

## Test Logs

**FCC ID:** P27-SCO4255PA10

**Test Model:** SCO4255P-BC-A10

**Received Date:** Nov. 16, 2021

**Test Date:** Dec. 03, 2021 ~ Jan. 11, 2022

**Issued Date:** Jan. 20, 2022

**Applicant:** Sercomm Corp.

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## 1 CBSD Registration Process

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

2022-01-05T03:31:30.312Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-01-05T03:31:30.312Z - INFO - the selected test from the user : WINNF.FT.C.REG.1 is starting now

2022-01-05T03:31:34.858Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "E\_UTRA",

"supportedSpec": "FFS"

},

"callSign": "",

"cbsdCategory": "B",

"cbsdSerialNumber": "2107CW5000001",

"cpiSignatureData": {

"digitalSignature":

"CUSZD2eCbX-zp7v1gsFJXKXSHFsm4FalASFIWLBNquMats7Hrfi\_UMfzFXQTthJOpePg7bkvnZV7dTfMw  
 wm5GJFIjEiAoF7UjX0ZL7aFS8CmruuME2R\_SKWCbMptr6MHGkaTc3oVag1I2PQ63UuN3iNVoiZSRxrlwaW  
 ed3rbg8oWmzkFx0rQwpG6q4\_HW-74kysBhDI9QJ6x7livMrY24-6d8JOxffGFSX6OyF7Y4RU2SlqFvIx7qdF-  
 Hezj96eOzGIC8oU9cZiZGHZUitwGpdpoAfr-xO2tXOCoqGVEpAQJQo3i7utgitQoUDTk55miEBzs2jfHPHBZK  
 EJRQ6QA",

"encodedCpiSignedData":

"eyJpbN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGI0eSI6NDYsImhlaWdodFR5cGUiOiJBTVNMli  
 wiYW50ZW5uYUdhaW4iOiJEWLcJob3Jpem9udGFsQWNjdXJhY3kiOiJMSlMfudGVubmFEb3dudGlsdCI6MC  
 wiYW50ZW5uYUJlYXN0aWZlZm9udWVudG9uZ2l0dWRlljotMTA1LjAyNDU5NCwiaW5kb29yRGVwbG95bWVudCI6ZmF  
 sc2UsImxhdGI0dWRlljotMS4zMdIwMX0sImZjY0kljoiZmVtdG8uaSlnByb2Zlc3Npb25hbEluc3RhbGxickRh  
 dGEiOnsiY3BpTmFtZSI6IiIsImIuc3RhbGxDZXJ0aWZpY2F0aW9uVGltZSI6IjIwMjUyMTA2NDU2N  
 TYuMDg1MDAwWilsImNwaUlkljoiIn0sImNic2RTZXJpYWxOdW1iZXliOiJlZmVudG9uZ2l0dWRlljotMTA1LjA1  
 DE2ln0",

"protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"

},

"fcclId": "P27-SCO4255P",

"groupingParam": [

{

"groupId": "SERCOMM\_111",

"groupType": "INTERFERENCE\_COORDINATION"

}

],

"measCapability": [

"RECEIVED\_POWER\_WITHOUT\_GRANT"

],

"userId": "XywyE9"

}

]

}

2022-01-05T03:31:34.874Z - INFO - Registration message contains cpiSignatureData

2022-01-05T03:31:34.874Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2022-01-05T03:31:34.874Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"eirpCapability": 46,

"antennaAzimuth": 0,

```
"heightType": "AMSL",
"longitude": -105.024094,
"antennaGain": 10,
"indoorDeployment": false,
"latitude": 31.30201,
"horizontalAccuracy": 3,
"antennaDowntilt": 0,
"antennaBeamwidth": 360,
"height": 18,
"verticalAccuracy": 3
},
"professionalInstallerData": {
  "cpiName": "",
  "installCertificationTime": "2022-01-05T10:45:56.085000Z",
  "cpild": ""
},
"fcclid": "femto.i",
"cbbsdSerialNumber": "Sercomm-1912CW53000016"
}
```

```
2022-01-05T03:31:34.951Z - INFO - verified signature on cpiSignatureData
2022-01-05T03:31:34.951Z - INFO - cpiSignatureData data successfully validated against jsonschema
2022-01-05T03:31:34.951Z - INFO - engine sent successfully, the response to CBRS : {
```

```
  "registrationResponse": [
    {
      "cbssid": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
```

```
2022-01-05T03:31:36.404Z - INFO - arrived to nstep starting question answer session with the technician
2022-01-05T03:31:36.404Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2022-01-05T03:34:26.026Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2022-01-05T03:34:26.338Z - INFO - The final result of the test : WINNF.FT.C.REG.1 is - passed
```

1.2 WINNF.FT.C.REG.5

2022-01-05T03:38:54.947Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-01-05T03:38:54.947Z - INFO - the selected test from the user : WINNF.FT.C.REG.5 is starting now

2022-01-05T03:39:01.447Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "2107CW5000001",
    "cpiSignatureData": {
      "digitalSignature":
"cusZD2eCbX-zp7v1gsFJXKXSHFsm4FalASFIWLBnQuMats7Hrfi_UMfzFXQTthJOpePg7bkvnZV7dTfMw
wm5GJFJjEiAoF7UjX0ZL7aFS8CmruuME2R_SKWCBmPptr6MHGkaTc3oVag1I2PQ63UuN3iNVolZSRxrlIwaW
ed3rbg8oWmzkFx0rQwpG6q4_HW-74kysBhDI9QJ6x7livfMrY24-6d8JOxffGFSX6OyF7Y4RU2SlqFvI7qdF-
Hezj96eOzGIC8oU9cZiZGHZuitwGpdpoAfR-xO2tXOcoqGVEpAQJQo3i7utgitQoUDTk55miEBzs2jfHPHBZK
EjRQ6QA",
      "encodedCpiSignedData":
"eyJpbN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGI0eSI6NDYslmhlaWdodFR5cGUoIjBTVNMli
wiYW50ZW5uYUdhaW4iOjEwL3Job3Jpem9udGFsQWNjdXJhY3kiOjMslmFudGVubmFEb3dudGlsdCI6MC
wiYW50ZW5uYUJlYW13aWR0aCI6MzYwL3JvZWIuaHQiOjE4L2ZlJ0aWNhbEFjY3VyYWN5ljozLCJhbn
Rlbn5hQXppbXV0aCI6M2wibG9uZ2l0dWRlljotMTA1LjAyNDA5NCwiaW5kb29yRGVwbG95bWVudCI6ZmF
sc2UsImxhdGl0dWRlljozMS4zMdlwMX0slmZjY0kljoiZmVtdG8uaSlmByb2Zlc3Npb25hbEluc3RhbGxlckRh
dGEiOysiY3BpTmFtZS16liIsImxuc3RhbGxzdXJ0aWZpY2F0aW9uVGltZS16ljlwMjltMDEtMDVUMTA6NDU6N
TYuMDg1MDAwWilsImNwaUlkljoiIn0slmNic2RTZXJpYWx0dW1iZXliOjJlZlJlJj21tLTE5MTJDVzUzMDAwM
DE2In0",
      "protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"
    },
    "fccId": "P27-SCO4255P",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "XywyE9"
  }
]
```

2022-01-05T03:39:01.447Z - INFO - Registration message contains cpiSignatureData

2022-01-05T03:39:01.447Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2022-01-05T03:39:01.447Z - INFO - encodedCpiSignedData contents = {

```
"installationParam": {
  "eirpCapability": 46,
  "antennaAzimuth": 0,
  "heightType": "AMSL",
  "longitude": -105.024094,
  "antennaGain": 10,
  "indoorDeployment": false,
  "latitude": 31.30201,
  "horizontalAccuracy": 3,
  "antennaDowntilt": 0,

```

```
"antennaBeamwidth": 360,
"height": 18,
"verticalAccuracy": 3
},
"professionalInstallerData": {
  "cpiName": "",
  "installCertificationTime": "2022-01-05T10:45:56.085000Z",
  "cpild": ""
},
"fcclid": "femto.i",
"cbbsdSerialNumber": "Sercomm-1912CW53000016"
}
2022-01-05T03:39:01.526Z - INFO - verified signature on cpiSignatureData
2022-01-05T03:39:01.526Z - INFO - cpiSignatureData data successfully validated against jsonschema
2022-01-05T03:39:01.526Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbssid": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2022-01-05T03:39:03.042Z - INFO - arrived to nstep starting question answer session with the technician
2022-01-05T03:39:03.042Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2022-01-05T03:41:34.641Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2022-01-05T03:41:34.891Z - INFO - The final result of the test : WINNF.FT.C.REG.5 is - passed
```



```
"latitude": 31.30201,  
"horizontalAccuracy": 3,  
"antennaDowntilt": 0,  
"antennaBeamwidth": 360,  
"height": 18,  
"verticalAccuracy": 3  
},  
"professionalInstallerData": {  
  "cpiName": "",  
  "installCertificationTime": "2022-01-05T10:45:56.085000Z",  
  "cpild": ""  
},  
"fcclid": "femto.i",  
"cbsdSerialNumber": "Sercomm-1912CW53000016"  
}  
2022-01-05T03:42:08.421Z - INFO - verified signature on cpiSignatureData  
2022-01-05T03:42:08.421Z - INFO - cpiSignatureData data successfully validated against jsonschema  
2022-01-05T03:42:08.421Z - INFO - engine sent successfully, the response to CBRS : {  
  "registrationResponse": [  
    {  
      "response": {  
        "responseCode": 102  
      }  
    }  
  ]  
}  
2022-01-05T03:42:09.703Z - INFO - arrived to nstep starting question answer session with the technician  
2022-01-05T03:42:09.703Z - INFO - the question is : Were there RF transmissions from the CBSD1 during  
the test? please choose one of the answers :  
2022-01-05T03:44:46.188Z - INFO - for the question : Were there RF transmissions from the CBSD1 during  
the test? , the user choose n  
2022-01-05T03:44:46.516Z - INFO - The final result of the test : WINNF.FT.C.REG.8 is - passed
```





```
"latitude": 31.30201,  
"horizontalAccuracy": 3,  
"antennaDowntilt": 0,  
"antennaBeamwidth": 360,  
"height": 18,  
"verticalAccuracy": 3  
},  
"professionalInstallerData": {  
  "cpiName": "",  
  "installCertificationTime": "2022-01-05T10:45:56.085000Z",  
  "cpild": ""  
},  
"fcclid": "femto.i",  
"cbsdSerialNumber": "Sercomm-1912CW53000016"  
}  
2022-01-05T07:54:37.352Z - INFO - verified signature on cpiSignatureData  
2022-01-05T07:54:37.352Z - INFO - cpiSignatureData data successfully validated against jsonschema  
2022-01-05T07:54:37.352Z - INFO - engine sent successfully, the response to CBRS : {  
  "registrationResponse": [  
    {  
      "response": {  
        "responseCode": 200  
      }  
    }  
  ]  
}  
2022-01-05T07:54:38.947Z - INFO - arrived to nstep starting question answer session with the technician  
2022-01-05T07:54:38.947Z - INFO - the question is : Were there RF transmissions from the CBSD1 during  
the test? please choose one of the answers :  
2022-01-05T08:00:24.315Z - INFO - for the question : Were there RF transmissions from the CBSD1 during  
the test? , the user choose n  
2022-01-05T08:00:24.907Z - INFO - The final result of the test : WINNF.FT.C.REG.10 is - passed
```

### 1.5 WINNF.FT.C.REG.12

2022-01-05T08:01:04.565Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-01-05T08:01:04.565Z - INFO - the selected test from the user : WINNF.FT.C.REG.12 is starting now

2022-01-05T08:01:12.377Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "E\_UTRA",

"supportedSpec": "FFS"

},

"callSign": "",

"cbsdCategory": "B",

"cbsdSerialNumber": "2107CW5000001",

"cpiSignatureData": {

"digitalSignature":

"CUSZD2eCbX-zp7v1gsFJXKXSHFsm4FalASFIWLBnquMats7Hrfi\_UMfzFXQTthJOpePg7bkvnZV7dTFmw  
wm5GJFijEiAoF7UjX0ZL7aFS8CmruuME2R\_SKWCbMptr6MHGkaTc3oVag1I2PQ63UuN3iNVolZSRxrlIwaW  
ed3rbg8oWmzkFx0rQwpG6q4\_HW-74kysBhDI9QJ6x7livfMrY24-6d8JOxffGFSX6OyF7Y4RU2SlqFvIx7qdF-  
Hezj96eOzGIC8oU9cZiZGHZUitwGpdpoAfR-xO2tXOCOqGVEpAQJQo3i7utgitQoUDTk55miEBzs2jfHPHBZK  
EjRQ6QA",

"encodedCpiSignedData":

"eyJpbN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGI0eSI6NDYslmhlaWdodFR5cGUiOiJBTvNMli  
wiYW50ZW5uYUdhaW4iOjEwLzI0dWRlljotMTA1LjAyNDU5NCwiaW5kb29yRGVwbG95bWVudCI6ZmF  
sc2UsImxhdGloZW50ZW5uYUJlYXN0aW50ZW5uYUJlYXN0aW50ZW5uYUJlYXN0aW50ZW5uYUJlYXN0aW50  
Rlhm5hQXppbXV0aCI6MCwibG9uZ2I0dWRlljotMTA1LjAyNDU5NCwiaW5kb29yRGVwbG95bWVudCI6ZmF  
sc2UsImxhdGloZW50ZW5uYUJlYXN0aW50ZW5uYUJlYXN0aW50ZW5uYUJlYXN0aW50ZW5uYUJlYXN0aW50  
dGEiOnsiY3BpTmFtZSI6IiIsImVudCI6ZmFsc2UsImxhdGloZW50ZW5uYUJlYXN0aW50ZW5uYUJlYXN0aW50  
TYuMDg1MDAwWilsImNwaUlkljoiIn0sImNic2RTZXJpYWxOdW1iZXliOiJtZXJjb21tLTE5MTJDVzUzMDAwM  
DE2In0",

"protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "P27-SCO4255P",

"groupingParam": [

{

"groupId": "SERCOMM\_111",

"groupType": "INTERFERENCE\_COORDINATION"

}

],

"measCapability": [

"RECEIVED\_POWER\_WITHOUT\_GRANT"

],

"userId": "XywyE9"

}

]

}

2022-01-05T08:01:12.407Z - INFO - Registration message contains cpiSignatureData

2022-01-05T08:01:12.407Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2022-01-05T08:01:12.407Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"eirpCapability": 46,

"antennaAzimuth": 0,

"heightType": "AMSL",

"longitude": -105.024094,

"antennaGain": 10,

"indoorDeployment": false,

```
"latitude": 31.30201,  
"horizontalAccuracy": 3,  
"antennaDowntilt": 0,  
"antennaBeamwidth": 360,  
"height": 18,  
"verticalAccuracy": 3  
},  
"professionalInstallerData": {  
  "cpiName": "",  
  "installCertificationTime": "2022-01-05T10:45:56.085000Z",  
  "cpild": ""  
},  
"fcclId": "femto.i",  
"cbsdSerialNumber": "Sercomm-1912CW53000016"  
}  
2022-01-05T08:01:12.470Z - INFO - verified signature on cpiSignatureData  
2022-01-05T08:01:12.486Z - INFO - cpiSignatureData data successfully validated against jsonschema  
2022-01-05T08:01:12.486Z - INFO - engine sent successfully, the response to CBRS : {  
  "registrationResponse": [  
    {  
      "response": {  
        "responseCode": 103  
      }  
    }  
  ]  
}  
2022-01-05T08:01:13.674Z - INFO - arrived to nstep starting question answer session with the technician  
2022-01-05T08:01:13.674Z - INFO - the question is : Were there RF transmissions from the CBSD1 during  
the test? please choose one of the answers :  
2022-01-05T08:06:04.740Z - INFO - for the question : Were there RF transmissions from the CBSD1 during  
the test? , the user choose n  
2022-01-05T08:06:04.959Z - INFO - The final result of the test : WINNF.FT.C.REG.12 is - passed
```



```
"latitude": 31.30201,  
"horizontalAccuracy": 3,  
"antennaDowntilt": 0,  
"antennaBeamwidth": 360,  
"height": 18,  
"verticalAccuracy": 3  
},  
"professionalInstallerData": {  
  "cpiName": "",  
  "installCertificationTime": "2022-01-05T10:45:56.085000Z",  
  "cpild": ""  
},  
"fcclid": "femto.i",  
"cbsdSerialNumber": "Sercomm-1912CW53000016"
```

```
}
```

2022-01-05T08:16:24.854Z - INFO - verified signature on cpiSignatureData

2022-01-05T08:16:24.854Z - INFO - cpiSignatureData data successfully validated against jsonschema

2022-01-05T08:16:24.854Z - INFO - engine sent successfully, the response to CBRS : {

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

```
}
```

2022-01-05T08:16:26.042Z - INFO - arrived to nstep starting question answer session with the technician

2022-01-05T08:16:26.042Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2022-01-05T08:19:57.826Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2022-01-05T08:19:57.983Z - INFO - The final result of the test : WINNF.FT.C.REG.14 is - passed

### 1.7 WINNF.FT.C.REG.16

2022-01-05T09:24:51.302Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-01-05T09:24:51.302Z - INFO - the selected test from the user : WINNF.FT.C.REG.16 is starting now

2022-01-05T09:24:59.240Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "2107CW5000001",
    "cpiSignatureData": {
      "digitalSignature":
```

```
"CUSZD2eCbX-zp7v1gsFJXKXSHFsm4FalASFIWLBnquMats7Hrfi_UMfzFXQTthJOpePg7bkvnZV7dTFmw
wm5GJFijEiAoF7UjX0ZL7aFS8CmruuME2R_SKWCbMptr6MHGkaTc3oVag1I2PQ63UuN3iNVolZSRxrlIwaW
ed3rbg8oWmzkFx0rQwpG6q4_HW-74kysBhDI9QJ6x7livfMrY24-6d8JOxffGFSX6OyF7Y4RU2SlqFvIx7qdF-
Hezj96eOzGIC8oU9cZiZGHZUitwGpdpoAfR-xO2tXOCOqGVEpAQJQo3i7utgitQoUDTk55miEBzs2jfHPHBZK
EjRQ6QA",
```

```
      "encodedCpiSignedData":
```

```
"eyJpbN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGI0eSI6NDYslmhlaWdodFR5cGU0iJBTvNMli
wiYW50ZW5uYUdhaW4iOjEwLzI0dWRlljotMTA1LjAyNDU5NCwiaW5kb29yRGVwbG95bWVudCI6ZmF
sc2UsImxhdG10dWRlljotMS4zMdIwMX0sImZjY0kljoiZmVtdG8uaSlnByb2Zlc3Npb25hbEluc3RhbGxlckRh
dGEiOnsiY3BpTmFtZSI6IiIsImIuc3RhbGxkZmVudCI6ZmVudG8uaSlnByb2Zlc3Npb25hbEluc3RhbGxlckRh
dGEiOnsiY3BpTmFtZSI6IiIsImIuc3RhbGxkZmVudCI6ZmVudG8uaSlnByb2Zlc3Npb25hbEluc3RhbGxlckRh
TYuMDg1MDAwWilsImNwaUlkljoiIn0sImNic2RTZXJpYWxOdW1iZXliOiJtZXJjb21tLTE5MTJDVzUzMDAwM
DE2In0",
```

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

```
    },
    "fccId": "P27-SCO4255P",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "XywyE9"
  }
]
```

2022-01-05T09:24:59.256Z - INFO - Registration message contains cpiSignatureData

2022-01-05T09:24:59.256Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2022-01-05T09:24:59.256Z - INFO - encodedCpiSignedData contents = {

```
"installationParam": {
  "eirpCapability": 46,
  "antennaAzimuth": 0,
  "heightType": "AMSL",
  "longitude": -105.024094,
  "antennaGain": 10,
  "indoorDeployment": false,
```

```
"latitude": 31.30201,
"horizontalAccuracy": 3,
"antennaDowntilt": 0,
"antennaBeamwidth": 360,
"height": 18,
"verticalAccuracy": 3
},
"professionalInstallerData": {
  "cpiName": "",
  "installCertificationTime": "2022-01-05T10:45:56.085000Z",
  "cpild": ""
},
"fcclid": "femto.i",
"cbbsdSerialNumber": "Sercomm-1912CW53000016"
}
2022-01-05T09:24:59.319Z - INFO - verified signature on cpiSignatureData
2022-01-05T09:24:59.335Z - INFO - cpiSignatureData data successfully validated against jsonschema
2022-01-05T09:24:59.335Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 100
      }
    }
  ]
}
}
2022-01-05T09:25:00.413Z - INFO - arrived to nstep starting question answer session with the technician
2022-01-05T09:25:00.413Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2022-01-05T09:28:35.700Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2022-01-05T09:28:35.996Z - INFO - The final result of the test : WINNF.FT.C.REG.16 is - passed
```





```
    "antennaBeamwidth": 360,
    "height": 18,
    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "",
    "installCertificationTime": "2022-01-05T10:45:56.085000Z",
    "cpild": ""
  },
  "fcclId": "femto.i",
  "cbsdSerialNumber": "Sercomm-1912CW53000016"
}
2022-01-05T09:29:19.233Z - INFO - verified signature on cpiSignatureData
2022-01-05T09:29:19.233Z - INFO - cpiSignatureData data successfully validated against jsonschema
2022-01-05T09:29:19.233Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 201
      }
    }
  ]
}
2022-01-05T09:29:20.562Z - INFO - arrived to nstep starting question answer session with the technician
2022-01-05T09:29:20.562Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2022-01-05T09:32:45.296Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2022-01-05T09:32:45.640Z - INFO - The final result of the test : WINNF.FT.C.REG.18 is - passed
```



```

    "indoorDeployment": false,
    "latitude": 31.30201,
    "horizontalAccuracy": 3,
    "antennaDowntilt": 0,
    "antennaBeamwidth": 360,
    "height": 18,
    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "",
    "installCertificationTime": "2022-01-05T10:45:56.085000Z",
    "cpild": ""
  },
  "fcclid": "femto.i",
  "cbsdSerialNumber": "Sercomm-1912CW53000016"
}
2022-01-05T09:34:39.618Z - INFO - verified signature on cpiSignatureData
2022-01-05T09:34:39.618Z - INFO - cpiSignatureData data successfully validated against jsonschema
2022-01-05T09:34:39.634Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdid": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-05T09:34:39.759Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdid": "P27-SCO4255PMock-SAS2107CW5000001",
      "inquiredSpectrum": [
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        },
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      ]
    }
  ]
}
2022-01-05T09:34:39.776Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {

```

```

    "channelType": "GAA",
    "frequencyRange": {
      "highFrequency": 3635000000,
      "lowFrequency": 3615000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbid": "P27-SCO4255PMock-SAS2107CW5000001",
"response": {
  "responseCode": 0
}
}
]
}
2022-01-05T09:34:39.790Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbid": "P27-SCO4255PMock-SAS2107CW5000001",
      "operationParam": {
        "maxEirp": 21,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2022-01-05T09:34:39.790Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbid": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 400
      }
    }
  ]
}
2022-01-05T09:34:41.135Z - INFO - arrived to nstep starting question answer session with the technician
2022-01-05T09:34:41.135Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2022-01-05T09:37:11.023Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2022-01-05T09:37:11.243Z - INFO - The final result of the test : WINNF.FT.C.GRA.1 is - passed

```



```
    "antennaBeamwidth": 360,
    "height": 18,
    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "",
    "installCertificationTime": "2022-01-05T10:45:56.085000Z",
    "cpild": ""
  },
  "fcclid": "femto.i",
  "cbsdSerialNumber": "Sercomm-1912CW53000016"
}
2022-01-05T09:38:43.512Z - INFO - verified signature on cpiSignatureData
2022-01-05T09:38:43.512Z - INFO - cpiSignatureData data successfully validated against jsonschema
2022-01-05T09:38:43.512Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-05T09:38:43.668Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "inquiredSpectrum": [
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        },
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      ]
    }
  ]
}
2022-01-05T09:38:43.684Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          }
        }
      ]
    }
  ]
}
```

```
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
"response": {
  "responseCode": 0
}
]
}
2022-01-05T09:38:43.700Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "operationParam": {
        "maxEirp": 21,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2022-01-05T09:38:43.714Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 401
      }
    }
  ]
}
2022-01-05T09:38:45.450Z - INFO - arrived to nstep starting question answer session with the technician
2022-01-05T09:38:45.450Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2022-01-05T09:40:04.671Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2022-01-05T09:40:04.890Z - INFO - The final result of the test : WINNF.FT.C.GRA.2 is - passed
```



## 2 CBSD Heart Beat Process

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

2022-01-06T03:15:57.598Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-01-06T03:15:57.598Z - INFO - the selected test from the user : WINNF.FT.C.HBT.1 is starting now

2022-01-06T03:16:17.085Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "2107CW5000001",
    "cpiSignatureData": {
      "digitalSignature":
"CUSZD2eCbX-zp7v1gsFJXKXSHFsm4FalASFIWLBnQuMats7Hrfi_UMfzFXQTthJOpePg7bkvnZV7dTFmw
wm5GJFIjEiAoF7UjX0ZL7aFS8CmruuME2R_SKWCbMptr6MHGkaTc3oVag1I2PQ63UuN3iNVolZSRxrlIwaW
ed3rbg8oWmzkFx0rQwpG6q4_HW-74kysBhDI9QJ6x7livfMrY24-6d8JOxffGFSX6OyF7Y4RU2SlqFvIx7qdF-
Hezj96eOzGIC8oU9cZiZGHZUitwGpdpoAfr-xO2tXOCoqGVEpAQJQo3i7utgitQoUDTk55miEBzs2jfHPHBZK
EjRQ6QA",
      "encodedCpiSignedData":
"eyJpbN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGl0eSI6NDYslmhlaWdodFR5cGUiOiJBTvNMIi
wiYW50ZW5uYUdhaW4iOjEwLzE3JmVudGFsQWNjdXJhY3kiOjMslmFudGVubmFEb3dudGlsdCI6MC
wiYW50ZW5uYUJlYXN1aWR0aCI6MzYwLzE3JmVudGFsQWNjdXJhY3kiOjEwLzE3JmVudGFsQWNhbEFjY3VyYWN5IjozLCJhbN
Rlbn5hQXppbXV0aCI6MzYwLzE3JmVudGFsQWNjdXJhY3kiOjEwLzE3JmVudGFsQWNhbEFjY3VyYWN5IjozLCJhbN
sc2UsImxhdGltZWRlljozMS4zMdIwMX0sImZjY0kljoiZmVtdG8uaSlnByb2Zlc3Npb25hbEluc3RhbGxickRh
dGEiOjE3Y3BpTmFtZSI6IiIsImIuc3RhbGxkZXJ0aWZpY2F0aW9uVGltZSI6IjIwMjUyLTI0LTI0IjE3JmVudGFsQWNhbEFjY3VyYWN5IjozLCJhbN
TYuMDg1MDAwWilsImNwaUlkljoiIn0sImNic2RTZXJpYWxOdW1iZXIiOiJlZmVudGFsQWNhbEFjY3VyYWN5IjozLCJhbN
DE2In0",
      "protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"
    },
    "fccId": "P27-SCO4255P",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "XywyE9"
  }
]
```

2022-01-06T03:16:17.131Z - INFO - Registration message contains cpiSignatureData

2022-01-06T03:16:17.131Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2022-01-06T03:16:17.131Z - INFO - encodedCpiSignedData contents = {

```
"installationParam": {
  "eirpCapability": 46,
  "antennaAzimuth": 0,
  "heightType": "AMSL",
  "longitude": -105.024094,
  "antennaGain": 10,
  "indoorDeployment": false,
```

```

    "latitude": 31.30201,
    "horizontalAccuracy": 3,
    "antennaDowntilt": 0,
    "antennaBeamwidth": 360,
    "height": 18,
    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "",
    "installCertificationTime": "2022-01-05T10:45:56.085000Z",
    "cpild": ""
  },
  "fcclid": "femto.i",
  "cbsdSerialNumber": "Sercomm-1912CW53000016"
}
2022-01-06T03:16:17.194Z - INFO - verified signature on cpiSignatureData
2022-01-06T03:16:17.194Z - INFO - cpiSignatureData data successfully validated against jsonschema
2022-01-06T03:16:17.194Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-06T03:16:17.302Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "inquiredSpectrum": [
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        },
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      ]
    }
  ]
}
2022-01-06T03:16:17.302Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",

```

```

    "frequencyRange": {
      "highFrequency": 3635000000,
      "lowFrequency": 3615000000
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbid": "P27-SCO4255PMock-SAS2107CW5000001",
"response": {
  "responseCode": 0
}
}
]
}
2022-01-06T03:16:17.349Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbid": "P27-SCO4255PMock-SAS2107CW5000001",
      "operationParam": {
        "maxEirp": 21,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2022-01-06T03:16:17.349Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbid": "P27-SCO4255PMock-SAS2107CW5000001",
      "channelType": "GAA",
      "grantExpireTime": "2022-01-13T03:16:17Z",
      "grantId": "937103617",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-06T03:16:17.444Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbid": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "937103617",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-01-06T03:16:17.444Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbid": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "937103617",
      "response": {

```

```
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-06T03:19:37Z"
    }
  ]
}
2022-01-06T03:16:57.538Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "937103617",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-06T03:16:57.538Z - INFO - Time interval between two heartbeat request messages is: 40.094, limit
is: 65.0
2022-01-06T03:16:57.553Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "937103617",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-06T03:20:17Z"
    }
  ]
}
2022-01-06T03:17:37.635Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "937103617",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-06T03:17:37.635Z - INFO - Time interval between two heartbeat request messages is: 40.098, limit
is: 65.0
2022-01-06T03:17:37.635Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "937103617",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-06T03:20:57Z"
    }
  ]
}
2022-01-06T03:18:17.716Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
```

```
        "grantId": "937103617",
        "grantRenew": false,
        "operationState": "AUTHORIZED"
    }
]
}
2022-01-06T03:18:17.716Z - INFO - Time interval between two heartbeat request messages is: 40.08, limit is:
65.0
2022-01-06T03:18:17.730Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "937103617",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2022-01-06T03:21:37Z"
        }
    ]
}
2022-01-06T03:18:57.796Z - INFO - heartbeat request from CBRS  : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "937103617",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2022-01-06T03:18:57.796Z - INFO - Time interval between two heartbeat request messages is: 40.081, limit
is: 65.0
2022-01-06T03:18:57.812Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "937103617",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2022-01-06T03:22:17Z"
        }
    ]
}
2022-01-06T03:19:37.895Z - INFO - heartbeat request from CBRS  : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "937103617",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2022-01-06T03:19:37.895Z - INFO - Time interval between two heartbeat request messages is: 40.099, limit
is: 65.0
2022-01-06T03:19:37.895Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
```

```
{  
  "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",  
  "grantId": "937103617",  
  "response": {  
    "responseCode": 0  
  },  
  "transmitExpireTime": "2022-01-06T03:22:57Z"  
}
```

```
]
```

```
}
```

2022-01-06T03:19:39.364Z - INFO - arrived to nstep starting question answer session with the technician  
2022-01-06T03:19:39.364Z - INFO - the question is : Did CBSD1 transmit power prior to AUTHORIZED state  
(first successful HBT response)? please choose one of the answers :  
2022-01-06T03:27:15.683Z - INFO - for the question : Did CBSD1 transmit power prior to AUTHORIZED state  
(first successful HBT response)? , the user choose n  
2022-01-06T03:27:15.683Z - INFO - the question is : Did CBSD1 transmit only within the frequency range  
specified in its grantRequest message? please choose one of the answers :  
2022-01-06T03:27:16.994Z - INFO - for the question : Did CBSD1 transmit only within the frequency range  
specified in its grantRequest message? , the user choose y  
2022-01-06T03:27:17.369Z - INFO - The final result of the test : WINNF.FT.C.HBT.1 is - passed



```

    "antennaBeamwidth": 360,
    "height": 18,
    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "",
    "installCertificationTime": "2022-01-05T10:45:56.085000Z",
    "cpild": ""
  },
  "fcclid": "femto.i",
  "cbsdSerialNumber": "Sercomm-1912CW53000016"
}
2022-01-06T05:58:35.255Z - INFO - verified signature on cpiSignatureData
2022-01-06T05:58:35.255Z - INFO - cpiSignatureData data successfully validated against jsonschema
2022-01-06T05:58:35.269Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-06T05:58:35.348Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "inquiredSpectrum": [
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        },
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      ]
    }
  ]
}
2022-01-06T05:58:35.364Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          }
        }
      ]
    }
  ]
}

```



```

    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
"response": {
  "responseCode": 0
}
}
]
}
2022-01-06T05:58:35.380Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "operationParam": {
        "maxEirp": 21,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2022-01-06T05:58:35.380Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "channelType": "GAA",
      "grantExpireTime": "2022-01-13T05:58:35Z",
      "grantId": "517558683",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-06T05:58:35.441Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "517558683",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-01-06T05:58:35.457Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "517558683",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-06T06:01:55Z"
    }
  ]
}

```

```
    }
  ]
}
2022-01-06T05:59:15.571Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "517558683",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-06T05:59:15.571Z - INFO - Time interval between two heartbeat request messages is: 40.129, limit
is: 65.0
2022-01-06T05:59:15.586Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "517558683",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-06T06:02:35Z"
    }
  ]
}
}
2022-01-06T05:59:55.665Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "517558683",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2022-01-06T05:59:55.665Z - INFO - Time interval between two heartbeat request messages is: 40.095, limit
is: 65.0
2022-01-06T05:59:55.680Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "517558683",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-06T06:03:15Z"
    }
  ]
}
}
}
2022-01-06T06:00:35.766Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "517558683",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
```

```
    }  
  ]  
}  
2022-01-06T06:00:35.766Z - INFO - Time interval between two heartbeat request messages is: 40.1, limit is:  
65.0  
2022-01-06T06:00:35.766Z - INFO - engine sent successfully, the response to CBRS  : {  
  "heartbeatResponse": [  
    {  
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",  
      "grantId": "517558683",  
      "response": {  
        "responseCode": 105  
      },  
      "transmitExpireTime": "2022-01-06T06:00:35Z"  
    }  
  ]  
}  
}  
2022-01-06T06:00:37.109Z - INFO - arrived to nstep starting question answer session with the technician  
2022-01-06T06:00:37.109Z - INFO - the question is : Did the CBSD stop RF transmission within 60 seconds  
of receiving Heartbeat response with responseCode = 105? please choose one of the answers :  
2022-01-06T06:04:58.595Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds  
of receiving Heartbeat response with responseCode = 105? , the user choose y  
2022-01-06T06:04:58.799Z - INFO - The final result of the test : WINNF.FT.C.HBT.3 is - passed
```



```
    "antennaBeamwidth": 360,
    "height": 18,
    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "",
    "installCertificationTime": "2022-01-05T10:45:56.085000Z",
    "cpild": ""
  },
  "fcclid": "femto.i",
  "cbsdSerialNumber": "Sercomm-1912CW53000016"
}
2022-01-06T06:06:03.729Z - INFO - verified signature on cpiSignatureData
2022-01-06T06:06:03.729Z - INFO - cpiSignatureData data successfully validated against jsonschema
2022-01-06T06:06:03.729Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-06T06:06:03.822Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "inquiredSpectrum": [
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        },
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      ]
    }
  ]
}
2022-01-06T06:06:03.838Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          }
        }
      ]
    }
  ]
}
```

```
        },
        "ruleApplied": "FCC_PART_96"
    }
},
"cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
"response": {
    "responseCode": 0
}
}
]
}
2022-01-06T06:06:03.869Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "operationParam": {
                "maxEirp": 21,
                "operationFrequencyRange": {
                    "highFrequency": 3635000000,
                    "lowFrequency": 3615000000
                }
            }
        }
    ]
}
2022-01-06T06:06:03.869Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "channelType": "GAA",
            "grantExpireTime": "2022-01-13T06:06:03Z",
            "grantId": "196205221",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2022-01-06T06:06:03.963Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "196205221",
            "grantRenew": false,
            "operationState": "GRANTED"
        }
    ]
}
2022-01-06T06:06:03.979Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "196205221",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2022-01-06T06:09:23Z"
        }
    ]
}
```

```
    }
  ]
}
2022-01-06T06:06:44.072Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "196205221",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-06T06:06:44.072Z - INFO - Time interval between two heartbeat request messages is: 40.109, limit
is: 65.0
2022-01-06T06:06:44.072Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "196205221",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-06T06:10:04Z"
    }
  ]
}
2022-01-06T06:07:24.153Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "196205221",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-06T06:07:24.153Z - INFO - Time interval between two heartbeat request messages is: 40.081, limit
is: 65.0
2022-01-06T06:07:24.168Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "196205221",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-06T06:10:44Z"
    }
  ]
}
2022-01-06T06:08:04.250Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "196205221",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
```

```
    }
  ]
}
2022-01-06T06:08:04.250Z - INFO - Time interval between two heartbeat request messages is: 40.098, limit
is: 65.0
2022-01-06T06:08:04.250Z - INFO - engine sent successfully, the response to CBRS  : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "196205221",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-06T06:11:24Z"
    }
  ]
}
2022-01-06T06:08:44.345Z - INFO - heartbeat request from CBRS  : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "196205221",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-06T06:08:44.345Z - INFO - Time interval between two heartbeat request messages is: 40.094, limit
is: 65.0
2022-01-06T06:08:44.345Z - INFO - engine sent successfully, the response to CBRS  : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "196205221",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-06T06:12:04Z"
    }
  ]
}
2022-01-06T06:09:24.427Z - INFO - heartbeat request from CBRS  : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "196205221",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-06T06:09:24.427Z - INFO - Time interval between two heartbeat request messages is: 40.082, limit
is: 65.0
2022-01-06T06:09:24.441Z - INFO - engine sent successfully, the response to CBRS  : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "196205221",
```



```
"response": {  
  "responseCode": 500  
},  
"transmitExpireTime": "2022-01-06T06:09:24Z"  
}
```

```
]
```

```
}  
2022-01-06T06:09:26.036Z - INFO - arrived to nstep starting question answer session with the technician  
2022-01-06T06:09:26.036Z - INFO - the question is : Did the CBSD1 stop RF transmission within 60 seconds  
of receiving Heartbeat response with responseCode = 500? please choose one of the answers :  
2022-01-06T06:21:27.338Z - INFO - for the question : Did the CBSD1 stop RF transmission within 60  
seconds of receiving Heartbeat response with responseCode = 500? , the user choose y  
2022-01-06T06:21:27.823Z - INFO - The final result of the test : WINNF.FT.C.HBT.4 is - passed
```



```

    "antennaBeamwidth": 360,
    "height": 18,
    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "",
    "installCertificationTime": "2022-01-05T10:45:56.085000Z",
    "cpild": ""
  },
  "fcclid": "femto.i",
  "cbsdSerialNumber": "Sercomm-1912CW53000016"
}
2022-01-06T06:26:59.349Z - INFO - verified signature on cpiSignatureData
2022-01-06T06:26:59.349Z - INFO - cpiSignatureData data successfully validated against jsonschema
2022-01-06T06:26:59.349Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-06T06:26:59.444Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "inquiredSpectrum": [
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        },
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      ]
    }
  ]
}
2022-01-06T06:26:59.460Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          }
        }
      ]
    }
  ]
}

```

```
        },
        "ruleApplied": "FCC_PART_96"
    }
},
"cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
"response": {
    "responseCode": 0
}
}
]
}
2022-01-06T06:26:59.490Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "operationParam": {
                "maxEirp": 21,
                "operationFrequencyRange": {
                    "highFrequency": 3635000000,
                    "lowFrequency": 3615000000
                }
            }
        }
    ]
}
2022-01-06T06:26:59.490Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "channelType": "GAA",
            "grantExpireTime": "2022-01-13T06:26:59Z",
            "grantId": "741877976",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2022-01-06T06:26:59.631Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "741877976",
            "grantRenew": false,
            "operationState": "GRANTED"
        }
    ]
}
2022-01-06T06:26:59.631Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "741877976",
            "response": {
                "responseCode": 501
            },
            "transmitExpireTime": "2022-01-06T06:26:59Z"
        }
    ]
}
```

```
    }
  ]
}
2022-01-06T06:27:39.723Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "741877976",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-01-06T06:27:39.739Z - INFO - Time interval between two heartbeat request messages is: 40.093, limit
is: 65.0
2022-01-06T06:27:39.739Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "741877976",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2022-01-06T06:27:39Z"
    }
  ]
}
2022-01-06T06:27:41.443Z - INFO - arrived to nstep starting question answer session with the technician
2022-01-06T06:27:41.443Z - INFO - the question is : Did the CBSD transmit at any time during the test?
please choose one of the answers :
2022-01-06T06:30:11.828Z - INFO - for the question : Did the CBSD transmit at any time during the test? , the
user choose n
2022-01-06T06:30:12.140Z - INFO - The final result of the test : WINNF.FT.C.HBT.5 is - passed
```



```

    "antennaBeamwidth": 360,
    "height": 18,
    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "",
    "installCertificationTime": "2022-01-05T10:45:56.085000Z",
    "cpild": ""
  },
  "fcclid": "femto.i",
  "cbsdSerialNumber": "Sercomm-1912CW53000016"
}
2022-01-06T06:32:08.753Z - INFO - verified signature on cpiSignatureData
2022-01-06T06:32:08.753Z - INFO - cpiSignatureData data successfully validated against jsonschema
2022-01-06T06:32:08.753Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-06T06:32:08.894Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "inquiredSpectrum": [
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        },
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      ]
    }
  ]
}
2022-01-06T06:32:08.894Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          }
        }
      ]
    }
  ]
}

```

```
        },
        "ruleApplied": "FCC_PART_96"
    }
},
"cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
"response": {
    "responseCode": 0
}
}
]
}
2022-01-06T06:32:08.940Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "operationParam": {
                "maxEirp": 21,
                "operationFrequencyRange": {
                    "highFrequency": 3635000000,
                    "lowFrequency": 3615000000
                }
            }
        }
    ]
}
2022-01-06T06:32:08.940Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "channelType": "GAA",
            "grantExpireTime": "2022-01-13T06:32:08Z",
            "grantId": "635233589",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2022-01-06T06:32:08.987Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "635233589",
            "grantRenew": false,
            "operationState": "GRANTED"
        }
    ]
}
2022-01-06T06:32:09.003Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "635233589",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2022-01-06T06:35:29Z"
        }
    ]
}
```



```
    }
  ]
}
2022-01-06T06:32:49.082Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "635233589",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-06T06:32:49.082Z - INFO - Time interval between two heartbeat request messages is: 40.095, limit
is: 65.0
2022-01-06T06:32:49.082Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "635233589",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-06T06:36:09Z"
    }
  ]
}
2022-01-06T06:33:29.164Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "635233589",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-06T06:33:29.164Z - INFO - Time interval between two heartbeat request messages is: 40.082, limit
is: 65.0
2022-01-06T06:33:29.180Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "635233589",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-06T06:36:49Z"
    }
  ]
}
2022-01-06T06:34:09.260Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "635233589",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
```

```
    }
  ]
}
2022-01-06T06:34:09.260Z - INFO - Time interval between two heartbeat request messages is: 40.096, limit
is: 65.0
2022-01-06T06:34:09.260Z - INFO - engine sent successfully, the response to CBRS  :{
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "635233589",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2022-01-06T06:34:09Z"
    }
  ]
}
2022-01-06T06:34:49.339Z - INFO - heartbeat request from CBRS  :{
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "635233589",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-01-06T06:34:49.339Z - INFO - Time interval between two heartbeat request messages is: 40.079, limit
is: 65.0
2022-01-06T06:34:49.339Z - INFO - engine sent successfully, the response to CBRS  :{
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "635233589",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2022-01-06T06:34:49Z"
    }
  ]
}
2022-01-06T06:34:50.559Z - INFO - arrived to nstep starting question answer session with the technician
2022-01-06T06:34:50.559Z - INFO - the question is : Did the CBSD stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 501? please choose one of the answers :
2022-01-06T06:38:04.167Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 501? , the user choose y
2022-01-06T06:38:04.385Z - INFO - The final result of the test : WINNF.FT.C.HBT.6 is - passed
```

## 2.6 WINNF.FT.C.HBT.7

2022-01-06T06:52:11.619Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-01-06T06:52:11.619Z - INFO - the selected test from the user : WINNF.FT.C.HBT.7 is starting now

2022-01-06T06:52:19.792Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "2107CW5000001",
    "cpiSignatureData": {
      "digitalSignature":
```

```
"CUSZD2eCbX-zp7v1gsFJXKXSHFsm4FalASFIWLBnQuMats7Hrfi_UMfzFXQTthJOpePg7bkvnZV7dTfMw
wm5GJfIjEiAoF7UjX0ZL7aFS8CmruuME2R_SKWCbMptr6MHGkaTc3oVag1I2PQ63UuN3iNVolZSRxrlIwaW
ed3rbg8oWmzkFx0rQwpG6q4_HW-74kysBhDI9QJ6x7livfMrY24-6d8JOxffGFSX6OyF7Y4RU2SlqFvIx7qdF-
Hezj96eOzGIC8oU9cZiZGHZUitwGpdpoAfR-xO2tXOCoqGVEpAQJQo3i7utgitQoUDTk55miEBzs2jfHPHBZK
EjRQ6QA",
```

```
      "encodedCpiSignedData":
```

```
"eyJpbN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGI0eSI6NDYslmhlaWdodFR5cGU0iJBTvNMIi
wiYW50ZW5uYUdhaW4iOjEwLzI0dWRlljotMTA1LjAyNDU5NCwiaW5kb29yRGVwbG95bWVudCI6ZmF
sc2UsImxhdGloZW50ZW5uYUJlYXN0aWZlIjoiJmVudG8uaSlnByb2Zlc3Npb25hbEluc3RhbGxlckRh
dGEiOnsiY3BpTmFtZSI6IiIsImVudG8uaSlnByb2Zlc3Npb25hbEluc3RhbGxlckRhYXN0aWZlIjoi
TYuMDg1MDAwWilsImNwaUlkljoiIn0slmNic2RTZXJpYWxOdWw1ZiXliOiJlZlZlJmVudG8uaSlnByb2
1tLTE5MTJDVzUzMDAwM
DE2In0",
```

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

```
    },
    "fccId": "P27-SCO4255P",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "XywyE9"
  }
]
```

2022-01-06T06:52:19.823Z - INFO - Registration message contains cpiSignatureData

2022-01-06T06:52:19.823Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2022-01-06T06:52:19.823Z - INFO - encodedCpiSignedData contents = {

```
"installationParam": {
  "eirpCapability": 46,
  "antennaAzimuth": 0,
  "heightType": "AMSL",
  "longitude": -105.024094,
  "antennaGain": 10,
  "indoorDeployment": false,
  "latitude": 31.30201,
  "horizontalAccuracy": 3,
  "antennaDowntilt": 0,
```

```
    "antennaBeamwidth": 360,
    "height": 18,
    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "",
    "installCertificationTime": "2022-01-05T10:45:56.085000Z",
    "cpild": ""
  },
  "fcclid": "femto.i",
  "cbsdSerialNumber": "Sercomm-1912CW53000016"
}
2022-01-06T06:52:19.887Z - INFO - verified signature on cpiSignatureData
2022-01-06T06:52:19.887Z - INFO - cpiSignatureData data successfully validated against jsonschema
2022-01-06T06:52:19.901Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-06T06:52:20.012Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "inquiredSpectrum": [
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        },
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      ]
    }
  ]
}
2022-01-06T06:52:20.012Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          }
        }
      ]
    }
  ]
}
```

```
        },
        "ruleApplied": "FCC_PART_96"
    }
},
"cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
"response": {
    "responseCode": 0
}
}
]
}
2022-01-06T06:52:20.042Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "operationParam": {
                "maxEirp": 21,
                "operationFrequencyRange": {
                    "highFrequency": 3635000000,
                    "lowFrequency": 3615000000
                }
            }
        }
    ]
}
2022-01-06T06:52:20.042Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "channelType": "GAA",
            "grantExpireTime": "2022-01-13T06:52:20Z",
            "grantId": "379089187",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2022-01-06T06:52:20.167Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "379089187",
            "grantRenew": false,
            "operationState": "GRANTED"
        }
    ]
}
2022-01-06T06:52:20.167Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "379089187",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2022-01-06T06:55:40Z"
        }
    ]
}
```

```
    }
  ]
}
2022-01-06T06:53:00.265Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "379089187",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-06T06:53:00.265Z - INFO - Time interval between two heartbeat request messages is: 40.097, limit
is: 65.0
2022-01-06T06:53:00.265Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "379089187",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-06T06:56:20Z"
    }
  ]
}
2022-01-06T06:53:40.357Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "379089187",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-06T06:53:40.357Z - INFO - Time interval between two heartbeat request messages is: 40.092, limit
is: 65.0
2022-01-06T06:53:40.357Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "379089187",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-06T06:57:00Z"
    }
  ]
}
2022-01-06T06:54:20.440Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "379089187",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
```

```
    }
  ]
}
2022-01-06T06:54:20.440Z - INFO - Time interval between two heartbeat request messages is: 40.083, limit
is: 65.0
2022-01-06T06:54:20.454Z - INFO - engine sent successfully, the response to CBRS  :{
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "379089187",
      "response": {
        "responseCode": 502
      },
      "transmitExpireTime": "2022-01-06T06:54:20Z"
    }
  ]
}
2022-01-06T06:54:20.486Z - INFO - relinquishment request from CBRS  :{
  "relinquishmentRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "379089187"
    }
  ]
}
2022-01-06T06:54:20.502Z - INFO - engine sent successfully, the response to CBRS  :{
  "relinquishmentResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "379089187",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-06T06:54:22.253Z - INFO - arrived to nstep starting question answer session with the technician
2022-01-06T06:54:22.253Z - INFO - the question is : Did the CBSD stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 502? please choose one of the answers :
2022-01-06T06:57:30.835Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 502? , the user choose y
2022-01-06T06:57:31.131Z - INFO - The final result of the test : WINNF.FT.C.HBT.7 is - passed
```





```
    "antennaBeamwidth": 360,
    "height": 18,
    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "",
    "installCertificationTime": "2022-01-05T10:45:56.085000Z",
    "cpild": ""
  },
  "fcclid": "femto.i",
  "cbsdSerialNumber": "Sercomm-1912CW53000016"
}
2022-01-06T07:00:29.259Z - INFO - verified signature on cpiSignatureData
2022-01-06T07:00:29.259Z - INFO - cpiSignatureData data successfully validated against jsonschema
2022-01-06T07:00:29.259Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-06T07:00:29.354Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "inquiredSpectrum": [
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        },
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      ]
    }
  ]
}
2022-01-06T07:00:29.368Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          }
        }
      ]
    }
  ]
}
```

```
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbssId": "P27-SCO4255PMock-SAS2107CW5000001",
"response": {
  "responseCode": 0
}
]
}
2022-01-06T07:00:29.400Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbssId": "P27-SCO4255PMock-SAS2107CW5000001",
      "operationParam": {
        "maxEirp": 21,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2022-01-06T07:00:29.400Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbssId": "P27-SCO4255PMock-SAS2107CW5000001",
      "channelType": "GAA",
      "grantExpireTime": "2022-01-13T07:00:29Z",
      "grantId": "229832379",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-06T07:00:29.477Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbssId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "229832379",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-01-06T07:00:59.578Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbssId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "229832379",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
```

```
}
2022-01-06T07:00:59.578Z - INFO - request message received while HBT is absent, sleep 174 sec before
responding
2022-01-06T07:01:29.576Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "229832379",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-01-06T07:01:29.576Z - INFO - request message received while HBT is absent, sleep 144 sec before
responding
2022-01-06T07:01:59.562Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "229832379",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-01-06T07:01:59.562Z - INFO - request message received while HBT is absent, sleep 114 sec before
responding
2022-01-06T07:02:29.594Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "229832379",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-01-06T07:02:29.594Z - INFO - request message received while HBT is absent, sleep 84 sec before
responding
2022-01-06T07:02:59.582Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "229832379",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-01-06T07:02:59.582Z - INFO - request message received while HBT is absent, sleep 54 sec before
responding
2022-01-06T07:03:02.473Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "229832379"
    }
  ]
}
```

```
}
2022-01-06T07:03:02.473Z - INFO - request message received while HBT is absent, sleep 52 sec before
responding
2022-01-06T07:03:02.582Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "229832379"
    }
  ]
}
2022-01-06T07:03:02.582Z - INFO - request message received while HBT is absent, sleep 51 sec before
responding
2022-01-06T07:03:32.644Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "229832379"
    }
  ]
}
2022-01-06T07:03:32.644Z - INFO - request message received while HBT is absent, sleep 21 sec before
responding
2022-01-06T07:03:32.864Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "229832379"
    }
  ]
}
2022-01-06T07:03:32.864Z - INFO - request message received while HBT is absent, sleep 21 sec before
responding
2022-01-06T07:03:33.082Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "229832379"
    }
  ]
}
2022-01-06T07:03:33.082Z - INFO - request message received while HBT is absent, sleep 21 sec before
responding
2022-01-06T07:03:49.489Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "229832379",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2022-01-06T07:03:49Z"
    }
  ]
}
2022-01-06T07:03:50.786Z - INFO - arrived to nstep starting question answer session with the technician
2022-01-06T07:03:50.786Z - INFO - the question is : Were there RF transmissions from the CBSD during the
test? please choose one of the answers :
```

2022-01-06T07:03:53.566Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"  
2022-01-06T07:03:53.582Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"  
2022-01-06T07:03:53.582Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"  
2022-01-06T07:03:53.598Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"  
2022-01-06T07:03:53.598Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"  
2022-01-06T07:03:53.598Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"  
2022-01-06T07:03:53.661Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"  
2022-01-06T07:03:53.880Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"  
2022-01-06T07:03:54.098Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"  
2022-01-06T07:03:54.489Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"  
2022-01-06T07:04:28.711Z - INFO - for the question : Were there RF transmissions from the CBSD during the test? , the user choose n  
2022-01-06T07:04:29.023Z - INFO - The final result of the test : WINNF.FT.C.HBT.9 is - passed



```

    "antennaBeamwidth": 360,
    "height": 18,
    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "",
    "installCertificationTime": "2022-01-05T10:45:56.085000Z",
    "cpild": ""
  },
  "fcclid": "femto.i",
  "cbsdSerialNumber": "Sercomm-1912CW53000016"
}
2022-01-06T07:46:33.135Z - INFO - verified signature on cpiSignatureData
2022-01-06T07:46:33.135Z - INFO - cpiSignatureData data successfully validated against jsonschema
2022-01-06T07:46:33.135Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-06T07:46:33.197Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "inquiredSpectrum": [
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        },
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      ]
    }
  ]
}
2022-01-06T07:46:33.197Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          }
        }
      ]
    }
  ]
}

```

```
        },
        "ruleApplied": "FCC_PART_96"
    }
},
"cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
"response": {
    "responseCode": 0
}
}
]
}
2022-01-06T07:46:33.259Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "operationParam": {
                "maxEirp": 21,
                "operationFrequencyRange": {
                    "highFrequency": 3635000000,
                    "lowFrequency": 3615000000
                }
            }
        }
    ]
}
2022-01-06T07:46:33.259Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "channelType": "GAA",
            "grantExpireTime": "2022-01-13T07:46:33Z",
            "grantId": "179785903",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2022-01-06T07:46:33.338Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "179785903",
            "grantRenew": false,
            "operationState": "GRANTED"
        }
    ]
}
2022-01-06T07:46:33.338Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbstdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "179785903",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2022-01-06T07:49:53Z"
        }
    ]
}
```



```

    }
  ]
}
2022-01-06T07:47:13.448Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "179785903",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-06T07:47:13.448Z - INFO - Time interval between two heartbeat request messages is: 40.11, limit is:
65.0
2022-01-06T07:47:13.448Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "179785903",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-06T07:50:33Z"
    }
  ]
}
}
2022-01-06T07:47:53.546Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "179785903",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2022-01-06T07:47:53.546Z - INFO - Time interval between two heartbeat request messages is: 40.098, limit
is: 65.0
2022-01-06T07:47:53.546Z - INFO - LAST HBT RESPONSE THAT SET TRANSMIT_EXPIRE_TIME WAS AT:
2022-01-06 07:47:13.449000
2022-01-06T07:48:23.611Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "179785903",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2022-01-06T07:48:23.611Z - INFO - request message received while HBT is absent, sleep 174 sec before
responding
2022-01-06T07:48:48.627Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "179785903"
    }
  ]
}

```

```
    }
  ]
}
2022-01-06T07:48:48.627Z - INFO - request message received while HBT is absent, sleep 149 sec before
responding
2022-01-06T07:49:13.923Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "179785903"
    }
  ]
}
2022-01-06T07:49:13.923Z - INFO - request message received while HBT is absent, sleep 124 sec before
responding
2022-01-06T07:49:43.954Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "179785903"
    }
  ]
}
2022-01-06T07:49:43.954Z - INFO - request message received while HBT is absent, sleep 94 sec before
responding
2022-01-06T07:49:49.392Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "179785903"
    }
  ]
}
2022-01-06T07:49:49.392Z - INFO - request message received while HBT is absent, sleep 89 sec before
responding
2022-01-06T07:49:49.549Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "179785903"
    }
  ]
}
2022-01-06T07:49:49.549Z - INFO - request message received while HBT is absent, sleep 88 sec before
responding
2022-01-06T07:50:19.582Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "179785903"
    }
  ]
}
2022-01-06T07:50:19.582Z - INFO - request message received while HBT is absent, sleep 58 sec before
responding
2022-01-06T07:50:19.786Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
```

```

    "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
    "grantId": "179785903"
  }
]
}
2022-01-06T07:50:19.786Z - INFO - request message received while HBT is absent, sleep 58 sec before
responding
2022-01-06T07:50:19.927Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "179785903"
    }
  ]
}
2022-01-06T07:50:19.927Z - INFO - request message received while HBT is absent, sleep 58 sec before
responding
2022-01-06T07:50:49.961Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "179785903"
    }
  ]
}
2022-01-06T07:50:49.961Z - INFO - request message received while HBT is absent, sleep 28 sec before
responding
2022-01-06T07:51:13.555Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "179785903",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2022-01-06T07:51:13Z"
    }
  ]
}
2022-01-06T07:51:15.523Z - INFO - arrived to nstep starting question answer session with the technician
2022-01-06T07:51:15.523Z - INFO - the question is : Did the CBSD stop RF transmissions within
(transmitExpireTime + 60seconds) of last valid heartbeat response? please choose one of the answers :
2022-01-06T07:51:17.571Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2022-01-06T07:51:17.601Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2022-01-06T07:51:17.618Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2022-01-06T07:51:17.634Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2022-01-06T07:51:17.789Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2022-01-06T07:51:17.930Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2022-01-06T07:51:17.946Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2022-01-06T07:51:17.961Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"

```

2022-01-06T07:51:17.976Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2022-01-06T07:51:18.398Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2022-01-06T07:52:13.371Z - INFO - for the question : Did the CBSD stop RF transmissions within (transmitExpireTime + 60seconds) of last valid heartbeat response? , the user choose y

2022-01-06T07:52:13.684Z - INFO - The final result of the test : WINNF.FT.C.HBT.10 is - passed

### 3 CBSD Measurement Report

#### 3.1 WINNF.FT.C.MES.1

2022-01-06T08:19:41.016Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13  
 2022-01-06T08:19:41.016Z - INFO - the selected test from the user : WINNF.FT.C.MES.1 is starting now  
 2022-01-06T08:19:41.986Z - INFO - registration request from CBRS : {

```

    "registrationRequest": [
      {
        "airInterface": {
          "radioTechnology": "E_UTRA",
          "supportedSpec": "FFS"
        },
        "callSign": "",
        "cbsdCategory": "B",
        "cbsdSerialNumber": "2107CW5000001",
        "cpiSignatureData": {
          "digitalSignature":
"CUSZD2eCbX-zp7v1gsFJXKXSHFsm4FalASFIWLBnquMats7Hrfi_UMfzFXQTthJOpePg7bkvnZV7dTTFmw
wm5GJFIjEiAoF7UjX0ZL7aFS8CmruuME2R_SKWCbMptr6MHGkaTc3oVag1I2PQ63UuN3iNVolZSRxrlIwaW
ed3rbg8oWmzkFx0rQwpG6q4_HW-74kysBhDI9QJ6x7livfMrY24-6d8JOxffGFSX6OyF7Y4RU2SlqFvIx7qdF-
Hezj96eOzGIC8oU9cZiZGHZUitwGpdpoAfR-xO2tXOCoqGVEpAQJQo3i7utgitQoUDTk55miEBzs2jfHPHBZK
EjRQ6QA",
          "encodedCpiSignedData":
"eyJpbmN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGI0eSI6NDYslmhlaWdodFR5cGUiOiJBTvNMIi
wiYW50ZW5uYUdhaW4iOiJEWLcJob3Jpem9udGFsQWNjdXJhY3kiOiJMSlMfudGVubmFEb3dudGlscCI6MC
wiYW50ZW5uYUJlYyY1MzZWR0aCI6MzYwLcJob3Jpem9udGFsQWNjdXJhY3kiOiJMSlMfudGVubmFEb3dudGlscCI6MC
Rlbn5hQXppbXV0aCI6MzYwLcJob3Jpem9udGFsQWNjdXJhY3kiOiJMSlMfudGVubmFEb3dudGlscCI6MC
sc2UsImxhdGl0dWRlljozMS4zMdIwMX0sImZjY0kljoiZmVtdG8uaSlnByb2Zlc3Npb25hbEluc3RhbGxlckRh
dGEiOnsiY3BpTmFtZSI6IiIsImIuc3RhbGxkZmVtdG8uaSlnByb2Zlc3Npb25hbEluc3RhbGxlckRh
TYuMDg1MDAwWilsImNwaUlkljoiIn0sImNic2RTZXJpYWxOdW1iZXliOiJtZXJjb21tLTE5MTJDVzUzMDAwM
DE2In0",
          "protectedHeader": "eyJhbGciOiJSUzI1NiIsImR5cCI6IkpXVCJ9"
        },
        "fcclId": "P27-SCO4255P",
        "groupingParam": [
          {
            "groupId": "SERCOMM_111",
            "groupType": "INTERFERENCE_COORDINATION"
          }
        ],
        "measCapability": [
          "RECEIVED_POWER_WITHOUT_GRANT"
        ],
        "userId": "XywyE9"
      }
    ]
  }

```

2022-01-06T08:19:42.032Z - INFO - Registration message contains cpiSignatureData  
 2022-01-06T08:19:42.032Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}  
 2022-01-06T08:19:42.032Z - INFO - encodedCpiSignedData contents = {  
 "installationParam": {  
 "eirpCapability": 46,  
 "antennaAzimuth": 0,  
 "heightType": "AMSL",

```

        "longitude": -105.024094,
        "antennaGain": 10,
        "indoorDeployment": false,
        "latitude": 31.30201,
        "horizontalAccuracy": 3,
        "antennaDowntilt": 0,
        "antennaBeamwidth": 360,
        "height": 18,
        "verticalAccuracy": 3
    },
    "professionalInstallerData": {
        "cpiName": "",
        "installCertificationTime": "2022-01-05T10:45:56.085000Z",
        "cpild": ""
    },
    "fcclid": "femto.i",
    "cbsdSerialNumber": "Sercomm-1912CW53000016"
}
2022-01-06T08:19:42.111Z - INFO - verified signature on cpiSignatureData
2022-01-06T08:19:42.125Z - INFO - cpiSignatureData data successfully validated against jsonschema
2022-01-06T08:19:42.125Z - INFO - Response message contains measReportConfig
2022-01-06T08:19:42.125Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "measReportConfig": [
                "RECEIVED_POWER_WITHOUT_GRANT"
            ],
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2022-01-06T08:19:42.236Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3635000000,
                    "lowFrequency": 3615000000
                },
                {
                    "highFrequency": 3635000000,
                    "lowFrequency": 3615000000
                }
            ]
        },
        {
            "rcvdPowerMeasReports": [
                {
                    "measBandwidth": 10000000,
                    "measFrequency": 3550000000,
                    "measRcvdPower": -100.0
                },
                {
                    "measBandwidth": 10000000,
                    "measFrequency": 3560000000,

```

```
"measRcvdPower": -100.0
},
{
  "measBandwidth": 10000000,
  "measFrequency": 3570000000,
  "measRcvdPower": -100.0
},
{
  "measBandwidth": 10000000,
  "measFrequency": 3580000000,
  "measRcvdPower": -100.0
},
{
  "measBandwidth": 10000000,
  "measFrequency": 3590000000,
  "measRcvdPower": -100.0
},
{
  "measBandwidth": 10000000,
  "measFrequency": 3600000000,
  "measRcvdPower": -100.0
},
{
  "measBandwidth": 10000000,
  "measFrequency": 3610000000,
  "measRcvdPower": -100.0
},
{
  "measBandwidth": 10000000,
  "measFrequency": 3620000000,
  "measRcvdPower": -100.0
},
{
  "measBandwidth": 10000000,
  "measFrequency": 3630000000,
  "measRcvdPower": -100.0
},
{
  "measBandwidth": 10000000,
  "measFrequency": 3640000000,
  "measRcvdPower": -100.0
},
{
  "measBandwidth": 10000000,
  "measFrequency": 3650000000,
  "measRcvdPower": -100.0
},
{
  "measBandwidth": 10000000,
  "measFrequency": 3660000000,
  "measRcvdPower": -100.0
},
{
  "measBandwidth": 10000000,
  "measFrequency": 3670000000,
  "measRcvdPower": -100.0
},
{

```





```
{
  "measBandwidth": 1000000,
  "measFrequency": 357000000,
  "measRcvdPower": -100.0
},
{
  "measBandwidth": 1000000,
  "measFrequency": 358000000,
  "measRcvdPower": -100.0
},
{
  "measBandwidth": 1000000,
  "measFrequency": 359000000,
  "measRcvdPower": -100.0
},
{
  "measBandwidth": 1000000,
  "measFrequency": 360000000,
  "measRcvdPower": -100.0
},
{
  "measBandwidth": 1000000,
  "measFrequency": 361000000,
  "measRcvdPower": -100.0
},
{
  "measBandwidth": 1000000,
  "measFrequency": 362000000,
  "measRcvdPower": -100.0
},
{
  "measBandwidth": 1000000,
  "measFrequency": 363000000,
  "measRcvdPower": -100.0
},
{
  "measBandwidth": 1000000,
  "measFrequency": 364000000,
  "measRcvdPower": -100.0
},
{
  "measBandwidth": 1000000,
  "measFrequency": 365000000,
  "measRcvdPower": -100.0
},
{
  "measBandwidth": 1000000,
  "measFrequency": 366000000,
  "measRcvdPower": -100.0
},
{
  "measBandwidth": 1000000,
  "measFrequency": 367000000,
  "measRcvdPower": -100.0
},
{
  "measBandwidth": 1000000,
  "measFrequency": 368000000,
```

```
        "measRcvdPower": -100.0
      },
      {
        "measBandwidth": 10000000,
        "measFrequency": 3690000000,
        "measRcvdPower": -100.0
      }
    ]
  },
  "operationParam": {
    "maxEirp": 21,
    "operationFrequencyRange": {
      "highFrequency": 3635000000,
      "lowFrequency": 3615000000
    }
  }
}
]
}
2022-01-06T08:19:42.313Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "channelType": "GAA",
      "grantExpireTime": "2022-01-13T08:19:42Z",
      "grantId": "392134569",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-06T08:19:44.049Z - INFO - arrived to nstep starting question answer session with the technician
2022-01-06T08:19:50.579Z - INFO - The final result of the test : WINNF.FT.C.MES.1 is - passed
```



```

    "latitude": 31.30201,
    "horizontalAccuracy": 3,
    "antennaDowntilt": 0,
    "antennaBeamwidth": 360,
    "height": 18,
    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "",
    "installCertificationTime": "2022-01-05T10:45:56.085000Z",
    "cpild": ""
  },
  "fcclid": "femto.i",
  "cbsdSerialNumber": "Sercomm-1912CW53000016"
}
2022-01-06T10:00:10.494Z - INFO - verified signature on cpiSignatureData
2022-01-06T10:00:10.494Z - INFO - cpiSignatureData data successfully validated against jsonschema
2022-01-06T10:00:10.494Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-06T10:00:10.588Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "inquiredSpectrum": [
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        },
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      ]
    }
  ]
}
2022-01-06T10:00:10.605Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",

```

```
        "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
        },
        "ruleApplied": "FCC_PART_96"
    }
},
"cbid": "P27-SCO4255PMock-SAS2107CW5000001",
"response": {
    "responseCode": 0
}
}
]
}
2022-01-06T10:00:10.635Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbid": "P27-SCO4255PMock-SAS2107CW5000001",
            "operationParam": {
                "maxEirp": 21,
                "operationFrequencyRange": {
                    "highFrequency": 3635000000,
                    "lowFrequency": 3615000000
                }
            }
        }
    ]
}
2022-01-06T10:00:10.635Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbid": "P27-SCO4255PMock-SAS2107CW5000001",
            "channelType": "GAA",
            "grantExpireTime": "2022-01-13T10:00:10Z",
            "grantId": "146847481",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2022-01-06T10:00:10.713Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbid": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "146847481",
            "grantRenew": false,
            "operationState": "GRANTED"
        }
    ]
}
2022-01-06T10:00:10.713Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbid": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "146847481",
            "response": {
```

```

        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-06T10:03:30Z"
    }
  ]
}
2022-01-06T10:00:50.806Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "146847481",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-06T10:00:50.806Z - INFO - Time interval between two heartbeat request messages is: 40.093, limit
is: 65.0
2022-01-06T10:00:50.822Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "146847481",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-06T10:04:10Z"
    }
  ]
}
2022-01-06T10:01:16.137Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "146847481"
    }
  ]
}
2022-01-06T10:01:16.151Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "146847481",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-06T10:01:17.964Z - INFO - arrived to nstep starting question answer session with the technician
2022-01-06T10:01:17.964Z - INFO - the question is : Did CBSD1 cease RF transmission before receipt of
Relinquishment Request by Test Harness? please choose one of the answers :
2022-01-06T10:14:12.937Z - INFO - for the question : Did CBSD1 cease RF transmission before receipt of
Relinquishment Request by Test Harness? , the user choose y
2022-01-06T10:14:13.187Z - INFO - The final result of the test : WINNF.FT.C.RLQ.1 is - passed

```

## 5 CBSD Deregistration Process

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

2022-01-06T10:14:57.529Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-01-06T10:14:57.529Z - INFO - the selected test from the user : WINNF.FT.C.DRG.1 is starting now

2022-01-06T10:15:11.187Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
```

```
{
```

```
  "airInterface": {
```

```
    "radioTechnology": "E_UTRA",
```

```
    "supportedSpec": "FFS"
```

```
  },
```

```
  "callSign": "",
```

```
  "cbsdCategory": "B",
```

```
  "cbsdSerialNumber": "2107CW5000001",
```

```
  "cpiSignatureData": {
```

```
    "digitalSignature":
```

```
"CUSZD2eCbX-zp7v1gsFJXKXSHFsm4FalASFIWLBnQuMats7Hrfi_UMfzFXQTthJOpePg7bkvnZV7dTFmw  
wm5GJFIjEiAoF7UjX0ZL7aFS8CmruuME2R_SKWCbMptr6MHGkaTc3oVag1I2PQ63UuN3iNVolZSRxrlIwaW  
ed3rbg8oWmzkFx0rQwpG6q4_HW-74kysBhDI9QJ6x7livfMrY24-6d8JOxffGFSX6OyF7Y4RU2SlqFvIx7qdF-  
Hezj96eOzGIC8oU9cZiZGHZUitwGpdpoAfR-xO2tXOCOqGVEpAQJQo3i7utgitQoUDTk55miEBzs2jfHPHBZK  
EjRQ6QA",
```

```
    "encodedCpiSignedData":
```

```
"eyJpbN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGI0eSI6NDYsImhlaWdodFR5cGUiOiJBTVMlIi  
wiYW50ZW5uYUdhaW4iOiJEWL0CJob3Jpem9udGFsQWNjdXJhY3kiOiJMSlMfudGVubmFEb3dudGlsdCI6MC  
wiYW50ZW5uYUJlYXN0aWZlYXN0aWZlYXN0aWZlYXN0aWZlYXN0aWZlYXN0aWZlYXN0aWZlYXN0aWZlYXN0  
Rlhm5hQXppbXV0aCI6MCwibG9uZ2I0dWRlljotMTA1LjAyNDANcWiaW5kb29yRGVwbG95bWVudCI6ZmF  
sc2UsImxhdGI0dWRlljotMS4zMdIwMX0sImZjY0kljoiZmVtdG8uaSlnByb2Zlc3Npb25hbEluc3RhbGxlc  
kRhGEiOnsiY3BpTmFtZSI6IiIsImIuc3RhbGx0aWZlYXN0aWZlYXN0aWZlYXN0aWZlYXN0aWZlYXN0aWZlYXN0  
TYuMDg1MDAwWilsImNwaUlkljoiIn0sImNic2RTZXJpYWxOdW1iZXliOiJlZmVudCJlZmVudCJlZmVudCJlZmVudC  
DE2In0",
```

```
    "protectedHeader": "eyJhbGciOiJSUzI1NiIsImR5cCI6IkpXVCJ9"
```

```
  },
```

```
  "fccId": "P27-SCO4255P",
```

```
  "groupingParam": [
```

```
    {
```

```
      "groupId": "SERCOMM_111",
```

```
      "groupType": "INTERFERENCE_COORDINATION"
```

```
    }
```

```
  ],
```

```
  "measCapability": [
```

```
    "RECEIVED_POWER_WITHOUT_GRANT"
```

```
  ],
```

```
  "userId": "XywyE9"
```

```
  }
```

```
]
```

```
}
```

2022-01-06T10:15:11.217Z - INFO - Registration message contains cpiSignatureData

2022-01-06T10:15:11.217Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2022-01-06T10:15:11.217Z - INFO - encodedCpiSignedData contents = {

```
  "installationParam": {
```

```
    "eirpCapability": 46,
```

```
    "antennaAzimuth": 0,
```

```
    "heightType": "AMSL",
```

```
    "longitude": -105.024094,
```

```
    "antennaGain": 10,
```

```
    "indoorDeployment": false,
```

```

    "latitude": 31.30201,
    "horizontalAccuracy": 3,
    "antennaDowntilt": 0,
    "antennaBeamwidth": 360,
    "height": 18,
    "verticalAccuracy": 3
  },
  "professionalInstallerData": {
    "cpiName": "",
    "installCertificationTime": "2022-01-05T10:45:56.085000Z",
    "cpild": ""
  },
  "fcclid": "femto.i",
  "cbsdSerialNumber": "Sercomm-1912CW53000016"
}
2022-01-06T10:15:11.280Z - INFO - verified signature on cpiSignatureData
2022-01-06T10:15:11.280Z - INFO - cpiSignatureData data successfully validated against jsonschema
2022-01-06T10:15:11.280Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-06T10:15:11.390Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "inquiredSpectrum": [
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        },
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      ]
    }
  ]
}
2022-01-06T10:15:11.390Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",

```



```

        "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
        },
        "ruleApplied": "FCC_PART_96"
    }
},
"cbid": "P27-SCO4255PMock-SAS2107CW5000001",
"response": {
    "responseCode": 0
}
}
]
}
2022-01-06T10:15:11.437Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbid": "P27-SCO4255PMock-SAS2107CW5000001",
            "operationParam": {
                "maxEirp": 21,
                "operationFrequencyRange": {
                    "highFrequency": 3635000000,
                    "lowFrequency": 3615000000
                }
            }
        }
    ]
}
2022-01-06T10:15:11.437Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbid": "P27-SCO4255PMock-SAS2107CW5000001",
            "channelType": "GAA",
            "grantExpireTime": "2022-01-13T10:15:11Z",
            "grantId": "12506078",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2022-01-06T10:15:11.515Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbid": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "12506078",
            "grantRenew": false,
            "operationState": "GRANTED"
        }
    ]
}
2022-01-06T10:15:11.530Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbid": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "12506078",
            "response": {

```

```
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-06T10:18:31Z"
    }
  ]
}
2022-01-06T10:15:51.612Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "12506078",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-06T10:15:51.612Z - INFO - Time interval between two heartbeat request messages is: 40.098, limit
is: 65.0
2022-01-06T10:15:51.612Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "12506078",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-06T10:19:11Z"
    }
  ]
}
2022-01-06T10:16:15.815Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "12506078"
    }
  ]
}
2022-01-06T10:16:15.832Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "12506078",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-06T10:16:15.846Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001"
    }
  ]
}
2022-01-06T10:16:15.846Z - INFO - engine sent successfully, the response to CBRS : {
  "deregistrationResponse": [
```

```
{  
  "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",  
  "response": {  
    "responseCode": 0  
  }  
}
```

2022-01-06T10:16:17.582Z - INFO - arrived to nstep starting question answer session with the technician  
2022-01-06T10:16:17.582Z - INFO - the question is : Did CBSD1 cease RF transmission before receipt of Relinquishment request (if sent) or Deregistration request at Test Harness? please choose one of the answers :

2022-01-06T10:26:18.233Z - INFO - for the question : Did CBSD1 cease RF transmission before receipt of Relinquishment request (if sent) or Deregistration request at Test Harness? , the user choose y

2022-01-06T10:26:18.390Z - 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

2022-01-07T01:34:14.805Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-01-07T01:34:14.805Z - INFO - the selected test from the user : WINNF.FT.C.SCS.1 is starting now

2022-01-07T01:34:42.173Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "E\_UTRA",

"supportedSpec": "FFS"

},

"callSign": "",

"cbsdCategory": "B",

"cbsdSerialNumber": "2107CW5000001",

"cpiSignatureData": {

"digitalSignature":

"CUSZD2eCbX-zp7v1gsFJXKXSHFsm4FalASFIWLBnQuMats7Hrfi\_UMfzFXQTthJOpePg7bkvnZV7dTfMw  
wm5GJFIjEiAoF7UjX0ZL7aFS8CmruuME2R\_SKWCbMptr6MHGkaTc3oVag1I2PQ63UuN3iNVolZSRxrlIwaW  
ed3rbg8oWmzkFx0rQwpG6q4\_HW-74kysBhDI9QJ6x7livfMrY24-6d8JOxffGFSX6OyF7Y4RU2SlqFvIx7qdF-  
Hezj96eOzGIC8oU9cZiZGHZUitwGpdpoAfr-xO2tXOCOqGVEpAQJQo3i7utgitQoUDTk55miEBzs2jfHPHBZK  
EjRQ6QA",

"encodedCpiSignedData":

"eyJpbN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGl0eSI6NDYslmhlaWdodFR5cGUiOiJBTVMlIiwiYW50ZW5uYUdhaW4iOjEwLzI0dWRlljotMTA1LjAyNDU5NCwiaW5kb29yRGVwbG95bWVudC16ZmFsc2UsImxhdGl0dWRlljotMS4zMDIwMX0sImZjY0kljoiZmVtdG8uaSlnByb2Zlc3Npb25hbEluc3RhbGxickRh  
dGEiOnsiY3BpTmFtZSI6IiIsImIuc3RhbGxDZXJ0aWZpY2F0aW9uVGltZSI6IjIwMjUyMDEtMDVUMTA6NDU6N  
TYuMDg1MDAwWilsImNwaUlkljoiIn0sImNic2RTZXJpYWxOdW1iZXliOiJtZXJjb21tLTE5MTJDVzUzMDAwM  
DE2In0",

"protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"

},

"fcclId": "P27-SCO4255P",

"groupingParam": [

{

"groupId": "SERCOMM\_111",

"groupType": "INTERFERENCE\_COORDINATION"

}

],

"measCapability": [

"RECEIVED\_POWER\_WITHOUT\_GRANT"

],

"userId": "XywyE9"

}

]

}

2022-01-07T01:34:42.203Z - INFO - Registration message contains cpiSignatureData

2022-01-07T01:34:42.203Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2022-01-07T01:34:42.203Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"eirpCapability": 46,

"antennaAzimuth": 0,

"heightType": "AMSL",

"longitude": -105.024094,

"antennaGain": 10,

"indoorDeployment": false,

```
    "latitude": 31.30201,  
    "horizontalAccuracy": 3,  
    "antennaDowntilt": 0,  
    "antennaBeamwidth": 360,  
    "height": 18,  
    "verticalAccuracy": 3  
  },  
  "professionalInstallerData": {  
    "cpiName": "",  
    "installCertificationTime": "2022-01-05T10:45:56.085000Z",  
    "cpild": ""  
  },  
  "fcclid": "femto.i",  
  "cbsdSerialNumber": "Sercomm-1912CW53000016"  
}  
2022-01-07T01:34:42.361Z - INFO - verified signature on cpiSignatureData  
2022-01-07T01:34:42.361Z - INFO - cpiSignatureData data successfully validated against jsonschema  
2022-01-07T01:34:42.361Z - INFO - engine sent successfully, the response to CBRS : {  
  "registrationResponse": [  
    {  
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",  
      "response": {  
        "responseCode": 0  
      }  
    }  
  ]  
}  
2022-01-07T01:34:44.203Z - INFO - arrived to nstep starting question answer session with the technician  
2022-01-07T01:34:44.203Z - INFO - the question is : Were there RF transmissions from the CBSD1 during  
the test? please choose one of the answers :  
2022-01-07T02:11:18.196Z - INFO - for the question : Were there RF transmissions from the CBSD1 during  
the test? , the user choose n  
2022-01-07T02:11:18.368Z - INFO - The final result of the test : WINNF.FT.C.SCS.1 is - passed
```

## 6.2 WINNF.FT.C.SCS.2

2022-01-07T02:52:55.457Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13  
2022-01-07T02:52:55.457Z - INFO - the selected test from the user : WINNF.FT.C.SCS.2 is starting now

## 6.3 WINNF.FT.C.SCS.3

2022-01-07T03:04:17.369Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13  
2022-01-07T03:04:17.369Z - INFO - the selected test from the user : WINNF.FT.C.SCS.3 is starting now

## 6.4 WINNF.FT.C.SCS.4

2022-01-07T03:11:29.506Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13  
2022-01-07T03:11:29.506Z - INFO - the selected test from the user : WINNF.FT.C.SCS.4 is starting now

## 6.5 WINNF.FT.C.SCS.5

2022-01-07T03:19:47.676Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13  
2022-01-07T03:19:47.676Z - INFO - the selected test from the user : WINNF.FT.C.SCS.5 is starting now

## CBSD RF POWER MEASUREMENT

**6.6 WINNF.PT.C.HBT.1(Max Eirp = -2 dBm/MHz)(Bandwidth 10M)**

2022-01-07T06:55:01.411Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-01-07T06:55:01.411Z - INFO - Selected spectrum frequency is {'lowFrequency': 3620000000L, 'highFrequency': 3630000000L}

2022-01-07T06:55:01.411Z - INFO - Granted Spectrum Max Eirp = -2dBm/MHz

2022-01-07T06:55:01.411Z - INFO - the selected test from the user : PowerMeasTest is starting now

2022-01-07T06:55:09.286Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "E\_UTRA",

"supportedSpec": "FFS"

},

"callSign": "",

"cbsdCategory": "B",

"cbsdSerialNumber": "2107CW5000001",

"cpiSignatureData": {

"digitalSignature":

```

"CUSZD2eCbX-zp7v1gsFJXKXSHFsm4FalASFIWLBnQuMats7Hrfi_UMfzFXQTthJOpePg7bkvnZV7dTFmw
wm5GJfIjEiAoF7UjX0ZL7aFS8CmruuME2R_SKWCbMptr6MHGkaTc3oVag1I2PQ63UuN3iNVolZSRxrlIwaW
ed3rbg8oWmzkFx0rQwpG6q4_HW-74kysBhDI9QJ6x7livfMrY24-6d8JOxffGFSX6OyF7Y4RU2SlqFvIx7qdF-
Hezj96eOzGIC8oU9cZiZGHZUitwGpdpoAfR-xO2tXOCQqGVEpAQJQo3i7utgitQoUDTk55miEBzs2jfHPHBZK
EjRQ6QA",

```

"encodedCpiSignedData":

```

"eyJpbN0YwxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGI0eSI6NDYslmhlaWdodFR5cGUiOiJBTvNMli
wiYW50ZW5uYUdhaW4iOjEwLzI0dWRlljotMTA1LjAyNDU5NCwiaW5kb29yRGVwbG95bWVudCI6ZmF
sc2UsImxhdGloZWVljozMS4zMdIwMX0sImZjY0kljoiZmVtdG8uaSlnByb2Zlc3Npb25hbEluc3RhbGxlckRh
dGEiOnsiY3BpTmFtZSI6IiIsImIuc3RhbGxDZXJ0aWZpY2F0aW9uVGltZSI6IjIwMjUyLjE1LjE1LjE1LjE1
TYuMDg1MDAwWilsImNwaUlkljoiIn0sImNic2RTZXJpYWxOdW1iZXliOiJtZXJjb21tLTE5MTJDVzUzMDAwM
DE2In0",

```

"protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "P27-SCO4255P",

"groupingParam": [

{

"groupId": "SERCOMM\_111",

"groupType": "INTERFERENCE\_COORDINATION"

}

],

"measCapability": [

"RECEIVED\_POWER\_WITHOUT\_GRANT"

],

"userId": "XywyE9"

}

]

}

2022-01-07T06:55:09.318Z - INFO - engine sent successfully, the response to CBRS : {

"registrationResponse": [

{

"cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",

"response": {

"responseCode": 0

}

}

```
    }
  ]
}
2022-01-07T06:55:09.427Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "inquiredSpectrum": [
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3620000000
        }
      ]
    }
  ]
}
2022-01-07T06:55:09.427Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2022-01-07T06:55:09.427Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2022-01-07T06:55:09.427Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3630000000,
            "lowFrequency": 3620000000
          },
          "maxEirp": -2,
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3630000000,
            "lowFrequency": 3620000000
          },
          "maxEirp": -2,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-07T06:55:09.459Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
```



```
        "operationParam": {
            "maxEirp": -17,
            "operationFrequencyRange": {
                "highFrequency": 3630000000,
                "lowFrequency": 3620000000
            }
        }
    ]
}
2022-01-07T06:55:09.459Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "channelType": "GAA",
            "grantExpireTime": "2022-01-14T06:55:09Z",
            "grantId": "402454517",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2022-01-07T06:55:09.584Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "402454517",
            "grantRenew": false,
            "operationState": "GRANTED"
        }
    ]
}
2022-01-07T06:55:09.584Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "402454517",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2022-01-07T06:58:29Z"
        }
    ]
}
2022-01-07T06:55:49.677Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "402454517",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2022-01-07T06:55:49.677Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
```

```
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "402454517",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T06:59:09Z"
    }
  ]
}
2022-01-07T06:56:29.762Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "402454517",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T06:56:29.762Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "402454517",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T06:59:49Z"
    }
  ]
}
2022-01-07T06:57:09.846Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "402454517",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T06:57:09.846Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "402454517",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T07:00:29Z"
    }
  ]
}
2022-01-07T06:57:49.926Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
```

```
        "grantId": "402454517",
        "grantRenew": false,
        "operationState": "AUTHORIZED"
    }
]
}
2022-01-07T06:57:49.926Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "402454517",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T07:01:09Z"
    }
  ]
}
2022-01-07T06:58:29.996Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "402454517",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T06:58:30.010Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "402454517",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T07:01:50Z"
    }
  ]
}
2022-01-07T06:59:08.342Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "402454517"
    }
  ]
}
2022-01-07T06:59:08.358Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "402454517",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
```

```

}
2022-01-07T06:59:08.405Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001"
    }
  ]
}
2022-01-07T06:59:08.405Z - INFO - engine sent successfully, the response to CBRS : {
  "deregistrationResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-07T06:59:08.905Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA",
        "supportedSpec": "FFS"
      },
      "callSign": "",
      "cbsdCategory": "B",
      "cbsdSerialNumber": "2107CW5000001",
      "cpiSignatureData": {
        "digitalSignature":
"CUSZD2eCbX-zp7v1gsFJXKXSHFsm4FalASFIWLBnQuMats7Hrfi_UMfzFXQTthJOpePg7bkvnZV7dTfMw
wm5GJfIjEiAoF7UjX0ZL7aFS8CmruuME2R_SKWCbMptr6MHGkaTc3oVag1I2PQ63UuN3iNVolZSRxrlIwaW
ed3rbg8oWmzkFx0RqwpG6q4_HW-74kysBhDI9QJ6x7livfMrY24-6d8JOxffGFSX6OyF7Y4RU2SlqFvIx7qdF-
Hezj96eOzGIC8oU9cZiZGHZUitwGpdpoAfR-xO2tXOCOqGVEpAQJQo3i7utgitQoUDTk55miEBzs2jfHPHBZK
EjRQ6QA",
        "encodedCpiSignedData":
"eyJpbN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGI0eSI6NDYslmhlaWdodFR5cGUiOiJBTvNMIi
wiYW50ZW5uYUdhaW4iOjEwLzI0dWRlljotMTA1LjAyNDU5NCwiaW5kb29yRGVwbG95bWVudCI6ZmF
sc2UsImxhdGloZWVljozMS4zMDIwMX0sImZjY0kljoiZmVtdG8uaSlnByb2Zlc3Npb25hbEluc3RhbGxlckRh
dGEiOnsiY3BpTmFtZSI6IiIsImIuc3RhbGxkZmVudCI6ZmFsc2UsImxhdGloZWVljozMS4zMDIwMX0sImZjY0kljoiZmVtdG8uaSlnByb2Zlc3Npb25hbEluc3RhbGxlckRh
TYuMDg1MDAwWilsImNwaUlkljoiIn0sImNic2RTZXJpYWxOdW1iZXliOiJlZmVudCI6ZmFsc2UsImxhdGloZWVljozMS4zMDIwMX0sImZjY0kljoiZmVtdG8uaSlnByb2Zlc3Npb25hbEluc3RhbGxlckRh
DE2In0",
        "protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"
      },
      "fccId": "P27-SCO4255P",
      "groupingParam": [
        {
          "groupId": "SERCOMM_111",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "XywyE9"
    }
  ]
}

```

```

    ]
  }
2022-01-07T06:59:08.951Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-07T06:59:09.046Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "inquiredSpectrum": [
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3620000000
        },
        {
          "highFrequency": 3630000000,
          "lowFrequency": 3620000000
        }
      ]
    }
  ]
}
2022-01-07T06:59:09.062Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2022-01-07T06:59:09.062Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2022-01-07T06:59:09.062Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3630000000,
            "lowFrequency": 3620000000
          },
          "maxEirp": -2,
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3630000000,
            "lowFrequency": 3620000000
          },
          "maxEirp": -2,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {

```

```
        "responseCode": 0
      }
    ]
  }
}
2022-01-07T06:59:09.076Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "operationParam": {
        "maxEirp": -17,
        "operationFrequencyRange": {
          "highFrequency": 3630000000,
          "lowFrequency": 3620000000
        }
      }
    }
  ]
}
2022-01-07T06:59:09.076Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "channelType": "GAA",
      "grantExpireTime": "2022-01-14T06:59:09Z",
      "grantId": "965195706",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-07T06:59:09.140Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "965195706",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-01-07T06:59:09.155Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "965195706",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T07:02:29Z"
    }
  ]
}
}
```



2022-01-07T07:24:44.198Z - INFO - spectrumInquiry request from CBRS : {

```

"spectrumInquiryRequest": [
  {
    "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
    "inquiredSpectrum": [
      {
        "highFrequency": 3630000000,
        "lowFrequency": 3620000000
      },
      {
        "highFrequency": 3630000000,
        "lowFrequency": 3620000000
      }
    ]
  }
]

```

2022-01-07T07:24:44.198Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0

2022-01-07T07:24:44.198Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0

2022-01-07T07:24:44.198Z - INFO - engine sent successfully, the response to CBRS : {

```

"spectrumInquiryResponse": [
  {
    "availableChannel": [
      {
        "channelType": "GAA",
        "frequencyRange": {
          "highFrequency": 3630000000,
          "lowFrequency": 3620000000
        },
        "maxEirp": 17,
        "ruleApplied": "FCC_PART_96"
      },
      {
        "channelType": "GAA",
        "frequencyRange": {
          "highFrequency": 3630000000,
          "lowFrequency": 3620000000
        },
        "maxEirp": 17,
        "ruleApplied": "FCC_PART_96"
      }
    ],
    "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
    "response": {
      "responseCode": 0
    }
  }
]

```

2022-01-07T07:24:44.276Z - INFO - grant request from CBRS : {

```

"grantRequest": [
  {
    "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
    "operationParam": {
      "maxEirp": 2,
      "operationFrequencyRange": {

```



```
        "highFrequency": 3630000000,
        "lowFrequency": 3620000000
    }
}
]
}
2022-01-07T07:24:44.276Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "channelType": "GAA",
      "grantExpireTime": "2022-01-14T07:24:44Z",
      "grantId": "906844592",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-07T07:24:44.387Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "906844592",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-01-07T07:24:44.387Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "906844592",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T07:28:04Z"
    }
  ]
}
2022-01-07T07:25:24.489Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "906844592",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T07:25:24.489Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "906844592",
```

```
        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2022-01-07T07:28:44Z"
    }
]
}
2022-01-07T07:26:04.559Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "906844592",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2022-01-07T07:26:04.575Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "906844592",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2022-01-07T07:29:24Z"
        }
    ]
}
2022-01-07T07:26:44.651Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "906844592",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2022-01-07T07:26:44.651Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "906844592",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2022-01-07T07:30:04Z"
        }
    ]
}
2022-01-07T07:27:24.727Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "906844592",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
```

```
    }
  ]
}
2022-01-07T07:27:24.743Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "906844592",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T07:30:44Z"
    }
  ]
}
2022-01-07T07:28:04.819Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "906844592",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T07:28:04.835Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "906844592",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T07:31:24Z"
    }
  ]
}
2022-01-07T07:28:44.913Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "906844592",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T07:28:44.913Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "906844592",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T07:32:04Z"
    }
  ]
}
```

```
}
2022-01-07T07:29:24.990Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "906844592",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T07:29:24.990Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "906844592",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T07:32:44Z"
    }
  ]
}
2022-01-07T07:29:29.114Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "906844592"
    }
  ]
}
2022-01-07T07:29:29.114Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "906844592",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-07T07:29:29.161Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001"
    }
  ]
}
2022-01-07T07:29:29.161Z - INFO - engine sent successfully, the response to CBRS : {
  "deregistrationResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
```

```

}
2022-01-07T07:29:29.582Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA",
        "supportedSpec": "FFS"
      },
      "callSign": "",
      "cbsdCategory": "B",
      "cbsdSerialNumber": "2107CW5000001",
      "cpiSignatureData": {
        "digitalSignature":
"CUSZD2eCbX-zp7v1gsFJXKXSHFsm4FalASFIWLBnquMats7Hrfi_UMfzFXQTthJOpePg7bkvnZV7dTfMw
wm5GJfIjEiAoF7UjX0ZL7aFS8CmruuME2R_SKWCbMptr6MHGkaTc3oVag1I2PQ63UuN3iNVolZSRxrlIwaW
ed3rbg8oWmzkFx0rQwpG6q4_HW-74kysBhDI9QJ6x7livfMrY24-6d8JOxffGFSX6OyF7Y4RU2SlqFvIx7qdF-
Hezj96eOzGIC8oU9cZiZGHZUitwGpdpoAfR-xO2tXOCQgVVEpAQJQo3i7utgitQoUDTk55miEBzs2jfHPHBZK
EjRQ6QA",
        "encodedCpiSignedData":
"eyJpbN0YwxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGI0eSI6NDYslmhlaWdodFR5cGUiOiJBTvNMIi
wiYW50ZW5uYUdhaW4iOjEwLkJob3Jpem9udGFsQWNjdXJhY3kiOjMslmFudGVubmFEb3dudGlsdCI6MC
wiYW50ZW5uYUJlYW13aWR0aCI6MzYwLkJoZWlnaHQiOjE4LkCjZlZlJ0aWNhbEFjY3VyYWN5ljozLCJhbn
Rlbn5hQXppbXV0aCI6MCwibG9uZ2l0dWRlljotMTA1LjAyNDU5NCwiaW5kb29yRGVwbG95bWVudCI6ZmF
sc2UsImxhdGloZWVljozMS4zMdIwMX0slmZjY0kljoiZmVtdG8uaSlmInByb2Zlc3Npb25hbEluc3RhbGxlckRh
dGEiOjE0Y3BpTmFtZSI6lilslmIuc3RhbGxDZXJ0aWZpY2F0aW9uVGltZSI6ljlwMjltMDEtMDVUMTA6NDU6N
TYuMDg1MDAwWilsImNwaUlkljoiIn0slmNic2RTZXJpYWxOdW1iZXliOiJlZlZlJjY21tLTE5MTJDVzUzMDAwM
DE2In0",
        "protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"
      },
      "fccId": "P27-SCO4255P",
      "groupingParam": [
        {
          "groupId": "SERCOMM_111",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "XywyE9"
    }
  ]
}
2022-01-07T07:29:29.598Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-07T07:29:29.707Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "inquiredSpectrum": [

```

```

    {
      "highFrequency": 3630000000,
      "lowFrequency": 3620000000
    },
    {
      "highFrequency": 3630000000,
      "lowFrequency": 3620000000
    }
  ]
}
]
}
}
2022-01-07T07:29:29.707Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2022-01-07T07:29:29.707Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2022-01-07T07:29:29.707Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3630000000,
            "lowFrequency": 3620000000
          },
          "maxEirp": 17,
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3630000000,
            "lowFrequency": 3620000000
          },
          "maxEirp": 17,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2022-01-07T07:29:29.739Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "operationParam": {
        "maxEirp": 2,
        "operationFrequencyRange": {
          "highFrequency": 3630000000,
          "lowFrequency": 3620000000
        }
      }
    }
  ]
}
}

```

```
]
}
2022-01-07T07:29:29.755Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "channelType": "GAA",
      "grantExpireTime": "2022-01-14T07:29:29Z",
      "grantId": "592316147",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-07T07:29:29.848Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "592316147",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-01-07T07:29:29.848Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "592316147",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T07:32:49Z"
    }
  ]
}
}
```





2022-01-07T07:56:07.694Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
    "inquiredSpectrum": [
      {
        "highFrequency": 3630000000,
        "lowFrequency": 3620000000
      },
      {
        "highFrequency": 3630000000,
        "lowFrequency": 3620000000
      }
    ]
  }
]
```

}  
2022-01-07T07:56:07.694Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0

2022-01-07T07:56:07.694Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0

2022-01-07T07:56:07.694Z - INFO - engine sent successfully, the response to CBRS : {

```
"spectrumInquiryResponse": [
  {
    "availableChannel": [
      {
        "channelType": "GAA",
        "frequencyRange": {
          "highFrequency": 3630000000,
          "lowFrequency": 3620000000
        },
        "maxEirp": 36,
        "ruleApplied": "FCC_PART_96"
      },
      {
        "channelType": "GAA",
        "frequencyRange": {
          "highFrequency": 3630000000,
          "lowFrequency": 3620000000
        },
        "maxEirp": 36,
        "ruleApplied": "FCC_PART_96"
      }
    ],
    "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
    "response": {
      "responseCode": 0
    }
  }
]
```

}  
2022-01-07T07:56:07.724Z - INFO - grant request from CBRS : {

```
"grantRequest": [
  {
    "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
    "operationParam": {
      "maxEirp": 21,
      "operationFrequencyRange": {
```

```
        "highFrequency": 3630000000,
        "lowFrequency": 3620000000
    }
}
]
}
2022-01-07T07:56:07.724Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "channelType": "GAA",
      "grantExpireTime": "2022-01-14T07:56:07Z",
      "grantId": "792578997",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-07T07:56:07.835Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "792578997",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-01-07T07:56:07.835Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "792578997",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T07:59:27Z"
    }
  ]
}
2022-01-07T07:56:47.934Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "792578997",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T07:56:47.934Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "792578997",
```

```
        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2022-01-07T08:00:07Z"
    }
]
}
2022-01-07T07:57:28.016Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "792578997",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2022-01-07T07:57:28.016Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "792578997",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2022-01-07T08:00:48Z"
        }
    ]
}
2022-01-07T07:58:08.101Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "792578997",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2022-01-07T07:58:08.101Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "792578997",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2022-01-07T08:01:28Z"
        }
    ]
}
2022-01-07T07:58:48.187Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "792578997",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
```

```
    }
  ]
}
2022-01-07T07:58:48.187Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "792578997",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T08:02:08Z"
    }
  ]
}
2022-01-07T07:59:28.267Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "792578997",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T07:59:28.267Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "792578997",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T08:02:48Z"
    }
  ]
}
2022-01-07T08:00:08.348Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "792578997",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T08:00:08.362Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "792578997",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T08:03:28Z"
    }
  ]
}
```

```
}
2022-01-07T08:00:48.440Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "792578997",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T08:00:48.440Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "792578997",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T08:04:08Z"
    }
  ]
}
2022-01-07T08:01:19.798Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "792578997"
    }
  ]
}
2022-01-07T08:01:19.798Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "792578997",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-07T08:01:19.891Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001"
    }
  ]
}
2022-01-07T08:01:19.907Z - INFO - engine sent successfully, the response to CBRS : {
  "deregistrationResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
```

```

}
2022-01-07T08:01:20.361Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA",
        "supportedSpec": "FFS"
      },
      "callSign": "",
      "cbsdCategory": "B",
      "cbsdSerialNumber": "2107CW5000001",
      "cpiSignatureData": {
        "digitalSignature":
"CUSZD2eCbX-zp7v1gsFJXKXSHFsm4FalASFIWLBnquMats7Hrfi_UMfzFXQTthJOpePg7bkvnZV7dTfMw
wm5GJfIjEiAoF7UjX0ZL7aFS8CmruuME2R_SKWCbMptr6MHGkaTc3oVag1I2PQ63UuN3iNVolZSRxrlIwaW
ed3rbg8oWmzkFx0rQwpG6q4_HW-74kysBhDI9QJ6x7livfMrY24-6d8JOxffGFSX6OyF7Y4RU2SlqFvIx7qdF-
Hezj96eOzGIC8oU9cZiZGHZUitwGpdpoAfR-xO2tXOCQgVEpAQJQo3i7utgitQoUDTk55miEBzs2jfHPHBZK
EjRQ6QA",
        "encodedCpiSignedData":
"eyJpbN0YwxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGI0eSI6NDYslmhlaWdodFR5cGUiOiJBTvNMIi
wiYW50ZW5uYUdhaW4iOjEwLkJob3Jpem9udGFsQWNjdXJhY3kiOjMslmFudGVubmFEb3dudGlsdCI6MC
wiYW50ZW5uYUJlYW13aWR0aCI6MzYwLkJoZWlnaHQiOjE4LkCjZlZlJ0aWNhbEFjY3VyYWN5ljozLCJhbn
Rlbn5hQXppbXV0aCI6MCwibG9uZ2l0dWRlljotMTA1LjAyNDU5NCwiaW5kb29yRGVwbG95bWVudCI6ZmF
sc2UsImxhdGloZWlljozMS4zMdIwMX0slmZjY0kljoiZmVtdG8uaSlmInByb2Zlc3Npb25hbEluc3RhbGxlckRh
dGEiOnsiY3BpTmFtZSI6lilslmluc3RhbGxDZXJ0aWZpY2F0aW9uVGltZSI6ljlwMjltMDEtMDVUMTA6NDU6N
TYuMDg1MDAwWilsImNwaUlkljoiIn0slmNic2RTZXJpYWxOdW1iZXliOiJlZlZlJjY21tLTE5MTJDVzUzMDAwM
DE2In0",
        "protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"
      },
      "fccId": "P27-SCO4255P",
      "groupingParam": [
        {
          "groupId": "SERCOMM_111",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "XywyE9"
    }
  ]
}
2022-01-07T08:01:20.391Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-07T08:01:20.470Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "inquiredSpectrum": [

```

```

    {
      "highFrequency": 3630000000,
      "lowFrequency": 3620000000
    },
    {
      "highFrequency": 3630000000,
      "lowFrequency": 3620000000
    }
  ]
}
]
}
2022-01-07T08:01:20.486Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2022-01-07T08:01:20.486Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2022-01-07T08:01:20.486Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3630000000,
            "lowFrequency": 3620000000
          },
          "maxEirp": 36,
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3630000000,
            "lowFrequency": 3620000000
          },
          "maxEirp": 36,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-07T08:01:20.500Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "operationParam": {
        "maxEirp": 21,
        "operationFrequencyRange": {
          "highFrequency": 3630000000,
          "lowFrequency": 3620000000
        }
      }
    }
  ]
}

```

```
]
}
2022-01-07T08:01:20.516Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "channelType": "GAA",
      "grantExpireTime": "2022-01-14T08:01:20Z",
      "grantId": "88320580",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-07T08:01:20.579Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "88320580",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-01-07T08:01:20.579Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "88320580",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T08:04:40Z"
    }
  ]
}
}
```



### 6.9 WINNF.PT.C.HBT.1(Max Eirp = -2 dBm/MHz)(Bandwidth 20M)

2022-01-07T09:39:46.052Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2022-01-07T09:39:46.052Z - INFO - Selected spectrum frequency is {'lowFrequency': 361500000L, 'highFrequency': 3635000000L}

2022-01-07T09:39:46.052Z - INFO - Granted Spectrum Max Eirp = -2dBm/MHz

2022-01-07T09:39:46.052Z - INFO - the selected test from the user : PowerMeasTest is starting now

2022-01-07T09:39:51.881Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "E\_UTRA",

"supportedSpec": "FFS"

},

"callSign": "",

"cbsdCategory": "B",

"cbsdSerialNumber": "2107CW5000001",

"cpiSignatureData": {

"digitalSignature":

"CUSZD2eCbX-zp7v1gsFJXKXSHFsm4FalASFIWLBnquMats7Hrfi\_UMfzFXQTthJOpePg7bkvnZV7dTFmw  
wm5GJFijEiAoF7UjX0ZL7aFS8CmruuME2R\_SKWCbMptr6MHGkaTc3oVag1I2PQ63UuN3iNVolZSRxrlIwaW  
ed3rbg8oWmzkFx0rQwpG6q4\_HW-74kysBhDI9QJ6x7livfMrY24-6d8JOxffGFSX6OyF7Y4RU2SlqFvIx7qdF-  
Hezj96eOzGIC8oU9cZiZGHzUitwGpdpoAfr-xO2tXOCQqGVEpAQJQo3i7utgitQoUDTk55miEBzs2jfHPHBZK  
EjRQ6QA",

"encodedCpiSignedData":

"eyJpbN0YWxsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGI0eSI6NDYslmhlaWdodFR5cGUiOiJBTvNMli  
wiYW50ZW5uYUdhaW4iOjEwLCJob3Jpem9udGFsQWNjdXJhY3kiOjMslmFudGVubmFEb3dudGlscCI6MC  
wiYW50ZW5uYUJiYW13aWR0aCI6MzYwLkJoZWlnaHQiOjE4LkZ2ZXJ0aWNhbEFjY3VyYWN5ljozLkxhbn  
Rlbn5hQXppbXV0aCI6MzYwLkJoZWlnaHQiOjE4LkZ2ZXJ0aWNhbEFjY3VyYWN5ljozLkxhbnRlbn5h  
sc2UsImxhdGl0dWRlljozMS4zMdIwMX0slmZjY0kljoiZmVtdG8uaSlnByb2Zlc3Npb25hbEluc3RhbGxlckRh  
dGEiOnsiY3BpTmFtZSI6lilslmluc3RhbGxDZXJ0aWZpY2F0aW9uVGltZSI6ljlwMjltMDEtMDVUMTA6NDU6N  
TYuMDg1MDAwWilsImNwaUlkljoiIn0slmNic2RTZXJpYWxOdW1iZXliOiJtZXJjb21tLTE5MTJDVzUzMDAwM  
DE2In0",

"protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "P27-SCO4255P",

"groupingParam": [

{

"groupId": "SERCOMM\_111",

"groupType": "INTERFERENCE\_COORDINATION"

}

],

"measCapability": [

"RECEIVED\_POWER\_WITHOUT\_GRANT"

],

"userId": "XywyE9"

}

]

}

2022-01-07T09:39:51.911Z - INFO - engine sent successfully, the response to CBRS : {

"registrationResponse": [

{

"cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",

"response": {

"responseCode": 0

}

}

]

}

2022-01-07T09:39:51.990Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
    "inquiredSpectrum": [
      {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      },
      {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      }
    ]
  }
]
```

}  
 2022-01-07T09:39:51.990Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0

2022-01-07T09:39:51.990Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0

2022-01-07T09:39:51.990Z - INFO - engine sent successfully, the response to CBRS : {

```
"spectrumInquiryResponse": [
  {
    "availableChannel": [
      {
        "channelType": "GAA",
        "frequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        },
        "maxEirp": -2,
        "ruleApplied": "FCC_PART_96"
      },
      {
        "channelType": "GAA",
        "frequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        },
        "maxEirp": -2,
        "ruleApplied": "FCC_PART_96"
      }
    ],
    "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
    "response": {
      "responseCode": 0
    }
  }
]
```

}  
 2022-01-07T09:39:52.052Z - INFO - grant request from CBRS : {

```
"grantRequest": [
  {
    "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
    "operationParam": {
      "maxEirp": -17,
      "operationFrequencyRange": {
```

```
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
    }
}
]
}
2022-01-07T09:39:52.052Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "channelType": "GAA",
      "grantExpireTime": "2022-01-14T09:39:52Z",
      "grantId": "726412331",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-07T09:39:52.145Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "726412331",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-01-07T09:39:52.145Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "726412331",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T09:43:12Z"
    }
  ]
}
2022-01-07T09:40:32.243Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "726412331",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T09:40:32.243Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "726412331",
```

```
        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2022-01-07T09:43:52Z"
    }
]
}
2022-01-07T09:41:12.328Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "726412331",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2022-01-07T09:41:12.328Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "726412331",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2022-01-07T09:44:32Z"
        }
    ]
}
2022-01-07T09:41:52.408Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "726412331",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2022-01-07T09:41:52.408Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "726412331",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2022-01-07T09:45:12Z"
        }
    ]
}
2022-01-07T09:42:32.493Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "726412331",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
```

```
    }
  ]
}
2022-01-07T09:42:32.509Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "726412331",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T09:45:52Z"
    }
  ]
}
2022-01-07T09:43:12.578Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "726412331",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T09:43:12.595Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "726412331",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T09:46:32Z"
    }
  ]
}
2022-01-07T09:43:52.657Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "726412331",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T09:43:52.674Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "726412331",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T09:47:12Z"
    }
  ]
}
```

```
}
2022-01-07T09:44:32.750Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "726412331",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T09:44:32.750Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "726412331",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T09:47:52Z"
    }
  ]
}
2022-01-07T09:45:06.161Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "726412331"
    }
  ]
}
2022-01-07T09:45:06.161Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "726412331",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-07T09:45:06.191Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001"
    }
  ]
}
2022-01-07T09:45:06.191Z - INFO - engine sent successfully, the response to CBRS : {
  "deregistrationResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
```



```

    {
      "highFrequency": 3635000000,
      "lowFrequency": 3615000000
    },
    {
      "highFrequency": 3635000000,
      "lowFrequency": 3615000000
    }
  ]
}
]
}
2022-01-07T09:45:06.691Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2022-01-07T09:45:06.691Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2022-01-07T09:45:06.691Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "maxEirp": -2,
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "maxEirp": -2,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-07T09:45:06.739Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "operationParam": {
        "maxEirp": -17,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}

```



```
]
}
2022-01-07T09:45:06.753Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "channelType": "GAA",
      "grantExpireTime": "2022-01-14T09:45:06Z",
      "grantId": "445498199",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-07T09:45:06.816Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "445498199",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-01-07T09:45:06.816Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "445498199",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T09:48:26Z"
    }
  ]
}
}
```



```
    }
  ]
}
2022-01-07T08:51:16.221Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "inquiredSpectrum": [
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        },
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      ]
    }
  ]
}
2022-01-07T08:51:16.221Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2022-01-07T08:51:16.221Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2022-01-07T08:51:16.221Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "maxEirp": 17,
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "maxEirp": 17,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-07T08:51:16.236Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
```

```
        "operationParam": {
            "maxEirp": 2,
            "operationFrequencyRange": {
                "highFrequency": 3635000000,
                "lowFrequency": 3615000000
            }
        }
    ]
}
2022-01-07T08:51:16.236Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "channelType": "GAA",
            "grantExpireTime": "2022-01-14T08:51:16Z",
            "grantId": "461938541",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2022-01-07T08:51:16.299Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "461938541",
            "grantRenew": false,
            "operationState": "GRANTED"
        }
    ]
}
2022-01-07T08:51:16.315Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "461938541",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2022-01-07T08:54:36Z"
        }
    ]
}
2022-01-07T08:51:56.423Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "461938541",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2022-01-07T08:51:56.438Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
```

```
{
  {
    "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
    "grantId": "461938541",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2022-01-07T08:55:16Z"
  }
]
}
2022-01-07T08:52:36.525Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T08:52:36.525Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T08:55:56Z"
    }
  ]
}
2022-01-07T08:53:16.592Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T08:53:16.607Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T08:56:36Z"
    }
  ]
}
2022-01-07T08:53:56.671Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
```

```
        "grantId": "461938541",
        "grantRenew": false,
        "operationState": "AUTHORIZED"
    }
]
}
2022-01-07T08:53:56.687Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T08:57:16Z"
    }
  ]
}
2022-01-07T08:54:36.772Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T08:54:36.772Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T08:57:56Z"
    }
  ]
}
2022-01-07T08:55:16.854Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T08:55:16.854Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T08:57:56Z"
    }
  ]
}
```

```
        "transmitExpireTime": "2022-01-07T08:58:36Z"
    }
]
}
2022-01-07T08:55:56.930Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "461938541",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2022-01-07T08:55:56.946Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "461938541",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2022-01-07T08:59:16Z"
        }
    ]
}
2022-01-07T08:56:37.013Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "461938541",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2022-01-07T08:56:37.013Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "461938541",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2022-01-07T08:59:57Z"
        }
    ]
}
2022-01-07T08:57:17.094Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "461938541",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
}
```

```
2022-01-07T08:57:17.094Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T09:00:37Z"
    }
  ]
}
2022-01-07T08:57:57.173Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T08:57:57.188Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T09:01:17Z"
    }
  ]
}
2022-01-07T08:58:37.273Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T08:58:37.273Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T09:01:57Z"
    }
  ]
}
2022-01-07T08:59:17.354Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
```



```
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T08:59:17.354Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T09:02:37Z"
    }
  ]
}
2022-01-07T08:59:57.433Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T08:59:57.447Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T09:03:17Z"
    }
  ]
}
2022-01-07T09:00:37.519Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T09:00:37.533Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "response": {
```

```
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T09:03:57Z"
    }
  ]
}
2022-01-07T09:01:17.598Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T09:01:17.614Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T09:04:37Z"
    }
  ]
}
2022-01-07T09:01:57.678Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T09:01:57.678Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T09:05:17Z"
    }
  ]
}
2022-01-07T09:02:37.765Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
```

```
]
}
2022-01-07T09:02:37.765Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T09:05:57Z"
    }
  ]
}
2022-01-07T09:03:17.845Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T09:03:17.845Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T09:06:37Z"
    }
  ]
}
2022-01-07T09:03:57.908Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T09:03:57.924Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T09:07:17Z"
    }
  ]
}
}
```

```
2022-01-07T09:04:37.994Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T09:04:38.010Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T09:07:58Z"
    }
  ]
}
2022-01-07T09:05:18.092Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T09:05:18.092Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T09:08:38Z"
    }
  ]
}
2022-01-07T09:05:58.171Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "461938541",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T09:05:58.171Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
```

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        "grantId": "461938541",
        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2022-01-07T09:09:18Z"
    }
]
}
2022-01-07T09:06:38.239Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "461938541",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2022-01-07T09:06:38.255Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "461938541",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2022-01-07T09:09:58Z"
        }
    ]
}
2022-01-07T09:07:18.322Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "461938541",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2022-01-07T09:07:18.322Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "461938541",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2022-01-07T09:10:38Z"
        }
    ]
}
2022-01-07T09:07:21.211Z - INFO - relinquishment request from CBRS : {
    "relinquishmentRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "461938541"
        }
    ]
}
```



```

    "fccId": "P27-SCO4255P",
    "groupingParam": [
      {
        "groupId": "SERCOMM_111",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "XywyE9"
  }
]
}
2022-01-07T09:07:21.697Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-07T09:07:21.759Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "inquiredSpectrum": [
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        },
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      ]
    }
  ]
}
2022-01-07T09:07:21.759Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2022-01-07T09:07:21.759Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2022-01-07T09:07:21.759Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "maxEirp": 17,
          "ruleApplied": "FCC_PART_96"
        }
      ],
    }
  ],
}

```

```
        {
            "channelType": "GAA",
            "frequencyRange": {
                "highFrequency": 3635000000,
                "lowFrequency": 3615000000
            },
            "maxEirp": 17,
            "ruleApplied": "FCC_PART_96"
        }
    ],
    "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
    "response": {
        "responseCode": 0
    }
}
]
}
2022-01-07T09:07:21.805Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "operationParam": {
                "maxEirp": 2,
                "operationFrequencyRange": {
                    "highFrequency": 3635000000,
                    "lowFrequency": 3615000000
                }
            }
        }
    ]
}
2022-01-07T09:07:21.822Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "channelType": "GAA",
            "grantExpireTime": "2022-01-14T09:07:21Z",
            "grantId": "635669541",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2022-01-07T09:07:21.900Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "635669541",
            "grantRenew": false,
            "operationState": "GRANTED"
        }
    ]
}
2022-01-07T09:07:21.900Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
```



```
"cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",  
"grantId": "635669541",  
"response": {  
  "responseCode": 0  
},  
"transmitExpireTime": "2022-01-07T09:10:41Z"
```

```
}
```

```
]
```

```
}
```



```
    }
  ]
}
2022-01-07T06:06:06.240Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "inquiredSpectrum": [
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        },
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      ]
    }
  ]
}
2022-01-07T06:06:06.240Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2022-01-07T06:06:06.240Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2022-01-07T06:06:06.240Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "maxEirp": 36,
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "maxEirp": 36,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-07T06:06:06.256Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
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        "operationParam": {
            "maxEirp": 21,
            "operationFrequencyRange": {
                "highFrequency": 3635000000,
                "lowFrequency": 3615000000
            }
        }
    ]
}
2022-01-07T06:06:06.273Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "channelType": "GAA",
            "grantExpireTime": "2022-01-14T06:06:06Z",
            "grantId": "672336695",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2022-01-07T06:06:06.381Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "672336695",
            "grantRenew": false,
            "operationState": "GRANTED"
        }
    ]
}
2022-01-07T06:06:06.398Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "672336695",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2022-01-07T06:09:26Z"
        }
    ]
}
2022-01-07T06:06:46.490Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "672336695",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2022-01-07T06:06:46.490Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
```

```
{
  {
    "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
    "grantId": "672336695",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2022-01-07T06:10:06Z"
  }
]
}
2022-01-07T06:07:26.563Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "672336695",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T06:07:26.578Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "672336695",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T06:10:46Z"
    }
  ]
}
2022-01-07T06:08:06.651Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "672336695",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T06:08:06.665Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "672336695",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T06:11:26Z"
    }
  ]
}
2022-01-07T06:08:46.743Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
```

```
        "grantId": "672336695",
        "grantRenew": false,
        "operationState": "AUTHORIZED"
    }
]
}
2022-01-07T06:08:46.743Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "672336695",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T06:12:06Z"
    }
  ]
}
2022-01-07T06:09:26.842Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "672336695",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T06:09:26.842Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "672336695",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2022-01-07T06:12:46Z"
    }
  ]
}
2022-01-07T06:10:06.914Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "672336695",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2022-01-07T06:10:06.930Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "672336695",
      "response": {
        "responseCode": 0
      },
    }
  ]
}
```

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        "transmitExpireTime": "2022-01-07T06:13:26Z"
    }
]
}
2022-01-07T06:10:47.006Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "672336695",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2022-01-07T06:10:47.006Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "672336695",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2022-01-07T06:14:07Z"
        }
    ]
}
}
2022-01-07T06:11:27.088Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "672336695",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
}
2022-01-07T06:11:27.088Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "672336695",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2022-01-07T06:14:47Z"
        }
    ]
}
}
2022-01-07T06:11:35.450Z - INFO - relinquishment request from CBRS : {
    "relinquishmentRequest": [
        {
            "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
            "grantId": "672336695"
        }
    ]
}
}
2022-01-07T06:11:35.467Z - INFO - engine sent successfully, the response to CBRS : {
    "relinquishmentResponse": [
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    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "672336695",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-07T06:11:35.513Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001"
    }
  ]
}
2022-01-07T06:11:35.513Z - INFO - engine sent successfully, the response to CBRS : {
  "deregistrationResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-07T06:11:35.888Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA",
        "supportedSpec": "FFS"
      },
      "callSign": "",
      "cbsdCategory": "B",
      "cbsdSerialNumber": "2107CW5000001",
      "cpiSignatureData": {
        "digitalSignature":
"CUSZD2eCbX-zp7v1gsFJXKXSHFsm4FalASFIWLBnQuMats7Hrfi_UMfzFXQTthJOpePg7bkvnZV7dTfMw
wm5GJfIjEiAoF7UjX0ZL7aFS8CmruuME2R_SKWCbMptr6MHGkaTc3oVag1I2PQ63UuN3iNVolZSRxrlIwaW
ed3rbg8oWmzkFx0RqwpG6q4_HW-74kysBhDI9QJ6x7livfMrY24-6d8JOxffGFSX6OyF7Y4RU2SlqFvIx7qdF-
Hezj96eOzGIC8oU9cZiZGHZUitwGpdpoAfR-xO2tXOCoqGVEpAQJQo3i7utgitQoUDTK55miEBzs2jfHPHBZK
EjRQ6QA",
        "encodedCpiSignedData":
"eyJpbN0YwXsYXRpb25QYXJhbSI6eyJlaXJwQ2FwYWJpbGI0eSI6NDYslmhlaWdodFR5cGUiOiJBTvNMIi
wiYW50ZW5uYUdhaW4iOjEwLzI0dWRlljotMTA1LjAyNDA5NCwiaW5kb29yRGVwbG95bWVudCI6ZmF
sc2UsImxhdGloZWVudWRlljotMS4zMDIwMX0sImZjY0kljoiZmVtdG8uaSlnByb2Zlc3Npb25hbEluc3RhbGxckRh
dGEiOnsiY3BpTmFtZSI6IiIsImIuc3RhbGxDZXJ0aWZpY2F0aW9uVGI6IiJlMDEtMDVUMTA6NDU6N
TYuMDg1MDAwWilsImNwaUlkljoiIn0sImNic2RTZXJpYWwOdW1iZXliOiJtZXJjb21tLTE5MTJDVzUzMDAwM
DE2In0",
        "protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"
      },
      "fccId": "P27-SCO4255P",
      "groupingParam": [
        {
          "groupId": "SERCOMM_111",

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    "groupType": "INTERFERENCE_COORDINATION"
  }
],
"measCapability": [
  "RECEIVED_POWER_WITHOUT_GRANT"
],
"userId": "XywyE9"
}
]
}
2022-01-07T06:11:35.920Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-07T06:11:35.967Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "inquiredSpectrum": [
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        },
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      ]
    }
  ]
}
2022-01-07T06:11:35.982Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2022-01-07T06:11:35.982Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2022-01-07T06:11:35.982Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "maxEirp": 36,
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,

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        "lowFrequency": 3615000000
      },
      "maxEirp": 36,
      "ruleApplied": "FCC_PART_96"
    }
  ],
  "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
  "response": {
    "responseCode": 0
  }
}
]
}
2022-01-07T06:11:36.029Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "operationParam": {
        "maxEirp": 21,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2022-01-07T06:11:36.029Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "channelType": "GAA",
      "grantExpireTime": "2022-01-14T06:11:36Z",
      "grantId": "541695449",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2022-01-07T06:11:36.092Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "541695449",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2022-01-07T06:11:36.092Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "P27-SCO4255PMock-SAS2107CW5000001",
      "grantId": "541695449",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

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    },  
    "transmitExpireTime": "2022-01-07T06:14:56Z"  
  }  
]  
}
```