

Test Logs

FCC ID: 2ASK53SM0065

Test Model: Nokia AiOSCSMn48

Received Date: Nov. 22, 2023

Test Date: Jan. 18 ~ Feb. 29, 2024

Issued Date: Mar. 07, 2024

Applicant: Nokia

Address: 3201 Olympus Blvd Dallas, TX 75019

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

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

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

Table of Contents

1	CBSD Registration Process.....	3
1.1	WINNF.FT.D.REG.2.....	3
1.2	WINNF.FT.C.REG.9.....	6
1.3	WINNF.FT.C.REG.11.....	8
1.4	WINNF.FT.C.REG.13.....	10
1.5	WINNF.FT.C.REG.15.....	12
1.6	WINNF.FT.C.REG.17.....	22
1.7	WINNF.FT.C.REG.19.....	24
2	CBSD Spectrum Grant Process	26
2.1	WINNF.FT.C.GRA.1	26
2.2	WINNF.FT.C.GRA.2	29
3	CBSD Heart Beat Process.....	32
3.1	WINNF.FT.D.HBT.2	32
3.2	WINNF.FT.C.HBT.3	42
3.3	WINNF.FT.C.HBT.5	47
3.4	WINNF.FT.C.HBT.6	52
3.5	WINNF.FT.C.HBT.7	58
3.6	WINNF.FT.D.HBT.8	63
3.7	WINNF.FT.C.HBT.9	71
3.8	WINNF.FT.C.HBT.10	75
4	CBSD Relinquishment Process.....	79
4.1	WINNF.FT.D.RLQ.2.....	79
5	CBSD Deregistration Process	90
5.1	WINNF.FT.D.DRG.2.....	90
6	CBSD Security Validation	101
6.1	WINNF.FT.C.SCS.1.....	101
6.2	WINNF.FT.C.SCS.2.....	106
6.3	WINNF.FT.C.SCS.3.....	106
6.4	WINNF.FT.C.SCS.4.....	106
6.5	WINNF.FT.C.SCS.5.....	106
7	CBSD RF Power Measurement.....	107
7.1	WINNF.PT.C.HBT.1(Max Eirp = 20 dBm/MHz)	107
7.2	WINNF.PT.C.HBT.1(Max Eirp = 24 dBm/MHz)	121
7.3	WINNF.PT.C.HBT.1(Max Eirp = 29 dBm/MHz)	133
7.4	WINNF.PT.C.HBT.1(Max Eirp = 37 dBm/MHz)	144

1 CBSD Registration Process

1.1 WINNF.FT.D.REG.2

2024-02-23T09:21:47.848Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-02-23T09:21:47.848Z - INFO - the selected test from the user : WINNF.FT.D.REG.2 is starting now

2024-02-23T09:26:08.703Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "cbsdCategory": "B",
    "cbsdInfo": {
      "model": "OUTDOOR",
      "softwareVersion": "StrandMountV1",
      "vendor": "Nokia-Strandmount"
    },
    "cbsdSerialNumber": "223232227.NR",
    "fccId": "2ASK53SM0065",
    "measCapability": [
      ""
    ],
    "userId": "nokia"
  }
]
```

2024-02-23T09:26:08.720Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "response": {
      "responseCode": 0
    }
  }
]
```

2024-02-23T09:26:10.361Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "inquiredSpectrum": [
      {
        "highFrequency": 3640000000,
        "lowFrequency": 3630000000
      },
      {
        "highFrequency": 3650000000,
        "lowFrequency": 3640000000
      },
      {
        "highFrequency": 3660000000,
        "lowFrequency": 3650000000
      }
    ]
  }
]
```

```
        "highFrequency": 3670000000,
        "lowFrequency": 3660000000
      }
    ]
  }
}
2024-02-23T09:26:10.361Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3555000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-23T09:26:13.594Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "cbsdCategory": "B",
      "cbsdInfo": {
        "model": "OUTDOOR",
        "softwareVersion": "StrandMountV1",
        "vendor": "Nokia-Strandmount"
      },
      "cbsdSerialNumber": "223232230.NR",
      "fccId": "2ASK53SM0065",
      "measCapability": [
        ""
      ],
      "userId": "nokia"
    }
  ]
}
2024-02-23T09:26:13.625Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
```

2024-02-23T09:26:15.559Z - INFO - arrived to nstep starting question answer session with the technician
2024-02-23T09:26:15.621Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :
2024-02-23T09:30:11.930Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n
2024-02-23T09:30:11.930Z - INFO - the question is : Were there RF transmissions from the CBSD2 during the test? please choose one of the answers :
2024-02-23T09:32:19.170Z - INFO - for the question : Were there RF transmissions from the CBSD2 during the test? , the user choose n
2024-02-23T09:32:19.456Z - INFO - The final result of the test : WINNF.FT.D.REG.2 is - passed

1.2 WINNF.FT.C.REG.9

2024-02-24T05:32:37.398Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-02-24T05:32:37.398Z - INFO - the selected test from the user : WINNF.FT.D.REG.9 is starting now

2024-02-24T05:32:44.421Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "cbsdCategory": "B",
    "cbsdInfo": {
      "model": "OUTDOOR",
      "softwareVersion": "StrandMountV1",
      "vendor": "Nokia-Strandmount"
    },
    "cbsdSerialNumber": "223232230.NR",
    "fccId": "2ASK53SM0065",
    "measCapability": [
      ""
    ],
    "userId": "nokia"
  }
]
```

2024-02-24T05:32:44.459Z - INFO - engine sent successfully, the response to CBRS : {

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

2024-02-24T05:36:43.598Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "cbsdCategory": "B",
    "cbsdInfo": {
      "model": "OUTDOOR",
      "softwareVersion": "StrandMountV1",
      "vendor": "Nokia-Strandmount"
    },
    "cbsdSerialNumber": "223232227.NR",
    "fccId": "2ASK53SM0065",
    "measCapability": [
      ""
    ],
    "userId": "nokia"
  }
]
```

2024-02-24T05:36:43.630Z - INFO - engine sent successfully, the response to CBRS : {

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

2024-02-24T05:36:45.082Z - INFO - arrived to nstep starting question answer session with the technician

2024-02-24T05:36:45.151Z - INFO - the question is : Were there RF transmissions from the CBSD2 during the test? please choose one of the answers :

2024-02-24T05:37:11.282Z - INFO - for the question : Were there RF transmissions from the CBSD2 during the test? , the user choose n

2024-02-24T05:37:11.282Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2024-02-24T05:38:29.601Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2024-02-24T05:38:29.990Z - INFO - The final result of the test : WINNF.FT.D.REG.9 is - passed

1.3 WINNF.FT.C.REG.11

2024-02-24T05:49:25.062Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-02-24T05:49:25.062Z - INFO - the selected test from the user : WINNF.FT.D.REG.11 is starting now

2024-02-24T05:50:56.663Z - INFO - registration request from CBRS : {

```
"registrationRequest": [  
  {  
    "airInterface": {  
      "radioTechnology": "NR"  
    },  
    "cbsdCategory": "B",  
    "cbsdInfo": {  
      "model": "OUTDOOR",  
      "softwareVersion": "StrandMountV1",  
      "vendor": "Nokia-Strandmount"  
    },  
    "cbsdSerialNumber": "223232227.NR",  
    "fccId": "2ASK53SM0065",  
    "measCapability": [  
      ""  
    ],  
    "userId": "nokia"  
  }  
]
```

2024-02-24T05:50:56.710Z - INFO - engine sent successfully, the response to CBRS : {

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

2024-02-24T05:51:06.638Z - INFO - registration request from CBRS : {

```
"registrationRequest": [  
  {  
    "airInterface": {  
      "radioTechnology": "NR"  
    },  
    "cbsdCategory": "B",  
    "cbsdInfo": {  
      "model": "OUTDOOR",  
      "softwareVersion": "StrandMountV1",  
      "vendor": "Nokia-Strandmount"  
    },  
    "cbsdSerialNumber": "223232230.NR",  
    "fccId": "2ASK53SM0065",  
    "measCapability": [  
      ""  
    ],  
    "userId": "nokia"  
  }  
]
```

2024-02-24T05:51:06.676Z - INFO - engine sent successfully, the response to CBRS : {


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

2024-02-24T05:51:07.713Z - INFO - arrived to nstep starting question answer session with the technician

2024-02-24T05:51:07.719Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2024-02-24T05:56:21.653Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2024-02-24T05:56:21.653Z - INFO - the question is : Were there RF transmissions from the CBSD2 during the test? please choose one of the answers :

2024-02-24T05:56:23.410Z - INFO - for the question : Were there RF transmissions from the CBSD2 during the test? , the user choose n

2024-02-24T05:56:24.052Z - INFO - The final result of the test : WINNF.FT.D.REG.11 is - passed

1.4 WINNF.FT.C.REG.13

2024-02-24T06:04:48.236Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-02-24T06:04:48.236Z - INFO - the selected test from the user : WINNF.FT.D.REG.13 is starting now

2024-02-24T06:04:54.683Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "cbsdCategory": "B",
    "cbsdInfo": {
      "model": "OUTDOOR",
      "softwareVersion": "StrandMountV1",
      "vendor": "Nokia-Strandmount"
    },
    "cbsdSerialNumber": "223232230.NR",
    "fccId": "2ASK53SM0065",
    "measCapability": [
      ""
    ],
    "userId": "nokia"
  }
]
```

2024-02-24T06:04:54.720Z - INFO - engine sent successfully, the response to CBRS : {

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

2024-02-24T06:05:01.332Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "cbsdCategory": "B",
    "cbsdInfo": {
      "model": "OUTDOOR",
      "softwareVersion": "StrandMountV1",
      "vendor": "Nokia-Strandmount"
    },
    "cbsdSerialNumber": "223232227.NR",
    "fccId": "2ASK53SM0065",
    "measCapability": [
      ""
    ],
    "userId": "nokia"
  }
]
```

2024-02-24T06:05:01.338Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [  
  {  
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",  
    "response": {  
      "responseCode": 0  
    }  
  }  
]
```

```
}  
2024-02-24T06:05:03.338Z - INFO - arrived to nstep starting question answer session with the technician  
2024-02-24T06:05:03.338Z - INFO - the question is : Were there RF transmissions from the CBSD2 during  
the test? please choose one of the answers :  
2024-02-24T06:18:16.036Z - INFO - for the question : Were there RF transmissions from the CBSD2 during  
the test? , the user choose n  
2024-02-24T06:18:16.036Z - INFO - the question is : Were there RF transmissions from the CBSD1 during  
the test? please choose one of the answers :  
2024-02-24T06:18:17.950Z - INFO - for the question : Were there RF transmissions from the CBSD1 during  
the test? , the user choose n  
2024-02-24T06:18:18.467Z - INFO - The final result of the test : WINNF.FT.D.REG.13 is - passed
```

1.5 WINNF.FT.C.REG.15

2024-02-24T06:19:42.322Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-02-24T06:19:42.322Z - INFO - the selected test from the user : WINNF.FT.D.REG.15 is starting now

2024-02-24T06:19:43.581Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "cbsdCategory": "B",
    "cbsdInfo": {
      "model": "OUTDOOR",
      "softwareVersion": "StrandMountV1",
      "vendor": "Nokia-Strandmount"
    },
    "cbsdSerialNumber": "223232227.NR",
    "fccId": "2ASK53SM0065",
    "measCapability": [
      ""
    ],
    "userId": "nokia"
  }
]
```

2024-02-24T06:19:43.650Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "response": {
      "responseCode": 0
    }
  }
]
```

2024-02-24T06:19:46.905Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "inquiredSpectrum": [
      {
        "highFrequency": 3640000000,
        "lowFrequency": 3630000000
      },
      {
        "highFrequency": 3650000000,
        "lowFrequency": 3640000000
      },
      {
        "highFrequency": 3660000000,
        "lowFrequency": 3650000000
      },
      {
        "highFrequency": 3670000000,
        "lowFrequency": 3660000000
      }
    ]
  }
]
```

```
    ]
  }
]
}
2024-02-24T06:19:46.905Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3555000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T06:19:51.900Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3650000000
        },
        {
          "highFrequency": 3670000000,
          "lowFrequency": 3660000000
        }
      ]
    }
  ]
}
2024-02-24T06:19:51.914Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3555000000,
            "lowFrequency": 3550000000
          }
        }
      ]
    }
  ]
}
```

```
    },
    "ruleApplied": "FCC_PART_96"
  }
],
"cbstdId": "2ASK53SM0065Mock-SAS223232227.NR",
"response": {
  "responseCode": 0
}
}
]
}
2024-02-24T06:20:27.028Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbstdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3650000000
        },
        {
          "highFrequency": 3670000000,
          "lowFrequency": 3660000000
        }
      ]
    }
  ]
}
2024-02-24T06:20:27.028Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3555000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbstdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T06:20:32.035Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
```

```

    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3650000000
        },
        {
          "highFrequency": 3670000000,
          "lowFrequency": 3660000000
        }
      ]
    }
  ]
}
2024-02-24T06:20:32.035Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3555000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T06:21:07.134Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3660000000,

```

```

        "lowFrequency": 3650000000
      },
      {
        "highFrequency": 3670000000,
        "lowFrequency": 3660000000
      }
    ]
  }
]
}
2024-02-24T06:21:07.134Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3555000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T06:21:12.141Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3650000000
        },
        {
          "highFrequency": 3670000000,
          "lowFrequency": 3660000000
        }
      ]
    }
  ]
}
2024-02-24T06:21:12.145Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {

```



```

    "availableChannel": [
      {
        "channelType": "GAA",
        "frequencyRange": {
          "highFrequency": 3555000000,
          "lowFrequency": 3550000000
        },
        "ruleApplied": "FCC_PART_96"
      }
    ],
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "response": {
      "responseCode": 0
    }
  }
]
}

```

2024-02-24T06:21:47.242Z - INFO - spectrumInquiry request from CBRS : {

```

  "spectrumInquiryRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3650000000
        },
        {
          "highFrequency": 3670000000,
          "lowFrequency": 3660000000
        }
      ]
    }
  ]
}

```

2024-02-24T06:21:47.242Z - INFO - engine sent successfully, the response to CBRS : {

```

  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3555000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```
    }
  ]
}
2024-02-24T06:21:52.259Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3650000000
        },
        {
          "highFrequency": 3670000000,
          "lowFrequency": 3660000000
        }
      ]
    }
  ]
}
2024-02-24T06:21:52.259Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3555000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T06:22:27.364Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3630000000
        },
      ],
    }
  ]
}
```

```

    {
      "highFrequency": 3650000000,
      "lowFrequency": 3640000000
    },
    {
      "highFrequency": 3660000000,
      "lowFrequency": 3650000000
    },
    {
      "highFrequency": 3670000000,
      "lowFrequency": 3660000000
    }
  ]
}
]
}
2024-02-24T06:22:27.364Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3555000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2024-02-24T06:22:32.388Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3650000000
        },
        {
          "highFrequency": 3670000000,
          "lowFrequency": 3660000000
        }
      ]
    }
  ]
}

```

```

    }
  ]
}
2024-02-24T06:22:32.388Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3555000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T06:22:58.073Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "cbsdCategory": "B",
      "cbsdInfo": {
        "model": "OUTDOOR",
        "softwareVersion": "StrandMountV1",
        "vendor": "Nokia-Strandmount"
      },
      "cbsdSerialNumber": "223232230.NR",
      "fccId": "2ASK53SM0065",
      "measCapability": [
        ""
      ],
      "userId": "nokia"
    }
  ]
}
2024-02-24T06:22:58.127Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 101
      }
    }
  ]
}
2024-02-24T06:22:59.598Z - INFO - arrived to nstep starting question answer session with the technician
2024-02-24T06:22:59.604Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2024-02-24T06:27:44.984Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n

```

2024-02-24T06:27:44.986Z - INFO - the question is : Were there RF transmissions from the CBSD2 during the test? please choose one of the answers :

2024-02-24T06:27:47.917Z - INFO - for the question : Were there RF transmissions from the CBSD2 during the test? , the user choose n

2024-02-24T06:27:48.526Z - INFO - The final result of the test : WINNF.FT.D.REG.15 is - passed

1.6 WINNF.FT.C.REG.17

2024-02-24T06:37:04.214Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-02-24T06:37:04.214Z - INFO - the selected test from the user : WINNF.FT.D.REG.17 is starting now

2024-02-24T06:41:01.846Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "cbsdCategory": "B",
    "cbsdInfo": {
      "model": "OUTDOOR",
      "softwareVersion": "StrandMountV1",
      "vendor": "Nokia-Strandmount"
    },
    "cbsdSerialNumber": "223232230.NR",
    "fccId": "2ASK53SM0065",
    "measCapability": [
      ""
    ],
    "userId": "nokia"
  }
]
```

2024-02-24T06:41:01.868Z - INFO - engine sent successfully, the response to CBRS : {

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

2024-02-24T06:41:11.776Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "cbsdCategory": "B",
    "cbsdInfo": {
      "model": "OUTDOOR",
      "softwareVersion": "StrandMountV1",
      "vendor": "Nokia-Strandmount"
    },
    "cbsdSerialNumber": "223232227.NR",
    "fccId": "2ASK53SM0065",
    "measCapability": [
      ""
    ],
    "userId": "nokia"
  }
]
```

2024-02-24T06:41:11.822Z - INFO - engine sent successfully, the response to CBRS : {

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

2024-02-24T06:41:12.999Z - INFO - arrived to nstep starting question answer session with the technician
2024-02-24T06:41:12.999Z - INFO - the question is : Were there RF transmissions from the CBSD2 during the test? please choose one of the answers :

2024-02-24T06:42:24.816Z - INFO - for the question : Were there RF transmissions from the CBSD2 during the test? , the user choose n

2024-02-24T06:42:24.816Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2024-02-24T06:42:28.151Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2024-02-24T06:42:28.486Z - INFO - The final result of the test : WINNF.FT.D.REG.17 is - passed

1.7 WINNF.FT.C.REG.19

2024-02-24T06:48:27.255Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-02-24T06:48:27.255Z - INFO - the selected test from the user : WINNF.FT.D.REG.19 is starting now

2024-02-24T06:48:38.401Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "cbsdCategory": "B",
    "cbsdInfo": {
      "model": "OUTDOOR",
      "softwareVersion": "StrandMountV1",
      "vendor": "Nokia-Strandmount"
    },
    "cbsdSerialNumber": "223232230.NR",
    "fccId": "2ASK53SM0065",
    "measCapability": [
      ""
    ],
    "userId": "nokia"
  }
]
```

2024-02-24T06:48:38.417Z - INFO - engine sent successfully, the response to CBRS : {

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

2024-02-24T06:48:53.335Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "cbsdCategory": "B",
    "cbsdInfo": {
      "model": "OUTDOOR",
      "softwareVersion": "StrandMountV1",
      "vendor": "Nokia-Strandmount"
    },
    "cbsdSerialNumber": "223232227.NR",
    "fccId": "2ASK53SM0065",
    "measCapability": [
      ""
    ],
    "userId": "nokia"
  }
]
```

2024-02-24T06:48:53.367Z - INFO - engine sent successfully, the response to CBRS : {


```
"registrationResponse": [  
  {  
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",  
    "response": {  
      "responseCode": 0  
    }  
  }  
]
```

```
}  
2024-02-24T06:48:54.459Z - INFO - arrived to nstep starting question answer session with the technician  
2024-02-24T06:48:54.459Z - INFO - the question is : Were there RF transmissions from the CBSD2 during  
the test? please choose one of the answers :  
2024-02-24T06:52:37.290Z - INFO - for the question : Were there RF transmissions from the CBSD2 during  
the test? , the user choose n  
2024-02-24T06:52:37.290Z - INFO - the question is : Were there RF transmissions from the CBSD1 during  
the test? please choose one of the answers :  
2024-02-24T06:52:39.635Z - INFO - for the question : Were there RF transmissions from the CBSD1 during  
the test? , the user choose n  
2024-02-24T06:52:40.223Z - INFO - The final result of the test : WINNF.FT.D.REG.19 is - passed
```

2 CBSD Spectrum Grant Process

2.1 WINNF.FT.C.GRA.1

2024-02-24T07:22:30.726Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-02-24T07:22:30.726Z - INFO - the selected test from the user : WINNF.FT.C.GRA.1 is starting now

2024-02-24T07:25:55.785Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "cbsdCategory": "B",
    "cbsdInfo": {
      "model": "OUTDOOR",
      "softwareVersion": "StrandMountV1",
      "vendor": "Nokia-Strandmount"
    },
    "cbsdSerialNumber": "223232227.NR",
    "fccId": "2ASK53SM0065",
    "measCapability": [
      ""
    ],
    "userId": "nokia"
  }
]
```

2024-02-24T07:25:55.831Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "response": {
      "responseCode": 0
    }
  }
]
```

2024-02-24T07:26:00.529Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "inquiredSpectrum": [
      {
        "highFrequency": 3640000000,
        "lowFrequency": 3630000000
      },
      {
        "highFrequency": 3650000000,
        "lowFrequency": 3640000000
      },
      {
        "highFrequency": 3660000000,
        "lowFrequency": 3650000000
      }
    ]
  }
]
```

```
        "highFrequency": 3670000000,
        "lowFrequency": 3660000000
      }
    ]
  }
}
2024-02-24T07:26:00.598Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3630000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3650000000,
            "lowFrequency": 3640000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3660000000,
            "lowFrequency": 3650000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3670000000,
            "lowFrequency": 3660000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T07:26:05.289Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "operationParam": {
        "maxEirp": 28.0,
        "operationFrequencyRange": {
```

```
        "highFrequency": 3670000000,
        "lowFrequency": 3630000000
    }
}
]
}
2024-02-24T07:26:05.357Z - INFO - engine sent successfully, the response to CBRS  : {
  "grantResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 400
      }
    }
  ]
}
2024-02-24T07:26:07.131Z - INFO - arrived to nstep starting question answer session with the technician
2024-02-24T07:26:07.131Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2024-02-24T07:30:28.242Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2024-02-24T07:30:28.789Z - INFO - The final result of the test : WINNF.FT.C.GRA.1 is - passed
```

2.2 WINNF.FT.C.GRA.2

2024-02-24T07:34:25.424Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13
2024-02-24T07:34:25.424Z - INFO - the selected test from the user : WINNF.FT.C.GRA.2 is starting now
2024-02-24T07:39:33.482Z - INFO - registration request from CBRS : {

```
"registrationRequest": [  
  {  
    "airInterface": {  
      "radioTechnology": "NR"  
    },  
    "cbsdCategory": "B",  
    "cbsdInfo": {  
      "model": "OUTDOOR",  
      "softwareVersion": "StrandMountV1",  
      "vendor": "Nokia-Strandmount"  
    },  
    "cbsdSerialNumber": "223232227.NR",  
    "fccId": "2ASK53SM0065",  
    "measCapability": [  
      ""  
    ],  
    "userId": "nokia"  
  }  
]
```

}
2024-02-24T07:39:33.513Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [  
  {  
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",  
    "response": {  
      "responseCode": 0  
    }  
  }  
]
```

}
2024-02-24T07:39:38.509Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [  
  {  
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",  
    "inquiredSpectrum": [  
      {  
        "highFrequency": 3640000000,  
        "lowFrequency": 3630000000  
      },  
      {  
        "highFrequency": 3650000000,  
        "lowFrequency": 3640000000  
      },  
      {  
        "highFrequency": 3660000000,  
        "lowFrequency": 3650000000  
      },  
      {  
        "highFrequency": 3670000000,  
        "lowFrequency": 3660000000  
      }  
    ]  
  }  
]
```

```

}
2024-02-24T07:39:38.525Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3630000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3650000000,
            "lowFrequency": 3640000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3660000000,
            "lowFrequency": 3650000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3670000000,
            "lowFrequency": 3660000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T07:39:42.954Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "operationParam": {
        "maxEirp": 28.0,
        "operationFrequencyRange": {
          "highFrequency": 3670000000,
          "lowFrequency": 3630000000
        }
      }
    }
  ]
}

```

```
}
2024-02-24T07:39:42.970Z - INFO - engine sent successfully, the response to CBRS  : {
  "grantResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 401
      }
    }
  ]
}
2024-02-24T07:39:44.605Z - INFO - arrived to nstep starting question answer session with the technician
2024-02-24T07:39:44.605Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2024-02-24T07:41:29.792Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2024-02-24T07:41:29.993Z - 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

2024-02-24T03:09:02.522Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-02-24T03:09:02.522Z - INFO - the selected test from the user : WINNF.FT.D.HBT.2 is starting now

2024-02-24T03:13:09.092Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "cbsdCategory": "B",
    "cbsdInfo": {
      "model": "OUTDOOR",
      "softwareVersion": "StrandMountV1",
      "vendor": "Nokia-Strandmount"
    },
    "cbsdSerialNumber": "223232227.NR",
    "fccId": "2ASK53SM0065",
    "measCapability": [
      ""
    ],
    "userId": "nokia"
  }
]
```

2024-02-24T03:13:09.114Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "response": {
      "responseCode": 0
    }
  }
]
```

2024-02-24T03:13:14.325Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "inquiredSpectrum": [
      {
        "highFrequency": 3640000000,
        "lowFrequency": 3630000000
      },
      {
        "highFrequency": 3650000000,
        "lowFrequency": 3640000000
      },
      {
        "highFrequency": 3660000000,
        "lowFrequency": 3650000000
      },
      {
        "highFrequency": 3670000000,
        "lowFrequency": 3660000000
      }
    ]
  }
]
```



```
    ]
  }
]
}
2024-02-24T03:13:14.341Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3630000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3650000000,
            "lowFrequency": 3640000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3660000000,
            "lowFrequency": 3650000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3670000000,
            "lowFrequency": 3660000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T03:13:14.726Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "operationParam": {
        "maxEirp": 28.0,
        "operationFrequencyRange": {
          "highFrequency": 3670000000,
          "lowFrequency": 3630000000
        }
      }
    }
  ]
}
```

```
    }
  }
]
}
2024-02-24T03:13:14.743Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "channelType": "GAA",
      "grantExpireTime": "2024-03-02T03:13:14Z",
      "grantId": "226667529",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T03:13:15.578Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "226667529",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-02-24T03:13:15.599Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "226667529",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T03:16:35Z"
    }
  ]
}
2024-02-24T03:13:24.039Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "cbsdCategory": "B",
      "cbsdInfo": {
        "model": "OUTDOOR",
        "softwareVersion": "StrandMountV1",
        "vendor": "Nokia-Strandmount"
      },
      "cbsdSerialNumber": "223232230.NR",
      "fccId": "2ASK53SM0065",
      "measCapability": [
        ""
      ],
      "userId": "nokia"
    }
  ]
}
```

```
    }
  ]
}
2024-02-24T03:13:24.085Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T03:13:24.378Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3650000000
        },
        {
          "highFrequency": 3670000000,
          "lowFrequency": 3660000000
        }
      ]
    }
  ]
}
2024-02-24T03:13:24.392Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3630000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3650000000,
            "lowFrequency": 3640000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ]
    }
  ]
}
```

```

    {
      "channelType": "GAA",
      "frequencyRange": {
        "highFrequency": 3660000000,
        "lowFrequency": 3650000000
      },
      "ruleApplied": "FCC_PART_96"
    },
    {
      "channelType": "GAA",
      "frequencyRange": {
        "highFrequency": 3670000000,
        "lowFrequency": 3660000000
      },
      "ruleApplied": "FCC_PART_96"
    }
  ],
  "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
  "response": {
    "responseCode": 0
  }
}
]
}
2024-02-24T03:13:24.790Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "operationParam": {
        "maxEirp": 28.0,
        "operationFrequencyRange": {
          "highFrequency": 3670000000,
          "lowFrequency": 3630000000
        }
      }
    }
  ]
}
2024-02-24T03:13:24.796Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "channelType": "GAA",
      "grantExpireTime": "2024-03-02T03:13:24Z",
      "grantId": "877376364",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T03:13:25.638Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "877376364",
      "grantRenew": false,

```

```

    "operationState": "GRANTED"
  }
]
}
2024-02-24T03:13:25.653Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "877376364",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T03:16:45Z"
    }
  ]
}
2024-02-24T03:13:56.789Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "226667529",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-24T03:13:56.789Z - INFO - Time interval between two heartbeat request messages is: 41.21, limit is:
65.0
2024-02-24T03:13:56.805Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "226667529",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T03:17:16Z"
    }
  ]
}
2024-02-24T03:14:06.846Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "877376364",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-24T03:14:06.846Z - INFO - Time interval between two heartbeat request messages is: 41.209, limit
is: 65.0
2024-02-24T03:14:06.855Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "877376364",
      "response": {

```

```
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T03:17:26Z"
    }
  ]
}
2024-02-24T03:14:37.953Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "226667529",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-24T03:14:37.953Z - INFO - Time interval between two heartbeat request messages is: 41.165, limit
is: 65.0
2024-02-24T03:14:37.969Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "226667529",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T03:17:57Z"
    }
  ]
}
2024-02-24T03:14:47.999Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "877376364",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-24T03:14:47.999Z - INFO - Time interval between two heartbeat request messages is: 41.152, limit
is: 65.0
2024-02-24T03:14:48.013Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "877376364",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T03:18:08Z"
    }
  ]
}
2024-02-24T03:15:19.112Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
```

```
        "grantId": "226667529",
        "grantRenew": false,
        "operationState": "AUTHORIZED"
    }
]
}
2024-02-24T03:15:19.112Z - INFO - Time interval between two heartbeat request messages is: 41.159, limit
is: 65.0
2024-02-24T03:15:19.128Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "226667529",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-02-24T03:18:39Z"
        }
    ]
}
}
2024-02-24T03:15:29.164Z - INFO - heartbeat request from CBRS  : {
    "heartbeatRequest": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
            "grantId": "877376364",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
}
2024-02-24T03:15:29.164Z - INFO - Time interval between two heartbeat request messages is: 41.166, limit
is: 65.0
2024-02-24T03:15:29.180Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
            "grantId": "877376364",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-02-24T03:18:49Z"
        }
    ]
}
}
}
2024-02-24T03:16:00.315Z - INFO - heartbeat request from CBRS  : {
    "heartbeatRequest": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "226667529",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
}
}
2024-02-24T03:16:00.315Z - INFO - Time interval between two heartbeat request messages is: 41.203, limit
is: 65.0
2024-02-24T03:16:00.331Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
```

```
{
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "grantId": "226667529",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-02-24T03:19:20Z"
  }
]
}
2024-02-24T03:16:10.344Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "877376364",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-24T03:16:10.344Z - INFO - Time interval between two heartbeat request messages is: 41.179, limit
is: 65.0
2024-02-24T03:16:10.359Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "877376364",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T03:19:30Z"
    }
  ]
}
}
2024-02-24T03:16:41.473Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "226667529",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2024-02-24T03:16:41.473Z - INFO - Time interval between two heartbeat request messages is: 41.158, limit
is: 65.0
2024-02-24T03:16:41.489Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "226667529",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T03:20:01Z"
    }
  ]
}
}
```


2024-02-24T03:16:51.512Z - INFO - heartbeat request from CBRS : {

```
"heartbeatRequest": [  
  {  
    "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",  
    "grantId": "877376364",  
    "grantRenew": false,  
    "operationState": "AUTHORIZED"  
  }  
]
```

}

2024-02-24T03:16:51.512Z - INFO - Time interval between two heartbeat request messages is: 41.168, limit is: 65.0

2024-02-24T03:16:51.526Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [  
  {  
    "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",  
    "grantId": "877376364",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2024-02-24T03:20:11Z"  
  }  
]
```

}

2024-02-24T03:16:52.671Z - INFO - arrived to nstep starting question answer session with the technician

2024-02-24T03:16:52.671Z - INFO - the question is : Did CBSD1 transmit power prior to AUTHORIZED state (first successful HBT response)? please choose one of the answers :

2024-02-24T03:17:13.355Z - INFO - for the question : Did CBSD1 transmit power prior to AUTHORIZED state (first successful HBT response)? , the user choose n

2024-02-24T03:17:13.355Z - INFO - the question is : Did CBSD1 transmit only within the frequency range specified in its grantRequest message? please choose one of the answers :

2024-02-24T03:17:14.664Z - INFO - for the question : Did CBSD1 transmit only within the frequency range specified in its grantRequest message? , the user choose y

2024-02-24T03:17:14.671Z - INFO - the question is : Did CBSD2 transmit power prior to AUTHORIZED state (first successful HBT response)? please choose one of the answers :

2024-02-24T03:17:33.569Z - INFO - for the question : Did CBSD2 transmit power prior to AUTHORIZED state (first successful HBT response)? , the user choose n

2024-02-24T03:17:33.569Z - INFO - the question is : Did CBSD2 transmit only within the frequency range specified in its grantRequest message? please choose one of the answers :

2024-02-24T03:17:34.357Z - INFO - for the question : Did CBSD2 transmit only within the frequency range specified in its grantRequest message? , the user choose y

2024-02-24T03:17:34.976Z - INFO - The final result of the test : WINNF.FT.D.HBT.2 is - passed

3.2 WINNF.FT.C.HBT.3

2024-02-24T08:07:59.369Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-02-24T08:07:59.369Z - INFO - the selected test from the user : WINNF.FT.C.HBT.3 is starting now

2024-02-24T08:11:27.167Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "cbsdCategory": "B",
    "cbsdInfo": {
      "model": "OUTDOOR",
      "softwareVersion": "StrandMountV1",
      "vendor": "Nokia-Strandmount"
    },
    "cbsdSerialNumber": "223232227.NR",
    "fccId": "2ASK53SM0065",
    "measCapability": [
      ""
    ],
    "userId": "nokia"
  }
]
```

2024-02-24T08:11:27.181Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "response": {
      "responseCode": 0
    }
  }
]
```

2024-02-24T08:11:32.187Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "inquiredSpectrum": [
      {
        "highFrequency": 3640000000,
        "lowFrequency": 3630000000
      },
      {
        "highFrequency": 3650000000,
        "lowFrequency": 3640000000
      },
      {
        "highFrequency": 3660000000,
        "lowFrequency": 3650000000
      },
      {
        "highFrequency": 3670000000,
        "lowFrequency": 3660000000
      }
    ]
  }
]
```

```

    ]
  }
]
}
2024-02-24T08:11:32.194Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3630000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3650000000,
            "lowFrequency": 3640000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3660000000,
            "lowFrequency": 3650000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3670000000,
            "lowFrequency": 3660000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T08:11:36.487Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "operationParam": {
        "maxEirp": 28.0,
        "operationFrequencyRange": {
          "highFrequency": 3670000000,
          "lowFrequency": 3630000000
        }
      }
    }
  ]
}

```

```
    }
  }
]
}
2024-02-24T08:11:36.503Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "channelType": "GAA",
      "grantExpireTime": "2024-03-02T08:11:36Z",
      "grantId": "720800966",
      "heartbeatInterval": 100,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T08:11:36.990Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "720800966",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-02-24T08:11:36.990Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "720800966",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T08:14:56Z"
    }
  ]
}
2024-02-24T08:12:44.250Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "720800966",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-24T08:12:44.250Z - INFO - Time interval between two heartbeat request messages is: 67.259, limit
is: 105.0
2024-02-24T08:12:44.265Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "720800966",
      "response": {
```

```
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T08:16:04Z"
    }
  ]
}
2024-02-24T08:13:51.457Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "720800966",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-24T08:13:51.457Z - INFO - Time interval between two heartbeat request messages is: 67.208, limit
is: 105.0
2024-02-24T08:13:51.473Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "720800966",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T08:17:11Z"
    }
  ]
}
2024-02-24T08:14:58.716Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "720800966",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-24T08:14:58.720Z - INFO - Time interval between two heartbeat request messages is: 67.263, limit
is: 105.0
2024-02-24T08:14:58.736Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "720800966",
      "response": {
        "responseCode": 105
      },
      "transmitExpireTime": "2024-02-24T08:14:58Z"
    }
  ]
}
2024-02-24T08:15:00.022Z - INFO - arrived to nstep starting question answer session with the technician
2024-02-24T08:15:00.022Z - INFO - the question is : Did the CBSD stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 105? please choose one of the answers :
2024-02-24T08:19:11.474Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds
```

of receiving Heartbeat response with responseCode = 105? , the user choose y
2024-02-24T08:19:11.838Z - INFO - The final result of the test : WINNF.FT.C.HBT.3 is - passed

3.3 WINNF.FT.C.HBT.5

2024-02-24T08:21:58.005Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-02-24T08:21:58.005Z - INFO - the selected test from the user : WINNF.FT.C.HBT.5 is starting now

2024-02-24T08:25:14.877Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "cbsdCategory": "B",
    "cbsdInfo": {
      "model": "OUTDOOR",
      "softwareVersion": "StrandMountV1",
      "vendor": "Nokia-Strandmount"
    },
    "cbsdSerialNumber": "223232227.NR",
    "fccId": "2ASK53SM0065",
    "measCapability": [
      ""
    ],
    "userId": "nokia"
  }
]
```

}
2024-02-24T08:25:14.930Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "response": {
      "responseCode": 0
    }
  }
]
```

}
2024-02-24T08:25:19.884Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "inquiredSpectrum": [
      {
        "highFrequency": 3640000000,
        "lowFrequency": 3630000000
      },
      {
        "highFrequency": 3650000000,
        "lowFrequency": 3640000000
      },
      {
        "highFrequency": 3660000000,
        "lowFrequency": 3650000000
      },
      {
        "highFrequency": 3670000000,
        "lowFrequency": 3660000000
      }
    ]
  }
]
```

```
}
2024-02-24T08:25:19.901Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3630000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3650000000,
            "lowFrequency": 3640000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3660000000,
            "lowFrequency": 3650000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3670000000,
            "lowFrequency": 3660000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T08:25:24.200Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "operationParam": {
        "maxEirp": 28.0,
        "operationFrequencyRange": {
          "highFrequency": 3670000000,
          "lowFrequency": 3630000000
        }
      }
    }
  ]
}
```



```

}
2024-02-24T08:25:24.214Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "channelType": "GAA",
      "grantExpireTime": "2024-03-02T08:25:24Z",
      "grantId": "415381872",
      "heartbeatInterval": 100,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T08:25:24.740Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "415381872",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-02-24T08:25:24.756Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "415381872",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2024-02-24T08:25:24Z"
    }
  ]
}
2024-02-24T08:25:29.907Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3650000000
        },
        {
          "highFrequency": 3670000000,
          "lowFrequency": 3660000000
        }
      ]
    }
  ]
}

```

```

    ]
  }
]
}
2024-02-24T08:25:29.923Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3630000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3650000000,
            "lowFrequency": 3640000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3660000000,
            "lowFrequency": 3650000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3670000000,
            "lowFrequency": 3660000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T08:26:31.990Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "415381872",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
}

```

2024-02-24T08:26:31.990Z - INFO - Time interval between two heartbeat request messages is: 67.251, limit is: 105.0

2024-02-24T08:26:32.006Z - INFO - engine sent successfully, the response to CBRS : {

```
"heartbeatResponse": [  
  {  
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",  
    "grantId": "415381872",  
    "response": {  
      "responseCode": 501  
    },  
    "transmitExpireTime": "2024-02-24T08:26:32Z"  
  }  
]
```

2024-02-24T08:26:33.887Z - INFO - arrived to nstep starting question answer session with the technician

2024-02-24T08:26:33.887Z - INFO - the question is : Did the CBSD transmit at any time during the test?
please choose one of the answers :

2024-02-24T08:28:40.990Z - INFO - for the question : Did the CBSD transmit at any time during the test? , the user choose n

2024-02-24T08:28:41.246Z - INFO - The final result of the test : WINNF.FT.C.HBT.5 is - passed

3.4 WINNF.FT.C.HBT.6

2024-02-24T08:41:07.983Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-02-24T08:41:07.983Z - INFO - the selected test from the user : WINNF.FT.C.HBT.6 is starting now

2024-02-24T08:44:38.700Z - INFO - registration request from CBRS : {

```
"registrationRequest": [  
  {  
    "airInterface": {  
      "radioTechnology": "NR"  
    },  
    "cbsdCategory": "B",  
    "cbsdInfo": {  
      "model": "OUTDOOR",  
      "softwareVersion": "StrandMountV1",  
      "vendor": "Nokia-Strandmount"  
    },  
    "cbsdSerialNumber": "223232227.NR",  
    "fccId": "2ASK53SM0065",  
    "measCapability": [  
      ""  
    ],  
    "userId": "nokia"  
  }  
]
```

}
2024-02-24T08:44:38.753Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [  
  {  
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",  
    "response": {  
      "responseCode": 0  
    }  
  }  
]
```

}
2024-02-24T08:44:43.654Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [  
  {  
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",  
    "inquiredSpectrum": [  
      {  
        "highFrequency": 3640000000,  
        "lowFrequency": 3630000000  
      },  
      {  
        "highFrequency": 3650000000,  
        "lowFrequency": 3640000000  
      },  
      {  
        "highFrequency": 3660000000,  
        "lowFrequency": 3650000000  
      },  
      {  
        "highFrequency": 3670000000,  
        "lowFrequency": 3660000000  
      }  
    ]  
  }  
]
```

```

}
2024-02-24T08:44:43.660Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3630000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3650000000,
            "lowFrequency": 3640000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3660000000,
            "lowFrequency": 3650000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3670000000,
            "lowFrequency": 3660000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T08:44:47.969Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "operationParam": {
        "maxEirp": 28.0,
        "operationFrequencyRange": {
          "highFrequency": 3670000000,
          "lowFrequency": 3630000000
        }
      }
    }
  ]
}

```

```
}
2024-02-24T08:44:47.983Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "channelType": "GAA",
      "grantExpireTime": "2024-03-02T08:44:47Z",
      "grantId": "307845554",
      "heartbeatInterval": 100,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T08:44:48.760Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "307845554",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-02-24T08:44:48.792Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "307845554",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T08:48:08Z"
    }
  ]
}
2024-02-24T08:45:56.016Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "307845554",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-24T08:45:56.032Z - INFO - Time interval between two heartbeat request messages is: 67.256, limit
is: 105.0
2024-02-24T08:45:56.039Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "307845554",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T08:49:16Z"
    }
  ]
}
```

```
    }
  ]
}
2024-02-24T08:47:03.272Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "307845554",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-24T08:47:03.272Z - INFO - Time interval between two heartbeat request messages is: 67.255, limit
is: 105.0
2024-02-24T08:47:03.286Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "307845554",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T08:50:23Z"
    }
  ]
}
}
2024-02-24T08:48:10.546Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "307845554",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2024-02-24T08:48:10.546Z - INFO - Time interval between two heartbeat request messages is: 67.274, limit
is: 105.0
2024-02-24T08:48:10.561Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "307845554",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2024-02-24T08:48:10Z"
    }
  ]
}
}
}
2024-02-24T08:48:14.358Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,

```

```
        "lowFrequency": 3630000000
      },
      {
        "highFrequency": 3650000000,
        "lowFrequency": 3640000000
      },
      {
        "highFrequency": 3660000000,
        "lowFrequency": 3650000000
      },
      {
        "highFrequency": 3670000000,
        "lowFrequency": 3660000000
      }
    ]
  }
]
}
2024-02-24T08:48:14.367Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3630000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3650000000,
            "lowFrequency": 3640000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3660000000,
            "lowFrequency": 3650000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3670000000,
            "lowFrequency": 3660000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
```



```
    }
  }
]
}
2024-02-24T08:49:17.798Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "307845554",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-02-24T08:49:17.812Z - INFO - Time interval between two heartbeat request messages is: 67.252, limit
is: 105.0
2024-02-24T08:49:17.828Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "307845554",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2024-02-24T08:49:17Z"
    }
  ]
}
}
2024-02-24T08:49:19.301Z - INFO - arrived to nstep starting question answer session with the technician
2024-02-24T08:49:19.301Z - INFO - the question is : Did the CBSD stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 501? please choose one of the answers :
2024-02-24T08:51:49.157Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 501? , the user choose y
2024-02-24T08:51:49.559Z - INFO - The final result of the test : WINNF.FT.C.HBT.6 is - passed
```

3.5 WINNF.FT.C.HBT.7

2024-02-24T08:54:52.605Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-02-24T08:54:52.605Z - INFO - the selected test from the user : WINNF.FT.C.HBT.7 is starting now

2024-02-24T08:58:16.348Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "cbsdCategory": "B",
    "cbsdInfo": {
      "model": "OUTDOOR",
      "softwareVersion": "StrandMountV1",
      "vendor": "Nokia-Strandmount"
    },
    "cbsdSerialNumber": "223232227.NR",
    "fccId": "2ASK53SM0065",
    "measCapability": [
      ""
    ],
    "userId": "nokia"
  }
]
```

}
2024-02-24T08:58:16.411Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "response": {
      "responseCode": 0
    }
  }
]
```

}
2024-02-24T08:58:21.338Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "inquiredSpectrum": [
      {
        "highFrequency": 3640000000,
        "lowFrequency": 3630000000
      },
      {
        "highFrequency": 3650000000,
        "lowFrequency": 3640000000
      },
      {
        "highFrequency": 3660000000,
        "lowFrequency": 3650000000
      },
      {
        "highFrequency": 3670000000,
        "lowFrequency": 3660000000
      }
    ]
  }
]
```

```
}
2024-02-24T08:58:21.361Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3630000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3650000000,
            "lowFrequency": 3640000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3660000000,
            "lowFrequency": 3650000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3670000000,
            "lowFrequency": 3660000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T08:58:25.665Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "operationParam": {
        "maxEirp": 28.0,
        "operationFrequencyRange": {
          "highFrequency": 3670000000,
          "lowFrequency": 3630000000
        }
      }
    }
  ]
}
```

```
}
2024-02-24T08:58:25.681Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "channelType": "GAA",
      "grantExpireTime": "2024-03-02T08:58:25Z",
      "grantId": "603283924",
      "heartbeatInterval": 100,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T08:58:26.657Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "603283924",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-02-24T08:58:26.671Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "603283924",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T09:01:46Z"
    }
  ]
}
2024-02-24T08:59:33.918Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "603283924",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-24T08:59:33.918Z - INFO - Time interval between two heartbeat request messages is: 67.262, limit
is: 105.0
2024-02-24T08:59:33.934Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "603283924",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T09:02:53Z"
    }
  ]
}
```

```
    }
  ]
}
2024-02-24T09:00:41.176Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "603283924",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-24T09:00:41.176Z - INFO - Time interval between two heartbeat request messages is: 67.257, limit
is: 105.0
2024-02-24T09:00:41.191Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "603283924",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T09:04:01Z"
    }
  ]
}
}
2024-02-24T09:01:48.378Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "603283924",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2024-02-24T09:01:48.378Z - INFO - Time interval between two heartbeat request messages is: 67.203, limit
is: 105.0
2024-02-24T09:01:48.401Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "603283924",
      "response": {
        "responseCode": 502
      },
      "transmitExpireTime": "2024-02-24T09:01:48Z"
    }
  ]
}
}
}
2024-02-24T09:01:53.737Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "603283924"
    }
  ]
}
```

```
}
2024-02-24T09:01:53.806Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "603283924",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T09:01:55.407Z - INFO - arrived to nstep starting question answer session with the technician
2024-02-24T09:01:55.414Z - INFO - the question is : Did the CBSD stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 502? please choose one of the answers :
2024-02-24T09:05:32.259Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 502? , the user choose y
2024-02-24T09:05:32.668Z - INFO - The final result of the test : WINNF.FT.C.HBT.7 is - passed
```

3.6 WINNF.FT.D.HBT.8

2024-02-27T08:09:50.957Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-02-27T08:09:50.959Z - INFO - the selected test from the user : WINNF.FT.D.HBT.8 is starting now

2024-02-27T08:13:59.561Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "cbsdCategory": "B",
    "cbsdInfo": {
      "model": "OUTDOOR",
      "softwareVersion": "StrandMountV1",
      "vendor": "Nokia-Strandmount"
    },
    "cbsdSerialNumber": "223232227.NR",
    "fccId": "2ASK53SM0065",
    "measCapability": [
      ""
    ],
    "userId": "nokia"
  }
]
```

}
2024-02-27T08:13:59.581Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "response": {
      "responseCode": 0
    }
  }
]
```

}
2024-02-27T08:14:00.415Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "inquiredSpectrum": [
      {
        "highFrequency": 3640000000,
        "lowFrequency": 3630000000
      },
      {
        "highFrequency": 3650000000,
        "lowFrequency": 3640000000
      },
      {
        "highFrequency": 3660000000,
        "lowFrequency": 3650000000
      },
      {
        "highFrequency": 3670000000,
        "lowFrequency": 3660000000
      }
    ]
  }
]
```

```

}
2024-02-27T08:14:00.430Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3630000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3650000000,
            "lowFrequency": 3640000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3660000000,
            "lowFrequency": 3650000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3670000000,
            "lowFrequency": 3660000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-27T08:14:00.924Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "operationParam": {
        "maxEirp": 28.0,
        "operationFrequencyRange": {
          "highFrequency": 3670000000,
          "lowFrequency": 3630000000
        }
      }
    }
  ]
}

```



```

}
2024-02-27T08:14:00.938Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "channelType": "GAA",
      "grantExpireTime": "2024-03-05T08:14:00Z",
      "grantId": "652840327",
      "heartbeatInterval": 100,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-27T08:14:01.983Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "652840327",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-02-27T08:14:01.999Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "652840327",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-27T08:17:21Z"
    }
  ]
}
2024-02-27T08:14:19.536Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "cbsdCategory": "B",
      "cbsdInfo": {
        "model": "OUTDOOR",
        "softwareVersion": "StrandMountV1",
        "vendor": "Nokia-Strandmount"
      },
      "cbsdSerialNumber": "223232230.NR",
      "fccId": "2ASK53SM0065",
      "measCapability": [
        ""
      ],
      "userId": "nokia"
    }
  ]
}

```

```
2024-02-27T08:14:19.615Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-27T08:14:20.469Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3650000000
        },
        {
          "highFrequency": 3670000000,
          "lowFrequency": 3660000000
        }
      ]
    }
  ]
}
2024-02-27T08:14:20.484Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3630000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3650000000,
            "lowFrequency": 3640000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
```

```
        "highFrequency": 3660000000,
        "lowFrequency": 3650000000
      },
      "ruleApplied": "FCC_PART_96"
    },
    {
      "channelType": "GAA",
      "frequencyRange": {
        "highFrequency": 3670000000,
        "lowFrequency": 3660000000
      },
      "ruleApplied": "FCC_PART_96"
    }
  ],
  "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
  "response": {
    "responseCode": 0
  }
}
]
}
2024-02-27T08:14:20.980Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "operationParam": {
        "maxEirp": 28.0,
        "operationFrequencyRange": {
          "highFrequency": 3670000000,
          "lowFrequency": 3630000000
        }
      }
    }
  ]
}
2024-02-27T08:14:20.994Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "channelType": "GAA",
      "grantExpireTime": "2024-03-05T08:14:20Z",
      "grantId": "353017469",
      "heartbeatInterval": 100,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-27T08:14:22.095Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "353017469",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
```

```
}
2024-02-27T08:14:22.111Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "353017469",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-27T08:17:42Z"
    }
  ]
}
2024-02-27T08:15:08.285Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "652840327",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-27T08:15:08.288Z - INFO - Time interval between two heartbeat request messages is: 66.302, limit is: 105.0
2024-02-27T08:15:08.302Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "652840327",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-27T08:18:28Z"
    }
  ]
}
2024-02-27T08:15:29.361Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "353017469",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-27T08:15:29.365Z - INFO - Time interval between two heartbeat request messages is: 67.266, limit is: 105.0
2024-02-27T08:15:29.380Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "353017469",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-27T08:18:49Z"
    }
  ]
}
```

```
    }
  ]
}
2024-02-27T08:16:15.552Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "652840327",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-27T08:16:15.555Z - INFO - Time interval between two heartbeat request messages is: 67.267, limit
is: 105.0
2024-02-27T08:16:15.571Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "652840327",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-27T08:19:35Z"
    }
  ]
}
}
2024-02-27T08:16:36.648Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "353017469",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2024-02-27T08:16:36.651Z - INFO - Time interval between two heartbeat request messages is: 67.287, limit
is: 105.0
2024-02-27T08:16:36.664Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "353017469",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-27T08:19:56Z"
    }
  ]
}
}
}
2024-02-27T08:17:22.825Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "652840327",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
```

```

    }
  ]
}
2024-02-27T08:17:22.828Z - INFO - Time interval between two heartbeat request messages is: 67.274, limit
is: 105.0
2024-02-27T08:17:22.844Z - INFO - engine sent successfully, the response to CBRS  : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "652840327",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-27T08:20:42Z"
    }
  ]
}
}
2024-02-27T08:17:43.918Z - INFO - heartbeat request from CBRS  : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "353017469",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2024-02-27T08:17:43.923Z - INFO - Time interval between two heartbeat request messages is: 67.27, limit is:
105.0
2024-02-27T08:17:43.940Z - INFO - engine sent successfully, the response to CBRS  : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "353017469",
      "response": {
        "responseCode": 500
      },
      "transmitExpireTime": "2024-02-27T08:17:43Z"
    }
  ]
}
}
2024-02-27T08:17:45.846Z - INFO - arrived to nstep starting question answer session with the technician
2024-02-27T08:17:45.854Z - INFO - the question is : Did the CBSD1 transmit power prior to AUTHORIZED
state (first successful HBT response)? please choose one of the answers :
2024-02-27T08:18:39.763Z - INFO - for the question : Did the CBSD1 transmit power prior to AUTHORIZED
state (first successful HBT response)? , the user choose n
2024-02-27T08:18:39.765Z - 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 :
2024-02-27T08:18:47.269Z - INFO - for the question : Did the CBSD2 stop RF transmission within 60
seconds of receiving Heartbeat response with responseCode = 500? , the user choose y
2024-02-27T08:18:47.604Z - INFO - The final result of the test : WINNF.FT.D.HBT.8 is - passed

```

3.7 WINNF.FT.C.HBT.9

2024-02-24T09:11:29.601Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-02-24T09:11:29.601Z - INFO - the selected test from the user : WINNF.FT.C.HBT.9 is starting now

2024-02-24T09:13:29.298Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "cbsdCategory": "B",
    "cbsdInfo": {
      "model": "OUTDOOR",
      "softwareVersion": "StrandMountV1",
      "vendor": "Nokia-Strandmount"
    },
    "cbsdSerialNumber": "223232227.NR",
    "fccId": "2ASK53SM0065",
    "measCapability": [
      ""
    ],
    "userId": "nokia"
  }
]
```

2024-02-24T09:13:29.351Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "response": {
      "responseCode": 0
    }
  }
]
```

2024-02-24T09:13:34.318Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "inquiredSpectrum": [
      {
        "highFrequency": 3640000000,
        "lowFrequency": 3630000000
      },
      {
        "highFrequency": 3650000000,
        "lowFrequency": 3640000000
      },
      {
        "highFrequency": 3660000000,
        "lowFrequency": 3650000000
      },
      {
        "highFrequency": 3670000000,
        "lowFrequency": 3660000000
      }
    ]
  }
]
```

```
    ]
  }
]
}
2024-02-24T09:13:34.318Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3630000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3650000000,
            "lowFrequency": 3640000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3660000000,
            "lowFrequency": 3650000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3670000000,
            "lowFrequency": 3660000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T09:13:38.660Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "operationParam": {
        "maxEirp": 28.0,
        "operationFrequencyRange": {
          "highFrequency": 3670000000,
          "lowFrequency": 3630000000
        }
      }
    }
  ]
}
```



```
    }
  ]
}
2024-02-24T09:13:38.674Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "channelType": "GAA",
      "grantExpireTime": "2024-03-02T09:13:38Z",
      "grantId": "242784507",
      "heartbeatInterval": 100,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T09:13:39.719Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "242784507",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-02-24T09:14:40.030Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "242784507",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-02-24T09:14:40.030Z - INFO - request message received while HBT is absent, sleep 144 sec before responding
2024-02-24T09:16:59.736Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "242784507",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2024-02-24T09:16:59Z"
    }
  ]
}
2024-02-24T09:17:00.822Z - INFO - arrived to nstep starting question answer session with the technician
2024-02-24T09:17:00.822Z - INFO - the question is : Were there RF transmissions from the CBSD during the test? please choose one of the answers :
2024-02-24T09:17:04.039Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"
2024-02-24T09:18:54.075Z - INFO - for the question : Were there RF transmissions from the CBSD during
```

the test? , the user choose n

2024-02-24T09:18:54.398Z - INFO - The final result of the test : WINNF.FT.C.HBT.9 is - passed

3.8 WINNF.FT.C.HBT.10

2024-02-24T09:22:18.618Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-02-24T09:22:18.618Z - INFO - the selected test from the user : WINNF.FT.C.HBT.10 is starting now

2024-02-24T09:24:31.523Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "cbsdCategory": "B",
    "cbsdInfo": {
      "model": "OUTDOOR",
      "softwareVersion": "StrandMountV1",
      "vendor": "Nokia-Strandmount"
    },
    "cbsdSerialNumber": "223232227.NR",
    "fccId": "2ASK53SM0065",
    "measCapability": [
      ""
    ],
    "userId": "nokia"
  }
]
```

}
2024-02-24T09:24:31.608Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "response": {
      "responseCode": 0
    }
  }
]
```

}
2024-02-24T09:24:36.522Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "inquiredSpectrum": [
      {
        "highFrequency": 3640000000,
        "lowFrequency": 3630000000
      },
      {
        "highFrequency": 3650000000,
        "lowFrequency": 3640000000
      },
      {
        "highFrequency": 3660000000,
        "lowFrequency": 3650000000
      },
      {
        "highFrequency": 3670000000,
        "lowFrequency": 3660000000
      }
    ]
  }
]
```

```

}
2024-02-24T09:24:36.536Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3630000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3650000000,
            "lowFrequency": 3640000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3660000000,
            "lowFrequency": 3650000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3670000000,
            "lowFrequency": 3660000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T09:24:40.884Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "operationParam": {
        "maxEirp": 28.0,
        "operationFrequencyRange": {
          "highFrequency": 3670000000,
          "lowFrequency": 3630000000
        }
      }
    }
  ]
}

```

```
}
2024-02-24T09:24:40.901Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "channelType": "GAA",
      "grantExpireTime": "2024-03-02T09:24:40Z",
      "grantId": "297578773",
      "heartbeatInterval": 100,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T09:24:41.990Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "297578773",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-02-24T09:24:42.006Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "297578773",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T09:28:01Z"
    }
  ]
}
2024-02-24T09:25:49.232Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "297578773",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-24T09:25:49.232Z - INFO - Time interval between two heartbeat request messages is: 67.241, limit
is: 105.0
2024-02-24T09:25:49.246Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "297578773",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T09:29:09Z"
    }
  ]
}
```

```

    }
  ]
}
2024-02-24T09:26:56.467Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "297578773",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-24T09:26:56.467Z - INFO - Time interval between two heartbeat request messages is: 67.236, limit
is: 105.0
2024-02-24T09:26:56.483Z - INFO - LAST HBT RESPONSE THAT SET TRANSMIT_EXPIRE_TIME WAS AT:
2024-02-24 09:25:49.232000
2024-02-24T09:27:55.769Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "297578773",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-24T09:27:55.769Z - INFO - request message received while HBT is absent, sleep 145 sec before
responding
2024-02-24T09:30:16.489Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "297578773",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2024-02-24T09:30:16Z"
    }
  ]
}
2024-02-24T09:30:18.062Z - INFO - arrived to nstep starting question answer session with the technician
2024-02-24T09:30:18.062Z - INFO - the question is : Did the CBSD stop RF transmissions within
(transmitExpireTime + 60seconds) of last valid heartbeat response? please choose one of the answers :
2024-02-24T09:30:20.786Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2024-02-24T09:30:27.036Z - INFO - for the question : Did the CBSD stop RF transmissions within
(transmitExpireTime + 60seconds) of last valid heartbeat response? , the user choose y
2024-02-24T09:30:27.552Z - INFO - The final result of the test : WINNF.FT.C.HBT.10 is - passed

```

4 CBSD Relinquishment Process

4.1 WINNF.FT.D.RLQ.2

2024-02-24T10:42:40.994Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-02-24T10:42:40.994Z - INFO - the selected test from the user : WINNF.FT.D.RLQ.2 is starting now

2024-02-24T10:45:42.349Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "cbsdCategory": "B",
    "cbsdInfo": {
      "model": "OUTDOOR",
      "softwareVersion": "StrandMountV1",
      "vendor": "Nokia-Strandmount"
    },
    "cbsdSerialNumber": "223232230.NR",
    "fccId": "2ASK53SM0065",
    "measCapability": [
      ""
    ],
    "userId": "nokia"
  }
]
```

2024-02-24T10:45:42.404Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
    "response": {
      "responseCode": 0
    }
  }
]
```

2024-02-24T10:45:47.548Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
    "inquiredSpectrum": [
      {
        "highFrequency": 3640000000,
        "lowFrequency": 3630000000
      },
      {
        "highFrequency": 3650000000,
        "lowFrequency": 3640000000
      },
      {
        "highFrequency": 3660000000,
        "lowFrequency": 3650000000
      },
      {
        "highFrequency": 3670000000,
        "lowFrequency": 3660000000
      }
    ]
  }
]
```

```

    ]
  }
]
}
2024-02-24T10:45:47.578Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3630000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3650000000,
            "lowFrequency": 3640000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3660000000,
            "lowFrequency": 3650000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3670000000,
            "lowFrequency": 3660000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T10:45:51.762Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "operationParam": {
        "maxEirp": 28.0,
        "operationFrequencyRange": {
          "highFrequency": 3670000000,
          "lowFrequency": 3630000000
        }
      }
    }
  ]
}

```



```
    }
  ]
}
2024-02-24T10:45:51.776Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "channelType": "GAA",
      "grantExpireTime": "2024-03-02T10:45:51Z",
      "grantId": "576388056",
      "heartbeatInterval": 100,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T10:45:52.312Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "576388056",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-02-24T10:45:52.318Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "576388056",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T10:49:12Z"
    }
  ]
}
2024-02-24T10:46:32.434Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "cbsdCategory": "B",
      "cbsdInfo": {
        "model": "OUTDOOR",
        "softwareVersion": "StrandMountV1",
        "vendor": "Nokia-Strandmount"
      },
      "cbsdSerialNumber": "223232227.NR",
      "fccId": "2ASK53SM0065",
      "measCapability": [
        ""
      ],
      "userId": "nokia"
    }
  ]
}
```

```
    }
  ]
}
2024-02-24T10:46:32.482Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T10:46:37.734Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3650000000
        },
        {
          "highFrequency": 3670000000,
          "lowFrequency": 3660000000
        }
      ]
    }
  ]
}
2024-02-24T10:46:37.750Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3630000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3650000000,
            "lowFrequency": 3640000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ]
    }
  ]
}
```

```

    {
      "channelType": "GAA",
      "frequencyRange": {
        "highFrequency": 3660000000,
        "lowFrequency": 3650000000
      },
      "ruleApplied": "FCC_PART_96"
    },
    {
      "channelType": "GAA",
      "frequencyRange": {
        "highFrequency": 3670000000,
        "lowFrequency": 3660000000
      },
      "ruleApplied": "FCC_PART_96"
    }
  ],
  "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
  "response": {
    "responseCode": 0
  }
}
]
}
2024-02-24T10:46:41.946Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "operationParam": {
        "maxEirp": 28.0,
        "operationFrequencyRange": {
          "highFrequency": 3670000000,
          "lowFrequency": 3630000000
        }
      }
    }
  ]
}
2024-02-24T10:46:41.960Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "channelType": "GAA",
      "grantExpireTime": "2024-03-02T10:46:41Z",
      "grantId": "134319554",
      "heartbeatInterval": 100,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T10:46:42.486Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "134319554",
      "grantRenew": false,

```

```
        "operationState": "GRANTED"
      }
    ]
  }
2024-02-24T10:46:42.502Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "134319554",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T10:50:02Z"
    }
  ]
}
2024-02-24T10:46:59.605Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "576388056",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-24T10:46:59.605Z - INFO - Time interval between two heartbeat request messages is: 67.294, limit
is: 105.0
2024-02-24T10:46:59.621Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "576388056",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T10:50:19Z"
    }
  ]
}
2024-02-24T10:47:48.789Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "134319554",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-24T10:47:48.789Z - INFO - Time interval between two heartbeat request messages is: 66.302, limit
is: 105.0
2024-02-24T10:47:48.805Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "134319554",
      "response": {
```

```
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T10:51:08Z"
    }
  ]
}
2024-02-24T10:48:05.917Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "576388056",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-24T10:48:05.917Z - INFO - Time interval between two heartbeat request messages is: 66.311, limit
is: 105.0
2024-02-24T10:48:05.931Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "576388056",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T10:51:25Z"
    }
  ]
}
2024-02-24T10:48:55.112Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "134319554",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-24T10:48:55.112Z - INFO - Time interval between two heartbeat request messages is: 66.324, limit
is: 105.0
2024-02-24T10:48:55.134Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "134319554",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T10:52:15Z"
    }
  ]
}
2024-02-24T10:49:13.184Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
```

```
        "grantId": "576388056",
        "grantRenew": false,
        "operationState": "AUTHORIZED"
    }
]
}
2024-02-24T10:49:13.184Z - INFO - Time interval between two heartbeat request messages is: 67.268, limit
is: 105.0
2024-02-24T10:49:13.200Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
            "grantId": "576388056",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-02-24T10:52:33Z"
        }
    ]
}
2024-02-24T10:50:02.375Z - INFO - heartbeat request from CBRS  : {
    "heartbeatRequest": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "134319554",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-02-24T10:50:02.375Z - INFO - Time interval between two heartbeat request messages is: 67.263, limit
is: 105.0
2024-02-24T10:50:02.391Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "134319554",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-02-24T10:53:22Z"
        }
    ]
}
2024-02-24T10:50:20.447Z - INFO - heartbeat request from CBRS  : {
    "heartbeatRequest": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
            "grantId": "576388056",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-02-24T10:50:20.447Z - INFO - Time interval between two heartbeat request messages is: 67.262, limit
is: 105.0
2024-02-24T10:50:20.463Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
```

```
{
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
    "grantId": "576388056",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-02-24T10:53:40Z"
  }
]
}
2024-02-24T10:51:10.098Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "134319554"
    }
  ]
}
2024-02-24T10:51:10.098Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "134319554",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2024-02-24T10:51:27.694Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "576388056",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2024-02-24T10:51:27.694Z - INFO - Time interval between two heartbeat request messages is: 67.248, limit
is: 105.0
2024-02-24T10:51:27.706Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "576388056",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T10:54:47Z"
    }
  ]
}
}
2024-02-24T10:52:34.907Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "576388056",
```

```
        "grantRenew": false,
        "operationState": "AUTHORIZED"
    }
]
}
2024-02-24T10:52:34.907Z - INFO - Time interval between two heartbeat request messages is: 67.212, limit
is: 105.0
2024-02-24T10:52:34.923Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
            "grantId": "576388056",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-02-24T10:55:54Z"
        }
    ]
}
2024-02-24T10:53:42.161Z - INFO - heartbeat request from CBRS  : {
    "heartbeatRequest": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
            "grantId": "576388056",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-02-24T10:53:42.161Z - INFO - Time interval between two heartbeat request messages is: 67.255, limit
is: 105.0
2024-02-24T10:53:42.177Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
            "grantId": "576388056",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-02-24T10:57:02Z"
        }
    ]
}
2024-02-24T10:54:49.424Z - INFO - heartbeat request from CBRS  : {
    "heartbeatRequest": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
            "grantId": "576388056",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-02-24T10:54:49.424Z - INFO - Time interval between two heartbeat request messages is: 67.263, limit
is: 105.0
2024-02-24T10:54:49.440Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
        {
```



```
        "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
        "grantId": "576388056",
        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2024-02-24T10:58:09Z"
    }
]
}
2024-02-24T10:55:56.086Z - INFO - relinquishment request from CBRS : {
    "relinquishmentRequest": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
            "grantId": "576388056"
        }
    ]
}
2024-02-24T10:55:56.101Z - INFO - engine sent successfully, the response to CBRS : {
    "relinquishmentResponse": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
            "grantId": "576388056",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
}
2024-02-24T10:55:57.279Z - INFO - arrived to nstep starting question answer session with the technician
2024-02-24T10:55:57.279Z - INFO - the question is : Did CBSD2 cease RF transmission before receipt of
Relinquishment Request by Test Harness? please choose one of the answers :
2024-02-24T10:59:29.653Z - INFO - for the question : Did CBSD2 cease RF transmission before receipt of
Relinquishment Request by Test Harness? , the user choose y
2024-02-24T10:59:29.667Z - INFO - the question is : Did CBSD1 cease RF transmission before receipt of
Relinquishment Request by Test Harness? please choose one of the answers :
2024-02-24T10:59:31.392Z - INFO - for the question : Did CBSD1 cease RF transmission before receipt of
Relinquishment Request by Test Harness? , the user choose y
2024-02-24T10:59:31.878Z - INFO - The final result of the test : WINNF.FT.D.RLQ.2 is - passed
```

5 CBSD Deregistration Process

5.1 WINNF.FT.D.DRG.2

2024-02-24T11:04:13.986Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-02-24T11:04:13.986Z - INFO - the selected test from the user : WINNF.FT.D.DRG.2 is starting now

2024-02-24T11:07:51.786Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "cbsdCategory": "B",
    "cbsdInfo": {
      "model": "OUTDOOR",
      "softwareVersion": "StrandMountV1",
      "vendor": "Nokia-Strandmount"
    },
    "cbsdSerialNumber": "223232227.NR",
    "fccId": "2ASK53SM0065",
    "measCapability": [
      ""
    ],
    "userId": "nokia"
  }
]
```

2024-02-24T11:07:52.134Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "response": {
      "responseCode": 0
    }
  }
]
```

2024-02-24T11:07:57.085Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "inquiredSpectrum": [
      {
        "highFrequency": 3640000000,
        "lowFrequency": 3630000000
      },
      {
        "highFrequency": 3650000000,
        "lowFrequency": 3640000000
      },
      {
        "highFrequency": 3660000000,
        "lowFrequency": 3650000000
      },
      {
        "highFrequency": 3670000000,
        "lowFrequency": 3660000000
      }
    ]
  }
]
```

```
    ]
  }
]
}
2024-02-24T11:07:57.101Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3630000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3650000000,
            "lowFrequency": 3640000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3660000000,
            "lowFrequency": 3650000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3670000000,
            "lowFrequency": 3660000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T11:08:01.243Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "operationParam": {
        "maxEirp": 28.0,
        "operationFrequencyRange": {
          "highFrequency": 3670000000,
          "lowFrequency": 3630000000
        }
      }
    }
  ]
}
```

```
    }
  ]
}
2024-02-24T11:08:01.259Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "channelType": "GAA",
      "grantExpireTime": "2024-03-02T11:08:01Z",
      "grantId": "59582292",
      "heartbeatInterval": 100,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T11:08:01.730Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "cbsdCategory": "B",
      "cbsdInfo": {
        "model": "OUTDOOR",
        "softwareVersion": "StrandMountV1",
        "vendor": "Nokia-Strandmount"
      },
      "cbsdSerialNumber": "223232230.NR",
      "fccId": "2ASK53SM0065",
      "measCapability": [
        ""
      ],
      "userId": "nokia"
    }
  ]
}
2024-02-24T11:08:01.792Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T11:08:02.009Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "59582292",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
```

```
}
2024-02-24T11:08:02.016Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "59582292",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T11:11:22Z"
    }
  ]
}
2024-02-24T11:08:02.095Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3650000000
        },
        {
          "highFrequency": 3670000000,
          "lowFrequency": 3660000000
        }
      ]
    }
  ]
}
2024-02-24T11:08:02.117Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3630000000
          },
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3650000000,
            "lowFrequency": 3640000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ]
    }
  ]
}
```

```

    {
      "channelType": "GAA",
      "frequencyRange": {
        "highFrequency": 3660000000,
        "lowFrequency": 3650000000
      },
      "ruleApplied": "FCC_PART_96"
    },
    {
      "channelType": "GAA",
      "frequencyRange": {
        "highFrequency": 3670000000,
        "lowFrequency": 3660000000
      },
      "ruleApplied": "FCC_PART_96"
    }
  ],
  "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
  "response": {
    "responseCode": 0
  }
}
]
}
2024-02-24T11:08:06.257Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "operationParam": {
        "maxEirp": 28.0,
        "operationFrequencyRange": {
          "highFrequency": 3670000000,
          "lowFrequency": 3630000000
        }
      }
    }
  ]
}
2024-02-24T11:08:06.273Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "channelType": "GAA",
      "grantExpireTime": "2024-03-02T11:08:06Z",
      "grantId": "90696656",
      "heartbeatInterval": 100,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T11:08:07.046Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "90696656",
      "grantRenew": false,

```

```
        "operationState": "GRANTED"
      }
    ]
  }
2024-02-24T11:08:07.062Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "90696656",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T11:11:27Z"
    }
  ]
}
2024-02-24T11:09:09.257Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "59582292",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-24T11:09:09.263Z - INFO - Time interval between two heartbeat request messages is: 67.248, limit is: 105.0
2024-02-24T11:09:09.263Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "59582292",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T11:12:29Z"
    }
  ]
}
2024-02-24T11:09:14.306Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "90696656",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-24T11:09:14.306Z - INFO - Time interval between two heartbeat request messages is: 67.26, limit is: 105.0
2024-02-24T11:09:14.322Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "90696656",
      "response": {
```

```
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T11:12:34Z"
    }
  ]
}
2024-02-24T11:10:16.519Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "59582292",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-24T11:10:16.519Z - INFO - Time interval between two heartbeat request messages is: 67.261, limit
is: 105.0
2024-02-24T11:10:16.519Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "59582292",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T11:13:36Z"
    }
  ]
}
2024-02-24T11:10:21.545Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "90696656",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-24T11:10:21.545Z - INFO - Time interval between two heartbeat request messages is: 67.238, limit
is: 105.0
2024-02-24T11:10:21.545Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "90696656",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T11:13:41Z"
    }
  ]
}
2024-02-24T11:11:23.760Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
```



```
        "grantId": "59582292",
        "grantRenew": false,
        "operationState": "AUTHORIZED"
    }
]
}
2024-02-24T11:11:23.760Z - INFO - Time interval between two heartbeat request messages is: 67.242, limit
is: 105.0
2024-02-24T11:11:23.767Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "59582292",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-02-24T11:14:43Z"
        }
    ]
}
2024-02-24T11:11:28.779Z - INFO - heartbeat request from CBRS  : {
    "heartbeatRequest": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
            "grantId": "90696656",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-02-24T11:11:28.779Z - INFO - Time interval between two heartbeat request messages is: 67.235, limit
is: 105.0
2024-02-24T11:11:28.779Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
            "grantId": "90696656",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-02-24T11:14:48Z"
        }
    ]
}
2024-02-24T11:12:30.993Z - INFO - heartbeat request from CBRS  : {
    "heartbeatRequest": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "59582292",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-02-24T11:12:31.009Z - INFO - Time interval between two heartbeat request messages is: 67.233, limit
is: 105.0
2024-02-24T11:12:31.009Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
```

```
{
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "grantId": "59582292",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-02-24T11:15:51Z"
  }
]
}
2024-02-24T11:12:39.404Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "90696656"
    }
  ]
}
2024-02-24T11:12:39.418Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "grantId": "90696656",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2024-02-24T11:12:44.789Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR"
    }
  ]
}
}
2024-02-24T11:12:44.821Z - INFO - engine sent successfully, the response to CBRS : {
  "deregistrationResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2024-02-24T11:13:38.263Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "59582292",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2024-02-24T11:13:38.263Z - INFO - Time interval between two heartbeat request messages is: 67.269, limit
is: 105.0
```

```
2024-02-24T11:13:38.279Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "59582292",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T11:16:58Z"
    }
  ]
}
2024-02-24T11:14:45.502Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "59582292",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-24T11:14:45.516Z - INFO - Time interval between two heartbeat request messages is: 67.239, limit
is: 105.0
2024-02-24T11:14:45.516Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "59582292",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T11:18:05Z"
    }
  ]
}
2024-02-24T11:15:52.753Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "59582292",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-24T11:15:52.753Z - INFO - Time interval between two heartbeat request messages is: 67.252, limit
is: 105.0
2024-02-24T11:15:52.769Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "59582292",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-24T11:19:12Z"
    }
  ]
}
```

```
]
}
2024-02-24T11:17:00.269Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "59582292"
    }
  ]
}
2024-02-24T11:17:00.269Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "59582292",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T11:17:00.517Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR"
    }
  ]
}
2024-02-24T11:17:00.533Z - INFO - engine sent successfully, the response to CBRS : {
  "deregistrationResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-24T11:17:01.779Z - INFO - arrived to nstep starting question answer session with the technician
2024-02-24T11:17:01.779Z - INFO - the question is : Did CBSD1 cease RF transmission before receipt of
Relinquishment request (if sent) or Deregistration request at Test Harness? please choose one of the
answers :
2024-02-24T11:20:53.628Z - INFO - for the question : Did CBSD1 cease RF transmission before receipt of
Relinquishment request (if sent) or Deregistration request at Test Harness? , the user choose y
2024-02-24T11:20:53.644Z - 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 :
2024-02-24T11:20:54.688Z - 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
2024-02-24T11:20:55.075Z - INFO - The final result of the test : WINNF.FT.D.DRG.2 is - passed
```

6 CBSD Security Validation

6.1 WINNF.FT.C.SCS.1

2024-02-26T09:15:01.796Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-02-26T09:15:01.812Z - INFO - the selected test from the user : WINNF.FT.C.SCS.1 is starting now

2024-02-26T09:18:42.631Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "cbsdCategory": "B",
    "cbsdInfo": {
      "model": "OUTDOOR",
      "softwareVersion": "StrandMountV1",
      "vendor": "Nokia-Strandmount"
    },
    "cbsdSerialNumber": "223232227.NR",
    "fccId": "2ASK53SM0065",
    "measCapability": [
      ""
    ],
    "userId": "nokia"
  }
]
```

2024-02-26T09:18:42.730Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "response": {
      "responseCode": 0
    }
  }
]
```

2024-02-26T09:18:46.220Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "inquiredSpectrum": [
      {
        "highFrequency": 3640000000,
        "lowFrequency": 3630000000
      },
      {
        "highFrequency": 3650000000,
        "lowFrequency": 3640000000
      },
      {
        "highFrequency": 3660000000,
        "lowFrequency": 3650000000
      },
      {
        "highFrequency": 3670000000,
        "lowFrequency": 3660000000
      }
    ]
  }
]
```

```
    ]
  }
]
}
2024-02-26T09:18:46.220Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3555000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-26T09:18:51.250Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3650000000
        },
        {
          "highFrequency": 3670000000,
          "lowFrequency": 3660000000
        }
      ]
    }
  ]
}
2024-02-26T09:18:51.250Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3555000000,
            "lowFrequency": 3550000000
          }
        }
      ]
    }
  ]
}
```

```

        },
        "ruleApplied": "FCC_PART_96"
    }
},
"cbstdId": "2ASK53SM0065Mock-SAS223232227.NR",
"response": {
    "responseCode": 0
}
}
]
}
2024-02-26T09:19:26.358Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbstdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3640000000,
                    "lowFrequency": 3630000000
                },
                {
                    "highFrequency": 3650000000,
                    "lowFrequency": 3640000000
                },
                {
                    "highFrequency": 3660000000,
                    "lowFrequency": 3650000000
                },
                {
                    "highFrequency": 3670000000,
                    "lowFrequency": 3660000000
                }
            ]
        }
    ]
}
2024-02-26T09:19:26.365Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {
                    "channelType": "GAA",
                    "frequencyRange": {
                        "highFrequency": 3555000000,
                        "lowFrequency": 3550000000
                    },
                    "ruleApplied": "FCC_PART_96"
                }
            ],
            "cbstdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2024-02-26T09:19:31.355Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [

```

```

    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "inquiredSpectrum": [
        {
          "highFrequency": 3640000000,
          "lowFrequency": 3630000000
        },
        {
          "highFrequency": 3650000000,
          "lowFrequency": 3640000000
        },
        {
          "highFrequency": 3660000000,
          "lowFrequency": 3650000000
        },
        {
          "highFrequency": 3670000000,
          "lowFrequency": 3660000000
        }
      ]
    }
  ]
}
2024-02-26T09:19:31.355Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3555000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-26T09:20:02.789Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "NR"
      },
      "cbsdCategory": "B",
      "cbsdInfo": {
        "model": "OUTDOOR",
        "softwareVersion": "StrandMountV1",
        "vendor": "Nokia-Strandmount"
      },
      "cbsdSerialNumber": "223232230.NR",
      "fccId": "2ASK53SM0065",
      "measCapability": [

```



```
    ""
  ],
  "userId": "nokia"
}
]
}
2024-02-26T09:20:02.836Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232230.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-26T09:20:04.717Z - INFO - arrived to nstep starting question answer session with the technician
2024-02-26T09:20:04.717Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2024-02-26T09:23:09.756Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2024-02-26T09:23:09.756Z - INFO - the question is : Were there RF transmissions from the CBSD2 during
the test? please choose one of the answers :
2024-02-26T09:24:32.986Z - INFO - for the question : Were there RF transmissions from the CBSD2 during
the test? , the user choose n
2024-02-26T09:24:33.469Z - INFO - The final result of the test : WINNF.FT.C.SCS.1 is - passed
```

6.2 WINNF.FT.C.SCS.2

2024-02-26T09:32:42.844Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13
2024-02-26T09:32:42.859Z - INFO - the selected test from the user : WINNF.FT.C.SCS.2 is starting now

6.3 WINNF.FT.C.SCS.3

2024-02-26T09:59:46.187Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13
2024-02-26T09:59:46.190Z - INFO - the selected test from the user : WINNF.FT.C.SCS.3 is starting now

6.4 WINNF.FT.C.SCS.4

2024-02-26T10:54:44.421Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13
2024-02-26T10:54:44.421Z - INFO - the selected test from the user : WINNF.FT.C.SCS.4 is starting now

6.5 WINNF.FT.C.SCS.5

2024-02-26T10:29:41.437Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13
2024-02-26T10:29:41.438Z - INFO - the selected test from the user : WINNF.FT.C.SCS.5 is starting now

7 CBSD RF Power Measurement

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

2024-02-29T03:17:01.311Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-02-29T03:17:01.312Z - INFO - Selected spectrum frequency is {'lowFrequency': 3630000000L, 'highFrequency': 3670000000L}

2024-02-29T03:17:01.312Z - INFO - Granted Spectrum Max Eirp = 20dBm/MHz

2024-02-29T03:17:01.312Z - INFO - the selected test from the user : PowerMeasTest is starting now

2024-02-29T03:22:07.141Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "cbsdCategory": "B",
    "cbsdInfo": {
      "model": "OUTDOOR",
      "softwareVersion": "StrandMountV1",
      "vendor": "Nokia-Strandmount"
    },
    "cbsdSerialNumber": "223232227.NR",
    "fccId": "2ASK53SM0065",
    "measCapability": [
      ""
    ],
    "userId": "nokia"
  }
]
```

2024-02-29T03:22:07.176Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "response": {
      "responseCode": 0
    }
  }
]
```

2024-02-29T03:22:08.151Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "inquiredSpectrum": [
      {
        "highFrequency": 3640000000,
        "lowFrequency": 3630000000
      },
      {
        "highFrequency": 3650000000,
        "lowFrequency": 3640000000
      },
      {
        "highFrequency": 3660000000,
        "lowFrequency": 3650000000
      }
    ]
  }
]
```

```
    },
    {
      "highFrequency": 3670000000,
      "lowFrequency": 3660000000
    }
  ]
}
]
}
2024-02-29T03:22:08.180Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2024-02-29T03:22:08.180Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2024-02-29T03:22:08.181Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2024-02-29T03:22:08.181Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2024-02-29T03:22:08.181Z - INFO - engine sent successfully, the response to CBRS  : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3630000000
          },
          "maxEirp": 20,
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3650000000,
            "lowFrequency": 3640000000
          },
          "maxEirp": 20,
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3660000000,
            "lowFrequency": 3650000000
          },
          "maxEirp": 20,
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3670000000,
            "lowFrequency": 3660000000
          },
          "maxEirp": 20,
          "ruleApplied": "FCC_PART_96"
        }
      ],
    }
  ],
}
```

```
        "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
        "response": {
            "responseCode": 0
        }
    ]
}
2024-02-29T03:22:08.977Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "operationParam": {
                "maxEirp": 20.0,
                "operationFrequencyRange": {
                    "highFrequency": 3670000000,
                    "lowFrequency": 3630000000
                }
            }
        }
    ]
}
2024-02-29T03:22:09.019Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "channelType": "GAA",
            "grantExpireTime": "2024-03-07T03:22:09Z",
            "grantId": "198785745",
            "heartbeatInterval": 100,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2024-02-29T03:22:09.398Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "198785745",
            "grantRenew": false,
            "operationState": "GRANTED"
        }
    ]
}
2024-02-29T03:22:09.440Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "198785745",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-02-29T03:25:29Z"
        }
    ]
}
2024-02-29T03:23:16.677Z - INFO - heartbeat request from CBRS : {
```

```
"heartbeatRequest": [  
  {  
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",  
    "grantId": "198785745",  
    "grantRenew": false,  
    "operationState": "AUTHORIZED"  
  }  
]  
}  
2024-02-29T03:23:16.691Z - INFO - engine sent successfully, the response to CBRS : {  
  "heartbeatResponse": [  
    {  
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",  
      "grantId": "198785745",  
      "response": {  
        "responseCode": 0  
      },  
      "transmitExpireTime": "2024-02-29T03:26:36Z"  
    }  
  ]  
}  
2024-02-29T03:24:23.888Z - INFO - heartbeat request from CBRS : {  
  "heartbeatRequest": [  
    {  
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",  
      "grantId": "198785745",  
      "grantRenew": false,  
      "operationState": "AUTHORIZED"  
    }  
  ]  
}  
2024-02-29T03:24:23.904Z - INFO - engine sent successfully, the response to CBRS : {  
  "heartbeatResponse": [  
    {  
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",  
      "grantId": "198785745",  
      "response": {  
        "responseCode": 0  
      },  
      "transmitExpireTime": "2024-02-29T03:27:43Z"  
    }  
  ]  
}  
2024-02-29T03:25:31.158Z - INFO - heartbeat request from CBRS : {  
  "heartbeatRequest": [  
    {  
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",  
      "grantId": "198785745",  
      "grantRenew": false,  
      "operationState": "AUTHORIZED"  
    }  
  ]  
}  
2024-02-29T03:25:31.174Z - INFO - engine sent successfully, the response to CBRS : {  
  "heartbeatResponse": [  
    {  
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",  
      "grantId": "198785745",
```

```
        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2024-02-29T03:28:51Z"
    }
]
}
2024-02-29T03:26:38.421Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "198785745",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-02-29T03:26:38.436Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "198785745",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-02-29T03:29:58Z"
        }
    ]
}
2024-02-29T03:27:45.687Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "198785745",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-02-29T03:27:45.701Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "198785745",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-02-29T03:31:05Z"
        }
    ]
}
2024-02-29T03:28:52.914Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "198785745",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
```

```
    }
  ]
}
2024-02-29T03:28:52.928Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T03:32:12Z"
    }
  ]
}
2024-02-29T03:30:00.180Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T03:30:00.196Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T03:33:20Z"
    }
  ]
}
2024-02-29T03:31:07.467Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T03:31:07.482Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T03:34:27Z"
    }
  ]
}
```



```
}
2024-02-29T03:32:14.684Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T03:32:14.698Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T03:35:34Z"
    }
  ]
}
2024-02-29T03:33:21.944Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T03:33:21.959Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T03:36:41Z"
    }
  ]
}
2024-02-29T03:34:29.204Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T03:34:29.221Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
```

```
        "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
        "grantId": "198785745",
        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2024-02-29T03:37:49Z"
    }
]
}
2024-02-29T03:35:36.469Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "198785745",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-02-29T03:35:36.483Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "198785745",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-02-29T03:38:56Z"
        }
    ]
}
2024-02-29T03:36:43.733Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "198785745",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-02-29T03:36:43.747Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "198785745",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-02-29T03:40:03Z"
        }
    ]
}
2024-02-29T03:37:50.950Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "198785745",
```

```
        "grantRenew": false,
        "operationState": "AUTHORIZED"
    }
]
}
2024-02-29T03:37:50.964Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "198785745",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-02-29T03:41:10Z"
        }
    ]
}
2024-02-29T03:38:58.180Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "198785745",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-02-29T03:38:58.194Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "198785745",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-02-29T03:42:18Z"
        }
    ]
}
2024-02-29T03:40:05.421Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "198785745",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-02-29T03:40:05.434Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "198785745",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-02-29T03:43:25Z"
        }
    ]
}
```

```
    }
  ]
}
2024-02-29T03:41:12.657Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T03:41:12.673Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T03:44:32Z"
    }
  ]
}
2024-02-29T03:42:19.918Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T03:42:19.934Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T03:45:39Z"
    }
  ]
}
2024-02-29T03:43:27.174Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T03:43:27.190Z - INFO - engine sent successfully, the response to CBRS : {
```

```
"heartbeatResponse": [  
  {  
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",  
    "grantId": "198785745",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2024-02-29T03:46:47Z"  
  }  
]  
}  
2024-02-29T03:44:34.444Z - INFO - heartbeat request from CBRS : {  
  "heartbeatRequest": [  
    {  
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",  
      "grantId": "198785745",  
      "grantRenew": false,  
      "operationState": "AUTHORIZED"  
    }  
  ]  
}  
2024-02-29T03:44:34.459Z - INFO - engine sent successfully, the response to CBRS : {  
  "heartbeatResponse": [  
    {  
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",  
      "grantId": "198785745",  
      "response": {  
        "responseCode": 0  
      },  
      "transmitExpireTime": "2024-02-29T03:47:54Z"  
    }  
  ]  
}  
2024-02-29T03:45:41.724Z - INFO - heartbeat request from CBRS : {  
  "heartbeatRequest": [  
    {  
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",  
      "grantId": "198785745",  
      "grantRenew": false,  
      "operationState": "AUTHORIZED"  
    }  
  ]  
}  
2024-02-29T03:45:41.740Z - INFO - engine sent successfully, the response to CBRS : {  
  "heartbeatResponse": [  
    {  
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",  
      "grantId": "198785745",  
      "response": {  
        "responseCode": 0  
      },  
      "transmitExpireTime": "2024-02-29T03:49:01Z"  
    }  
  ]  
}  
2024-02-29T03:46:48.974Z - INFO - heartbeat request from CBRS : {  
  "heartbeatRequest": [  
    {
```

```
        "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
        "grantId": "198785745",
        "grantRenew": false,
        "operationState": "AUTHORIZED"
    }
]
}
2024-02-29T03:46:48.990Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T03:50:08Z"
    }
  ]
}
2024-02-29T03:47:56.233Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T03:47:56.247Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T03:51:16Z"
    }
  ]
}
2024-02-29T03:49:03.499Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T03:49:03.512Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
```

```
    },
    "transmitExpireTime": "2024-02-29T03:52:23Z"
  }
]
}
2024-02-29T03:50:10.746Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T03:50:10.759Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T03:53:30Z"
    }
  ]
}
2024-02-29T03:51:18.007Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T03:51:18.023Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T03:54:38Z"
    }
  ]
}
2024-02-29T03:52:25.236Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
```

```
}
2024-02-29T03:52:25.252Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T03:55:45Z"
    }
  ]
}
2024-02-29T03:53:32.506Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T03:53:32.520Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T03:56:52Z"
    }
  ]
}
2024-02-29T03:54:39.763Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T03:54:39.778Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "198785745",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T03:57:59Z"
    }
  ]
}
}
```


7.2 WINNF.PT.C.HBT.1(Max Eirp = 24 dBm/MHz)

2024-02-29T04:14:46.575Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-02-29T04:14:46.576Z - INFO - Selected spectrum frequency is {'lowFrequency': 3630000000L, 'highFrequency': 3670000000L}

2024-02-29T04:14:46.578Z - INFO - Granted Spectrum Max Eirp = 24dBm/MHz

2024-02-29T04:14:46.579Z - INFO - the selected test from the user : PowerMeasTest is starting now

2024-02-29T04:17:33.168Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "cbsdCategory": "B",
    "cbsdInfo": {
      "model": "OUTDOOR",
      "softwareVersion": "StrandMountV1",
      "vendor": "Nokia-Strandmount"
    },
    "cbsdSerialNumber": "223232227.NR",
    "fccId": "2ASK53SM0065",
    "measCapability": [
      ""
    ],
    "userId": "nokia"
  }
]
```

2024-02-29T04:17:33.196Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "response": {
      "responseCode": 0
    }
  }
]
```

2024-02-29T04:17:34.309Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "inquiredSpectrum": [
      {
        "highFrequency": 3640000000,
        "lowFrequency": 3630000000
      },
      {
        "highFrequency": 3650000000,
        "lowFrequency": 3640000000
      },
      {
        "highFrequency": 3660000000,
        "lowFrequency": 3650000000
      },
      {
        "highFrequency": 3670000000,
        "lowFrequency": 3660000000
      }
    ]
  }
]
```

```

    ]
  }
]
}
2024-02-29T04:17:34.325Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2024-02-29T04:17:34.326Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2024-02-29T04:17:34.328Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2024-02-29T04:17:34.329Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2024-02-29T04:17:34.332Z - INFO - engine sent successfully, the response to CBRS  : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3630000000
          },
          "maxEirp": 24,
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3650000000,
            "lowFrequency": 3640000000
          },
          "maxEirp": 24,
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3660000000,
            "lowFrequency": 3650000000
          },
          "maxEirp": 24,
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3670000000,
            "lowFrequency": 3660000000
          },
          "maxEirp": 24,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```
]
}
2024-02-29T04:17:34.966Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "operationParam": {
        "maxEirp": 24.0,
        "operationFrequencyRange": {
          "highFrequency": 3670000000,
          "lowFrequency": 3630000000
        }
      }
    }
  ]
}
2024-02-29T04:17:34.976Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "channelType": "GAA",
      "grantExpireTime": "2024-03-07T04:17:34Z",
      "grantId": "490854943",
      "heartbeatInterval": 100,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-29T04:17:35.864Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-02-29T04:17:35.871Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T04:20:55Z"
    }
  ]
}
2024-02-29T04:18:43.095Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "grantRenew": false,
```

```
        "operationState": "AUTHORIZED"
      }
    ]
  }
2024-02-29T04:18:43.108Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T04:22:03Z"
    }
  ]
}
2024-02-29T04:19:50.351Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T04:19:50.367Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T04:23:10Z"
    }
  ]
}
2024-02-29T04:20:57.612Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T04:20:57.628Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T04:24:17Z"
    }
  ]
}
```

```
]
}
2024-02-29T04:22:04.851Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T04:22:04.865Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T04:25:24Z"
    }
  ]
}
2024-02-29T04:23:12.098Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T04:23:12.112Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T04:26:32Z"
    }
  ]
}
2024-02-29T04:24:19.355Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T04:24:19.371Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
```

```
{
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "grantId": "490854943",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-02-29T04:27:39Z"
  }
]
}
2024-02-29T04:25:26.568Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T04:25:26.582Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T04:28:46Z"
    }
  ]
}
2024-02-29T04:26:33.825Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T04:26:33.835Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T04:29:53Z"
    }
  ]
}
2024-02-29T04:27:41.089Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
```

```
        "grantId": "490854943",
        "grantRenew": false,
        "operationState": "AUTHORIZED"
    }
]
}
2024-02-29T04:27:41.104Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T04:31:01Z"
    }
  ]
}
2024-02-29T04:28:48.328Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T04:28:48.338Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T04:32:08Z"
    }
  ]
}
2024-02-29T04:29:55.582Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T04:29:55.598Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "response": {
        "responseCode": 0
      },
    }
  ]
}
```

```
        "transmitExpireTime": "2024-02-29T04:33:15Z"
    }
]
}
2024-02-29T04:31:02.795Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "490854943",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-02-29T04:31:02.811Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "490854943",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-02-29T04:34:22Z"
        }
    ]
}
2024-02-29T04:32:10.052Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "490854943",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-02-29T04:32:10.066Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "490854943",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-02-29T04:35:30Z"
        }
    ]
}
2024-02-29T04:33:17.345Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "490854943",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
}
```



```
2024-02-29T04:33:17.359Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T04:36:37Z"
    }
  ]
}
2024-02-29T04:34:24.605Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T04:34:24.621Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T04:37:44Z"
    }
  ]
}
2024-02-29T04:35:31.865Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T04:35:31.881Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T04:38:51Z"
    }
  ]
}
2024-02-29T04:36:39.095Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
```

```
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T04:36:39.109Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T04:39:59Z"
    }
  ]
}
2024-02-29T04:37:46.309Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T04:37:46.318Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T04:41:06Z"
    }
  ]
}
2024-02-29T04:38:53.545Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T04:38:53.559Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "response": {
```

```
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T04:42:13Z"
    }
  ]
}
2024-02-29T04:40:00.812Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T04:40:00.828Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T04:43:20Z"
    }
  ]
}
2024-02-29T04:41:08.069Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T04:41:08.085Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T04:44:28Z"
    }
  ]
}
2024-02-29T04:42:15.289Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
```

```
]
}
2024-02-29T04:42:15.306Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T04:45:35Z"
    }
  ]
}
2024-02-29T04:43:22.552Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T04:43:22.569Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T04:46:42Z"
    }
  ]
}
2024-02-29T04:44:29.782Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T04:44:29.796Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "490854943",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T04:47:49Z"
    }
  ]
}
}
```

7.3 WINNF.PT.C.HBT.1(Max Eirp = 29 dBm/MHz)

2024-02-29T04:50:32.895Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-02-29T04:50:32.897Z - INFO - Selected spectrum frequency is {'lowFrequency': 3630000000L, 'highFrequency': 3670000000L}

2024-02-29T04:50:32.898Z - INFO - Granted Spectrum Max Eirp = 29dBm/MHz

2024-02-29T04:50:32.898Z - INFO - the selected test from the user : PowerMeasTest is starting now

2024-02-29T04:53:15.286Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "cbsdCategory": "B",
    "cbsdInfo": {
      "model": "OUTDOOR",
      "softwareVersion": "StrandMountV1",
      "vendor": "Nokia-Strandmount"
    },
    "cbsdSerialNumber": "223232227.NR",
    "fccId": "2ASK53SM0065",
    "measCapability": [
      ""
    ],
    "userId": "nokia"
  }
]
```

2024-02-29T04:53:15.316Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "response": {
      "responseCode": 0
    }
  }
]
```

2024-02-29T04:53:16.436Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "inquiredSpectrum": [
      {
        "highFrequency": 3640000000,
        "lowFrequency": 3630000000
      },
      {
        "highFrequency": 3650000000,
        "lowFrequency": 3640000000
      },
      {
        "highFrequency": 3660000000,
        "lowFrequency": 3650000000
      },
      {
        "highFrequency": 3670000000,
        "lowFrequency": 3660000000
      }
    ]
  }
]
```

```

    ]
  }
]
}
2024-02-29T04:53:16.450Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2024-02-29T04:53:16.451Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2024-02-29T04:53:16.456Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2024-02-29T04:53:16.457Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2024-02-29T04:53:16.457Z - INFO - engine sent successfully, the response to CBRS  : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3630000000
          },
          "maxEirp": 29,
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3650000000,
            "lowFrequency": 3640000000
          },
          "maxEirp": 29,
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3660000000,
            "lowFrequency": 3650000000
          },
          "maxEirp": 29,
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3670000000,
            "lowFrequency": 3660000000
          },
          "maxEirp": 29,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```
]
}
2024-02-29T04:53:17.101Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "operationParam": {
        "maxEirp": 29.0,
        "operationFrequencyRange": {
          "highFrequency": 3670000000,
          "lowFrequency": 3630000000
        }
      }
    }
  ]
}
2024-02-29T04:53:17.111Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "channelType": "GAA",
      "grantExpireTime": "2024-03-07T04:53:17Z",
      "grantId": "691643301",
      "heartbeatInterval": 100,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-29T04:53:17.726Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-02-29T04:53:17.744Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T04:56:37Z"
    }
  ]
}
2024-02-29T04:54:24.993Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "grantRenew": false,
```

```
        "operationState": "AUTHORIZED"
      }
    ]
  }
2024-02-29T04:54:25.007Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T04:57:45Z"
    }
  ]
}
2024-02-29T04:55:32.252Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T04:55:32.266Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T04:58:52Z"
    }
  ]
}
2024-02-29T04:56:39.484Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T04:56:39.500Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T04:59:59Z"
    }
  ]
}
```



```
]
}
2024-02-29T04:57:46.700Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T04:57:46.716Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T05:01:06Z"
    }
  ]
}
2024-02-29T04:58:53.960Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T04:58:53.974Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T05:02:13Z"
    }
  ]
}
2024-02-29T05:00:01.250Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T05:00:01.265Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
```

```
{
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "grantId": "691643301",
    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2024-02-29T05:03:21Z"
  }
]
}
2024-02-29T05:01:08.494Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T05:01:08.509Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T05:04:28Z"
    }
  ]
}
2024-02-29T05:02:15.775Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T05:02:15.789Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T05:05:35Z"
    }
  ]
}
2024-02-29T05:03:23.000Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
```

```
        "grantId": "691643301",
        "grantRenew": false,
        "operationState": "AUTHORIZED"
    }
]
}
2024-02-29T05:03:23.015Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T05:06:43Z"
    }
  ]
}
2024-02-29T05:04:30.276Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T05:04:30.290Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T05:07:50Z"
    }
  ]
}
2024-02-29T05:05:37.505Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T05:05:37.519Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "response": {
        "responseCode": 0
      },
    }
  ]
}
```

```
        "transmitExpireTime": "2024-02-29T05:08:57Z"
    }
]
}
2024-02-29T05:06:44.759Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "691643301",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2024-02-29T05:06:44.773Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "691643301",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-02-29T05:10:04Z"
        }
    ]
}
}
2024-02-29T05:07:52.019Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "691643301",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
}
2024-02-29T05:07:52.036Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "691643301",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2024-02-29T05:11:12Z"
        }
    ]
}
}
2024-02-29T05:08:59.273Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
            "grantId": "691643301",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
}
```

```
2024-02-29T05:08:59.288Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T05:12:19Z"
    }
  ]
}
2024-02-29T05:10:06.535Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T05:10:06.549Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T05:13:26Z"
    }
  ]
}
2024-02-29T05:11:13.805Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T05:11:13.822Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T05:14:33Z"
    }
  ]
}
2024-02-29T05:12:21.052Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
```

```
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T05:12:21.068Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T05:15:41Z"
    }
  ]
}
2024-02-29T05:13:28.311Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T05:13:28.325Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T05:16:48Z"
    }
  ]
}
2024-02-29T05:14:35.571Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2024-02-29T05:14:35.585Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "691643301",
      "response": {
```

```
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T05:17:55Z"
    }
  ]
}
```

7.4 WINNF.PT.C.HBT.1(Max Eirp = 37 dBm/MHz)

2024-02-29T05:18:25.857Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2024-02-29T05:18:25.858Z - INFO - Selected spectrum frequency is {'lowFrequency': 3630000000L, 'highFrequency': 3670000000L}

2024-02-29T05:18:25.859Z - INFO - Granted Spectrum Max Eirp = 37dBm/MHz

2024-02-29T05:18:25.861Z - INFO - the selected test from the user : PowerMeasTest is starting now

2024-02-29T05:22:26.134Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "NR"
    },
    "cbsdCategory": "B",
    "cbsdInfo": {
      "model": "OUTDOOR",
      "softwareVersion": "StrandMountV1",
      "vendor": "Nokia-Strandmount"
    },
    "cbsdSerialNumber": "223232227.NR",
    "fccId": "2ASK53SM0065",
    "measCapability": [
      ""
    ],
    "userId": "nokia"
  }
]
```

2024-02-29T05:22:26.153Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "response": {
      "responseCode": 0
    }
  }
]
```

2024-02-29T05:22:27.355Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
    "inquiredSpectrum": [
      {
        "highFrequency": 3640000000,
        "lowFrequency": 3630000000
      },
      {
        "highFrequency": 3650000000,
        "lowFrequency": 3640000000
      },
      {
        "highFrequency": 3660000000,
        "lowFrequency": 3650000000
      },
      {
        "highFrequency": 3670000000,
        "lowFrequency": 3660000000
      }
    ]
  }
]
```



```
    ]
  }
]
}
2024-02-29T05:22:27.369Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2024-02-29T05:22:27.371Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2024-02-29T05:22:27.372Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2024-02-29T05:22:27.374Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0
2024-02-29T05:22:27.375Z - INFO - engine sent successfully, the response to CBRS  : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3640000000,
            "lowFrequency": 3630000000
          },
          "maxEirp": 37,
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3650000000,
            "lowFrequency": 3640000000
          },
          "maxEirp": 37,
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3660000000,
            "lowFrequency": 3650000000
          },
          "maxEirp": 37,
          "ruleApplied": "FCC_PART_96"
        },
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3670000000,
            "lowFrequency": 3660000000
          },
          "maxEirp": 37,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
```

```
]
}
2024-02-29T05:22:27.960Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "operationParam": {
        "maxEirp": 29.0,
        "operationFrequencyRange": {
          "highFrequency": 3670000000,
          "lowFrequency": 3630000000
        }
      }
    }
  ]
}
2024-02-29T05:22:27.970Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "channelType": "GAA",
      "grantExpireTime": "2024-03-07T05:22:27Z",
      "grantId": "899247417",
      "heartbeatInterval": 100,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2024-02-29T05:22:29.217Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "899247417",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2024-02-29T05:22:29.236Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2ASK53SM0065Mock-SAS223232227.NR",
      "grantId": "899247417",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2024-02-29T05:25:49Z"
    }
  ]
}
}
```