

## Test Logs

**FCC ID:** QI3BEC-6900R21

**Test Model:** RidgeWave 6900

**Received Date:** Jun. 05, 2019

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## Table of Contents

<b>1</b>	<b>CBSD Registration Process.....</b>	<b>3</b>
1.1	WINNF.FT.C.REG.1.....	3
1.2	WINNF.FT.C.REG.7.....	4
1.3	WINNF.FT.C.REG.8.....	6
1.4	WINNF.FT.C.REG.10.....	7
1.5	WINNF.FT.C.REG.12.....	8
1.6	WINNF.FT.C.REG.14.....	9
1.7	WINNF.FT.C.REG.16.....	10
1.8	WINNF.FT.C.REG.18.....	11
<b>2</b>	<b>CBSD Spectrum Grant Process .....</b>	<b>12</b>
2.1	WINNF.FT.C.GRA.1 .....	12
2.2	WINNF.FT.C.GRA.2 .....	14
<b>3</b>	<b>CBSD Heart Beat Process.....</b>	<b>16</b>
3.1	WINNF.FT.C.HBT.1 .....	16
3.2	WINNF.FT.C.HBT.3 .....	21
3.3	WINNF.FT.C.HBT.4 .....	25
3.4	WINNF.FT.C.HBT.5 .....	30
3.5	WINNF.FT.C.HBT.6 .....	33
3.6	WINNF.FT.C.HBT.7 .....	37
3.7	WINNF.FT.C.HBT.9 .....	41
3.8	WINNF.FT.C.HBT.10 .....	45
<b>4</b>	<b>CBSD Measurement Report.....</b>	<b>50</b>
4.1	WINNF.FT.C.MES.1 .....	50
4.2	WINNF.FT.C.MES.3 .....	55
4.3	WINNF.FT.C.MES.4 .....	66
<b>5</b>	<b>CBSD Relinquishment Process.....</b>	<b>82</b>
5.1	WINNF.FT.C.RLQ.1 .....	82
<b>6</b>	<b>CBSD Deregistration Process .....</b>	<b>85</b>
6.1	WINNF.FT.C.DRG.1.....	85
<b>7</b>	<b>CBSD Security Validation .....</b>	<b>88</b>
7.1	WINNF.FT.C.SCS.1.....	88
<b>8</b>	<b>CBSD RF Power Measurement.....</b>	<b>89</b>
8.1	WINNF.PT.C.HBT.1(Max Eirp = 23 dBm/MHz) .....	89
8.2	WINNF.PT.C.HBT.1(Max Eirp = 30 dBm/MHz) .....	92
8.3	WINNF.PT.C.HBT.1(Max Eirp = 37 dBm/MHz) .....	95

## 1 CBSD Registration Process

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

2019-09-04T09:18:28.463Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-09-04T09:18:28.463Z - INFO - the selected test from the user : WINNF.FT.C.REG.1 is starting now

2019-09-04T09:19:10.963Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "6ZX0419000001",
    "fccId": "QI3BEC-6900R21",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "UYm9fD"
  }
]
```

2019-09-04T09:19:10.993Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "response": {
      "responseCode": 0
    }
  }
]
```

2019-09-04T09:19:12.915Z - INFO - arrived to nstep starting question answer session with the technician

2019-09-04T09:19:12.915Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2019-09-04T09:19:32.308Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2019-09-04T09:19:33.260Z - INFO - The final result of the test : WINNF.FT.C.REG.1 is - passed

## 1.2 WINNF.FT.C.REG.7

2019-09-04T09:08:38.197Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-09-04T09:08:38.197Z - INFO - the selected test from the user : WINNF.FT.C.REG.7 is starting now

2019-09-04T09:10:27.976Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "6ZX0419000001",
    "fccId": "QI3BEC-6900R21",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "UYm9fD"
  }
]
```

2019-09-04T09:10:27.999Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "response": {
      "responseCode": 0
    }
  }
]
```

2019-09-04T09:10:32.091Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "inquiredSpectrum": [
      {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      }
    ]
  }
]
```

2019-09-04T09:10:32.107Z - INFO - engine sent successfully, the response to CBRS : {

```
"spectrumInquiryResponse": [
  {
    "availableChannel": [
      {
        "channelType": "GAA",
        "frequencyRange": {
```

```
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
    },
    "ruleApplied": "FCC_PART_96"
}
],
"cbstdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
"response": {
    "responseCode": 0
}
}
]
}
2019-09-04T09:10:36.131Z - INFO - deregistration request from CBRS : {
    "deregistrationRequest": [
        {
            "cbstdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001"
        }
    ]
}
2019-09-04T09:10:36.147Z - INFO - engine sent successfully, the response to CBRS : {
    "deregistrationResponse": [
        {
            "cbstdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-09-04T09:10:37.319Z - INFO - arrived to nstep starting question answer session with the technician
2019-09-04T09:10:37.319Z - 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 :
2019-09-04T09:13:38.792Z - 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
2019-09-04T09:13:39.369Z - INFO - The final result of the test : WINNF.FT.C.REG.7 is - passed
```

### 1.3 WINNF.FT.C.REG.8

2019-08-06T05:21:48.727Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-08-06T05:21:48.727Z - INFO - the selected test from the user : WINNF.FT.C.REG.8 is starting now

2019-08-06T05:21:58.431Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "6ZX0419000001",
    "fccId": "QI3BEC-6900R21",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "UYm9fD"
  }
]
```

2019-08-06T05:21:58.447Z - INFO - engine sent successfully, the response to CBRS : {

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

2019-08-06T05:21:59.822Z - INFO - arrived to nstep starting question answer session with the technician

2019-08-06T05:21:59.822Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2019-08-06T05:36:57.101Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2019-08-06T05:36:57.803Z - INFO - The final result of the test : WINNF.FT.C.REG.8 is - passed

#### 1.4 WINNF.FT.C.REG.10

2019-08-06T05:39:08.904Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-08-06T05:39:08.904Z - INFO - the selected test from the user : WINNF.FT.C.REG.10 is starting now

2019-08-06T05:39:50.532Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "6ZX0419000001",
    "fccId": "QI3BEC-6900R21",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "UYm9fD"
  }
]
```

2019-08-06T05:39:50.563Z - INFO - engine sent successfully, the response to CBRS : {

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

2019-08-06T05:39:52.454Z - INFO - arrived to nstep starting question answer session with the technician

2019-08-06T05:39:52.454Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2019-08-06T05:44:10.128Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2019-08-06T05:44:11.706Z - INFO - The final result of the test : WINNF.FT.C.REG.10 is - passed

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

2019-08-06T05:44:23.176Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-08-06T05:44:23.176Z - INFO - the selected test from the user : WINNF.FT.C.REG.12 is starting now

2019-08-06T05:44:40.176Z - INFO - registration request from CBRS : {

```

"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "6ZX0419000001",
    "fccId": "QI3BEC-6900R21",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "UYm9fD"
  }
]

```

2019-08-06T05:44:40.191Z - INFO - engine sent successfully, the response to CBRS : {

```

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

```

2019-08-06T05:44:41.441Z - INFO - arrived to nstep starting question answer session with the technician

2019-08-06T05:44:41.441Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2019-08-06T05:48:04.792Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2019-08-06T05:48:05.246Z - INFO - The final result of the test : WINNF.FT.C.REG.12 is - passed



## 1.6 WINNF.FT.C.REG.14

2019-08-06T05:48:40.418Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-08-06T05:48:40.418Z - INFO - the selected test from the user : WINNF.FT.C.REG.14 is starting now

2019-08-06T05:48:53.247Z - INFO - registration request from CBRS : {

```

"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "6ZX0419000001",
    "fccId": "QI3BEC-6900R21",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "UYm9fD"
  }
]

```

2019-08-06T05:48:53.263Z - INFO - engine sent successfully, the response to CBRS : {

```

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

```

2019-08-06T05:48:54.592Z - INFO - arrived to nstep starting question answer session with the technician

2019-08-06T05:48:54.592Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2019-08-06T05:50:51.572Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2019-08-06T05:50:52.401Z - INFO - The final result of the test : WINNF.FT.C.REG.14 is - passed

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

2019-08-06T05:52:49.786Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-08-06T05:52:49.786Z - INFO - the selected test from the user : WINNF.FT.C.REG.16 is starting now

2019-08-06T05:53:01.210Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "6ZX0419000001",
    "fccId": "QI3BEC-6900R21",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "UYm9fD"
  }
]
```

2019-08-06T05:53:01.226Z - INFO - engine sent successfully, the response to CBRS : {

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

2019-08-06T05:53:02.898Z - INFO - arrived to nstep starting question answer session with the technician

2019-08-06T05:53:02.898Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2019-08-06T05:55:37.687Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2019-08-06T05:55:38.516Z - INFO - The final result of the test : WINNF.FT.C.REG.16 is - passed

## 1.8 WINNF.FT.C.REG.18

2019-08-06T05:56:33.946Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-08-06T05:56:33.961Z - INFO - the selected test from the user : WINNF.FT.C.REG.18 is starting now

2019-08-06T05:56:46.915Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "6ZX0419000001",
    "fccId": "QI3BEC-6900R21",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "UYm9fD"
  }
]
```

2019-08-06T05:56:46.947Z - INFO - engine sent successfully, the response to CBRS : {

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

2019-08-06T05:56:48.118Z - INFO - arrived to nstep starting question answer session with the technician

2019-08-06T05:56:48.118Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2019-08-06T05:59:02.362Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2019-08-06T05:59:02.878Z - INFO - The final result of the test : WINNF.FT.C.REG.18 is - passed

## 2 CBSD Spectrum Grant Process

### 2.1 WINNF.FT.C.GRA.1

2019-08-06T06:01:06.703Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-08-06T06:01:06.703Z - INFO - the selected test from the user : WINNF.FT.C.GRA.1 is starting now

2019-08-06T06:01:17.125Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "6ZX0419000001",
    "fccId": "QI3BEC-6900R21",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "UYm9fD"
  }
]
```

}
2019-08-06T06:01:17.141Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "response": {
      "responseCode": 0
    }
  }
]
```

}
2019-08-06T06:01:21.157Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "inquiredSpectrum": [
      {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      }
    ]
  }
]
```

}
2019-08-06T06:01:21.157Z - INFO - engine sent successfully, the response to CBRS : {

```
"spectrumInquiryResponse": [
  {
    "availableChannel": [
```

```

    {
      "channelType": "GAA",
      "frequencyRange": {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      },
      "ruleApplied": "FCC_PART_96"
    }
  ],
  "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
  "response": {
    "responseCode": 0
  }
}
]
}
2019-08-06T06:01:25.188Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "operationParam": {
        "maxEirp": 37,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2019-08-06T06:01:25.203Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "response": {
        "responseCode": 400
      }
    }
  ]
}
2019-08-06T06:01:26.953Z - INFO - arrived to nstep starting question answer session with the technician
2019-08-06T06:01:26.953Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2019-08-06T06:03:09.400Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2019-08-06T06:03:10.150Z - INFO - The final result of the test : WINNF.FT.C.GRA.1 is - passed

```

## 2.2 WINNF.FT.C.GRA.2

2019-08-06T06:07:58.332Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-08-06T06:07:58.332Z - INFO - the selected test from the user : WINNF.FT.C.GRA.2 is starting now

2019-08-06T06:08:08.551Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "6ZX0419000001",
    "fccId": "QI3BEC-6900R21",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "UYm9fD"
  }
]
```

2019-08-06T06:08:08.582Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "response": {
      "responseCode": 0
    }
  }
]
```

2019-08-06T06:08:12.582Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "inquiredSpectrum": [
      {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      }
    ]
  }
]
```

2019-08-06T06:08:12.598Z - INFO - engine sent successfully, the response to CBRS : {

```
"spectrumInquiryResponse": [
  {
    "availableChannel": [
      {
        "channelType": "GAA",
        "frequencyRange": {
```

```
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      },
      "ruleApplied": "FCC_PART_96"
    }
  ],
  "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
  "response": {
    "responseCode": 0
  }
}
]
}
2019-08-06T06:08:16.661Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "operationParam": {
        "maxEirp": 37,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2019-08-06T06:08:16.677Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "response": {
        "responseCode": 401
      }
    }
  ]
}
2019-08-06T06:08:18.614Z - INFO - arrived to nstep starting question answer session with the technician
2019-08-06T06:08:18.614Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2019-08-06T06:09:38.355Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2019-08-06T06:09:38.778Z - INFO - The final result of the test : WINNF.FT.C.GRA.2 is - passed
```

### 3 CBSD Heart Beat Process

#### 3.1 WINNF.FT.C.HBT.1

2019-08-06T07:36:40.000Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-08-06T07:36:40.016Z - INFO - the selected test from the user : WINNF.FT.C.HBT.1 is starting now

2019-08-06T07:36:57.190Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "6ZX0419000001",
    "fccId": "QI3BEC-6900R21",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "UYm9fD"
  }
]
```

}
2019-08-06T07:36:57.221Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "response": {
      "responseCode": 0
    }
  }
]
```

}
2019-08-06T07:37:01.269Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "inquiredSpectrum": [
      {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      }
    ]
  }
]
```

}
2019-08-06T07:37:01.283Z - INFO - engine sent successfully, the response to CBRS : {

```
"spectrumInquiryResponse": [
  {
    "availableChannel": [
```



```

    {
      "channelType": "GAA",
      "frequencyRange": {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      },
      "ruleApplied": "FCC_PART_96"
    }
  ],
  "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
  "response": {
    "responseCode": 0
  }
}
]
}
2019-08-06T07:37:05.315Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "operationParam": {
        "maxEirp": 23,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2019-08-06T07:37:05.315Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "channelType": "GAA",
      "grantExpireTime": "2019-08-13T07:37:05Z",
      "grantId": "995409151",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2019-08-06T07:37:09.346Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "995409151",
      "operationState": "GRANTED"
    }
  ]
}
2019-08-06T07:37:09.346Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "995409151",

```

```
        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2019-08-06T07:40:29Z"
    }
]
}
2019-08-06T07:38:02.990Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "995409151",
            "operationState": "AUTHORIZED"
        }
    ]
}
2019-08-06T07:38:02.990Z - INFO - Time interval between two heartbeat request messages is: 53.644, limit
is: 65.0
2019-08-06T07:38:02.990Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "995409151",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-08-06T07:41:22Z"
        }
    ]
}
2019-08-06T07:38:55.634Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "995409151",
            "operationState": "AUTHORIZED"
        }
    ]
}
2019-08-06T07:38:55.634Z - INFO - Time interval between two heartbeat request messages is: 52.644, limit
is: 65.0
2019-08-06T07:38:55.634Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "995409151",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-08-06T07:42:15Z"
        }
    ]
}
2019-08-06T07:39:48.308Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "995409151",
```

```
        "operationState": "AUTHORIZED"
    }
]
}
2019-08-06T07:39:48.308Z - INFO - Time interval between two heartbeat request messages is: 52.673, limit
is: 65.0
2019-08-06T07:39:48.308Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "995409151",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-08-06T07:43:08Z"
        }
    ]
}
2019-08-06T07:40:40.986Z - INFO - heartbeat request from CBRS  : {
    "heartbeatRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "995409151",
            "operationState": "AUTHORIZED"
        }
    ]
}
2019-08-06T07:40:40.986Z - INFO - Time interval between two heartbeat request messages is: 52.678, limit
is: 65.0
2019-08-06T07:40:41.002Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "995409151",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-08-06T07:44:01Z"
        }
    ]
}
2019-08-06T07:41:33.631Z - INFO - heartbeat request from CBRS  : {
    "heartbeatRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "995409151",
            "operationState": "AUTHORIZED"
        }
    ]
}
2019-08-06T07:41:33.631Z - INFO - Time interval between two heartbeat request messages is: 52.645, limit
is: 65.0
2019-08-06T07:41:33.631Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "995409151",
            "response": {
```

```
        "responseCode": 0
      },
      "transmitExpireTime": "2019-08-06T07:44:53Z"
    }
  ]
}
```

2019-08-06T07:41:34.647Z - INFO - arrived to nstep starting question answer session with the technician  
2019-08-06T07:41:34.647Z - INFO - the question is : Did CBSD1 transmit power prior to AUTHORIZED state (first successful HBT response)? please choose one of the answers :  
2019-08-06T07:45:58.229Z - INFO - for the question : Did CBSD1 transmit power prior to AUTHORIZED state (first successful HBT response)? , the user choose n  
2019-08-06T07:45:58.229Z - INFO - the question is : Did CBSD1 transmit only within the frequency range specified in its grantRequest message? please choose one of the answers :  
2019-08-06T07:45:59.947Z - INFO - for the question : Did CBSD1 transmit only within the frequency range specified in its grantRequest message? , the user choose y  
2019-08-06T07:46:01.088Z - INFO - The final result of the test : WINNF.FT.C.HBT.1 is - passed

### 3.2 WINNF.FT.C.HBT.3

2019-08-06T09:30:13.257Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-08-06T09:30:13.257Z - INFO - the selected test from the user : WINNF.FT.C.HBT.3 is starting now

2019-08-06T09:30:27.055Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "6ZX0419000001",
    "fccId": "QI3BEC-6900R21",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "UYm9fD"
  }
]
```

2019-08-06T09:30:27.071Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "response": {
      "responseCode": 0
    }
  }
]
```

2019-08-06T09:30:31.211Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "inquiredSpectrum": [
      {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      }
    ]
  }
]
```

2019-08-06T09:30:31.211Z - INFO - engine sent successfully, the response to CBRS : {

```
"spectrumInquiryResponse": [
  {
    "availableChannel": [
      {
        "channelType": "GAA",
        "frequencyRange": {
```

```
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
    },
    "ruleApplied": "FCC_PART_96"
}
],
"cbssId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
"response": {
    "responseCode": 0
}
}
]
}
2019-08-06T09:30:35.243Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbssId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "operationParam": {
                "maxEirp": 23,
                "operationFrequencyRange": {
                    "highFrequency": 3635000000,
                    "lowFrequency": 3615000000
                }
            }
        }
    ]
}
2019-08-06T09:30:35.259Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbssId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "channelType": "GAA",
            "grantExpireTime": "2019-08-13T09:30:35Z",
            "grantId": "782835855",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-08-06T09:30:39.336Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbssId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "782835855",
            "operationState": "GRANTED"
        }
    ]
}
2019-08-06T09:30:39.336Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbssId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "782835855",
            "response": {
                "responseCode": 0
            }
        },
    ]
}
```

```
        "transmitExpireTime": "2019-08-06T09:33:59Z"
    }
]
}
2019-08-06T09:31:33.214Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "782835855",
            "operationState": "AUTHORIZED"
        }
    ]
}
2019-08-06T09:31:33.214Z - INFO - Time interval between two heartbeat request messages is: 53.878, limit
is: 65.0
2019-08-06T09:31:33.214Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "782835855",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-08-06T09:34:53Z"
        }
    ]
}
}
2019-08-06T09:32:26.391Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "782835855",
            "operationState": "AUTHORIZED"
        }
    ]
}
}
2019-08-06T09:32:26.391Z - INFO - Time interval between two heartbeat request messages is: 53.176, limit
is: 65.0
2019-08-06T09:32:26.405Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "782835855",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-08-06T09:35:46Z"
        }
    ]
}
}
2019-08-06T09:33:19.158Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "782835855",
            "operationState": "AUTHORIZED"
        }
    ]
}
```

```
}
2019-08-06T09:33:19.158Z - INFO - Time interval between two heartbeat request messages is: 52.768, limit
is: 65.0
2019-08-06T09:33:19.174Z - INFO - engine sent successfully, the response to CBRS  :{
  "heartbeatResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "782835855",
      "response": {
        "responseCode": 105
      },
      "transmitExpireTime": "2019-08-06T09:33:19Z"
    }
  ]
}
2019-08-06T09:33:20.581Z - INFO - arrived to nstep starting question answer session with the technician
2019-08-06T09:33:20.581Z - 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 :
2019-08-06T09:38:49.184Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 105? , the user choose y
2019-08-06T09:38:49.700Z - INFO - The final result of the test : WINNF.FT.C.HBT.3 is - passed
```



### 3.3 WINNF.FT.C.HBT.4

2019-08-07T02:30:00.960Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-08-07T02:30:00.960Z - INFO - the selected test from the user : WINNF.FT.C.HBT.4 is starting now

2019-08-07T02:30:13.680Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "6ZX0419000001",
    "fccId": "QI3BEC-6900R21",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "UYm9fD"
  }
]
```

2019-08-07T02:30:13.710Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "response": {
      "responseCode": 0
    }
  }
]
```

2019-08-07T02:30:17.914Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "inquiredSpectrum": [
      {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      }
    ]
  }
]
```

2019-08-07T02:30:17.930Z - INFO - engine sent successfully, the response to CBRS : {

```
"spectrumInquiryResponse": [
  {
    "availableChannel": [
      {
        "channelType": "GAA",
        "frequencyRange": {
```

```
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
    },
    "ruleApplied": "FCC_PART_96"
}
],
"cbssId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
"response": {
    "responseCode": 0
}
}
]
}
2019-08-07T02:30:21.993Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbssId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "operationParam": {
                "maxEirp": 37,
                "operationFrequencyRange": {
                    "highFrequency": 3635000000,
                    "lowFrequency": 3615000000
                }
            }
        }
    ]
}
2019-08-07T02:30:22.009Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbssId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "channelType": "GAA",
            "grantExpireTime": "2019-08-14T02:30:22Z",
            "grantId": "750754884",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-08-07T02:30:26.118Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbssId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "750754884",
            "operationState": "GRANTED"
        }
    ]
}
2019-08-07T02:30:26.134Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbssId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "750754884",
            "response": {
                "responseCode": 0
            }
        },
    ],
}
```

```
        "transmitExpireTime": "2019-08-07T02:33:46Z"
    }
]
}
2019-08-07T02:31:19.963Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "750754884",
            "operationState": "AUTHORIZED"
        }
    ]
}
2019-08-07T02:31:19.963Z - INFO - Time interval between two heartbeat request messages is: 53.845, limit
is: 65.0
2019-08-07T02:31:19.963Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "750754884",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-08-07T02:34:39Z"
        }
    ]
}
}
2019-08-07T02:32:12.716Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "750754884",
            "operationState": "AUTHORIZED"
        }
    ]
}
}
2019-08-07T02:32:12.716Z - INFO - Time interval between two heartbeat request messages is: 52.752, limit
is: 65.0
2019-08-07T02:32:12.732Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "750754884",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-08-07T02:35:32Z"
        }
    ]
}
}
2019-08-07T02:33:05.470Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "750754884",
            "operationState": "AUTHORIZED"
        }
    ]
}
```

```
}
2019-08-07T02:33:05.470Z - INFO - Time interval between two heartbeat request messages is: 52.754, limit
is: 65.0
2019-08-07T02:33:05.486Z - INFO - engine sent successfully, the response to CBRS  :{
  "heartbeatResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "750754884",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-08-07T02:36:25Z"
    }
  ]
}
2019-08-07T02:33:58.411Z - INFO - heartbeat request from CBRS  :{
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "750754884",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-08-07T02:33:58.411Z - INFO - Time interval between two heartbeat request messages is: 52.941, limit
is: 65.0
2019-08-07T02:33:58.411Z - INFO - engine sent successfully, the response to CBRS  :{
  "heartbeatResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "750754884",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-08-07T02:37:18Z"
    }
  ]
}
2019-08-07T02:34:51.351Z - INFO - heartbeat request from CBRS  :{
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "750754884",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-08-07T02:34:51.367Z - INFO - Time interval between two heartbeat request messages is: 52.94, limit is:
65.0
2019-08-07T02:34:51.367Z - INFO - engine sent successfully, the response to CBRS  :{
  "heartbeatResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "750754884",
      "response": {
        "responseCode": 500
      },
      "transmitExpireTime": "2019-08-07T02:34:51Z"
    }
  ]
}
```

```
}  
]  
}
```

2019-08-07T02:34:52.851Z - INFO - arrived to nstep starting question answer session with the technician  
2019-08-07T02:34:52.851Z - INFO - the question is : Did the CBSD1 stop RF transmission within 60 seconds of receiving Heartbeat response with responseCode = 500? please choose one of the answers :  
2019-08-07T02:41:51.992Z - INFO - for the question : Did the CBSD1 stop RF transmission within 60 seconds of receiving Heartbeat response with responseCode = 500? , the user choose y  
2019-08-07T02:41:52.553Z - INFO - The final result of the test : WINNF.FT.C.HBT.4 is - passed

### 3.4 WINNF.FT.C.HBT.5

2019-08-07T02:42:44.986Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-08-07T02:42:44.986Z - INFO - the selected test from the user : WINNF.FT.C.HBT.5 is starting now

2019-08-07T02:42:55.627Z - INFO - registration request from CBRS : {

```

"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "6ZX0419000001",
    "fccId": "QI3BEC-6900R21",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "UYm9fD"
  }
]

```

2019-08-07T02:42:55.658Z - INFO - engine sent successfully, the response to CBRS : {

```

"registrationResponse": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "response": {
      "responseCode": 0
    }
  }
]

```

2019-08-07T02:42:59.783Z - INFO - spectrumInquiry request from CBRS : {

```

"spectrumInquiryRequest": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "inquiredSpectrum": [
      {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      }
    ]
  }
]

```

2019-08-07T02:42:59.799Z - INFO - engine sent successfully, the response to CBRS : {

```

"spectrumInquiryResponse": [
  {
    "availableChannel": [
      {
        "channelType": "GAA",
        "frequencyRange": {

```

```
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
    },
    "ruleApplied": "FCC_PART_96"
}
],
"cbssId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
"response": {
    "responseCode": 0
}
}
]
}
2019-08-07T02:43:03.940Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbssId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "operationParam": {
                "maxEirp": 37,
                "operationFrequencyRange": {
                    "highFrequency": 3635000000,
                    "lowFrequency": 3615000000
                }
            }
        }
    ]
}
2019-08-07T02:43:03.956Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbssId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "channelType": "GAA",
            "grantExpireTime": "2019-08-14T02:43:03Z",
            "grantId": "354452800",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-08-07T02:43:08.033Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbssId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "354452800",
            "operationState": "GRANTED"
        }
    ]
}
2019-08-07T02:43:08.033Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbssId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "354452800",
            "response": {
                "responseCode": 501
            }
        },
    ],
}
```

```
        "transmitExpireTime": "2019-08-07T02:43:08Z"
      }
    ]
  }
2019-08-07T02:43:32.503Z - INFO - relinquishment request from CBRS  : {
  "relinquishmentRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "354452800"
    }
  ]
}
2019-08-07T02:43:32.519Z - INFO - engine sent successfully, the response to CBRS  : {
  "relinquishmentResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "354452800",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2019-08-07T02:43:33.706Z - INFO - arrived to nstep starting question answer session with the technician
2019-08-07T02:43:33.706Z - INFO - the question is : Did the CBSD transmit at any time during the test?
please choose one of the answers :
2019-08-07T02:45:49.599Z - INFO - for the question : Did the CBSD transmit at any time during the test? , the
user choose n
2019-08-07T02:45:50.319Z - INFO - The final result of the test : WINNF.FT.C.HBT.5 is - passed
```



### 3.5 WINNF.FT.C.HBT.6

2019-08-07T02:54:14.930Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-08-07T02:54:14.930Z - INFO - the selected test from the user : WINNF.FT.C.HBT.6 is starting now

2019-08-07T02:54:28.384Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "6ZX0419000001",
    "fccId": "QI3BEC-6900R21",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "UYm9fD"
  }
]
```

2019-08-07T02:54:28.400Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "response": {
      "responseCode": 0
    }
  }
]
```

2019-08-07T02:54:32.493Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "inquiredSpectrum": [
      {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      }
    ]
  }
]
```

2019-08-07T02:54:32.509Z - INFO - engine sent successfully, the response to CBRS : {

```
"spectrumInquiryResponse": [
  {
    "availableChannel": [
      {
        "channelType": "GAA",
        "frequencyRange": {
```

```

        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      },
      "ruleApplied": "FCC_PART_96"
    }
  ],
  "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
  "response": {
    "responseCode": 0
  }
}
]
}
2019-08-07T02:54:36.852Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "operationParam": {
        "maxEirp": 23,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2019-08-07T02:54:36.868Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "channelType": "GAA",
      "grantExpireTime": "2019-08-14T02:54:36Z",
      "grantId": "50201381",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2019-08-07T02:54:40.947Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "50201381",
      "operationState": "GRANTED"
    }
  ]
}
2019-08-07T02:54:40.947Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "50201381",
      "response": {
        "responseCode": 0
      }
    },
  ],
}

```

```
        "transmitExpireTime": "2019-08-07T02:58:00Z"
    }
]
}
2019-08-07T02:55:34.744Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "50201381",
            "operationState": "AUTHORIZED"
        }
    ]
}
2019-08-07T02:55:34.744Z - INFO - Time interval between two heartbeat request messages is: 53.798, limit
is: 65.0
2019-08-07T02:55:34.744Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "50201381",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-08-07T02:58:54Z"
        }
    ]
}
}
2019-08-07T02:56:27.904Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "50201381",
            "operationState": "AUTHORIZED"
        }
    ]
}
}
2019-08-07T02:56:27.904Z - INFO - Time interval between two heartbeat request messages is: 53.159, limit
is: 65.0
2019-08-07T02:56:27.904Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "50201381",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-08-07T02:59:47Z"
        }
    ]
}
}
2019-08-07T02:57:20.750Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "50201381",
            "operationState": "AUTHORIZED"
        }
    ]
}
```

```
}
2019-08-07T02:57:20.750Z - INFO - Time interval between two heartbeat request messages is: 52.846, limit
is: 65.0
2019-08-07T02:57:20.750Z - INFO - engine sent successfully, the response to CBRS  :{
  "heartbeatResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "50201381",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2019-08-07T02:57:20Z"
    }
  ]
}
2019-08-07T02:57:24.890Z - INFO - heartbeat request from CBRS  :{
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "50201381",
      "operationState": "GRANTED"
    }
  ]
}
2019-08-07T02:57:24.905Z - INFO - Time interval between two heartbeat request messages is: 4.14, limit is:
65.0
2019-08-07T02:57:24.905Z - INFO - engine sent successfully, the response to CBRS  :{
  "heartbeatResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "50201381",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2019-08-07T02:57:24Z"
    }
  ]
}
2019-08-07T02:57:26.530Z - INFO - arrived to nstep starting question answer session with the technician
2019-08-07T02:57:26.530Z - 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 :
2019-08-07T03:01:54.808Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 501? , the user choose y
2019-08-07T03:01:55.151Z - INFO - The final result of the test : WINNF.FT.C.HBT.6 is - passed
```

### 3.6 WINNF.FT.C.HBT.7

2019-08-07T03:02:26.308Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-08-07T03:02:26.308Z - INFO - the selected test from the user : WINNF.FT.C.HBT.7 is starting now

2019-08-07T03:02:39.967Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "6ZX0419000001",
    "fccId": "QI3BEC-6900R21",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "UYm9fD"
  }
]
```

2019-08-07T03:02:40.013Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "response": {
      "responseCode": 0
    }
  }
]
```

2019-08-07T03:02:44.045Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "inquiredSpectrum": [
      {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      }
    ]
  }
]
```

2019-08-07T03:02:44.061Z - INFO - engine sent successfully, the response to CBRS : {

```
"spectrumInquiryResponse": [
  {
    "availableChannel": [
      {
        "channelType": "GAA",
        "frequencyRange": {
```

```
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
    },
    "ruleApplied": "FCC_PART_96"
}
],
"cbssId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
"response": {
    "responseCode": 0
}
}
]
}
2019-08-07T03:02:48.687Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbssId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "operationParam": {
                "maxEirp": 23,
                "operationFrequencyRange": {
                    "highFrequency": 3635000000,
                    "lowFrequency": 3615000000
                }
            }
        }
    ]
}
2019-08-07T03:02:48.687Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbssId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "channelType": "GAA",
            "grantExpireTime": "2019-08-14T03:02:48Z",
            "grantId": "954482682",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-08-07T03:02:52.780Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbssId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "954482682",
            "operationState": "GRANTED"
        }
    ]
}
2019-08-07T03:02:52.780Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbssId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "954482682",
            "response": {
                "responseCode": 0
            }
        },
    ],
}
```

```
        "transmitExpireTime": "2019-08-07T03:06:12Z"
    }
]
}
2019-08-07T03:03:46.772Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "954482682",
            "operationState": "AUTHORIZED"
        }
    ]
}
2019-08-07T03:03:46.772Z - INFO - Time interval between two heartbeat request messages is: 53.991, limit
is: 65.0
2019-08-07T03:03:46.772Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "954482682",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-08-07T03:07:06Z"
        }
    ]
}
}
2019-08-07T03:04:40.055Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "954482682",
            "operationState": "AUTHORIZED"
        }
    ]
}
}
2019-08-07T03:04:40.055Z - INFO - Time interval between two heartbeat request messages is: 53.284, limit
is: 65.0
2019-08-07T03:04:40.055Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "954482682",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-08-07T03:08:00Z"
        }
    ]
}
}
2019-08-07T03:05:32.762Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "954482682",
            "operationState": "AUTHORIZED"
        }
    ]
}
```

```
}
2019-08-07T03:05:32.762Z - INFO - Time interval between two heartbeat request messages is: 52.706, limit
is: 65.0
2019-08-07T03:05:32.778Z - INFO - engine sent successfully, the response to CBRS  :{
  "heartbeatResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "954482682",
      "response": {
        "responseCode": 502
      },
      "transmitExpireTime": "2019-08-07T03:05:32Z"
    }
  ]
}
2019-08-07T03:05:35.809Z - INFO - relinquishment request from CBRS  :{
  "relinquishmentRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "954482682"
    }
  ]
}
2019-08-07T03:05:35.809Z - INFO - engine sent successfully, the response to CBRS  :{
  "relinquishmentResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "954482682",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2019-08-07T03:05:37.809Z - INFO - arrived to nstep starting question answer session with the technician
2019-08-07T03:05:37.809Z - 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 :
2019-08-07T03:09:54.694Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 502? , the user choose y
2019-08-07T03:09:55.023Z - INFO - The final result of the test : WINNF.FT.C.HBT.7 is - passed
```



### 3.7 WINNF.FT.C.HBT.9

2019-08-07T03:15:25.312Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-08-07T03:15:25.312Z - INFO - the selected test from the user : WINNF.FT.C.HBT.9 is starting now

2019-08-07T03:15:35.891Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "6ZX0419000001",
    "fccId": "QI3BEC-6900R21",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "UYm9fD"
  }
]
```

2019-08-07T03:15:35.907Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "response": {
      "responseCode": 0
    }
  }
]
```

2019-08-07T03:15:40.032Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "inquiredSpectrum": [
      {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      }
    ]
  }
]
```

2019-08-07T03:15:40.049Z - INFO - engine sent successfully, the response to CBRS : {

```
"spectrumInquiryResponse": [
  {
    "availableChannel": [
      {
        "channelType": "GAA",
        "frequencyRange": {
```

```
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
    },
    "ruleApplied": "FCC_PART_96"
}
],
"cbstdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
"response": {
    "responseCode": 0
}
}
]
}
2019-08-07T03:15:44.111Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbstdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "operationParam": {
                "maxEirp": 23,
                "operationFrequencyRange": {
                    "highFrequency": 3635000000,
                    "lowFrequency": 3615000000
                }
            }
        }
    ]
}
2019-08-07T03:15:44.128Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbstdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "channelType": "GAA",
            "grantExpireTime": "2019-08-14T03:15:44Z",
            "grantId": "612915194",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-08-07T03:15:48.206Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbstdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "612915194",
            "operationState": "GRANTED"
        }
    ]
}
2019-08-07T03:16:16.487Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbstdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "612915194",
            "operationState": "GRANTED"
        }
    ]
}
```

```
}
2019-08-07T03:16:16.487Z - INFO - request message received while HBT is absent, sleep 176 sec before
responding
2019-08-07T03:16:44.878Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "612915194",
      "operationState": "GRANTED"
    }
  ]
}
2019-08-07T03:16:44.878Z - INFO - request message received while HBT is absent, sleep 148 sec before
responding
2019-08-07T03:17:13.161Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "612915194",
      "operationState": "GRANTED"
    }
  ]
}
2019-08-07T03:17:13.161Z - INFO - request message received while HBT is absent, sleep 120 sec before
responding
2019-08-07T03:17:41.476Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "612915194",
      "operationState": "GRANTED"
    }
  ]
}
2019-08-07T03:17:41.476Z - INFO - request message received while HBT is absent, sleep 91 sec before
responding
2019-08-07T03:18:09.836Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "612915194",
      "operationState": "GRANTED"
    }
  ]
}
2019-08-07T03:18:09.836Z - INFO - request message received while HBT is absent, sleep 63 sec before
responding
2019-08-07T03:18:38.200Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "612915194",
      "operationState": "GRANTED"
    }
  ]
}
2019-08-07T03:18:38.200Z - INFO - request message received while HBT is absent, sleep 35 sec before
responding
```

```
2019-08-07T03:19:06.561Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "612915194",
      "operationState": "GRANTED"
    }
  ]
}
2019-08-07T03:19:06.561Z - INFO - request message received while HBT is absent, sleep 6 sec before
responding
2019-08-07T03:19:08.217Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "612915194",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2019-08-07T03:19:08Z"
    }
  ]
}
2019-08-07T03:19:10.247Z - INFO - arrived to nstep starting question answer session with the technician
2019-08-07T03:19:10.247Z - INFO - the question is : Were there RF transmissions from the CBSD during the
test? please choose one of the answers :
2019-08-07T03:19:12.497Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2019-08-07T03:19:12.497Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2019-08-07T03:19:12.576Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2019-08-07T03:19:12.858Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2019-08-07T03:19:12.904Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2019-08-07T03:19:13.170Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2019-08-07T03:19:13.217Z - INFO - engine sent successfully, the response to CBRS : "list index out of
range"
2019-08-07T03:22:45.460Z - INFO - for the question : Were there RF transmissions from the CBSD during
the test? , the user choose n
2019-08-07T03:22:46.148Z - INFO - The final result of the test : WINNF.FT.C.HBT.9 is - passed
```

### 3.8 WINNF.FT.C.HBT.10

2019-08-08T03:35:54.285Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-08-08T03:35:54.285Z - INFO - the selected test from the user : WINNF.FT.C.HBT.10 is starting now

2019-08-08T03:36:15.776Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "6ZX0419000001",
    "fccId": "QI3BEC-6900R21",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "UYm9fD"
  }
]
```

2019-08-08T03:36:15.806Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "response": {
      "responseCode": 0
    }
  }
]
```

2019-08-08T03:36:19.947Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "inquiredSpectrum": [
      {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      }
    ]
  }
]
```

2019-08-08T03:36:19.947Z - INFO - engine sent successfully, the response to CBRS : {

```
"spectrumInquiryResponse": [
  {
    "availableChannel": [
      {
        "channelType": "GAA",
        "frequencyRange": {
```

```
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
    },
    "ruleApplied": "FCC_PART_96"
}
],
"cbssId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
"response": {
    "responseCode": 0
}
}
]
}
2019-08-08T03:36:24.104Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbssId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "operationParam": {
                "maxEirp": 23,
                "operationFrequencyRange": {
                    "highFrequency": 3635000000,
                    "lowFrequency": 3615000000
                }
            }
        }
    ]
}
2019-08-08T03:36:24.104Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbssId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "channelType": "GAA",
            "grantExpireTime": "2019-08-15T03:36:24Z",
            "grantId": "953856440",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-08-08T03:36:28.227Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbssId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "953856440",
            "operationState": "GRANTED"
        }
    ]
}
2019-08-08T03:36:28.227Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbssId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "953856440",
            "response": {
                "responseCode": 0
            }
        },
    ]
}
```

```
        "transmitExpireTime": "2019-08-08T03:39:48Z"
    }
]
}
2019-08-08T03:37:22.012Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "953856440",
            "operationState": "AUTHORIZED"
        }
    ]
}
2019-08-08T03:37:22.026Z - INFO - Time interval between two heartbeat request messages is: 53.784, limit
is: 65.0
2019-08-08T03:37:22.026Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "953856440",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-08-08T03:40:42Z"
        }
    ]
}
}
2019-08-08T03:38:14.704Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "953856440",
            "operationState": "AUTHORIZED"
        }
    ]
}
}
2019-08-08T03:38:14.704Z - INFO - Time interval between two heartbeat request messages is: 52.693, limit
is: 65.0
2019-08-08T03:38:14.704Z - INFO - LAST HBT RESPONSE THAT SET TRANSMIT_EXPIRE_TIME WAS AT:
2019-08-08 03:37:22.012000
2019-08-08T03:38:40.940Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "953856440",
            "operationState": "AUTHORIZED"
        }
    ]
}
}
2019-08-08T03:38:40.940Z - INFO - request message received while HBT is absent, sleep 178 sec before
responding
2019-08-08T03:39:07.223Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "953856440",
            "operationState": "AUTHORIZED"
        }
    ]
}
}
```

```
]
}
2019-08-08T03:39:07.223Z - INFO - request message received while HBT is absent, sleep 152 sec before
responding
2019-08-08T03:39:33.424Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "953856440",
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2019-08-08T03:39:33.424Z - INFO - request message received while HBT is absent, sleep 126 sec before
responding
2019-08-08T03:39:59.700Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "953856440",
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2019-08-08T03:39:59.700Z - INFO - request message received while HBT is absent, sleep 100 sec before
responding
2019-08-08T03:40:25.904Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "953856440",
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2019-08-08T03:40:25.904Z - INFO - request message received while HBT is absent, sleep 73 sec before
responding
2019-08-08T03:40:51.950Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "953856440",
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2019-08-08T03:40:51.950Z - INFO - request message received while HBT is absent, sleep 47 sec before
responding
2019-08-08T03:41:19.028Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "953856440",
      "operationState": "AUTHORIZED"
    }
  ]
}
}
}
2019-08-08T03:41:19.028Z - INFO - request message received while HBT is absent, sleep 20 sec before
```



responding

2019-08-08T03:41:34.730Z - INFO - engine sent successfully, the response to CBRS : {

"heartbeatResponse": [

{

"cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",

"grantId": "953856440",

"response": {

"responseCode": 501

},

"transmitExpireTime": "2019-08-08T03:41:34Z"

}

]

}

2019-08-08T03:41:36.621Z - INFO - arrived to nstep starting question answer session with the technician

2019-08-08T03:41:36.621Z - INFO - the question is : Did the CBSD stop RF transmissions within (transmitExpireTime + 60seconds) of last valid heartbeat response? please choose one of the answers :

2019-08-08T03:41:38.918Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2019-08-08T03:41:38.964Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2019-08-08T03:41:38.964Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2019-08-08T03:41:39.043Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2019-08-08T03:41:39.246Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2019-08-08T03:41:39.434Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2019-08-08T03:41:39.714Z - INFO - engine sent successfully, the response to CBRS : "list index out of range"

2019-08-08T03:45:36.714Z - INFO - for the question : Did the CBSD stop RF transmissions within (transmitExpireTime + 60seconds) of last valid heartbeat response? , the user choose y

2019-08-08T03:45:37.714Z - INFO - The final result of the test : WINNF.FT.C.HBT.10 is - passed

## 4 CBSD Measurement Report

### 4.1 WINNF.FT.C.MES.1

2019-09-09T06:15:25.214Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-09-09T06:15:25.216Z - INFO - the selected test from the user : WINNF.FT.C.MES.1 is starting now

2019-09-09T06:15:36.733Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "6ZX0419000001",
    "fccId": "QI3BEC-6900R21",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "UYm9fD"
  }
]
```

2019-09-09T06:15:36.759Z - INFO - Response message contains measReportConfig

2019-09-09T06:15:36.760Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "measReportConfig": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "response": {
      "responseCode": 0
    }
  }
]
```

2019-09-09T06:15:40.967Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "inquiredSpectrum": [
      {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      }
    ],
    "measReport": {
      "rcvdPowerMeasReports": [
        {

```

```
"measBandwidth": 1000000,  
"measFrequency": 355000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 356000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 357000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 358000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 359000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 360000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 361000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 362000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 363000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 364000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 365000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 366000000,  
"measRcvdPower": -57
```

```

    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3670000000,
      "measRcvdPower": -57
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3680000000,
      "measRcvdPower": -57
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3690000000,
      "measRcvdPower": -57
    }
  ]
}
]
}
}
2019-09-09T06:15:40.976Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2019-09-09T06:15:45.131Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "measReport": {
        "rcvdPowerMeasReports": [
          {
            "measBandwidth": 10000000,
            "measFrequency": 3550000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 10000000,
            "measFrequency": 3560000000,
            "measRcvdPower": -57
          }
        ]
      }
    }
  ]
}

```

```
"measBandwidth": 1000000,  
"measFrequency": 357000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 358000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 359000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 360000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 361000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 362000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 363000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 364000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 365000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 366000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 367000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 368000000,  
"measRcvdPower": -57
```

```
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3690000000,
      "measRcvdPower": -57
    }
  ]
},
"operationParam": {
  "maxEirp": 23,
  "operationFrequencyRange": {
    "highFrequency": 3635000000,
    "lowFrequency": 3615000000
  }
}
}
]
}
2019-09-09T06:15:45.140Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "channelType": "GAA",
      "grantExpireTime": "2019-09-16T06:15:45Z",
      "grantId": "19617453",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2019-09-09T06:15:46.230Z - INFO - arrived to nstep starting question answer session with the technician
2019-09-09T06:16:48.773Z - INFO - The final result of the test : WINNF.FT.C.MES.1 is - passed
```

## 4.2 WINNF.FT.C.MES.3

2019-09-09T06:18:04.907Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-09-09T06:18:04.908Z - INFO - the selected test from the user : WINNF.FT.C.MES.3 is starting now

2019-09-09T06:18:14.289Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "6ZX0419000001",
    "fccId": "QI3BEC-6900R21",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITH_GRANT"
    ],
    "userId": "UYm9fD"
  }
]
```

2019-09-09T06:18:14.319Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "response": {
      "responseCode": 0
    }
  }
]
```

2019-09-09T06:18:18.368Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "inquiredSpectrum": [
      {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      }
    ]
  }
]
```

2019-09-09T06:18:18.375Z - INFO - engine sent successfully, the response to CBRS : {

```
"spectrumInquiryResponse": [
  {
    "availableChannel": [
      {
        "channelType": "GAA",
        "frequencyRange": {
```

```

        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      },
      "ruleApplied": "FCC_PART_96"
    }
  ],
  "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
  "response": {
    "responseCode": 0
  }
}
]
}
2019-09-09T06:18:22.414Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "operationParam": {
        "maxEirp": 23,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2019-09-09T06:18:22.420Z - INFO - Response message contains measReportConfig
2019-09-09T06:18:22.421Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "channelType": "GAA",
      "grantExpireTime": "2019-09-16T06:18:22Z",
      "grantId": "243411263",
      "heartbeatInterval": 60,
      "measReportConfig": [
        "RECEIVED_POWER_WITH_GRANT"
      ],
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2019-09-09T06:18:26.565Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "243411263",
      "measReport": {
        "rcvdPowerMeasReports": [
          {
            "measBandwidth": 10000000,
            "measFrequency": 3550000000,
            "measRcvdPower": -57
          },
          {

```



```
"measBandwidth": 1000000,  
"measFrequency": 356000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 357000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 358000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 359000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 360000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 361000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 362000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 363000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 364000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 365000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 366000000,  
"measRcvdPower": -57  
},  
{  
"measBandwidth": 1000000,  
"measFrequency": 367000000,  
"measRcvdPower": -57
```

```

    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3680000000,
      "measRcvdPower": -57
    },
    {
      "measBandwidth": 10000000,
      "measFrequency": 3690000000,
      "measRcvdPower": -57
    }
  ]
},
"operationState": "GRANTED"
}
]
}
2019-09-09T06:18:26.568Z - INFO - measReport received in heartbeat message
2019-09-09T06:18:26.572Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "243411263",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-09-09T06:21:46Z"
    }
  ]
}
2019-09-09T06:19:20.644Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "243411263",
      "measReport": {
        "rcvdPowerMeasReports": [
          {
            "measBandwidth": 10000000,
            "measFrequency": 3550000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 10000000,
            "measFrequency": 3560000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 10000000,
            "measFrequency": 3570000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 10000000,
            "measFrequency": 3580000000,
            "measRcvdPower": -57
          }
        ]
      }
    }
  ]
}

```

```
        "measBandwidth": 1000000,  
        "measFrequency": 3590000000,  
        "measRcvdPower": -57  
    },  
    {  
        "measBandwidth": 1000000,  
        "measFrequency": 3600000000,  
        "measRcvdPower": -57  
    },  
    {  
        "measBandwidth": 1000000,  
        "measFrequency": 3610000000,  
        "measRcvdPower": -57  
    },  
    {  
        "measBandwidth": 1000000,  
        "measFrequency": 3620000000,  
        "measRcvdPower": -57  
    },  
    {  
        "measBandwidth": 1000000,  
        "measFrequency": 3630000000,  
        "measRcvdPower": -57  
    },  
    {  
        "measBandwidth": 1000000,  
        "measFrequency": 3640000000,  
        "measRcvdPower": -57  
    },  
    {  
        "measBandwidth": 1000000,  
        "measFrequency": 3650000000,  
        "measRcvdPower": -57  
    },  
    {  
        "measBandwidth": 1000000,  
        "measFrequency": 3660000000,  
        "measRcvdPower": -57  
    },  
    {  
        "measBandwidth": 1000000,  
        "measFrequency": 3670000000,  
        "measRcvdPower": -57  
    },  
    {  
        "measBandwidth": 1000000,  
        "measFrequency": 3680000000,  
        "measRcvdPower": -57  
    },  
    {  
        "measBandwidth": 1000000,  
        "measFrequency": 3690000000,  
        "measRcvdPower": -57  
    }  
    ],  
    },  
    "operationState": "AUTHORIZED"  
}
```

```
]
}
2019-09-09T06:19:20.644Z - INFO - Time interval between two heartbeat request messages is: 54.079, limit
is: 65.0
2019-09-09T06:19:20.651Z - INFO - engine sent successfully, the response to CBRS  : {
  "heartbeatResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "243411263",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-09-09T06:22:40Z"
    }
  ]
}
}
2019-09-09T06:20:13.604Z - INFO - heartbeat request from CBRS  : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "243411263",
      "measReport": {
        "rcvdPowerMeasReports": [
          {
            "measBandwidth": 10000000,
            "measFrequency": 3550000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 10000000,
            "measFrequency": 3560000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 10000000,
            "measFrequency": 3570000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 10000000,
            "measFrequency": 3580000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 10000000,
            "measFrequency": 3590000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 10000000,
            "measFrequency": 3600000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 10000000,
            "measFrequency": 3610000000,
            "measRcvdPower": -57
          }
        ]
      }
    }
  ]
}
```

```

    {
      "measBandwidth": 1000000,
      "measFrequency": 362000000,
      "measRcvdPower": -57
    },
    {
      "measBandwidth": 1000000,
      "measFrequency": 363000000,
      "measRcvdPower": -57
    },
    {
      "measBandwidth": 1000000,
      "measFrequency": 364000000,
      "measRcvdPower": -57
    },
    {
      "measBandwidth": 1000000,
      "measFrequency": 365000000,
      "measRcvdPower": -57
    },
    {
      "measBandwidth": 1000000,
      "measFrequency": 366000000,
      "measRcvdPower": -57
    },
    {
      "measBandwidth": 1000000,
      "measFrequency": 367000000,
      "measRcvdPower": -57
    },
    {
      "measBandwidth": 1000000,
      "measFrequency": 368000000,
      "measRcvdPower": -57
    },
    {
      "measBandwidth": 1000000,
      "measFrequency": 369000000,
      "measRcvdPower": -57
    }
  ]
},
"operationState": "AUTHORIZED"
}
]
}
2019-09-09T06:20:13.605Z - INFO - Time interval between two heartbeat request messages is: 52.96, limit is:
65.0
2019-09-09T06:20:13.609Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "243411263",
      "response": {
        "responseCode": 0
      }
    },
    {
      "transmitExpireTime": "2019-09-09T06:23:33Z"
    }
  ]
}

```

```
]
}
2019-09-09T06:21:06.328Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "243411263",
      "measReport": {
        "rcvdPowerMeasReports": [
          {
            "measBandwidth": 1000000,
            "measFrequency": 355000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 356000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 357000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 358000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 359000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 360000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 361000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 362000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 363000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 364000000,
            "measRcvdPower": -57
          }
        ]
      }
    }
  ]
}
```

```

    },
    {
      "measBandwidth": 1000000,
      "measFrequency": 365000000,
      "measRcvdPower": -57
    },
    {
      "measBandwidth": 1000000,
      "measFrequency": 366000000,
      "measRcvdPower": -57
    },
    {
      "measBandwidth": 1000000,
      "measFrequency": 367000000,
      "measRcvdPower": -57
    },
    {
      "measBandwidth": 1000000,
      "measFrequency": 368000000,
      "measRcvdPower": -57
    },
    {
      "measBandwidth": 1000000,
      "measFrequency": 369000000,
      "measRcvdPower": -57
    }
  ]
},
"operationState": "AUTHORIZED"
}
]
}
2019-09-09T06:21:06.329Z - INFO - Time interval between two heartbeat request messages is: 52.724, limit
is: 65.0
2019-09-09T06:21:06.335Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "243411263",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-09-09T06:24:26Z"
    }
  ]
}
2019-09-09T06:21:59.322Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "243411263",
      "measReport": {
        "rcvdPowerMeasReports": [
          {
            "measBandwidth": 1000000,
            "measFrequency": 355000000,
            "measRcvdPower": -57
          }
        ]
      }
    }
  ]
}

```

```
{
  "measBandwidth": 1000000,
  "measFrequency": 356000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 357000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 358000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 359000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 360000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 361000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 362000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 363000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 364000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 365000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 366000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 367000000,
```



```

    "measRcvdPower": -57
  },
  {
    "measBandwidth": 1000000,
    "measFrequency": 3680000000,
    "measRcvdPower": -57
  },
  {
    "measBandwidth": 1000000,
    "measFrequency": 3690000000,
    "measRcvdPower": -57
  }
]
},
"operationState": "AUTHORIZED"
}
]
}
2019-09-09T06:21:59.322Z - INFO - Time interval between two heartbeat request messages is: 52.994, limit
is: 65.0
2019-09-09T06:21:59.329Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "243411263",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-09-09T06:25:19Z"
    }
  ]
}
2019-09-09T06:22:01.055Z - INFO - arrived to nstep starting question answer session with the technician
2019-09-09T06:22:42.026Z - INFO - The final result of the test : WINNF.FT.C.MES.3 is - passed

```

### 4.3 WINNF.FT.C.MES.4

2019-09-09T06:23:36.822Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-09-09T06:23:36.822Z - INFO - the selected test from the user : WINNF.FT.C.MES.4 is starting now

2019-09-09T06:24:06.401Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "6ZX0419000001",
    "fccId": "QI3BEC-6900R21",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITH_GRANT"
    ],
    "userId": "UYm9fD"
  }
]
```

2019-09-09T06:24:06.460Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "response": {
      "responseCode": 0
    }
  }
]
```

2019-09-09T06:24:10.604Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "inquiredSpectrum": [
      {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      }
    ]
  }
]
```

2019-09-09T06:24:10.611Z - INFO - engine sent successfully, the response to CBRS : {

```
"spectrumInquiryResponse": [
  {
    "availableChannel": [
      {
        "channelType": "GAA",
        "frequencyRange": {
```

```

        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      },
      "ruleApplied": "FCC_PART_96"
    }
  ],
  "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
  "response": {
    "responseCode": 0
  }
}
]
}
2019-09-09T06:24:14.690Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "operationParam": {
        "maxEirp": 23,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2019-09-09T06:24:14.696Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "channelType": "GAA",
      "grantExpireTime": "2019-09-16T06:24:14Z",
      "grantId": "537555205",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2019-09-09T06:24:19.040Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "537555205",
      "measReport": {
        "rcvdPowerMeasReports": [
          {
            "measBandwidth": 10000000,
            "measFrequency": 3550000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 10000000,
            "measFrequency": 3560000000,
            "measRcvdPower": -57
          }
        ]
      }
    }
  ]
}

```

```
{
  "measBandwidth": 1000000,
  "measFrequency": 357000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 358000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 359000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 360000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 361000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 362000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 363000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 364000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 365000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 366000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 367000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 368000000,
```

```

        "measRcvdPower": -57
      },
      {
        "measBandwidth": 10000000,
        "measFrequency": 3690000000,
        "measRcvdPower": -57
      }
    ]
  },
  "operationState": "GRANTED"
}
]
}
2019-09-09T06:24:19.048Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "537555205",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-09-09T06:27:39Z"
    }
  ]
}
2019-09-09T06:25:13.078Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "537555205",
      "measReport": {
        "rcvdPowerMeasReports": [
          {
            "measBandwidth": 10000000,
            "measFrequency": 3550000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 10000000,
            "measFrequency": 3560000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 10000000,
            "measFrequency": 3570000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 10000000,
            "measFrequency": 3580000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 10000000,
            "measFrequency": 3590000000,
            "measRcvdPower": -57
          }
        ]
      }
    }
  ]
}

```

```

    "measBandwidth": 1000000,
    "measFrequency": 360000000,
    "measRcvdPower": -57
  },
  {
    "measBandwidth": 1000000,
    "measFrequency": 361000000,
    "measRcvdPower": -57
  },
  {
    "measBandwidth": 1000000,
    "measFrequency": 362000000,
    "measRcvdPower": -57
  },
  {
    "measBandwidth": 1000000,
    "measFrequency": 363000000,
    "measRcvdPower": -57
  },
  {
    "measBandwidth": 1000000,
    "measFrequency": 364000000,
    "measRcvdPower": -57
  },
  {
    "measBandwidth": 1000000,
    "measFrequency": 365000000,
    "measRcvdPower": -57
  },
  {
    "measBandwidth": 1000000,
    "measFrequency": 366000000,
    "measRcvdPower": -57
  },
  {
    "measBandwidth": 1000000,
    "measFrequency": 367000000,
    "measRcvdPower": -57
  },
  {
    "measBandwidth": 1000000,
    "measFrequency": 368000000,
    "measRcvdPower": -57
  },
  {
    "measBandwidth": 1000000,
    "measFrequency": 369000000,
    "measRcvdPower": -57
  }
]
},
"operationState": "AUTHORIZED"
}
]
}
2019-09-09T06:25:13.079Z - INFO - Time interval between two heartbeat request messages is: 54.038, limit
is: 65.0
2019-09-09T06:25:13.085Z - INFO - engine sent successfully, the response to CBRS : {

```

```
"heartbeatResponse": [  
  {  
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",  
    "grantId": "537555205",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2019-09-09T06:28:33Z"  
  }  
]  
}  
2019-09-09T06:26:06.118Z - INFO - heartbeat request from CBRS : {  
  "heartbeatRequest": [  
    {  
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",  
      "grantId": "537555205",  
      "measReport": {  
        "rcvdPowerMeasReports": [  
          {  
            "measBandwidth": 10000000,  
            "measFrequency": 3550000000,  
            "measRcvdPower": -57  
          },  
          {  
            "measBandwidth": 10000000,  
            "measFrequency": 3560000000,  
            "measRcvdPower": -57  
          },  
          {  
            "measBandwidth": 10000000,  
            "measFrequency": 3570000000,  
            "measRcvdPower": -57  
          },  
          {  
            "measBandwidth": 10000000,  
            "measFrequency": 3580000000,  
            "measRcvdPower": -57  
          },  
          {  
            "measBandwidth": 10000000,  
            "measFrequency": 3590000000,  
            "measRcvdPower": -57  
          },  
          {  
            "measBandwidth": 10000000,  
            "measFrequency": 3600000000,  
            "measRcvdPower": -57  
          },  
          {  
            "measBandwidth": 10000000,  
            "measFrequency": 3610000000,  
            "measRcvdPower": -57  
          },  
          {  
            "measBandwidth": 10000000,  
            "measFrequency": 3620000000,  
            "measRcvdPower": -57  
          }  
        ]  
      }  
    }  
  ]  
}
```

```

        {
            "measBandwidth": 1000000,
            "measFrequency": 363000000,
            "measRcvdPower": -57
        },
        {
            "measBandwidth": 1000000,
            "measFrequency": 364000000,
            "measRcvdPower": -57
        },
        {
            "measBandwidth": 1000000,
            "measFrequency": 365000000,
            "measRcvdPower": -57
        },
        {
            "measBandwidth": 1000000,
            "measFrequency": 366000000,
            "measRcvdPower": -57
        },
        {
            "measBandwidth": 1000000,
            "measFrequency": 367000000,
            "measRcvdPower": -57
        },
        {
            "measBandwidth": 1000000,
            "measFrequency": 368000000,
            "measRcvdPower": -57
        },
        {
            "measBandwidth": 1000000,
            "measFrequency": 369000000,
            "measRcvdPower": -57
        }
    ]
},
"operationState": "AUTHORIZED"
}
]
}
2019-09-09T06:26:06.119Z - INFO - Time interval between two heartbeat request messages is: 53.04, limit is: 65.0
2019-09-09T06:26:06.125Z - INFO - Response message contains measReportConfig
2019-09-09T06:26:06.125Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "537555205",
            "measReportConfig": [
                "RECEIVED_POWER_WITH_GRANT"
            ],
            "response": {
                "responseCode": 0
            }
        },
        {
            "transmitExpireTime": "2019-09-09T06:29:26Z"
        }
    ]
}
]

```



```
}
2019-09-09T06:26:59.556Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "537555205",
      "measReport": {
        "rcvdPowerMeasReports": [
          {
            "measBandwidth": 1000000,
            "measFrequency": 355000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 356000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 357000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 358000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 359000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 360000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 361000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 362000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 363000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 364000000,
            "measRcvdPower": -57
          }
        ]
      }
    }
  ]
}
```

```

    {
      "measBandwidth": 1000000,
      "measFrequency": 365000000,
      "measRcvdPower": -57
    },
    {
      "measBandwidth": 1000000,
      "measFrequency": 366000000,
      "measRcvdPower": -57
    },
    {
      "measBandwidth": 1000000,
      "measFrequency": 367000000,
      "measRcvdPower": -57
    },
    {
      "measBandwidth": 1000000,
      "measFrequency": 368000000,
      "measRcvdPower": -57
    },
    {
      "measBandwidth": 1000000,
      "measFrequency": 369000000,
      "measRcvdPower": -57
    }
  ]
},
"operationState": "AUTHORIZED"
}
]
}
2019-09-09T06:26:59.558Z - INFO - Time interval between two heartbeat request messages is: 53.438, limit
is: 65.0
2019-09-09T06:26:59.559Z - INFO - measReport received in heartbeat message
2019-09-09T06:26:59.563Z - INFO - engine sent successfully, the response to CBRS  : {
  "heartbeatResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "537555205",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-09-09T06:30:19Z"
    }
  ]
}
}
2019-09-09T06:27:52.635Z - INFO - heartbeat request from CBRS  : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "537555205",
      "measReport": {
        "rcvdPowerMeasReports": [
          {
            "measBandwidth": 1000000,
            "measFrequency": 355000000,
            "measRcvdPower": -57
          }
        ]
      }
    }
  ]
}

```

```
{
  "measBandwidth": 1000000,
  "measFrequency": 356000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 357000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 358000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 359000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 360000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 361000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 362000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 363000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 364000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 365000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 366000000,
  "measRcvdPower": -57
},
{
  "measBandwidth": 1000000,
  "measFrequency": 367000000,
```

```

        "measRcvdPower": -57
      },
      {
        "measBandwidth": 10000000,
        "measFrequency": 3680000000,
        "measRcvdPower": -57
      },
      {
        "measBandwidth": 10000000,
        "measFrequency": 3690000000,
        "measRcvdPower": -57
      }
    ]
  },
  "operationState": "AUTHORIZED"
}
]
}
2019-09-09T06:27:52.638Z - INFO - Time interval between two heartbeat request messages is: 53.08, limit is:
65.0
2019-09-09T06:27:52.641Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "537555205",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-09-09T06:31:12Z"
    }
  ]
}
2019-09-09T06:28:45.755Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "537555205",
      "measReport": {
        "rcvdPowerMeasReports": [
          {
            "measBandwidth": 10000000,
            "measFrequency": 3550000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 10000000,
            "measFrequency": 3560000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 10000000,
            "measFrequency": 3570000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 10000000,
            "measFrequency": 3580000000,
            "measRcvdPower": -57
          }
        ]
      }
    }
  ]
}

```

```
    },  
    {  
      "measBandwidth": 1000000,  
      "measFrequency": 3590000000,  
      "measRcvdPower": -57  
    },  
    {  
      "measBandwidth": 1000000,  
      "measFrequency": 3600000000,  
      "measRcvdPower": -57  
    },  
    {  
      "measBandwidth": 1000000,  
      "measFrequency": 3610000000,  
      "measRcvdPower": -57  
    },  
    {  
      "measBandwidth": 1000000,  
      "measFrequency": 3620000000,  
      "measRcvdPower": -57  
    },  
    {  
      "measBandwidth": 1000000,  
      "measFrequency": 3630000000,  
      "measRcvdPower": -57  
    },  
    {  
      "measBandwidth": 1000000,  
      "measFrequency": 3640000000,  
      "measRcvdPower": -57  
    },  
    {  
      "measBandwidth": 1000000,  
      "measFrequency": 3650000000,  
      "measRcvdPower": -57  
    },  
    {  
      "measBandwidth": 1000000,  
      "measFrequency": 3660000000,  
      "measRcvdPower": -57  
    },  
    {  
      "measBandwidth": 1000000,  
      "measFrequency": 3670000000,  
      "measRcvdPower": -57  
    },  
    {  
      "measBandwidth": 1000000,  
      "measFrequency": 3680000000,  
      "measRcvdPower": -57  
    },  
    {  
      "measBandwidth": 1000000,  
      "measFrequency": 3690000000,  
      "measRcvdPower": -57  
    }  
  ],  
}
```

```
        "operationState": "AUTHORIZED"
    }
]
}
2019-09-09T06:28:45.756Z - INFO - Time interval between two heartbeat request messages is: 53.118, limit
is: 65.0
2019-09-09T06:28:45.762Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "537555205",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-09-09T06:32:05Z"
        }
    ]
}
}
2019-09-09T06:29:39.552Z - INFO - heartbeat request from CBRS  : {
    "heartbeatRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "537555205",
            "measReport": {
                "rcvdPowerMeasReports": [
                    {
                        "measBandwidth": 10000000,
                        "measFrequency": 3550000000,
                        "measRcvdPower": -57
                    },
                    {
                        "measBandwidth": 10000000,
                        "measFrequency": 3560000000,
                        "measRcvdPower": -57
                    },
                    {
                        "measBandwidth": 10000000,
                        "measFrequency": 3570000000,
                        "measRcvdPower": -57
                    },
                    {
                        "measBandwidth": 10000000,
                        "measFrequency": 3580000000,
                        "measRcvdPower": -57
                    },
                    {
                        "measBandwidth": 10000000,
                        "measFrequency": 3590000000,
                        "measRcvdPower": -57
                    },
                    {
                        "measBandwidth": 10000000,
                        "measFrequency": 3600000000,
                        "measRcvdPower": -57
                    },
                    {
                        "measBandwidth": 10000000,
                        "measFrequency": 3610000000,
```

```
        "measRcvdPower": -57
      },
      {
        "measBandwidth": 10000000,
        "measFrequency": 3620000000,
        "measRcvdPower": -57
      },
      {
        "measBandwidth": 10000000,
        "measFrequency": 3630000000,
        "measRcvdPower": -57
      },
      {
        "measBandwidth": 10000000,
        "measFrequency": 3640000000,
        "measRcvdPower": -57
      },
      {
        "measBandwidth": 10000000,
        "measFrequency": 3650000000,
        "measRcvdPower": -57
      },
      {
        "measBandwidth": 10000000,
        "measFrequency": 3660000000,
        "measRcvdPower": -57
      },
      {
        "measBandwidth": 10000000,
        "measFrequency": 3670000000,
        "measRcvdPower": -57
      },
      {
        "measBandwidth": 10000000,
        "measFrequency": 3680000000,
        "measRcvdPower": -57
      },
      {
        "measBandwidth": 10000000,
        "measFrequency": 3690000000,
        "measRcvdPower": -57
      }
    ]
  },
  "operationState": "AUTHORIZED"
}
]
}
2019-09-09T06:29:39.555Z - INFO - Time interval between two heartbeat request messages is: 53.799, limit is: 65.0
2019-09-09T06:29:39.559Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "537555205",
      "response": {
        "responseCode": 0
      }
    },
  ],
}
```

```
    "transmitExpireTime": "2019-09-09T06:32:59Z"
  }
]
}
2019-09-09T06:30:32.719Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "537555205",
      "measReport": {
        "rcvdPowerMeasReports": [
          {
            "measBandwidth": 1000000,
            "measFrequency": 355000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 356000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 357000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 358000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 359000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 360000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 361000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 362000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
            "measFrequency": 363000000,
            "measRcvdPower": -57
          },
          {
            "measBandwidth": 1000000,
```



```

    "measFrequency": 3640000000,
    "measRcvdPower": -57
  },
  {
    "measBandwidth": 10000000,
    "measFrequency": 3650000000,
    "measRcvdPower": -57
  },
  {
    "measBandwidth": 10000000,
    "measFrequency": 3660000000,
    "measRcvdPower": -57
  },
  {
    "measBandwidth": 10000000,
    "measFrequency": 3670000000,
    "measRcvdPower": -57
  },
  {
    "measBandwidth": 10000000,
    "measFrequency": 3680000000,
    "measRcvdPower": -57
  },
  {
    "measBandwidth": 10000000,
    "measFrequency": 3690000000,
    "measRcvdPower": -57
  }
]
},
"operationState": "AUTHORIZED"
}
]
}
2019-09-09T06:30:32.720Z - INFO - Time interval between two heartbeat request messages is: 53.165, limit
is: 65.0
2019-09-09T06:30:32.726Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "537555205",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-09-09T06:33:52Z"
    }
  ]
}
2019-09-09T06:30:34.063Z - INFO - arrived to nstep starting question answer session with the technician
2019-09-09T06:33:16.161Z - INFO - The final result of the test : WINNF.FT.C.MES.4 is - passed

```

## 5 CBSD Relinquishment Process

### 5.1 WINNF.FT.C.RLQ.1

2019-08-07T05:40:50.477Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-08-07T05:40:50.477Z - INFO - the selected test from the user : WINNF.FT.C.RLQ.1 is starting now

2019-08-07T05:41:01.305Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "6ZX0419000001",
    "fccId": "QI3BEC-6900R21",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "UYm9fD"
  }
]
```

2019-08-07T05:41:01.321Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "response": {
      "responseCode": 0
    }
  }
]
```

2019-08-07T05:41:05.430Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "inquiredSpectrum": [
      {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      }
    ]
  }
]
```

2019-08-07T05:41:05.430Z - INFO - engine sent successfully, the response to CBRS : {

```
"spectrumInquiryResponse": [
  {
    "availableChannel": [
```

```
        {
            "channelType": "GAA",
            "frequencyRange": {
                "highFrequency": 3635000000,
                "lowFrequency": 3615000000
            },
            "ruleApplied": "FCC_PART_96"
        }
    ],
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "response": {
        "responseCode": 0
    }
}
]
}
2019-08-07T05:41:09.946Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "operationParam": {
                "maxEirp": 23,
                "operationFrequencyRange": {
                    "highFrequency": 3635000000,
                    "lowFrequency": 3615000000
                }
            }
        }
    ]
}
2019-08-07T05:41:09.946Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "channelType": "GAA",
            "grantExpireTime": "2019-08-14T05:41:09Z",
            "grantId": "565997956",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-08-07T05:41:14.071Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "565997956",
            "operationState": "GRANTED"
        }
    ]
}
2019-08-07T05:41:14.071Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "565997956",
```

```

    "response": {
      "responseCode": 0
    },
    "transmitExpireTime": "2019-08-07T05:44:34Z"
  }
]
}
2019-08-07T05:42:07.996Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "565997956",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-08-07T05:42:07.996Z - INFO - Time interval between two heartbeat request messages is: 53.925, limit
is: 65.0
2019-08-07T05:42:07.996Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "565997956",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-08-07T05:45:27Z"
    }
  ]
}
2019-08-07T05:42:13.667Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "565997956"
    }
  ]
}
2019-08-07T05:42:13.667Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "565997956",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2019-08-07T05:42:15.589Z - INFO - arrived to nstep starting question answer session with the technician
2019-08-07T05:42:15.589Z - INFO - the question is : Did CBSD1 cease RF transmission before receipt of
Relinquishment Request by Test Harness? please choose one of the answers :
2019-08-07T05:45:37.851Z - INFO - for the question : Did CBSD1 cease RF transmission before receipt of
Relinquishment Request by Test Harness? , the user choose y
2019-08-07T05:45:38.569Z - INFO - The final result of the test : WINNF.FT.C.RLQ.1 is - passed

```

## 6 CBSD Deregistration Process

### 6.1 WINNF.FT.C.DRG.1

2019-08-07T05:54:03.325Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-08-07T05:54:03.325Z - INFO - the selected test from the user : WINNF.FT.C.DRG.1 is starting now

2019-08-07T05:54:13.170Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "6ZX0419000001",
    "fccId": "QI3BEC-6900R21",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "UYm9fD"
  }
]
```

2019-08-07T05:54:13.200Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "response": {
      "responseCode": 0
    }
  }
]
```

2019-08-07T05:54:17.326Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "inquiredSpectrum": [
      {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      }
    ]
  }
]
```

2019-08-07T05:54:17.342Z - INFO - engine sent successfully, the response to CBRS : {

```
"spectrumInquiryResponse": [
  {
    "availableChannel": [
```

```

    {
      "channelType": "GAA",
      "frequencyRange": {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      },
      "ruleApplied": "FCC_PART_96"
    }
  ],
  "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
  "response": {
    "responseCode": 0
  }
}
]
}
2019-08-07T05:54:21.404Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "operationParam": {
        "maxEirp": 23,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2019-08-07T05:54:21.421Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "channelType": "GAA",
      "grantExpireTime": "2019-08-14T05:54:21Z",
      "grantId": "950297818",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2019-08-07T05:54:25.530Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "950297818",
      "operationState": "GRANTED"
    }
  ]
}
2019-08-07T05:54:25.546Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
      "grantId": "950297818",

```

```
        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2019-08-07T05:57:45Z"
    }
]
}
2019-08-07T05:55:19.299Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "950297818",
            "operationState": "AUTHORIZED"
        }
    ]
}
2019-08-07T05:55:19.299Z - INFO - Time interval between two heartbeat request messages is: 53.768, limit
is: 65.0
2019-08-07T05:55:19.315Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "grantId": "950297818",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2019-08-07T05:58:39Z"
        }
    ]
}
2019-08-07T05:55:25.408Z - INFO - deregistration request from CBRS : {
    "deregistrationRequest": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001"
        }
    ]
}
2019-08-07T05:55:25.408Z - INFO - engine sent successfully, the response to CBRS : {
    "deregistrationResponse": [
        {
            "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2019-08-07T05:55:27.394Z - INFO - arrived to nstep starting question answer session with the technician
2019-08-07T05:55:27.394Z - 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 :
2019-08-07T05:59:33.177Z - 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
2019-08-07T05:59:33.772Z - INFO - The final result of the test : WINNF.FT.C.DRG.1 is - passed
```

## 7 CBSD Security Validation

### 7.1 WINNF.FT.C.SCS.1

2019-08-07T06:24:06.957Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-08-07T06:24:06.957Z - INFO - the selected test from the user : WINNF.FT.C.SCS.1 is starting now

2019-08-07T06:24:19.223Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "6ZX0419000001",
    "fccId": "QI3BEC-6900R21",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "UYm9fD"
  }
]
```

2019-08-07T06:24:19.255Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "QI3BEC-6900R21Mock-SAS6ZX0419000001",
    "response": {
      "responseCode": 0
    }
  }
]
```

2019-08-07T06:24:21.144Z - INFO - arrived to nstep starting question answer session with the technician

2019-08-07T06:24:21.144Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2019-08-07T06:29:29.371Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2019-08-07T06:29:29.746Z - INFO - The final result of the test : WINNF.FT.C.SCS.1 is - passed



## 8 CBSD RF Power Measurement

### 8.1 WINNF.PT.C.HBT.1(Max Eirp = 23 dBm/MHz)

2019-08-01T08:27:19.542Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-08-01T08:27:19.542Z - INFO - Selected spectrum frequency is {'lowFrequency': 361500000L, 'highFrequency': 3635000000L}

2019-08-01T08:27:19.542Z - INFO - Granted Spectrum Max Eirp = 23dBm/MHz

2019-08-01T08:27:19.542Z - INFO - the selected test from the user : PowerMeasTest is starting now

2019-08-01T08:32:56.023Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "18B0003936",
    "fccId": "QI3BEC-CBRS12",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "UYm9fD"
  }
]
```

2019-08-01T08:32:56.053Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "QI3BEC-CBRS12Mock-SAS18B0003936",
    "response": {
      "responseCode": 0
    }
  }
]
```

2019-08-01T08:33:00.585Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "QI3BEC-CBRS12Mock-SAS18B0003936",
    "inquiredSpectrum": [
      {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      }
    ]
  }
]
```

2019-08-01T08:33:00.585Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code

```
is 0
2019-08-01T08:33:00.585Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "maxEirp": 23,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "QI3BEC-CBRS12Mock-SAS18B0003936",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2019-08-01T08:33:04.694Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "QI3BEC-CBRS12Mock-SAS18B0003936",
      "operationParam": {
        "maxEirp": 23,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2019-08-01T08:33:04.710Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "QI3BEC-CBRS12Mock-SAS18B0003936",
      "channelType": "GAA",
      "grantExpireTime": "2019-08-08T08:33:04Z",
      "grantId": "613696035",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2019-08-01T08:33:08.742Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-CBRS12Mock-SAS18B0003936",
      "grantId": "613696035",
      "operationState": "GRANTED"
    }
  ]
}
```

```
}  
2019-08-01T08:33:08.742Z - INFO - engine sent successfully, the response to CBRS : {  
  "heartbeatResponse": [  
    {  
      "cbsdId": "QI3BEC-CBRS12Mock-SAS18B0003936",  
      "grantId": "613696035",  
      "response": {  
        "responseCode": 0  
      },  
      "transmitExpireTime": "2019-08-01T08:36:28Z"  
    }  
  ]  
}
```

## 8.2 WINNF.PT.C.HBT.1(Max Eirp = 30 dBm/MHz)

2019-08-01T08:22:29.990Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-08-01T08:22:29.990Z - INFO - Selected spectrum frequency is {'lowFrequency': 361500000L, 'highFrequency': 3635000000L}

2019-08-01T08:22:29.990Z - INFO - Granted Spectrum Max Eirp = 30dBm/MHz

2019-08-01T08:22:29.990Z - INFO - the selected test from the user : PowerMeasTest is starting now

2019-08-01T08:23:44.865Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "18B0003936",
    "fccId": "QI3BEC-CBRS12",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "UYm9fD"
  }
]
```

2019-08-01T08:23:44.897Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "QI3BEC-CBRS12Mock-SAS18B0003936",
    "response": {
      "responseCode": 0
    }
  }
]
```

2019-08-01T08:23:48.913Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "QI3BEC-CBRS12Mock-SAS18B0003936",
    "inquiredSpectrum": [
      {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      }
    ]
  }
]
```

2019-08-01T08:23:48.913Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0

2019-08-01T08:23:48.913Z - INFO - engine sent successfully, the response to CBRS : {

```
"spectrumInquiryResponse": [
```

```

    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "maxEirp": 30,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "QI3BEC-CBRS12Mock-SAS18B0003936",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2019-08-01T08:23:52.990Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "QI3BEC-CBRS12Mock-SAS18B0003936",
      "operationParam": {
        "maxEirp": 30,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2019-08-01T08:23:53.006Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "QI3BEC-CBRS12Mock-SAS18B0003936",
      "channelType": "GAA",
      "grantExpireTime": "2019-08-08T08:23:53Z",
      "grantId": "649329214",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2019-08-01T08:23:57.099Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-CBRS12Mock-SAS18B0003936",
      "grantId": "649329214",
      "operationState": "GRANTED"
    }
  ]
}
2019-08-01T08:23:57.115Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [

```

```
    {
      "cbsdId": "QI3BEC-CBRS12Mock-SAS18B0003936",
      "grantId": "649329214",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-08-01T08:27:17Z"
    }
  ]
}
2019-08-01T08:25:00.009Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-CBRS12Mock-SAS18B0003936",
      "grantId": "649329214",
      "operationState": "AUTHORIZED"
    }
  ]
}
2019-08-01T08:25:00.009Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "QI3BEC-CBRS12Mock-SAS18B0003936",
      "grantId": "649329214",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2019-08-01T08:28:20Z"
    }
  ]
}
```

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

2019-08-01T08:18:37.542Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2019-08-01T08:18:37.542Z - INFO - Selected spectrum frequency is {'lowFrequency': 361500000L, 'highFrequency': 3635000000L}

2019-08-01T08:18:37.542Z - INFO - Granted Spectrum Max Eirp = 37dBm/MHz

2019-08-01T08:18:37.542Z - INFO - the selected test from the user : PowerMeasTest is starting now

2019-08-01T08:19:18.510Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA",
      "supportedSpec": "FFS"
    },
    "callSign": "callSign123",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "18B0003936",
    "fccId": "QI3BEC-CBRS12",
    "groupingParam": [
      {
        "groupId": "bec",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "UYm9fD"
  }
]
```

2019-08-01T08:19:18.542Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbsdId": "QI3BEC-CBRS12Mock-SAS18B0003936",
    "response": {
      "responseCode": 0
    }
  }
]
```

2019-08-01T08:19:22.634Z - INFO - spectrumInquiry request from CBRS : {

```
"spectrumInquiryRequest": [
  {
    "cbsdId": "QI3BEC-CBRS12Mock-SAS18B0003936",
    "inquiredSpectrum": [
      {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      }
    ]
  }
]
```

2019-08-01T08:19:22.651Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code is 0

2019-08-01T08:19:22.651Z - INFO - engine sent successfully, the response to CBRS : {

```
"spectrumInquiryResponse": [
```

```

    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "maxEirp": 37,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "QI3BEC-CBRS12Mock-SAS18B0003936",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2019-08-01T08:19:26.713Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "QI3BEC-CBRS12Mock-SAS18B0003936",
      "operationParam": {
        "maxEirp": 37,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2019-08-01T08:19:26.713Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "QI3BEC-CBRS12Mock-SAS18B0003936",
      "channelType": "GAA",
      "grantExpireTime": "2019-08-08T08:19:26Z",
      "grantId": "115352411",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2019-08-01T08:19:30.869Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "QI3BEC-CBRS12Mock-SAS18B0003936",
      "grantId": "115352411",
      "operationState": "GRANTED"
    }
  ]
}
2019-08-01T08:19:30.869Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [

```



```
{
  "cbsdId": "QI3BEC-CBRS12Mock-SAS18B0003936",
  "grantId": "115352411",
  "response": {
    "responseCode": 0
  },
  "transmitExpireTime": "2019-08-01T08:22:50Z"
}
]
```