

Test Logs

FCC ID: P27-SCE5172N48

Test Model: SCE5172-n48

Received Date: Nov. 19, 2024

Test Date: Nov. 28, 2024 ~ Dec. 25, 2024

Issued Date: Mar. 07, 2025

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

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1 CBSD Registration Process

1.1 WINNF.FT.C.REG.1

2024-12-14T10:42:03.134Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-14T10:42:03.151Z - INFO - the selected test from the user : WINNF.FT.C.REG.1 is starting now

2024-12-14T10:48:45.871Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "NR",

"supportedSpec": "FFS"

},

"callSign": "",

"cbsdCategory": "A",

"cbsdSerialNumber": "EBCXQC0099008",

"cpiSignatureData": {

"digitalSignature":

"S5wEdZ9w-2uezwVf7XzEZ56qgQgh1M_gyeoRgRBc1169idlGqilcmPxb1z_jxitZXrFRtqMd8g4XGG5MFko_I
at09qOq6Vs2o7lvYoPFdaCfsrVZtCsJ-JsrdOPUOuy4lOtlcn5qDp2OHO4jV40VCiFcUrLcxiZRC2GS2x4l5alJScj
nhUu6KLRukq49IV2pd6ax84rq5XecnNDbGfx1TvhDnfRtjTCmcoLNKy0zHmFEIMaD5gyCpX7rDEaEObbdOD
hmGFq45Mzvj0ayw1Z26lG0OoKoTh0znt2zXwUMLI-SOHByWR9eymlgB8TFufKsGaDdCGc54nfXsex6Wpav
zg",

"encodedCpiSignedData":

"eyJpbN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGl0eSI6MzAsImhlaWdodFR5cGUiOiJBR0wiLC
JhbnRlbn5hR2Fpbil6NiwiaG9yaXpvcnRhbnRhbEFjY3VyYWN5ljoZLCJhbnRlbn5hRG93bnRpbHQiOiJAsImFudGV
ubmFCZWZtd2lkdGgiOiJYwLCJoZWlnaHQiOiJEUmcwZmVydGJjYXVW50ZW5uYUFGaW11dGgiOiJAsImxvbmtpdHVKZSI6MTIxLjM3OTY0NCwiaW5kb29yRGVwbG95bWVudCI6dHJ1ZSwibGF0a
XR1ZGUlOiJlLjA1Mzk4OX0sImZjY0lkIjojUDI3LVNFQzUxNi1CNDdGjLCJwcm9mZXNzaW9uYWwXJbnN0YWxs
ZXJlYXRhIjpw7lMnwaU5hbWUiOiJCViBjbnN0YWxsZXIlgQ2VydGlmaWNhdGUlLCJpbN0YWxsQ2VydGlma
WNhdGlvbiRpbWUiOiJyMDI0LTEyLTAzVDE3OjI3OjM5LjA3MTIwM1oiLCJjcGlZCi6lMnwaTkWMDIifSwiY2J
zZFNIcmllbE51bWJlci6lKVCQ1hRQzAwOTkwMDgifQ",

"protectedHeader": "eyJhbnRlbn5hR2Fpbil6NiwiaG9yaXpvcnRhbnRhbEFjY3VyYWN5ljoZLCJhbnRlbn5hRG93bnRpbHQiOiJAsImFudGVubmFCZWZtd2lkdGgiOiJYwLCJoZWlnaHQiOiJEUmcwZmVydGJjYXVW50ZW5uYUFGaW11dGgiOiJAsImxvbmtpdHVKZSI6MTIxLjM3OTY0NCwiaW5kb29yRGVwbG95bWVudCI6dHJ1ZSwibGF0aXR1ZGUlOiJlLjA1Mzk4OX0sImZjY0lkIjojUDI3LVNFQzUxNi1CNDdGjLCJwcm9mZXNzaW9uYWwXJbnN0YWxsZXJlYXRhIjpw7lMnwaU5hbWUiOiJCViBjbnN0YWxsZXIlgQ2VydGlmaWNhdGUlLCJpbN0YWxsQ2VydGlmaWNhdGlvbiRpbWUiOiJyMDI0LTEyLTAzVDE3OjI3OjM5LjA3MTIwM1oiLCJjcGlZCi6lMnwaTkWMDIifSwiY2JzZFNIcmllbE51bWJlci6lKVCQ1hRQzAwOTkwMDgifQ"

},

"fccId": "P27-SCE5172N48",

"groupingParam": [

{

"groupId": "SERCOMM_111",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "W8QZWf"

}

]

}

2024-12-14T10:48:45.948Z - INFO - Registration message contains cpiSignatureData

2024-12-14T10:48:45.948Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2024-12-14T10:48:45.948Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"eirpCapability": 30,

"antennaAzimuth": 0,

"heightType": "AGL",

"longitude": 121.379644,

"antennaGain": 6,

"indoorDeployment": true,

```

    "latitude": 25.053989,
    "horizontalAccuracy": 3,
    "antennaDowntilt": 0,
    "antennaBeamwidth": 60,
    "height": 1.0,
    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-12-03T17:27:39.071203Z",
    "cpild": "cpi9001"
  },
  "fcclId": "P27-SCE5172N48",
  "cbsdSerialNumber": "EBCXQC0099008"
}
2024-12-14T10:48:46.417Z - INFO - verified signature on cpiSignatureData
2024-12-14T10:48:46.433Z - INFO - cbsdCategory= 'A', removing optional param from cpi_schema
2024-12-14T10:48:46.433Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-12-14T10:48:46.433Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-14T10:48:47.635Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-14T10:48:47.635Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2024-12-14T10:51:35.394Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2024-12-14T10:51:35.848Z - INFO - The final result of the test : WINNF.FT.C.REG.1 is - passed

```

1.2 WINNF.FT.C.REG.3

2024-12-14T10:52:27.884Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-14T10:52:27.884Z - INFO - the selected test from the user : WINNF.FT.C.REG.3 is starting now

2024-12-14T10:59:09.765Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "EBCXQC0099008",
    "fccId": "P27-SCE5172N48",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 6,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 25.054041,
      "longitude": 121.379562,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
```

2024-12-14T10:59:09.811Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
    "response": {
      "responseCode": 0
    }
  }
]
```

2024-12-14T10:59:11.451Z - INFO - arrived to nstep starting question answer session with the technician

2024-12-14T10:59:11.451Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2024-12-14T11:01:38.608Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2024-12-14T11:01:38.953Z - INFO - The final result of the test : WINNF.FT.C.REG.3 is - passed


```
"antennaBeamwidth": 60,
"height": 1.0,
"verticalAccuracy": 3
},
"professionalInstallerData": {
  "cpiName": "BV Installer Certificate",
  "installCertificationTime": "2024-12-03T17:27:39.071203Z",
  "cpild": "cpi9001"
},
"fcclId": "P27-SCE5172N48",
"cbbsdSerialNumber": "EBCXQC0099008"
}
2024-12-14T11:09:06.552Z - INFO - verified signature on cpiSignatureData
2024-12-14T11:09:06.552Z - INFO - cbbsdCategory= 'A', removing optional param from cpi_schema
2024-12-14T11:09:06.552Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-12-14T11:09:06.552Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2024-12-14T11:09:08.489Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-14T11:09:08.489Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2024-12-14T11:11:09.864Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2024-12-14T11:11:10.066Z - INFO - The final result of the test : WINNF.FT.C.REG.5 is - passed
```

1.4 WINNF.FT.C.REG.8

2024-12-14T11:11:55.217Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-14T11:11:55.217Z - INFO - the selected test from the user : WINNF.FT.C.REG.8 is starting now

2024-12-14T11:18:32.036Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "NR",

"supportedSpec": "FFS"

},

"callSign": "",

"cbsdCategory": "A",

"cbsdSerialNumber": "EBCXQC0099008",

"cpiSignatureData": {

"digitalSignature":

"S5wEdZ9w-2uezwVf7XzEZ56qgQgh1M_gyeoRgRBc1169idlGqilcmPxb1z_jxitZXrFRtqMd8g4XGG5MFko_I
at09qOq6Vs2o7lvYoPFdaCfsrVZtCsJ-JsrdOPUOuy4lOtlcn5qDp2OHO4jV40VCiFcUrLcxiZRc2GS2x4l5alJScj
nhUu6KLrukq49IV2pd6ax84rq5XecnNDbGfx1TvhDnfRtjTCmcoLNky0zHmFEIMaD5gyCpX7rDEaEObbdOD
hmGFq45MzvJ0ayw1Z26lG0OoKoTh0znt2zXwUMLI-SOHBByWR9eymlgB8TFufKsGaDdCGc54nfXsex6Wpav
zg",

"encodedCpiSignedData":

"eyJpbN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGl0eSI6MzAsImhlaWdodFR5cGUOiJBR0wiLC
JhbnRlbn5hR2Fpbil6NiwiaG9yaXpvcnRhbnRlbnRlbn5hRG93bnRpbHQiOjAsImFudGV
ubmFCZWFTd2lkdgGgiOjYwLCJoZWlnaHQiOjEuMCwidmVydGljYWxwY2N1cmFjeSI6MywiYW50ZW5uYUF6
aW11dGgiOjAsImxvbmtpdHVkZSI6MTIxLjM3OTY0NCwiaW5kb29yRGVwbG95bWVudCI6dHJ1ZSwibGF0a
XR1ZGUiOjI1LjA1Mzk4OX0sImZjY0IkljoIUDl3LVNFQzUxNi1CNDgiLCJwcm9mZXNzaW9uYWxJbnN0YWxs
ZXJEYXRhljlp7ImNwaU5hbWUiOiJCviBjbnN0YWxsZXIlgQ2VydGlmaWNhdGUiLCJpbN0YWxsQ2VydGlma
WNhdGlvbiRpbWUiOiYMDi0LTEyLTazVDE3OjI3OjM5LjA3MTlwM1oiLCJjcGlJZCI6ImNwaTkWMDIifSwiY2J
zZFNlcmllbE51bWJlcil6IkVCCQ1hRQzAwOTkwMDgifQ",

"protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "P27-SCE5172N48",

"groupingParam": [

{

"groupId": "SERCOMM_111",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "W8QZWf"

}

]

}

2024-12-14T11:18:32.082Z - INFO - Registration message contains cpiSignatureData

2024-12-14T11:18:32.082Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2024-12-14T11:18:32.082Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"eirpCapability": 30,

"antennaAzimuth": 0,

"heightType": "AGL",

"longitude": 121.379644,

"antennaGain": 6,

"indoorDeployment": true,

"latitude": 25.053989,

"horizontalAccuracy": 3,

"antennaDowntilt": 0,


```
"antennaBeamwidth": 60,
"height": 1.0,
"verticalAccuracy": 3
},
"professionalInstallerData": {
  "cpiName": "BV Installer Certificate",
  "installCertificationTime": "2024-12-03T17:27:39.071203Z",
  "cpild": "cpi9001"
},
"fcclId": "P27-SCE5172N48",
"cbbsdSerialNumber": "EBCXQC0099008"
}
2024-12-14T11:18:32.144Z - INFO - verified signature on cpiSignatureData
2024-12-14T11:18:32.144Z - INFO - cbbsdCategory= 'A', removing optional param from cpi_schema
2024-12-14T11:18:32.144Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-12-14T11:18:32.144Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 102
      }
    }
  ]
}
}
2024-12-14T11:18:33.723Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-14T11:18:33.723Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2024-12-14T11:20:49.970Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2024-12-14T11:20:50.125Z - INFO - The final result of the test : WINNF.FT.C.REG.8 is - passed
```

1.5 WINNF.FT.C.REG.10

2024-12-14T12:06:15.599Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-14T12:06:15.599Z - INFO - the selected test from the user : WINNF.FT.C.REG.10 is starting now

2024-12-14T12:12:53.979Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "NR",

"supportedSpec": "FFS"

},

"callSign": "",

"cbsdCategory": "A",

"cbsdSerialNumber": "EBCXQC0099008",

"cpiSignatureData": {

"digitalSignature":

"S5wEdZ9w-2uezwVf7XzEZ56qgQgh1M_gyeoRgRBc1169idlGqilcmPxb1z_jxitZXrFRtqMd8g4XGG5MFko_I
at09qOq6Vs2o7lvYoPFdaCfsrVZtCsJ-JsrdOPUOuy4lOtlcn5qDp2OHO4jV40VCiFcUrLcxiZRc2GS2x4l5alJScj
nhUu6KLrukq49IV2pd6ax84rq5XecNDbGfx1TvhDnfRtjTCmcoLNky0zHmFEIMaD5gyCpX7rDEaEObbdOD
hmGFq45MzvJ0ayw1Z26lG0OoKoTh0znt2zXwUMLI-SOHBByWR9eymlgB8TFufKsGaDdCGc54nfXsex6Wpav
zg",

"encodedCpiSignedData":

"eyJpbN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGl0eSI6MzAsImhlaWdodFR5cGUiOiJBROwiLC
JhbnRlbn5hR2Fpbil6NiwiaG9yaXpvcnRhbnEFjY3VyYWN5ljoZLCJhbnRlbn5hRG93bnRpbHQiOjAsImFudGV
ubmFCZWFTd2lkdgGgiOjYwLCJoZWlnaHQiOjEuMCwidmVydGljYWxwY2N1cmFjeSI6MywiYW50ZW5uYUF6
aW11dGgiOjAsImxvbmtpdHVkZSI6MTIxLjM3OTY0NCwiaW5kb29yRGVwbG95bWVudCI6dHJ1ZSwibGF0a
XR1ZGUiOjI1LjA1Mzk4OX0sImZjY0lkloiUDl3LVNFQzUxNi1CNDgiLCJwcm9mZXNzaW9uYWxJbnN0YWxs
ZXJEYXRhlj7ImNwaU5hbWUiOiJCviBjbnN0YWxsZXIlgQ2VydGlmaWNhdGUiLCJpbN0YWxsQ2VydGlma
WNhdGlvbiRpbWUiOiYMDi0LTEyLTazVDE3OjI3OjM5LjA3MTlwM1oiLCJjcGlJZCI6ImNwaTkWMDIeifSwiY2J
zZFNlcmllbE51bWJlcil6IkVCCQ1hRQzAwOTkwMDgifQ",

"protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "P27-SCE5172N48",

"groupingParam": [

{

"groupId": "SERCOMM_111",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "W8QZWf"

}

]

}

2024-12-14T12:12:54.009Z - INFO - Registration message contains cpiSignatureData

2024-12-14T12:12:54.009Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2024-12-14T12:12:54.009Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"eirpCapability": 30,

"antennaAzimuth": 0,

"heightType": "AGL",

"longitude": 121.379644,

"antennaGain": 6,

"indoorDeployment": true,

"latitude": 25.053989,

"horizontalAccuracy": 3,

"antennaDowntilt": 0,

```
"antennaBeamwidth": 60,
"height": 1.0,
"verticalAccuracy": 3
},
"professionalInstallerData": {
  "cpiName": "BV Installer Certificate",
  "installCertificationTime": "2024-12-03T17:27:39.071203Z",
  "cpild": "cpi9001"
},
"fcclId": "P27-SCE5172N48",
"cbbsdSerialNumber": "EBCXQC0099008"
}
2024-12-14T12:12:54.088Z - INFO - verified signature on cpiSignatureData
2024-12-14T12:12:54.088Z - INFO - cbbsdCategory= 'A', removing optional param from cpi_schema
2024-12-14T12:12:54.088Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-12-14T12:12:54.088Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 200
      }
    }
  ]
}
}
2024-12-14T12:12:55.901Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-14T12:12:55.901Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2024-12-14T12:15:04.519Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2024-12-14T12:15:04.973Z - INFO - The final result of the test : WINNF.FT.C.REG.10 is - passed
```



```
"antennaBeamwidth": 60,  
"height": 1.0,  
"verticalAccuracy": 3  
,  
"professionalInstallerData": {  
  "cpiName": "BV Installer Certificate",  
  "installCertificationTime": "2024-12-03T17:27:39.071203Z",  
  "cpild": "cpi9001"  
},  
"fcclId": "P27-SCE5172N48",  
"cbsdSerialNumber": "EBCXQC0099008"
```

```
}
```

2024-12-14T12:22:28.786Z - INFO - verified signature on cpiSignatureData

2024-12-14T12:22:28.786Z - INFO - cbsdCategory= 'A', removing optional param from cpi_schema

2024-12-14T12:22:28.786Z - INFO - cpiSignatureData data successfully validated against jsonschema

2024-12-14T12:22:28.786Z - INFO - engine sent successfully, the response to CBRS : {

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

```
}
```

2024-12-14T12:22:30.147Z - INFO - arrived to nstep starting question answer session with the technician

2024-12-14T12:22:30.147Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2024-12-14T12:24:36.539Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2024-12-14T12:24:36.789Z - INFO - The final result of the test : WINNF.FT.C.REG.12 is - passed

1.7 WINNF.FT.C.REG.14

2024-12-14T12:25:20.232Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-14T12:25:20.247Z - INFO - the selected test from the user : WINNF.FT.C.REG.14 is starting now

2024-12-14T12:32:00.760Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "NR",

"supportedSpec": "FFS"

},

"callSign": "",

"cbsdCategory": "A",

"cbsdSerialNumber": "EBCXQC0099008",

"cpiSignatureData": {

"digitalSignature":

"S5wEdZ9w-2uezwVf7XzEZ56qgQgh1M_gyeoRgRBc1169idlGqilcmPxb1z_jxitZXrFRtqMd8g4XGG5MFko_I
at09qOq6Vs2o7lvYoPFdaCfsrVZtCsJ-JsrdOPUOuy4lOtlcn5qDp2OHO4jV40VCiFcUrLcxiZRc2GS2x4l5alJScj
nhUu6KLRukq49IV2pd6ax84rq5XecnNDbGfx1TvhDnfRtjTCmcoLNKy0zHmFEIMaD5gyCpX7rDEaEObbdOD
hmGFq45MzvJ0ayw1Z26lG0OoKoTh0znt2zXwUMLI-SOHBByWR9eymlgB8TFufKsGaDdCGc54nfXsex6Wpav
zg",

"encodedCpiSignedData":

"eyJpbN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGl0eSI6MzAsImhlaWdodFR5cGUOiJBR0wiLC
JhbnRlbn5hR2Fpbil6NiwiaG9yaXpvbnRhbEFjY3VyYWN5ljoZLCJhbnRlbn5hRG93bnRpbHQiOjAsImFudGV
ubmFCZWFTd2lkdgGgiOjYwLCJoZWlnaHQiOjEuMCwidmVydGljYWxwY2N1cmFjeSI6MywiYW50ZW5uYUF6
aW11dGgiOjAsImxvbmddpHVkZSI6MTIxLjM3OTY0NCwiaW5kb29yRGVwbG95bWVudCI6dHJ1ZSwibGF0a
XR1ZGUiOjI1LjA1Mzk4OX0sImZjY0lkljoUjE3LVNFQzUxNi1CNDgiLCJwcm9mZXNzaW9uYWxwY2N1cmFjeSI6MywiYW50ZW5uYUF6
ZXJlYXRhIjlp7ImNwaU5hbWUiOiJCviBjbnN0YWxsZXIlgQ2VydGlmaWNhdGUiLCJpbN0YWxsQ2VydGlma
WNhdGlvbiRpbWUiOiYMDi0LTEyLTazVDE3OjI3OjM5LjA3MTIwM1oiLCJjcGljZCI6ImNwaTkWMDIifSwiY2J
zZFNlcmllbE51bWJlcil6lKVCQ1hRQzAwOTkwMDgifQ",

"protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "P27-SCE5172N48",

"groupingParam": [

{

"groupId": "SERCOMM_111",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "W8QZWf"

}

]

}

2024-12-14T12:32:00.792Z - INFO - Registration message contains cpiSignatureData

2024-12-14T12:32:00.792Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2024-12-14T12:32:00.792Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"eirpCapability": 30,

"antennaAzimuth": 0,

"heightType": "AGL",

"longitude": 121.379644,

"antennaGain": 6,

"indoorDeployment": true,

"latitude": 25.053989,

"horizontalAccuracy": 3,

"antennaDowntilt": 0,

```
"antennaBeamwidth": 60,
"height": 1.0,
"verticalAccuracy": 3
},
"professionalInstallerData": {
  "cpiName": "BV Installer Certificate",
  "installCertificationTime": "2024-12-03T17:27:39.071203Z",
  "cpild": "cpi9001"
},
"fcclId": "P27-SCE5172N48",
"cbbsdSerialNumber": "EBCXQC0099008"
}
2024-12-14T12:32:00.869Z - INFO - verified signature on cpiSignatureData
2024-12-14T12:32:00.869Z - INFO - cbbsdCategory= 'A', removing optional param from cpi_schema
2024-12-14T12:32:00.869Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-12-14T12:32:00.869Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 101
      }
    }
  ]
}
}
2024-12-14T12:32:02.197Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-14T12:32:02.197Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2024-12-14T12:34:27.936Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2024-12-14T12:34:28.342Z - INFO - The final result of the test : WINNF.FT.C.REG.14 is - passed
```

1.8 WINNF.FT.C.REG.16

2024-12-14T12:35:16.940Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-14T12:35:16.940Z - INFO - the selected test from the user : WINNF.FT.C.REG.16 is starting now

2024-12-14T12:41:51.753Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "NR",

"supportedSpec": "FFS"

},

"callSign": "",

"cbsdCategory": "A",

"cbsdSerialNumber": "EBCXQC0099008",

"cpiSignatureData": {

"digitalSignature":

"S5wEdZ9w-2uezwVf7XzEZ56qgQgh1M_gyeoRgRBc1169idlGqilcmPxb1z_jxitZXrFRtqMd8g4XGG5MFko_I
at09qOq6Vs2o7lvYoPFdaCfsrVZtCsJ-JsrdOPUOuy4lOtlcn5qDp2OHO4jV40VCiFcUrLcxiZRc2GS2x4l5alJScj
nhUu6KLrukq49IV2pd6ax84rq5XecnNDbGfx1TvhDnfRtjTCmcoLNky0zHmFEIMaD5gyCpX7rDEaEObbdOD
hmGFq45MzvJ0ayw1Z26IG0OoKoTh0znt2zXwUMLI-SOHBByWR9eymlgB8TFufKsGaDdCGc54nfXsex6Wpav
zg",

"encodedCpiSignedData":

"eyJpbN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGl0eSI6MzAsImhlaWdodFR5cGUiOiJBR0wiLC
JhbnRlbn5hR2Fpbil6NiwiaG9yaXpvcnRhbnEFjY3VyYWN5ljoZLCJhbnRlbn5hRG93bnRpbHQiOjAsImFudGV
ubmFCZWFTd2lkdGgiOjYwLCJoZWlnaHQiOjEuMCwidmVydGljYWxwY2N1cmFjeSI6MywiYW50ZW5uYUF6
aW11dGgiOjAsImxvbmtpdHVkZSI6MTIxLjM3OTY0NCwiaW5kb29yRGVwbG95bWVudCI6dHJ1ZSwibGF0a
XR1ZGUiOjI1LjA1Mzk4OX0sImZjY0IkljoIUDl3LVNFQzUxNi1CNDgiLCJwcm9mZXNzaW9uYWxJbnN0YWxs
ZXJlYXRhbnRpbWUiOiJlbnN0YWxsZXJlYXRhbnN0YWxsZXJlYXRhbnN0YWxsZXJlYXRhbnN0YWxsZXJlYXRhbnN0YWxs
WNhdGlvbnRpbWUiOiJlbnN0YWxsZXJlYXRhbnN0YWxsZXJlYXRhbnN0YWxsZXJlYXRhbnN0YWxsZXJlYXRhbnN0YWxs
zZFNlcmllbnE5bWJlcil6IklVCQ1hRQzAwOTkwMDgifQ",

"protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "P27-SCE5172N48",

"groupingParam": [

{

"groupId": "SERCOMM_111",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "W8QZWf"

}

]

}

2024-12-14T12:41:51.792Z - INFO - Registration message contains cpiSignatureData

2024-12-14T12:41:51.792Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2024-12-14T12:41:51.793Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"eirpCapability": 30,

"antennaAzimuth": 0,

"heightType": "AGL",

"longitude": 121.379644,

"antennaGain": 6,

"indoorDeployment": true,

"latitude": 25.053989,

"horizontalAccuracy": 3,

"antennaDowntilt": 0,


```
"antennaBeamwidth": 60,
"height": 1.0,
"verticalAccuracy": 3
},
"professionalInstallerData": {
  "cpiName": "BV Installer Certificate",
  "installCertificationTime": "2024-12-03T17:27:39.071203Z",
  "cpild": "cpi9001"
},
"fcclId": "P27-SCE5172N48",
"cbbsdSerialNumber": "EBCXQC0099008"
}
2024-12-14T12:41:51.875Z - INFO - verified signature on cpiSignatureData
2024-12-14T12:41:51.875Z - INFO - cbbsdCategory= 'A', removing optional param from cpi_schema
2024-12-14T12:41:51.880Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-12-14T12:41:51.881Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 100
      }
    }
  ]
}
}
2024-12-14T12:41:53.289Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-14T12:41:53.290Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2024-12-14T12:43:53.803Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2024-12-14T12:43:54.117Z - INFO - The final result of the test : WINNF.FT.C.REG.16 is - passed
```



```
"antennaBeamwidth": 60,  
"height": 1.0,  
"verticalAccuracy": 3  
,  
"professionalInstallerData": {  
  "cpiName": "BV Installer Certificate",  
  "installCertificationTime": "2024-12-03T17:27:39.071203Z",  
  "cpild": "cpi9001"  
},  
"fccld": "P27-SCE5172N48",  
"cbsdSerialNumber": "EBCXQC0099008"  
}
```

2024-12-14T12:51:12.846Z - INFO - verified signature on cpiSignatureData

2024-12-14T12:51:12.846Z - INFO - cbsdCategory= 'A', removing optional param from cpi_schema

2024-12-14T12:51:12.851Z - INFO - cpiSignatureData data successfully validated against jsonschema

2024-12-14T12:51:12.852Z - INFO - engine sent successfully, the response to CBRS : {

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

}

2024-12-14T12:51:14.841Z - INFO - arrived to nstep starting question answer session with the technician

2024-12-14T12:51:14.842Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2024-12-14T12:53:32.957Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2024-12-14T12:53:33.194Z - INFO - The final result of the test : WINNF.FT.C.REG.18 is - passed

1.10 WINNF.FT.C.REG.20

2024-12-16T07:01:03.979Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-16T07:01:03.980Z - INFO - the selected test from the user : WINNF.FT.C.REG.20_1 is starting now

2024-12-16T07:07:43.036Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "EBCXQC0099008",
    "fccId": "P27-SCE5172N48",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 0,
      "antennaBeamwidth": 60,
      "antennaDowntilt": 0,
      "antennaGain": 6,
      "antennaModel": "",
      "eirpCapability": 6,
      "height": 1.0,
      "heightType": "AGL",
      "horizontalAccuracy": 3,
      "indoorDeployment": true,
      "latitude": 25.05407,
      "longitude": 121.379656,
      "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
  }
]
```

2024-12-16T07:07:43.072Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
    "response": {
      "responseCode": 0
    }
  }
]
```

2024-12-16T07:07:44.841Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
    "inquiredSpectrum": [
      {

```

```

        "highFrequency": 3640000000,
        "lowFrequency": 3600000000
    }
}
]
}
]
}
2024-12-16T07:07:44.848Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {
                    "channelType": "GAA",
                    "frequencyRange": {
                        "highFrequency": 3640000000,
                        "lowFrequency": 3600000000
                    },
                    "ruleApplied": "FCC_PART_96"
                }
            ],
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2024-12-16T07:07:45.710Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "operationParam": {
                "maxEirp": 0,
                "operationFrequencyRange": {
                    "highFrequency": 3640000000,
                    "lowFrequency": 3600000000
                }
            }
        }
    ]
}
2024-12-16T07:07:45.717Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "channelType": "GAA",
            "grantExpireTime": "2024-12-23T07:07:45Z",
            "grantId": "948386378",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2024-12-16T07:07:49.562Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {

```

```

        "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
        "grantId": "948386378",
        "grantRenew": false,
        "operationState": "GRANTED"
      }
    ]
  }
2024-12-16T07:07:49.569Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "948386378",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-16T07:11:09Z"
    }
  ]
}
2024-12-16T07:08:33.696Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "948386378",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-16T07:08:33.697Z - INFO - Time interval between two heartbeat request messages is: 44.133, limit is: 65.0
2024-12-16T07:08:33.703Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "948386378",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-16T07:11:53Z"
    }
  ]
}
2024-12-16T07:09:23.059Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "948386378",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-16T07:09:23.061Z - INFO - Time interval between two heartbeat request messages is: 49.363, limit is: 65.0
2024-12-16T07:09:23.065Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {

```

```

        "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
        "grantId": "948386378",
        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2024-12-16T07:12:43Z"
    }
}
2024-12-16T07:10:03.117Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "grantId": "948386378",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-12-16T07:10:03.118Z - INFO - Time interval between two heartbeat request messages is: 40.058, limit
is: 65.0
2024-12-16T07:10:03.125Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "grantId": "948386378",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-12-16T07:13:23Z"
        }
    ]
}
2024-12-16T07:10:43.177Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "grantId": "948386378",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-12-16T07:10:43.177Z - INFO - Time interval between two heartbeat request messages is: 40.06, limit is:
65.0
2024-12-16T07:10:43.184Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "grantId": "948386378",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-12-16T07:14:03Z"
        }
    ]
}
2024-12-16T07:11:23.234Z - INFO - heartbeat request from CBRS : {

```

```
"heartbeatRequest": [
  {
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
    "grantId": "948386378",
    "grantRenew": false,
    "operationState": "AUTHORIZED"
  }
]
```

2024-12-16T07:11:23.236Z - INFO - Time interval between two heartbeat request messages is: 40.058, limit is: 65.0

2024-12-16T07:11:23.242Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
    "grantId": "948386378",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-12-16T07:14:43Z"
  }
]
```

2024-12-16T07:11:24.371Z - INFO - arrived to nstep starting question answer session with the technician
 2024-12-16T07:11:24.372Z - INFO - the question is : Did CBSD1 transmit power prior to AUTHORIZED state (first successful HBT response)? please choose one of the answers :
 2024-12-16T07:15:56.907Z - INFO - for the question : Did CBSD1 transmit power prior to AUTHORIZED state (first successful HBT response)? , the user choose n
 2024-12-16T07:15:56.907Z - INFO - the question is : Did CBSD1 transmit only within the frequency range specified in its grantRequest message? please choose one of the answers :
 2024-12-16T07:15:58.084Z - INFO - for the question : Did CBSD1 transmit only within the frequency range specified in its grantRequest message? , the user choose y
 2024-12-16T07:15:58.730Z - INFO - The final result of the test : WINNF.FT.C.REG.20_1 is – passed

2024-12-16T07:16:30.829Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-16T07:16:30.831Z - INFO - the selected test from the user : WINNF.FT.C.REG.20_2 is starting now

2024-12-16T07:23:11.049Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "A",
    "cbsdSerialNumber": "EBCXQC0099008",
    "fccId": "P27-SCE5172N48",
    "groupingParam": [
```



```

        {
            "groupId": "SERCOMM_111",
            "groupType": "INTERFERENCE_COORDINATION"
        }
    ],
    "installationParam": {
        "antennaAzimuth": 0,
        "antennaBeamwidth": 60,
        "antennaDowntilt": 0,
        "antennaGain": 6,
        "antennaModel": "",
        "eirpCapability": 6,
        "height": 1.0,
        "heightType": "AGL",
        "horizontalAccuracy": 3,
        "indoorDeployment": true,
        "latitude": 25.054012,
        "longitude": 121.379578,
        "verticalAccuracy": 3
    },
    "measCapability": [],
    "userId": "W8QZWf"
}
]
}
2024-12-16T07:23:11.085Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2024-12-16T07:23:12.835Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3640000000,
                    "lowFrequency": 3600000000
                }
            ]
        }
    ]
}
2024-12-16T07:23:12.842Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {
                    "channelType": "GAA",
                    "frequencyRange": {
                        "highFrequency": 3640000000,
                        "lowFrequency": 3600000000
                    }
                }
            ],

```

```

        "ruleApplied": "FCC_PART_96"
      }
    ],
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
    "response": {
      "responseCode": 0
    }
  }
]
}
2024-12-16T07:23:13.690Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "operationParam": {
        "maxEirp": 0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2024-12-16T07:23:13.697Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "channelType": "GAA",
      "grantExpireTime": "2024-12-23T07:23:13Z",
      "grantId": "724639801",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-16T07:23:17.552Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "724639801",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-12-16T07:23:17.558Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "724639801",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-16T07:26:37Z"
    }
  ]
}

```

```

    ]
  }
2024-12-16T07:24:01.658Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "724639801",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-16T07:24:01.660Z - INFO - Time interval between two heartbeat request messages is: 44.107, limit
is: 65.0
2024-12-16T07:24:01.667Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "724639801",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-16T07:27:21Z"
    }
  ]
}
2024-12-16T07:24:51.025Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "724639801",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-16T07:24:51.026Z - INFO - Time interval between two heartbeat request messages is: 49.366, limit
is: 65.0
2024-12-16T07:24:51.030Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "724639801",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-16T07:28:11Z"
    }
  ]
}
2024-12-16T07:25:31.082Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "724639801",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}

```

```

    ]
  }
2024-12-16T07:25:31.082Z - INFO - Time interval between two heartbeat request messages is: 40.057, limit
is: 65.0
2024-12-16T07:25:31.088Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "724639801",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-16T07:28:51Z"
    }
  ]
}
2024-12-16T07:26:11.141Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "724639801",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-16T07:26:11.141Z - INFO - Time interval between two heartbeat request messages is: 40.059, limit
is: 65.0
2024-12-16T07:26:11.148Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "724639801",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-16T07:29:31Z"
    }
  ]
}
2024-12-16T07:26:51.200Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "724639801",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-16T07:26:51.203Z - INFO - Time interval between two heartbeat request messages is: 40.061, limit
is: 65.0
2024-12-16T07:26:51.210Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "724639801",
      "response": {

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```
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-16T07:30:11Z"
    }
  ]
}
```

2024-12-16T07:26:52.217Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-16T07:26:52.219Z - INFO - the question is : Did CBSD1 transmit power prior to AUTHORIZED state (first successful HBT response)? please choose one of the answers :
2024-12-16T07:30:45.088Z - INFO - for the question : Did CBSD1 transmit power prior to AUTHORIZED state (first successful HBT response)? , the user choose n
2024-12-16T07:30:45.088Z - INFO - the question is : Did CBSD1 transmit only within the frequency range specified in its grantRequest message? please choose one of the answers :
2024-12-16T07:30:46.684Z - INFO - for the question : Did CBSD1 transmit only within the frequency range specified in its grantRequest message? , the user choose y
2024-12-16T07:30:47.164Z - INFO - The final result of the test : WINNF.FT.C.REG.20_2 is - passed


```

        "antennaDowntilt": 0,
        "antennaBeamwidth": 60,
        "height": 1.0,
        "verticalAccuracy": 3
    },
    "professionalInstallerData": {
        "cpiName": "BV Installer Certificate",
        "installCertificationTime": "2024-12-03T17:27:39.071203Z",
        "cpild": "cpi9001"
    },
    "fcclId": "P27-SCE5172N48",
    "cbsdSerialNumber": "EBCXQC0099008"
}
2024-12-17T05:36:22.278Z - INFO - verified signature on cpiSignatureData
2024-12-17T05:36:22.293Z - INFO - cbsdCategory= 'A', removing optional param from cpi_schema
2024-12-17T05:36:22.293Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-12-17T05:36:22.293Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2024-12-17T05:36:24.043Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3640000000,
                    "lowFrequency": 3600000000
                }
            ]
        }
    ]
}
2024-12-17T05:36:24.059Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {
                    "channelType": "GAA",
                    "frequencyRange": {
                        "highFrequency": 3640000000,
                        "lowFrequency": 3600000000
                    },
                    "ruleApplied": "FCC_PART_96"
                }
            ],
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "response": {
                "responseCode": 0
            }
        }
    ]
}

```

```

}
2024-12-17T05:36:24.918Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "operationParam": {
        "maxEirp": 0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2024-12-17T05:36:24.934Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 400
      }
    }
  ]
}
2024-12-17T05:36:26.184Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-17T05:36:26.184Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2024-12-17T05:41:33.621Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2024-12-17T05:41:34.434Z - INFO - The final result of the test : WINNF.FT.C.GRA.1 is - passed

```


2.2 WINNF.FT.C.GRA.2

2024-12-17T06:03:39.845Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-17T06:03:39.845Z - INFO - the selected test from the user : WINNF.FT.C.GRA.2 is starting now

2024-12-17T06:10:17.959Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "NR",

"supportedSpec": "FFS"

},

"callSign": "",

"cbsdCategory": "A",

"cbsdSerialNumber": "EBCXQC0099008",

"cpiSignatureData": {

"digitalSignature":

"S5wEdZ9w-2uezwVf7XzEZ56qgQgh1M_gyeoRgRBc1169idlGqilcmPxb1z_jxitZXrFRtqMd8g4XGG5MFko_I
at09qOq6Vs2o7lvYoPFdaCfsrVZtCsJ-JsrdOPUOuy4lOtlcn5qDp2OHO4jv40VCiFcUrLcxiZRc2GS2x4l5alJScj
nhUu6KLRukq49IV2pd6ax84rq5XecnNDbGfx1TvhDnfRtjTCmcoLNKy0zHmFEIMaD5gyCpX7rDEaEObbdOD
hmGFq45Mzvjoayw1Z26lGOoKoTh0znt2zXwUMLI-SOHBByWR9eymlgB8TFufKsGaDdCGc54nfXsex6Wpav
zg",

"encodedCpiSignedData":

"eyJpbN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGl0eSI6MzAsImhlaWdodFR5cGUiOiJBR0wiLC
JhbnRlbn5hR2Fpbil6NiwiaG9yaXpvcnRhbnRhbEFjY3VyYWN5ljoZLCJhbnRlbn5hRG93bnRpbHQiOiJASlmFudGV
ubmFCZWFTd2lkGgiOjYwLzJwLWlnaHQiOiJEUmMCwidmVydGljYWxwY2N1cmFjeSI6MywiYW50ZW5uYUJF6
aW11dGgiOjASlmxvbmtpdHVkZSI6MTIxLjM3OTY0NCwiaW5kb29yRGVwbG95bWVudCI6dHJ1ZSwibGF0a
XR1ZGUiOiJlLjA1Mzk4OX0sImZjY0IkljoiUDI3LVNFQzUxNi1CNDgiLCJwcm9mZXNzaW9uYWxwY2N1cmFjeSI6MywiYW50ZW5uYUJF6
ZXJEYXRhlj7ImNwaU5hbWUiOiJCviBjbnN0YWxsZXIlgQ2VydGlmaWNhdGUiLCJpbN0YWxsQ2VydGlma
WNhdGlvbiRpbWUiOiIyMDI0LTEyLTAzVDE3OjI3OjM5LjA3MTIwM1oiLCJjcGlJZCI6ImNwaTkWMDI0IiwiaWF0Ij0iOTY0NCwiaW5kb29yRGVwbG95bWVudCI6dHJ1ZSwibGF0a
zZFNImlhbnE5bWJlcil6IkkVCQ1hRQzAwOTkwMDg1fQ",

"protectedHeader": "eyJhbGciOiJIUzU1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "P27-SCE5172N48",

"groupingParam": [

{

"groupId": "SERCOMM_111",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "W8QZWf"

}

]

}

2024-12-17T06:10:18.006Z - INFO - Registration message contains cpiSignatureData

2024-12-17T06:10:18.006Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2024-12-17T06:10:18.006Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"eirpCapability": 30,

"antennaAzimuth": 0,

"heightType": "AGL",

"longitude": 121.379644,

"antennaGain": 6,

"indoorDeployment": true,

"latitude": 25.053989,

"horizontalAccuracy": 3,

"antennaDowntilt": 0,

"antennaBeamwidth": 60,

"height": 1.0,

```

    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-12-03T17:27:39.071203Z",
    "cpild": "cpi9001"
  },
  "fccld": "P27-SCE5172N48",
  "cbstdSerialNumber": "EBCXQC0099008"
}
2024-12-17T06:10:18.084Z - INFO - verified signature on cpiSignatureData
2024-12-17T06:10:18.084Z - INFO - cbstdCategory= 'A', removing optional param from cpi_schema
2024-12-17T06:10:18.084Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-12-17T06:10:18.084Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbstdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-17T06:10:19.848Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbstdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      ]
    }
  ]
}
2024-12-17T06:10:19.848Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbstdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-17T06:10:20.709Z - INFO - grant request from CBRS : {
  "grantRequest": [

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    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "operationParam": {
        "maxEirp": 0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2024-12-17T06:10:20.724Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 401
      }
    }
  ]
}
2024-12-17T06:10:22.052Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-17T06:10:22.052Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2024-12-17T06:13:12.480Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2024-12-17T06:13:12.760Z - INFO - The final result of the test : WINNF.FT.C.GRA.2 is - passed

```

3 CBSD Heart Beat Process

3.1 WINNF.FT.C.HBT.1

2024-12-17T06:56:24.119Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-17T06:56:24.119Z - INFO - the selected test from the user : WINNF.FT.C.HBT.1 is starting now

2024-12-17T07:03:04.986Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "NR",

"supportedSpec": "FFS"

},

"callSign": "",

"cbsdCategory": "A",

"cbsdSerialNumber": "EBCXQC0099008",

"cpiSignatureData": {

"digitalSignature":

"S5wEdZ9w-2uezwVf7XzEZ56qgQgh1M_gyeoRgRBc1169idlGqilcmPxb1z_jxitZXrFRtqMd8g4XGG5MFko_I
at09qOq6Vs2o7lvYoPFdaCfsrVZtCsJ-JsrdOPUOuy4lOtlcn5qDp2OHO4jV40VCiFcUrLcxiZRc2GS2x4l5alJScj
nhUu6KLrukq49IV2pd6ax84rq5XecNDbGfx1TvhDnfRtjTCmcoLNky0zHmFEIMaD5gyCpX7rDEaEObbdOD
hmGFq45Mzvj0ayw1Z26lG0OoKoTh0znt2zXwUMLI-SOHBByWR9eymlgB8TFufKsGaDdCGc54nfXsex6Wpav
zg",

"encodedCpiSignedData":

"eyJpbN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGl0eSI6MzAsImhlaWdodFR5cGUOiJBR0wiLC
JhbnRlbn5hR2Fpbil6NiwiaG9yaXpvbnRhbEFjY3VyYWN5ljozLCJhbnRlbn5hRG93bnRpbHQiOjAsImFudGV
ubmFCZWZtd2lkdGgiOjYwLCJoZWlnaHQiOjEuMCwidmVydGljYWxwY2N1cmFjeSI6MywiYW50ZW5uYUF6
aW11dGgiOjAsImxvbmtpdHVkZSI6MTIxLjM3OTY0NCwiaW5kb29yRGVwbG95bWVudCI6dHJ1ZSwibGF0a
XR1ZGUiOjI1LjA1Mzk4OX0sImZjY0lkloiUDl3LVNFQzUxNi1CNDgiLCJwcm9mZXNzaW9uYWxwJbnN0YWxs
ZXJlYXRhIjpw7ImNwaU5hbWUiOiJCvIBJbnN0YWxsZXIlgQ2VydGlmaWNhdGUiLCJpbN0YWxsQ2VydGlma
WNhdGlvblRpbWUiOiYMDl0LTEyLTazVDE3OjI3OjM5LjA3MTlwM1oiLCJjcGlJZCI6ImNwaTkWMDIifSwiY2J
zZFnlcmllbE51bWJlcil6IkVVCQ1hRQzAwOTkwMDgifQ",

"protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"

},

"fcellId": "P27-SCE5172N48",

"groupingParam": [

{

"groupId": "SERCOMM_111",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "W8QZWf"

}

]

}

2024-12-17T07:03:05.049Z - INFO - Registration message contains cpiSignatureData

2024-12-17T07:03:05.049Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2024-12-17T07:03:05.049Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"eirpCapability": 30,

"antennaAzimuth": 0,

"heightType": "AGL",

"longitude": 121.379644,

"antennaGain": 6,

"indoorDeployment": true,

"latitude": 25.053989,

"horizontalAccuracy": 3,

```

    "antennaDowntilt": 0,
    "antennaBeamwidth": 60,
    "height": 1.0,
    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-12-03T17:27:39.071203Z",
    "cpild": "cpi9001"
  },
  "fccld": "P27-SCE5172N48",
  "cbsdSerialNumber": "EBCXQC0099008"
}
2024-12-17T07:03:05.128Z - INFO - verified signature on cpiSignatureData
2024-12-17T07:03:05.128Z - INFO - cbsdCategory= 'A', removing optional param from cpi_schema
2024-12-17T07:03:05.128Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-12-17T07:03:05.128Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-17T07:03:06.894Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      ]
    }
  ]
}
2024-12-17T07:03:06.894Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

}
2024-12-17T07:03:07.753Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "operationParam": {
        "maxEirp": 0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2024-12-17T07:03:07.753Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "channelType": "GAA",
      "grantExpireTime": "2024-12-24T07:03:07Z",
      "grantId": "975671368",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-17T07:03:11.596Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "975671368",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-12-17T07:03:11.612Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "975671368",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-17T07:06:31Z"
    }
  ]
}
2024-12-17T07:03:55.713Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "975671368",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}

```

```

    }
  ]
}
2024-12-17T07:03:55.729Z - INFO - Time interval between two heartbeat request messages is: 44.116, limit
is: 65.0
2024-12-17T07:03:55.729Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "975671368",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-17T07:07:15Z"
    }
  ]
}
2024-12-17T07:04:45.122Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "975671368",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-17T07:04:45.122Z - INFO - Time interval between two heartbeat request messages is: 49.41, limit is:
65.0
2024-12-17T07:04:45.122Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "975671368",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-17T07:08:05Z"
    }
  ]
}
2024-12-17T07:05:25.174Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "975671368",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-17T07:05:25.174Z - INFO - Time interval between two heartbeat request messages is: 40.051, limit
is: 65.0
2024-12-17T07:05:25.174Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "975671368",

```

```

        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2024-12-17T07:08:45Z"
    }
}
2024-12-17T07:06:05.226Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "grantId": "975671368",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-12-17T07:06:05.226Z - INFO - Time interval between two heartbeat request messages is: 40.053, limit
is: 65.0
2024-12-17T07:06:05.242Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "grantId": "975671368",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-12-17T07:09:25Z"
        }
    ]
}
2024-12-17T07:06:45.290Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "grantId": "975671368",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-12-17T07:06:45.290Z - INFO - Time interval between two heartbeat request messages is: 40.064, limit
is: 65.0
2024-12-17T07:06:45.290Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "grantId": "975671368",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-12-17T07:10:05Z"
        }
    ]
}
2024-12-17T07:06:47.229Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-17T07:06:47.229Z - INFO - the question is : Did CBSD1 transmit power prior to AUTHORIZED state
(first successful HBT response)? please choose one of the answers :

```


2024-12-17T07:25:38.403Z - INFO - for the question : Did CBSD1 transmit power prior to AUTHORIZED state (first successful HBT response)? , the user choose n

2024-12-17T07:25:38.403Z - INFO - the question is : Did CBSD1 transmit only within the frequency range specified in its grantRequest message? please choose one of the answers :

2024-12-17T07:25:40.091Z - INFO - for the question : Did CBSD1 transmit only within the frequency range specified in its grantRequest message? , the user choose y

2024-12-17T07:25:40.653Z - INFO - The final result of the test : WINNF.FT.C.HBT.1 is - passed

3.2 WINNF.FT.C.HBT.3

2024-12-17T09:11:35.144Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-17T09:11:35.144Z - INFO - the selected test from the user : WINNF.FT.C.HBT.3 is starting now

2024-12-17T09:18:18.190Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "NR",

"supportedSpec": "FFS"

},

"callSign": "",

"cbsdCategory": "A",

"cbsdSerialNumber": "EBCXQC0099008",

"cpiSignatureData": {

"digitalSignature":

"S5wEdZ9w-2uezwVf7XzEZ56qgQgh1M_gyeoRgRBc1169idlGqilcmPxb1z_jxitZXrFRtqMd8g4XGG5MFko_I
at09qOq6Vs2o7lvYoPFdaCfsrVZtCsJ-JsrdOPUOuy4lOtlcn5qDp2OHO4jV40VCiFcUrLcxiZRc2GS2x4l5alJScj
nhUu6KLRukq49IV2pd6ax84rq5XecnNDbGfx1TvhDnfRtjTCmcoLNKy0zHmFEIMaD5gyCpX7rDEaEObbdOD
hmGFq45Mzvjoayw1Z26IG0OoKoTh0znt2zXwUMLI-SOHBByWR9eymlgB8TFufKsGaDdCGc54nfXsex6Wpav
zg",

"encodedCpiSignedData":

"eyJpbmN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGl0eSI6MzAsImhlaWdodFR5cGUiOiJBR0wiLC
JhbnRlbn5hR2Fpbil6NiwiaG9yaXpvcnRhbnRhbEFjY3VyYWN5ljoZLCJhbnRlbn5hRG93bnRpbHQiOiJASlmFudGV
ubmFCZWFTd2lkGgiOjYwLzJwZWlnaHQiOiJEUmMCwidmVydGljYWxwY2N1cmFjeSI6MywiYW50ZW5uYUJ6
aW11dGgiOjAsImxvbmtpdHVKZSI6MTIxLjM3OTY0NCwiaW5kb29yRGVwbG95bWVudCI6dHJ1ZSwibGF0a
XR1ZGUiOiJlLjA1Mzk4OX0sImZjY0IkljoiUDl3LVNFQzUxNi1CNDgiLCJwcm9mZXNzaW9uYWxwY2N1cmFjeSI6MywiYW50ZW5uYUJ6
ZXJEYXRhlj7ImNwaU5hbWUiOiJCViBjbnN0YWxsZXIqQ2VydGlmaWNhdGUiLCJpbmN0YWxsQ2VydGlma
WNhdGlvbiRpbWUiOiJyMDI0LTEyLTZVDE3OjI3OjM5LjA3MTIwM1oiLCJjcGlJZCI6ImNwaTkWMDI0Y2J
zZFnlcmllbE51bWJlcil6IkVVCQ1hRQzAwOTkwMDgifQ",

"protectedHeader": "eyJhbGciOiJIUzU1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "P27-SCE5172N48",

"groupingParam": [

{

"groupId": "SERCOMM_111",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "W8QZWf"

}

]

}

2024-12-17T09:18:18.220Z - INFO - Registration message contains cpiSignatureData

2024-12-17T09:18:18.220Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2024-12-17T09:18:18.220Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"eirpCapability": 30,

"antennaAzimuth": 0,

"heightType": "AGL",

"longitude": 121.379644,

"antennaGain": 6,

"indoorDeployment": true,

"latitude": 25.053989,

"horizontalAccuracy": 3,

"antennaDowntilt": 0,

"antennaBeamwidth": 60,

"height": 1.0,

```

    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-12-03T17:27:39.071203Z",
    "cpild": "cpi9001"
  },
  "fccld": "P27-SCE5172N48",
  "cbstdSerialNumber": "EBCXQC0099008"
}
2024-12-17T09:18:18.282Z - INFO - verified signature on cpiSignatureData
2024-12-17T09:18:18.282Z - INFO - cbstdCategory= 'A', removing optional param from cpi_schema
2024-12-17T09:18:18.282Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-12-17T09:18:18.282Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbstdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-17T09:18:20.065Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbstdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      ]
    }
  ]
}
2024-12-17T09:18:20.065Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbstdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-17T09:18:20.908Z - INFO - grant request from CBRS : {
  "grantRequest": [

```

```

    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "operationParam": {
        "maxEirp": 0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2024-12-17T09:18:20.924Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "channelType": "GAA",
      "grantExpireTime": "2024-12-24T09:18:20Z",
      "grantId": "662242766",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-17T09:18:24.769Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "662242766",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-12-17T09:18:24.769Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "662242766",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-17T09:21:44Z"
    }
  ]
}
2024-12-17T09:19:08.836Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "662242766",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}

```

2024-12-17T09:19:08.836Z - INFO - Time interval between two heartbeat request messages is: 44.068, limit is: 65.0

2024-12-17T09:19:08.836Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
    "grantId": "662242766",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-12-17T09:22:28Z"
  }
]
```

2024-12-17T09:19:58.244Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
    "grantId": "662242766",
    "grantRenew": false,
    "operationState": "AUTHORIZED"
  }
]
```

2024-12-17T09:19:58.244Z - INFO - Time interval between two heartbeat request messages is: 49.408, limit is: 65.0

2024-12-17T09:19:58.276Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
    "grantId": "662242766",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-12-17T09:23:18Z"
  }
]
```

2024-12-17T09:20:38.326Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
    "grantId": "662242766",
    "grantRenew": false,
    "operationState": "AUTHORIZED"
  }
]
```

2024-12-17T09:20:38.342Z - INFO - Time interval between two heartbeat request messages is: 40.082, limit is: 65.0

2024-12-17T09:20:38.358Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
    "grantId": "662242766",
    "response": {
      "responseCode": 105
    },
  },
]
```

"transmitExpireTime": "2024-12-17T09:20:38Z"

}

]

}

2024-12-17T09:20:40.201Z - INFO - arrived to nstep starting question answer session with the technician

2024-12-17T09:20:40.201Z - 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 :

2024-12-17T09:23:56.052Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds of receiving Heartbeat response with responseCode = 105? , the user choose y

2024-12-17T09:23:56.443Z - INFO - The final result of the test : WINNF.FT.C.HBT.3 is - passed


```

    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-12-03T17:27:39.071203Z",
    "cpild": "cpi9001"
  },
  "fccld": "P27-SCE5172N48",
  "cbstdSerialNumber": "EBCXQC0099008"
}
2024-12-17T09:32:07.318Z - INFO - verified signature on cpiSignatureData
2024-12-17T09:32:07.334Z - INFO - cbstdCategory= 'A', removing optional param from cpi_schema
2024-12-17T09:32:07.334Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-12-17T09:32:07.334Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbstdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-17T09:32:09.115Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbstdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      ]
    }
  ]
}
2024-12-17T09:32:09.131Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbstdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-17T09:32:09.990Z - INFO - grant request from CBRS : {
  "grantRequest": [

```



```

    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "operationParam": {
        "maxEirp": 0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2024-12-17T09:32:10.006Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "channelType": "GAA",
      "grantExpireTime": "2024-12-24T09:32:10Z",
      "grantId": "456947457",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-17T09:32:13.835Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "456947457",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-12-17T09:32:13.849Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "456947457",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-17T09:35:33Z"
    }
  ]
}
2024-12-17T09:32:57.967Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "456947457",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}

```

2024-12-17T09:32:57.967Z - INFO - Time interval between two heartbeat request messages is: 44.132, limit is: 65.0

2024-12-17T09:32:57.967Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
    "grantId": "456947457",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-12-17T09:36:17Z"
  }
]
```

}
2024-12-17T09:33:47.361Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
    "grantId": "456947457",
    "grantRenew": false,
    "operationState": "AUTHORIZED"
  }
]
```

}
2024-12-17T09:33:47.361Z - INFO - Time interval between two heartbeat request messages is: 49.394, limit is: 65.0

2024-12-17T09:33:47.361Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
    "grantId": "456947457",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-12-17T09:37:07Z"
  }
]
```

}
2024-12-17T09:34:27.414Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
    "grantId": "456947457",
    "grantRenew": false,
    "operationState": "AUTHORIZED"
  }
]
```

}
2024-12-17T09:34:27.414Z - INFO - Time interval between two heartbeat request messages is: 40.054, limit is: 65.0

2024-12-17T09:34:27.414Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
    "grantId": "456947457",
    "response": {
      "responseCode": 0
    },
  },
]
```

```

    "transmitExpireTime": "2024-12-17T09:37:47Z"
  }
]
}
2024-12-17T09:35:07.467Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "456947457",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-17T09:35:07.467Z - INFO - Time interval between two heartbeat request messages is: 40.053, limit
is: 65.0
2024-12-17T09:35:07.483Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "456947457",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-17T09:38:27Z"
    }
  ]
}
}
2024-12-17T09:35:47.532Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "456947457",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2024-12-17T09:35:47.532Z - INFO - Time interval between two heartbeat request messages is: 40.065, limit
is: 65.0
2024-12-17T09:35:47.532Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "456947457",
      "response": {
        "responseCode": 500
      },
      "transmitExpireTime": "2024-12-17T09:35:47Z"
    }
  ]
}
}
2024-12-17T09:35:49.361Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-17T09:35:49.361Z - 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 :
2024-12-17T09:40:18.969Z - INFO - for the question : Did the CBSD1 stop RF transmission within 60
seconds of receiving Heartbeat response with responseCode = 500? , the user choose y
2024-12-17T09:40:19.280Z - INFO - The final result of the test : WINNF.FT.C.HBT.4 is - passed

```

3.4 WINNF.FT.C.HBT.5

2024-12-17T10:14:36.049Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-17T10:14:36.049Z - INFO - the selected test from the user : WINNF.FT.C.HBT.5 is starting now

2024-12-17T10:21:14.691Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "NR",

"supportedSpec": "FFS"

},

"callSign": "",

"cbsdCategory": "A",

"cbsdSerialNumber": "EBCXQC0099008",

"cpiSignatureData": {

"digitalSignature":

"S5wEdZ9w-2uezwVf7XzEZ56qgQgh1M_gyeoRgRBc1169idlGqilcmPxb1z_jxitZXrFRtqMd8g4XGG5MFko_I
at09qOq6Vs2o7lvYoPFdaCfsrVZtCsJ-JsrdOPUOuy4lOtlcn5qDp2OHO4jV40VCiFcUrLcxiZRc2GS2x4l5alJScj
nhUu6KLrukq49IV2pd6ax84rq5XecNDbGfx1TvhDnfRtjTCmcoLNKy0zHmFEIMaD5gyCpX7rDEaEObbdOD
hmGFq45Mzvjoayw1Z26lG0OoKoTh0znt2zXwUMLI-SOHBByWR9eymlgB8TFufKsGaDdCGc54nfXsex6Wpav
zg",

"encodedCpiSignedData":

"eyJpbmN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGl0eSI6MzAsImhlaWdodFR5cGUiOiJBR0wiLC
JhbnRlbn5hR2Fpbil6NiwiaG9yaXpvcnRhbnRhbEFjY3VyYWN5ljoZLCJhbnRlbn5hRG93bnRpbHQiOiJASlmFudGV
ubmFCZWFTd2lkGgiOjYwLzJwLWlnaHQiOiJEUmMCwidmVydGljYWxwY2N1cmFjeSI6MywiYW50ZW5uYUJF6
aW11dGgiOjAsImxvbmtpdHVkZSI6MTIxLjM3OTY0NCwiaW5kb29yRGVwbG95bWVudCI6dHJ1ZSwibGF0a
XR1ZGUiOiJlLjA1Mzk4OX0sImZjY0IkljoiUDl3LVNFQzUxNi1CNDgiLCJwcm9mZXNzaW9uYWxJbnN0YWxs
ZXJEYXRhlj7ImNwaU5hbWUiOiJCvIBJbnN0YWxsZXIlgQ2VydGlmaWNhdGUiLCJpbmN0YWxsQ2VydGlma
WNhdGlvbiRpbWUiOiIyMDI0LTEyLTAzVDE3OjI3OjM5LjA3MTIwM1oiLCJjcGlJZCI6ImNwaTkWMDIeifSwiY2J
zZFnlcmllbE51bWJlcil6IkVVCQ1hRQzAwOTkwMDgifQ",

"protectedHeader": "eyJhbGciOiJIUzU1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "P27-SCE5172N48",

"groupingParam": [

{

"groupId": "SERCOMM_111",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "W8QZWf"

}

]

}

2024-12-17T10:21:14.739Z - INFO - Registration message contains cpiSignatureData

2024-12-17T10:21:14.739Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2024-12-17T10:21:14.739Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"eirpCapability": 30,

"antennaAzimuth": 0,

"heightType": "AGL",

"longitude": 121.379644,

"antennaGain": 6,

"indoorDeployment": true,

"latitude": 25.053989,

"horizontalAccuracy": 3,

"antennaDowntilt": 0,

"antennaBeamwidth": 60,

"height": 1.0,

```

    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-12-03T17:27:39.071203Z",
    "cpild": "cpi9001"
  },
  "fccld": "P27-SCE5172N48",
  "cbstdSerialNumber": "EBCXQC0099008"
}
2024-12-17T10:21:14.802Z - INFO - verified signature on cpiSignatureData
2024-12-17T10:21:14.802Z - INFO - cbstdCategory= 'A', removing optional param from cpi_schema
2024-12-17T10:21:14.802Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-12-17T10:21:14.802Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbstdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-17T10:21:16.552Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbstdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      ]
    }
  ]
}
2024-12-17T10:21:16.552Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbstdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-17T10:21:17.414Z - INFO - grant request from CBRS : {
  "grantRequest": [

```

```

    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "operationParam": {
        "maxEirp": 0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2024-12-17T10:21:17.430Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "channelType": "GAA",
      "grantExpireTime": "2024-12-24T10:21:17Z",
      "grantId": "829090783",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-17T10:21:21.275Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "829090783",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-12-17T10:21:21.275Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "829090783",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2024-12-17T10:21:21Z"
    }
  ]
}
2024-12-17T10:21:47.887Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "829090783",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}

```

2024-12-17T10:21:47.887Z - INFO - Time interval between two heartbeat request messages is: 26.612, limit is: 65.0

2024-12-17T10:21:47.903Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [  
  {  
    "cbstdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",  
    "grantId": "829090783",  
    "response": {  
      "responseCode": 501  
    },  
    "transmitExpireTime": "2024-12-17T10:21:47Z"  
  }  
]
```

2024-12-17T10:21:49.782Z - INFO - arrived to nstep starting question answer session with the technician

2024-12-17T10:21:49.782Z - INFO - the question is : Did the CBSD transmit at any time during the test?

please choose one of the answers :

2024-12-17T10:23:49.839Z - INFO - for the question : Did the CBSD transmit at any time during the test? , the user choose n

2024-12-17T10:23:50.105Z - INFO - The final result of the test : WINNF.FT.C.HBT.5 is - passed


```

    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-12-03T17:27:39.071203Z",
    "cpild": "cpi9001"
  },
  "fccld": "P27-SCE5172N48",
  "cbstdSerialNumber": "EBCXQC0099008"
}
2024-12-18T08:27:41.269Z - INFO - verified signature on cpiSignatureData
2024-12-18T08:27:41.285Z - INFO - cbstdCategory= 'A', removing optional param from cpi_schema
2024-12-18T08:27:41.285Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-12-18T08:27:41.285Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbstdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-18T08:27:43.051Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbstdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      ]
    }
  ]
}
2024-12-18T08:27:43.065Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbstdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-18T08:27:43.926Z - INFO - grant request from CBRS : {
  "grantRequest": [

```

```

    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "operationParam": {
        "maxEirp": 0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2024-12-18T08:27:43.941Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "channelType": "GAA",
      "grantExpireTime": "2024-12-25T08:27:43Z",
      "grantId": "23260811",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-18T08:27:47.769Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "23260811",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-12-18T08:27:47.802Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "23260811",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-18T08:31:07Z"
    }
  ]
}
2024-12-18T08:28:31.854Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "23260811",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}

```

2024-12-18T08:28:31.854Z - INFO - Time interval between two heartbeat request messages is: 44.084, limit is: 65.0

2024-12-18T08:28:31.854Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [  
  {  
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",  
    "grantId": "23260811",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2024-12-18T08:31:51Z"  
  }  
]
```

}
2024-12-18T08:29:21.246Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [  
  {  
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",  
    "grantId": "23260811",  
    "grantRenew": false,  
    "operationState": "AUTHORIZED"  
  }  
]
```

}
2024-12-18T08:29:21.246Z - INFO - Time interval between two heartbeat request messages is: 49.393, limit is: 65.0

2024-12-18T08:29:21.246Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [  
  {  
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",  
    "grantId": "23260811",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2024-12-18T08:32:41Z"  
  }  
]
```

}
2024-12-18T08:30:01.302Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [  
  {  
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",  
    "grantId": "23260811",  
    "grantRenew": false,  
    "operationState": "AUTHORIZED"  
  }  
]
```

}
2024-12-18T08:30:01.302Z - INFO - Time interval between two heartbeat request messages is: 40.056, limit is: 65.0

2024-12-18T08:30:01.302Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [  
  {  
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",  
    "grantId": "23260811",  
    "response": {  
      "responseCode": 501  
    },  
  }  
]
```

```

    "transmitExpireTime": "2024-12-18T08:30:01Z"
  }
]
}
2024-12-18T08:30:13.288Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "23260811",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-12-18T08:30:13.288Z - INFO - Time interval between two heartbeat request messages is: 11.985, limit
is: 65.0
2024-12-18T08:30:13.288Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "23260811",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2024-12-18T08:30:13Z"
    }
  ]
}
2024-12-18T08:30:14.694Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-18T08:30:14.694Z - 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 :
2024-12-18T08:32:57.953Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 501? , the user choose y
2024-12-18T08:32:58.266Z - INFO - The final result of the test : WINNF.FT.C.HBT.6 is - passed

```



```

    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-12-03T17:27:39.071203Z",
    "cpild": "cpi9001"
  },
  "fccld": "P27-SCE5172N48",
  "cbstdSerialNumber": "EBCXQC0099008"
}
2024-12-18T09:26:23.154Z - INFO - verified signature on cpiSignatureData
2024-12-18T09:26:23.154Z - INFO - cbstdCategory= 'A', removing optional param from cpi_schema
2024-12-18T09:26:23.154Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-12-18T09:26:23.154Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbstdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-18T09:26:24.904Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbstdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      ]
    }
  ]
}
2024-12-18T09:26:24.920Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbstdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-18T09:26:25.779Z - INFO - grant request from CBRS : {
  "grantRequest": [

```

```

    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "operationParam": {
        "maxEirp": 0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2024-12-18T09:26:25.779Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "channelType": "GAA",
      "grantExpireTime": "2024-12-25T09:26:25Z",
      "grantId": "283556624",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-18T09:26:29.624Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "283556624",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-12-18T09:26:29.624Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "283556624",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-18T09:29:49Z"
    }
  ]
}
2024-12-18T09:27:13.707Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "283556624",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}

```

2024-12-18T09:27:13.707Z - INFO - Time interval between two heartbeat request messages is: 44.083, limit is: 65.0

2024-12-18T09:27:13.721Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [  
  {  
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",  
    "grantId": "283556624",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2024-12-18T09:30:33Z"  
  }  
]
```

}
2024-12-18T09:28:03.115Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [  
  {  
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",  
    "grantId": "283556624",  
    "grantRenew": false,  
    "operationState": "AUTHORIZED"  
  }  
]
```

}
2024-12-18T09:28:03.115Z - INFO - Time interval between two heartbeat request messages is: 49.409, limit is: 65.0

2024-12-18T09:28:03.115Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [  
  {  
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",  
    "grantId": "283556624",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2024-12-18T09:31:23Z"  
  }  
]
```

}
2024-12-18T09:28:43.167Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [  
  {  
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",  
    "grantId": "283556624",  
    "grantRenew": false,  
    "operationState": "AUTHORIZED"  
  }  
]
```

}
2024-12-18T09:28:43.167Z - INFO - Time interval between two heartbeat request messages is: 40.052, limit is: 65.0

2024-12-18T09:28:43.167Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [  
  {  
    "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",  
    "grantId": "283556624",  
    "response": {  
      "responseCode": 502  
    },  
  },  
]
```



```
        "transmitExpireTime": "2024-12-18T09:28:43Z"
    }
]
}
2024-12-18T09:28:45.575Z - INFO - relinquishment request from CBRS : {
    "relinquishmentRequest": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "grantId": "283556624"
        }
    ]
}
2024-12-18T09:28:45.589Z - INFO - engine sent successfully, the response to CBRS : {
    "relinquishmentResponse": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "grantId": "283556624",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
}
2024-12-18T09:28:47.263Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-18T09:28:47.263Z - 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 :
2024-12-18T09:32:33.976Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 502? , the user choose y
2024-12-18T09:32:34.288Z - INFO - The final result of the test : WINNF.FT.C.HBT.7 is - passed
```

3.7 WINNF.FT.C.HBT.9

2024-12-18T09:38:52.119Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-18T09:38:52.119Z - INFO - the selected test from the user : WINNF.FT.C.HBT.9 is starting now

2024-12-18T09:45:34.234Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "NR",

"supportedSpec": "FFS"

},

"callSign": "",

"cbsdCategory": "A",

"cbsdSerialNumber": "EBCXQC0099008",

"cpiSignatureData": {

"digitalSignature":

"S5wEdZ9w-2uezwVf7XzEZ56qgQgh1M_gyeoRgRBc1169idlGqilcmPxb1z_jxitZXrFRtqMd8g4XGG5MFko_I
at09qOq6Vs2o7lvYoPFdaCfsrVZtCsJ-JsrdOPUOuy4lOtlcn5qDp2OHO4jV40VCiFcUrLcxiZRc2GS2x4l5alJScj
nhUu6KLrukq49IV2pd6ax84rq5XecndNbGfx1TvhDnfRtjTCmcoLNky0zHmFEIMaD5gyCpX7rDEaEObbdOD
hmGFq45Mzvjoayw1Z26lG0OoKoTh0znt2zXwUMLI-SOHBByWR9eymlgB8TFufKsGaDdCGc54nfXsex6Wpav
zg",

"encodedCpiSignedData":

"eyJpbN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGl0eSI6MzAsImhlaWdodFR5cGUOiJBR0wiLC
JhbnRlbn5hR2Fpbil6NiwiaG9yaXpvcnRhbnRhbEFjY3VyYWN5ljoZLCJhbnRlbn5hRG93bnRpbHQiOjAsImFudGV
ubmFCZWFTd2lkdGgiOjYwLzJoZWlnaHQiOjEuMCwidmVydGljYWxwY2N1cmFjeSI6MywiYW50ZW5uYUF6
aW11dGgiOjAsImxvbmtpdHVkZSI6MTIxLjM3OTY0NCwiaW5kb29yRGVwbG95bWVudCI6dHJ1ZSwibGF0a
XR1ZGUiOjI1LjA1Mzk4OX0sImZjY0lkloiUDl3LVNFQzUxNi1CNDgiLCJwcm9mZXNzaW9uYWxwJbnN0YWxs
ZXJEYXRhljp7ImNwaU5hbWUiOiJCviBjbnN0YWxsZXIlgQ2VydGlmaWNhdGUiLCJpbN0YWxsQ2VydGlma
WNhdGlvblRpbWUiOiYMDi0LTEyLTazVDE3OjI3OjM5LjA3MTlwM1oiLCJjcGlJZCI6ImNwaTkWMDIifSwiY2J
zZFnlcmllbE51bWJlcil6IkVVCQ1hRQzAwOTkwMDgifQ",

"protectedHeader": "eyJhbGciOiJIUzU1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "P27-SCE5172N48",

"groupingParam": [

{

"groupId": "SERCOMM_111",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "W8QZWf"

}

]

}

2024-12-18T09:45:34.282Z - INFO - Registration message contains cpiSignatureData

2024-12-18T09:45:34.282Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2024-12-18T09:45:34.282Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"eirpCapability": 30,

"antennaAzimuth": 0,

"heightType": "AGL",

"longitude": 121.379644,

"antennaGain": 6,

"indoorDeployment": true,

"latitude": 25.053989,

"horizontalAccuracy": 3,

```

        "antennaDowntilt": 0,
        "antennaBeamwidth": 60,
        "height": 1.0,
        "verticalAccuracy": 3
    },
    "professionalInstallerData": {
        "cpiName": "BV Installer Certificate",
        "installCertificationTime": "2024-12-03T17:27:39.071203Z",
        "cpild": "cpi9001"
    },
    "fccld": "P27-SCE5172N48",
    "cbsdSerialNumber": "EBCXQC0099008"
}
2024-12-18T09:45:34.344Z - INFO - verified signature on cpiSignatureData
2024-12-18T09:45:34.344Z - INFO - cbsdCategory= 'A', removing optional param from cpi_schema
2024-12-18T09:45:34.344Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-12-18T09:45:34.344Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2024-12-18T09:45:36.095Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3640000000,
                    "lowFrequency": 3600000000
                }
            ]
        }
    ]
}
2024-12-18T09:45:36.095Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {
                    "channelType": "GAA",
                    "frequencyRange": {
                        "highFrequency": 3640000000,
                        "lowFrequency": 3600000000
                    },
                    "ruleApplied": "FCC_PART_96"
                }
            ],
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "response": {
                "responseCode": 0
            }
        }
    ]
}

```

```

}
2024-12-18T09:45:36.970Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "operationParam": {
        "maxEirp": 0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
}
2024-12-18T09:45:36.970Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "channelType": "GAA",
      "grantExpireTime": "2024-12-25T09:45:36Z",
      "grantId": "835289472",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2024-12-18T09:45:40.782Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "835289472",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
}
2024-12-18T09:46:10.871Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "835289472",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
}
2024-12-18T09:46:10.871Z - INFO - request message received while HBT is absent, sleep 174 sec before
responding
2024-12-18T09:46:40.872Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "835289472",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
}

```

```

    }
  ]
}
2024-12-18T09:46:40.872Z - INFO - request message received while HBT is absent, sleep 144 sec before
responding
2024-12-18T09:47:10.880Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "835289472",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-12-18T09:47:10.880Z - INFO - request message received while HBT is absent, sleep 114 sec before
responding
2024-12-18T09:47:40.891Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "835289472",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-12-18T09:47:40.891Z - INFO - request message received while HBT is absent, sleep 84 sec before
responding
2024-12-18T09:48:03.322Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "835289472",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-12-18T09:48:03.322Z - INFO - request message received while HBT is absent, sleep 62 sec before
responding
2024-12-18T09:48:33.308Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2024-12-18T09:48:33.308Z - INFO - request message received while HBT is absent, sleep 32 sec before
responding
2024-12-18T09:49:00.809Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [

```

```
{
  "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
  "grantId": "835289472",
  "response": {
    "responseCode": 501
  },
  "transmitExpireTime": "2024-12-18T09:49:00Z"
}
```

```
]
```

```
}
```

2024-12-18T09:49:02.219Z - INFO - arrived to nstep starting question answer session with the technician

2024-12-18T09:49:02.219Z - INFO - the question is : Were there RF transmissions from the CBSD during the test? please choose one of the answers :

2024-12-18T09:49:04.891Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2024-12-18T09:49:04.891Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2024-12-18T09:49:04.891Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2024-12-18T09:49:04.907Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2024-12-18T09:49:05.312Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2024-12-18T09:49:05.344Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2024-12-18T09:50:20.447Z - INFO - for the question : Were there RF transmissions from the CBSD during the test? , the user choose n

2024-12-18T09:50:20.993Z - INFO - The final result of the test : WINNF.FT.C.HBT.9 is - passed

3.8 WINNF.FT.C.HBT.10

2024-12-20T02:29:49.562Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-20T02:29:49.562Z - INFO - the selected test from the user : WINNF.FT.C.HBT.10 is starting now

2024-12-20T02:36:30.200Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "NR",

"supportedSpec": "FFS"

},

"callSign": "",

"cbsdCategory": "A",

"cbsdSerialNumber": "EBCXQC0099008",

"cpiSignatureData": {

"digitalSignature":

"S5wEdZ9w-2uezwVf7XzEZ56qgQgh1M_gyeoRgRBc1169idlGqilcmPxb1z_jxitZXrFRtqMd8g4XGG5MFko_I
at09qOq6Vs2o7lvYoPFdaCfsrVZtCsJ-JsrdOPUOuy4lOtlcn5qDp2OHO4jV40VCiFcUrLcxiZRc2GS2x4l5alJScj
nhUu6KLrukq49IV2pd6ax84rq5XecNDbGfx1TvhDnfRtjTCmcoLNKy0zHmFEIMaD5gyCpX7rDEaEObbdOD
hmGFq45MzvJ0ayw1Z26lG0OoKoTh0znt2zXwUMLI-SOHBByWR9eymlgB8TFufKsGaDdCGc54nfXsex6Wpav
zg",

"encodedCpiSignedData":

"eyJpbmN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGl0eSI6MzAsImhlaWdodFR5cGUiOiJBR0wiLC
JhbnRlbnM5hR2Fpbil6NiwiaG9yaXpvcnRhbnRhbEFjY3VyYWN5ljoZLCJhbnRlbnM5hRG93bnRpbHQiOiJASlmFudGV
ubmFCZWFTd2lkdGgiOiJwLWJwZWlnaHQiOiJEUmMCwidmVydGljYWxwY2N1cmFjeSI6MywiYW50ZW5uYUJwZmF6
aW11dGgiOiJASlmxvbmtpdHVkZSI6MTIxLjM3OTY0NCwiaW5kb29yRGVwbG95bWVudCI6dHJ1ZSwibGF0a
XR1ZGUiOiJlLjA1Mzk4OX0sImZjY0IkljoiUDl3LVNFQzUxNi1CNDgiLCJwcm9mZXNzaW9uYWxwY2N1cmFjeSI6MywiYW50ZW5uYUJwZmF6
ZXJEYXRhljpb7ImNwaU5hbWUiOiJCViBjbnN0YWxsZXIqQ2VydGlmaWNhdGUiLCJpbmN0YWxsQ2VydGlma
WNhdGlvbiRpbWUiOiJyMDI0LTEyLTZVDE3OjI3OjM5LjA3MTIwM1oiLCJjcGlJZCI6ImNwaTkWMDI0IiwiaXNjaW50ZW5uYUJwZmF6
zZFnlcmllbE51bWJlcil6IkkVCQ1hRQzAwOTkwMDgifQ",

"protectedHeader": "eyJhbGciOiJIUzU1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "P27-SCE5172N48",

"groupingParam": [

{

"groupId": "SERCOMM_111",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "W8QZWf"

}

]

}

2024-12-20T02:36:30.230Z - INFO - Registration message contains cpiSignatureData

2024-12-20T02:36:30.230Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2024-12-20T02:36:30.230Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"eirpCapability": 30,

"antennaAzimuth": 0,

"heightType": "AGL",

"longitude": 121.379644,

"antennaGain": 6,

"indoorDeployment": true,

"latitude": 25.053989,

"horizontalAccuracy": 3,

"antennaDowntilt": 0,

"antennaBeamwidth": 60,

"height": 1.0,

```

    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-12-03T17:27:39.071203Z",
    "cpild": "cpi9001"
  },
  "fccld": "P27-SCE5172N48",
  "cbstdSerialNumber": "EBCXQC0099008"
}
2024-12-20T02:36:30.325Z - INFO - verified signature on cpiSignatureData
2024-12-20T02:36:30.325Z - INFO - cbstdCategory= 'A', removing optional param from cpi_schema
2024-12-20T02:36:30.325Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-12-20T02:36:30.325Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbstdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-20T02:36:32.089Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbstdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      ]
    }
  ]
}
2024-12-20T02:36:32.089Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbstdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-20T02:36:32.950Z - INFO - grant request from CBRS : {
  "grantRequest": [

```



```

    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "operationParam": {
        "maxEirp": 0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2024-12-20T02:36:32.950Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "channelType": "GAA",
      "grantExpireTime": "2024-12-27T02:36:32Z",
      "grantId": "394098583",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-20T02:36:36.793Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "394098583",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-12-20T02:36:36.793Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "394098583",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-20T02:39:56Z"
    }
  ]
}
2024-12-20T02:37:20.836Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "394098583",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}

```

```
2024-12-20T02:37:20.836Z - INFO - Time interval between two heartbeat request messages is: 44.043, limit is: 65.0
2024-12-20T02:37:20.852Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "394098583",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-20T02:40:40Z"
    }
  ]
}
2024-12-20T02:38:10.232Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "394098583",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-20T02:38:10.247Z - INFO - Time interval between two heartbeat request messages is: 49.395, limit is: 65.0
2024-12-20T02:38:10.247Z - INFO - LAST HBT RESPONSE THAT SET TRANSMIT_EXPIRE_TIME WAS AT: 2024-12-20 02:37:20.837000
2024-12-20T02:38:40.342Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "394098583",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-20T02:38:40.342Z - INFO - request message received while HBT is absent, sleep 174 sec before responding
2024-12-20T02:39:10.329Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "394098583",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-20T02:39:10.329Z - INFO - request message received while HBT is absent, sleep 144 sec before responding
2024-12-20T02:39:40.351Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "394098583",
      "grantRenew": false,
```

```

    "operationState": "AUTHORIZED"
  }
]
}
2024-12-20T02:39:40.351Z - INFO - request message received while HBT is absent, sleep 114 sec before
responding
2024-12-20T02:40:10.336Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "394098583",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-20T02:40:10.336Z - INFO - request message received while HBT is absent, sleep 84 sec before
responding
2024-12-20T02:40:40.355Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "394098583",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-20T02:40:40.355Z - INFO - request message received while HBT is absent, sleep 54 sec before
responding
2024-12-20T02:41:30.253Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "394098583",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2024-12-20T02:41:30Z"
    }
  ]
}
2024-12-20T02:41:31.630Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-20T02:41:31.630Z - INFO - the question is : Did the CBSD stop RF transmissions within
(transmitExpireTime + 60seconds) of last valid heartbeat response? please choose one of the answers :
2024-12-20T02:41:34.348Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2024-12-20T02:41:34.348Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2024-12-20T02:41:34.364Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2024-12-20T02:41:34.364Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2024-12-20T02:41:34.364Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2024-12-20T02:45:36.131Z - INFO - for the question : Did the CBSD stop RF transmissions within
(transmitExpireTime + 60seconds) of last valid heartbeat response? , the user choose y
2024-12-20T02:45:36.490Z - INFO - The final result of the test : WINNF.FT.C.HBT.10 is - passed

```



```

    "antennaDowntilt": 0,
    "antennaBeamwidth": 60,
    "height": 1.0,
    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-12-03T17:27:39.071203Z",
    "cpild": "cpi9001"
  },
  "fccld": "P27-SCE5172N48",
  "cbsdSerialNumber": "EBCXQC0099008"
}
2024-12-20T09:11:17.700Z - INFO - verified signature on cpiSignatureData
2024-12-20T09:11:17.700Z - INFO - cbsdCategory= 'A', removing optional param from cpi_schema
2024-12-20T09:11:17.700Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-12-20T09:11:17.700Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-20T09:11:19.482Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      ]
    }
  ]
}
2024-12-20T09:11:19.482Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

}
2024-12-20T09:11:20.342Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "operationParam": {
        "maxEirp": 0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2024-12-20T09:11:20.357Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "channelType": "GAA",
      "grantExpireTime": "2024-12-27T09:11:20Z",
      "grantId": "745011584",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-20T09:11:24.186Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "745011584",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-12-20T09:11:24.186Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "745011584",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-20T09:14:44Z"
    }
  ]
}
2024-12-20T09:12:08.269Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "745011584",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}

```

```

    }
  ]
}
2024-12-20T09:12:08.285Z - INFO - Time interval between two heartbeat request messages is: 44.083, limit
is: 65.0
2024-12-20T09:12:08.285Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "745011584",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-20T09:15:28Z"
    }
  ]
}
2024-12-20T09:12:39.723Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "745011584"
    }
  ]
}
2024-12-20T09:12:39.739Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "745011584",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-20T09:12:41.520Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-20T09:12:41.520Z - INFO - the question is : Did CBSD1 cease RF transmission before receipt of
Relinquishment Request by Test Harness? please choose one of the answers :
2024-12-20T09:16:00.882Z - INFO - for the question : Did CBSD1 cease RF transmission before receipt of
Relinquishment Request by Test Harness? , the user choose y
2024-12-20T09:16:01.321Z - INFO - The final result of the test : WINNF.FT.C.RLQ.1 is - passed

```



```

    "antennaBeamwidth": 60,
    "height": 1.0,
    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-12-03T17:27:39.071203Z",
    "cpild": "cpi9001"
  },
  "fccld": "P27-SCE5172N48",
  "cbsdSerialNumber": "EBCXQC0099008"
}
2024-12-20T09:38:21.108Z - INFO - verified signature on cpiSignatureData
2024-12-20T09:38:21.108Z - INFO - cbsdCategory= 'A', removing optional param from cpi_schema
2024-12-20T09:38:21.108Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-12-20T09:38:21.108Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-20T09:38:22.875Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      ]
    }
  ]
}
2024-12-20T09:38:22.875Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

2024-12-20T09:38:23.734Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "operationParam": {
        "maxEirp": 0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2024-12-20T09:38:23.734Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "channelType": "GAA",
      "grantExpireTime": "2024-12-27T09:38:23Z",
      "grantId": "109526470",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-20T09:38:27.578Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "109526470",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-12-20T09:38:27.578Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "109526470",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-20T09:41:47Z"
    }
  ]
}
2024-12-20T09:39:11.690Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "109526470",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}

```

```

    ]
  }
2024-12-20T09:39:11.690Z - INFO - Time interval between two heartbeat request messages is: 44.112, limit
is: 65.0
2024-12-20T09:39:11.690Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "109526470",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-20T09:42:31Z"
    }
  ]
}
2024-12-20T09:39:41.648Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "109526470"
    }
  ]
}
2024-12-20T09:39:41.648Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "109526470",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-20T09:39:44.321Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008"
    }
  ]
}
2024-12-20T09:39:44.335Z - INFO - engine sent successfully, the response to CBRS : {
  "deregistrationResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-20T09:39:46.305Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-20T09:39:46.305Z - 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 :
2024-12-20T09:43:25.654Z - 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

```

2024-12-20T09:43:25.951Z - 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

2024-12-23T06:19:20.003Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-23T06:19:20.003Z - INFO - the selected test from the user : WINNF.FT.C.SCS.1 is starting now

2024-12-23T06:25:58.348Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "NR",

"supportedSpec": "FFS"

},

"callSign": "",

"cbsdCategory": "A",

"cbsdSerialNumber": "EBCXQC0099008",

"cpiSignatureData": {

"digitalSignature":

"S5wEdZ9w-2uezwVf7XzEZ56qgQgh1M_gyeoRgRbC1169idlGqilcmPxb1z_jxitZXrFRtqMd8g4XGG5MFko_I
at09qOq6Vs2o7lvYoPFdaCfsrVZtCsJ-JsrdOPUOuy4lOtlcn5qDp2OHO4jV40VCiFcUrLcxiZRc2GS2x4l5alJScj
nhUu6KLrukq49IV2pd6ax84rq5XecndNbGfx1TvhDnfRtjTCmcLnKy0zHmFEIMaD5gyCpX7rDEaEObbdOD
hmGFq45Mzvj0ayw1Z26lG0OoKoTh0znt2zXwUMLI-SOHByWR9eymlgB8TFufKsGaDdCGc54nfXsex6Wpav
zg",

"encodedCpiSignedData":

"eyJpbN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGl0eSI6MzAsImhlaWdodFR5cGUiOiJBR0wiLC
JhbnRlbn5hR2Fpbil6NiwiaG9yaXpvbnRhbEFjY3VyYWN5ljozLCJhbnRlbn5hRG93bnRpbHQiOiJAsImFudGV
ubmFCZWFTd2lkdGgiOiJyLWJwZWlnaHQiOiJlJm3OTY0NCwiaW5kb29yRGVwbG95bWVudCI6dHJ1ZSwibGF0a
aW11dGgiOiJAsImxvbmtpdHVkZSI6MTIxLjM3OTY0NCwiaW5kb29yRGVwbG95bWVudCI6dHJ1ZSwibGF0a
XR1ZGUiOiJlLjA1Mzk4OX0sImZjY0lkloiUDl3LVNFQzUxNi1CNDgiLCJwcm9mZXNzaW9uYWxjbN0YWxs
ZXJlYXRhIjpw7l7mNwaU5hbWUiOiJCViBjbnN0YWxsZXIlgQ2VydGlmaWNhdGUiLCJpbN0YWxsQ2VydGlma
WNhdGlvblRpbWUiOiJlMDI0LTEyLTAzVDE3OjI3OjM5LjA3MTlwM1oiLCJjcGlJZCI6ImNwaTkWMDIeifSwiY2J
zZFnlcmllbE51bWJlcil6IkVVCQ1hRQzAwOTkwMDgifQ",

"protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "P27-SCE5172N48",

"groupingParam": [

{

"groupId": "SERCOMM_111",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "W8QZWf"

}

]

}

2024-12-23T06:25:58.427Z - INFO - Registration message contains cpiSignatureData

2024-12-23T06:25:58.427Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2024-12-23T06:25:58.427Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"eirpCapability": 30,

"antennaAzimuth": 0,

"heightType": "AGL",

"longitude": 121.379644,

"antennaGain": 6,

"indoorDeployment": true,

"latitude": 25.053989,

"horizontalAccuracy": 3,

```

    "antennaDowntilt": 0,
    "antennaBeamwidth": 60,
    "height": 1.0,
    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "BV Installer Certificate",
    "installCertificationTime": "2024-12-03T17:27:39.071203Z",
    "cpild": "cpi9001"
  },
  "fcclid": "P27-SCE5172N48",
  "cbstdSerialNumber": "EBCXQC0099008"
}
2024-12-23T06:25:58.989Z - INFO - verified signature on cpiSignatureData
2024-12-23T06:25:59.005Z - INFO - cbstdCategory= 'A', removing optional param from cpi_schema
2024-12-23T06:25:59.005Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-12-23T06:25:59.005Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbstdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-23T06:26:00.302Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-23T06:26:00.302Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2024-12-23T06:32:59.756Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2024-12-23T06:33:00.194Z - INFO - The final result of the test : WINNF.FT.C.SCS.1 is - passed

```

6.2 WINNF.FT.C.SCS.2

2024-12-23T06:51:30.506Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13
2024-12-23T06:51:30.506Z - INFO - the selected test from the user : WINNF.FT.C.SCS.2 is starting now

6.3 WINNF.FT.C.SCS.3

2024-12-23T08:47:35.625Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13
2024-12-23T08:47:35.625Z - INFO - the selected test from the user : WINNF.FT.C.SCS.3 is starting now

6.4 WINNF.FT.C.SCS.4

2024-12-23T09:38:52.400Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13
2024-12-23T09:38:52.400Z - INFO - the selected test from the user : WINNF.FT.C.SCS.4 is starting now

6.5 WINNF.FT.C.SCS.5

2024-12-23T10:18:44.555Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13
2024-12-23T10:18:44.555Z - INFO - the selected test from the user : WINNF.FT.C.SCS.5 is starting now

7 CBSD RF Power Measurement

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

2024-12-13T07:28:05.151Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-13T07:28:05.151Z - INFO - Selected spectrum frequency is {'lowFrequency': 3600000000L, 'highFrequency': 3640000000L}

2024-12-13T07:28:05.151Z - INFO - Granted Spectrum Max Eirp = 0dBm/MHz

2024-12-13T07:28:05.151Z - INFO - the selected test from the user : PowerMeasTest is starting now

2024-12-13T07:34:46.983Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "NR",

"supportedSpec": "FFS"

},

"callSign": "",

"cbsdCategory": "A",

"cbsdSerialNumber": "EBCXQC0099008",

"cpiSignatureData": {

"digitalSignature":

"S5wEdZ9w-2uezwVf7XzEZ56qgQgh1M_gyeoRgRBc1169idlGqilcmPxb1z_jxitZXrFRtqMd8g4XGG5MFko_I
at09qOq6Vs2o7lvYoPFdaCfsrVZtCsJ-JsrdOPUOuy4lOtlcn5qDp2OHO4jV40VCiFcUrLcxiZRc2GS2x4l5alJScj
nhUu6KLRukq49IV2pd6ax84rq5XecnNDbGfx1TvhDnfRtjTCmcoLNKy0zHmFEIMaD5gyCpX7rDEaEObbdOD
hmGFq45Mzvj0ayw1Z26IG0OoKoTh0znt2zXwUMLI-SOHBByWR9eymlgB8TFufKsGaDdCGc54nfXsex6Wpav
zg",

"encodedCpiSignedData":

"eyJpbN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGl0eSI6MzAsImhlaWdodFR5c2GUioiJBR0wiLC
JhbnRlbn5hR2Fpbil6Niwiag9yaXpvbnRhbEFjY3VyYWN5ljoZLCJhbnRlbn5hRG93bnRpbHQiOjAsImFudGV
ubmFCZWZtd2lkdgGgiOjYwLCJoZWlnaHQiOjEuMCwidmVydGJjYWxwY2N1cmFjeSI6MywiYW50ZW5uYUF6
aW11dGgiOjAsImxvbmddpHVkZSI6MTIxLjM3OTY0NCwiaW5kb29yRGVwbG95bWVudCI6dHJ1ZSwibGF0a
XR1ZGUioiJlLjA1Mzk4OX0slmZjY0kljoiUDI3LVNFQzUxNi1CNDgiLCJwcm9mZXNzaW9uYWxJbnN0YWxs
ZXJJEYXRhljlp7ImNwaU5hbWUiOiJCviBjbnN0YWxsZXIlgQ2VydGlmaWNhdGUiLCJpbN0YWxsQ2VydGlma
WNhdGlvblRpbWUiOiYMDi0LTEyLTazVDE3OjI3OjM5LjA3MTIwM1oiLCJjcGljZCI6ImNwaTkWMDIifSwiY2J
zZFNIcmllhE51bWJlcil6IkVCCQ1hRQzAwOTkwMDgifQ",

"protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "P27-SCE5172N48",

"groupingParam": [

{

"groupId": "SERCOMM_111",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "W8QZWf"

}

]

}

2024-12-13T07:34:47.013Z - INFO - engine sent successfully, the response to CBRS : {

"registrationResponse": [

{

"cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",

"response": {

"responseCode": 0

}


```

    }
  ]
}
2024-12-13T07:34:48.779Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2024-12-13T07:34:48.779Z - INFO - The requested spectrum is out of the range, availableChannel is sent out
2024-12-13T07:34:48.779Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "maxEirp": 0,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-13T07:34:49.638Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "operationParam": {
        "maxEirp": 0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2024-12-13T07:34:49.638Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "channelType": "GAA",
      "grantExpireTime": "2024-12-20T07:34:49Z",

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    "grantId": "348874673",
    "heartbeatInterval": 60,
    "response": {
      "responseCode": 0
    }
  }
]
}
2024-12-13T07:34:53.499Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "348874673",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-12-13T07:34:53.499Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "348874673",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-13T07:38:13Z"
    }
  ]
}
2024-12-13T07:35:37.552Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "348874673",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-13T07:35:37.566Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "348874673",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-13T07:38:57Z"
    }
  ]
}
2024-12-13T07:36:26.959Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "348874673",
      "grantRenew": false,

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        "operationState": "AUTHORIZED"
    }
]
}
2024-12-13T07:36:26.959Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "grantId": "348874673",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-12-13T07:39:46Z"
        }
    ]
}
2024-12-13T07:37:07.009Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "grantId": "348874673",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-12-13T07:37:07.025Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "grantId": "348874673",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-12-13T07:40:27Z"
        }
    ]
}
2024-12-13T07:37:47.068Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "grantId": "348874673",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-12-13T07:37:47.068Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "grantId": "348874673",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-12-13T07:41:07Z"
        }
    ]
}

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    ]
  }
  2024-12-13T07:38:27.121Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
      {
        "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
        "grantId": "348874673",
        "grantRenew": false,
        "operationState": "AUTHORIZED"
      }
    ]
  }
  2024-12-13T07:38:27.138Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
      {
        "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
        "grantId": "348874673",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2024-12-13T07:41:47Z"
      }
    ]
  }
  2024-12-13T07:39:07.187Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
      {
        "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
        "grantId": "348874673",
        "grantRenew": false,
        "operationState": "AUTHORIZED"
      }
    ]
  }
  2024-12-13T07:39:07.187Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
      {
        "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
        "grantId": "348874673",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2024-12-13T07:42:27Z"
      }
    ]
  }
  2024-12-13T07:39:47.243Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
      {
        "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
        "grantId": "348874673",
        "grantRenew": false,
        "operationState": "AUTHORIZED"
      }
    ]
  }
  2024-12-13T07:39:47.259Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [

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        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "grantId": "348874673",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-12-13T07:43:07Z"
        }
    ]
}
2024-12-13T07:40:27.296Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "grantId": "348874673",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-12-13T07:40:27.312Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "grantId": "348874673",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-12-13T07:43:47Z"
        }
    ]
}
2024-12-13T07:41:07.361Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "grantId": "348874673",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-12-13T07:41:07.361Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
            "grantId": "348874673",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-12-13T07:44:27Z"
        }
    ]
}

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    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2024-12-13T06:49:01.477Z - INFO - The requested spectrum is out of the range, availableChannel is sent out
2024-12-13T06:49:01.477Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "maxEirp": 10,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-13T06:49:02.336Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "operationParam": {
        "maxEirp": 10,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2024-12-13T06:49:02.336Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "channelType": "GAA",
      "grantExpireTime": "2024-12-20T06:49:02Z",
      "grantId": "691209129",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

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    }
  ]
}
2024-12-13T06:49:06.197Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "691209129",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-12-13T06:49:06.213Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "691209129",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-13T06:52:26Z"
    }
  ]
}
2024-12-13T06:49:50.292Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "691209129",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-13T06:49:50.309Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "691209129",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-13T06:53:10Z"
    }
  ]
}
2024-12-13T06:50:39.690Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "691209129",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-13T06:50:39.704Z - INFO - engine sent successfully, the response to CBRS : {

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    "heartbeatResponse": [
      {
        "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
        "grantId": "691209129",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2024-12-13T06:53:59Z"
      }
    ]
  }
}
2024-12-13T06:51:19.756Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "691209129",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2024-12-13T06:51:19.756Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "691209129",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-13T06:54:39Z"
    }
  ]
}
}
2024-12-13T06:51:59.815Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "691209129",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2024-12-13T06:51:59.815Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "691209129",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-13T06:55:19Z"
    }
  ]
}
}
2024-12-13T06:52:39.867Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {

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        "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
        "grantId": "691209129",
        "grantRenew": false,
        "operationState": "AUTHORIZED"
      }
    ]
  }
}
2024-12-13T06:52:39.867Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "691209129",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-13T06:55:59Z"
    }
  ]
}
}
2024-12-13T06:53:19.917Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "691209129",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2024-12-13T06:53:19.934Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "691209129",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-13T06:56:39Z"
    }
  ]
}
}
2024-12-13T06:53:59.970Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "691209129",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2024-12-13T06:53:59.986Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "691209129",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-13T06:56:39Z"
    }
  ]
}
}

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    },
    "transmitExpireTime": "2024-12-13T06:57:19Z"
  }
]
}
2024-12-13T06:54:40.039Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "691209129",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-13T06:54:40.039Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "691209129",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-13T06:58:00Z"
    }
  ]
}
```



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    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2024-12-13T06:30:47.808Z - INFO - The requested spectrum is out of the range, availableChannel is sent out
2024-12-13T06:30:47.808Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "maxEirp": 20,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-13T06:30:48.651Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "operationParam": {
        "maxEirp": 20,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2024-12-13T06:30:48.683Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "channelType": "GAA",
      "grantExpireTime": "2024-12-20T06:30:48Z",
      "grantId": "828225673",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

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    }
  ]
}
2024-12-13T06:30:52.510Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "828225673",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-12-13T06:30:52.526Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "828225673",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-13T06:34:12Z"
    }
  ]
}
2024-12-13T06:31:36.611Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "828225673",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-13T06:31:36.611Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "828225673",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-13T06:34:56Z"
    }
  ]
}
2024-12-13T06:32:25.992Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "828225673",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-13T06:32:26.006Z - INFO - engine sent successfully, the response to CBRS : {

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    "heartbeatResponse": [
      {
        "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
        "grantId": "828225673",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2024-12-13T06:35:46Z"
      }
    ]
  }
}
2024-12-13T06:33:06.056Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "828225673",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2024-12-13T06:33:06.056Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "828225673",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-13T06:36:26Z"
    }
  ]
}
}
2024-12-13T06:33:46.118Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "828225673",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2024-12-13T06:33:46.118Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "828225673",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-13T06:37:06Z"
    }
  ]
}
}
2024-12-13T06:34:26.170Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {

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        "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
        "grantId": "828225673",
        "grantRenew": false,
        "operationState": "AUTHORIZED"
      }
    ]
  }
}
2024-12-13T06:34:26.170Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "828225673",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-13T06:37:46Z"
    }
  ]
}
}
2024-12-13T06:35:06.229Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "828225673",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2024-12-13T06:35:06.229Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "828225673",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-13T06:38:26Z"
    }
  ]
}
}
2024-12-13T06:35:46.276Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "828225673",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2024-12-13T06:35:46.292Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "828225673",
      "response": {
        "responseCode": 0
      },

```



```

    },
    "transmitExpireTime": "2024-12-13T06:39:06Z"
  }
]
}
2024-12-13T06:36:26.345Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "828225673",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-13T06:36:26.345Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "828225673",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-13T06:39:46Z"
    }
  ]
}
2024-12-13T06:37:06.395Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "828225673",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-13T06:37:06.395Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCE5172N48Mock-SASEBCXQC0099008",
      "grantId": "828225673",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-13T06:40:26Z"
    }
  ]
}

```