

is: 65.0

2024-04-28T08:23:30.141Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "107170509",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-04-28T08:26:50Z"
  }
]
```

2024-04-28T08:24:10.190Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "107170509",
    "grantRenew": false,
    "operationState": "AUTHORIZED"
  }
]
```

2024-04-28T08:24:10.193Z - INFO - Time interval between two heartbeat request messages is: 40.062, limit is: 65.0

2024-04-28T08:24:10.200Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "107170509",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-04-28T08:27:30Z"
  }
]
```

2024-04-28T08:24:50.253Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "107170509",
    "grantRenew": false,
    "operationState": "AUTHORIZED"
  }
]
```

2024-04-28T08:24:50.253Z - INFO - Time interval between two heartbeat request messages is: 40.062, limit is: 65.0

2024-04-28T08:24:50.259Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "107170509",
    "response": {
      "responseCode": 502
    },
    "transmitExpireTime": "2024-04-28T08:24:50Z"
  }
]
```

```
    }  
  ]  
}  
2024-04-28T08:24:50.630Z - INFO - relinquishment request from CBRS : {  
  "relinquishmentRequest": [  
    {  
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",  
      "grantId": "107170509"  
    }  
  ]  
}  
2024-04-28T08:24:50.645Z - INFO - engine sent successfully, the response to CBRS : {  
  "relinquishmentResponse": [  
    {  
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",  
      "grantId": "107170509",  
      "response": {  
        "responseCode": 0  
      }  
    }  
  ]  
}  
2024-04-28T08:24:52.342Z - INFO - arrived to nstep starting question answer session with the technician  
2024-04-28T08:24:52.342Z - 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 :  
2024-04-28T08:25:36.634Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds  
of receiving Heartbeat response with responseCode = 502? , the user choose y  
2024-04-28T08:25:36.892Z - INFO - The final result of the test : WINNF.FT.C.HBT.7 is - passed
```

Reference No.: RFBEIH-WTW-P23120633 Test Logs Page No. 55 / 90

```

    "antennaBeamwidth": 60,
    "height": 18,
    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-04-26T16:33:09.062769Z",
    "cpild": "cpi9001"
  },
  "fcclId": "P27SCO5165P",
  "cbsdSerialNumber": "DV1XQE0000020"
}
2024-04-28T08:30:47.778Z - INFO - verified signature on cpiSignatureData
2024-04-28T08:30:47.782Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-04-28T08:30:47.782Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T08:30:47.851Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      ]
    }
  ]
}
2024-04-28T08:30:47.857Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T08:30:47.910Z - INFO - grant request from CBRS : {

```

```

"grantRequest": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "operationParam": {
      "maxEirp": 31,
      "operationFrequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3600000000
      }
    }
  }
]
}
2024-04-28T08:30:47.914Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "channelType": "GAA",
      "grantExpireTime": "2024-05-05T08:30:47Z",
      "grantId": "350803638",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T08:30:47.986Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "350803638",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-04-28T08:31:18.033Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "350803638",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-04-28T08:31:18.035Z - INFO - request message received while HBT is absent, sleep 174 sec before
responding
2024-04-28T08:31:47.993Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "350803638",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}

```

```

}
2024-04-28T08:31:47.993Z - INFO - request message received while HBT is absent, sleep 144 sec before
responding
2024-04-28T08:32:17.996Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "350803638",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-04-28T08:32:17.996Z - INFO - request message received while HBT is absent, sleep 114 sec before
responding
2024-04-28T08:32:48.002Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "350803638",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-04-28T08:32:48.003Z - INFO - request message received while HBT is absent, sleep 84 sec before
responding
2024-04-28T08:33:18.292Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2024-04-28T08:33:18.292Z - INFO - request message received while HBT is absent, sleep 54 sec before
responding
2024-04-28T08:33:48.273Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "350803638"
    }
  ]
}
2024-04-28T08:33:48.273Z - INFO - request message received while HBT is absent, sleep 24 sec before
responding
2024-04-28T08:34:07.994Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "350803638",
      "response": {

```

```
        "responseCode": 501
      },
      "transmitExpireTime": "2024-04-28T08:34:07Z"
    }
  ]
}
```

2024-04-28T08:34:09.798Z - INFO - arrived to nstep starting question answer session with the technician
2024-04-28T08:34:09.799Z - INFO - the question is : Were there RF transmissions from the CBSD during the test? please choose one of the answers :
2024-04-28T08:34:11.996Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"
2024-04-28T08:34:11.996Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"
2024-04-28T08:34:12.006Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"
2024-04-28T08:34:12.036Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"
2024-04-28T08:34:12.275Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"
2024-04-28T08:34:12.295Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"
2024-04-28T08:35:07.098Z - INFO - for the question : Were there RF transmissions from the CBSD during the test? , the user choose n
2024-04-28T08:35:07.438Z - INFO - The final result of the test : WINNF.FT.C.HBT.9 is - passed


```

    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-04-26T16:33:09.062769Z",
    "cpild": "cpi9001"
  },
  "fcclid": "P27SCO5165P",
  "cbsdSerialNumber": "DV1XQE0000020"
}
2024-04-28T08:40:38.714Z - INFO - verified signature on cpiSignatureData
2024-04-28T08:40:38.720Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-04-28T08:40:38.720Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T08:40:38.788Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      ]
    }
  ]
}
2024-04-28T08:40:38.796Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T08:40:38.846Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {

```

```

    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "operationParam": {
      "maxEirp": 31,
      "operationFrequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3600000000
      }
    }
  }
]
}
2024-04-28T08:40:38.854Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "channelType": "GAA",
      "grantExpireTime": "2024-05-05T08:40:38Z",
      "grantId": "719913312",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T08:40:38.927Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "719913312",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-04-28T08:40:38.934Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "719913312",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T08:43:58Z"
    }
  ]
}
2024-04-28T08:41:19.242Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "719913312",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-04-28T08:41:19.243Z - INFO - Time interval between two heartbeat request messages is: 40.314, limit

```

is: 65.0

2024-04-28T08:41:19.247Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "719913312",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-04-28T08:44:39Z"
  }
]
```

2024-04-28T08:41:59.298Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "719913312",
    "grantRenew": false,
    "operationState": "AUTHORIZED"
  }
]
```

2024-04-28T08:41:59.299Z - INFO - Time interval between two heartbeat request messages is: 40.057, limit is: 65.0

2024-04-28T08:41:59.302Z - INFO - LAST HBT RESPONSE THAT SET TRANSMIT_EXPIRE_TIME WAS AT: 2024-04-28 08:41:19.242000

2024-04-28T08:42:29.309Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "719913312",
    "grantRenew": false,
    "operationState": "AUTHORIZED"
  }
]
```

2024-04-28T08:42:29.309Z - INFO - request message received while HBT is absent, sleep 174 sec before responding

2024-04-28T08:42:59.309Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "719913312",
    "grantRenew": false,
    "operationState": "AUTHORIZED"
  }
]
```

2024-04-28T08:42:59.309Z - INFO - request message received while HBT is absent, sleep 144 sec before responding

2024-04-28T08:43:29.312Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "719913312",
    "grantRenew": false,
    "operationState": "AUTHORIZED"
  }
]
```

```

    }
  ]
}
2024-04-28T08:43:29.312Z - INFO - request message received while HBT is absent, sleep 114 sec before
responding
2024-04-28T08:43:59.312Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "719913312",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-04-28T08:43:59.312Z - INFO - request message received while HBT is absent, sleep 84 sec before
responding
2024-04-28T08:44:29.313Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "719913312",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-04-28T08:44:29.313Z - INFO - request message received while HBT is absent, sleep 54 sec before
responding
2024-04-28T08:45:19.308Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "719913312",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2024-04-28T08:45:19Z"
    }
  ]
}
2024-04-28T08:45:20.950Z - INFO - arrived to nstep starting question answer session with the technician
2024-04-28T08:45:20.953Z - INFO - the question is : Did the CBSD stop RF transmissions within
(transmitExpireTime + 60seconds) of last valid heartbeat response? please choose one of the answers :
2024-04-28T08:45:23.312Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2024-04-28T08:45:23.312Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2024-04-28T08:45:23.316Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2024-04-28T08:45:23.318Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2024-04-28T08:45:23.318Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2024-04-28T08:45:51.819Z - INFO - for the question : Did the CBSD stop RF transmissions within
(transmitExpireTime + 60seconds) of last valid heartbeat response? , the user choose y
2024-04-28T08:45:52.194Z - INFO - The final result of the test : WINNF.FT.C.HBT.10 is - passed

```

4 CBSD Relinquishment Process

4.1 WINNF.FT.C.RLQ.1

2024-04-28T09:09:12.444Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-04-28T09:09:12.446Z - INFO - the selected test from the user : WINNF.FT.C.RLQ.1 is starting now

2024-04-28T09:13:54.302Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "NR",

"supportedSpec": "FFS"

},

"callSign": "",

"cbsdCategory": "B",

"cbsdSerialNumber": "DV1XQE0000020",

"cpiSignatureData": {

"digitalSignature":

"UDfU16j87jOZlZqEkM47NkUdiNTfjHmQ88bJVK-hMhYZ7GYZe0051mahchmvqeNsYEuiwtp7pEyVbetvRjrTI
0oqIBFemckDLn0aTmkx55H--2xsTSZMnI_orDeadau7k4Kn6bbhls1UAkugkEBizPoICNzP09F2ZOAK4qWz5v
yEY3uVduwGy9AEeEcSP-YAiWzerG2Y5it7aywjQMaeeAbMpAzQPRGuFXfisLVvTNS0iyTMHBH0ECgqkmp
9JQmS04yXywrjZg-52aUHfXWqNNSPyoZrDzGjdM2ltMzM_03rM4LaMM5yTNaKAFVCzj6-kTIXi2qPcMd2yzy
USBgCnw",

"encodedCpiSignedData":

"eyJpbN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGI0eSI6NDcsImhlaWdodFR5cGU0iJBR0wiLC
JhbnRlbn5hR2Fpbil6MTIsImhvcml6b250YWxkY2N1cmFjeSI6MywiYW50ZW5uYURvd250aWx0lJowLCJhbn
Rlbn5hQmVhbXdpZHRoljo2MCwiaGVpZ2h0ljoXOCwidmVydGljYWxkY2N1cmFjeSI6MywiYW50ZW5uYUUF6
aW11dGgiOjAsImxvbmtpdHVKZSI6LTkwLjYwMjcXNSwiaW5kb29yRGVwbG95bWVudCI6ZmFsc2UsImxhdG
I0dWRlljo0MS41NzA3Mzh9LCJmY2NJZCI6IiAyN1NDTzUxNjVQliwicHJvZmVzc2lvcml6b250aWxkY2N1cmFjeSI6MywiYW50ZW5uYUUF6
GF0YSI6eyJjcGLOYW11ljoIYgSW5zdGFsbGVyIENlcnRpZmljYXRlliwiaW5zdGFsbENlcnRpZmljYXRpb25U
aW11ljoIYjAyNC0wNC0yNIQXNjowZmowOS4wNjI3NjlaIiwiaW5kb29yRGVwbG95bWVudCI6ZmFsc2UsImxhdG
I0dWRlljo0MS41NzA3Mzh9LCJmY2NJZCI6IiAyN1NDTzUxNjVQliwicHJvZmVzc2lvcml6b250aWxkY2N1cmFjeSI6MywiYW50ZW5uYUUF6
OdW1iZXliOiJlEVJfYUUYUwMDAwMDIwIn0",

"protectedHeader": "eyJhbnGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "P27SCO5165P",

"groupingParam": [

{

"groupId": "SERCOMM_111",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "W8QZWf"

}

]

}

2024-04-28T09:13:54.342Z - INFO - Registration message contains cpiSignatureData

2024-04-28T09:13:54.342Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2024-04-28T09:13:54.342Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"eirpCapability": 47,

"antennaAzimuth": 0,

"heightType": "AGL",

"longitude": -90.602715,

"antennaGain": 12,

"indoorDeployment": false,

```

        "latitude": 41.570738,
        "horizontalAccuracy": 3,
        "antennaDowntilt": 0,
        "antennaBeamwidth": 60,
        "height": 18,
        "verticalAccuracy": 3
    },
    "professionalInstallerData": {
        "cpiName": "BV Installer Certificate",
        "installCertificationTime": "2024-04-26T16:33:09.062769Z",
        "cpild": "cpi9001"
    },
    "fcclId": "P27SCO5165P",
    "cbsdSerialNumber": "DV1XQE0000020"
}
2024-04-28T09:13:54.408Z - INFO - verified signature on cpiSignatureData
2024-04-28T09:13:54.413Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-04-28T09:13:54.414Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2024-04-28T09:13:54.480Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3640000000,
                    "lowFrequency": 3600000000
                }
            ]
        }
    ]
}
2024-04-28T09:13:54.487Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {
                    "channelType": "GAA",
                    "frequencyRange": {
                        "highFrequency": 3640000000,
                        "lowFrequency": 3600000000
                    },
                    "ruleApplied": "FCC_PART_96"
                }
            ],
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "response": {
                "responseCode": 0
            }
        }
    ]
}

```

```

    ]
  }
  2024-04-28T09:13:54.539Z - INFO - grant request from CBRS : {
    "grantRequest": [
      {
        "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
        "operationParam": {
          "maxEirp": 31,
          "operationFrequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          }
        }
      }
    ]
  }
  2024-04-28T09:13:54.546Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
      {
        "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
        "channelType": "GAA",
        "grantExpireTime": "2024-05-05T09:13:54Z",
        "grantId": "235943952",
        "heartbeatInterval": 60,
        "response": {
          "responseCode": 0
        }
      }
    ]
  }
  2024-04-28T09:13:54.615Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
      {
        "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
        "grantId": "235943952",
        "grantRenew": false,
        "operationState": "GRANTED"
      }
    ]
  }
  2024-04-28T09:13:54.622Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
      {
        "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
        "grantId": "235943952",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2024-04-28T09:17:14Z"
      }
    ]
  }
  2024-04-28T09:14:35.006Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
      {
        "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
        "grantId": "235943952",
        "grantRenew": false,

```

```

    "operationState": "AUTHORIZED"
  }
]
}
2024-04-28T09:14:35.006Z - INFO - Time interval between two heartbeat request messages is: 40.389, limit
is: 65.0
2024-04-28T09:14:35.013Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "235943952",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T09:17:55Z"
    }
  ]
}
2024-04-28T09:14:41.674Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "235943952"
    }
  ]
}
2024-04-28T09:14:41.678Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "235943952",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T09:14:42.694Z - INFO - arrived to nstep starting question answer session with the technician
2024-04-28T09:14:42.694Z - INFO - the question is : Did CBSD1 cease RF transmission before receipt of
Relinquishment Request by Test Harness? please choose one of the answers :
2024-04-28T09:14:47.111Z - INFO - for the question : Did CBSD1 cease RF transmission before receipt of
Relinquishment Request by Test Harness? , the user choose y
2024-04-28T09:14:47.539Z - INFO - The final result of the test : WINNF.FT.C.RLQ.1 is - passed

```

5 CBSD Deregistration Process

5.1 WINNF.FT.C.DRG.1

2024-04-28T09:18:03.950Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-04-28T09:18:03.951Z - INFO - the selected test from the user : WINNF.FT.C.DRG.1 is starting now

2024-04-28T09:22:39.325Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "NR",

"supportedSpec": "FFS"

},

"callSign": "",

"cbsdCategory": "B",

"cbsdSerialNumber": "DV1XQE0000020",

"cpiSignatureData": {

"digitalSignature":

"UDfU16j87jOZlZqEkM47NkUdiNTfjHmQ88bJVK-hMhYZ7GYZe0051mahchmvqeNsYEuiwtp7pEyVbetvRjrTI
0oqIBFemckDLn0aTmkx55H--2xsTSZMnI_orDeadau7k4Kn6bbhls1UAkugkEBizPolCNzP09F2ZOAK4qWz5v
yEY3uVduwGy9AEeEcSP-YAiWzerG2Y5it7aywjQMaeeAbMpAzQPRGuFXfisLVvTNS0iyTMHBH0ECgqkmp
9JQmS04yXywrjZg-52aUHfXWqNNSPyoZrDzGjdM2ltMzM_03rM4LaMM5yTNaKAFVCzj6-kTIXi2qPcMd2yzy
USBgCnw",

"encodedCpiSignedData":

"eyJpbN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGI0eSI6NDcslmhlaWdodFR5cGU0iJBR0wiLC
JhbnRlbn5hR2Fpbil6MTIsImhvcml6b250YWxkY2N1cmFjeSI6MywiYW50ZW5uYURvd250aWx0IjowLCJhbn
Rlbn5hQmVhbXdpZHRoljo2MCwiaGVpZ2h0IjoxOCwidmVydGljYWxkY2N1cmFjeSI6MywiYW50ZW5uYUUF6
aW11dGgiOjAsImxvbmtpdHVkZSI6LTkwLjYwMjcXNSwiaW5kb29yRGVwbG95bWVudCI6ZmFsc2UsImxhdG
I0dWRlljo0MS41NzA3Mzh9LjYyNjZCI6IiAyN1NDTzUxNjVQliwicHJvZmVzc2lvcml6b250aWxkY2N1cmFjeSI6MywiYW50ZW5uYUUF6
GF0YSi6eyJjcGLOYW11IjoiQlYgSW5zdGFsbGVyIENlcnRpZmljYXRlliwiaW5zdGFsbENlcnRpZmljYXRpb25U
aW11IjoiMjAyNC0wNC0yNiQxNjowMzowOS4wNjI3NjIjoiY3BpSWQ0IjoiJjcGk5MDAxIn0slmNic2RTZXJpYWxk
OdW1iZXliOiJlJEVjYU00UwMDAwMDIwIn0",

"protectedHeader": "eyJhbnRlbn5hR2Fpbil6MTIsImhvcml6b250aWxkY2N1cmFjeSI6MywiYW50ZW5uYUUF6aW11dGgiOjAsImxvbmtpdHVkZSI6LTkwLjYwMjcXNSwiaW5kb29yRGVwbG95bWVudCI6ZmFsc2UsImxhdG

},

"fccId": "P27SCO5165P",

"groupingParam": [

{

"groupId": "SERCOMM_111",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "W8QZWf"

}

]

}

2024-04-28T09:22:39.368Z - INFO - Registration message contains cpiSignatureData

2024-04-28T09:22:39.368Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2024-04-28T09:22:39.368Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"eirpCapability": 47,

"antennaAzimuth": 0,

"heightType": "AGL",

"longitude": -90.602715,

"antennaGain": 12,

"indoorDeployment": false,

"latitude": 41.570738,

"horizontalAccuracy": 3,

```

        "antennaDowntilt": 0,
        "antennaBeamwidth": 60,
        "height": 18,
        "verticalAccuracy": 3
    },
    "professionalInstallerData": {
        "cpiName": "BV Installer Certificate",
        "installCertificationTime": "2024-04-26T16:33:09.062769Z",
        "cpild": "cpi9001"
    },
    "fccId": "P27SCO5165P",
    "cbsdSerialNumber": "DV1XQE0000020"
}
2024-04-28T09:22:39.447Z - INFO - verified signature on cpiSignatureData
2024-04-28T09:22:39.451Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-04-28T09:22:39.453Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2024-04-28T09:22:39.523Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3640000000,
                    "lowFrequency": 3600000000
                }
            ]
        }
    ]
}
2024-04-28T09:22:39.530Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {
                    "channelType": "GAA",
                    "frequencyRange": {
                        "highFrequency": 3640000000,
                        "lowFrequency": 3600000000
                    },
                    "ruleApplied": "FCC_PART_96"
                }
            ],
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "response": {
                "responseCode": 0
            }
        }
    ]
}

```

```

2024-04-28T09:22:39.581Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "operationParam": {
        "maxEirp": 31,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2024-04-28T09:22:39.586Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "channelType": "GAA",
      "grantExpireTime": "2024-05-05T09:22:39Z",
      "grantId": "521017034",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T09:22:39.657Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "521017034",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-04-28T09:22:39.664Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "521017034",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T09:25:59Z"
    }
  ]
}
2024-04-28T09:23:19.959Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "521017034",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}

```

```

    ]
  }
2024-04-28T09:23:19.960Z - INFO - Time interval between two heartbeat request messages is: 40.301, limit
is: 65.0
2024-04-28T09:23:19.964Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "521017034",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T09:26:39Z"
    }
  ]
}
2024-04-28T09:24:00.015Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "521017034",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-04-28T09:24:00.016Z - INFO - Time interval between two heartbeat request messages is: 40.056, limit
is: 65.0
2024-04-28T09:24:00.023Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "521017034",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T09:27:20Z"
    }
  ]
}
2024-04-28T09:24:18.842Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "521017034"
    }
  ]
}
2024-04-28T09:24:18.845Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "521017034",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```
}
2024-04-28T09:24:18.927Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020"
    }
  ]
}
2024-04-28T09:24:18.940Z - INFO - engine sent successfully, the response to CBRS : {
  "deregistrationResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T09:24:20.147Z - INFO - arrived to nstep starting question answer session with the technician
2024-04-28T09:24:20.148Z - 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 :
2024-04-28T09:24:22.234Z - 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
2024-04-28T09:24:22.575Z - INFO - The final result of the test : WINNF.FT.C.DRG.1 is - passed
```

6 CBSD Security Validation

6.1 WINNF.FT.C.SCS.1

2024-04-28T09:27:39.015Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-04-28T09:27:39.015Z - INFO - the selected test from the user : WINNF.FT.C.SCS.1 is starting now

2024-04-28T09:32:24.609Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "DV1XQE0000020",
    "cpiSignatureData": {
      "digitalSignature":
```

```
"UDfU16j87jOZlZqEkM47NkUdiNTfjHmQ88bJVK-hMhYZ7GYZe0051mahchmvqeNsYEuiwtp7pEyVbetvRjrTI
0oqIBFemckDLn0aTmkx55H--2xsTSZMnI_orDeadau7k4Kn6bbhls1UAkugkEBizPolCNzP09F2ZOAK4qWz5v
yEY3uVduwGy9AEeEcSP-YAiWzerG2Y5it7aywjQMaeeAbMpAzQPRGuFXfisLVvTNS0iyTMHBH0ECgqkmp
9JQmS04yXywrjZg-52aUHfXWqNNSPyoZrDzGjdM2ltMzM_03rM4LaMM5yTNaKAFVCzj6-kTIXi2qPcMd2yzy
USBgCnw",
```

```
      "encodedCpiSignedData":
```

```
"eyJpbN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGI0eSI6NDcslmhlaWdodFR5cGUiOiJBR0wiLC
JhbnRlbn5hR2Fpbil6MTIsImhvcml6b250YWxkY2N1cmFjeSI6MywiYW50ZW5uYURvd250aWx0IjowLCJhbn
Rlbn5hQmVhbXdpZHRoljo2MCwiaGVpZ2h0IjoxOCwidmVydGljYWxkY2N1cmFjeSI6MywiYW50ZW5uYUUF6
aW11dGgiOiJAsImxvbmtpdHVkZSI6LTkwLjYwMjcXNSwiaW5kb29yRGVwbG95bWVudCI6ZmFsc2UsImxhdG
I0dWRlljo0MS41NzA3Mzh9LCJmY2NjZCI6IiAyN1NDTzUxNjVQIiwicHJvZmVzc2lvcml6b250ZW50dGFsbGVyR
GF0YSI6eyJjcGLOYW11IjoiQIYgSW5zdGFsbGVyIENlcnRpZmljYXRlliwiaW5zdGFsbENlcnRpZmljYXRpb25U
aW11IjoiMjAyNC0wNC0yNiQxNjoxMzowOS4wNjI3NjIiLCJpY3BpSWQlOiJjcGk5MDAxIn0sImNic2RTZXJpYWxk
OdW1iZXliOiJlJEVjYUUYUwMDAwMDIwIn0",
```

```
      "protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"
```

```
    },
    "fccId": "P27SCO5165P",
    "groupingParam": [
```

```
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
```

```
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
```

```
}
}
```

2024-04-28T09:32:24.631Z - INFO - Registration message contains cpiSignatureData

2024-04-28T09:32:24.631Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2024-04-28T09:32:24.632Z - INFO - encodedCpiSignedData contents = {

```
"installationParam": {
  "eirpCapability": 47,
  "antennaAzimuth": 0,
  "heightType": "AGL",
  "longitude": -90.602715,
  "antennaGain": 12,
  "indoorDeployment": false,
  "latitude": 41.570738,
  "horizontalAccuracy": 3,
```

```

    "antennaDowntilt": 0,
    "antennaBeamwidth": 60,
    "height": 18,
    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-04-26T16:33:09.062769Z",
    "cpild": "cpi9001"
  },
  "fcclId": "P27SCO5165P",
  "cbbsdSerialNumber": "DV1XQE0000020"
}

```

2024-04-28T09:32:24.720Z - INFO - verified signature on cpiSignatureData

2024-04-28T09:32:24.723Z - INFO - cpiSignatureData data successfully validated against jsonschema

2024-04-28T09:32:24.726Z - INFO - engine sent successfully, the response to CBRS : {

```

  "registrationResponse": [
    {
      "cbssdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

2024-04-28T09:32:26.125Z - INFO - arrived to nstep starting question answer session with the technician

2024-04-28T09:32:26.125Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2024-04-28T09:32:32.891Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2024-04-28T09:32:33.082Z - INFO - The final result of the test : WINNF.FT.C.SCS.1 is - passed

6.2 WINNF.FT.C.SCS.2

2024-04-28T09:39:37.756Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-04-28T09:39:37.756Z - INFO - the selected test from the user : WINNF.FT.C.SCS.2 is starting now

6.3 WINNF.FT.C.SCS.3

2024-04-28T09:52:02.599Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-04-28T09:52:02.599Z - INFO - the selected test from the user : WINNF.FT.C.SCS.3 is starting now

6.4 WINNF.FT.C.SCS.4

2024-04-28T09:57:34.862Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-04-28T09:57:34.862Z - INFO - the selected test from the user : WINNF.FT.C.SCS.4 is starting now

6.5 WINNF.FT.C.SCS.5

2024-04-28T10:01:54.648Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-04-28T10:01:54.650Z - INFO - the selected test from the user : WINNF.FT.C.SCS.5 is starting now


```

}
2024-04-28T10:16:33.095Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      ]
    }
  ]
}
2024-04-28T10:16:33.109Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code
is 0
2024-04-28T10:16:33.111Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "maxEirp": 0,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T10:16:33.161Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "operationParam": {
        "maxEirp": -1,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2024-04-28T10:16:33.176Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "channelType": "GAA",
      "grantExpireTime": "2024-05-05T10:16:33Z",
      "grantId": "288692962",

```

```

        "heartbeatInterval": 60,
        "response": {
            "responseCode": 0
        }
    ]
}
2024-04-28T10:16:33.249Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "grantId": "288692962",
            "grantRenew": false,
            "operationState": "GRANTED"
        }
    ]
}
2024-04-28T10:16:33.263Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "grantId": "288692962",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-04-28T10:19:53Z"
        }
    ]
}
2024-04-28T10:17:13.575Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "grantId": "288692962",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-04-28T10:17:13.585Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "grantId": "288692962",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-04-28T10:20:33Z"
        }
    ]
}
2024-04-28T10:17:53.635Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
            "grantId": "288692962",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}

```

```

    }
  ]
}
2024-04-28T10:17:53.644Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "288692962",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T10:21:13Z"
    }
  ]
}
2024-04-28T10:18:33.694Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "288692962",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-04-28T10:18:33.700Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "288692962",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T10:21:53Z"
    }
  ]
}
2024-04-28T10:19:13.753Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "288692962",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-04-28T10:19:13.772Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "288692962",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T10:22:33Z"
    }
  ]
}

```

```
}
2024-04-28T10:19:53.823Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "288692962",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-04-28T10:19:53.829Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "288692962",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T10:23:13Z"
    }
  ]
}
```



```

    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      ]
    }
  ]
}
2024-04-28T10:25:46.109Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code
is 0
2024-04-28T10:25:46.109Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "maxEirp": 16,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T10:25:46.160Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "operationParam": {
        "maxEirp": 15,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2024-04-28T10:25:46.165Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "channelType": "GAA",
      "grantExpireTime": "2024-05-05T10:25:46Z",
      "grantId": "104795608",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  ]
}
2024-04-28T10:25:46.243Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "104795608",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-04-28T10:25:46.252Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "104795608",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T10:29:06Z"
    }
  ]
}
2024-04-28T10:26:26.510Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "104795608",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-04-28T10:26:26.520Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "104795608",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T10:29:46Z"
    }
  ]
}
2024-04-28T10:27:06.572Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "104795608",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}

```

```

2024-04-28T10:27:06.578Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "104795608",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T10:30:26Z"
    }
  ]
}
2024-04-28T10:27:46.628Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "104795608",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-04-28T10:27:46.637Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "104795608",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T10:31:06Z"
    }
  ]
}
2024-04-28T10:28:26.693Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "104795608",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-04-28T10:28:26.701Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "104795608",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T10:31:46Z"
    }
  ]
}

```



```

    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      ]
    }
  ]
}
2024-04-28T10:44:51.898Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code
is 0
2024-04-28T10:44:51.900Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "maxEirp": 32,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-04-28T10:44:51.951Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "operationParam": {
        "maxEirp": 31,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2024-04-28T10:44:51.957Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "channelType": "GAA",
      "grantExpireTime": "2024-05-05T10:44:51Z",
      "grantId": "912900521",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  ]
}
2024-04-28T10:44:52.036Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "912900521",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-04-28T10:44:52.046Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "912900521",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T10:48:12Z"
    }
  ]
}
2024-04-28T10:45:32.355Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "912900521",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-04-28T10:45:32.362Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "912900521",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T10:48:52Z"
    }
  ]
}
2024-04-28T10:46:12.413Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "912900521",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}

```

```
2024-04-28T10:46:12.423Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "912900521",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T10:49:32Z"
    }
  ]
}
2024-04-28T10:46:52.473Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "912900521",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-04-28T10:46:52.483Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "912900521",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T10:50:12Z"
    }
  ]
}
2024-04-28T10:47:32.536Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "912900521",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-04-28T10:47:32.546Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "912900521",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T10:50:52Z"
    }
  ]
}
2024-04-28T10:48:12.599Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
```

```
{
  {
    "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
    "grantId": "912900521",
    "grantRenew": false,
    "operationState": "AUTHORIZED"
  }
]
}
2024-04-28T10:48:12.607Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "912900521",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T10:51:32Z"
    }
  ]
}
2024-04-28T10:48:52.658Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "912900521",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-04-28T10:48:52.668Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27SCO5165PMock-SASDV1XQE0000020",
      "grantId": "912900521",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-04-28T10:52:12Z"
    }
  ]
}
}
```