

Test Logs

FCC ID: VUIPR1450-48

Test Model: PR1450-48I

Series Model: PR1450-48E

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1 CBSD Registration Process

1.1 WINNF.FT.D.REG.2

2024-12-31T07:47:13.375Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-31T07:47:13.377Z - INFO - the selected test from the user : WINNF.FT.D.REG.2 is starting now

2024-12-31T07:47:38.904Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
      "hardwareVersion": "1.1",
      "model": "PR1450-48E",
      "softwareVersion": "2.1.0",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823634126",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
      {
        "groupId": "group1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 30,
      "antennaDowntilt": 3,
      "antennaGain": 4,
      "antennaModel": "Wire_dipole",
      "eirpCapability": 30,
      "height": 12.0,
      "heightType": "AGL",
      "horizontalAccuracy": 45.0,
      "indoorDeployment": true,
      "latitude": 37.425056,
      "longitude": -22.084113,
      "verticalAccuracy": 2.0
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
  },
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
```

```

        "firmwareVersion": "1.0.2.2p2",
        "hardwareVersion": "1.1",
        "model": "PR1450-48l",
        "softwareVersion": "2.1.0",
        "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823956047",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
        {
            "groupId": "group1",
            "groupType": "INTERFERENCE_COORDINATION"
        }
    ],
    "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 30,
        "antennaDowntilt": 3,
        "antennaGain": 9,
        "antennaModel": "Wire_dipole",
        "eirpCapability": 30,
        "height": 12.0,
        "heightType": "AGL",
        "horizontalAccuracy": 45.0,
        "indoorDeployment": true,
        "latitude": 37.425056,
        "longitude": -22.084113,
        "verticalAccuracy": 2.0
    },
    "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
    }
]
}
2024-12-31T07:47:39.018Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "response": {
                "responseCode": 0
            }
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2024-12-31T07:47:40.407Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-31T07:47:40.408Z - INFO - the question is : Were there RF transmissions from the CBSD2 during
the test? please choose one of the answers :
2024-12-31T07:47:46.469Z - INFO - for the question : Were there RF transmissions from the CBSD2 during
the test? , the user choose n
2024-12-31T07:47:46.470Z - INFO - the question is : Were there RF transmissions from the CBSD1 during

```

the test? please choose one of the answers :

2024-12-31T07:47:49.558Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2024-12-31T07:47:50.680Z - INFO - The final result of the test : WINNF.FT.D.REG.2 is - passed

1.2 WINNF.FT.D.REG.4

2024-12-31T07:45:41.112Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-31T07:45:41.113Z - INFO - the selected test from the user : WINNF.FT.D.REG.4 is starting now

2024-12-31T07:45:51.895Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "1.0.2.2p2",
        "hardwareVersion": "1.1",
        "model": "PR1450-48E",
        "softwareVersion": "2.1.0",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "D823634126",
      "fccId": "VUIPR1450-48",
      "groupingParam": [
        {
          "groupId": "group1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 30,
        "antennaDowntilt": 3,
        "antennaGain": 4,
        "antennaModel": "Wire_dipole",
        "eirpCapability": 30,
        "height": 12.0,
        "heightType": "AGL",
        "horizontalAccuracy": 45.0,
        "indoorDeployment": true,
        "latitude": 37.425056,
        "longitude": -22.084113,
        "verticalAccuracy": 2.0
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "PEGATRON"
    },
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "1.0.2.2p2",
        "hardwareVersion": "1.1",
        "model": "PR1450-48I",
        "softwareVersion": "2.1.0",

```

```

        "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823956047",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
        {
            "groupId": "group1",
            "groupType": "INTERFERENCE_COORDINATION"
        }
    ],
    "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 30,
        "antennaDowntilt": 3,
        "antennaGain": 9,
        "antennaModel": "Wire_dipole",
        "eirpCapability": 30,
        "height": 12.0,
        "heightType": "AGL",
        "horizontalAccuracy": 45.0,
        "indoorDeployment": true,
        "latitude": 37.425056,
        "longitude": -22.084113,
        "verticalAccuracy": 2.0
    },
    "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
    }
]
}
2024-12-31T07:45:52.024Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "response": {
                "responseCode": 0
            }
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2024-12-31T07:45:53.127Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-31T07:45:53.127Z - INFO - the question is : Were there RF transmissions from the CBSD2 during the
test? please choose one of the answers :
2024-12-31T07:46:10.570Z - INFO - for the question : Were there RF transmissions from the CBSD2 during
the test? , the user choose n
2024-12-31T07:46:10.570Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the
test? please choose one of the answers :
2024-12-31T07:46:12.492Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2024-12-31T07:46:13.108Z - INFO - The final result of the test : WINNF.FT.D.REG.4 is - passed

```



```
2024-12-31T07:50:42.969Z - INFO - Registration message contains spiSignatureData
2024-12-31T07:50:42.971Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}
2024-12-31T07:50:42.971Z - INFO - encodedCpiSignedData contents = {
    "installationParam": {
        "eirpCapability": 30.0,
        "antennaAzimuth": 240,
        "heightType": "AGL",
        "antennaModel": "Wire_dipole",
        "longitude": -22.084113,
        "height": 12.0,
        "indoorDeployment": true,
        "antennaBeamwidth": 30,
        "horizontalAccuracy": 45.0,
        "antennaDowntilt": 3,
        "latitude": 37.425056,
        "antennaGain": 4.0,
        "verticalAccuracy": 2.0
    },
    "fccId": "VUIPR1450-48",
    "professionalInstallerData": {
```

```

        "cpiName": "Pega_Bob",
        "installCertificationTime": "2024-11-05T07:42:46Z",
        "cpild": "123456789"
    },
    "cbdsdSerialNumber": "VUIPR1450-48"
}
2024-12-31T07:50:43.060Z - INFO - verified signature on cpiSignatureData
2024-12-31T07:50:43.062Z - INFO - cbdsdCategory= 'A', removing optional param from cpi_schema
2024-12-31T07:50:43.067Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-12-31T07:50:43.100Z - INFO - Registration message contains cpiSignatureData
2024-12-31T07:50:43.101Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}
2024-12-31T07:50:43.101Z - INFO - encodedCpiSignedData contents = {
    "installationParam": {
        "eirpCapability": 30.0,
        "antennaAzimuth": 240,
        "heightType": "AGL",
        "antennaModel": "Wire_dipole",
        "longitude": -22.084113,
        "height": 12.0,
        "indoorDeployment": true,
        "antennaBeamwidth": 30,
        "horizontalAccuracy": 45.0,
        "antennaDowntilt": 3,
        "latitude": 37.425056,
        "antennaGain": 9.0,
        "verticalAccuracy": 2.0
    },
    "fcclId": "VUIPR1450-48",
    "professionalInstallerData": {
        "cpiName": "Pega_Bob",
        "installCertificationTime": "2024-11-05T07:42:46Z",
        "cpild": "123456789"
    },
    "cbdsdSerialNumber": "VUIPR1450-48"
}
2024-12-31T07:50:43.103Z - INFO - verified signature on cpiSignatureData
2024-12-31T07:50:43.103Z - INFO - cbdsdCategory= 'A', removing optional param from cpi_schema
2024-12-31T07:50:43.111Z - INFO - cpiSignatureData data successfully validated against jsonschema
2024-12-31T07:50:43.113Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbdsdId": "VUIPR1450-48Mock-SASD823634126",
            "response": {
                "responseCode": 0
            }
        },
        {
            "cbdsdId": "VUIPR1450-48Mock-SASD823956047",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2024-12-31T07:50:44.903Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-31T07:50:44.904Z - INFO - the question is : Were there RF transmissions from the CBSD2 during the test? please choose one of the answers :
2024-12-31T07:50:54.608Z - INFO - for the question : Were there RF transmissions from the CBSD2 during

```

the test? , the user choose n

2024-12-31T07:50:54.609Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2024-12-31T07:50:58.199Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2024-12-31T07:50:58.975Z - INFO - The final result of the test : WINNF.FT.D.REG.6 is - passed

1.4 WINNF.FT.C.REG.9

2024-12-31T07:51:48.299Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-31T07:51:48.300Z - INFO - the selected test from the user : WINNF.FT.D.REG.9 is starting now

2024-12-31T07:51:55.937Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
      "hardwareVersion": "1.1",
      "model": "PR1450-48E",
      "softwareVersion": "2.1.0",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823634126",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
      {
        "groupId": "group1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 30,
      "antennaDowntilt": 3,
      "antennaGain": 4,
      "antennaModel": "Wire_dipole",
      "eirpCapability": 30,
      "height": 12.0,
      "heightType": "AGL",
      "horizontalAccuracy": 45.0,
      "indoorDeployment": true,
      "latitude": 37.425056,
      "longitude": -22.084113,
      "verticalAccuracy": 2.0
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
  },
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
      "hardwareVersion": "1.1",
      "model": "PR1450-48I",
      "softwareVersion": "2.1.0",
```

```

        "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823956047",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
        {
            "groupId": "group1",
            "groupType": "INTERFERENCE_COORDINATION"
        }
    ],
    "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 30,
        "antennaDowntilt": 3,
        "antennaGain": 9,
        "antennaModel": "Wire_dipole",
        "eirpCapability": 30,
        "height": 12.0,
        "heightType": "AGL",
        "horizontalAccuracy": 45.0,
        "indoorDeployment": true,
        "latitude": 37.425056,
        "longitude": -22.084113,
        "verticalAccuracy": 2.0
    },
    "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
    }
]
}
2024-12-31T07:51:56.072Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "response": {
                "responseCode": 102
            }
        },
        {
            "response": {
                "responseCode": 102
            }
        }
    ]
}
2024-12-31T07:51:57.310Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-31T07:51:57.310Z - INFO - the question is : Were there RF transmissions from the CBSD2 during
the test? please choose one of the answers :
2024-12-31T07:52:08.650Z - INFO - for the question : Were there RF transmissions from the CBSD2 during
the test? , the user choose n
2024-12-31T07:52:08.650Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2024-12-31T07:52:10.159Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2024-12-31T07:52:10.609Z - INFO - The final result of the test : WINNF.FT.D.REG.9 is - passed

```

1.5 WINNF.FT.C.REG.11

2024-12-31T07:52:57.696Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-31T07:52:57.696Z - INFO - the selected test from the user : WINNF.FT.D.REG.11 is starting now

2024-12-31T07:53:02.915Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
      "hardwareVersion": "1.1",
      "model": "PR1450-48E",
      "softwareVersion": "2.1.0",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823634126",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
      {
        "groupId": "group1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 30,
      "antennaDowntilt": 3,
      "antennaGain": 4,
      "antennaModel": "Wire_dipole",
      "eirpCapability": 30,
      "height": 12.0,
      "heightType": "AGL",
      "horizontalAccuracy": 45.0,
      "indoorDeployment": true,
      "latitude": 37.425056,
      "longitude": -22.084113,
      "verticalAccuracy": 2.0
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
  },
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
      "hardwareVersion": "1.1",
      "model": "PR1450-48I",
      "softwareVersion": "2.1.0",
```

```

        "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823956047",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
        {
            "groupId": "group1",
            "groupType": "INTERFERENCE_COORDINATION"
        }
    ],
    "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 30,
        "antennaDowntilt": 3,
        "antennaGain": 9,
        "antennaModel": "Wire_dipole",
        "eirpCapability": 30,
        "height": 12.0,
        "heightType": "AGL",
        "horizontalAccuracy": 45.0,
        "indoorDeployment": true,
        "latitude": 37.425056,
        "longitude": -22.084113,
        "verticalAccuracy": 2.0
    },
    "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
    }
]
}
2024-12-31T07:53:03.049Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "response": {
                "responseCode": 200
            }
        },
        {
            "response": {
                "responseCode": 200
            }
        }
    ]
}
2024-12-31T07:53:04.707Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-31T07:53:04.707Z - INFO - the question is : Were there RF transmissions from the CBSD2 during
the test? please choose one of the answers :
2024-12-31T07:53:11.435Z - INFO - for the question : Were there RF transmissions from the CBSD2 during
the test? , the user choose n
2024-12-31T07:53:11.435Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2024-12-31T07:53:12.419Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2024-12-31T07:53:12.964Z - INFO - The final result of the test : WINNF.FT.D.REG.11 is - passed

```

1.6 WINNF.FT.C.REG.13

2024-12-31T07:58:45.568Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-31T07:58:45.569Z - INFO - the selected test from the user : WINNF.FT.D.REG.13 is starting now

2024-12-31T07:58:53.929Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
      "hardwareVersion": "1.1",
      "model": "PR1450-48E",
      "softwareVersion": "2.1.0",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823634126",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
      {
        "groupId": "group1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 30,
      "antennaDowntilt": 3,
      "antennaGain": 4,
      "antennaModel": "Wire_dipole",
      "eirpCapability": 30,
      "height": 12.0,
      "heightType": "AGL",
      "horizontalAccuracy": 45.0,
      "indoorDeployment": true,
      "latitude": 37.425056,
      "longitude": -22.084113,
      "verticalAccuracy": 2.0
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
  }
]
```

2024-12-31T07:58:54.036Z - INFO - engine sent successfully, the response to CBRS : {

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

2024-12-31T07:58:55.922Z - INFO - registration request from CBRS : {

```

    "registrationRequest": [
      {
        "airInterface": {
          "radioTechnology": "NR"
        },
        "callSign": "CB987",
        "cbsdCategory": "A",
        "cbsdInfo": {
          "firmwareVersion": "1.0.2.2p2",
          "hardwareVersion": "1.1",
          "model": "PR1450-48I",
          "softwareVersion": "2.1.0",
          "vendor": "Pegatron"
        },
        "cbsdSerialNumber": "D823956047",
        "fccId": "VUIPR1450-48",
        "groupingParam": [
          {
            "groupId": "group1",
            "groupType": "INTERFERENCE_COORDINATION"
          }
        ],
        "installationParam": {
          "antennaAzimuth": 240,
          "antennaBeamwidth": 30,
          "antennaDowntilt": 3,
          "antennaGain": 9,
          "antennaModel": "Wire_dipole",
          "eirpCapability": 30,
          "height": 12.0,
          "heightType": "AGL",
          "horizontalAccuracy": 45.0,
          "indoorDeployment": true,
          "latitude": 37.425056,
          "longitude": -22.084113,
          "verticalAccuracy": 2.0
        },
        "measCapability": [
          "RECEIVED_POWER_WITHOUT_GRANT"
        ],
        "userId": "PEGATRON"
      }
    ]
  }

```

2024-12-31T07:58:56.029Z - INFO - engine sent successfully, the response to CBRS : {

```

    "registrationResponse": [
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823956047",
        "response": {
          "responseCode": 0
        }
      }
    ]
  }

```

2024-12-31T07:58:57.586Z - INFO - arrived to nstep starting question answer session with the technician

2024-12-31T07:58:57.587Z - INFO - the question is : Were there RF transmissions from the CBSD2 during the test? please choose one of the answers :

2024-12-31T07:59:00.326Z - INFO - for the question : Were there RF transmissions from the CBSD2 during the test? , the user choose n

2024-12-31T07:59:00.326Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2024-12-31T07:59:00.936Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2024-12-31T07:59:01.326Z - INFO - The final result of the test : WINNF.FT.D.REG.13 is - passed

1.7 WINNF.FT.C.REG.15

2024-12-31T08:01:14.844Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-31T08:01:14.844Z - INFO - the selected test from the user : WINNF.FT.D.REG.15 is starting now

2024-12-31T08:01:24.931Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
      "hardwareVersion": "1.1",
      "model": "PR1450-48E",
      "softwareVersion": "2.1.0",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823634126",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
      {
        "groupId": "group1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 30,
      "antennaDowntilt": 3,
      "antennaGain": 4,
      "antennaModel": "Wire_dipole",
      "eirpCapability": 30,
      "height": 12.0,
      "heightType": "AGL",
      "horizontalAccuracy": 45.0,
      "indoorDeployment": true,
      "latitude": 37.425056,
      "longitude": -22.084113,
      "verticalAccuracy": 2.0
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
  },
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
      "hardwareVersion": "1.1",
      "model": "PR1450-48I",
      "softwareVersion": "2.1.0",
```

```

    "vendor": "Pegatron"
  },
  "cbsdSerialNumber": "D823956047",
  "fccId": "VUIPR1450-48",
  "groupingParam": [
    {
      "groupId": "group1",
      "groupType": "INTERFERENCE_COORDINATION"
    }
  ],
  "installationParam": {
    "antennaAzimuth": 240,
    "antennaBeamwidth": 30,
    "antennaDowntilt": 3,
    "antennaGain": 9,
    "antennaModel": "Wire_dipole",
    "eirpCapability": 30,
    "height": 12.0,
    "heightType": "AGL",
    "horizontalAccuracy": 45.0,
    "indoorDeployment": true,
    "latitude": 37.425056,
    "longitude": -22.084113,
    "verticalAccuracy": 2.0
  },
  "measCapability": [
    "RECEIVED_POWER_WITHOUT_GRANT"
  ],
  "userId": "PEGATRON"
}
]
}
2024-12-31T08:01:25.052Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 101
      }
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-31T08:01:26.860Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-31T08:01:26.860Z - INFO - the question is : Were there RF transmissions from the CBSD2 during
the test? please choose one of the answers :
2024-12-31T08:01:32.106Z - INFO - for the question : Were there RF transmissions from the CBSD2 during
the test? , the user choose n
2024-12-31T08:01:32.107Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2024-12-31T08:01:33.874Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2024-12-31T08:01:35.928Z - INFO - The final result of the test : WINNF.FT.D.REG.15 is - passed

```

1.8 WINNF.FT.C.REG.17

2024-12-31T08:02:29.419Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-31T08:02:29.420Z - INFO - the selected test from the user : WINNF.FT.D.REG.17 is starting now

2024-12-31T08:02:41.958Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
      "hardwareVersion": "1.1",
      "model": "PR1450-48E",
      "softwareVersion": "2.1.0",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823634126",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
      {
        "groupId": "group1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 30,
      "antennaDowntilt": 3,
      "antennaGain": 4,
      "antennaModel": "Wire_dipole",
      "eirpCapability": 30,
      "height": 12.0,
      "heightType": "AGL",
      "horizontalAccuracy": 45.0,
      "indoorDeployment": true,
      "latitude": 37.425056,
      "longitude": -22.084113,
      "verticalAccuracy": 2.0
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
  }
]
```

2024-12-31T08:02:42.063Z - INFO - engine sent successfully, the response to CBRS : {

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

2024-12-31T08:02:43.947Z - INFO - registration request from CBRS : {

```

    "registrationRequest": [
      {
        "airInterface": {
          "radioTechnology": "NR"
        },
        "callSign": "CB987",
        "cbsdCategory": "A",
        "cbsdInfo": {
          "firmwareVersion": "1.0.2.2p2",
          "hardwareVersion": "1.1",
          "model": "PR1450-48I",
          "softwareVersion": "2.1.0",
          "vendor": "Pegatron"
        },
        "cbsdSerialNumber": "D823956047",
        "fccId": "VUIPR1450-48",
        "groupingParam": [
          {
            "groupId": "group1",
            "groupType": "INTERFERENCE_COORDINATION"
          }
        ],
        "installationParam": {
          "antennaAzimuth": 240,
          "antennaBeamwidth": 30,
          "antennaDowntilt": 3,
          "antennaGain": 9,
          "antennaModel": "Wire_dipole",
          "eirpCapability": 30,
          "height": 12.0,
          "heightType": "AGL",
          "horizontalAccuracy": 45.0,
          "indoorDeployment": true,
          "latitude": 37.425056,
          "longitude": -22.084113,
          "verticalAccuracy": 2.0
        },
        "measCapability": [
          "RECEIVED_POWER_WITHOUT_GRANT"
        ],
        "userId": "PEGATRON"
      }
    ]
  }

```

2024-12-31T08:02:44.018Z - INFO - engine sent successfully, the response to CBRS : {

```

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

```

2024-12-31T08:02:45.441Z - INFO - arrived to nstep starting question answer session with the technician

2024-12-31T08:02:45.441Z - INFO - the question is : Were there RF transmissions from the CBSD2 during the test? please choose one of the answers :

2024-12-31T08:02:48.933Z - INFO - for the question : Were there RF transmissions from the CBSD2 during

the test? , the user choose n

2024-12-31T08:02:48.933Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2024-12-31T08:02:49.946Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2024-12-31T08:02:50.410Z - INFO - The final result of the test : WINNF.FT.D.REG.17 is - passed

1.9 WINNF.FT.C.REG.19

2024-12-31T08:03:35.066Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-31T08:03:35.066Z - INFO - the selected test from the user : WINNF.FT.D.REG.19 is starting now

2024-12-31T08:03:44.936Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
      "hardwareVersion": "1.1",
      "model": "PR1450-48E",
      "softwareVersion": "2.1.0",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823634126",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
      {
        "groupId": "group1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 30,
      "antennaDowntilt": 3,
      "antennaGain": 4,
      "antennaModel": "Wire_dipole",
      "eirpCapability": 30,
      "height": 12.0,
      "heightType": "AGL",
      "horizontalAccuracy": 45.0,
      "indoorDeployment": true,
      "latitude": 37.425056,
      "longitude": -22.084113,
      "verticalAccuracy": 2.0
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
  },
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
      "hardwareVersion": "1.1",
      "model": "PR1450-48I",
      "softwareVersion": "2.1.0",
```

```

    "vendor": "Pegatron"
  },
  "cbsdSerialNumber": "D823956047",
  "fccId": "VUIPR1450-48",
  "groupingParam": [
    {
      "groupId": "group1",
      "groupType": "INTERFERENCE_COORDINATION"
    }
  ],
  "installationParam": {
    "antennaAzimuth": 240,
    "antennaBeamwidth": 30,
    "antennaDowntilt": 3,
    "antennaGain": 9,
    "antennaModel": "Wire_dipole",
    "eirpCapability": 30,
    "height": 12.0,
    "heightType": "AGL",
    "horizontalAccuracy": 45.0,
    "indoorDeployment": true,
    "latitude": 37.425056,
    "longitude": -22.084113,
    "verticalAccuracy": 2.0
  },
  "measCapability": [
    "RECEIVED_POWER_WITHOUT_GRANT"
  ],
  "userId": "PEGATRON"
}
]
}
2024-12-31T08:03:45.048Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 201
      }
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-31T08:03:46.082Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-31T08:03:46.082Z - INFO - the question is : Were there RF transmissions from the CBSD2 during
the test? please choose one of the answers :
2024-12-31T08:03:51.645Z - INFO - for the question : Were there RF transmissions from the CBSD2 during
the test? , the user choose n
2024-12-31T08:03:51.645Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2024-12-31T08:03:52.251Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2024-12-31T08:03:52.810Z - INFO - The final result of the test : WINNF.FT.D.REG.19 is - passed

```

1.10 WINNF.FT.C.REG.20

2024-12-31T08:04:33.104Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-31T08:04:33.105Z - INFO - the selected test from the user : WINNF.FT.C.REG.20_1 is starting now

2024-12-31T08:05:39.939Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
      "hardwareVersion": "1.1",
      "model": "PR1450-48I",
      "softwareVersion": "2.1.0",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823956047",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
      {
        "groupId": "group1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 30,
      "antennaDowntilt": 3,
      "antennaGain": 9,
      "antennaModel": "Wire_dipole",
      "eirpCapability": 30,
      "height": 12.0,
      "heightType": "AGL",
      "horizontalAccuracy": 45.0,
      "indoorDeployment": true,
      "latitude": 37.425056,
      "longitude": -22.084113,
      "verticalAccuracy": 2.0
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
  }
]
```

2024-12-31T08:05:40.022Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "response": {
      "responseCode": 0
    }
  }
]
```

```

}
2024-12-31T08:05:40.935Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
}
2024-12-31T08:05:40.942Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2024-12-31T08:05:41.935Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
}
2024-12-31T08:05:41.942Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "channelType": "GAA",
      "grantExpireTime": "2025-01-07T08:05:41Z",
      "grantId": "409639935",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  }
]
}
2024-12-31T08:05:42.934Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "409639935",
      "operationState": "GRANTED"
    }
  ]
}
2024-12-31T08:05:42.940Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "409639935",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-31T08:09:02Z"
    }
  ]
}
2024-12-31T08:06:30.944Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "409639935",
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-31T08:06:30.946Z - INFO - Time interval between two heartbeat request messages is: 48.010184,
limit is: 65.0
2024-12-31T08:06:30.951Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "409639935",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-31T08:09:50Z"
    }
  ]
}
2024-12-31T08:07:30.938Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "409639935",
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-31T08:07:30.940Z - INFO - Time interval between two heartbeat request messages is: 59.99331,

```

limit is: 65.0

2024-12-31T08:07:30.944Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "409639935",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-12-31T08:10:50Z"
  }
]
```

2024-12-31T08:08:30.957Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "409639935",
    "operationState": "AUTHORIZED"
  }
]
```

2024-12-31T08:08:30.959Z - INFO - Time interval between two heartbeat request messages is: 60.019804,
limit is: 65.0

2024-12-31T08:08:30.964Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "409639935",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-12-31T08:11:50Z"
  }
]
```

2024-12-31T08:09:30.942Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "409639935",
    "operationState": "AUTHORIZED"
  }
]
```

2024-12-31T08:09:30.944Z - INFO - Time interval between two heartbeat request messages is: 59.984666,
limit is: 65.0

2024-12-31T08:09:30.948Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "409639935",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-12-31T08:12:50Z"
  }
]
```

```

}
2024-12-31T08:10:30.949Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "409639935",
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-31T08:10:30.952Z - INFO - Time interval between two heartbeat request messages is: 60.006738,
limit is: 65.0
2024-12-31T08:10:30.967Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "409639935",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-31T08:13:50Z"
    }
  ]
}
2024-12-31T08:10:32.471Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-31T08:10:32.472Z - INFO - the question is : Did CBSD1 transmit power prior to AUTHORIZED state
(first successful HBT response)? please choose one of the answers :
2024-12-31T08:10:47.907Z - INFO - for the question : Did CBSD1 transmit power prior to AUTHORIZED state
(first successful HBT response)? , the user choose n
2024-12-31T08:10:47.909Z - INFO - the question is : Did CBSD1 transmit only within the frequency range
specified in its grantRequest message? please choose one of the answers :
2024-12-31T08:10:49.354Z - INFO - for the question : Did CBSD1 transmit only within the frequency range
specified in its grantRequest message? , the user choose y
2024-12-31T08:10:49.849Z - INFO - The final result of the test : WINNF.FT.C.REG.20_1 is - passed

2024-12-31T08:14:56.571Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13
2024-12-31T08:14:56.571Z - INFO - the selected test from the user : WINNF.FT.C.REG.20_2 is starting now
2024-12-31T08:15:07.734Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "1.0.2.2p2",
        "hardwareVersion": "1.1",
        "model": "PR1450-48I",
        "softwareVersion": "2.1.0",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "D823956047",
    }
  ]
}

```

```

    "fccId": "VUIPR1450-48",
    "groupingParam": [
      {
        "groupId": "group1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 30,
      "antennaDowntilt": 3,
      "antennaGain": 9,
      "antennaModel": "Wire_dipole",
      "eirpCapability": 30,
      "height": 12.0,
      "heightType": "AGL",
      "horizontalAccuracy": 45.0,
      "indoorDeployment": true,
      "latitude": 38.425056,
      "longitude": -22.084113,
      "verticalAccuracy": 2.0
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
  }
]
}
2024-12-31T08:15:07.834Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-31T08:15:08.687Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2024-12-31T08:15:08.695Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",

```

```

        "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
        },
        "ruleApplied": "FCC_PART_96"
    }
},
"cbstdId": "VUIPR1450-48Mock-SASD823956047",
"response": {
    "responseCode": 0
}
}
]
}
2024-12-31T08:15:09.694Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbstdId": "VUIPR1450-48Mock-SASD823956047",
            "operationParam": {
                "maxEirp": 20.0,
                "operationFrequencyRange": {
                    "highFrequency": 3640000000,
                    "lowFrequency": 3600000000
                }
            }
        }
    ]
}
}
2024-12-31T08:15:09.705Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbstdId": "VUIPR1450-48Mock-SASD823956047",
            "channelType": "GAA",
            "grantExpireTime": "2025-01-07T08:15:09Z",
            "grantId": "912044316",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
}
2024-12-31T08:15:10.687Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbstdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "912044316",
            "operationState": "GRANTED"
        }
    ]
}
}
2024-12-31T08:15:10.693Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbstdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "912044316",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
}

```

```

    },
    "transmitExpireTime": "2024-12-31T08:18:30Z"
  }
]
}
2024-12-31T08:15:39.684Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "912044316",
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-31T08:15:39.687Z - INFO - Time interval between two heartbeat request messages is: 28.997561,
limit is: 65.0
2024-12-31T08:15:39.693Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "912044316",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-31T08:18:59Z"
    }
  ]
}
2024-12-31T08:16:39.680Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "912044316",
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-31T08:16:39.682Z - INFO - Time interval between two heartbeat request messages is: 59.994998,
limit is: 65.0
2024-12-31T08:16:39.687Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "912044316",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-31T08:19:59Z"
    }
  ]
}
2024-12-31T08:17:39.667Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "912044316",
      "operationState": "AUTHORIZED"
    }
  ]
}

```

```

    ]
  }
2024-12-31T08:17:39.669Z - INFO - Time interval between two heartbeat request messages is: 59.987357,
limit is: 65.0
2024-12-31T08:17:39.677Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "912044316",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-31T08:20:59Z"
    }
  ]
}
2024-12-31T08:18:39.659Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "912044316",
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-31T08:18:39.660Z - INFO - Time interval between two heartbeat request messages is: 59.99178,
limit is: 65.0
2024-12-31T08:18:39.665Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "912044316",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-31T08:21:59Z"
    }
  ]
}
2024-12-31T08:19:39.659Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "912044316",
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-31T08:19:39.661Z - INFO - Time interval between two heartbeat request messages is: 59.999883,
limit is: 65.0
2024-12-31T08:19:39.667Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "912044316",
      "response": {
        "responseCode": 0
      },
    }
  ]
}

```

"transmitExpireTime": "2024-12-31T08:22:59Z"

}

]

}

2024-12-31T08:19:40.875Z - INFO - arrived to nstep starting question answer session with the technician

2024-12-31T08:19:40.875Z - INFO - the question is : Did CBSD1 transmit power prior to AUTHORIZED state (first successful HBT response)? please choose one of the answers :

2024-12-31T08:19:52.609Z - INFO - for the question : Did CBSD1 transmit power prior to AUTHORIZED state (first successful HBT response)? , the user choose n

2024-12-31T08:19:52.610Z - INFO - the question is : Did CBSD1 transmit only within the frequency range specified in its grantRequest message? please choose one of the answers :

2024-12-31T08:19:53.731Z - INFO - for the question : Did CBSD1 transmit only within the frequency range specified in its grantRequest message? , the user choose y

2024-12-31T08:19:54.248Z - INFO - The final result of the test : WINNF.FT.C.REG.20_2 is - passed

2 CBSD Spectrum Grant Process

2.1 WINNF.FT.C.GRA.1

2025-01-02T09:04:53.901Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-01-02T09:04:53.901Z - INFO - the selected test from the user : WINNF.FT.C.GRA.1 is starting now

2025-01-02T09:05:35.436Z - INFO - registration request from CBRS : {

```

    "registrationRequest": [
      {
        "airInterface": {
          "radioTechnology": "NR"
        },
        "callSign": "CB987",
        "cbsdCategory": "A",
        "cbsdInfo": {
          "firmwareVersion": "1.0.2.2p2",
          "hardwareVersion": "1.1",
          "model": "PR1450-48I",
          "softwareVersion": "2.1.0",
          "vendor": "Pegatron"
        },
        "cbsdSerialNumber": "D823956047",
        "fccId": "VUIPR1450-48",
        "groupingParam": [
          {
            "groupId": "group1",
            "groupType": "INTERFERENCE_COORDINATION"
          }
        ],
        "installationParam": {
          "antennaAzimuth": 240,
          "antennaBeamwidth": 30,
          "antennaDowntilt": 3,
          "antennaGain": 9,
          "antennaModel": "Wire_dipole",
          "eirpCapability": 30,
          "height": 12.0,
          "heightType": "AGL",
          "horizontalAccuracy": 45.0,
          "indoorDeployment": true,
          "latitude": 37.425056,
          "longitude": -22.084113,
          "verticalAccuracy": 2.0
        },
        "measCapability": [
          "RECEIVED_POWER_WITHOUT_GRANT"
        ],
        "userId": "PEGATRON"
      }
    ]
  }

```

2025-01-02T09:05:35.527Z - INFO - engine sent successfully, the response to CBRS : {

```

    "registrationResponse": [
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823956047",
        "response": {
          "responseCode": 0
        }
      }
    ]
  }

```

```

    }
  ]
}
2025-01-02T09:05:36.461Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-01-02T09:05:36.469Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-01-02T09:05:37.433Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "operationParam": {
        "maxEirp": 12.0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2025-01-02T09:05:37.440Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 400
      }
    }
  ]
}

```

] }
}

2025-01-02T09:05:38.947Z - INFO - arrived to nstep starting question answer session with the technician

2025-01-02T09:05:38.947Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2025-01-02T09:08:52.232Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2025-01-02T09:08:52.625Z - INFO - The final result of the test : WINNF.FT.C.GRA.1 is - passed

2.2 WINNF.FT.C.GRA.2

2025-01-02T09:09:09.571Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-01-02T09:09:09.571Z - INFO - the selected test from the user : WINNF.FT.C.GRA.2 is starting now

2025-01-02T09:09:15.455Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
      "hardwareVersion": "1.1",
      "model": "PR1450-48I",
      "softwareVersion": "2.1.0",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823956047",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
      {
        "groupId": "group1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 30,
      "antennaDowntilt": 3,
      "antennaGain": 9,
      "antennaModel": "Wire_dipole",
      "eirpCapability": 30,
      "height": 12.0,
      "heightType": "AGL",
      "horizontalAccuracy": 45.0,
      "indoorDeployment": true,
      "latitude": 37.425056,
      "longitude": -22.084113,
      "verticalAccuracy": 2.0
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
  }
]
```

2025-01-02T09:09:15.542Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "response": {
      "responseCode": 0
    }
  }
]
```

```

}
2025-01-02T09:09:17.436Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
}
2025-01-02T09:09:17.447Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2025-01-02T09:09:19.447Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "operationParam": {
        "maxEirp": 12.0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
}
2025-01-02T09:09:19.454Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 401
      }
    }
  ]
}
}

```

2025-01-02T09:09:20.585Z - INFO - arrived to nstep starting question answer session with the technician
2025-01-02T09:09:20.586Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :
2025-01-02T09:14:29.486Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n
2025-01-02T09:14:30.085Z - INFO - The final result of the test : WINNF.FT.C.GRA.2 is - passed

3 CBSD Heart Beat Process

3.1 WINNF.FT.D.HBT.2

2024-12-31T08:32:30.109Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-31T08:32:30.110Z - INFO - the selected test from the user : WINNF.FT.D.HBT.2 is starting now

2024-12-31T08:32:40.730Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
      "hardwareVersion": "1.1",
      "model": "PR1450-48E",
      "softwareVersion": "2.1.0",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823634126",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
      {
        "groupId": "group1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 30,
      "antennaDowntilt": 3,
      "antennaGain": 4,
      "antennaModel": "Wire_dipole",
      "eirpCapability": 30,
      "height": 12.0,
      "heightType": "AGL",
      "horizontalAccuracy": 45.0,
      "indoorDeployment": true,
      "latitude": 37.425056,
      "longitude": -22.084113,
      "verticalAccuracy": 2.0
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
  },
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
      "hardwareVersion": "1.1",
      "model": "PR1450-48I",
```

```

    "softwareVersion": "2.1.0",
    "vendor": "Pegatron"
  },
  "cbsdSerialNumber": "D823956047",
  "fccId": "VUIPR1450-48",
  "groupingParam": [
    {
      "groupId": "group1",
      "groupType": "INTERFERENCE_COORDINATION"
    }
  ],
  "installationParam": {
    "antennaAzimuth": 240,
    "antennaBeamwidth": 30,
    "antennaDowntilt": 3,
    "antennaGain": 9,
    "antennaModel": "Wire_dipole",
    "eirpCapability": 30,
    "height": 12.0,
    "heightType": "AGL",
    "horizontalAccuracy": 45.0,
    "indoorDeployment": true,
    "latitude": 37.425056,
    "longitude": -22.084113,
    "verticalAccuracy": 2.0
  },
  "measCapability": [
    "RECEIVED_POWER_WITHOUT_GRANT"
  ],
  "userId": "PEGATRON"
}
]
}
2024-12-31T08:32:40.874Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "response": {
        "responseCode": 0
      }
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-31T08:32:41.726Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}

```

```

    ],
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}

2024-12-31T08:32:41.746Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "response": {
        "responseCode": 0
      }
    },
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

2024-12-31T08:32:42.724Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}

```

```

    }
  },
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "operationParam": {
      "maxEirp": 20.0,
      "operationFrequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3600000000
      }
    }
  }
]
}
2024-12-31T08:32:42.739Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "channelType": "GAA",
      "grantExpireTime": "2025-01-07T08:32:42Z",
      "grantId": "630878411",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "channelType": "GAA",
      "grantExpireTime": "2025-01-07T08:32:42Z",
      "grantId": "897211753",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-12-31T08:32:43.722Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "630878411",
      "operationState": "GRANTED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "897211753",
      "operationState": "GRANTED"
    }
  ]
}
2024-12-31T08:32:43.732Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "630878411",

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    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-12-31T08:36:03Z"
  },
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "897211753",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-12-31T08:36:03Z"
  }
]
}
2024-12-31T08:32:51.714Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "630878411",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "897211753",
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-31T08:32:51.715Z - INFO - Time interval between two heartbeat request messages is: 7.99141, limit is: 65.0
2024-12-31T08:32:51.720Z - INFO - Time interval between two heartbeat request messages is: 7.99141, limit is: 65.0
2024-12-31T08:32:51.725Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "630878411",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-31T08:36:11Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "897211753",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-31T08:36:11Z"
    }
  ]
}
2024-12-31T08:33:51.654Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "630878411",

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    "operationState": "AUTHORIZED"
  },
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "897211753",
    "operationState": "AUTHORIZED"
  }
]
}
2024-12-31T08:33:51.655Z - INFO - Time interval between two heartbeat request messages is: 59.940637,
limit is: 65.0
2024-12-31T08:33:51.660Z - INFO - Time interval between two heartbeat request messages is: 59.940637,
limit is: 65.0
2024-12-31T08:33:51.666Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "630878411",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-31T08:37:11Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "897211753",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-31T08:37:11Z"
    }
  ]
}
2024-12-31T08:34:51.665Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "630878411",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "897211753",
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-31T08:34:51.667Z - INFO - Time interval between two heartbeat request messages is: 60.010492,
limit is: 65.0
2024-12-31T08:34:51.672Z - INFO - Time interval between two heartbeat request messages is: 60.010492,
limit is: 65.0
2024-12-31T08:34:51.678Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "630878411",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-31T08:37:11Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "897211753",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-31T08:37:11Z"
    }
  ]
}

```

```

    },
    "transmitExpireTime": "2024-12-31T08:38:11Z"
  },
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "897211753",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-12-31T08:38:11Z"
  }
]
}
2024-12-31T08:35:51.652Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "897211753",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "630878411",
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-31T08:35:51.654Z - INFO - Time interval between two heartbeat request messages is: 59.988002,
limit is: 65.0
2024-12-31T08:35:51.659Z - INFO - Time interval between two heartbeat request messages is: 59.988002,
limit is: 65.0
2024-12-31T08:35:51.665Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "897211753",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-31T08:39:11Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "630878411",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-31T08:39:11Z"
    }
  ]
}
2024-12-31T08:36:51.658Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "630878411",
      "operationState": "AUTHORIZED"
    },
  ],

```

```

    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "897211753",
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-31T08:36:51.660Z - INFO - Time interval between two heartbeat request messages is: 60.005005,
limit is: 65.0
2024-12-31T08:36:51.668Z - INFO - Time interval between two heartbeat request messages is: 60.005005,
limit is: 65.0
2024-12-31T08:36:51.679Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "630878411",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-31T08:40:11Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "897211753",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-31T08:40:11Z"
    }
  ]
}
2024-12-31T08:36:53.375Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-31T08:36:53.375Z - INFO - the question is : Did CBSD2 transmit power prior to AUTHORIZED state
(first successful HBT response)? please choose one of the answers :
2024-12-31T08:37:23.695Z - INFO - for the question : Did CBSD2 transmit power prior to AUTHORIZED state
(first successful HBT response)? , the user choose n
2024-12-31T08:37:23.696Z - INFO - the question is : Did CBSD2 transmit only within the frequency range
specified in its grantRequest message? please choose one of the answers :
2024-12-31T08:37:26.304Z - INFO - for the question : Did CBSD2 transmit only within the frequency range
specified in its grantRequest message? , the user choose y
2024-12-31T08:37:26.305Z - INFO - the question is : Did CBSD1 transmit power prior to AUTHORIZED state
(first successful HBT response)? please choose one of the answers :
2024-12-31T08:37:28.954Z - INFO - for the question : Did CBSD1 transmit power prior to AUTHORIZED state
(first successful HBT response)? , the user choose n
2024-12-31T08:37:28.954Z - INFO - the question is : Did CBSD1 transmit only within the frequency range
specified in its grantRequest message? please choose one of the answers :
2024-12-31T08:37:31.571Z - INFO - for the question : Did CBSD1 transmit only within the frequency range
specified in its grantRequest message? , the user choose y
2024-12-31T08:37:32.286Z - INFO - The final result of the test : WINNF.FT.D.HBT.2 is - passed

```

3.2 WINNF.FT.C.HBT.3

2025-01-02T10:41:05.825Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-01-02T10:41:05.826Z - INFO - the selected test from the user : WINNF.FT.C.HBT.3 is starting now

2025-01-02T10:41:46.185Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "1.0.2.2p2",
        "hardwareVersion": "1.1",
        "model": "PR1450-48I",
        "softwareVersion": "2.1.0",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "D823956047",
      "fccId": "VUIPR1450-48",
      "groupingParam": [
        {
          "groupId": "group1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 30,
        "antennaDowntilt": 3,
        "antennaGain": 9,
        "antennaModel": "Wire_dipole",
        "eirpCapability": 30,
        "height": 12.0,
        "heightType": "AGL",
        "horizontalAccuracy": 45.0,
        "indoorDeployment": true,
        "latitude": 37.425056,
        "longitude": -22.084113,
        "verticalAccuracy": 2.0
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "PEGATRON"
    }
  ]

```

2025-01-02T10:41:46.270Z - INFO - engine sent successfully, the response to CBRS : {

```

  "registrationResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

2025-01-02T10:41:47.185Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-01-02T10:41:47.192Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-01-02T10:41:48.186Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2025-01-02T10:41:48.193Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "channelType": "GAA",
      "grantExpireTime": "2025-01-09T10:41:48Z",
      "grantId": "345705593",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  ]
}
2025-01-02T10:41:49.192Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "345705593",
      "operationState": "GRANTED"
    }
  ]
}
2025-01-02T10:41:49.197Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "345705593",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T10:45:09Z"
    }
  ]
}
2025-01-02T10:42:30.166Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "345705593",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T10:42:30.167Z - INFO - Time interval between two heartbeat request messages is: 40.97392,
limit is: 65.0
2025-01-02T10:42:30.172Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "345705593",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T10:45:50Z"
    }
  ]
}
2025-01-02T10:43:30.165Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "345705593",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T10:43:30.166Z - INFO - Time interval between two heartbeat request messages is: 59.999289,
limit is: 65.0

```

```
2025-01-02T10:43:30.171Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "345705593",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T10:46:50Z"
    }
  ]
}
2025-01-02T10:44:30.189Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "345705593",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T10:44:30.191Z - INFO - Time interval between two heartbeat request messages is: 60.024464,
limit is: 65.0
2025-01-02T10:44:30.196Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "345705593",
      "response": {
        "responseCode": 105
      },
      "transmitExpireTime": "2025-01-02T10:44:30Z"
    }
  ]
}
2025-01-02T10:44:32.036Z - INFO - arrived to nstep starting question answer session with the technician
2025-01-02T10:44:32.037Z - 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 :
2025-01-02T10:48:13.723Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 105? , the user choose y
2025-01-02T10:48:14.125Z - INFO - The final result of the test : WINNF.FT.C.HBT.3 is - passed
```

3.3 WINNF.FT.C.HBT.5

2024-12-31T08:41:53.669Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-31T08:41:53.669Z - INFO - the selected test from the user : WINNF.FT.C.HBT.5 is starting now

2024-12-31T08:42:03.666Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
      "hardwareVersion": "1.1",
      "model": "PR1450-48I",
      "softwareVersion": "2.1.0",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823956047",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
      {
        "groupId": "group1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 30,
      "antennaDowntilt": 3,
      "antennaGain": 9,
      "antennaModel": "Wire_dipole",
      "eirpCapability": 30,
      "height": 12.0,
      "heightType": "AGL",
      "horizontalAccuracy": 45.0,
      "indoorDeployment": true,
      "latitude": 37.425056,
      "longitude": -22.084113,
      "verticalAccuracy": 2.0
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
  }
]
```

2024-12-31T08:42:03.786Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "response": {
      "responseCode": 0
    }
  }
]
```

```

}
2024-12-31T08:42:05.670Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
}
2024-12-31T08:42:05.678Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2024-12-31T08:42:07.658Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
}
2024-12-31T08:42:07.664Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "channelType": "GAA",
      "grantExpireTime": "2025-01-07T08:42:07Z",
      "grantId": "696558990",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  }
]
}
2024-12-31T08:42:09.661Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "696558990",
      "operationState": "GRANTED"
    }
  ]
}
2024-12-31T08:42:09.667Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "696558990",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2024-12-31T08:42:09Z"
    }
  ]
}
2024-12-31T08:42:51.655Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "696558990",
      "operationState": "GRANTED"
    }
  ]
}
2024-12-31T08:42:51.657Z - INFO - Time interval between two heartbeat request messages is: 41.993294,
limit is: 65.0
2024-12-31T08:42:51.663Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "696558990",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2024-12-31T08:42:51Z"
    }
  ]
}
2024-12-31T08:42:52.747Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-31T08:42:52.748Z - INFO - the question is : Did the CBSD transmit at any time during the test?
please choose one of the answers :
2024-12-31T08:43:05.212Z - INFO - for the question : Did the CBSD transmit at any time during the test? , the
user choose n
2024-12-31T08:43:05.677Z - INFO - The final result of the test : WINNF.FT.C.HBT.5 is - passed

```

3.4 WINNF.FT.C.HBT.6

2025-01-02T10:53:31.856Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-01-02T10:53:31.857Z - INFO - the selected test from the user : WINNF.FT.C.HBT.6 is starting now

2025-01-02T10:53:42.167Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "1.0.2.2p2",
        "hardwareVersion": "1.1",
        "model": "PR1450-48I",
        "softwareVersion": "2.1.0",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "D823956047",
      "fccId": "VUIPR1450-48",
      "groupingParam": [
        {
          "groupId": "group1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 30,
        "antennaDowntilt": 3,
        "antennaGain": 9,
        "antennaModel": "Wire_dipole",
        "eirpCapability": 30,
        "height": 12.0,
        "heightType": "AGL",
        "horizontalAccuracy": 45.0,
        "indoorDeployment": true,
        "latitude": 37.425056,
        "longitude": -22.084113,
        "verticalAccuracy": 2.0
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "PEGATRON"
    }
  ]

```

2025-01-02T10:53:42.252Z - INFO - engine sent successfully, the response to CBRS : {

```

  "registrationResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

2025-01-02T10:53:43.164Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-01-02T10:53:43.171Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-01-02T10:53:44.164Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2025-01-02T10:53:44.172Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "channelType": "GAA",
      "grantExpireTime": "2025-01-09T10:53:44Z",
      "grantId": "84588480",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  ]
}
2025-01-02T10:53:45.165Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "84588480",
      "operationState": "GRANTED"
    }
  ]
}
2025-01-02T10:53:45.170Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "84588480",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T10:57:05Z"
    }
  ]
}
2025-01-02T10:54:30.163Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "84588480",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T10:54:30.165Z - INFO - Time interval between two heartbeat request messages is: 44.998404,
limit is: 65.0
2025-01-02T10:54:30.170Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "84588480",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T10:57:50Z"
    }
  ]
}
2025-01-02T10:55:30.163Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "84588480",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T10:55:30.165Z - INFO - Time interval between two heartbeat request messages is: 60.000762,
limit is: 65.0

```

```
2025-01-02T10:55:30.169Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "84588480",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T10:58:50Z"
    }
  ]
}
2025-01-02T10:56:30.163Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "84588480",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T10:56:30.164Z - INFO - Time interval between two heartbeat request messages is: 59.998881,
limit is: 65.0
2025-01-02T10:56:30.169Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "84588480",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2025-01-02T10:56:30Z"
    }
  ]
}
2025-01-02T10:57:30.166Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "84588480",
      "operationState": "GRANTED"
    }
  ]
}
2025-01-02T10:57:30.168Z - INFO - Time interval between two heartbeat request messages is: 60.003226,
limit is: 65.0
2025-01-02T10:57:30.173Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "84588480",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2025-01-02T10:57:30Z"
    }
  ]
}
```

2025-01-02T10:57:32.099Z - INFO - arrived to nstep starting question answer session with the technician
2025-01-02T10:57:32.099Z - 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 :
2025-01-02T11:00:40.449Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds of receiving Heartbeat response with responseCode = 501? , the user choose y
2025-01-02T11:00:40.690Z - INFO - The final result of the test : WINNF.FT.C.HBT.6 is - passed

3.5 WINNF.FT.C.HBT.7

2025-01-03T05:55:52.873Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-01-03T05:55:52.874Z - INFO - the selected test from the user : WINNF.FT.C.HBT.7 is starting now

2025-01-03T05:56:10.560Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
      "hardwareVersion": "1.1",
      "model": "PR1450-48I",
      "softwareVersion": "2.1.0",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823956047",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
      {
        "groupId": "group1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 30,
      "antennaDowntilt": 3,
      "antennaGain": 9,
      "antennaModel": "Wire_dipole",
      "eirpCapability": 30,
      "height": 12.0,
      "heightType": "AGL",
      "horizontalAccuracy": 45.0,
      "indoorDeployment": true,
      "latitude": 37.425056,
      "longitude": -22.084113,
      "verticalAccuracy": 2.0
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
  }
]
```

2025-01-03T05:56:10.645Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "response": {
      "responseCode": 0
    }
  }
]
```

```

}
2025-01-03T05:56:11.546Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
}
2025-01-03T05:56:11.554Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2025-01-03T05:56:12.549Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
}
2025-01-03T05:56:12.559Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "channelType": "GAA",
      "grantExpireTime": "2025-01-10T05:56:12Z",
      "grantId": "864911955",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  }
]
}
2025-01-03T05:56:13.546Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "864911955",
      "operationState": "GRANTED"
    }
  ]
}
2025-01-03T05:56:13.550Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "864911955",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T05:59:33Z"
    }
  ]
}
2025-01-03T05:57:00.574Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "864911955",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-03T05:57:00.575Z - INFO - Time interval between two heartbeat request messages is: 47.02804,
limit is: 65.0
2025-01-03T05:57:00.583Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "864911955",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T06:00:20Z"
    }
  ]
}
2025-01-03T05:58:00.546Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "864911955",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-03T05:58:00.547Z - INFO - Time interval between two heartbeat request messages is: 59.972101,

```

limit is: 65.0

2025-01-03T05:58:00.551Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "864911955",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-01-03T06:01:20Z"
  }
]
```

2025-01-03T05:59:00.559Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "864911955",
    "operationState": "AUTHORIZED"
  }
]
```

2025-01-03T05:59:00.561Z - INFO - Time interval between two heartbeat request messages is: 60.013719,
limit is: 65.0

2025-01-03T05:59:00.566Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "864911955",
    "response": {
      "responseCode": 502
    },
    "transmitExpireTime": "2025-01-03T05:59:00Z"
  }
]
```

2025-01-03T05:59:02.555Z - INFO - relinquishment request from CBRS : {

```
"relinquishmentRequest": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "864911955"
  }
]
```

2025-01-03T05:59:02.563Z - INFO - engine sent successfully, the response to CBRS : {

```
"relinquishmentResponse": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "864911955",
    "response": {
      "responseCode": 0
    }
  }
]
```

2025-01-03T05:59:04.066Z - INFO - arrived to nstep starting question answer session with the technician

2025-01-03T05:59:04.066Z - 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 :

2025-01-03T06:02:08.488Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds of receiving Heartbeat response with responseCode = 502? , the user choose y
2025-01-03T06:02:09.166Z - INFO - The final result of the test : WINNF.FT.C.HBT.7 is - passed

3.6 WINNF.FT.D.HBT.8

2024-12-31T09:06:14.741Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-31T09:06:14.742Z - INFO - the selected test from the user : WINNF.FT.D.HBT.8 is starting now

2024-12-31T09:06:21.645Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
      "hardwareVersion": "1.1",
      "model": "PR1450-48E",
      "softwareVersion": "2.1.0",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823634126",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
      {
        "groupId": "group1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 30,
      "antennaDowntilt": 3,
      "antennaGain": 4,
      "antennaModel": "Wire_dipole",
      "eirpCapability": 30,
      "height": 12.0,
      "heightType": "AGL",
      "horizontalAccuracy": 45.0,
      "indoorDeployment": true,
      "latitude": 37.425056,
      "longitude": -22.084113,
      "verticalAccuracy": 2.0
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
  }
]
```

2024-12-31T09:06:21.744Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823634126",
    "response": {
      "responseCode": 0
    }
  }
]
```

```

}
2024-12-31T09:06:22.633Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}

2024-12-31T09:06:22.668Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

2024-12-31T09:06:22.683Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "1.0.2.2p2",
        "hardwareVersion": "1.1",
        "model": "PR1450-48I",
        "softwareVersion": "2.1.0",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "D823956047",
      "fccId": "VUIPR1450-48",
      "groupingParam": [
        {
          "groupId": "group1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {

```

```

        "antennaAzimuth": 240,
        "antennaBeamwidth": 30,
        "antennaDowntilt": 3,
        "antennaGain": 9,
        "antennaModel": "Wire_dipole",
        "eirpCapability": 30,
        "height": 12.0,
        "heightType": "AGL",
        "horizontalAccuracy": 45.0,
        "indoorDeployment": true,
        "latitude": 37.425056,
        "longitude": -22.084113,
        "verticalAccuracy": 2.0
    },
    "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
}
]
}
2024-12-31T09:06:22.816Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2024-12-31T09:06:23.635Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3700000000,
                    "lowFrequency": 3550000000
                }
            ]
        }
    ]
}
2024-12-31T09:06:23.648Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {
                    "channelType": "GAA",
                    "frequencyRange": {
                        "highFrequency": 3700000000,
                        "lowFrequency": 3550000000
                    },
                    "ruleApplied": "FCC_PART_96"
                }
            ]
        },
        "cbsdId": "VUIPR1450-48Mock-SASD823956047",

```

```

        "response": {
            "responseCode": 0
        }
    ]
}
2024-12-31T09:06:23.659Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "operationParam": {
                "maxEirp": 20.0,
                "operationFrequencyRange": {
                    "highFrequency": 3640000000,
                    "lowFrequency": 3600000000
                }
            }
        }
    ]
}
2024-12-31T09:06:23.678Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "channelType": "GAA",
            "grantExpireTime": "2025-01-07T09:06:23Z",
            "grantId": "208439723",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2024-12-31T09:06:24.632Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "operationParam": {
                "maxEirp": 20.0,
                "operationFrequencyRange": {
                    "highFrequency": 3640000000,
                    "lowFrequency": 3600000000
                }
            }
        }
    ]
}
2024-12-31T09:06:24.644Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "channelType": "GAA",
            "grantExpireTime": "2025-01-07T09:06:24Z",
            "grantId": "483282156",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}

```

```

    }
  }
]
}
2024-12-31T09:06:24.655Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "208439723",
      "operationState": "GRANTED"
    }
  ]
}
2024-12-31T09:06:24.665Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "208439723",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-31T09:09:44Z"
    }
  ]
}
2024-12-31T09:06:25.630Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "483282156",
      "operationState": "GRANTED"
    }
  ]
}
2024-12-31T09:06:25.635Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "483282156",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-31T09:09:45Z"
    }
  ]
}
2024-12-31T09:06:51.631Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "483282156",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "208439723",
      "operationState": "AUTHORIZED"
    }
  ]
}

```

```

    ]
  }
2024-12-31T09:06:51.632Z - INFO - Time interval between two heartbeat request messages is: 26.000727,
limit is: 65.0
2024-12-31T09:06:51.637Z - INFO - Time interval between two heartbeat request messages is: 26.975541,
limit is: 65.0
2024-12-31T09:06:51.641Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "483282156",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-31T09:10:11Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "208439723",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-31T09:10:11Z"
    }
  ]
}
2024-12-31T09:07:51.651Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "208439723",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "483282156",
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-31T09:07:51.652Z - INFO - Time interval between two heartbeat request messages is: 60.020221,
limit is: 65.0
2024-12-31T09:07:51.658Z - INFO - Time interval between two heartbeat request messages is: 60.020221,
limit is: 65.0
2024-12-31T09:07:51.664Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "208439723",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-31T09:11:11Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "483282156",
      "response": {

```

```

    "responseCode": 0
  },
  "transmitExpireTime": "2024-12-31T09:11:11Z"
}
]
}
2024-12-31T09:08:51.628Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "208439723",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "483282156",
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-12-31T09:08:51.631Z - INFO - Time interval between two heartbeat request messages is: 59.977329,
limit is: 65.0
2024-12-31T09:08:51.636Z - INFO - Time interval between two heartbeat request messages is: 59.977329,
limit is: 65.0
2024-12-31T09:08:51.641Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "208439723",
      "response": {
        "responseCode": 500
      },
      "transmitExpireTime": "2024-12-31T09:08:51Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "483282156",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-12-31T09:12:11Z"
    }
  ]
}
2024-12-31T09:08:52.918Z - INFO - arrived to nstep starting question answer session with the technician
2024-12-31T09:08:52.918Z - INFO - the question is : Did the CBSD2 stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 500? please choose one of the answers :
2024-12-31T09:10:14.555Z - INFO - for the question : Did the CBSD2 stop RF transmission within 60
seconds of receiving Heartbeat response with responseCode = 500? , the user choose y
2024-12-31T09:10:14.555Z - INFO - the question is : Did the CBSD1 transmit power prior to AUTHORIZED
state (first successful HBT response)? please choose one of the answers :
2024-12-31T09:10:30.648Z - INFO - for the question : Did the CBSD1 transmit power prior to AUTHORIZED
state (first successful HBT response)? , the user choose n
2024-12-31T09:10:31.641Z - INFO - The final result of the test : WINNF.FT.D.HBT.8 is - passed

```

3.7 WINNF.FT.C.HBT.9

2025-01-03T06:25:34.303Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-01-03T06:25:34.305Z - INFO - the selected test from the user : WINNF.FT.C.HBT.9 is starting now

2025-01-03T06:25:46.383Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
      "hardwareVersion": "1.1",
      "model": "PR1450-48I",
      "softwareVersion": "2.1.0",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823956047",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
      {
        "groupId": "group1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 30,
      "antennaDowntilt": 3,
      "antennaGain": 9,
      "antennaModel": "Wire_dipole",
      "eirpCapability": 30,
      "height": 12.0,
      "heightType": "AGL",
      "horizontalAccuracy": 45.0,
      "indoorDeployment": true,
      "latitude": 37.425056,
      "longitude": -22.084113,
      "verticalAccuracy": 2.0
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
  }
]
```

2025-01-03T06:25:46.483Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "response": {
      "responseCode": 0
    }
  }
]
```

```

}
2025-01-03T06:25:47.349Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
}
2025-01-03T06:25:47.357Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2025-01-03T06:25:48.370Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
}
2025-01-03T06:25:48.376Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "channelType": "GAA",
      "grantExpireTime": "2025-01-10T06:25:48Z",
      "grantId": "632962160",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  }
]
}
2025-01-03T06:25:49.351Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "632962160",
      "operationState": "GRANTED"
    }
  ]
}
2025-01-03T06:26:20.345Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "632962160",
      "operationState": "GRANTED"
    }
  ]
}
2025-01-03T06:26:20.346Z - INFO - request message received while HBT is absent, sleep 174 sec before
responding
2025-01-03T06:26:51.345Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "632962160",
      "operationState": "GRANTED"
    }
  ]
}
2025-01-03T06:26:51.345Z - INFO - request message received while HBT is absent, sleep 143 sec before
responding
2025-01-03T06:27:22.358Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "632962160",
      "operationState": "GRANTED"
    }
  ]
}
2025-01-03T06:27:22.358Z - INFO - request message received while HBT is absent, sleep 111 sec before
responding
2025-01-03T06:27:53.385Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "632962160",
      "operationState": "GRANTED"
    }
  ]
}
2025-01-03T06:27:53.385Z - INFO - request message received while HBT is absent, sleep 80 sec before
responding
2025-01-03T06:28:24.345Z - INFO - heartbeat request from CBRS : {

```

```

    "heartbeatRequest": [
      {
        "cbstdId": "VUIPR1450-48Mock-SASD823956047",
        "grantId": "632962160",
        "operationState": "GRANTED"
      }
    ]
  }
2025-01-03T06:28:24.345Z - INFO - request message received while HBT is absent, sleep 50 sec before
responding
2025-01-03T06:28:55.345Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbstdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "632962160",
      "operationState": "GRANTED"
    }
  ]
}
2025-01-03T06:28:55.346Z - INFO - request message received while HBT is absent, sleep 19 sec before
responding
2025-01-03T06:29:09.459Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbstdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "632962160",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2025-01-03T06:29:09Z"
    }
  ]
}
2025-01-03T06:29:10.528Z - INFO - arrived to nstep starting question answer session with the technician
2025-01-03T06:29:10.528Z - INFO - the question is : Were there RF transmissions from the CBSD during the
test? please choose one of the answers :
2025-01-03T06:29:13.458Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2025-01-03T06:29:13.466Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2025-01-03T06:29:14.365Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2025-01-03T06:29:14.396Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2025-01-03T06:29:14.446Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2025-01-03T06:29:14.446Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2025-01-03T06:32:35.460Z - INFO - for the question : Were there RF transmissions from the CBSD during
the test? , the user choose n
2025-01-03T06:32:36.187Z - INFO - The final result of the test : WINNF.FT.C.HBT.9 is - passed

```

3.8 WINNF.FT.C.HBT.10

2025-01-03T06:32:53.627Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-01-03T06:32:53.629Z - INFO - the selected test from the user : WINNF.FT.C.HBT.10 is starting now

2025-01-03T06:33:11.362Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "1.0.2.2p2",
        "hardwareVersion": "1.1",
        "model": "PR1450-48I",
        "softwareVersion": "2.1.0",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "D823956047",
      "fccId": "VUIPR1450-48",
      "groupingParam": [
        {
          "groupId": "group1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 30,
        "antennaDowntilt": 3,
        "antennaGain": 9,
        "antennaModel": "Wire_dipole",
        "eirpCapability": 30,
        "height": 12.0,
        "heightType": "AGL",
        "horizontalAccuracy": 45.0,
        "indoorDeployment": true,
        "latitude": 37.425056,
        "longitude": -22.084113,
        "verticalAccuracy": 2.0
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "PEGATRON"
    }
  ]
}

```

2025-01-03T06:33:11.465Z - INFO - engine sent successfully, the response to CBRS : {

```

  "registrationResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

2025-01-03T06:33:12.389Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-01-03T06:33:12.407Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-01-03T06:33:13.357Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2025-01-03T06:33:13.364Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "channelType": "GAA",
      "grantExpireTime": "2025-01-10T06:33:13Z",
      "grantId": "234154917",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  ]
}
2025-01-03T06:33:14.343Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "234154917",
      "operationState": "GRANTED"
    }
  ]
}
2025-01-03T06:33:14.349Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "234154917",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T06:36:34Z"
    }
  ]
}
2025-01-03T06:34:09.343Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "234154917",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-03T06:34:09.345Z - INFO - Time interval between two heartbeat request messages is: 54.999598,
limit is: 65.0
2025-01-03T06:34:09.349Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "234154917",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T06:37:29Z"
    }
  ]
}
2025-01-03T06:35:09.357Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "234154917",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-03T06:35:09.359Z - INFO - Time interval between two heartbeat request messages is: 60.014164,
limit is: 65.0

```

```

2025-01-03T06:35:09.361Z - INFO - LAST HBT RESPONSE THAT SET TRANSMIT_EXPIRE_TIME WAS AT:
2025-01-03 06:34:09.343685
2025-01-03T06:35:41.378Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "234154917",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-03T06:35:41.378Z - INFO - request message received while HBT is absent, sleep 172 sec before
responding
2025-01-03T06:36:09.343Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "234154917",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-03T06:36:09.344Z - INFO - request message received while HBT is absent, sleep 145 sec before
responding
2025-01-03T06:36:41.343Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "234154917",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-03T06:36:41.344Z - INFO - request message received while HBT is absent, sleep 113 sec before
responding
2025-01-03T06:37:09.343Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "234154917",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-03T06:37:09.343Z - INFO - request message received while HBT is absent, sleep 85 sec before
responding
2025-01-03T06:37:41.358Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "234154917",
      "operationState": "GRANTED"
    }
  ]
}
2025-01-03T06:37:41.359Z - INFO - request message received while HBT is absent, sleep 53 sec before
responding
2025-01-03T06:38:09.344Z - INFO - heartbeat request from CBRS : {

```

```

    "heartbeatRequest": [
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823956047",
        "grantId": "234154917",
        "operationState": "GRANTED"
      }
    ]
  }

```

2025-01-03T06:38:09.345Z - INFO - request message received while HBT is absent, sleep 25 sec before responding

2025-01-03T06:38:29.465Z - INFO - engine sent successfully, the response to CBRS : {

```

    "heartbeatResponse": [
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823956047",
        "grantId": "234154917",
        "response": {
          "responseCode": 501
        },
        "transmitExpireTime": "2025-01-03T06:38:29Z"
      }
    ]
  }

```

2025-01-03T06:38:30.972Z - INFO - arrived to nstep starting question answer session with the technician

2025-01-03T06:38:30.972Z - INFO - the question is : Did the CBSD stop RF transmissions within (transmitExpireTime + 60seconds) of last valid heartbeat response? please choose one of the answers :

2025-01-03T06:38:33.478Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2025-01-03T06:38:34.370Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2025-01-03T06:38:34.415Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2025-01-03T06:38:34.441Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2025-01-03T06:38:34.446Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2025-01-03T06:38:34.447Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2025-01-03T06:41:36.986Z - INFO - for the question : Did the CBSD stop RF transmissions within (transmitExpireTime + 60seconds) of last valid heartbeat response? , the user choose y

2025-01-03T06:41:37.410Z - INFO - The final result of the test : WINNF.FT.C.HBT.10 is - passed

3.9 WINNF.FT.C.HBT.11

2025-01-03T06:41:56.711Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-01-03T06:41:56.711Z - INFO - the selected test from the user : WINNF.FT.C.HBT.11 is starting now

2025-01-03T06:42:07.347Z - INFO - registration request from CBRS : {

```

    "registrationRequest": [
      {
        "airInterface": {
          "radioTechnology": "NR"
        },
        "callSign": "CB987",
        "cbsdCategory": "A",
        "cbsdInfo": {
          "firmwareVersion": "1.0.2.2p2",
          "hardwareVersion": "1.1",
          "model": "PR1450-48I",
          "softwareVersion": "2.1.0",
          "vendor": "Pegatron"
        },
        "cbsdSerialNumber": "D823956047",
        "fcclId": "VUIPR1450-48",
        "groupingParam": [
          {
            "groupId": "group1",
            "groupType": "INTERFERENCE_COORDINATION"
          }
        ],
        "installationParam": {
          "antennaAzimuth": 240,
          "antennaBeamwidth": 30,
          "antennaDowntilt": 3,
          "antennaGain": 9,
          "antennaModel": "Wire_dipole",
          "eirpCapability": 30,
          "height": 12.0,
          "heightType": "AGL",
          "horizontalAccuracy": 45.0,
          "indoorDeployment": true,
          "latitude": 37.425056,
          "longitude": -22.084113,
          "verticalAccuracy": 2.0
        },
        "measCapability": [
          "RECEIVED_POWER_WITHOUT_GRANT"
        ],
        "userId": "PEGATRON"
      }
    ]
  }
}
2025-01-03T06:42:07.441Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

}
2025-01-03T06:42:09.360Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
}
2025-01-03T06:42:09.368Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2025-01-03T06:42:11.343Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
}
2025-01-03T06:42:11.350Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "channelType": "GAA",
      "grantExpireTime": "2025-01-03T06:48:11Z",
      "grantId": "885551611",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  }
]
}
2025-01-03T06:42:13.373Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "885551611",
      "operationState": "GRANTED"
    }
  ]
}
2025-01-03T06:42:13.379Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "885551611",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T06:45:33Z"
    }
  ]
}
2025-01-03T06:43:09.366Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "885551611",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-03T06:43:09.367Z - INFO - Time interval between two heartbeat request messages is:
55.992349, limit is: 65.0
2025-01-03T06:43:09.373Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "885551611",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T06:46:29Z"
    }
  ]
}
2025-01-03T06:44:09.344Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "885551611",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-03T06:44:09.346Z - INFO - Time interval between two heartbeat request messages is:

```

59.97917, limit is: 65.0

2025-01-03T06:44:09.350Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "885551611",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-01-03T06:47:29Z"
  }
]
```

2025-01-03T06:45:09.344Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "885551611",
    "operationState": "AUTHORIZED"
  }
]
```

2025-01-03T06:45:09.346Z - INFO - Time interval between two heartbeat request messages is:

59.999023, limit is: 65.0

2025-01-03T06:45:09.350Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "885551611",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-01-03T06:48:11Z"
  }
]
```

2025-01-03T06:46:09.342Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "885551611",
    "grantRenew": true,
    "operationState": "AUTHORIZED"
  }
]
```

2025-01-03T06:46:09.344Z - INFO - Time interval between two heartbeat request messages is:

59.998778, limit is: 65.0

2025-01-03T06:46:09.349Z - INFO - grantRenew received in HBT request message

2025-01-03T06:46:09.350Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "grantExpireTime": "2025-01-03T06:52:09Z",
    "grantId": "885551611",
    "response": {
      "responseCode": 0
    },
  },
]
```

```

        "transmitExpireTime": "2025-01-03T06:49:29Z"
      }
    ]
  }
  2025-01-03T06:47:09.377Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823956047",
        "grantId": "885551611",
        "operationState": "AUTHORIZED"
      }
    ]
  }
  2025-01-03T06:47:09.379Z - INFO - Time interval between two heartbeat request messages is:
  60.034973, limit is: 65.0
  2025-01-03T06:47:09.385Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823956047",
        "grantId": "885551611",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2025-01-03T06:50:29Z"
      }
    ]
  }
  2025-01-03T06:47:11.031Z - INFO - arrived to nstep starting question answer session with the technician
  2025-01-03T06:47:11.031Z - INFO - the question is : Did the CBSD renew its grant successfully? please
  choose one of the answers :
  2025-01-03T06:51:02.318Z - INFO - for the question : Did the CBSD renew its grant successfully? , the
  user choose y
  2025-01-03T06:51:02.647Z - INFO - The final result of the test : WINNF.FT.C.HBT.11 is - passed

```

4 CBSD Measurement Report

4.1 WINNF.FT.D.MES.2

2024-12-31T09:26:40.698Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-31T09:26:40.699Z - INFO - the selected test from the user : WINNF.FT.D.MES.2 is starting now

2024-12-31T09:26:59.889Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
      "hardwareVersion": "1.1",
      "model": "PR1450-48E",
      "softwareVersion": "2.1.0",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823634126",
    "fcclId": "VUIPR1450-48",
    "groupingParam": [
      {
        "groupId": "group1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 30,
      "antennaDowntilt": 3,
      "antennaGain": 4,
      "antennaModel": "Wire_dipole",
      "eirpCapability": 30,
      "height": 12.0,
      "heightType": "AGL",
      "horizontalAccuracy": 45.0,
      "indoorDeployment": true,
      "latitude": 37.425056,
      "longitude": -22.084113,
      "verticalAccuracy": 2.0
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
  }
]
```

2024-12-31T09:27:00.007Z - INFO - Response message contains measReportConfig

2024-12-31T09:27:00.008Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823634126",
    "measReportConfig": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ]
  }
]
```

```

        "response": {
            "responseCode": 0
        }
    ]
}
2024-12-31T09:27:01.880Z - INFO - registration request from CBRS : {
    "registrationRequest": [
        {
            "airInterface": {
                "radioTechnology": "NR"
            },
            "callSign": "CB987",
            "cbsdCategory": "A",
            "cbsdInfo": {
                "firmwareVersion": "1.0.2.2p2",
                "hardwareVersion": "1.1",
                "model": "PR1450-48I",
                "softwareVersion": "2.1.0",
                "vendor": "Pegatron"
            },
            "cbsdSerialNumber": "D823956047",
            "fcclId": "VUIPR1450-48",
            "groupingParam": [
                {
                    "groupId": "group1",
                    "groupType": "INTERFERENCE_COORDINATION"
                }
            ],
            "installationParam": {
                "antennaAzimuth": 240,
                "antennaBeamwidth": 30,
                "antennaDowntilt": 3,
                "antennaGain": 9,
                "antennaModel": "Wire_dipole",
                "eirpCapability": 30,
                "height": 12.0,
                "heightType": "AGL",
                "horizontalAccuracy": 45.0,
                "indoorDeployment": true,
                "latitude": 37.425056,
                "longitude": -22.084113,
                "verticalAccuracy": 2.0
            },
            "measCapability": [
                "RECEIVED_POWER_WITHOUT_GRANT"
            ],
            "userId": "PEGATRON"
        }
    ]
}
2024-12-31T09:27:01.967Z - INFO - Response message contains measReportConfig
2024-12-31T09:27:01.967Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "measReportConfig": [
                "RECEIVED_POWER_WITHOUT_GRANT"
            ]
        }
    ]
}

```

```

    ],
    "response": {
      "responseCode": 0
    }
  }
]
}
2024-12-31T09:27:51.901Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ],
      "measReport": {
        "rcvdPowerMeasReports": [
          {
            "measBandwidth": 10000000,
            "measFrequency": 3550000000,
            "measRcvdPower": -96.0
          },
          {
            "measBandwidth": 10000000,
            "measFrequency": 3560000000,
            "measRcvdPower": -96.0
          },
          {
            "measBandwidth": 10000000,
            "measFrequency": 3570000000,
            "measRcvdPower": -96.0
          },
          {
            "measBandwidth": 10000000,
            "measFrequency": 3580000000,
            "measRcvdPower": -96.0
          },
          {
            "measBandwidth": 10000000,
            "measFrequency": 3590000000,
            "measRcvdPower": -96.0
          },
          {
            "measBandwidth": 10000000,
            "measFrequency": 3600000000,
            "measRcvdPower": -96.0
          },
          {
            "measBandwidth": 10000000,
            "measFrequency": 3610000000,
            "measRcvdPower": -96.0
          },
          {
            "measBandwidth": 10000000,
            "measFrequency": 3620000000,
            "measRcvdPower": -95.0
          }
        ]
      }
    }
  ]
}

```

```

    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3630000000,
      "measRcvdPower": -84.0
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3640000000,
      "measRcvdPower": -76.0
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3650000000,
      "measRcvdPower": -86.0
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3660000000,
      "measRcvdPower": -86.0
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3670000000,
      "measRcvdPower": -86.0
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3680000000,
      "measRcvdPower": -66.0
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3690000000,
      "measRcvdPower": -66.0
    }
  ]
}
},
{
  "cbsdId": "VUIPR1450-48Mock-SASD823956047",
  "inquiredSpectrum": [
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3550000000
    }
  ],
  "measReport": {
    "rcvdPowerMeasReports": [
      {
        "measBandwidth": 10000000,
        "measFrequency": 3550000000,
        "measRcvdPower": -96.0
      },
      {
        "measBandwidth": 10000000,
        "measFrequency": 3560000000,
        "measRcvdPower": -96.0
      }
    ]
  }
}

```

```

    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3570000000,
      "measRcvdPower": -96.0
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3580000000,
      "measRcvdPower": -96.0
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3590000000,
      "measRcvdPower": -96.0
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3600000000,
      "measRcvdPower": -96.0
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3610000000,
      "measRcvdPower": -96.0
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3620000000,
      "measRcvdPower": -95.0
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3630000000,
      "measRcvdPower": -84.0
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3640000000,
      "measRcvdPower": -76.0
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3650000000,
      "measRcvdPower": -86.0
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3660000000,
      "measRcvdPower": -86.0
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3670000000,
      "measRcvdPower": -86.0
    },
    {
      "measBandwidth": 10000000,

```

```

        "measFrequency": 3680000000,
        "measRcvdPower": -66.0
      },
      {
        "measBandwidth": 10000000,
        "measFrequency": 3690000000,
        "measRcvdPower": -66.0
      }
    ]
  }
}

2024-12-31T09:27:51.929Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "response": {
        "responseCode": 0
      }
    },
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

2024-12-31T09:27:52.880Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "measReport": {
        "rcvdPowerMeasReports": [
          {
            "measBandwidth": 10000000,
            "measFrequency": 3550000000,

```

```

        "measRcvdPower": -96.0
    },
    {
        "measBandwidth": 10000000,
        "measFrequency": 3560000000,
        "measRcvdPower": -96.0
    },
    {
        "measBandwidth": 10000000,
        "measFrequency": 3570000000,
        "measRcvdPower": -96.0
    },
    {
        "measBandwidth": 10000000,
        "measFrequency": 3580000000,
        "measRcvdPower": -96.0
    },
    {
        "measBandwidth": 10000000,
        "measFrequency": 3590000000,
        "measRcvdPower": -96.0
    },
    {
        "measBandwidth": 10000000,
        "measFrequency": 3600000000,
        "measRcvdPower": -96.0
    },
    {
        "measBandwidth": 10000000,
        "measFrequency": 3610000000,
        "measRcvdPower": -96.0
    },
    {
        "measBandwidth": 10000000,
        "measFrequency": 3620000000,
        "measRcvdPower": -95.0
    },
    {
        "measBandwidth": 10000000,
        "measFrequency": 3630000000,
        "measRcvdPower": -84.0
    },
    {
        "measBandwidth": 10000000,
        "measFrequency": 3640000000,
        "measRcvdPower": -76.0
    },
    {
        "measBandwidth": 10000000,
        "measFrequency": 3650000000,
        "measRcvdPower": -86.0
    },
    {
        "measBandwidth": 10000000,
        "measFrequency": 3660000000,
        "measRcvdPower": -86.0
    },
    {

```

```

        "measBandwidth": 10000000,
        "measFrequency": 3670000000,
        "measRcvdPower": -86.0
      },
      {
        "measBandwidth": 10000000,
        "measFrequency": 3680000000,
        "measRcvdPower": -66.0
      },
      {
        "measBandwidth": 10000000,
        "measFrequency": 3690000000,
        "measRcvdPower": -66.0
      }
    ]
  },
  "operationParam": {
    "maxEirp": 20.0,
    "operationFrequencyRange": {
      "highFrequency": 3640000000,
      "lowFrequency": 3600000000
    }
  }
},
{
  "cbsdId": "VUIPR1450-48Mock-SASD823956047",
  "measReport": {
    "rcvdPowerMeasReports": [
      {
        "measBandwidth": 10000000,
        "measFrequency": 3550000000,
        "measRcvdPower": -96.0
      },
      {
        "measBandwidth": 10000000,
        "measFrequency": 3560000000,
        "measRcvdPower": -96.0
      },
      {
        "measBandwidth": 10000000,
        "measFrequency": 3570000000,
        "measRcvdPower": -96.0
      },
      {
        "measBandwidth": 10000000,
        "measFrequency": 3580000000,
        "measRcvdPower": -96.0
      },
      {
        "measBandwidth": 10000000,
        "measFrequency": 3590000000,
        "measRcvdPower": -96.0
      },
      {
        "measBandwidth": 10000000,
        "measFrequency": 3600000000,
        "measRcvdPower": -96.0
      }
    ]
  }
},

```

```

    {
      "measBandwidth": 10000000,
      "measFrequency": 3610000000,
      "measRcvdPower": -96.0
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3620000000,
      "measRcvdPower": -95.0
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3630000000,
      "measRcvdPower": -84.0
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3640000000,
      "measRcvdPower": -76.0
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3650000000,
      "measRcvdPower": -86.0
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3660000000,
      "measRcvdPower": -86.0
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3670000000,
      "measRcvdPower": -86.0
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3680000000,
      "measRcvdPower": -66.0
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3690000000,
      "measRcvdPower": -66.0
    }
  ]
},
"operationParam": {
  "maxEirp": 20.0,
  "operationFrequencyRange": {
    "highFrequency": 3640000000,
    "lowFrequency": 3600000000
  }
}
}
]
}
}
2024-12-31T09:27:52.928Z - INFO - engine sent successfully, the response to CBRS : {

```

```
"grantResponse": [  
  {  
    "cbsdId": "VUIPR1450-48Mock-SASD823634126",  
    "channelType": "GAA",  
    "grantExpireTime": "2025-01-07T09:27:52Z",  
    "grantId": "865631839",  
    "heartbeatInterval": 60,  
    "response": {  
      "responseCode": 0  
    }  
  },  
  {  
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",  
    "channelType": "GAA",  
    "grantExpireTime": "2025-01-07T09:27:52Z",  
    "grantId": "210057937",  
    "heartbeatInterval": 60,  
    "response": {  
      "responseCode": 0  
    }  
  }  
]
```

```
}  
2024-12-31T09:27:54.778Z - INFO - arrived to nstep starting question answer session with the technician  
2024-12-31T09:28:20.329Z - INFO - The final result of the test : WINNF.FT.D.MES.2 is - passed
```

5 CBSD Relinquishment Process

5.1 WINNF.FT.D.RLQ.2

2025-01-03T06:57:30.593Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-01-03T06:57:30.593Z - INFO - the selected test from the user : WINNF.FT.D.RLQ.2 is starting now

2025-01-03T06:57:41.360Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "1.0.2.2p2",
        "hardwareVersion": "1.1",
        "model": "PR1450-48E",
        "softwareVersion": "2.1.0",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "D823634126",
      "fccId": "VUIPR1450-48",
      "groupingParam": [
        {
          "groupId": "group1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 30,
        "antennaDowntilt": 3,
        "antennaGain": 4,
        "antennaModel": "Wire_dipole",
        "eirpCapability": 30,
        "height": 12.0,
        "heightType": "AGL",
        "horizontalAccuracy": 45.0,
        "indoorDeployment": true,
        "latitude": 37.425056,
        "longitude": -22.084113,
        "verticalAccuracy": 2.0
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "PEGATRON"
    },
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "1.0.2.2p2",
        "hardwareVersion": "1.1",
        "model": "PR1450-48I",

```

```

        "softwareVersion": "2.1.0",
        "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823956047",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
        {
            "groupId": "group1",
            "groupType": "INTERFERENCE_COORDINATION"
        }
    ],
    "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 30,
        "antennaDowntilt": 3,
        "antennaGain": 9,
        "antennaModel": "Wire_dipole",
        "eirpCapability": 30,
        "height": 12.0,
        "heightType": "AGL",
        "horizontalAccuracy": 45.0,
        "indoorDeployment": true,
        "latitude": 37.425056,
        "longitude": -22.084113,
        "verticalAccuracy": 2.0
    },
    "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
    }
]
}
2025-01-03T06:57:41.526Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "response": {
                "responseCode": 0
            }
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2025-01-03T06:57:42.341Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3700000000,
                    "lowFrequency": 3550000000
                }
            ]
        }
    ]
}

```

```

    ],
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}

2025-01-03T06:57:42.361Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "response": {
        "responseCode": 0
      }
    },
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

2025-01-03T06:57:43.341Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "operationParam": {
        "maxEirp": 10.0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}

```

```

    }
  },
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "operationParam": {
      "maxEirp": 20.0,
      "operationFrequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3600000000
      }
    }
  }
]
}
2025-01-03T06:57:43.360Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "channelType": "GAA",
      "grantExpireTime": "2025-01-10T06:57:43Z",
      "grantId": "55960609",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "channelType": "GAA",
      "grantExpireTime": "2025-01-10T06:57:43Z",
      "grantId": "580101582",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-01-03T06:57:44.382Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "55960609",
      "operationState": "GRANTED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "580101582",
      "operationState": "GRANTED"
    }
  ]
}
2025-01-03T06:57:44.392Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "55960609",

```

```

    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-01-03T07:01:04Z"
  },
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "580101582",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-01-03T07:01:04Z"
  }
]
}
2025-01-03T06:58:09.340Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "580101582",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "55960609",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-03T06:58:09.342Z - INFO - Time interval between two heartbeat request messages is: 24.958607,
limit is: 65.0
2025-01-03T06:58:09.347Z - INFO - Time interval between two heartbeat request messages is: 24.958607,
limit is: 65.0
2025-01-03T06:58:09.351Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "580101582",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T07:01:29Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "55960609",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T07:01:29Z"
    }
  ]
}
2025-01-03T06:59:09.373Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "55960609",

```

```

        "operationState": "AUTHORIZED"
    },
    {
        "cbsdId": "VUIPR1450-48Mock-SASD823956047",
        "grantId": "580101582",
        "operationState": "AUTHORIZED"
    }
]
}
2025-01-03T06:59:09.375Z - INFO - Time interval between two heartbeat request messages is: 60.032564,
limit is: 65.0
2025-01-03T06:59:09.380Z - INFO - Time interval between two heartbeat request messages is: 60.032564,
limit is: 65.0
2025-01-03T06:59:09.384Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "55960609",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-03T07:02:29Z"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "580101582",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-03T07:02:29Z"
        }
    ]
}
2025-01-03T06:59:50.359Z - INFO - relinquishment request from CBRS : {
    "relinquishmentRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "55960609"
        }
    ]
}
2025-01-03T06:59:50.364Z - INFO - engine sent successfully, the response to CBRS : {
    "relinquishmentResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "55960609",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2025-01-03T06:59:52.375Z - INFO - relinquishment request from CBRS : {
    "relinquishmentRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "580101582"
        }
    ]
}

```

```
]
}
2025-01-03T06:59:52.382Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "580101582",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2025-01-03T06:59:53.740Z - INFO - arrived to nstep starting question answer session with the technician
2025-01-03T06:59:53.740Z - INFO - the question is : Did CBSD2 cease RF transmission before receipt of
Relinquishment Request by Test Harness? please choose one of the answers :
2025-01-03T07:01:47.306Z - INFO - for the question : Did CBSD2 cease RF transmission before receipt of
Relinquishment Request by Test Harness? , the user choose y
2025-01-03T07:01:47.306Z - INFO - the question is : Did CBSD1 cease RF transmission before receipt of
Relinquishment Request by Test Harness? please choose one of the answers :
2025-01-03T07:01:48.864Z - INFO - for the question : Did CBSD1 cease RF transmission before receipt of
Relinquishment Request by Test Harness? , the user choose y
2025-01-03T07:01:49.292Z - INFO - The final result of the test : WINNF.FT.D.RLQ.2 is - passed
```

5.2 WINNF.FT.D.RLQ.4

2025-01-03T07:07:52.343Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-01-03T07:07:52.343Z - INFO - the selected test from the user : WINNF.FT.D.RLQ.4 is starting now

2025-01-03T07:07:56.557Z - INFO - registration request from CBRS : {

```

  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "1.0.2.2p2",
        "hardwareVersion": "1.1",
        "model": "PR1450-48E",
        "softwareVersion": "2.1.0",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "D823634126",
      "fccId": "VUIPR1450-48",
      "groupingParam": [
        {
          "groupId": "group1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 30,
        "antennaDowntilt": 3,
        "antennaGain": 4,
        "antennaModel": "Wire_dipole",
        "eirpCapability": 30,
        "height": 12.0,
        "heightType": "AGL",
        "horizontalAccuracy": 45.0,
        "indoorDeployment": true,
        "latitude": 37.425056,
        "longitude": -22.084113,
        "verticalAccuracy": 2.0
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "PEGATRON"
    }
  ]
}

```

2025-01-03T07:07:56.653Z - INFO - engine sent successfully, the response to CBRS : {

```

  "registrationResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

}
2025-01-03T07:07:57.549Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
}
2025-01-03T07:07:57.558Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2025-01-03T07:07:58.594Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "operationParam": {
        "maxEirp": 10.0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
}
2025-01-03T07:07:58.607Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "channelType": "GAA",
      "grantExpireTime": "2025-01-10T07:07:58Z",
      "grantId": "284952672",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  }
]
}
2025-01-03T07:07:58.621Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "1.0.2.2p2",
        "hardwareVersion": "1.1",
        "model": "PR1450-48I",
        "softwareVersion": "2.1.0",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "D823956047",
      "fccId": "VUIPR1450-48",
      "groupingParam": [
        {
          "groupId": "group1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 30,
        "antennaDowntilt": 3,
        "antennaGain": 9,
        "antennaModel": "Wire_dipole",
        "eirpCapability": 30,
        "height": 12.0,
        "heightType": "AGL",
        "horizontalAccuracy": 45.0,
        "indoorDeployment": true,
        "latitude": 37.425056,
        "longitude": -22.084113,
        "verticalAccuracy": 2.0
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "PEGATRON"
    }
  ]
}
2025-01-03T07:07:58.691Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

}
2025-01-03T07:07:59.559Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
}
2025-01-03T07:07:59.606Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2025-01-03T07:07:59.606Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "284952672",
      "operationState": "GRANTED"
    }
  ]
}
}
2025-01-03T07:07:59.627Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "284952672",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T07:11:19Z"
    }
  ]
}
}
2025-01-03T07:08:00.548Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {

```

```

        "cbsdId": "VUIPR1450-48Mock-SASD823956047",
        "operationParam": {
            "maxEirp": 20.0,
            "operationFrequencyRange": {
                "highFrequency": 3640000000,
                "lowFrequency": 3600000000
            }
        }
    }
]
}
2025-01-03T07:08:00.555Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "channelType": "GAA",
            "grantExpireTime": "2025-01-10T07:08:00Z",
            "grantId": "7925502",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2025-01-03T07:08:01.548Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "7925502",
            "operationState": "GRANTED"
        }
    ]
}
2025-01-03T07:08:01.554Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "7925502",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-03T07:11:21Z"
        }
    ]
}
2025-01-03T07:08:42.548Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "284952672",
            "operationState": "AUTHORIZED"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "7925502",
            "operationState": "AUTHORIZED"
        }
    ]
}

```

```

    ]
  }
2025-01-03T07:08:42.549Z - INFO - Time interval between two heartbeat request messages is: 42.939822,
limit is: 65.0
2025-01-03T07:08:42.554Z - INFO - Time interval between two heartbeat request messages is: 40.999126,
limit is: 65.0
2025-01-03T07:08:42.558Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "284952672",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T07:12:02Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "7925502",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T07:12:02Z"
    }
  ]
}
2025-01-03T07:09:42.547Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "284952672",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "7925502",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-03T07:09:42.549Z - INFO - Time interval between two heartbeat request messages is: 59.999737,
limit is: 65.0
2025-01-03T07:09:42.553Z - INFO - Time interval between two heartbeat request messages is: 59.999737,
limit is: 65.0
2025-01-03T07:09:42.558Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "284952672",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T07:13:02Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "7925502",
      "response": {

```

```

        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T07:13:02Z"
    }
  ]
}
2025-01-03T07:10:32.547Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "284952672"
    }
  ]
}
2025-01-03T07:10:32.552Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "response": {
        "responseCode": 102,
        "responseData": [
          "grantId"
        ]
      }
    }
  ]
}
2025-01-03T07:10:33.546Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "7925502"
    }
  ]
}
2025-01-03T07:10:33.552Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 102,
        "responseData": [
          "grantId"
        ]
      }
    }
  ]
}
2025-01-03T07:10:35.516Z - INFO - arrived to nstep starting question answer session with the technician
2025-01-03T07:10:35.516Z - INFO - the question is : Did CBSD2 cease RF transmission before receipt of
Relinquishment Request by Test Harness? please choose one of the answers :
2025-01-03T07:12:39.084Z - INFO - for the question : Did CBSD2 cease RF transmission before receipt of
Relinquishment Request by Test Harness? , the user choose y
2025-01-03T07:12:39.084Z - INFO - the question is : Did CBSD1 cease RF transmission before receipt of
Relinquishment Request by Test Harness? please choose one of the answers :
2025-01-03T07:12:40.329Z - INFO - for the question : Did CBSD1 cease RF transmission before receipt of
Relinquishment Request by Test Harness? , the user choose y
2025-01-03T07:12:40.633Z - INFO - The final result of the test : WINNF.FT.D.RLQ.4 is - passed

```

5.3 WINNF.FT.D.RLQ.6

2025-01-03T07:19:00.049Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-01-03T07:19:00.051Z - INFO - the selected test from the user : WINNF.FT.D.RLQ.6 is starting now

2025-01-03T07:19:15.586Z - INFO - registration request from CBRS : {

```

    "registrationRequest": [
      {
        "airInterface": {
          "radioTechnology": "NR"
        },
        "callSign": "CB987",
        "cbsdCategory": "A",
        "cbsdInfo": {
          "firmwareVersion": "1.0.2.2p2",
          "hardwareVersion": "1.1",
          "model": "PR1450-48E",
          "softwareVersion": "2.1.0",
          "vendor": "Pegatron"
        },
        "cbsdSerialNumber": "D823634126",
        "fccId": "VUIPR1450-48",
        "groupingParam": [
          {
            "groupId": "group1",
            "groupType": "INTERFERENCE_COORDINATION"
          }
        ],
        "installationParam": {
          "antennaAzimuth": 240,
          "antennaBeamwidth": 30,
          "antennaDowntilt": 3,
          "antennaGain": 4,
          "antennaModel": "Wire_dipole",
          "eirpCapability": 30,
          "height": 12.0,
          "heightType": "AGL",
          "horizontalAccuracy": 45.0,
          "indoorDeployment": true,
          "latitude": 37.425056,
          "longitude": -22.084113,
          "verticalAccuracy": 2.0
        },
        "measCapability": [
          "RECEIVED_POWER_WITHOUT_GRANT"
        ],
        "userId": "PEGATRON"
      }
    ]
  }
}
2025-01-03T07:19:15.654Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

}
2025-01-03T07:19:16.587Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
}
2025-01-03T07:19:16.595Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2025-01-03T07:19:17.574Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "operationParam": {
        "maxEirp": 10.0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
}
2025-01-03T07:19:17.589Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "channelType": "GAA",
      "grantExpireTime": "2025-01-10T07:19:17Z",
      "grantId": "337360721",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  }
]
}
2025-01-03T07:19:17.600Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "1.0.2.2p2",
        "hardwareVersion": "1.1",
        "model": "PR1450-48I",
        "softwareVersion": "2.1.0",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "D823956047",
      "fcclId": "VUIPR1450-48",
      "groupingParam": [
        {
          "groupId": "group1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 30,
        "antennaDowntilt": 3,
        "antennaGain": 9,
        "antennaModel": "Wire_dipole",
        "eirpCapability": 30,
        "height": 12.0,
        "heightType": "AGL",
        "horizontalAccuracy": 45.0,
        "indoorDeployment": true,
        "latitude": 37.425056,
        "longitude": -22.084113,
        "verticalAccuracy": 2.0
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "PEGATRON"
    }
  ]
}
2025-01-03T07:19:17.721Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

}
2025-01-03T07:19:18.562Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "337360721",
      "operationState": "GRANTED"
    }
  ]
}
2025-01-03T07:19:18.569Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "337360721",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T07:22:38Z"
    }
  ]
}
2025-01-03T07:19:18.582Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-01-03T07:19:18.603Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-01-03T07:19:19.556Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {

```

```

    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "operationParam": {
      "maxEirp": 20.0,
      "operationFrequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3600000000
      }
    }
  }
]
}
2025-01-03T07:19:19.563Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "channelType": "GAA",
      "grantExpireTime": "2025-01-10T07:19:19Z",
      "grantId": "745232898",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-01-03T07:19:20.556Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "745232898",
      "operationState": "GRANTED"
    }
  ]
}
2025-01-03T07:19:20.561Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "745232898",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T07:22:40Z"
    }
  ]
}
2025-01-03T07:19:42.570Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "337360721",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "745232898",
      "operationState": "AUTHORIZED"
    }
  ]
}

```

```

    ]
  }
  2025-01-03T07:19:42.572Z - INFO - Time interval between two heartbeat request messages is:
24.007745, limit is: 65.0
  2025-01-03T07:19:42.579Z - INFO - Time interval between two heartbeat request messages is:
22.014208, limit is: 65.0
  2025-01-03T07:19:42.587Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823634126",
        "grantId": "337360721",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2025-01-03T07:23:02Z"
      },
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823956047",
        "grantId": "745232898",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2025-01-03T07:23:02Z"
      }
    ]
  }
  2025-01-03T07:20:42.559Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823956047",
        "grantId": "745232898",
        "operationState": "AUTHORIZED"
      },
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823634126",
        "grantId": "337360721",
        "operationState": "AUTHORIZED"
      }
    ]
  }
  2025-01-03T07:20:42.560Z - INFO - Time interval between two heartbeat request messages is:
59.98833, limit is: 65.0
  2025-01-03T07:20:42.564Z - INFO - Time interval between two heartbeat request messages is:
59.98833, limit is: 65.0
  2025-01-03T07:20:42.568Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823956047",
        "grantId": "745232898",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2025-01-03T07:24:02Z"
      },
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823634126",
        "grantId": "337360721",
        "response": {

```

```

        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T07:24:02Z"
    }
  ]
}
2025-01-03T07:21:42.587Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "337360721",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "745232898",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-03T07:21:42.589Z - INFO - Time interval between two heartbeat request messages is:
60.028933, limit is: 65.0
2025-01-03T07:21:42.593Z - INFO - Time interval between two heartbeat request messages is:
60.028933, limit is: 65.0
2025-01-03T07:21:42.598Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "337360721",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T07:25:02Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "745232898",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T07:25:02Z"
    }
  ]
}
2025-01-03T07:21:50.588Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "337360721"
    }
  ]
}
2025-01-03T07:21:50.594Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "response": {
        "responseCode": 103,

```

```

        "responseData": [
            "grantId"
        ]
    }
}
]
}
2025-01-03T07:21:52.577Z - INFO - relinquishment request from CBRS : {
    "relinquishmentRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "745232898"
        }
    ]
}
2025-01-03T07:21:52.586Z - INFO - engine sent successfully, the response to CBRS : {
    "relinquishmentResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "response": {
                "responseCode": 103,
                "responseData": [
                    "grantId"
                ]
            }
        }
    ]
}

```

2025-01-03T07:21:54.227Z - INFO - arrived to nstep starting question answer session with the technician

2025-01-03T07:21:54.227Z - INFO - the question is : Did CBSD2 cease RF transmission before receipt of Relinquishment Request by Test Harness? please choose one of the answers :

2025-01-03T07:24:03.562Z - INFO - for the question : Did CBSD2 cease RF transmission before receipt of Relinquishment Request by Test Harness? , the user choose y

2025-01-03T07:24:03.562Z - INFO - the question is : Did CBSD1 cease RF transmission before receipt of Relinquishment Request by Test Harness? please choose one of the answers :

2025-01-03T07:24:04.731Z - INFO - for the question : Did CBSD1 cease RF transmission before receipt of Relinquishment Request by Test Harness? , the user choose y

2025-01-03T07:24:04.987Z - INFO - The final result of the test : WINNF.FT.D.RLQ.6 is - passed

6 CBSD Deregistration Process

6.1 WINNF.FT.D.DRG.2

2025-01-03T07:29:40.376Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-01-03T07:29:40.378Z - INFO - the selected test from the user : WINNF.FT.D.DRG.2 is starting now

2025-01-03T07:29:54.593Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
      "hardwareVersion": "1.1",
      "model": "PR1450-48E",
      "softwareVersion": "2.1.0",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823634126",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
      {
        "groupId": "group1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 30,
      "antennaDowntilt": 3,
      "antennaGain": 4,
      "antennaModel": "Wire_dipole",
      "eirpCapability": 30,
      "height": 12.0,
      "heightType": "AGL",
      "horizontalAccuracy": 45.0,
      "indoorDeployment": true,
      "latitude": 37.425056,
      "longitude": -22.084113,
      "verticalAccuracy": 2.0
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
  }
]
```

2025-01-03T07:29:54.670Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823634126",
    "response": {
      "responseCode": 0
    }
  }
]
```

```

    ]
  }
  2025-01-03T07:29:55.564Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823634126",
        "inquiredSpectrum": [
          {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          }
        ]
      }
    ]
  }
]
}
2025-01-03T07:29:55.584Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
]
}
2025-01-03T07:29:55.595Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "1.0.2.2p2",
        "hardwareVersion": "1.1",
        "model": "PR1450-48I",
        "softwareVersion": "2.1.0",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "D823956047",
      "fccId": "VUIPR1450-48",
      "groupingParam": [
        {
          "groupId": "group1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ]
    }
  ],

```

```

        "installationParam": {
            "antennaAzimuth": 240,
            "antennaBeamwidth": 30,
            "antennaDowntilt": 3,
            "antennaGain": 9,
            "antennaModel": "Wire_dipole",
            "eirpCapability": 30,
            "height": 12.0,
            "heightType": "AGL",
            "horizontalAccuracy": 45.0,
            "indoorDeployment": true,
            "latitude": 37.425056,
            "longitude": -22.084113,
            "verticalAccuracy": 2.0
        },
        "measCapability": [
            "RECEIVED_POWER_WITHOUT_GRANT"
        ],
        "userId": "PEGATRON"
    }
}
]
}
2025-01-03T07:29:55.731Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
}
2025-01-03T07:29:56.586Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "operationParam": {
                "maxEirp": 10.0,
                "operationFrequencyRange": {
                    "highFrequency": 3640000000,
                    "lowFrequency": 3600000000
                }
            }
        }
    ]
}
}
}
2025-01-03T07:29:56.599Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "channelType": "GAA",
            "grantExpireTime": "2025-01-10T07:29:56Z",
            "grantId": "972496885",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
}

```

```

    ]
  }
  2025-01-03T07:29:56.613Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823956047",
        "inquiredSpectrum": [
          {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          }
        ]
      }
    ]
  }
  ]
}
  2025-01-03T07:29:56.629Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
      {
        "availableChannel": [
          {
            "channelType": "GAA",
            "frequencyRange": {
              "highFrequency": 3700000000,
              "lowFrequency": 3550000000
            },
            "ruleApplied": "FCC_PART_96"
          }
        ],
        "cbsdId": "VUIPR1450-48Mock-SASD823956047",
        "response": {
          "responseCode": 0
        }
      }
    ]
  }
}
  2025-01-03T07:29:57.580Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823634126",
        "grantId": "972496885",
        "operationState": "GRANTED"
      }
    ]
  }
}
  2025-01-03T07:29:57.602Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823634126",
        "grantId": "972496885",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2025-01-03T07:33:17Z"
      }
    ]
  }
}
  2025-01-03T07:29:57.610Z - INFO - grant request from CBRS : {
    "grantRequest": [

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```

        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "operationParam": {
                "maxEirp": 20.0,
                "operationFrequencyRange": {
                    "highFrequency": 3640000000,
                    "lowFrequency": 3600000000
                }
            }
        }
    ]
}
2025-01-03T07:29:57.628Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "channelType": "GAA",
            "grantExpireTime": "2025-01-10T07:29:57Z",
            "grantId": "258725809",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2025-01-03T07:29:58.591Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "258725809",
            "operationState": "GRANTED"
        }
    ]
}
2025-01-03T07:29:58.599Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "258725809",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-03T07:33:18Z"
        }
    ]
}
2025-01-03T07:30:42.561Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "258725809",
            "operationState": "AUTHORIZED"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "972496885",
            "operationState": "AUTHORIZED"
        }
    ]
}

```

```
    }
  ]
}
2025-01-03T07:30:42.563Z - INFO - Time interval between two heartbeat request messages is: 43.96959,
limit is: 65.0
2025-01-03T07:30:42.568Z - INFO - Time interval between two heartbeat request messages is: 44.981115,
limit is: 65.0
2025-01-03T07:30:42.572Z - INFO - engine sent successfully, the response to CBRS  : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "258725809",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T07:34:02Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "972496885",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T07:34:02Z"
    }
  ]
}
2025-01-03T07:31:42.577Z - INFO - heartbeat request from CBRS  : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "258725809",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "972496885",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-03T07:31:42.578Z - INFO - Time interval between two heartbeat request messages is: 60.015536,
limit is: 65.0
2025-01-03T07:31:42.583Z - INFO - Time interval between two heartbeat request messages is: 60.015536,
limit is: 65.0
2025-01-03T07:31:42.587Z - INFO - engine sent successfully, the response to CBRS  : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "258725809",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T07:35:02Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "972496885",
```

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        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2025-01-03T07:35:02Z"
    }
}
2025-01-03T07:32:24.563Z - INFO - deregistration request from CBRS : {
    "deregistrationRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126"
        }
    ]
}
2025-01-03T07:32:24.567Z - INFO - engine sent successfully, the response to CBRS : {
    "deregistrationResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2025-01-03T07:32:26.562Z - INFO - deregistration request from CBRS : {
    "deregistrationRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047"
        }
    ]
}
2025-01-03T07:32:26.566Z - INFO - engine sent successfully, the response to CBRS : {
    "deregistrationResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2025-01-03T07:32:28.552Z - INFO - arrived to nstep starting question answer session with the technician
2025-01-03T07:32:28.552Z - INFO - the question is : Did CBSD2 cease RF transmission before receipt of
Relinquishment request (if sent) or Deregistration request at Test Harness? please choose one of the
answers :
2025-01-03T07:34:51.981Z - INFO - for the question : Did CBSD2 cease RF transmission before receipt of
Relinquishment request (if sent) or Deregistration request at Test Harness? , the user choose y
2025-01-03T07:34:51.982Z - 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 :
2025-01-03T07:34:52.728Z - 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
2025-01-03T07:34:53.077Z - INFO - The final result of the test : WINNF.FT.D.DRG.2 is - passed

```

6.2 WINNF.FT.D.DRG.4

2025-01-03T07:39:37.486Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-01-03T07:39:37.487Z - INFO - the selected test from the user : WINNF.FT.D.DRG.4 is starting now

2025-01-03T07:39:43.588Z - INFO - registration request from CBRS : {

```

    "registrationRequest": [
      {
        "airInterface": {
          "radioTechnology": "NR"
        },
        "callSign": "CB987",
        "cbsdCategory": "A",
        "cbsdInfo": {
          "firmwareVersion": "1.0.2.2p2",
          "hardwareVersion": "1.1",
          "model": "PR1450-48E",
          "softwareVersion": "2.1.0",
          "vendor": "Pegatron"
        },
        "cbsdSerialNumber": "D823634126",
        "fcclId": "VUIPR1450-48",
        "groupingParam": [
          {
            "groupId": "group1",
            "groupType": "INTERFERENCE_COORDINATION"
          }
        ],
        "installationParam": {
          "antennaAzimuth": 240,
          "antennaBeamwidth": 30,
          "antennaDowntilt": 3,
          "antennaGain": 4,
          "antennaModel": "Wire_dipole",
          "eirpCapability": 30,
          "height": 12.0,
          "heightType": "AGL",
          "horizontalAccuracy": 45.0,
          "indoorDeployment": true,
          "latitude": 37.425056,
          "longitude": -22.084113,
          "verticalAccuracy": 2.0
        },
        "measCapability": [
          "RECEIVED_POWER_WITHOUT_GRANT"
        ],
        "userId": "PEGATRON"
      }
    ]
  }
}
2025-01-03T07:39:43.662Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

}
2025-01-03T07:39:44.588Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
}
2025-01-03T07:39:44.608Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2025-01-03T07:39:44.615Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "1.0.2.2p2",
        "hardwareVersion": "1.1",
        "model": "PR1450-48I",
        "softwareVersion": "2.1.0",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "D823956047",
      "fcclId": "VUIPR1450-48",
      "groupingParam": [
        {
          "groupId": "group1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {

```

```

        "antennaAzimuth": 240,
        "antennaBeamwidth": 30,
        "antennaDowntilt": 3,
        "antennaGain": 9,
        "antennaModel": "Wire_dipole",
        "eirpCapability": 30,
        "height": 12.0,
        "heightType": "AGL",
        "horizontalAccuracy": 45.0,
        "indoorDeployment": true,
        "latitude": 37.425056,
        "longitude": -22.084113,
        "verticalAccuracy": 2.0
    },
    "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
}
]
}
2025-01-03T07:39:44.715Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
}
2025-01-03T07:39:45.612Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3700000000,
                    "lowFrequency": 3550000000
                }
            ]
        }
    ]
}
}
2025-01-03T07:39:45.633Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {
                    "channelType": "GAA",
                    "frequencyRange": {
                        "highFrequency": 3700000000,
                        "lowFrequency": 3550000000
                    },
                    "ruleApplied": "FCC_PART_96"
                }
            ]
        },
        "cbsdId": "VUIPR1450-48Mock-SASD823956047",

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        "response": {
            "responseCode": 0
        }
    ]
}
2025-01-03T07:39:45.639Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "operationParam": {
                "maxEirp": 10.0,
                "operationFrequencyRange": {
                    "highFrequency": 3640000000,
                    "lowFrequency": 3600000000
                }
            }
        }
    ]
}
2025-01-03T07:39:45.654Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "channelType": "GAA",
            "grantExpireTime": "2025-01-10T07:39:45Z",
            "grantId": "304508297",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2025-01-03T07:39:46.566Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "operationParam": {
                "maxEirp": 20.0,
                "operationFrequencyRange": {
                    "highFrequency": 3640000000,
                    "lowFrequency": 3600000000
                }
            }
        }
    ]
}
2025-01-03T07:39:46.589Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "channelType": "GAA",
            "grantExpireTime": "2025-01-10T07:39:46Z",
            "grantId": "789236157",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}

```

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    }
  }
]
}
2025-01-03T07:39:46.595Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "304508297",
      "operationState": "GRANTED"
    }
  ]
}
2025-01-03T07:39:46.608Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "304508297",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T07:43:06Z"
    }
  ]
}
2025-01-03T07:39:47.564Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "789236157",
      "operationState": "GRANTED"
    }
  ]
}
2025-01-03T07:39:47.570Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "789236157",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T07:43:07Z"
    }
  ]
}
2025-01-03T07:40:42.564Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "789236157",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "304508297",
      "operationState": "AUTHORIZED"
    }
  ]
}

```

```

    ]
  }
  2025-01-03T07:40:42.566Z - INFO - Time interval between two heartbeat request messages is:
54.999778, limit is: 65.0
  2025-01-03T07:40:42.571Z - INFO - Time interval between two heartbeat request messages is:
55.968093, limit is: 65.0
  2025-01-03T07:40:42.575Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823956047",
        "grantId": "789236157",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2025-01-03T07:44:02Z"
      },
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823634126",
        "grantId": "304508297",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2025-01-03T07:44:02Z"
      }
    ]
  }
}
2025-01-03T07:41:42.597Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "304508297",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "789236157",
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2025-01-03T07:41:42.599Z - INFO - Time interval between two heartbeat request messages is:
60.033065, limit is: 65.0
2025-01-03T07:41:42.603Z - INFO - Time interval between two heartbeat request messages is:
60.033065, limit is: 65.0
2025-01-03T07:41:42.608Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "304508297",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T07:45:02Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "789236157",
      "response": {

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```

        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T07:45:02Z"
    }
  ]
}
2025-01-03T07:41:48.565Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126"
    }
  ]
}
2025-01-03T07:41:48.569Z - INFO - engine sent successfully, the response to CBRS : {
  "deregistrationResponse": [
    {
      "response": {
        "responseCode": 102
      }
    }
  ]
}
2025-01-03T07:41:49.604Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047"
    }
  ]
}
2025-01-03T07:41:49.608Z - INFO - engine sent successfully, the response to CBRS : {
  "deregistrationResponse": [
    {
      "response": {
        "responseCode": 102
      }
    }
  ]
}
2025-01-03T07:41:50.627Z - INFO - arrived to nstep starting question answer session with the technician
2025-01-03T07:41:50.628Z - INFO - the question is : Did CBSD2 cease RF transmission before receipt
of Relinquishment request (if sent) or Deregistration request at Test Harness? please choose one of the
answers :
2025-01-03T07:44:39.537Z - INFO - for the question : Did CBSD2 cease RF transmission before receipt
of Relinquishment request (if sent) or Deregistration request at Test Harness? , the user choose y
2025-01-03T07:44:39.537Z - 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 :
2025-01-03T07:44:40.227Z - 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
2025-01-03T07:44:40.551Z - INFO - The final result of the test : WINNF.FT.D.DRG.4 is - passed

```

6.3 WINNF.FT.C.DRG.5

2025-01-03T07:45:31.883Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-01-03T07:45:31.883Z - INFO - the selected test from the user : WINNF.FT.C.DRG.5 is starting now

2025-01-03T07:45:42.575Z - INFO - registration request from CBRS : {

```

    "registrationRequest": [
      {
        "airInterface": {
          "radioTechnology": "NR"
        },
        "callSign": "CB987",
        "cbsdCategory": "A",
        "cbsdInfo": {
          "firmwareVersion": "1.0.2.2p2",
          "hardwareVersion": "1.1",
          "model": "PR1450-48I",
          "softwareVersion": "2.1.0",
          "vendor": "Pegatron"
        },
        "cbsdSerialNumber": "D823956047",
        "fccId": "VUIPR1450-48",
        "groupingParam": [
          {
            "groupId": "group1",
            "groupType": "INTERFERENCE_COORDINATION"
          }
        ],
        "installationParam": {
          "antennaAzimuth": 240,
          "antennaBeamwidth": 30,
          "antennaDowntilt": 3,
          "antennaGain": 9,
          "antennaModel": "Wire_dipole",
          "eirpCapability": 30,
          "height": 12.0,
          "heightType": "AGL",
          "horizontalAccuracy": 45.0,
          "indoorDeployment": true,
          "latitude": 37.425056,
          "longitude": -22.084113,
          "verticalAccuracy": 2.0
        },
        "measCapability": [
          "RECEIVED_POWER_WITHOUT_GRANT"
        ],
        "userId": "PEGATRON"
      }
    ]
  }
}
2025-01-03T07:45:42.651Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

}
2025-01-03T07:45:43.594Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
}
2025-01-03T07:45:43.602Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2025-01-03T07:45:44.567Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
}
2025-01-03T07:45:44.573Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "channelType": "GAA",
      "grantExpireTime": "2025-01-10T07:45:44Z",
      "grantId": "410017281",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  }
]
}
2025-01-03T07:45:45.587Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "410017281",
      "operationState": "GRANTED"
    }
  ]
}
2025-01-03T07:45:45.604Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "410017281",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T07:49:05Z"
    }
  ]
}
2025-01-03T07:46:42.566Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "410017281",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-03T07:46:42.567Z - INFO - Time interval between two heartbeat request messages is:
56.978649, limit is: 65.0
2025-01-03T07:46:42.572Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "410017281",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-03T07:50:02Z"
    }
  ]
}
2025-01-03T07:47:42.605Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "410017281",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-03T07:47:42.606Z - INFO - Time interval between two heartbeat request messages is:

```

60.038855, limit is: 65.0

2025-01-03T07:47:42.611Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "410017281",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-01-03T07:51:02Z"
  }
]
```

}
2025-01-03T07:48:02.566Z - INFO - deregistration request from CBRS : {

```
"deregistrationRequest": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047"
  }
]
```

}
2025-01-03T07:48:02.570Z - INFO - engine sent successfully, the response to CBRS : {
"deregistrationResponse": {

```
{
  "response": {
    "responseCode": 103,
    "responseData": [
      "cbsdId"
    ]
  }
}
```

}
2025-01-03T07:48:04.039Z - INFO - arrived to nstep starting question answer session with the technician

2025-01-03T07:48:04.039Z - 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 :

2025-01-03T07:50:07.573Z - 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

2025-01-03T07:50:08.327Z - INFO - The final result of the test : WINNF.FT.C.DRG.5 is - passed

7 CBSD Security Validation

7.1 WINNF.FT.C.SCS.1

2024-12-31T09:57:50.305Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-12-31T09:57:50.305Z - INFO - the selected test from the user : WINNF.FT.C.SCS.1 is starting now

2024-12-31T09:58:03.889Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
      "hardwareVersion": "1.1",
      "model": "PR1450-48I",
      "softwareVersion": "2.1.0",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823956047",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
      {
        "groupId": "group1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 30,
      "antennaDowntilt": 3,
      "antennaGain": 9,
      "antennaModel": "Wire_dipole",
      "eirpCapability": 30,
      "height": 12.0,
      "heightType": "AGL",
      "horizontalAccuracy": 45.0,
      "indoorDeployment": true,
      "latitude": 37.425056,
      "longitude": -22.084113,
      "verticalAccuracy": 2.0
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
  }
]
```

2024-12-31T09:58:03.964Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "response": {
      "responseCode": 0
    }
  }
]
```

] }
}

2024-12-31T09:58:05.324Z - INFO - arrived to nstep starting question answer session with the technician

2024-12-31T09:58:05.324Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2024-12-31T09:58:25.324Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2024-12-31T09:58:25.763Z - INFO - The final result of the test : WINNF.FT.C.SCS.1 is - passed

7.2 WINNF.FT.C.SCS.2

2025-01-07T03:21:08.066Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-01-07T03:21:08.067Z - INFO - the selected test from the user : WINNF.FT.C.SCS.2 is starting now

7.3 WINNF.FT.C.SCS.3

2025-01-09T05:20:01.030Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-01-09T05:20:01.031Z - INFO - the selected test from the user : WINNF.FT.C.SCS.3 is starting now

7.4 WINNF.FT.C.SCS.4

2025-01-09T05:35:41.379Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-01-09T05:35:41.379Z - INFO - the selected test from the user : WINNF.FT.C.SCS.4 is starting now

7.5 WINNF.FT.C.SCS.5

2025-01-09T05:40:14.772Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-01-09T05:40:14.773Z - INFO - the selected test from the user : WINNF.FT.C.SCS.5 is starting now

8 CBSD RF Power Measurement

8.1 WINNF.PT.C.HBT.1(Max Eirp = 12 dBm/MHz)

2025-01-02T07:16:15.821Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-01-02T07:16:15.822Z - INFO - Selected spectrum frequency is {'lowFrequency': 3600000000, 'highFrequency': 3640000000}

2025-01-02T07:16:15.822Z - INFO - Granted Spectrum Max Eirp = 12dBm/MHz

2025-01-02T07:16:15.822Z - INFO - the selected test from the user : PowerMeasTest is starting now

2025-01-02T07:17:25.847Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
      "hardwareVersion": "1.1",
      "model": "PR1450-48E",
      "softwareVersion": "2.1.0",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823634126",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
      {
        "groupId": "group1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 30,
      "antennaDowntilt": 3,
      "antennaGain": 4,
      "antennaModel": "Wire_dipole",
      "eirpCapability": 30,
      "height": 12.0,
      "heightType": "AGL",
      "horizontalAccuracy": 45.0,
      "indoorDeployment": true,
      "latitude": 37.425056,
      "longitude": -22.084113,
      "verticalAccuracy": 2.0
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
  },
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
```

```

        "firmwareVersion": "1.0.2.2p2",
        "hardwareVersion": "1.1",
        "model": "PR1450-48l",
        "softwareVersion": "2.1.0",
        "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823956047",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
        {
            "groupId": "group1",
            "groupType": "INTERFERENCE_COORDINATION"
        }
    ],
    "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 30,
        "antennaDowntilt": 3,
        "antennaGain": 9,
        "antennaModel": "Wire_dipole",
        "eirpCapability": 30,
        "height": 12.0,
        "heightType": "AGL",
        "horizontalAccuracy": 45.0,
        "indoorDeployment": true,
        "latitude": 37.425056,
        "longitude": -22.084113,
        "verticalAccuracy": 2.0
    },
    "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
    }
]
}
2025-01-02T07:17:26.000Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "response": {
                "responseCode": 0
            }
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2025-01-02T07:17:26.881Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "inquiredSpectrum": [
                {

```

```

        "highFrequency": 3700000000,
        "lowFrequency": 3550000000
      }
    ],
  },
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "inquiredSpectrum": [
      {
        "highFrequency": 3700000000,
        "lowFrequency": 3550000000
      }
    ]
  }
]
}
2025-01-02T07:17:26.889Z - INFO - The requested spectrum is out of the range, availableChannel is sent out
2025-01-02T07:17:26.907Z - INFO - The requested spectrum is out of the range, availableChannel is sent out
2025-01-02T07:17:26.907Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "maxEirp": 12,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "response": {
        "responseCode": 0
      }
    },
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "maxEirp": 12,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-01-02T07:17:27.858Z - INFO - grant request from CBRS : {
  "grantRequest": [

```

```

{
  "cbsdId": "VUIPR1450-48Mock-SASD823634126",
  "operationParam": {
    "maxEirp": 10.0,
    "operationFrequencyRange": {
      "highFrequency": 3640000000,
      "lowFrequency": 3600000000
    }
  }
},
{
  "cbsdId": "VUIPR1450-48Mock-SASD823956047",
  "operationParam": {
    "maxEirp": 11.0,
    "operationFrequencyRange": {
      "highFrequency": 3640000000,
      "lowFrequency": 3600000000
    }
  }
}
]
}
2025-01-02T07:17:27.867Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "channelType": "GAA",
      "grantExpireTime": "2025-01-09T07:17:27Z",
      "grantId": "713013851",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "channelType": "GAA",
      "grantExpireTime": "2025-01-09T07:17:27Z",
      "grantId": "36243421",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-01-02T07:17:28.840Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "713013851",
      "operationState": "GRANTED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "36243421",
      "operationState": "GRANTED"
    }
  ]
}

```

```

    ]
  }
  2025-01-02T07:17:28.859Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823634126",
        "grantId": "713013851",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2025-01-02T07:20:48Z"
      },
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823956047",
        "grantId": "36243421",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2025-01-02T07:20:48Z"
      }
    ]
  }
  2025-01-02T07:18:13.841Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823634126",
        "grantId": "713013851",
        "operationState": "AUTHORIZED"
      },
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823956047",
        "grantId": "36243421",
        "operationState": "AUTHORIZED"
      }
    ]
  }
  2025-01-02T07:18:13.853Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823634126",
        "grantId": "713013851",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2025-01-02T07:21:33Z"
      },
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823956047",
        "grantId": "36243421",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2025-01-02T07:21:33Z"
      }
    ]
  }
  2025-01-02T07:19:13.851Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [

```

```

    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "36243421",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "713013851",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T07:19:13.874Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "36243421",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:22:33Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "713013851",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:22:33Z"
    }
  ]
}
2025-01-02T07:20:13.841Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "36243421",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "713013851",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T07:20:13.852Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "36243421",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:23:33Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",

```

```

    "grantId": "713013851",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-01-02T07:23:33Z"
  }
]
}
2025-01-02T07:20:23.840Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126"
    }
  ]
}
2025-01-02T07:20:23.843Z - INFO - engine sent successfully, the response to CBRS : {
  "deregistrationResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-01-02T07:20:24.843Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047"
    }
  ]
}
2025-01-02T07:20:24.846Z - INFO - engine sent successfully, the response to CBRS : {
  "deregistrationResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-01-02T07:22:12.447Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "1.4.0",
        "hardwareVersion": "SGF",
        "model": "PR1450-48E",
        "softwareVersion": "2.0.8",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "D823634126",

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        "fccId": "VUIPR1450-48",
        "groupingParam": [
            {
                "groupId": "group1",
                "groupType": "INTERFERENCE_COORDINATION"
            }
        ],
        "installationParam": {
            "antennaAzimuth": 240,
            "antennaBeamwidth": 30,
            "antennaDowntilt": 3,
            "antennaGain": 4,
            "antennaModel": "Wire_dipole",
            "eirpCapability": 30,
            "height": 12.0,
            "heightType": "AGL",
            "horizontalAccuracy": 45.0,
            "indoorDeployment": true,
            "latitude": 37.425056,
            "longitude": -22.084113,
            "verticalAccuracy": 2.0
        },
        "measCapability": [
            "RECEIVED_POWER_WITHOUT_GRANT"
        ],
        "userId": "PEGATRON"
    }
]
}
2025-01-02T07:22:12.529Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2025-01-02T07:22:13.439Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3700000000,
                    "lowFrequency": 3550000000
                }
            ]
        }
    ]
}
2025-01-02T07:22:13.457Z - INFO - The requested spectrum is out of the range, availableChannel is sent out
2025-01-02T07:22:13.457Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {

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        "channelType": "GAA",
        "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
        },
        "maxEirp": 12,
        "ruleApplied": "FCC_PART_96"
    }
},
"cbstdId": "VUIPR1450-48Mock-SASD823634126",
"response": {
    "responseCode": 0
}
}
]
}
2025-01-02T07:22:13.464Z - INFO - registration request from CBRS : {
    "registrationRequest": [
        {
            "airInterface": {
                "radioTechnology": "E_UTRA"
            },
            "callSign": "CB987",
            "cbstdCategory": "A",
            "cbstdInfo": {
                "firmwareVersion": "1.4.0",
                "hardwareVersion": "SGF",
                "model": "PR1450-48I",
                "softwareVersion": "2.0.8",
                "vendor": "Pegatron"
            },
            "cbstdSerialNumber": "D823956047",
            "fccId": "VUIPR1450-48",
            "groupingParam": [
                {
                    "groupId": "group1",
                    "groupType": "INTERFERENCE_COORDINATION"
                }
            ],
            "installationParam": {
                "antennaAzimuth": 240,
                "antennaBeamwidth": 30,
                "antennaDowntilt": 3,
                "antennaGain": 9,
                "antennaModel": "Wire_dipole",
                "eirpCapability": 30,
                "height": 12.0,
                "heightType": "AGL",
                "horizontalAccuracy": 45.0,
                "indoorDeployment": true,
                "latitude": 37.425056,
                "longitude": -22.084113,
                "verticalAccuracy": 2.0
            },
            "measCapability": [
                "RECEIVED_POWER_WITHOUT_GRANT"
            ],
            "userId": "PEGATRON"
        }
    ]
}

```

```

    }
  ]
}
2025-01-02T07:22:13.540Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-01-02T07:22:14.440Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-01-02T07:22:14.456Z - INFO - The requested spectrum is out of the range, availableChannel is sent out
2025-01-02T07:22:14.456Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "maxEirp": 12,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-01-02T07:22:14.466Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "operationParam": {
        "maxEirp": 10.0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}

```

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    }
  }
]
}
2025-01-02T07:22:14.477Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "channelType": "GAA",
      "grantExpireTime": "2025-01-09T07:22:14Z",
      "grantId": "664066045",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-01-02T07:22:15.440Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "operationParam": {
        "maxEirp": 12.0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2025-01-02T07:22:15.448Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "channelType": "GAA",
      "grantExpireTime": "2025-01-09T07:22:15Z",
      "grantId": "261625908",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-01-02T07:22:15.459Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "664066045",
      "operationState": "GRANTED"
    }
  ]
}
2025-01-02T07:22:15.473Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {

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        "cbsdId": "VUIPR1450-48Mock-SASD823634126",
        "grantId": "664066045",
        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2025-01-02T07:25:35Z"
    }
}
2025-01-02T07:22:16.437Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "261625908",
            "operationState": "GRANTED"
        }
    ]
}
2025-01-02T07:22:16.444Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "261625908",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T07:25:36Z"
        }
    ]
}
2025-01-02T07:23:04.439Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "664066045",
            "operationState": "AUTHORIZED"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "261625908",
            "operationState": "AUTHORIZED"
        }
    ]
}
2025-01-02T07:23:04.452Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "664066045",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T07:26:24Z"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "261625908",
            "response": {

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        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:26:24Z"
    }
  ]
}
2025-01-02T07:24:04.439Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "664066045",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "261625908",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T07:24:04.450Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "664066045",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:27:24Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "261625908",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:27:24Z"
    }
  ]
}
2025-01-02T07:25:04.460Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "261625908",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "664066045",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T07:25:04.483Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",

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    "grantId": "261625908",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-01-02T07:28:24Z"
  },
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823634126",
    "grantId": "664066045",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-01-02T07:28:24Z"
  }
]
}
2025-01-02T07:26:04.439Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "261625908",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "664066045",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T07:26:04.451Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "261625908",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:29:24Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "664066045",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:29:24Z"
    }
  ]
}
2025-01-02T07:27:04.441Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "261625908",
      "operationState": "AUTHORIZED"
    },
    {

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        "cbsdId": "VUIPR1450-48Mock-SASD823634126",
        "grantId": "664066045",
        "operationState": "AUTHORIZED"
    }
]
}
2025-01-02T07:27:04.455Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "261625908",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T07:30:24Z"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "664066045",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T07:30:24Z"
        }
    ]
}
2025-01-02T07:28:04.439Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "261625908",
            "operationState": "AUTHORIZED"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "664066045",
            "operationState": "AUTHORIZED"
        }
    ]
}
2025-01-02T07:28:04.451Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "261625908",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T07:31:24Z"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "664066045",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T07:31:24Z"
        }
    ]
}

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]
}
2025-01-02T07:29:04.449Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "664066045",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "261625908",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T07:29:04.462Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "664066045",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:32:24Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "261625908",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:32:24Z"
    }
  ]
}
2025-01-02T07:30:04.441Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "664066045",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "261625908",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T07:30:04.453Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "664066045",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:32:24Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "261625908",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:32:24Z"
    }
  ]
}
```

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        "transmitExpireTime": "2025-01-02T07:33:24Z"
    },
    {
        "cbsdId": "VUIPR1450-48Mock-SASD823956047",
        "grantId": "261625908",
        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2025-01-02T07:33:24Z"
    }
]
}
2025-01-02T07:31:04.439Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "664066045",
            "operationState": "AUTHORIZED"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "261625908",
            "operationState": "AUTHORIZED"
        }
    ]
}
2025-01-02T07:31:04.453Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "664066045",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T07:34:24Z"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "261625908",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T07:34:24Z"
        }
    ]
}
2025-01-02T07:32:04.440Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "664066045",
            "operationState": "AUTHORIZED"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "261625908",
            "operationState": "AUTHORIZED"
        }
    ]
}

```

```
]
}
2025-01-02T07:32:04.452Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "664066045",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:35:24Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "261625908",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:35:24Z"
    }
  ]
}
2025-01-02T07:33:04.451Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "664066045",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "261625908",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T07:33:04.465Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "664066045",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:36:24Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "261625908",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:36:24Z"
    }
  ]
}
```

8.2 WINNF.PT.C.HBT.1(Max Eirp = 16 dBm/MHz)

2025-01-02T06:50:46.393Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-01-02T06:50:46.394Z - INFO - Selected spectrum frequency is {'lowFrequency': 3600000000, 'highFrequency': 3640000000}

2025-01-02T06:50:46.394Z - INFO - Granted Spectrum Max Eirp = 16dBm/MHz

2025-01-02T06:50:46.394Z - INFO - the selected test from the user : PowerMeasTest is starting now

2025-01-02T06:51:25.236Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
      "hardwareVersion": "1.1",
      "model": "PR1450-48E",
      "softwareVersion": "2.1.0",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823634126",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
      {
        "groupId": "group1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 30,
      "antennaDowntilt": 3,
      "antennaGain": 4,
      "antennaModel": "Wire_dipole",
      "eirpCapability": 30,
      "height": 12.0,
      "heightType": "AGL",
      "horizontalAccuracy": 45.0,
      "indoorDeployment": true,
      "latitude": 37.425056,
      "longitude": -22.084113,
      "verticalAccuracy": 2.0
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
  }
]
```

2025-01-02T06:51:25.332Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823634126",
    "response": {
      "responseCode": 0
    }
  }
]
```

```

    }
  }
]
}
2025-01-02T06:51:26.259Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2025-01-02T06:51:26.267Z - INFO - The requested spectrum is out of the range, availableChannel is sent out
2025-01-02T06:51:26.268Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "maxEirp": 16,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-01-02T06:51:27.229Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "operationParam": {
        "maxEirp": 10.0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2025-01-02T06:51:27.240Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "channelType": "GAA",

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        "grantExpireTime": "2025-01-09T06:51:27Z",
        "grantId": "104675999",
        "heartbeatInterval": 60,
        "response": {
            "responseCode": 0
        }
    }
]
}
2025-01-02T06:51:27.252Z - INFO - registration request from CBRS : {
    "registrationRequest": [
        {
            "airInterface": {
                "radioTechnology": "NR"
            },
            "callSign": "CB987",
            "cbsdCategory": "A",
            "cbsdInfo": {
                "firmwareVersion": "1.0.2.2p2",
                "hardwareVersion": "1.1",
                "model": "PR1450-48I",
                "softwareVersion": "2.1.0",
                "vendor": "Pegatron"
            },
            "cbsdSerialNumber": "D823956047",
            "fccId": "VUIPR1450-48",
            "groupingParam": [
                {
                    "groupId": "group1",
                    "groupType": "INTERFERENCE_COORDINATION"
                }
            ],
            "installationParam": {
                "antennaAzimuth": 240,
                "antennaBeamwidth": 30,
                "antennaDowntilt": 3,
                "antennaGain": 9,
                "antennaModel": "Wire_dipole",
                "eirpCapability": 30,
                "height": 12.0,
                "heightType": "AGL",
                "horizontalAccuracy": 45.0,
                "indoorDeployment": true,
                "latitude": 37.425056,
                "longitude": -22.084113,
                "verticalAccuracy": 2.0
            },
            "measCapability": [
                "RECEIVED_POWER_WITHOUT_GRANT"
            ],
            "userId": "PEGATRON"
        }
    ]
}
2025-01-02T06:51:27.357Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",

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        "response": {
            "responseCode": 0
        }
    ]
}
2025-01-02T06:51:28.249Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3700000000,
                    "lowFrequency": 3550000000
                }
            ]
        }
    ]
}
2025-01-02T06:51:28.276Z - INFO - The requested spectrum is out of the range, availableChannel is sent out
2025-01-02T06:51:28.277Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {
                    "channelType": "GAA",
                    "frequencyRange": {
                        "highFrequency": 3640000000,
                        "lowFrequency": 3600000000
                    },
                    "maxEirp": 16,
                    "ruleApplied": "FCC_PART_96"
                }
            ],
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2025-01-02T06:51:28.279Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "104675999",
            "operationState": "GRANTED"
        }
    ]
}
2025-01-02T06:51:28.297Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "104675999",
            "response": {
                "responseCode": 0
            },
        }
    ]
}

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        "transmitExpireTime": "2025-01-02T06:54:48Z"
    }
}
2025-01-02T06:51:29.227Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "operationParam": {
                "maxEirp": 16.0,
                "operationFrequencyRange": {
                    "highFrequency": 3640000000,
                    "lowFrequency": 3600000000
                }
            }
        }
    ]
}
2025-01-02T06:51:29.234Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "channelType": "GAA",
            "grantExpireTime": "2025-01-09T06:51:29Z",
            "grantId": "401652571",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2025-01-02T06:51:30.242Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "401652571",
            "operationState": "GRANTED"
        }
    ]
}
2025-01-02T06:51:30.248Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "401652571",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T06:54:50Z"
        }
    ]
}
2025-01-02T06:52:20.228Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "401652571",

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    "operationState": "AUTHORIZED"
  },
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823634126",
    "grantId": "104675999",
    "operationState": "AUTHORIZED"
  }
]
}
2025-01-02T06:52:20.241Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:55:40Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:55:40Z"
    }
  ]
}
2025-01-02T06:53:20.252Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T06:53:20.264Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:56:40Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

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    },
    "transmitExpireTime": "2025-01-02T06:56:40Z"
  }
]
}
2025-01-02T06:54:20.227Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T06:54:20.240Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:57:40Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:57:40Z"
    }
  ]
}
2025-01-02T06:55:20.256Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T06:55:20.271Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",

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    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-01-02T06:58:40Z"
  },
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "401652571",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-01-02T06:58:40Z"
  }
]
}
2025-01-02T06:56:20.228Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T06:56:20.240Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:59:40Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:59:40Z"
    }
  ]
}
2025-01-02T06:57:20.255Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",

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        "grantId": "401652571",
        "operationState": "AUTHORIZED"
    }
]
}
2025-01-02T06:57:20.269Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "104675999",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T07:00:40Z"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "401652571",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T07:00:40Z"
        }
    ]
}
2025-01-02T06:58:20.228Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "401652571",
            "operationState": "AUTHORIZED"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "104675999",
            "operationState": "AUTHORIZED"
        }
    ]
}
2025-01-02T06:58:20.241Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "401652571",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T07:01:40Z"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "104675999",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T07:01:40Z"
        }
    ]
}

```

```
}
2025-01-02T06:59:20.256Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T06:59:20.269Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:02:40Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:02:40Z"
    }
  ]
}
2025-01-02T07:00:20.228Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T07:00:20.242Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:03:40Z"
    }
  ]
}
```

```

    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:03:40Z"
    }
  ]
}
2025-01-02T07:01:20.254Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T07:01:20.267Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:04:40Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:04:40Z"
    }
  ]
}
2025-01-02T07:02:20.229Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "operationState": "AUTHORIZED"
    }
  ]
}

```

```
}
2025-01-02T07:02:20.241Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:05:40Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:05:40Z"
    }
  ]
}
2025-01-02T07:03:20.256Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T07:03:20.267Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:06:40Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:06:40Z"
    }
  ]
}
2025-01-02T07:04:20.229Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
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    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "401652571",
    "operationState": "AUTHORIZED"
  },
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823634126",
    "grantId": "104675999",
    "operationState": "AUTHORIZED"
  }
]
}
2025-01-02T07:04:20.245Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:07:40Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:07:40Z"
    }
  ]
}
2025-01-02T07:05:20.229Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T07:05:20.244Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:08:40Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",

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        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2025-01-02T07:08:40Z"
    }
]
}
2025-01-02T07:06:20.229Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "104675999",
            "operationState": "AUTHORIZED"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "401652571",
            "operationState": "AUTHORIZED"
        }
    ]
}
2025-01-02T07:06:20.240Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "104675999",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T07:09:40Z"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "401652571",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T07:09:40Z"
        }
    ]
}
2025-01-02T07:07:20.263Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "104675999",
            "operationState": "AUTHORIZED"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "401652571",
            "operationState": "AUTHORIZED"
        }
    ]
}
2025-01-02T07:07:20.276Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {

```

```

    "cbstdId": "VUIPR1450-48Mock-SASD823634126",
    "grantId": "104675999",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-01-02T07:10:40Z"
  },
  {
    "cbstdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "401652571",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-01-02T07:10:40Z"
  }
]
}
2025-01-02T07:08:20.230Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbstdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "operationState": "AUTHORIZED"
    },
    {
      "cbstdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T07:08:20.243Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbstdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:11:40Z"
    },
    {
      "cbstdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:11:40Z"
    }
  ]
}
2025-01-02T07:09:20.248Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbstdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "operationState": "AUTHORIZED"
    },

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        {
            "cbstdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "401652571",
            "operationState": "AUTHORIZED"
        }
    ]
}
2025-01-02T07:09:20.261Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbstdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "104675999",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T07:12:40Z"
        },
        {
            "cbstdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "401652571",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T07:12:40Z"
        }
    ]
}
2025-01-02T07:10:20.229Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbstdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "401652571",
            "operationState": "AUTHORIZED"
        },
        {
            "cbstdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "104675999",
            "operationState": "AUTHORIZED"
        }
    ]
}
2025-01-02T07:10:20.241Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbstdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "401652571",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T07:13:40Z"
        },
        {
            "cbstdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "104675999",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T07:13:40Z"
        }
    ]
}

```

```

    }
  ]
}
2025-01-02T07:11:20.254Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T07:11:20.268Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:14:40Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:14:40Z"
    }
  ]
}
2025-01-02T07:12:20.229Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T07:12:20.241Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    },
    "transmitExpireTime": "2025-01-02T07:15:40Z"
  },
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "401652571",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-01-02T07:15:40Z"
  }
]
}
2025-01-02T07:13:20.231Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T07:13:20.245Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:16:40Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:16:40Z"
    }
  ]
}
2025-01-02T07:14:20.248Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "operationState": "AUTHORIZED"
    }
  ]
}

```

```

    }
  ]
}
2025-01-02T07:14:20.260Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:17:40Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:17:40Z"
    }
  ]
}
2025-01-02T07:15:20.236Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T07:15:20.251Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "104675999",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:18:40Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "401652571",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T07:18:40Z"
    }
  ]
}

```

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

2025-01-02T06:27:14.668Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2025-01-02T06:27:14.669Z - INFO - Selected spectrum frequency is {'lowFrequency': 3600000000, 'highFrequency': 3640000000}

2025-01-02T06:27:14.669Z - INFO - Granted Spectrum Max Eirp = 20dBm/MHz

2025-01-02T06:27:14.669Z - INFO - the selected test from the user : PowerMeasTest is starting now

2025-01-02T06:28:03.638Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
      "hardwareVersion": "1.1",
      "model": "PR1450-48E",
      "softwareVersion": "2.1.0",
      "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823634126",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
      {
        "groupId": "group1",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "installationParam": {
      "antennaAzimuth": 240,
      "antennaBeamwidth": 30,
      "antennaDowntilt": 3,
      "antennaGain": 4,
      "antennaModel": "Wire_dipole",
      "eirpCapability": 30,
      "height": 12.0,
      "heightType": "AGL",
      "horizontalAccuracy": 45.0,
      "indoorDeployment": true,
      "latitude": 37.425056,
      "longitude": -22.084113,
      "verticalAccuracy": 2.0
    },
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
  },
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "callSign": "CB987",
    "cbsdCategory": "A",
    "cbsdInfo": {
      "firmwareVersion": "1.0.2.2p2",
```

```

        "hardwareVersion": "1.1",
        "model": "PR1450-48l",
        "softwareVersion": "2.1.0",
        "vendor": "Pegatron"
    },
    "cbsdSerialNumber": "D823956047",
    "fccId": "VUIPR1450-48",
    "groupingParam": [
        {
            "groupId": "group1",
            "groupType": "INTERFERENCE_COORDINATION"
        }
    ],
    "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 30,
        "antennaDowntilt": 3,
        "antennaGain": 9,
        "antennaModel": "Wire_dipole",
        "eirpCapability": 30,
        "height": 12.0,
        "heightType": "AGL",
        "horizontalAccuracy": 45.0,
        "indoorDeployment": true,
        "latitude": 37.425056,
        "longitude": -22.084113,
        "verticalAccuracy": 2.0
    },
    "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
    }
]
}
2025-01-02T06:28:03.767Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "response": {
                "responseCode": 0
            }
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2025-01-02T06:28:04.632Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3700000000,

```

```

    "lowFrequency": 3550000000
  }
]
},
{
  "cbsdId": "VUIPR1450-48Mock-SASD823956047",
  "inquiredSpectrum": [
    {
      "highFrequency": 3700000000,
      "lowFrequency": 3550000000
    }
  ]
}
]
}
]
}
2025-01-02T06:28:04.639Z - INFO - The requested spectrum is out of the range, availableChannel is sent out
2025-01-02T06:28:04.650Z - INFO - The requested spectrum is out of the range, availableChannel is sent out
2025-01-02T06:28:04.651Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "maxEirp": 20,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "response": {
        "responseCode": 0
      }
    },
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3600000000
          },
          "maxEirp": 20,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-01-02T06:28:05.635Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {

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```

        "cbsdId": "VUIPR1450-48Mock-SASD823634126",
        "operationParam": {
            "maxEirp": 10.0,
            "operationFrequencyRange": {
                "highFrequency": 3640000000,
                "lowFrequency": 3600000000
            }
        }
    },
    {
        "cbsdId": "VUIPR1450-48Mock-SASD823956047",
        "operationParam": {
            "maxEirp": 20.0,
            "operationFrequencyRange": {
                "highFrequency": 3640000000,
                "lowFrequency": 3600000000
            }
        }
    }
]
}
2025-01-02T06:28:05.647Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "channelType": "GAA",
            "grantExpireTime": "2025-01-09T06:28:05Z",
            "grantId": "773204935",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "channelType": "GAA",
            "grantExpireTime": "2025-01-09T06:28:05Z",
            "grantId": "56674961",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2025-01-02T06:28:06.632Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "773204935",
            "operationState": "GRANTED"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "56674961",
            "operationState": "GRANTED"
        }
    ]
}

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}
2025-01-02T06:28:06.648Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "773204935",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:31:26Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "56674961",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:31:26Z"
    }
  ]
}
2025-01-02T06:28:55.643Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "773204935",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "56674961",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T06:28:55.656Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "773204935",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:32:15Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "56674961",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:32:15Z"
    }
  ]
}
2025-01-02T06:29:55.632Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
```

```

    "cbsdId": "VUIPR1450-48Mock-SASD823634126",
    "grantId": "773204935",
    "operationState": "AUTHORIZED"
  },
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "56674961",
    "operationState": "AUTHORIZED"
  }
]
}
2025-01-02T06:29:55.647Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "773204935",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:33:15Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "56674961",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:33:15Z"
    }
  ]
}
2025-01-02T06:30:55.634Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "56674961",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "773204935",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T06:30:55.647Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "56674961",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:34:15Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "773204935",

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```

        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2025-01-02T06:34:15Z"
    }
]
}
2025-01-02T06:31:55.638Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "56674961",
            "operationState": "AUTHORIZED"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "773204935",
            "operationState": "AUTHORIZED"
        }
    ]
}
2025-01-02T06:31:55.651Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "56674961",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T06:35:15Z"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "773204935",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T06:35:15Z"
        }
    ]
}
2025-01-02T06:32:55.633Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "56674961",
            "operationState": "AUTHORIZED"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "773204935",
            "operationState": "AUTHORIZED"
        }
    ]
}
2025-01-02T06:32:55.647Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {

```

```

    "cbstdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "56674961",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-01-02T06:36:15Z"
  },
  {
    "cbstdId": "VUIPR1450-48Mock-SASD823634126",
    "grantId": "773204935",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2025-01-02T06:36:15Z"
  }
]
}
2025-01-02T06:33:55.636Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbstdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "773204935",
      "operationState": "AUTHORIZED"
    },
    {
      "cbstdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "56674961",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T06:33:55.649Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbstdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "773204935",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:37:15Z"
    },
    {
      "cbstdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "56674961",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:37:15Z"
    }
  ]
}
2025-01-02T06:34:55.643Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbstdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "56674961",
      "operationState": "AUTHORIZED"
    },

```

```
{
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823634126",
    "grantId": "773204935",
    "operationState": "AUTHORIZED"
  }
]
}
2025-01-02T06:34:55.657Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "56674961",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:38:15Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "773204935",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:38:15Z"
    }
  ]
}
2025-01-02T06:35:55.647Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "773204935",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "56674961",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T06:35:55.660Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "773204935",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:39:15Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "56674961",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:39:15Z"
    }
  ]
}
```

```

    }
  ]
}
2025-01-02T06:36:25.642Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047"
    }
  ]
}
2025-01-02T06:36:25.647Z - INFO - engine sent successfully, the response to CBRS : {
  "deregistrationResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "response": {
        "responseCode": 0
      }
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-01-02T06:36:43.635Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "1.4.0",
        "hardwareVersion": "SGF",
        "model": "PR1450-48E",
        "softwareVersion": "2.0.8",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "D823634126",
      "fccId": "VUIPR1450-48",
      "groupingParam": [
        {
          "groupId": "group1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 30,
        "antennaDowntilt": 3,
        "antennaGain": 4,
        "antennaModel": "Wire_dipole",

```

```

        "eirpCapability": 30,
        "height": 12.0,
        "heightType": "AGL",
        "horizontalAccuracy": 45.0,
        "indoorDeployment": true,
        "latitude": 37.425056,
        "longitude": -22.084113,
        "verticalAccuracy": 2.0
    },
    "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "PEGATRON"
}
]
}
2025-01-02T06:36:43.713Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2025-01-02T06:36:44.635Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3700000000,
                    "lowFrequency": 3550000000
                }
            ]
        }
    ]
}
2025-01-02T06:36:44.653Z - INFO - The requested spectrum is out of the range, availableChannel is sent out
2025-01-02T06:36:44.653Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {
                    "channelType": "GAA",
                    "frequencyRange": {
                        "highFrequency": 3640000000,
                        "lowFrequency": 3600000000
                    },
                    "maxEirp": 20,
                    "ruleApplied": "FCC_PART_96"
                }
            ],
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "response": {
                "responseCode": 0
            }
        }
    ]
}

```

```

    }
  ]
}
2025-01-02T06:36:44.664Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "callSign": "CB987",
      "cbsdCategory": "A",
      "cbsdInfo": {
        "firmwareVersion": "1.4.0",
        "hardwareVersion": "SGF",
        "model": "PR1450-48I",
        "softwareVersion": "2.0.8",
        "vendor": "Pegatron"
      },
      "cbsdSerialNumber": "D823956047",
      "fccId": "VUIPR1450-48",
      "groupingParam": [
        {
          "groupId": "group1",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "installationParam": {
        "antennaAzimuth": 240,
        "antennaBeamwidth": 30,
        "antennaDowntilt": 3,
        "antennaGain": 9,
        "antennaModel": "Wire_dipole",
        "eirpCapability": 30,
        "height": 12.0,
        "heightType": "AGL",
        "horizontalAccuracy": 45.0,
        "indoorDeployment": true,
        "latitude": 37.425056,
        "longitude": -22.084113,
        "verticalAccuracy": 2.0
      },
      "measCapability": [
        "RECEIVED_POWER_WITHOUT_GRANT"
      ],
      "userId": "PEGATRON"
    }
  ]
}
2025-01-02T06:36:44.755Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

2025-01-02T06:36:45.648Z - INFO - grant request from CBRS : {

```
"grantRequest": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823634126",
    "operationParam": {
      "maxEirp": 10.0,
      "operationFrequencyRange": {
        "highFrequency": 3640000000,
        "lowFrequency": 3600000000
      }
    }
  }
]
```

2025-01-02T06:36:45.655Z - INFO - engine sent successfully, the response to CBRS : {

```
"grantResponse": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823634126",
    "channelType": "GAA",
    "grantExpireTime": "2025-01-09T06:36:45Z",
    "grantId": "109467983",
    "heartbeatInterval": 60,
    "response": {
      "responseCode": 0
    }
  }
]
```

2025-01-02T06:36:45.667Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "inquiredSpectrum": [
      {
        "highFrequency": 3700000000,
        "lowFrequency": 3550000000
      }
    ]
  }
]
```

2025-01-02T06:36:45.684Z - INFO - The requested spectrum is out of the range, availableChannel is sent out

2025-01-02T06:36:45.685Z - INFO - engine sent successfully, the response to CBRS : {

```
"spectrumInquiryResponse": [
  {
    "availableChannel": [
      {
        "channelType": "GAA",
        "frequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        },
        "maxEirp": 20,
        "ruleApplied": "FCC_PART_96"
      }
    ],
    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "response": {
```

```

        "responseCode": 0
      }
    }
  ]
}
2025-01-02T06:36:46.635Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "109467983",
      "operationState": "GRANTED"
    }
  ]
}
2025-01-02T06:36:46.647Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "109467983",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:40:06Z"
    }
  ]
}
2025-01-02T06:36:46.657Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "operationParam": {
        "maxEirp": 20.0,
        "operationFrequencyRange": {
          "highFrequency": 3640000000,
          "lowFrequency": 3600000000
        }
      }
    }
  ]
}
2025-01-02T06:36:46.668Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "channelType": "GAA",
      "grantExpireTime": "2025-01-09T06:36:46Z",
      "grantId": "837093046",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2025-01-02T06:36:47.635Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",

```

```

        "grantId": "837093046",
        "operationState": "GRANTED"
    }
]
}
2025-01-02T06:36:47.641Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "837093046",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T06:40:07Z"
        }
    ]
}
2025-01-02T06:36:55.633Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "109467983",
            "operationState": "AUTHORIZED"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "837093046",
            "operationState": "AUTHORIZED"
        }
    ]
}
2025-01-02T06:36:55.651Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "109467983",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T06:40:15Z"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "837093046",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T06:40:15Z"
        }
    ]
}
2025-01-02T06:37:55.645Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "109467983",
            "operationState": "AUTHORIZED"
        }
    ]
}

```

```

    ]
  }
  2025-01-02T06:37:55.651Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823634126",
        "grantId": "109467983",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2025-01-02T06:41:15Z"
      }
    ]
  }
  2025-01-02T06:38:35.633Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823956047",
        "grantId": "837093046",
        "operationState": "AUTHORIZED"
      }
    ]
  }
  2025-01-02T06:38:35.639Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823956047",
        "grantId": "837093046",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2025-01-02T06:41:55Z"
      }
    ]
  }
  2025-01-02T06:38:55.635Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823956047",
        "grantId": "837093046",
        "operationState": "AUTHORIZED"
      },
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823634126",
        "grantId": "109467983",
        "operationState": "AUTHORIZED"
      }
    ]
  }
  2025-01-02T06:38:55.650Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
      {
        "cbsdId": "VUIPR1450-48Mock-SASD823956047",
        "grantId": "837093046",
        "response": {
          "responseCode": 0
        },
        "transmitExpireTime": "2025-01-02T06:42:15Z"
      }
    ]
  }

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    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "109467983",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:42:15Z"
    }
  ]
}
2025-01-02T06:39:55.633Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "109467983",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "837093046",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T06:39:55.646Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "109467983",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:43:15Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "837093046",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:43:15Z"
    }
  ]
}
2025-01-02T06:40:55.659Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "109467983",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "837093046",
      "operationState": "AUTHORIZED"
    }
  ]
}

```

```
}
2025-01-02T06:40:55.675Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "109467983",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:44:15Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "837093046",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:44:15Z"
    }
  ]
}
2025-01-02T06:41:55.636Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "109467983",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "837093046",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T06:41:55.651Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "109467983",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:45:15Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "837093046",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:45:15Z"
    }
  ]
}
2025-01-02T06:42:55.648Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
```

```

    "cbsdId": "VUIPR1450-48Mock-SASD823956047",
    "grantId": "837093046",
    "operationState": "AUTHORIZED"
  },
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823634126",
    "grantId": "109467983",
    "operationState": "AUTHORIZED"
  }
]
}
2025-01-02T06:42:55.661Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "837093046",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:46:15Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "109467983",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:46:15Z"
    }
  ]
}
2025-01-02T06:43:55.635Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "109467983",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "837093046",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T06:43:55.648Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "109467983",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:47:15Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "837093046",

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        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2025-01-02T06:47:15Z"
    }
]
}
2025-01-02T06:44:55.633Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "837093046",
            "operationState": "AUTHORIZED"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "109467983",
            "operationState": "AUTHORIZED"
        }
    ]
}
2025-01-02T06:44:55.647Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "837093046",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T06:48:15Z"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "109467983",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T06:48:15Z"
        }
    ]
}
2025-01-02T06:45:55.655Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "837093046",
            "operationState": "AUTHORIZED"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "109467983",
            "operationState": "AUTHORIZED"
        }
    ]
}
2025-01-02T06:45:55.668Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {

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        "cbsdId": "VUIPR1450-48Mock-SASD823956047",
        "grantId": "837093046",
        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2025-01-02T06:49:15Z"
    },
    {
        "cbsdId": "VUIPR1450-48Mock-SASD823634126",
        "grantId": "109467983",
        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2025-01-02T06:49:15Z"
    }
]
}
2025-01-02T06:46:55.642Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "109467983",
            "operationState": "AUTHORIZED"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "837093046",
            "operationState": "AUTHORIZED"
        }
    ]
}
2025-01-02T06:46:55.658Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823634126",
            "grantId": "109467983",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T06:50:15Z"
        },
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "837093046",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2025-01-02T06:50:15Z"
        }
    ]
}
2025-01-02T06:47:55.637Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "VUIPR1450-48Mock-SASD823956047",
            "grantId": "837093046",
            "operationState": "AUTHORIZED"
        },
    ],

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{
  {
    "cbsdId": "VUIPR1450-48Mock-SASD823634126",
    "grantId": "109467983",
    "operationState": "AUTHORIZED"
  }
]
}
2025-01-02T06:47:55.652Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "837093046",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:51:15Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "109467983",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:51:15Z"
    }
  ]
}
2025-01-02T06:48:55.634Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "109467983",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "837093046",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T06:48:55.648Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "109467983",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:52:15Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "837093046",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:52:15Z"
    }
  ]
}
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    }
  ]
}
2025-01-02T06:49:55.642Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "837093046",
      "operationState": "AUTHORIZED"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "109467983",
      "operationState": "AUTHORIZED"
    }
  ]
}
2025-01-02T06:49:55.654Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823956047",
      "grantId": "837093046",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:53:15Z"
    },
    {
      "cbsdId": "VUIPR1450-48Mock-SASD823634126",
      "grantId": "109467983",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2025-01-02T06:53:15Z"
    }
  ]
}
```