

Test Logs

FCC ID: I88LTE7485-S905

Test Model: LTE7485-S905

Received Date: May. 11, 2020

Test Date: Jun 11 ~ Jun. 15, 2020

Issued Date: Jun. 17, 2020

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

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```
"eirpCapability": 36,
"antennaAzimuth": 240,
"heightType": "AGL",
"antennaModel": "Patch Panel",
"longitude": 121.008683,
"antennaGain": 13,
"indoorDeployment": false,
"latitude": 24.773127,
"horizontalAccuracy": 45.0,
"antennaDowntilt": 3,
"antennaBeamwidth": 57,
"height": 12.0,
"verticalAccuracy": 2.0
},
"fcclId": "I88LTE7485-S905",
"professionalInstallerData": {
  "cpiName": "thisiscpiname",
  "installCertificationTime": "2018-12-12T05:05:05Z",
  "cpild": "123456789"
},
"cbbsdSerialNumber": "S200Z13002209"
}
2020-06-12T05:41:41.214Z - INFO - verified signature on cpiSignatureData
2020-06-12T05:41:41.214Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-12T05:41:41.230Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2020-06-12T05:41:42.982Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-12T05:41:42.982Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2020-06-12T05:41:55.326Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2020-06-12T05:41:55.783Z - INFO - The final result of the test : WINNF.FT.C.REG.1 is - passed
```



```
"heightType": "AGL",
"antennaModel": "Patch Panel",
"longitude": 121.008683,
"antennaGain": 13,
"indoorDeployment": false,
"latitude": 24.773127,
"horizontalAccuracy": 45.0,
"antennaDowntilt": 3,
"antennaBeamwidth": 57,
"height": 12.0,
"verticalAccuracy": 2.0
},
"fcclId": "I88LTE7485-S905",
"professionalInstallerData": {
  "cpiName": "thisiscpiname",
  "installCertificationTime": "2018-12-12T05:05:05Z",
  "cpilId": "123456789"
},
"cbSDSerialNumber": "S200Z13002209"
}
2020-06-12T05:45:56.194Z - INFO - verified signature on cpiSignatureData
2020-06-12T05:45:56.194Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-12T05:45:56.210Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbSDId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-12T05:45:57.496Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-12T05:45:57.496Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2020-06-12T05:46:00.354Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2020-06-12T05:46:00.713Z - INFO - The final result of the test : WINNF.FT.C.REG.5 is - passed
```



```
"heightType": "AGL",
"antennaModel": "Patch Panel",
"longitude": 121.008683,
"antennaGain": 13,
"indoorDeployment": false,
"latitude": 24.773127,
"horizontalAccuracy": 45.0,
"antennaDowntilt": 3,
"antennaBeamwidth": 57,
"height": 12.0,
"verticalAccuracy": 2.0
},
"fcclId": "I88LTE7485-S905",
"professionalInstallerData": {
  "cpiName": "thisiscpiname",
  "installCertificationTime": "2018-12-12T05:05:05Z",
  "cpild": "123456789"
},
"cbSDSerialNumber": "S200Z13002209"
}
2020-06-12T09:07:28.187Z - INFO - verified signature on cpiSignatureData
2020-06-12T09:07:28.187Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-12T09:07:28.187Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 102
      }
    }
  ]
}
}
2020-06-12T09:07:29.209Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-12T09:07:29.209Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2020-06-12T09:07:34.967Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2020-06-12T09:07:35.177Z - INFO - The final result of the test : WINNF.FT.C.REG.8 is - passed
```


1.4 WINNF.FT.C.REG.10

2020-06-12T09:12:58.033Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13
 2020-06-12T09:12:58.033Z - INFO - the selected test from the user : WINNF.FT.C.REG.10 is starting now
 2020-06-12T09:13:06.292Z - INFO - registration request from CBRS : {

```

"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA"
    },
    "callSign": "",
    "cbsdCategory": "B",
    "cbsdInfo": {
      "firmwareVersion": "",
      "hardwareVersion": "LTE7485-S905",
      "model": "LTE7485-S905",
      "softwareVersion": "1.00(ABVN.0)C0",
      "vendor": "ZYXEL"
    },
    "cbsdSerialNumber": "S200Z13002209",
    "cpiSignatureData": {
      "digitalSignature":
"PyMG4wYT-GW4HKAYWVAIDFQ71vvhTxL2gZiVka6B05GH_R1GpG9q0qM7MQPDb1grwNW3H65qD0yhH
XrXd3v--EXrtX_GEi-k25MDjVHuX_tiGYqTrIDP4qhm91otymg8e7dqP9JvbBYArIrPRb54XRn06pJmI2b3hXPQ
MTeh7-94UXHM6yaHPCtccOL5yM79QPPBcdzmYrluwrLw6aLFbcRkxfQ03MPundEZmpFskkiHgf7TDMRBG
t0CjktUtA4hUf5EkXtrVg2fkuvLFxyQiy8eujznOO_AwzGvPTn8dTylhXuxddb0Kcx197IHRci235Z_M5iFfEtOIM
ch3LUGKPEp8VcisG3FAJNW5AHHldH2zBZmFJLhGTHsvgNTjurbpjUp2qPjWnDmvruXP1pH1XPEcyaUpkT
MK1gJT6MNVrOQt4Fj8RjeAoGiFdRmIHXGcfjUIVSYCES4NTt6zqbDM2oK3qlgb1tIR83q7e7TuZWQajhcO
2dlZeTPzd93lI0iBurXI5hyupL7iwBOw4kax-2kHyeXs8VgUy54V1-ex2OaumGvVHRwGsk3W2w-CCVSLfc5F
D5Kj_curtuTllhivNhSNsYK4q09ainC6s1rMRYUdeExL3Yo-XXeESrAxS_LTiS_tdxfi3mB2sb2UGRvym95hm9Tm
5RKic7HOQMKU",
      "encodedCpiSignedData":
"eyJjYnNkU2VyaWFsTnVtYmVyljoiUzlwMFoxMzAwMjllwOSlsmZjY0kljoiSTg4TFRFNzQ4NS1TOTA1liwiaW
5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUf6aW11dGgiOjI0MCwiYW50ZW5uYUJlYiY1aWR0aCl6
NTcslmFudGVubmFEb3dudGlscCl6MywiYW50ZW5uYUdhaW4iOjEzLCJhbG9uRlhm5hTW9kZWwiOiJQYXRja
CBQYW5lbClslmVpcnBDYXBhYmIscXR5IjozNiwiawGVpZ2h0ljoXMi4wLkJoZWlnaHRUeXBlljoiQUdMliwiaG9
yaXpvbnRhbEFjY3VyYWN5ljo0NS4wLkZpbmRvb3JlZlZlZ0aW50ljpYwzZSwibGF0aXR1ZGUiOiJ0Ljc
3MzEyNywiG9uZ2l0dWRlljoxMjEuMDA4NjgzLCJ2ZXJ0aWNhbEFjY3VyYWN5ljoyLjB9LCJwcm9mZXNza
W9uYWwJbnN0YWxsZXJlYXRhIjE3ImNwaUlkljoiMTIzNDU2Nzg5liwiY3BpTmFtZSI6InRoanNpc2NwaW5hb
WUilLCJpbmN0YWxsQ2VydGlmaWNhdGlvbIRpbWUuOiIiYmDE4LTEyLVEyVDA1OjA1OjA1WiJ9fQ",
      "protectedHeader": "eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9"
    },
    "fccId": "I88LTE7485-S905",
    "groupingParam": [],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "ZY7485"
  }
]

```

2020-06-12T09:13:06.322Z - INFO - Registration message contains cpiSignatureData
 2020-06-12T09:13:06.322Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}
 2020-06-12T09:13:06.322Z - INFO - encodedCpiSignedData contents = {
 "installationParam": {
 "eirpCapability": 36,
 "antennaAzimuth": 240,

```
"heightType": "AGL",
"antennaModel": "Patch Panel",
"longitude": 121.008683,
"antennaGain": 13,
"indoorDeployment": false,
"latitude": 24.773127,
"horizontalAccuracy": 45.0,
"antennaDowntilt": 3,
"antennaBeamwidth": 57,
"height": 12.0,
"verticalAccuracy": 2.0
},
"fcclId": "I88LTE7485-S905",
"professionalInstallerData": {
  "cpiName": "thisiscpiname",
  "installCertificationTime": "2018-12-12T05:05:05Z",
  "cpild": "123456789"
},
"cbSDSerialNumber": "S200Z13002209"
```

```
}
2020-06-12T09:13:06.385Z - INFO - verified signature on cpiSignatureData
2020-06-12T09:13:06.385Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-12T09:13:06.385Z - INFO - engine sent successfully, the response to CBRS : {
```

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

```
}
2020-06-12T09:13:08.132Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-12T09:13:08.132Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2020-06-12T09:14:15.934Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2020-06-12T09:14:16.184Z - INFO - The final result of the test : WINNF.FT.C.REG.10 is - passed
```



```
"heightType": "AGL",
"antennaModel": "Patch Panel",
"longitude": 121.008683,
"antennaGain": 13,
"indoorDeployment": false,
"latitude": 24.773127,
"horizontalAccuracy": 45.0,
"antennaDowntilt": 3,
"antennaBeamwidth": 57,
"height": 12.0,
"verticalAccuracy": 2.0
},
"fcclId": "I88LTE7485-S905",
"professionalInstallerData": {
  "cpiName": "thisiscpiname",
  "installCertificationTime": "2018-12-12T05:05:05Z",
  "cpild": "123456789"
},
"cbSDSerialNumber": "S200Z13002209"
```

```
}
2020-06-12T09:15:26.302Z - INFO - verified signature on cpiSignatureData
2020-06-12T09:15:26.302Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-12T09:15:26.302Z - INFO - engine sent successfully, the response to CBRS : {
```

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

```
}
2020-06-12T09:15:28.095Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-12T09:15:28.095Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2020-06-12T09:16:16.861Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2020-06-12T09:16:17.190Z - INFO - The final result of the test : WINNF.FT.C.REG.12 is - passed
```



```
"heightType": "AGL",
"antennaModel": "Patch Panel",
"longitude": 121.008683,
"antennaGain": 13,
"indoorDeployment": false,
"latitude": 24.773127,
"horizontalAccuracy": 45.0,
"antennaDowntilt": 3,
"antennaBeamwidth": 57,
"height": 12.0,
"verticalAccuracy": 2.0
},
"fcclId": "I88LTE7485-S905",
"professionalInstallerData": {
  "cpiName": "thisiscpiname",
  "installCertificationTime": "2018-12-12T05:05:05Z",
  "cpild": "123456789"
},
"cbSDSerialNumber": "S200Z13002209"
```

```
}
```

2020-06-12T09:17:36.029Z - INFO - verified signature on cpiSignatureData

2020-06-12T09:17:36.029Z - INFO - cpiSignatureData data successfully validated against jsonschema

2020-06-12T09:17:36.029Z - INFO - engine sent successfully, the response to CBRS : {

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

```
}
```

2020-06-12T09:17:38.006Z - INFO - arrived to nstep starting question answer session with the technician

2020-06-12T09:17:38.006Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2020-06-12T09:19:27.552Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2020-06-12T09:19:27.907Z - INFO - The final result of the test : WINNF.FT.C.REG.14 is - passed


```
"heightType": "AGL",
"antennaModel": "Patch Panel",
"longitude": 121.008683,
"antennaGain": 13,
"indoorDeployment": false,
"latitude": 24.773127,
"horizontalAccuracy": 45.0,
"antennaDowntilt": 3,
"antennaBeamwidth": 57,
"height": 12.0,
"verticalAccuracy": 2.0
},
"fcclId": "I88LTE7485-S905",
"professionalInstallerData": {
  "cpiName": "thisiscpiname",
  "installCertificationTime": "2018-12-12T05:05:05Z",
  "cpild": "123456789"
},
"cbSDSerialNumber": "S200Z13002209"
```

```
}
2020-06-12T09:20:30.255Z - INFO - verified signature on cpiSignatureData
2020-06-12T09:20:30.255Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-12T09:20:30.270Z - INFO - engine sent successfully, the response to CBRS : {
```

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

```
}
2020-06-12T09:20:31.723Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-12T09:20:31.723Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2020-06-12T09:22:18.959Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2020-06-12T09:22:19.177Z - INFO - The final result of the test : WINNF.FT.C.REG.16 is - passed
```



```
"heightType": "AGL",
"antennaModel": "Patch Panel",
"longitude": 121.008683,
"antennaGain": 13,
"indoorDeployment": false,
"latitude": 24.773127,
"horizontalAccuracy": 45.0,
"antennaDowntilt": 3,
"antennaBeamwidth": 57,
"height": 12.0,
"verticalAccuracy": 2.0
},
"fcclId": "I88LTE7485-S905",
"professionalInstallerData": {
  "cpiName": "thisiscpiname",
  "installCertificationTime": "2018-12-12T05:05:05Z",
  "cpild": "123456789"
},
"cbbsdSerialNumber": "S200Z13002209"
}
2020-06-12T09:23:24.973Z - INFO - verified signature on cpiSignatureData
2020-06-12T09:23:24.973Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-12T09:23:24.987Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 201
      }
    }
  ]
}
}
2020-06-12T09:23:26.423Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-12T09:23:26.423Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2020-06-12T09:25:13.242Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2020-06-12T09:25:13.492Z - INFO - The final result of the test : WINNF.FT.C.REG.18 is - passed
```



```
"eirpCapability": 36,
"antennaAzimuth": 240,
"heightType": "AGL",
"antennaModel": "Patch Panel",
"longitude": 121.008683,
"antennaGain": 13,
"indoorDeployment": false,
"latitude": 24.773127,
"horizontalAccuracy": 45.0,
"antennaDowntilt": 3,
"antennaBeamwidth": 57,
"height": 12.0,
"verticalAccuracy": 2.0
},
"fcclId": "I88LTE7485-S905",
"professionalInstallerData": {
  "cpiName": "thisiscpiname",
  "installCertificationTime": "2018-12-12T05:05:05Z",
  "cpid": "123456789"
},
"cbid": "S200Z13002209"
}
2020-06-12T09:30:55.068Z - INFO - verified signature on cpiSignatureData
2020-06-12T09:30:55.068Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-12T09:30:55.068Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbid": "I88LTE7485-S905Mock-SASS200Z13002209",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-12T09:30:56.638Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbid": "I88LTE7485-S905Mock-SASS200Z13002209",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2020-06-12T09:30:56.654Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ]
    }
  ]
}
```

```
    }
  ],
  "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
  "response": {
    "responseCode": 0
  }
}
]
}
2020-06-12T09:30:58.193Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "operationParam": {
        "maxEirp": 26,
        "operationFrequencyRange": {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      }
    }
  ]
}
2020-06-12T09:30:58.207Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "response": {
        "responseCode": 400
      }
    }
  ]
}
2020-06-12T09:30:59.530Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-12T09:30:59.530Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2020-06-12T09:31:49.358Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2020-06-12T09:31:49.529Z - INFO - The final result of the test : WINNF.FT.C.GRA.1 is - passed
```



```
"heightType": "AGL",
"antennaModel": "Patch Panel",
"longitude": 121.008683,
"antennaGain": 13,
"indoorDeployment": false,
"latitude": 24.773127,
"horizontalAccuracy": 45.0,
"antennaDowntilt": 3,
"antennaBeamwidth": 57,
"height": 12.0,
"verticalAccuracy": 2.0
},
"fcclId": "I88LTE7485-S905",
"professionalInstallerData": {
  "cpiName": "thisiscpiname",
  "installCertificationTime": "2018-12-12T05:05:05Z",
  "cpild": "123456789"
},
"cbbsdSerialNumber": "S200Z13002209"
}
2020-06-12T09:33:06.006Z - INFO - verified signature on cpiSignatureData
2020-06-12T09:33:06.023Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-12T09:33:06.023Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbssdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-12T09:33:07.561Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbssdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2020-06-12T09:33:07.561Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ]
    }
  ],
}
```

```
        "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
        "response": {
            "responseCode": 0
        }
    ]
}
2020-06-12T09:33:09.072Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "operationParam": {
                "maxEirp": 26,
                "operationFrequencyRange": {
                    "highFrequency": 3700000000,
                    "lowFrequency": 3550000000
                }
            }
        }
    ]
}
2020-06-12T09:33:09.072Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "response": {
                "responseCode": 401
            }
        }
    ]
}
2020-06-12T09:33:10.861Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-12T09:33:10.861Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2020-06-12T09:34:19.476Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2020-06-12T09:34:19.726Z - INFO - The final result of the test : WINNF.FT.C.GRA.2 is - passed
```



```
"eirpCapability": 36,
"antennaAzimuth": 240,
"heightType": "AGL",
"antennaModel": "Patch Panel",
"longitude": 121.008683,
"antennaGain": 13,
"indoorDeployment": false,
"latitude": 24.773127,
"horizontalAccuracy": 45.0,
"antennaDowntilt": 3,
"antennaBeamwidth": 57,
"height": 12.0,
"verticalAccuracy": 2.0
},
"fcclId": "I88LTE7485-S905",
"professionalInstallerData": {
  "cpiName": "thisiscpiname",
  "installCertificationTime": "2018-12-12T05:05:05Z",
  "cpilId": "123456789"
},
"cbSdSerialNumber": "S200Z13002209"
}
2020-06-15T02:36:22.440Z - INFO - verified signature on cpiSignatureData
2020-06-15T02:36:22.456Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-15T02:36:22.456Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbSdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-15T02:36:24.020Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbSdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2020-06-15T02:36:24.036Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ]
    }
  ]
}
```

```
    }
  ],
  "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
  "response": {
    "responseCode": 0
  }
}
]
}
2020-06-15T02:36:25.507Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "operationParam": {
        "maxEirp": 26,
        "operationFrequencyRange": {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      }
    }
  ]
}
2020-06-15T02:36:25.507Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "channelType": "GAA",
      "grantExpireTime": "2020-06-22T02:36:25Z",
      "grantId": "646334596",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-15T02:36:26.986Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "646334596",
      "operationState": "GRANTED"
    }
  ]
}
2020-06-15T02:36:26.986Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "646334596",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-15T02:39:46Z"
    }
  ]
}
```

```
2020-06-15T02:37:16.256Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "646334596",
      "operationState": "AUTHORIZED"
    }
  ]
}
2020-06-15T02:37:16.256Z - INFO - Time interval between two heartbeat request messages is: 49.271, limit
is: 65.0
2020-06-15T02:37:16.273Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "646334596",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-15T02:40:36Z"
    }
  ]
}
2020-06-15T02:38:05.540Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "646334596",
      "operationState": "AUTHORIZED"
    }
  ]
}
2020-06-15T02:38:05.540Z - INFO - Time interval between two heartbeat request messages is: 49.284, limit
is: 65.0
2020-06-15T02:38:05.540Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "646334596",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-15T02:41:25Z"
    }
  ]
}
2020-06-15T02:38:54.865Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "646334596",
      "operationState": "AUTHORIZED"
    }
  ]
}
2020-06-15T02:38:54.865Z - INFO - Time interval between two heartbeat request messages is: 49.325, limit
is: 65.0
2020-06-15T02:38:54.865Z - INFO - engine sent successfully, the response to CBRS : {
```

```
"heartbeatResponse": [  
  {  
    "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",  
    "grantId": "646334596",  
    "response": {  
      "responseCode": 0  
    },  
    "transmitExpireTime": "2020-06-15T02:42:14Z"  
  }  
]  
}  
2020-06-15T02:39:44.144Z - INFO - heartbeat request from CBRS : {  
  "heartbeatRequest": [  
    {  
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",  
      "grantId": "646334596",  
      "operationState": "AUTHORIZED"  
    }  
  ]  
}  
2020-06-15T02:39:44.144Z - INFO - Time interval between two heartbeat request messages is: 49.279, limit  
is: 65.0  
2020-06-15T02:39:44.144Z - INFO - engine sent successfully, the response to CBRS : {  
  "heartbeatResponse": [  
    {  
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",  
      "grantId": "646334596",  
      "response": {  
        "responseCode": 0  
      },  
      "transmitExpireTime": "2020-06-15T02:43:04Z"  
    }  
  ]  
}  
2020-06-15T02:40:33.371Z - INFO - heartbeat request from CBRS : {  
  "heartbeatRequest": [  
    {  
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",  
      "grantId": "646334596",  
      "operationState": "AUTHORIZED"  
    }  
  ]  
}  
2020-06-15T02:40:33.387Z - INFO - Time interval between two heartbeat request messages is: 49.227, limit  
is: 65.0  
2020-06-15T02:40:33.387Z - INFO - engine sent successfully, the response to CBRS : {  
  "heartbeatResponse": [  
    {  
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",  
      "grantId": "646334596",  
      "response": {  
        "responseCode": 0  
      },  
      "transmitExpireTime": "2020-06-15T02:43:53Z"  
    }  
  ]  
}  
2020-06-15T02:40:34.950Z - INFO - arrived to nstep starting question answer session with the technician
```

2020-06-15T02:40:34.950Z - INFO - the question is : Did CBSD1 transmit power prior to AUTHORIZED state (first successful HBT response)? please choose one of the answers :
2020-06-15T02:40:42.503Z - INFO - for the question : Did CBSD1 transmit power prior to AUTHORIZED state (first successful HBT response)? , the user choose n
2020-06-15T02:40:42.503Z - INFO - the question is : Did CBSD1 transmit only within the frequency range specified in its grantRequest message? please choose one of the answers :
2020-06-15T02:40:43.657Z - INFO - for the question : Did CBSD1 transmit only within the frequency range specified in its grantRequest message? , the user choose y
2020-06-15T02:40:44.184Z - INFO - The final result of the test : WINNF.FT.C.HBT.1 is - passed


```

    "heightType": "AGL",
    "antennaModel": "Patch Panel",
    "longitude": 121.008683,
    "antennaGain": 13,
    "indoorDeployment": false,
    "latitude": 24.773127,
    "horizontalAccuracy": 45.0,
    "antennaDowntilt": 3,
    "antennaBeamwidth": 57,
    "height": 12.0,
    "verticalAccuracy": 2.0
  },
  "fcclId": "I88LTE7485-S905",
  "professionalInstallerData": {
    "cpiName": "thisiscpiname",
    "installCertificationTime": "2018-12-12T05:05:05Z",
    "cpild": "123456789"
  },
  "cbsdSerialNumber": "S200Z13002209"
}
2020-06-15T03:22:01.538Z - INFO - verified signature on cpiSignatureData
2020-06-15T03:22:01.553Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-15T03:22:01.553Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-15T03:22:03.069Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2020-06-15T03:22:03.085Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ]
    }
  ],
}

```



```
        "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
        "response": {
            "responseCode": 0
        }
    ]
}
2020-06-15T03:22:04.663Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "operationParam": {
                "maxEirp": 26,
                "operationFrequencyRange": {
                    "highFrequency": 3700000000,
                    "lowFrequency": 3550000000
                }
            }
        }
    ]
}
2020-06-15T03:22:04.677Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "channelType": "GAA",
            "grantExpireTime": "2020-06-22T03:22:04Z",
            "grantId": "75297655",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2020-06-15T03:22:06.224Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "grantId": "75297655",
            "operationState": "GRANTED"
        }
    ]
}
2020-06-15T03:22:06.240Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "grantId": "75297655",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2020-06-15T03:25:26Z"
        }
    ]
}
2020-06-15T03:22:55.505Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
```

```

    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "75297655",
      "operationState": "AUTHORIZED"
    }
  ]
}
2020-06-15T03:22:55.505Z - INFO - Time interval between two heartbeat request messages is: 49.28, limit is:
65.0
2020-06-15T03:22:55.505Z - INFO - engine sent successfully, the response to CBRS  : {
  "heartbeatResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "75297655",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-15T03:26:15Z"
    }
  ]
}
2020-06-15T03:23:44.789Z - INFO - heartbeat request from CBRS  : {
  "heartbeatRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "75297655",
      "operationState": "AUTHORIZED"
    }
  ]
}
2020-06-15T03:23:44.789Z - INFO - Time interval between two heartbeat request messages is: 49.285, limit
is: 65.0
2020-06-15T03:23:44.789Z - INFO - engine sent successfully, the response to CBRS  : {
  "heartbeatResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "75297655",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-15T03:27:04Z"
    }
  ]
}
2020-06-15T03:24:34.108Z - INFO - heartbeat request from CBRS  : {
  "heartbeatRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "75297655",
      "operationState": "AUTHORIZED"
    }
  ]
}
2020-06-15T03:24:34.108Z - INFO - Time interval between two heartbeat request messages is: 49.318, limit
is: 65.0
2020-06-15T03:24:34.108Z - INFO - engine sent successfully, the response to CBRS  : {
  "heartbeatResponse": [
    {

```

```
"cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",  
"grantId": "75297655",  
"response": {  
  "responseCode": 105  
},  
"transmitExpireTime": "2020-06-15T03:24:34Z"
```

```
  ]  
}
```

```
}
```

2020-06-15T03:24:35.872Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-15T03:24:35.872Z - 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 :
2020-06-15T03:24:40.823Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 105? , the user choose y
2020-06-15T03:24:41.151Z - INFO - The final result of the test : WINNF.FT.C.HBT.3 is - passed


```
"heightType": "AGL",
"antennaModel": "Patch Panel",
"longitude": 121.008683,
"antennaGain": 13,
"indoorDeployment": false,
"latitude": 24.773127,
"horizontalAccuracy": 45.0,
"antennaDowntilt": 3,
"antennaBeamwidth": 57,
"height": 12.0,
"verticalAccuracy": 2.0
},
"fcclId": "I88LTE7485-S905",
"professionalInstallerData": {
  "cpiName": "thisiscpiname",
  "installCertificationTime": "2018-12-12T05:05:05Z",
  "cpild": "123456789"
},
"cbssdSerialNumber": "S200Z13002209"
}
2020-06-15T03:28:19.928Z - INFO - verified signature on cpiSignatureData
2020-06-15T03:28:19.928Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-15T03:28:19.928Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbssdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-15T03:28:21.467Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbssdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2020-06-15T03:28:21.467Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ]
    }
  ],
}
```

```
        "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
        "response": {
            "responseCode": 0
        }
    ]
}
2020-06-15T03:28:22.980Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "operationParam": {
                "maxEirp": 26,
                "operationFrequencyRange": {
                    "highFrequency": 3700000000,
                    "lowFrequency": 3550000000
                }
            }
        }
    ]
}
2020-06-15T03:28:22.980Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "channelType": "GAA",
            "grantExpireTime": "2020-06-22T03:28:22Z",
            "grantId": "391625189",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2020-06-15T03:28:24.461Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "grantId": "391625189",
            "operationState": "GRANTED"
        }
    ]
}
2020-06-15T03:28:24.461Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "grantId": "391625189",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2020-06-15T03:31:44Z"
        }
    ]
}
2020-06-15T03:29:13.782Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
```

```
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "391625189",
      "operationState": "AUTHORIZED"
    }
  ]
}
2020-06-15T03:29:13.782Z - INFO - Time interval between two heartbeat request messages is: 49.321, limit
is: 65.0
2020-06-15T03:29:13.782Z - INFO - engine sent successfully, the response to CBRS  : {
  "heartbeatResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "391625189",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-15T03:32:33Z"
    }
  ]
}
2020-06-15T03:30:03.055Z - INFO - heartbeat request from CBRS  : {
  "heartbeatRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "391625189",
      "operationState": "AUTHORIZED"
    }
  ]
}
2020-06-15T03:30:03.055Z - INFO - Time interval between two heartbeat request messages is: 49.273, limit
is: 65.0
2020-06-15T03:30:03.055Z - INFO - engine sent successfully, the response to CBRS  : {
  "heartbeatResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "391625189",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-15T03:33:23Z"
    }
  ]
}
2020-06-15T03:30:52.329Z - INFO - heartbeat request from CBRS  : {
  "heartbeatRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "391625189",
      "operationState": "AUTHORIZED"
    }
  ]
}
2020-06-15T03:30:52.329Z - INFO - Time interval between two heartbeat request messages is: 49.274, limit
is: 65.0
2020-06-15T03:30:52.345Z - INFO - engine sent successfully, the response to CBRS  : {
  "heartbeatResponse": [
    {
```

```
        "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
        "grantId": "391625189",
        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2020-06-15T03:34:12Z"
    }
]
}
2020-06-15T03:31:41.611Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "grantId": "391625189",
            "operationState": "AUTHORIZED"
        }
    ]
}
2020-06-15T03:31:41.611Z - INFO - Time interval between two heartbeat request messages is: 49.281, limit
is: 65.0
2020-06-15T03:31:41.627Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "grantId": "391625189",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2020-06-15T03:35:01Z"
        }
    ]
}
}
2020-06-15T03:32:30.940Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "grantId": "391625189",
            "operationState": "AUTHORIZED"
        }
    ]
}
}
2020-06-15T03:32:30.940Z - INFO - Time interval between two heartbeat request messages is: 49.33, limit is:
65.0
2020-06-15T03:32:30.940Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "grantId": "391625189",
            "response": {
                "responseCode": 500
            },
            "transmitExpireTime": "2020-06-15T03:32:30Z"
        }
    ]
}
}
2020-06-15T03:32:32.739Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-15T03:32:32.739Z - 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 :
```


2020-06-15T03:33:04.887Z - INFO - for the question : Did the CBSD1 stop RF transmission within 60 seconds of receiving Heartbeat response with responseCode = 500? , the user choose y
2020-06-15T03:33:05.137Z - INFO - The final result of the test : WINNF.FT.C.HBT.4 is - passed

3.4 WINNF.FT.C.HBT.5

2020-06-15T03:37:07.519Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13
 2020-06-15T03:37:07.519Z - INFO - the selected test from the user : WINNF.FT.C.HBT.5 is starting now
 2020-06-15T03:37:14.769Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA"
    },
    "callSign": "",
    "cbsdCategory": "B",
    "cbsdInfo": {
      "firmwareVersion": "",
      "hardwareVersion": "LTE7485-S905",
      "model": "LTE7485-S905",
      "softwareVersion": "1.00(ABVN.0)C0",
      "vendor": "ZYXEL"
    },
    "cbsdSerialNumber": "S200Z13002209",
    "cpiSignatureData": {
      "digitalSignature":
"PyMG4wYT-GW4HKAYWVAIDFQ71vvhTxL2gZiVka6B05GH_R1GpG9q0qM7MQPDb1grwNW3H65qD0yhH
XrXd3v--EXrtX_GEi-k25MDjVHuX_tiGYqTrIDP4qhm91otymg8e7dqP9JvbBYArIrPRb54XRn06pJmI2b3hXPQ
MTeh7-94UXHM6yaHPCtccOL5yM79QPPBcdzmYrluwrLw6aLFbcRkxfQ03MPundEZmpFskkiHgf7TDMRBG
t0CjktUtA4hUf5EkXtrVg2fkuvLFxyQiy8eujznOO_AwzGvPTn8dTylhXuxddb0Kcx197IHRci235Z_M5iFfEtOIM
ch3LUGKPEp8VcisG3FAJNW5AHHldH2zBZmFJLhGTHsvgNTjurbpjUp2qPjWnDmvruXP1pH1XPEcyaUpkT
MK1gJT6MNVrOQt4Fj8RjeAoGiFdRmIHxGcfjUIVSYCES4NTt6zqbDM2oK3qlgb1tIR83q7e7TuZWQajhcO
2dlZeTPzd93lI0iBurXI5hyupL7iwBOw4kax-2kHyeXs8VgUy54V1-ex2OaumGvVHRwGsk3W2w-CCVSLfc5F
D5Kj_curtuTllhivNhSNsYK4q09ainC6s1rMRYUdeExL3Yo-XXeESrAxS_LTiS_tdxfi3mB2sb2UGRvym95hm9Tm
5RKic7HOQMKU",
      "encodedCpiSignedData":
"eyJjYnNkU2VyaWFsTnVtYmVyljoiUzlwMFoxMzAwMjllwOSlsmZjY0kljoiSTg4TFRFNzQ4NS1TOTA1liwiaW
5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUf6aW11dGgiOjI0MCwiYW50ZW5uYUJlYiY1aWR0aCl6
NTcslmFudGVubmFEb3dudGlsdCl6MywiYW50ZW5uYUdhaW4iOjEzLCJhbG9uYm5hTW9kZWwiOiJQYXRja
CBQYW5lbClslmVpcnBDYXBhYmIscXR5ljozNiwiawGVpZ2h0ljozMi4wLzJ0ZWlnaHRUeXBlljoiQUdMliwiaG9
yaXpvbnRhbEFjY3VyYWN5ljo0NS4wLzJpbnRvb3JlZlJ0aW50ljozMi4wLzJ0ZWlnaHRUeXBlljoiQUdMliwiaG9
3MzEyNywiawG9uZ2l0dWRlljoiMjE0NDQ4NjgzLCJ2ZXJ0aW50ljozMi4wLzJ0ZWlnaHRUeXBlljoiQUdMliwiaG9
W9uYXVxJbnN0YWxsZXJlYXRhIjoiMjE0NDQ4NjgzLCJ2ZXJ0aW50ljozMi4wLzJ0ZWlnaHRUeXBlljoiQUdMliwiaG9
WUilLCJpbnN0YWxsQ2VydGlmawWnhdGlvbIRpbWUuOilyMDE4LTEyLVEyVDA1OjA1OjA1WiJ9fQ",
      "protectedHeader": "eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9"
    },
    "fccId": "I88LTE7485-S905",
    "groupingParam": [],
    "measCapability": [
      "RECEIVED_POWER_WITHOUT_GRANT"
    ],
    "userId": "ZY7485"
  }
]
```

2020-06-15T03:37:14.815Z - INFO - Registration message contains cpiSignatureData
 2020-06-15T03:37:14.815Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}
 2020-06-15T03:37:14.815Z - INFO - encodedCpiSignedData contents = {
 "installationParam": {
 "eirpCapability": 36,
 "antennaAzimuth": 240,

```

    "heightType": "AGL",
    "antennaModel": "Patch Panel",
    "longitude": 121.008683,
    "antennaGain": 13,
    "indoorDeployment": false,
    "latitude": 24.773127,
    "horizontalAccuracy": 45.0,
    "antennaDowntilt": 3,
    "antennaBeamwidth": 57,
    "height": 12.0,
    "verticalAccuracy": 2.0
  },
  "fcclId": "I88LTE7485-S905",
  "professionalInstallerData": {
    "cpiName": "thisiscpiname",
    "installCertificationTime": "2018-12-12T05:05:05Z",
    "cpild": "123456789"
  },
  "cbsdSerialNumber": "S200Z13002209"
}
2020-06-15T03:37:14.878Z - INFO - verified signature on cpiSignatureData
2020-06-15T03:37:14.878Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-15T03:37:14.878Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-15T03:37:16.457Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2020-06-15T03:37:16.457Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ]
    }
  ],

```

```
        "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
        "response": {
            "responseCode": 0
        }
    ]
}
2020-06-15T03:37:18.016Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "operationParam": {
                "maxEirp": 26,
                "operationFrequencyRange": {
                    "highFrequency": 3700000000,
                    "lowFrequency": 3550000000
                }
            }
        }
    ]
}
2020-06-15T03:37:18.016Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "channelType": "GAA",
            "grantExpireTime": "2020-06-22T03:37:18Z",
            "grantId": "375026037",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2020-06-15T03:37:19.615Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "grantId": "375026037",
            "operationState": "GRANTED"
        }
    ]
}
2020-06-15T03:37:19.615Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "grantId": "375026037",
            "response": {
                "responseCode": 501
            },
            "transmitExpireTime": "2020-06-15T03:37:19Z"
        }
    ]
}
2020-06-15T03:38:09.132Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
```

```
{
  "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
  "grantId": "375026037",
  "operationState": "GRANTED"
}
]
```

2020-06-15T03:38:09.132Z - INFO - Time interval between two heartbeat request messages is: 49.517, limit is: 65.0

2020-06-15T03:38:09.132Z - INFO - engine sent successfully, the response to CBRS : {

```
  "heartbeatResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "375026037",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2020-06-15T03:38:09Z"
    }
  ]
}
```

2020-06-15T03:38:11.022Z - INFO - arrived to nstep starting question answer session with the technician

2020-06-15T03:38:11.022Z - INFO - the question is : Did the CBSD transmit at any time during the test?
please choose one of the answers :

2020-06-15T03:38:17.773Z - INFO - for the question : Did the CBSD transmit at any time during the test? , the user choose n

2020-06-15T03:38:18.101Z - INFO - The final result of the test : WINNF.FT.C.HBT.5 is - passed


```
"heightType": "AGL",
"antennaModel": "Patch Panel",
"longitude": 121.008683,
"antennaGain": 13,
"indoorDeployment": false,
"latitude": 24.773127,
"horizontalAccuracy": 45.0,
"antennaDowntilt": 3,
"antennaBeamwidth": 57,
"height": 12.0,
"verticalAccuracy": 2.0
},
"fcclId": "I88LTE7485-S905",
"professionalInstallerData": {
  "cpiName": "thisiscpiname",
  "installCertificationTime": "2018-12-12T05:05:05Z",
  "cpild": "123456789"
},
"cbssdSerialNumber": "S200Z13002209"
}
2020-06-15T03:41:41.707Z - INFO - verified signature on cpiSignatureData
2020-06-15T03:41:41.707Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-15T03:41:41.707Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbssdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-15T03:41:43.285Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbssdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2020-06-15T03:41:43.301Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ]
    }
  ],
}
```

```

        "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
        "response": {
            "responseCode": 0
        }
    ]
}
2020-06-15T03:41:44.805Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "operationParam": {
                "maxEirp": 26,
                "operationFrequencyRange": {
                    "highFrequency": 3700000000,
                    "lowFrequency": 3550000000
                }
            }
        }
    ]
}
2020-06-15T03:41:44.805Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "channelType": "GAA",
            "grantExpireTime": "2020-06-22T03:41:44Z",
            "grantId": "255014335",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2020-06-15T03:41:46.292Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "grantId": "255014335",
            "operationState": "GRANTED"
        }
    ]
}
2020-06-15T03:41:46.292Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "grantId": "255014335",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2020-06-15T03:45:06Z"
        }
    ]
}
2020-06-15T03:42:35.654Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [

```



```
{
  "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
  "grantId": "255014335",
  "operationState": "AUTHORIZED"
}
]
}
2020-06-15T03:42:35.654Z - INFO - Time interval between two heartbeat request messages is: 49.361, limit
is: 65.0
2020-06-15T03:42:35.654Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "255014335",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-15T03:45:55Z"
    }
  ]
}
}
2020-06-15T03:43:24.966Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "255014335",
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2020-06-15T03:43:24.966Z - INFO - Time interval between two heartbeat request messages is: 49.312, limit
is: 65.0
2020-06-15T03:43:24.966Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "255014335",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-15T03:46:44Z"
    }
  ]
}
}
}
2020-06-15T03:44:14.289Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "255014335",
      "operationState": "AUTHORIZED"
    }
  ]
}
}
}
2020-06-15T03:44:14.289Z - INFO - Time interval between two heartbeat request messages is: 49.324, limit
is: 65.0
2020-06-15T03:44:14.289Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
```

```
"cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
"grantId": "255014335",
"response": {
  "responseCode": 501
},
"transmitExpireTime": "2020-06-15T03:44:14Z"
}
]
}
2020-06-15T03:45:03.924Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "255014335",
      "operationState": "GRANTED"
    }
  ]
}
2020-06-15T03:45:03.924Z - INFO - Time interval between two heartbeat request messages is: 49.634, limit
is: 65.0
2020-06-15T03:45:03.938Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "255014335",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2020-06-15T03:45:03Z"
    }
  ]
}
}
2020-06-15T03:45:05.482Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-15T03:45:05.482Z - 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 :
2020-06-15T03:45:20.431Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 501? , the user choose y
2020-06-15T03:45:20.665Z - INFO - The final result of the test : WINNF.FT.C.HBT.6 is - passed
```



```

    "heightType": "AGL",
    "antennaModel": "Patch Panel",
    "longitude": 121.008683,
    "antennaGain": 13,
    "indoorDeployment": false,
    "latitude": 24.773127,
    "horizontalAccuracy": 45.0,
    "antennaDowntilt": 3,
    "antennaBeamwidth": 57,
    "height": 12.0,
    "verticalAccuracy": 2.0
  },
  "fcclId": "I88LTE7485-S905",
  "professionalInstallerData": {
    "cpiName": "thisiscpiname",
    "installCertificationTime": "2018-12-12T05:05:05Z",
    "cpild": "123456789"
  },
  "cbsdSerialNumber": "S200Z13002209"
}
2020-06-15T05:07:18.223Z - INFO - verified signature on cpiSignatureData
2020-06-15T05:07:18.223Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-15T05:07:18.223Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-15T05:07:19.769Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2020-06-15T05:07:19.769Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ]
    }
  ],
}

```

```
        "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
        "response": {
            "responseCode": 0
        }
    ]
}
2020-06-15T05:07:21.286Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "operationParam": {
                "maxEirp": 26,
                "operationFrequencyRange": {
                    "highFrequency": 3700000000,
                    "lowFrequency": 3550000000
                }
            }
        }
    ]
}
2020-06-15T05:07:21.286Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "channelType": "GAA",
            "grantExpireTime": "2020-06-22T05:07:21Z",
            "grantId": "813916361",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2020-06-15T05:07:22.762Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "grantId": "813916361",
            "operationState": "GRANTED"
        }
    ]
}
2020-06-15T05:07:22.778Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "grantId": "813916361",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2020-06-15T05:10:42Z"
        }
    ]
}
2020-06-15T05:08:12.002Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
```

```
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "813916361",
      "operationState": "AUTHORIZED"
    }
  ]
}
2020-06-15T05:08:12.002Z - INFO - Time interval between two heartbeat request messages is: 49.24, limit is:
65.0
2020-06-15T05:08:12.002Z - INFO - engine sent successfully, the response to CBRS  :{
  "heartbeatResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "813916361",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-15T05:11:32Z"
    }
  ]
}
2020-06-15T05:09:01.278Z - INFO - heartbeat request from CBRS  :{
  "heartbeatRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "813916361",
      "operationState": "AUTHORIZED"
    }
  ]
}
2020-06-15T05:09:01.278Z - INFO - Time interval between two heartbeat request messages is: 49.276, limit
is: 65.0
2020-06-15T05:09:01.293Z - INFO - engine sent successfully, the response to CBRS  :{
  "heartbeatResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "813916361",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-15T05:12:21Z"
    }
  ]
}
2020-06-15T05:09:50.595Z - INFO - heartbeat request from CBRS  :{
  "heartbeatRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "813916361",
      "operationState": "AUTHORIZED"
    }
  ]
}
2020-06-15T05:09:50.595Z - INFO - Time interval between two heartbeat request messages is: 49.318, limit
is: 65.0
2020-06-15T05:09:50.611Z - INFO - engine sent successfully, the response to CBRS  :{
  "heartbeatResponse": [
    {
```

```

    "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
    "grantId": "813916361",
    "response": {
      "responseCode": 502
    },
    "transmitExpireTime": "2020-06-15T05:09:50Z"
  }
]
}
2020-06-15T05:09:51.960Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "813916361"
    }
  ]
}
2020-06-15T05:09:51.974Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "813916361",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2020-06-15T05:09:53.994Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-15T05:09:53.994Z - 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 :
2020-06-15T05:10:03.855Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 502? , the user choose y
2020-06-15T05:10:04.121Z - INFO - The final result of the test : WINNF.FT.C.HBT.7 is - passed

```



```
"heightType": "AGL",
"antennaModel": "Patch Panel",
"longitude": 121.008683,
"antennaGain": 13,
"indoorDeployment": false,
"latitude": 24.773127,
"horizontalAccuracy": 45.0,
"antennaDowntilt": 3,
"antennaBeamwidth": 57,
"height": 12.0,
"verticalAccuracy": 2.0
},
"fcclId": "I88LTE7485-S905",
"professionalInstallerData": {
  "cpiName": "thisiscpiname",
  "installCertificationTime": "2018-12-12T05:05:05Z",
  "cpild": "123456789"
},
"cbssdSerialNumber": "S200Z13002209"
}
2020-06-15T05:21:09.614Z - INFO - verified signature on cpiSignatureData
2020-06-15T05:21:09.630Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-15T05:21:09.630Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbssdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-15T05:21:11.201Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbssdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2020-06-15T05:21:11.201Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ]
    }
  ],
}
```

```

        "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
        "response": {
            "responseCode": 0
        }
    ]
}
2020-06-15T05:21:12.752Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "operationParam": {
                "maxEirp": 26,
                "operationFrequencyRange": {
                    "highFrequency": 3700000000,
                    "lowFrequency": 3550000000
                }
            }
        }
    ]
}
2020-06-15T05:21:12.752Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "channelType": "GAA",
            "grantExpireTime": "2020-06-22T05:21:12Z",
            "grantId": "966934443",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2020-06-15T05:21:14.318Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "grantId": "966934443",
            "operationState": "GRANTED"
        }
    ]
}
2020-06-15T05:24:34.335Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "grantId": "966934443",
            "response": {
                "responseCode": 501
            },
            "transmitExpireTime": "2020-06-15T05:24:34Z"
        }
    ]
}
2020-06-15T05:24:35.582Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-15T05:24:35.582Z - INFO - the question is : Were there RF transmissions from the CBSD during the

```

test? please choose one of the answers :

2020-06-15T05:24:48.628Z - INFO - for the question : Were there RF transmissions from the CBSD during the test? , the user choose n

2020-06-15T05:24:48.849Z - INFO - The final result of the test : WINNF.FT.C.HBT.9 is - passed


```

    "heightType": "AGL",
    "antennaModel": "Patch Panel",
    "longitude": 121.008683,
    "antennaGain": 13,
    "indoorDeployment": false,
    "latitude": 24.773127,
    "horizontalAccuracy": 45.0,
    "antennaDowntilt": 3,
    "antennaBeamwidth": 57,
    "height": 12.0,
    "verticalAccuracy": 2.0
  },
  "fcclId": "I88LTE7485-S905",
  "professionalInstallerData": {
    "cpiName": "thisiscpiname",
    "installCertificationTime": "2018-12-12T05:05:05Z",
    "cpild": "123456789"
  },
  "cbsdSerialNumber": "S200Z13002209"
}
2020-06-15T05:46:11.036Z - INFO - verified signature on cpiSignatureData
2020-06-15T05:46:11.036Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-15T05:46:11.036Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-15T05:46:12.611Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2020-06-15T05:46:12.611Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ]
    }
  ],

```

```
        "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
        "response": {
            "responseCode": 0
        }
    ]
}
2020-06-15T05:46:14.163Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "operationParam": {
                "maxEirp": 26,
                "operationFrequencyRange": {
                    "highFrequency": 3700000000,
                    "lowFrequency": 3550000000
                }
            }
        }
    ]
}
2020-06-15T05:46:14.178Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "channelType": "GAA",
            "grantExpireTime": "2020-06-22T05:46:14Z",
            "grantId": "63784361",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2020-06-15T05:46:15.655Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "grantId": "63784361",
            "operationState": "GRANTED"
        }
    ]
}
2020-06-15T05:46:15.655Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "grantId": "63784361",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2020-06-15T05:49:35Z"
        }
    ]
}
2020-06-15T05:47:04.960Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
```

```

    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "63784361",
      "operationState": "AUTHORIZED"
    }
  ]
}
2020-06-15T05:47:04.960Z - INFO - Time interval between two heartbeat request messages is: 49.305, limit
is: 65.0
2020-06-15T05:47:04.976Z - INFO - engine sent successfully, the response to CBRS  :{
  "heartbeatResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "63784361",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-15T05:50:24Z"
    }
  ]
}
2020-06-15T05:47:54.250Z - INFO - heartbeat request from CBRS  :{
  "heartbeatRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "63784361",
      "operationState": "AUTHORIZED"
    }
  ]
}
2020-06-15T05:47:54.250Z - INFO - Time interval between two heartbeat request messages is: 49.289, limit
is: 65.0
2020-06-15T05:47:54.250Z - INFO - LAST HBT RESPONSE THAT SET TRANSMIT_EXPIRE_TIME WAS AT:
2020-06-15 05:47:04.961000
2020-06-15T05:51:14.265Z - INFO - engine sent successfully, the response to CBRS  :{
  "heartbeatResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "63784361",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2020-06-15T05:51:14Z"
    }
  ]
}
2020-06-15T05:51:15.924Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-15T05:51:15.924Z - INFO - the question is : Did the CBSD stop RF transmissions within
(transmitExpireTime + 60seconds) of last valid heartbeat response? please choose one of the answers :
2020-06-15T05:51:44.947Z - INFO - for the question : Did the CBSD stop RF transmissions within
(transmitExpireTime + 60seconds) of last valid heartbeat response? , the user choose y
2020-06-15T05:51:45.137Z - INFO - The final result of the test : WINNF.FT.C.HBT.10 is - passed

```



```
"eirpCapability": 36,
"antennaAzimuth": 240,
"heightType": "AGL",
"antennaModel": "Patch Panel",
"longitude": 121.008683,
"antennaGain": 13,
"indoorDeployment": false,
"latitude": 24.773127,
"horizontalAccuracy": 45.0,
"antennaDowntilt": 3,
"antennaBeamwidth": 57,
"height": 12.0,
"verticalAccuracy": 2.0
},
"fcclId": "I88LTE7485-S905",
"professionalInstallerData": {
  "cpiName": "thisiscpiname",
  "installCertificationTime": "2018-12-12T05:05:05Z",
  "cpid": "123456789"
},
"cbid": "S200Z13002209"
}
2020-06-15T05:54:14.641Z - INFO - verified signature on cpiSignatureData
2020-06-15T05:54:14.641Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-15T05:54:14.641Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbid": "I88LTE7485-S905Mock-SASS200Z13002209",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-15T05:54:16.204Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbid": "I88LTE7485-S905Mock-SASS200Z13002209",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2020-06-15T05:54:16.204Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ]
    }
  ]
}
```

```
    }
  ],
  "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
  "response": {
    "responseCode": 0
  }
}
]
}
2020-06-15T05:54:17.673Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "operationParam": {
        "maxEirp": 26,
        "operationFrequencyRange": {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      }
    }
  ]
}
2020-06-15T05:54:17.688Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "channelType": "GAA",
      "grantExpireTime": "2020-06-22T05:54:17Z",
      "grantId": "830687973",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-15T05:54:19.204Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "830687973",
      "operationState": "GRANTED"
    }
  ]
}
2020-06-15T05:54:19.204Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "830687973",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-15T05:57:39Z"
    }
  ]
}
```

```
2020-06-15T05:55:08.515Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "830687973",
      "operationState": "AUTHORIZED"
    }
  ]
}
2020-06-15T05:55:08.515Z - INFO - Time interval between two heartbeat request messages is: 49.31, limit is:
65.0
2020-06-15T05:55:08.530Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "830687973",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-15T05:58:28Z"
    }
  ]
}
2020-06-15T05:55:13.874Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "830687973"
    }
  ]
}
2020-06-15T05:55:13.890Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "830687973",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-15T05:55:14.999Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-15T05:55:14.999Z - INFO - the question is : Did CBSD1 cease RF transmission before receipt of
Relinquishment Request by Test Harness? please choose one of the answers :
2020-06-15T05:55:31.140Z - INFO - for the question : Did CBSD1 cease RF transmission before receipt of
Relinquishment Request by Test Harness? , the user choose y
2020-06-15T05:55:31.358Z - INFO - The final result of the test : WINNF.FT.C.RLQ.1 is - passed
```

5. CBSD DEREGISTRATION PROCESS

5.1 WINNF.FT.C.DRG.1

2020-06-15T05:58:18.736Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2020-06-15T05:58:18.736Z - INFO - the selected test from the user : WINNF.FT.C.DRG.1 is starting now

2020-06-15T05:58:28.611Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA"
    },
    "callSign": "",
    "cbsdCategory": "B",
    "cbsdInfo": {
      "firmwareVersion": "",
      "hardwareVersion": "LTE7485-S905",
      "model": "LTE7485-S905",
      "softwareVersion": "1.00(ABVN.0)C0",
      "vendor": "ZYNEL"
    },
    "cbsdSerialNumber": "S200Z13002209",
    "cpiSignatureData": {
      "digitalSignature":
```

```
"PyMG4wYT-GW4HKAYWVAIDFQ71vvhTxL2gZiVka6B05GH_R1GpG9q0qM7MQPDb1grwNW3H65qD0yhH
XrXd3v--EXrtX_GEi-k25MDjVHuX_tiGYqTrIDP4qhm91otymg8e7dqP9JvbBYArIrPRb54XRn06pJmI2b3hXPQ
MTeh7-94UXHM6yaHPCTccOL5yM79QPPBcdzmYrluwrLw6aLFbcRkxfQ03MPundEZmpFskkiHgf7TDMRBG
t0CjktUtA4hUf5EkXtrVg2fkuvLFixyQiy8eujznOO_AwzGvPTn8dTyLhXuxddb0Kcx197IHRci235Z_M5iFfEtOIM
ch3LUGKPEp8VcisG3FAJNW5AAHldH2zBZmFJLhGTHsvgnTjurbpjUp2qPjWnDmvruXp1pH1XPEcyaUpkT
MK1gJT6MnWrOQt4Fj8RjzeAoGiFdRmlHXGcfjUIVSYCES4NTt6zqbDM2oK3qIgb1tIR83q7e7TuZWQajhcO
2dIZeTPzd93ll0iBurXI5hyupL7iwBOw4kax-2kHyeXs8VgUy54V1-ex2OaumGvVHRwGsk3W2w-CCVSLfc5F
D5Kj_curtuTllhivNhsNSnYK4q09ainC6s1rMRYUdeExL3Yo-XXeESrAxS_LTiS_tdx3mB2sb2UGRvyrn5hm9Tm
5RKic7HOQMku",
```

```
"encodedCpiSignedData":
```

```
"eyJjYnNkU2VyaWFsTnVtYmVyljoiUzlwMFoxMzAwMjIwOSlsmZjY0kljoiSTg4TFRFNzQ4NS1TOTA1liiWwW
5zdGFsbGF0aW9uUGFyYW0iOansiYW50ZW5uYUUF6aW11dGgiOjI0MCwiYW50ZW5uYUJlYyW13aWR0aCI6
NTcslmFudGVubmFEb3dudGlsdCI6MywiYW50ZW5uYUdhaW4iOjEzLCJhbnRlbn5hTW9kZWwiOiJQYXRja
CBQYW5lbCIslmVpcnBDYXhBhYmlsaXR5IjozNiwiYW50ZW5uYUdhaW4iOjEzLCJhbnRlbn5hTW9kZWwiOiJQ
yaXpvbnRhbEFjY3VyYWN5Ijo0NS4wLCJpbmRvb3JEZXBsb3ltZW50IjpmYWxzZSwibGF0aXR1ZGUiOjI0Ljc
3MzEyNywiG9uZ2l0dWRlljoiMjE0MDA4NjgzLCJ2ZXJ0aWVhbnRlbn5hTW9kZWwiOiJQYXRjaCBQYW5lbCI
W9uYUwXJbnN0YWxsZXJEYXRhIjlp7lMnwaUlkljoiMTIzNDU2Nzg5liiwiY3BpTmFtZSI6InRoaxNpc2NwaW5hb
WUilLCJpbmN0YWxsQ2VydGlmawNhdGlvbIRpbWUiOiIilyMDE4LTEyLTYyVDA1OjA1OjA1WiJ9fQ",
```

```
"protectedHeader": "eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9"
```

```
},
"fcid": "I88LTE7485-S905",
"groupingParam": [],
"measCapability": [
  "RECEIVED_POWER_WITHOUT_GRANT"
],
"userId": "ZY7485"
}
]
```

```
}
```

2020-06-15T05:58:28.641Z - INFO - Registration message contains cpiSignatureData

2020-06-15T05:58:28.641Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2020-06-15T05:58:28.641Z - INFO - encodedCpiSignedData contents = {

```
"installationParam": {
```

```
"eirpCapability": 36,
"antennaAzimuth": 240,
"heightType": "AGL",
"antennaModel": "Patch Panel",
"longitude": 121.008683,
"antennaGain": 13,
"indoorDeployment": false,
"latitude": 24.773127,
"horizontalAccuracy": 45.0,
"antennaDowntilt": 3,
"antennaBeamwidth": 57,
"height": 12.0,
"verticalAccuracy": 2.0
},
"fcclId": "I88LTE7485-S905",
"professionalInstallerData": {
  "cpiName": "thisiscpiname",
  "installCertificationTime": "2018-12-12T05:05:05Z",
  "cpilId": "123456789"
},
"cbSdSerialNumber": "S200Z13002209"
}
2020-06-15T05:58:28.703Z - INFO - verified signature on cpiSignatureData
2020-06-15T05:58:28.720Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-15T05:58:28.720Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbSdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-15T05:58:30.282Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbSdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2020-06-15T05:58:30.282Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3700000000,
            "lowFrequency": 3550000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ]
    }
  ]
}
```

```
    }
  ],
  "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
  "response": {
    "responseCode": 0
  }
}
]
}
2020-06-15T05:58:31.798Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "operationParam": {
        "maxEirp": 26,
        "operationFrequencyRange": {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      }
    }
  ]
}
2020-06-15T05:58:31.813Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "channelType": "GAA",
      "grantExpireTime": "2020-06-22T05:58:31Z",
      "grantId": "882019140",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-15T05:58:33.312Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "882019140",
      "operationState": "GRANTED"
    }
  ]
}
2020-06-15T05:58:33.312Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "882019140",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-15T06:01:53Z"
    }
  ]
}
```

```
2020-06-15T05:59:22.640Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "882019140",
      "operationState": "AUTHORIZED"
    }
  ]
}
2020-06-15T05:59:22.640Z - INFO - Time interval between two heartbeat request messages is: 49.327, limit
is: 65.0
2020-06-15T05:59:22.640Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "882019140",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-15T06:02:42Z"
    }
  ]
}
2020-06-15T05:59:27.124Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "882019140"
    }
  ]
}
2020-06-15T05:59:27.124Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "882019140",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-15T05:59:28.592Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209"
    }
  ]
}
2020-06-15T05:59:28.608Z - INFO - engine sent successfully, the response to CBRS : {
  "deregistrationResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
```

}

2020-06-15T05:59:29.842Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-15T05:59:29.842Z - 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 :

2020-06-15T05:59:37.249Z - 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

2020-06-15T05:59:37.592Z - INFO - The final result of the test : WINNF.FT.C.DRG.1 is - passed


```
"eirpCapability": 36,
"antennaAzimuth": 240,
"heightType": "AGL",
"antennaModel": "Patch Panel",
"longitude": 121.008683,
"antennaGain": 13,
"indoorDeployment": false,
"latitude": 24.773127,
"horizontalAccuracy": 45.0,
"antennaDowntilt": 3,
"antennaBeamwidth": 57,
"height": 12.0,
"verticalAccuracy": 2.0
},
"fcclId": "I88LTE7485-S905",
"professionalInstallerData": {
  "cpiName": "thisiscpiName",
  "installCertificationTime": "2018-12-12T05:05:05Z",
  "cpilId": "123456789"
},
"cbSDSerialNumber": "S200Z13002209"
}
2020-06-11T05:51:01.473Z - INFO - verified signature on cpiSignatureData
2020-06-11T05:51:01.473Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-11T05:51:01.473Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbSDId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-11T05:51:02.520Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-11T05:51:02.520Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2020-06-11T05:51:22.267Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2020-06-11T05:51:22.533Z - INFO - The final result of the test : WINNF.FT.C.SCS.1 is - passed
```

6.2 WINNF.FT.C.SCS.2

2020-06-11T06:34:08.345Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13
2020-06-11T06:34:08.345Z - INFO - the selected test from the user : WINNF.FT.C.SCS.2 is starting now

6.3 WINNF.FT.C.SCS.3

2020-06-11T06:37:10.709Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13
2020-06-11T06:37:10.709Z - INFO - the selected test from the user : WINNF.FT.C.SCS.3 is starting now

6.4 WINNF.FT.C.SCS.4

2020-06-11T06:48:50.799Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13
2020-06-11T06:48:50.799Z - INFO - the selected test from the user : WINNF.FT.C.SCS.4 is starting now

6.5 WINNF.FT.C.SCS.5

2020-06-11T06:53:07.634Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13
2020-06-11T06:53:07.634Z - INFO - the selected test from the user : WINNF.FT.C.SCS.5 is starting now

7. CBSD RF POWER MEASUREMENT

7.1 WINNF.PT.C.HBT.1(Max Eirp = 14 dBm/MHz)

2020-06-09T07:05:44.982Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2020-06-09T07:05:44.982Z - INFO - Selected spectrum frequency is {'lowFrequency': 3615000000L, 'highFrequency': 3635000000L}

2020-06-09T07:05:44.982Z - INFO - Granted Spectrum Max Eirp = 14dBm/MHz

2020-06-09T07:05:44.982Z - INFO - the selected test from the user : PowerMeasTest is starting now

2020-06-09T07:05:51.684Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA"
    },
    "callSign": "",
    "cbsdCategory": "B",
    "cbsdInfo": {
      "firmwareVersion": "",
      "hardwareVersion": "LTE7485-S905",
      "model": "LTE7485-S905",
      "softwareVersion": "1.00(ABVN.0)C0",
      "vendor": "ZYNEL"
    },
    "cbsdSerialNumber": "S200Z13002209",
    "cpiSignatureData": {
      "digitalSignature":
```

```
"PyMG4wYT-GW4HKAYWVAIDFQ71vvhTxL2gZiVka6B05GH_R1GpG9q0qM7MQPDb1grwNW3H65qD0yhH
XrXd3v--EXrtX_GEi-k25MDjVHuX_tigYqTrIDP4qhm91otymg8e7dqP9JvbBYArIrPRb54XRn06pJml2b3hXPQ
MTeh7-94UXHM6yaHPCTccOL5yM79QPPBcdzmYrluwrLw6aLFbcRkxfQ03MPundEZmpFskkiHgf7TDMRBG
t0CjktUtA4hUf5EkXtrVg2fkuvLFixyQiy8eujznOO_AwzGvPTn8dTyhXuxddb0Kcx197IHRci235Z_M5iFfEtOIM
ch3LUGKPEp8VcisG3FAJNW5AAHldH2zBZmFJLhGTHsvgnTjurbpjUp2qPjWnDmvruXP1pH1XPEcyaUpkT
MK1gJT6MnWrOQt4Fj8RjzeAoGiFdRmlHXGcfjUIVSYCES4NTt6zqbDM2oK3qIgb1tIR83q7e7TuZWQajhcO
2dIZeTPzd93l0iBurXl5hyupL7iwBOw4kax-2kHyeXs8VgUy54V1-ex2OaumGvVHRwGsk3W2w-CCVSLfc5F
D5Kj_curtuTilHivNhsNsYK4q09ainC6s1rMRYUdeExL3Yo-XXeESrAxS_LTiS_tdx3mB2sb2UGRvyrn5hm9Tm
5RKic7HOQMKU",
```

```
"encodedCpiSignedData":
```

```
"eyJjYnNkU2VyaWFsTnVtYmVyljoiUzlwMFoxMzAwMjIwOSlsmZjY0kljoiSTg4TFRFNzQ4NS1TOTA1liwiaW
5zdGFsbGF0aW9uUGFyYW0iOansiYW50ZW5uYUf6aW11dGgiOjI0MCwiYW50ZW5uYUJlYiY13aWR0aCI6
NTcslmFudGVubmFEb3dudGlsdCI6MywiYW50ZW5uYUdhaW4iOjEzLCJhbnRlbn5hTW9kZWwiOiJQYXRja
CBQYW5lbCIslmVpcnBDYXhBhYmlsaXR5Ij0zNiwiawVpZ2h0Ij0xMi4wLCJoZWlnaHRUeXBlljoiQUdMliwiaG9
yaXpvbnRhbEFjY3VyYWN5Ijo0NS4wLCJpbmRvb3JEZXBSb3ltZW50IjpmYWxzZSwibGF0aXR1ZGU0Ij0Ljc
3MzEyNywiG9uZ2l0dWRllj0xMjE0MDA4NjgzLCJ2ZXJ0aWVhbnRhbEFjY3VyYWN5IjoyLjB9LCJwcm9mZXRzZm
W9uYWwJbnN0YWxsZXJEYXRhIj0zNiwiawVpZ2h0Ij0xMi4wLCJoZWlnaHRUeXBlljoiQUdMliwiaG9uZ2l0dWRllj0x
WUilLCJpbmN0YWxsQ2VydGlnaWNhdGlvbIRpbWU0iOilyMDE4LTEyVDA1OjA1OjA1WiJ9fQ",
```

```
"protectedHeader": "eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9"
```

```
},
"fcid": "I88LTE7485-S905",
"groupingParam": [],
"measCapability": [
  "RECEIVED_POWER_WITHOUT_GRANT"
],
"userld": "ZY7485"
}
]
```

```
}
```

```
}
```

2020-06-09T07:05:51.716Z - INFO - engine sent successfully, the response to CBRS : {

```

    "registrationResponse": [
      {
        "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
        "response": {
          "responseCode": 0
        }
      }
    ]
  }
}
2020-06-09T07:05:53.138Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "inquiredSpectrum": [
        {
          "highFrequency": 3700000000,
          "lowFrequency": 3550000000
        }
      ]
    }
  ]
}
2020-06-09T07:05:53.138Z - INFO - The requested spectrum is out of the range, availableChannel is sent out
2020-06-09T07:05:53.138Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "maxEirp": 14,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-09T07:05:54.621Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "operationParam": {
        "maxEirp": 14,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
}

```

```
2020-06-09T07:05:54.621Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "channelType": "GAA",
      "grantExpireTime": "2020-06-16T07:05:54Z",
      "grantId": "89580725",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-09T07:05:56.091Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "89580725",
      "operationState": "GRANTED"
    }
  ]
}
2020-06-09T07:05:56.091Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "89580725",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-09T07:09:16Z"
    }
  ]
}
```



```
        "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
        "response": {
            "responseCode": 0
        }
    ]
}
2020-06-09T07:03:55.059Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3700000000,
                    "lowFrequency": 3550000000
                }
            ]
        }
    ]
}
2020-06-09T07:03:55.059Z - INFO - The requested spectrum is out of the range, availableChannel is sent out
2020-06-09T07:03:55.059Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {
                    "channelType": "GAA",
                    "frequencyRange": {
                        "highFrequency": 3635000000,
                        "lowFrequency": 3615000000
                    },
                    "maxEirp": 20,
                    "ruleApplied": "FCC_PART_96"
                }
            ],
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2020-06-09T07:03:56.575Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "operationParam": {
                "maxEirp": 20,
                "operationFrequencyRange": {
                    "highFrequency": 3635000000,
                    "lowFrequency": 3615000000
                }
            }
        }
    ]
}
2020-06-09T07:03:56.575Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
```



```
{
  {
    "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
    "channelType": "GAA",
    "grantExpireTime": "2020-06-16T07:03:56Z",
    "grantId": "888463224",
    "heartbeatInterval": 60,
    "response": {
      "responseCode": 0
    }
  }
}
]
}
2020-06-09T07:03:58.043Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "888463224",
      "operationState": "GRANTED"
    }
  ]
}
}
2020-06-09T07:03:58.059Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "888463224",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-09T07:07:18Z"
    }
  ]
}
}
2020-06-09T07:05:02.651Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "888463224",
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2020-06-09T07:05:02.651Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "888463224",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-09T07:08:22Z"
    }
  ]
}
}
```



```
        "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
        "response": {
            "responseCode": 0
        }
    ]
}
2020-06-09T06:56:55.015Z - INFO - spectrumInquiry request from CBRS : {
    "spectrumInquiryRequest": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "inquiredSpectrum": [
                {
                    "highFrequency": 3700000000,
                    "lowFrequency": 3550000000
                }
            ]
        }
    ]
}
2020-06-09T06:56:55.029Z - INFO - The requested spectrum is out of the range, availableChannel is sent out
2020-06-09T06:56:55.029Z - INFO - engine sent successfully, the response to CBRS : {
    "spectrumInquiryResponse": [
        {
            "availableChannel": [
                {
                    "channelType": "GAA",
                    "frequencyRange": {
                        "highFrequency": 3635000000,
                        "lowFrequency": 3615000000
                    },
                    "maxEirp": 26,
                    "ruleApplied": "FCC_PART_96"
                }
            ],
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2020-06-09T06:56:56.466Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
            "operationParam": {
                "maxEirp": 26,
                "operationFrequencyRange": {
                    "highFrequency": 3635000000,
                    "lowFrequency": 3615000000
                }
            }
        }
    ]
}
2020-06-09T06:56:56.466Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
```

```
{
  {
    "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
    "channelType": "GAA",
    "grantExpireTime": "2020-06-16T06:56:56Z",
    "grantId": "160477882",
    "heartbeatInterval": 60,
    "response": {
      "responseCode": 0
    }
  }
}
]
}
2020-06-09T06:56:57.971Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "160477882",
      "operationState": "GRANTED"
    }
  ]
}
}
2020-06-09T06:56:57.986Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "160477882",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-09T07:00:17Z"
    }
  ]
}
}
2020-06-09T07:00:24.056Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "160477882",
      "operationState": "AUTHORIZED"
    }
  ]
}
}
2020-06-09T07:00:24.056Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "I88LTE7485-S905Mock-SASS200Z13002209",
      "grantId": "160477882",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-09T07:03:44Z"
    }
  ]
}
}
```