

Test Logs

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Series Model: EG7035L-M2

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1 CBSD Registration Process

1.1 WINNF.FT.C.REG.5

2020-06-06T04:14:34.177Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2020-06-06T04:14:34.177Z - INFO - the selected test from the user : WINNF.FT.C.REG.5 is starting now

2020-06-06T04:14:47.779Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
```

```
{
```

```
  "airInterface": {
```

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

```
  },
```

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

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

```
  "cbsdSerialNumber": "1203000079202VP0033",
```

```
  "cpiSignatureData": {
```

```
    "digitalSignature":
```

```
"pII9WcX2JXG_j3XqCQf-p_rSRc_zXStALi65iLnh9FEq187EDDQpPkWu347tZ4yfkYza9CpWFiA9ck7QW93O  
3eRU_-04BmYd7uerQXIMYBBLxnOvEJLE1tJXISjO9ExWrTRvU69ek-Fhp0pbAhboy_XZyffUixNNi-gSbUvU-  
gGkQHU7keNDqzpLSXrJ_rQyg8zO2tTyZSox83i8e1qP2zvN6J77cyx0DNxCh89UipmDGGdt_Owj2MKjDCSI  
NR6oWcfom6vCArWM2k6K4VV0TcwdvMj4QB5HldBh_PAzpOoAMxHhXS3fFFCiMOKil_0GN2NW3OezkG  
n2XAhIQiCiy-jYnC7rndSYdg8h2KiaToVvqj_fKweEnBbbM-AnYkBO9dR20NAtoDdQRTwZ0huDJ8YxIH8_WK  
VaC7Xh23RXiaJt0gwi46yKXSSrZNFkeMuNX1wCugxpnzMNn5_UApmwh_ANttvJtUX8cupw4KGxRS9qS_nf  
pFb0mWjw-mSnoiu11A_HeiH380rxDGefYk2DbItGSByZ1nhMioXm1FC1K0ieV1h4PL2xqauDTOKRsd9Lte1S  
t279INDT3j-4MN0W44JRdKCYFPmkuheMJK0p_VWVOKpCGG5eYuxVGMCljTZHCJaGk9jZqkWIHzAUmEt2  
B0OWAMgh_8vmUO1fc1QOw",
```

```
    "encodedCpiSignedData":
```

```
"eyJjYnNkU2VyaWFsTnVtYmVyljoiMTlwMzAwMDA3OTlwMIZQMDAzMyIsImZjY0lkIjoiMkFHMzJFRzcwMTB  
BliwiaW5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUJF6aW11dGgiOjAsImFudGVubmFCZWZtd2lkdGgi  
OjkwLjJhbnRlbn5hRG93bnRpbHQiOjAsImFudGVubmFHYWluljoxNCwiYW50ZW5uYU1vZGVsljoiRXh0ZX  
JuYWwiLCJoZWlnaHQiOjU1LjAsImhlaWdodFR5cGUiOiJBR0wiLCJob3Jpem9udGFsQWNjdXJhY3kiOjMsIm  
luZG9vckRlcGxveW1lbnQiOnRydWUsImxhdGI0dWRlljo0Ny41Mjc2MDUsImxvbmddpdHVkZSI6LTk3LjYyNzA  
5NiwidmVydGlyYWxBY2N1cmFjeSI6M30slNByb2Zlc3Npb25hbEluc3RhbGxlckRhdGEiOnsiY3BpSWQiOiIiLC  
JjcGlOYW1lIjoiIiwiaW5zdGFsbENlcnRpZmljYXRpb25UaW1lIjoiMjAyMC0wNC0yM1QwMDowMDowMFoifX0  
",
```

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

```
  },
```

```
  "fcid": "2AG32EG7010A",
```

```
  "groupingParam": [
```

```
    {
```

```
      "groupId": "Baicells_01",
```

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

```
    }
```

```
  ],
```

```
  "measCapability": [
```

```
    "RECEIVED_POWER_WITHOUT_GRANT"
```

```
  ],
```

```
  "userId": "Baicells_01"
```

```
  }
```

```
]
```

```
}
```

2020-06-06T04:14:47.816Z - INFO - Registration message contains cpiSignatureData

2020-06-06T04:14:47.816Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2020-06-06T04:14:47.816Z - INFO - encodedCpiSignedData contents = {

```
"installationParam": {
  "antennaAzimuth": 0,
  "heightType": "AGL",
  "antennaModel": "External",
  "longitude": -97.627096,
  "height": 55.0,
  "indoorDeployment": true,
  "latitude": 47.527605,
  "horizontalAccuracy": 3,
  "antennaDowntilt": 0,
  "antennaBeamwidth": 90,
  "antennaGain": 14,
  "verticalAccuracy": 3
},
"fcclId": "2AG32EG7010A",
"professionalInstallerData": {
  "cpiName": "",
  "installCertificationTime": "2020-04-23T00:00:00Z",
  "cpild": ""
},
"cbbsdSerialNumber": "1203000079202VP0033"
```

}

2020-06-06T04:14:48.134Z - INFO - verified signature on cpiSignatureData

2020-06-06T04:14:48.134Z - INFO - cpiSignatureData data successfully validated against jsonschema

2020-06-06T04:14:48.148Z - INFO - engine sent successfully, the response to CBRS : {

```
"registrationResponse": [
  {
    "cbssid": "2AG32EG7010AMock-SAS1203000079202VP0033",
    "response": {
      "responseCode": 0
    }
  }
]
```

}

2020-06-06T04:14:49.283Z - INFO - arrived to nstep starting question answer session with the technician

2020-06-06T04:14:49.283Z - INFO - the question is : Were there RF transmissions from the CBSD1 during the test? please choose one of the answers :

2020-06-06T04:14:54.640Z - INFO - for the question : Were there RF transmissions from the CBSD1 during the test? , the user choose n

2020-06-06T04:14:55.042Z - INFO - The final result of the test : WINNF.FT.C.REG.5 is - passed

1.2 WINNF.FT.C.REG.8

2020-06-06T04:16:45.782Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2020-06-06T04:16:45.782Z - INFO - the selected test from the user : WINNF.FT.C.REG.8 is starting now

2020-06-06T04:16:58.456Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
```

```
{
```

```
  "airInterface": {
```

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

```
  },
```

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

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

```
  "cbsdSerialNumber": "1203000079202VP0033",
```

```
  "cpiSignatureData": {
```

```
    "digitalSignature":
```

```
"pII9WcX2JXG_j3XqCQf-p_rSrc_zXStALi65iLnh9FEq187EDDQpPkWu347tZ4yfkYza9CpWFiA9ck7QW93O  
3eRU_-04BmYd7uerQXIMYBBLxnOvEJLE1tJXISjO9ExWrTRvU69ek-Fhp0pbAhboy_XZyffUixNNi-gSbUvU-  
gGkQHU7keNDqzpLSXrJ_rQyg8zO2tTyZSox83i8e1qP2zvN6J77cyx0DNxCh89UipmDGGdt_Owj2MKjDCSI  
NR6oWcfom6vCarWM2k6K4VV0TcwdvgMj4QB5HldBh_PAzpOoAMxHhXS3fFFCiMOKil_0GN2NW3OezkG  
n2XAhlQiCiy-jYnC7rndSYdg8h2KiaToVvqj_fKweEnBbbM-AnYkBO9dR20NAtoDdQRTwZ0huDJ8YxIH8_WK  
VaC7Xh23RXiaJt0gwi46yKXSsRZNfkeMuNX1wCugxpnzMNn5_UApmwh_ANttvJtUX8cupw4KGxRS9qS_nf  
pFb0mWjw-mSnoiU11A_HeiH380rxDGefYk2DbtGSByZ1nhMioXm1FC1K0ieV1h4PL2xqauDTOKRsd9Lte1S  
t279INDT3j-4MN0W44JRdKCYFPmkuheMjk0p_VWVOKpCGG5eYuxVGMCljTZHCJaGk9jZqkWIHzAUmEt2  
B0OWAMgh_8vmUO1fc1QOw",
```

```
    "encodedCpiSignedData":
```

```
"eyJjYnNkU2VyaWFsTnVtYmVyljoiMTIwMzAwMDA3OTIwMIZQMDAzMyIsImZjY0kiIjoiMkFHMzJFRzcvMTB  
BliwiaW5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUUF6aW11dGgiOjAsImFudGVubmFCZWFTd2lkdGgi  
OjkwLCJhbnRlbn5hRG93bnRpbHQiOjAsImFudGVubmFHYWluljoxNCwiYW50ZW5uYU1vZGVsljoiRXh0ZX  
JuYWwiLCJoZWlnaHQiOjU1LjAsImhlaWdodFR5cGUiOiJBR0wiLCJob3Jpem9udGFsQWNjdXJhY3kiOjMsIm  
luZG9vckRlcGxveW1lbnQiOnRydWUsImxhdGI0dWRlljo0Ny41Mjc2MDUsImxvbmddpdHVkZSI6LTk3LjYyNzA  
5NiwidmVydGljYWx2N1cmFjeSI6M30sInByb2Zlc3Npb25hbEluc3RhbGxlckRhdGEiOnsiY3BpSWQiOiIlLC  
JjcGlOYW1lIjoilwiawW5zdGFsbENlcnRpZmljYXRpb25UaW1lIjoiMjAyMC0wNC0yM1QwMDowMDowMFoifX0  
"
```

```
  "protectedHeader": "eyJhbnRlcjoiJSUz1NilsInR5cCI6IkpXVCJ9"
```

```
},
```

```
  "fccId": "2AG32EG7010A",
```

```
  "groupingParam": [
```

```
    {
```

```
      "groupId": "Baicells_01",
```

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

```
    }
```

```
  ],
```

```
  "measCapability": [],
```

```
  "userId": "Baicells_01"
```

```
  }
```

```
]
```

```
}
```

2020-06-06T04:16:58.486Z - INFO - Registration message contains cpiSignatureData

2020-06-06T04:16:58.486Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2020-06-06T04:16:58.486Z - INFO - encodedCpiSignedData contents = {

```
  "installationParam": {
```

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

```
    "heightType": "AGL",
```

```
    "antennaModel": "External",
```

```
    "longitude": -97.627096,
```

```
    "height": 55.0,
```

```
"indoorDeployment": true,
"latitude": 47.527605,
"horizontalAccuracy": 3,
"antennaDowntilt": 0,
"antennaBeamwidth": 90,
"antennaGain": 14,
"verticalAccuracy": 3
},
"fcclId": "2AG32EG7010A",
"professionalInstallerData": {
  "cpiName": "",
  "installCertificationTime": "2020-04-23T00:00:00Z",
  "cpild": ""
},
"cbbsdSerialNumber": "1203000079202VP0033"
}
2020-06-06T04:16:58.549Z - INFO - verified signature on cpiSignatureData
2020-06-06T04:16:58.549Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-06T04:16:58.549Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 102
      }
    }
  ]
}
}
2020-06-06T04:16:59.956Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-06T04:16:59.956Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2020-06-06T04:17:36.927Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2020-06-06T04:17:37.130Z - INFO - The final result of the test : WINNF.FT.C.REG.8 is - passed
```

1.3 WINNF.FT.C.REG.10

2020-06-06T04:19:14.901Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2020-06-06T04:19:14.901Z - INFO - the selected test from the user : WINNF.FT.C.REG.10 is starting now

2020-06-06T04:19:32.137Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "E_UTRA"

},

"callSign": "baicells",

"cbsdCategory": "B",

"cbsdSerialNumber": "1203000079202VP0033",

"cpiSignatureData": {

"digitalSignature":

"pII9WcX2JXG_j3XqCQf-p_rSRc_zXStALi65iLnh9FEq187EDDQpPkWu347tZ4yfkYza9CpWFiA9ck7QW93O
 3eRU_-04BmYd7uerQXIMYBBLxnOvEJLE1tJXISjO9ExWvTRvU69ek-Fhp0pbAhboy_XZyffUixNNi-gSbUvU-
 gGkQHU7keNDqzpLSXrJ_rQyg8zO2tTyZSox83i8e1qP2zvN6J77cyx0DNxCh89UipmDGGdt_Owj2MKjDCSI
 NR6oWcfom6vCarWM2k6K4VV0TcwdvgMj4QB5HldBh_PAzpOoAMxHhXS3fFFCiMOKil_0GN2NW3OezkG
 n2XAhIQiCiy-jYnC7rndSYdg8h2KiaToVvqj_fKweEnBbbM-AnYkBO9dR20NAtoDdQRtwZ0huDJ8YxIH8_WK
 VaC7Xh23RXiaJt0gwi46yKXSsRZNfkeMuNX1wCugxpnzMNn5_UApmwh_ANttvJtUX8cupw4KGxRS9qS_nf
 pFb0mWjw-mSnoiu11A_HeiH380rxDGefYk2DbtGSByZ1nhMioXm1FC1K0ieV1h4PL2xqauDTOKRsd9Lte1S
 t279INDT3j-4MN0W44JRdKCYFPmkuheMjk0p_VWVOKpCGG5eYuxVGMCljTZHCJaGk9jZqkWIHzAUmEt2
 B0OWAMgh_8vmUO1fc1QOw",

"encodedCpiSignedData":

"eyJjYnNkU2VyaWFsTnVtYmVyljoiMTIwMzAwMDA3OTIwMIZQMDAzMyIsImZjY0IkljoiMkFHMzJFRzcvMTB
 BliwiaW5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUUF6aW11dGgiOjAsImFudGVubmFCZWFTd2lkdGgi
 OjkwLjJhbnRlbn5hRG93bnRpbHQiOjAsImFudGVubmFHYWluljoxNCwiYW50ZW5uYU1vZGVsljoiRXh0ZX
 JuYWwiLCJoZWlnaHQiOjU1LjAsImhlaWdodFR5cGUiOiJBR0wiLCJob3Jpem9udGFsQWNjdXJhY3kiOjMslm
 luZG9vckRlcGxveW1lbnQiOnRydWUslmxhdGloZWVljo0Ny41Mjc2MDUslmxvbmdpdHVkZSI6LTk3LjYyNzA
 5NiwidmVydGljYWxjY2N1cmFjeSI6M30slnByb2Zlc3Npb25hbEluc3RhbGxlckRhdGEiOnsiY3BpSWQiOiIlLC
 JjcGlOYW1lIjoilwiawW5zdGFsbENlcnRpZmljYXRpb25UaW1lIjoilMjAyMC0wNC0yM1QwMDowMDowMFoifX0
 "

"protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "2AG32EG7010A",

"groupingParam": [

{

"groupId": "Baicells_01",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "Baicells_01"

}

]

}

2020-06-06T04:19:32.167Z - INFO - Registration message contains cpiSignatureData

2020-06-06T04:19:32.167Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2020-06-06T04:19:32.167Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"antennaAzimuth": 0,

"heightType": "AGL",

"antennaModel": "External",

"longitude": -97.627096,

"height": 55.0,

```
"indoorDeployment": true,
"latitude": 47.527605,
"horizontalAccuracy": 3,
"antennaDowntilt": 0,
"antennaBeamwidth": 90,
"antennaGain": 14,
"verticalAccuracy": 3
},
"fcclId": "2AG32EG7010A",
"professionalInstallerData": {
  "cpiName": "",
  "installCertificationTime": "2020-04-23T00:00:00Z",
  "cpild": ""
},
"cbbsdSerialNumber": "1203000079202VP0033"
}
2020-06-06T04:19:32.230Z - INFO - verified signature on cpiSignatureData
2020-06-06T04:19:32.230Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-06T04:19:32.230Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 200
      }
    }
  ]
}
}
2020-06-06T04:19:34.137Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-06T04:19:34.137Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2020-06-06T04:19:35.309Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2020-06-06T04:19:35.637Z - INFO - The final result of the test : WINNF.FT.C.REG.10 is - passed
```


1.4 WINNF.FT.C.REG.12

2020-06-06T04:21:45.007Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2020-06-06T04:21:45.007Z - INFO - the selected test from the user : WINNF.FT.C.REG.12 is starting now

2020-06-06T04:22:03.461Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "E_UTRA"

},

"callSign": "baicells",

"cbsdCategory": "B",

"cbsdSerialNumber": "1203000079202VP0033",

"cpiSignatureData": {

"digitalSignature":

"pII9WcX2JXG_j3XqCQf-p_rSRc_zXStALi65iLnh9FEq187EDDQpPkWu347tZ4yfkYza9CpWFiA9ck7QW93O
3eRU_-04BmYd7uerQXIMYBBLxnOvEJLE1tJXISjO9ExWrTRvU69ek-Fhp0pbAhboy_XZyffUixNNi-gSbUvU-
gGkQHU7keNDqzpLSXrJ_rQyg8zO2tTyZSox83i8e1qP2zvN6J77cyx0DNxCh89UipmDGGdt_Owj2MKjDCSI
NR6oWcfom6vCarWM2k6K4VV0TcwdvgMj4QB5HldBh_PAzpOoAMxHhXS3fFFCiMOKil_0GN2NW3OezkG
n2XAhIQiCiy-jYnC7rndSYdg8h2KiaToVvqj_fKweEnBbbM-AnYkBO9dR20NAtoDdQRTwZ0huDJ8YxIH8_WK
VaC7Xh23RXiaJt0gwi46yKXSsRZNfkeMuNX1wCugxpnzMNn5_UApmwh_ANttvJtUX8cupw4KGxRS9qS_nf
pFb0mWjw-mSnoiu11A_HeiH380rxDGefYk2DbtGSByZ1nhMioXm1FC1K0ieV1h4PL2xqauDTOKRsd9Lte1S
t279INDT3j-4MN0W44JRdKCYFPmkuheMjk0p_VWVOKpCGG5eYuxVGMCljTZHCJaGk9jZqkWIHzAUmEt2
B0OWAMgh_8vmUO1fc1QOw",

"encodedCpiSignedData":

"eyJjYnNkU2VyaWFsTnVtYmVyljoiMTIwMzAwMDA3OTIwMIZQMDAzMyIsImZjY0IkljoiMkFHMzJFRzcwMTB
BliwiaW5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUUF6aW11dGgiOjAsImFudGVubmFCZWFTd2lkdGgi
OjkwLjJhbnRlbn5hRG93bnRpbHQiOjAsImFudGVubmFHYWluljoxNCwiYW50ZW5uYU1vZGVsljoiRXh0ZX
JuYWwiLCJoZWlnaHQiOjU1LjAsImhlaWdodFR5cGUiOiJBR0wiLCJob3Jpem9udGFsQWNjdXJhY3kiOjMslm
luZG9vckRlcGxveW1lbnQiOnRydWUsImxhdGI0dWRlljo0Ny41Mjc2MDUsImxvbmddpdHVkZSI6LTk3LjYyNzA
5NiwidmVydGljYWx2N1cmFjeSI6M30sInByb2Zlc3Npb25hbEluc3RhbGxlckRhdGEiOnsiY3BpSWQiOiIiLC
JjcGlOYW1lIjoilwiaw5zdGFsbENlcnRpZmljYXRpb25UaW1lIjoiMjAyMC0wNC0yM1QwMDowMDowMFoifX0
"

"protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "2AG32EG7010A",

"groupingParam": [

{

"groupId": "Baicells_01",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "Baicells_01"

}

]

}

2020-06-06T04:22:03.493Z - INFO - Registration message contains cpiSignatureData

2020-06-06T04:22:03.493Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2020-06-06T04:22:03.493Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"antennaAzimuth": 0,

"heightType": "AGL",

"antennaModel": "External",

"longitude": -97.627096,

"height": 55.0,

```
"indoorDeployment": true,  
"latitude": 47.527605,  
"horizontalAccuracy": 3,  
"antennaDowntilt": 0,  
"antennaBeamwidth": 90,  
"antennaGain": 14,  
"verticalAccuracy": 3  
},  
"fcclId": "2AG32EG7010A",  
"professionalInstallerData": {  
  "cpiName": "",  
  "installCertificationTime": "2020-04-23T00:00:00Z",  
  "cpild": ""  
},  
"cbsdSerialNumber": "1203000079202VP0033"  
}  
2020-06-06T04:22:03.555Z - INFO - verified signature on cpiSignatureData  
2020-06-06T04:22:03.555Z - INFO - cpiSignatureData data successfully validated against jsonschema  
2020-06-06T04:22:03.555Z - INFO - engine sent successfully, the response to CBRS : {  
  "registrationResponse": [  
    {  
      "response": {  
        "responseCode": 103  
      }  
    }  
  ]  
}  
2020-06-06T04:22:05.259Z - INFO - arrived to nstep starting question answer session with the technician  
2020-06-06T04:22:05.259Z - INFO - the question is : Were there RF transmissions from the CBSD1 during  
the test? please choose one of the answers :  
2020-06-06T04:22:07.961Z - INFO - for the question : Were there RF transmissions from the CBSD1 during  
the test? , the user choose n  
2020-06-06T04:22:08.322Z - INFO - The final result of the test : WINNF.FT.C.REG.12 is - passed
```

1.5 WINNF.FT.C.REG.14

2020-06-06T04:26:05.431Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2020-06-06T04:26:05.431Z - INFO - the selected test from the user : WINNF.FT.C.REG.14 is starting now

2020-06-06T04:26:19.493Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "E_UTRA"

},

"callSign": "baicells",

"cbsdCategory": "B",

"cbsdSerialNumber": "1203000079202VP0033",

"cpiSignatureData": {

"digitalSignature":

"pII9WcX2JXG_j3XqCQf-p_rSRc_zXStALi65iLnh9FEq187EDDQpPkWu347tZ4yfkYza9CpWFiA9ck7QW93O
3eRU_-04BmYd7uerQXIMYBBLxnOvEJLE1tJXISjO9ExWrTRvU69ek-Fhp0pbAhboy_XZyffUixNNi-gSbUvU-
gGkQHU7keNDqzpLSXrJ_rQyg8zO2tTyZSox83i8e1qP2zvN6J77cyx0DNxCh89UipmDGGdt_Owj2MKjDCSI
NR6oWcfom6vCarWM2k6K4VV0TcwdvgMj4QB5HldBh_PAzpOoAMxHhXS3fFFCiMOKil_0GN2NW3OezkG
n2XAhIQiCiy-jYnC7rndSYdg8h2KiaToVvqj_fKweEnBbbM-AnYkBO9dR20NAtoDdQRTwZ0huDJ8YxIH8_WK
VaC7Xh23RXiaJt0gwi46yKXSsRZNfkeMuNX1wCugxpnzMNn5_UApmwh_ANttvJtUX8cupw4KGxRS9qS_nf
pFb0mWjw-mSnoi11A_HeiH380rxDGefYk2DbtGSByZ1nhMioXm1FC1K0ieV1h4PL2xqauDTOKRsd9Lte1S
t279INDT3j-4MN0W44JRdKCYFPmkuheMjk0p_VWVOKpCGG5eYuxVGMCljTZHCJaGk9jZqkWIHzAUmEt2
B0OWAMgh_8vmUO1fc1QOw",

"encodedCpiSignedData":

"eyJjYnNkU2VyaWFsTnVtYmVyljoiMTIwMzAwMDA3OTIwMIZQMDAzMyIsImZjY0IkljoiMkFHMzJFRzcvMTB
BliwiaW5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUUF6aW11dGgiOjAsImFudGVubmFCZWFTd2lkdGgi
OjkwLjJhbnRlbn5hRG93bnRpbHQiOjAsImFudGVubmFHYWluljoxNCwiYW50ZW5uYU1vZGVsljoiRXh0ZX
JuYWwiLCJoZWlnaHQiOjU1LjAsImhlaWdodFR5cGUiOiJBR0wiLCJob3Jpem9udGFsQWNjdXJhY3kiOjMslm
luZG9vckRlcGxveW1lbnQiOnRydWUsImxhdGI0dWRlljo0Ny41Mjc2MDUsImxvbmddpdHVkZSI6LTk3LjYyNzA
5NiwidmVydGljYWx2N1cmFjeSI6M30sInByb2Zlc3Npb25hbEluc3RhbGxlckRhdGEiOnsiY3BpSWQiOiIiLC
JjcGlOYW1ljoiliwiaW5zdGFsbENlcnRpZmljYXRpb25UaW1ljoimjAyMC0wNC0yM1QwMDowMDowMFoifX0
"

"protectedHeader": "eyJhbGciOiJSUzU1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "2AG32EG7010A",

"groupingParam": [

{

"groupId": "Baicells_01",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "Baicells_01"

}

]

}

2020-06-06T04:26:19.509Z - INFO - Registration message contains cpiSignatureData

2020-06-06T04:26:19.509Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2020-06-06T04:26:19.509Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"antennaAzimuth": 0,

"heightType": "AGL",

"antennaModel": "External",

"longitude": -97.627096,

"height": 55.0,

```
"indoorDeployment": true,  
"latitude": 47.527605,  
"horizontalAccuracy": 3,  
"antennaDowntilt": 0,  
"antennaBeamwidth": 90,  
"antennaGain": 14,  
"verticalAccuracy": 3  
},  
"fcclId": "2AG32EG7010A",  
"professionalInstallerData": {  
  "cpiName": "",  
  "installCertificationTime": "2020-04-23T00:00:00Z",  
  "cpild": ""  
},  
"cbsdSerialNumber": "1203000079202VP0033"  
}  
2020-06-06T04:26:19.588Z - INFO - verified signature on cpiSignatureData  
2020-06-06T04:26:19.588Z - INFO - cpiSignatureData data successfully validated against jsonschema  
2020-06-06T04:26:19.588Z - INFO - engine sent successfully, the response to CBRS : {  
  "registrationResponse": [  
    {  
      "response": {  
        "responseCode": 101  
      }  
    }  
  ]  
}  
2020-06-06T04:26:20.651Z - INFO - arrived to nstep starting question answer session with the technician  
2020-06-06T04:26:20.651Z - INFO - the question is : Were there RF transmissions from the CBSD1 during  
the test? please choose one of the answers :  
2020-06-06T04:26:27.056Z - INFO - for the question : Were there RF transmissions from the CBSD1 during  
the test? , the user choose n  
2020-06-06T04:26:27.306Z - INFO - The final result of the test : WINNF.FT.C.REG.14 is - passed
```

1.6 WINNF.FT.C.REG.16

2020-06-06T04:28:39.403Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2020-06-06T04:28:39.403Z - INFO - the selected test from the user : WINNF.FT.C.REG.16 is starting now

2020-06-06T04:28:51.529Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "E_UTRA"

},

"callSign": "baicells",

"cbsdCategory": "B",

"cbsdSerialNumber": "1203000079202VP0033",

"cpiSignatureData": {

"digitalSignature":

"pII9WcX2JXG_j3XqCQf-p_rSrc_zXStAl65iLnh9FEq187EDDQpPkWu347tZ4yfkYza9CpWFiA9ck7QW930
3eRU_-04BmYd7uerQXIMYBBLxnOvEJLE1tJXISjO9ExWrTRvU69ek-Fhp0pbAhboy_XZyffUixNNi-gSbUvU-
gGkQHU7keNDqzpLSXrJ_rQyg8zO2tTyZSox83i8e1qP2zvN6J77cyx0DNxCh89UipmDGGdt_Owj2MKjDCSI
NR6oWcfom6vCarWM2k6K4VV0TcwdvgMj4QB5HldBh_PAzpOoAMxHhXS3fFFCiMOKil_0GN2NW3OezkG
n2XAhIQiCiy-jYnC7rndSYdg8h2KiaToVvqj_fKweEnBbbM-AnYkBO9dR20NAtoDdQRTwZ0huDJ8YxIH8_WK
VaC7Xh23RXiaJt0gwi46yKXSsRZNFkeMuNX1wCugxpnzMNn5_UApmwh_ANttvJtUX8cupw4KGxRS9qS_nf
pFb0mWjw-mSnoi11A_HeiH380rxDGefYk2DbtGSByZ1nhMioXm1FC1K0ieV1h4PL2xqauDTOKRsd9Lte1S
t279INDT3j-4MN0W44JRdKCYFPmkuheMjk0p_VWVOKpCGG5eYuxVGMCljTZHCJaGk9jZqkWIHzAUmEt2
B0OWAMgh_8vmUO1fc1QOw",

"encodedCpiSignedData":

"eyJjYnNkU2VyaWFsTnVtYmVyljoiMTIwMzAwMDA3OTIwMIZQMDAzMyIsImZjY0IkljoiMkFHMzJFRzcvMTB
BliwiaW5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUUF6aW11dGgiOjAsImFudGVubmFCZWFTd2lkdGgi
OjkwLjJhbnRlbn5hRG93bnRpbHQiOjAsImFudGVubmFHYWluljoxNCwiYW50ZW5uYU1vZGVsljoiRXh0ZX
JuYWwiLCJoZWlnaHQiOjU1LjAsImhlaWdodFR5cGUiOiJBR0wiLCJob3Jpem9udGFsQWNjdXJhY3kiOjMslm
luZG9vckRlcGxveW1lbnQiOnRydWUsImxhdGI0dWRlljo0Ny41Mjc2MDUsImxvbmddpdHVkZSI6LTk3LjYyNzA
5NiwidmVydGljYWx2N1cmFjeSI6M30sInByb2Zlc3Npb25hbEluc3RhbGxlckRhdGEiOnsiY3BpSWQiOiIiLC
JjcGlOYW1lIjoilwiaW5zdGFsbENlcnRpZmljYXRpb25UaW1lIjoiMjAyMC0wNC0yM1QwMDowMDowMFoifX0
"

"protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "2AG32EG7010A",

"groupingParam": [

{

"groupId": "Baicells_01",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "Baicells_01"

}

]

}

2020-06-06T04:28:51.559Z - INFO - Registration message contains cpiSignatureData

2020-06-06T04:28:51.559Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2020-06-06T04:28:51.559Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"antennaAzimuth": 0,

"heightType": "AGL",

"antennaModel": "External",

"longitude": -97.627096,

"height": 55.0,

```
    "indoorDeployment": true,  
    "latitude": 47.527605,  
    "horizontalAccuracy": 3,  
    "antennaDowntilt": 0,  
    "antennaBeamwidth": 90,  
    "antennaGain": 14,  
    "verticalAccuracy": 3  
  },  
  "fcclId": "2AG32EG7010A",  
  "professionalInstallerData": {  
    "cpiName": "",  
    "installCertificationTime": "2020-04-23T00:00:00Z",  
    "cpild": ""  
  },  
  "cbsdSerialNumber": "1203000079202VP0033"  
}  
2020-06-06T04:28:51.621Z - INFO - verified signature on cpiSignatureData  
2020-06-06T04:28:51.621Z - INFO - cpiSignatureData data successfully validated against jsonschema  
2020-06-06T04:28:51.621Z - INFO - engine sent successfully, the response to CBRS : {  
  "registrationResponse": [  
    {  
      "response": {  
        "responseCode": 100  
      }  
    }  
  ]  
}  
2020-06-06T04:28:53.607Z - INFO - arrived to nstep starting question answer session with the technician  
2020-06-06T04:28:53.607Z - INFO - the question is : Were there RF transmissions from the CBS1 during  
the test? please choose one of the answers :  
2020-06-06T04:28:55.888Z - INFO - for the question : Were there RF transmissions from the CBS1 during  
the test? , the user choose n  
2020-06-06T04:28:56.232Z - INFO - The final result of the test : WINNF.FT.C.REG.16 is - passed
```

1.7 WINNF.FT.C.REG.18

2020-06-06T04:30:58.417Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2020-06-06T04:30:58.417Z - INFO - the selected test from the user : WINNF.FT.C.REG.18 is starting now

2020-06-06T04:31:15.496Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "E_UTRA"

},

"callSign": "baicells",

"cbsdCategory": "B",

"cbsdSerialNumber": "1203000079202VP0033",

"cpiSignatureData": {

"digitalSignature":

"pII9WcX2JXG_j3XqCQf-p_rSRc_zXStALi65iLnh9FEq187EDDQpPkWu347tZ4yfkYza9CpWFiA9ck7QW93O
 3eRU_-04BmYd7uerQXIMYBBLxnOvEJLE1tJXISjO9ExWrTRvU69ek-Fhp0pbAhboy_XZyffUixNNi-gSbUvU-
 gGkQHU7keNDqzpLSXrJ_rQyg8zO2tTyZSox83i8e1qP2zvN6J77cyx0DNxCh89UipmDGGdt_Owj2MKjDCSI
 NR6oWcfom6vCarWM2k6K4VV0TcwdvgMj4QB5HldBh_PAzpOoAMxHhXS3fFFCiMOKil_0GN2NW3OezkG
 n2XAhIQiCiy-jYnC7rndSYdg8h2KiaToVvqj_fKweEnBbbM-AnYkBO9dR20NAtoDdQRTwZ0huDJ8YxIH8_WK
 VaC7Xh23RXiaJt0gwi46yKXSsRZNfkeMuNX1wCugxpnzMNn5_UApmwh_ANttvJtUX8cupw4KGxRS9qS_nf
 pFb0mWjw-mSnoi11A_HeiH380rxDGefYk2DbtGSByZ1nhMioXm1FC1K0ieV1h4PL2xqauDTOKRsd9Lte1S
 t279INDT3j-4MN0W44JRdKCYFPmkuheMjk0p_VWVOKpCGG5eYuxVGMCljTZHCJaGk9jZqkWIHzAUmEt2
 B0OWAMgh_8vmUO1fc1QOw",

"encodedCpiSignedData":

"eyJjYnNkU2VyaWFsTnVtYmVyljoiMTIwMzAwMDA3OTIwMIZQMDAzMyIsImZjY0IkljoiMkFHMzJFRzcvMTB
 BliwiaW5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUUF6aW11dGgiOjAsImFudGVubmFCZWFTd2lkdGgi
 OjkwLjJhbnRlbn5hRG93bnRpbHQiOjAsImFudGVubmFHYWluljoxNCwiYW50ZW5uYU1vZGVsljoiRXh0ZX
 JuYWwiLCJoZWlnaHQiOjU1LjAsImhlaWdodFR5cGUiOiJBR0wiLCJob3Jpem9udGFsQWNjdXJhY3kiOjMslm
 luZG9vckRlcGxveW1lbnQiOnRydWUsImxhdGI0dWRlljo0Ny41Mjc2MDUsImxvbmddpdHVkZSI6LTk3LjYyNzA
 5NiwidmVydGljYWxBY2N1cmFjeSI6M30sInByb2Zlc3Npb25hbEluc3RhbGxlckRhdGEiOnsiY3BpSWQiOiIlLC
 JjcGlOYW1lIjoilwiaW5zdGFsbENlcnRpZmljYXRpb25UaW1lIjoiMjAyMC0wNC0yM1QwMDowMDowMFoifX0
 "

"protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "2AG32EG7010A",

"groupingParam": [

{

"groupId": "Baicells_01",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "Baicells_01"

}

]

}

2020-06-06T04:31:15.510Z - INFO - Registration message contains cpiSignatureData

2020-06-06T04:31:15.510Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2020-06-06T04:31:15.510Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"antennaAzimuth": 0,

"heightType": "AGL",

"antennaModel": "External",

"longitude": -97.627096,

"height": 55.0,

```
"indoorDeployment": true,
"latitude": 47.527605,
"horizontalAccuracy": 3,
"antennaDowntilt": 0,
"antennaBeamwidth": 90,
"antennaGain": 14,
"verticalAccuracy": 3
},
"fcclId": "2AG32EG7010A",
"professionalInstallerData": {
  "cpiName": "",
  "installCertificationTime": "2020-04-23T00:00:00Z",
  "cpild": ""
},
"cbbsdSerialNumber": "1203000079202VP0033"
}
2020-06-06T04:31:15.588Z - INFO - verified signature on cpiSignatureData
2020-06-06T04:31:15.588Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-06T04:31:15.588Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "response": {
        "responseCode": 201
      }
    }
  ]
}
}
2020-06-06T04:31:16.698Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-06T04:31:16.698Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2020-06-06T04:31:20.213Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2020-06-06T04:31:20.480Z - INFO - The final result of the test : WINNF.FT.C.REG.18 is - passed
```


CBSD SPECTRUM GRANT PROCESS

1.8 WINNF.FT.C.GRA.1

2020-06-06T04:46:13.700Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2020-06-06T04:46:13.716Z - INFO - the selected test from the user : WINNF.FT.C.GRA.1 is starting now

2020-06-06T04:46:22.513Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "E_UTRA"

},

"callSign": "baicells",

"cbsdCategory": "B",

"cbsdSerialNumber": "1203000079202VP0033",

"cpiSignatureData": {

"digitalSignature":

"pII9WcX2JXG_j3XqCQf-p_rSrc_zXStALi65iLnh9FEq187EDDQpPkWu347tZ4yfkYza9CpWFiA9ck7QW93O3eRU_-04BmYd7uerQXIMYBBLxnOvEJLE1tJXISjO9ExWvTRvU69ek-Fhp0pbAhboy_XZyffUixNNi-gSbUvU-gGkQHU7keNDqzpLSXrJ_rQyg8zO2tTyZSox83i8e1qP2zvN6J77cyx0DNxCh89UipmDGGdt_Owj2MKjDCSINR6oWcfom6vCarWM2k6K4VV0TcwdvgMj4QB5HldBh_PAzpOoAMxHhXS3fFFCiMOKil_0GN2NW3OezkGn2XAhIQiCiy-jYnC7rndSYdg8h2KiaToVvqj_fKweEnBbbM-AnYkBO9dR20NAtoDdQRTwZ0huDJ8YxlH8_WKVAC7Xh23RXiaJt0gwi46yKXSsRZNfkeMuNX1wCugxpnzMNn5_UApmwh_ANttvJtUX8cupw4KGxRS9qS_nfpFb0mWjw-mSnoi11A_HeiH380rxDGefYk2DbtGSByZ1nhMioXm1FC1K0ieV1h4PL2xqauDTOKRsd9Lte1St279INDT3j-4MN0W44JRdKCYFPmkuheMjk0p_VWVOKpCGG5eYuxVGMCljTZHCJaGk9jZqkWIHzAUmEt2B0OWAMgh_8vmUO1fc1QOw",

"encodedCpiSignedData":

"eyJjYnNkU2VyaWFsTnVtYmVyljoiMTlwMzAwMDA3OTlwMIZQMDAzMyIsImZjY0kljoiMkFHMzJFRzcvMTBBliaW5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUUF6aW11dGgiOjAsImFudGVubmFCZWVtd2lkdGgiOjkwLjJhbnRlbn5hRG93bnRpbHQiOjAsImFudGVubmFHYWluljoxNCwiYW50ZW5uYU1vZGVsljoiRXh0ZXJuYWwiLCJoZWlnaHQiOjU1LjAsImhlaWdodFR5cGUiOiJBR0wiLCJob3Jpem9udGFsQWNjdXJhY3kiOjMslmluZG9vckRlcGxveW1lbnQiOnRydWUsImxhdGloZWVljo0Ny41Mjc2MDUsImxvbmddpdHVkZSI6LTk3LjYyNzA5NiwidmVydGljYWx2N1cmFjeSI6M30sInByb2Zlc3Npb25hbEluc3RhbGxlckRhdGEiOnsiY3BpSWQiOiIiLCJjcGlOYW1ljoiliwW5zdGFsbENlcnRpZmljYXRpb25UaW1ljoimjAyMC0wNC0yM1QwMDowMDowMFoifX0"

"protectedHeader": "eyJhbGciOiJSUzU1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "2AG32EG7010A",

"groupingParam": [

{

"groupId": "Baicells_01",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "Baicells_01"

}

]

}

2020-06-06T04:46:22.545Z - INFO - Registration message contains cpiSignatureData

2020-06-06T04:46:22.545Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2020-06-06T04:46:22.545Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"antennaAzimuth": 0,

"heightType": "AGL",

"antennaModel": "External",

"longitude": -97.627096,

"height": 55.0,

```
    "indoorDeployment": true,
    "latitude": 47.527605,
    "horizontalAccuracy": 3,
    "antennaDowntilt": 0,
    "antennaBeamwidth": 90,
    "antennaGain": 14,
    "verticalAccuracy": 3
  },
  "fcclId": "2AG32EG7010A",
  "professionalInstallerData": {
    "cpiName": "",
    "installCertificationTime": "2020-04-23T00:00:00Z",
    "cpild": ""
  },
  "cbsdSerialNumber": "1203000079202VP0033"
}
2020-06-06T04:46:22.607Z - INFO - verified signature on cpiSignatureData
2020-06-06T04:46:22.607Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-06T04:46:22.607Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-06T04:46:29.315Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "operationParam": {
        "maxEirp": 27,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2020-06-06T04:46:29.331Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "response": {
        "responseCode": 400
      }
    }
  ]
}
2020-06-06T04:46:30.904Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-06T04:46:30.904Z - INFO - the question is : Were there RF transmissions from the CBS1 during
the test? please choose one of the answers :
2020-06-06T04:46:34.579Z - INFO - for the question : Were there RF transmissions from the CBS1 during
the test? , the user choose n
2020-06-06T04:46:34.881Z - INFO - The final result of the test : WINNF.FT.C.GRA.1 is - passed
```

1.9 WINNF.FT.C.GRA.2

2020-06-06T04:49:17.351Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2020-06-06T04:49:17.351Z - INFO - the selected test from the user : WINNF.FT.C.GRA.2 is starting now

2020-06-06T04:49:33.743Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "E_UTRA"

},

"callSign": "baicells",

"cbsdCategory": "B",

"cbsdSerialNumber": "1203000079202VP0033",

"cpiSignatureData": {

"digitalSignature":

"pII9WcX2JXG_j3XqCQf-p_rSrc_zXStALi65iLnh9FEq187EDDQpPkWu347tZ4yfkYza9CpWFiA9ck7QW93O
 3eRU_-04BmYd7uerQXIMYBBLxnOvEJLE1tJXISjO9ExWTRvU69ek-Fhp0pbAhboy_XZyffUixNNi-gSbUvU-
 gGkQHU7keNDqzpLSXrJ_rQyg8zO2tTyZSox83i8e1qP2zvN6J77cyx0DNxCh89UipmDGGdt_Owj2MKjDCSI
 NR6oWcfom6vCarWM2k6K4VV0TcwdvgMj4QB5HldBh_PAzpOoAMxHhXS3fFFCiMOKil_0GN2NW3OezkG
 n2XAhIQiCiy-jYnC7rndSYdg8h2KiaToVvqj_fKweEnBbbM-AnYkBO9dR20NAtoDdQRTwZ0huDJ8YxIH8_WK
 VaC7Xh23RXiaJt0gwi46yKXSsRZNfkeMuNX1wCugxpnzMNn5_UApmwh_ANttvJtUX8cupw4KGxRS9qS_nf
 pFb0mWjw-mSnoi11A_HeiH380rxDGefYk2DbtGSByZ1nhMioXm1FC1K0ieV1h4PL2xqauDTOKRsd9Lte1S
 t279INDT3j-4MN0W44JRdKCYFPmkuheMjk0p_VWVOKpCGG5eYuxVGMCljTZHCJaGk9jZqkWIHzAUmEt2
 B0OWAMgh_8vmUO1fc1QOw",

"encodedCpiSignedData":

"eyJjYnNkU2VyaWFsTnVtYmVyljoiMTIwMzAwMDA3OTIwMIZQMDAzMyIsImZjY0IkljoiMkFHMzJFRzcwMTB
 BliwiaW5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUUF6aW11dGgiOjAsImFudGVubmFCZWFTd2lkdGgi
 OjkwLjJhbnRlbn5hRG93bnRpbHQiOjAsImFudGVubmFHYWluljoxNCwiYW50ZW5uYU1vZGVsljoiRXh0ZX
 JuYWwiLCJoZWlnaHQiOjU1LjAsImhlaWdodFR5cGUiOiJBR0wiLCJob3Jpem9udGFsQWNjdXJhY3kiOjMslm
 luZG9vckRlcGxveW1lbnQiOnRydWUslmxhdGloZWVljo0Ny41Mjc2MDUslmxvbmVudHVkZSI6LTk3LjYyNzA
 5NiwidmVydGljYWx2N1cmFjeSI6M30slnByb2Zlc3Npb25hbEluc3RhbGxlckRhdGEiOnsiY3BpSWQiOiIiLC
 JjcGlOYW1lIjoilwiaW5zdGFsbENlcnRpZmljYXRpb25UaW1lIjoiMjAyMC0wNC0yM1QwMDowMDowMFoifX0
 "

"protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "2AG32EG7010A",

"groupingParam": [

{

"groupId": "Baicells_01",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "Baicells_01"

}

]

}

2020-06-06T04:49:33.775Z - INFO - Registration message contains cpiSignatureData

2020-06-06T04:49:33.775Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2020-06-06T04:49:33.775Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"antennaAzimuth": 0,

"heightType": "AGL",

"antennaModel": "External",

"longitude": -97.627096,

"height": 55.0,

```
    "indoorDeployment": true,
    "latitude": 47.527605,
    "horizontalAccuracy": 3,
    "antennaDowntilt": 0,
    "antennaBeamwidth": 90,
    "antennaGain": 14,
    "verticalAccuracy": 3
  },
  "fcclId": "2AG32EG7010A",
  "professionalInstallerData": {
    "cpiName": "",
    "installCertificationTime": "2020-04-23T00:00:00Z",
    "cpild": ""
  },
  "cbsdSerialNumber": "1203000079202VP0033"
}
2020-06-06T04:49:33.838Z - INFO - verified signature on cpiSignatureData
2020-06-06T04:49:33.852Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-06T04:49:33.852Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-06T04:49:40.430Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "operationParam": {
        "maxEirp": 27,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2020-06-06T04:49:40.430Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "response": {
        "responseCode": 401
      }
    }
  ]
}
2020-06-06T04:49:41.618Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-06T04:49:41.618Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2020-06-06T04:49:43.729Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2020-06-06T04:49:44.181Z - INFO - The final result of the test : WINNF.FT.C.GRA.2 is - passed
```

2 CBSD Heart Beat Process

2.1 WINNF.FT.C.HBT.1

2020-06-06T06:51:29.868Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2020-06-06T06:51:29.868Z - INFO - the selected test from the user : WINNF.FT.C.HBT.1 is starting now

2020-06-06T06:51:51.664Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "E_UTRA"

},

"callSign": "baicells",

"cbsdCategory": "B",

"cbsdSerialNumber": "1203000079202VP0033",

"cpiSignatureData": {

"digitalSignature":

"pII9WcX2JXG_j3XqCQf-p_rSRc_zXStAl65iLnh9FEq187EDDQpPkWu347tZ4yfkYza9CpWFiA9ck7QW93O3eRU_-04BmYd7uerQXIMYBBLxnOvEJLE1tJXISjO9ExWvTRvU69ek-Fhp0pbAhboy_XZyffUixNNi-gSbUvU-gGkQHU7keNDqzpLSXrJ_rQyg8zO2tTyZSox83i8e1qP2zvN6J77cyx0DNxCh89UipmDGGdt_Owj2MKjDCSINR6oWcfom6vCarWM2k6K4VV0TcwdvgMj4QB5HldBh_PAzpOoAMxHhXS3fFFCiMOKil_0GN2NW3OezkGn2XAhIQiCiy-jYnC7rndSYdg8h2KiaToVvqj_fKweEnBbbM-AnYkBO9dR20NAtoDdQRtwZ0huDJ8YxIH8_WKVaC7Xh23RXiaJt0gwi46yKXSsRZNFkeMuNX1wCugxpnzMNn5_UApmwh_ANttvJtUX8cupw4KGxRS9qS_nf pFb0mWjw-mSnoiu11A_HeiH380rxDGefYk2DbtGSByZ1nhMioXm1FC1K0ieV1h4PL2xqauDTOKRsd9Lte1St279INDT3j-4MN0W44JRdKCYFPmkuheMjk0p_VWVOKpCGG5eYuxVGMCljTZHCJaGk9jZqkWIHzAUmEt2B0OWAMgh_8vmUO1fc1QOw",

"encodedCpiSignedData":

"eyJjYnNkU2VyaWFsTnVtYmVyljoiMTIwMzAwMDA3OTIwMIZQMDAzMyIsImZjY0IkljoiMkFHMzJFRzcvMTBBLiwiaw5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUUF6aW11dGgiOjAsImFudGVubmFCZWFTd2lkdGgiOjkwLjJhbnRlbn5hRG93bnRpbHQiOjAsImFudGVubmFHYWluljoxNCwiYW50ZW5uYU1vZGVsljoiRXh0ZXJuYWwiLCJoZWlnaHQiOjU1LjAsImhlaWdodFR5cGUiOiJBR0wiLCJob3Jpem9udGFsQWNjdXJhY3kiOjMslmluZG9vckRlcGxveW1lbnQiOnRydWUslmxhdGloZWVljo0Ny41Mjc2MDUslmxvbmdpdHVkZSI6LTk3LjYyNzA5NiwidmVydGljYWx2N1cmFjeSI6M30slnByb2Zlc3Npb25hbEluc3RhbGxlckRhdGEiOnsiY3BpSWQiOiIiLCJjcGlOYW1lIjoilwiaw5zdGFsbENlcnRpZmljYXRpb25UaW1lIjoilMjAyMC0wNC0yM1QwMDowMDowMFoifX0"

"protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"

},

"fcclId": "2AG32EG7010A",

"groupingParam": [

{

"groupId": "Baicells_01",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "Baicells_01"

}

]

}

2020-06-06T06:51:51.711Z - INFO - Registration message contains cpiSignatureData

2020-06-06T06:51:51.711Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2020-06-06T06:51:51.711Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"antennaAzimuth": 0,

"heightType": "AGL",

"antennaModel": "External",

"longitude": -97.627096,

"height": 55.0,

```

    "indoorDeployment": true,
    "latitude": 47.527605,
    "horizontalAccuracy": 3,
    "antennaDowntilt": 0,
    "antennaBeamwidth": 90,
    "antennaGain": 14,
    "verticalAccuracy": 3
  },
  "fcclId": "2AG32EG7010A",
  "professionalInstallerData": {
    "cpiName": "",
    "installCertificationTime": "2020-04-23T00:00:00Z",
    "cpild": ""
  },
  "cbsdSerialNumber": "1203000079202VP0033"
}
2020-06-06T06:51:51.900Z - INFO - verified signature on cpiSignatureData
2020-06-06T06:51:51.900Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-06T06:51:51.900Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-06T06:51:58.493Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "inquiredSpectrum": [
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      ]
    }
  ]
}
2020-06-06T06:51:58.509Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```
    }
  ]
}
2020-06-06T06:52:07.134Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "operationParam": {
        "maxEirp": 27,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2020-06-06T06:52:07.134Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "channelType": "GAA",
      "grantExpireTime": "2020-06-13T06:52:07Z",
      "grantId": "301292499",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-06T06:52:15.895Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "301292499",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2020-06-06T06:52:15.911Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "301292499",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-06T06:55:35Z"
    }
  ]
}
2020-06-06T06:53:16.529Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "301292499",
```

```
        "grantRenew": false,
        "operationState": "AUTHORIZED"
    }
]
}
2020-06-06T06:53:16.529Z - INFO - Time interval between two heartbeat request messages is: 60.634, limit
is: 65.0
2020-06-06T06:53:16.529Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "301292499",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2020-06-06T06:56:36Z"
        }
    ]
}
2020-06-06T06:54:17.125Z - INFO - heartbeat request from CBRS  : {
    "heartbeatRequest": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "301292499",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2020-06-06T06:54:17.125Z - INFO - Time interval between two heartbeat request messages is: 60.596, limit
is: 65.0
2020-06-06T06:54:17.141Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "301292499",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2020-06-06T06:57:37Z"
        }
    ]
}
2020-06-06T06:55:17.693Z - INFO - heartbeat request from CBRS  : {
    "heartbeatRequest": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "301292499",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2020-06-06T06:55:17.693Z - INFO - Time interval between two heartbeat request messages is: 60.567, limit
is: 65.0
2020-06-06T06:55:17.693Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
        {
```



```
        "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
        "grantId": "301292499",
        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2020-06-06T06:58:37Z"
    }
]
}
2020-06-06T06:56:18.226Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "301292499",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2020-06-06T06:56:18.226Z - INFO - Time interval between two heartbeat request messages is: 60.534, limit
is: 65.0
2020-06-06T06:56:18.226Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "301292499",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2020-06-06T06:59:38Z"
        }
    ]
}
}
2020-06-06T06:57:18.857Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "301292499",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
}
2020-06-06T06:57:18.857Z - INFO - Time interval between two heartbeat request messages is: 60.63, limit is:
65.0
2020-06-06T06:57:18.857Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "301292499",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2020-06-06T07:00:38Z"
        }
    ]
}
}
2020-06-06T06:57:20.654Z - INFO - arrived to nstep starting question answer session with the technician
```

2020-06-06T06:57:20.654Z - INFO - the question is : Did CBSD1 transmit power prior to AUTHORIZED state (first successful HBT response)? please choose one of the answers :
2020-06-06T06:57:25.638Z - INFO - for the question : Did CBSD1 transmit power prior to AUTHORIZED state (first successful HBT response)? , the user choose n
2020-06-06T06:57:25.638Z - INFO - the question is : Did CBSD1 transmit only within the frequency range specified in its grantRequest message? please choose one of the answers :
2020-06-06T06:57:26.747Z - INFO - for the question : Did CBSD1 transmit only within the frequency range specified in its grantRequest message? , the user choose y
2020-06-06T06:57:27.216Z - INFO - The final result of the test : WINNF.FT.C.HBT.1 is - passed

2.2 WINNF.FT.C.HBT.3

2020-06-06T07:12:38.805Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2020-06-06T07:12:38.805Z - INFO - the selected test from the user : WINNF.FT.C.HBT.3 is starting now

2020-06-06T07:13:04.119Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "E_UTRA"

},

"callSign": "baicells",

"cbsdCategory": "B",

"cbsdSerialNumber": "1203000079202VP0033",

"cpiSignatureData": {

"digitalSignature":

"pII9WcX2JXG_j3XqCQf-p_rSRc_zXStALi65iLnh9FEq187EDDQpPkWu347tZ4yfkYza9CpWFiA9ck7QW93O
 3eRU_-04BmYd7uerQXIMYBBLxnOvEJLE1tJXISjO9ExWrTRvU69ek-Fhp0pbAhboy_XZyffUixNNi-gSbUvU-
 gGkQHU7keNDqzpLSXrJ_rQyg8zO2tTyZSox83i8e1qP2zvN6J77cyx0DNxCh89UipmDGGdt_Owj2MKjDCSI
 NR6oWcfom6vCarWM2k6K4VV0TcwdvgMj4QB5HldBh_PAzpOoAMxHhXS3fFFCiMOKil_0GN2NW3OezkG
 n2XAhIQiCiy-jYnC7rndSYdg8h2KiaToVvqj_fKweEnBbbM-AnYkBO9dR20NAtoDdQRtwZ0huDJ8YxIH8_WK
 VaC7Xh23RXiaJt0gwi46yKXSsRZNfkeMuNX1wCugxpnzMNn5_UApmwh_ANttvJtUX8cupw4KGxRS9qS_nf
 pFb0mWjw-mSnoiu11A_HeiH380rxDGefYk2DbtGSByZ1nhMioXm1FC1K0ieV1h4PL2xqauDTOKRsd9Lte1S
 t279INDT3j-4MN0W44JRdKCYFPmkuheMjk0p_VWVOKpCGG5eYuxVGMCljTZHCJaGk9jZqkWIHzAUmEt2
 B0OWAMgh_8vmUO1fc1QOw",

"encodedCpiSignedData":

"eyJjYnNkU2VyaWFsTnVtYmVyljoiMTIwMzAwMDA3OTIwMIZQMDAzMyIsImZjY0IkljoiMkFHMzJFRzcwMTB
 BliwiaW5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUJF6aW11dGgiOjAsImFudGVubmFCZWZtd2lkdGgi
 OjkwLjJhbnRlbn5hRG93bnRpbHQiOjAsImFudGVubmFHYWluljoxNCwiYW50ZW5uYU1vZGVsljoiRXh0ZX
 JuYWwiLCJoZWlnaHQiOjU1LjAsImhlaWdodFR5cGUiOiJBR0wiLCJob3Jpem9udGFsQWNjdXJhY3kiOjMslm
 luZG9vckRlcGxveW1lbnQiOnRydWUslmxhdGI0dWRlljo0Ny41Mjc2MDUslmxvbmddpdHVkZSI6LTk3LjYyNzA
 5NiwidmVydGljYWxBY2N1cmFjeSI6M30slnByb2Zlc3Npb25hbEluc3RhbGxlckRhdGEiOnsiY3BpSWQiOiIlLC
 JjcGlOYW1lIjoilwiaw5zdGFsbENlcnRpZmljYXRpb25UaW1lIjoIMjAyMC0wNC0yM1QwMDowMDowMFoifX0
 "

"protectedHeader": "eyJhbGciOiJSUzU1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "2AG32EG7010A",

"groupingParam": [

{

"groupId": "Baicells_01",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "Baicells_01"

}

]

}

2020-06-06T07:13:04.151Z - INFO - Registration message contains cpiSignatureData

2020-06-06T07:13:04.151Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2020-06-06T07:13:04.151Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"antennaAzimuth": 0,

"heightType": "AGL",

"antennaModel": "External",

"longitude": -97.627096,

"height": 55.0,

```

    "indoorDeployment": true,
    "latitude": 47.527605,
    "horizontalAccuracy": 3,
    "antennaDowntilt": 0,
    "antennaBeamwidth": 90,
    "antennaGain": 14,
    "verticalAccuracy": 3
  },
  "fcclId": "2AG32EG7010A",
  "professionalInstallerData": {
    "cpiName": "",
    "installCertificationTime": "2020-04-23T00:00:00Z",
    "cpild": ""
  },
  "cbsdSerialNumber": "1203000079202VP0033"
}
2020-06-06T07:13:04.213Z - INFO - verified signature on cpiSignatureData
2020-06-06T07:13:04.213Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-06T07:13:04.213Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-06T07:13:12.865Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "operationParam": {
        "maxEirp": 27,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2020-06-06T07:13:12.880Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "channelType": "GAA",
      "grantExpireTime": "2020-06-13T07:13:12Z",
      "grantId": "909701067",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-06T07:13:21.823Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [

```

```
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "909701067",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2020-06-06T07:13:21.838Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "909701067",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-06T07:16:41Z"
    }
  ]
}
2020-06-06T07:14:22.469Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "909701067",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2020-06-06T07:14:22.469Z - INFO - Time interval between two heartbeat request messages is: 60.645, limit is: 65.0
2020-06-06T07:14:22.469Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "909701067",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-06T07:17:42Z"
    }
  ]
}
2020-06-06T07:15:22.983Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "909701067",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2020-06-06T07:15:22.983Z - INFO - Time interval between two heartbeat request messages is: 60.514, limit is: 65.0
2020-06-06T07:15:22.999Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
```

```

    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "909701067",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-06T07:18:42Z"
    }
  ]
}
2020-06-06T07:16:23.533Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "909701067",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2020-06-06T07:16:23.533Z - INFO - Time interval between two heartbeat request messages is: 60.551, limit is: 65.0
2020-06-06T07:16:23.533Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "909701067",
      "response": {
        "responseCode": 105
      },
      "transmitExpireTime": "2020-06-06T07:16:23Z"
    }
  ]
}
2020-06-06T07:16:25.440Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-06T07:16:25.440Z - 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 :
2020-06-06T07:17:04.864Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds of receiving Heartbeat response with responseCode = 105? , the user choose y
2020-06-06T07:17:05.989Z - INFO - The final result of the test : WINNF.FT.C.HBT.3 is - passed

```

2.3 WINNF.FT.C.HBT.4

2020-06-06T07:19:42.986Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2020-06-06T07:19:42.986Z - INFO - the selected test from the user : WINNF.FT.C.HBT.4 is starting now

2020-06-06T07:19:59.783Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "E_UTRA"

},

"callSign": "baicells",

"cbsdCategory": "B",

"cbsdSerialNumber": "1203000079202VP0033",

"cpiSignatureData": {

"digitalSignature":

"pII9WcX2JXG_j3XqCQf-p_rSrc_zXStALi65iLnh9FEq187EDDQpPkWu347tZ4yfkYza9CpWFiA9ck7QW93O
 3eRU_-04BmYd7uerQXIMYBBLxnOvEJLE1tJXISjO9ExWrTRvU69ek-Fhp0pbAhboy_XZyffUixNNi-gSbUvU-
 gGkQHU7keNDqzpLSXrJ_rQyg8zO2tTyZSox83i8e1qP2zvN6J77cyx0DNxCh89UipmDGGdt_Owj2MKjDCSI
 NR6oWcfom6vCarWM2k6K4VV0TcwdvgMj4QB5HldBh_PAzpOoAMxHhXS3fFFCiMOKil_0GN2NW3OezkG
 n2XAhIQiCiy-jYnC7rndSYdg8h2KiaToVvqj_fKweEnBbbM-AnYkBO9dR20NAtoDdQRTwZ0huDJ8YxIH8_WK
 VaC7Xh23RXiaJt0gwi46yKXSsRZNfkeMuNX1wCugxpnzMNn5_UApmwh_ANttvJtUX8cupw4KGxRS9qS_nf
 pFb0mWjw-mSnoiu11A_HeiH380rxDGefYk2DbtGSByZ1nhMioXm1FC1K0ieV1h4PL2xqauDTOKRsd9Lte1S
 t279INDT3j-4MN0W44JRdKCYFPmkuheMjk0p_VWVOKpCGG5eYuxVGMCljTZHCJaGk9jZqkWIHzAUmEt2
 B0OWAMgh_8vmUO1fc1QOw",

"encodedCpiSignedData":

"eyJjYnNkU2VyaWFsTnVtYmVyljoiMTIwMzAwMDA3OTIwMIZQMDAzMyIsImZjY0IkljoiMkFHMzJFRzcwMTB
 BliwiaW5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUJF6aW11dGgiOjAsImFudGVubmFCZWFTd2lkdGgi
 OjkwLjJhbnRlbn5hRG93bnRpbHQiOjAsImFudGVubmFHYWluljoxNCwiYW50ZW5uYU1vZGVsljoiRXh0ZX
 JuYWwiLCJoZWlnaHQiOjU1LjAsImhlaWdodFR5cGUiOiJBR0wiLCJob3Jpem9udGFsQWNjdXJhY3kiOjMslm
 luZG9vckRlcGxveW1lbnQiOnRydWUslmxhdGloZWVljo0Ny41Mjc2MDUslmxvbmdpdHVkZSI6LTk3LjYyNzA
 5NiwidmVydGljYWxBY2N1cmFjeSI6M30slnByb2Zlc3Npb25hbEluc3RhbGxlckRhdGEiOnsiY3BpSWQiOiIiLC
 JjcGlOYW1lIjoilwiaW5zdGFsbENlcnRpZmljYXRpb25UaW1lIjoIMjAyMC0wNC0yM1QwMDowMDowMFoifX0
 "

"protectedHeader": "eyJhbGciOiJSUzU1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "2AG32EG7010A",

"groupingParam": [

{

"groupId": "Baicells_01",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "Baicells_01"

}

]

}

2020-06-06T07:19:59.815Z - INFO - Registration message contains cpiSignatureData

2020-06-06T07:19:59.815Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2020-06-06T07:19:59.815Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"antennaAzimuth": 0,

"heightType": "AGL",

"antennaModel": "External",

"longitude": -97.627096,

"height": 55.0,

```
    "indoorDeployment": true,
    "latitude": 47.527605,
    "horizontalAccuracy": 3,
    "antennaDowntilt": 0,
    "antennaBeamwidth": 90,
    "antennaGain": 14,
    "verticalAccuracy": 3
  },
  "fcclId": "2AG32EG7010A",
  "professionalInstallerData": {
    "cpiName": "",
    "installCertificationTime": "2020-04-23T00:00:00Z",
    "cpild": ""
  },
  "cbsdSerialNumber": "1203000079202VP0033"
}
2020-06-06T07:19:59.878Z - INFO - verified signature on cpiSignatureData
2020-06-06T07:19:59.894Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-06T07:19:59.894Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-06T07:20:06.503Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "inquiredSpectrum": [
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      ]
    }
  ]
}
2020-06-06T07:20:06.503Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
```



```
    }
  ]
}
2020-06-06T07:20:13.019Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "operationParam": {
        "maxEirp": 27,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2020-06-06T07:20:13.033Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "channelType": "GAA",
      "grantExpireTime": "2020-06-13T07:20:13Z",
      "grantId": "907542978",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-06T07:20:19.628Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "907542978",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2020-06-06T07:20:19.628Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "907542978",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-06T07:23:39Z"
    }
  ]
}
2020-06-06T07:21:20.579Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "907542978",
```

```
        "grantRenew": false,
        "operationState": "AUTHORIZED"
    }
]
}
2020-06-06T07:21:20.595Z - INFO - Time interval between two heartbeat request messages is: 60.952, limit
is: 65.0
2020-06-06T07:21:20.595Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "907542978",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2020-06-06T07:24:40Z"
        }
    ]
}
2020-06-06T07:22:21.052Z - INFO - heartbeat request from CBRS  : {
    "heartbeatRequest": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "907542978",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2020-06-06T07:22:21.069Z - INFO - Time interval between two heartbeat request messages is: 60.473, limit
is: 65.0
2020-06-06T07:22:21.069Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "907542978",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2020-06-06T07:25:41Z"
        }
    ]
}
2020-06-06T07:23:21.865Z - INFO - heartbeat request from CBRS  : {
    "heartbeatRequest": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "907542978",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2020-06-06T07:23:21.865Z - INFO - Time interval between two heartbeat request messages is: 60.812, limit
is: 65.0
2020-06-06T07:23:21.865Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
        {
```

```
        "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
        "grantId": "907542978",
        "response": {
            "responseCode": 0
        },
        "transmitExpireTime": "2020-06-06T07:26:41Z"
    }
]
}
2020-06-06T07:24:22.426Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "907542978",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2020-06-06T07:24:22.426Z - INFO - Time interval between two heartbeat request messages is: 60.561, limit
is: 65.0
2020-06-06T07:24:22.426Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "907542978",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2020-06-06T07:27:42Z"
        }
    ]
}
}
2020-06-06T07:25:22.977Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "907542978",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
}
2020-06-06T07:25:22.977Z - INFO - Time interval between two heartbeat request messages is: 60.552, limit
is: 65.0
2020-06-06T07:25:22.993Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "907542978",
            "response": {
                "responseCode": 500
            },
            "transmitExpireTime": "2020-06-06T07:25:22Z"
        }
    ]
}
}
2020-06-06T07:25:24.134Z - INFO - arrived to nstep starting question answer session with the technician
```

2020-06-06T07:25:24.134Z - 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 :
2020-06-06T07:26:01.137Z - INFO - for the question : Did the CBSD1 stop RF transmission within 60 seconds of receiving Heartbeat response with responseCode = 500? , the user choose y
2020-06-06T07:26:01.526Z - INFO - The final result of the test : WINNF.FT.C.HBT.4 is - passed

2.4 WINNF.FT.C.HBT.5

2020-06-06T07:28:49.138Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2020-06-06T07:28:49.154Z - INFO - the selected test from the user : WINNF.FT.C.HBT.5 is starting now

2020-06-06T07:29:12.733Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "E_UTRA"

},

"callSign": "baicells",

"cbsdCategory": "B",

"cbsdSerialNumber": "1203000079202VP0033",

"cpiSignatureData": {

"digitalSignature":

"pII9WcX2JXG_j3XqCQf-p_rSRc_zXStALi65iLnh9FEq187EDDQpPkWu347tZ4yfkYza9CpWFiA9ck7QW93O
3eRU_-04BmYd7uerQXIMYBBLxnOvEJLE1tJXISjO9ExWrTRvU69ek-Fhp0pbAhboy_XZyffUixNNi-gSbUvU-
gGkQHU7keNDqzpLSXrJ_rQyg8zO2tTyZSox83i8e1qP2zvN6J77cyx0DNxCh89UipmDGGdt_Owj2MKjDCSI
NR6oWcfom6vCarWM2k6K4VV0TcwdvgMj4QB5HldBh_PAzpOoAMxHhXS3fFFCiMOKil_0GN2NW3OezkG
n2XAhIQiCiy-jYnC7rndSYdg8h2KiaToVvqj_fKweEnBbbM-AnYkBO9dR20NAtoDdQRTwZ0huDJ8YxIH8_WK
VaC7Xh23RXiaJt0gwi46yKXSsRZNfkeMuNX1wCugxpnzMNn5_UApmwh_ANttvJtUX8cupw4KGxRS9qS_nf
pFb0mWjw-mSnoiu11A_HeiH380rxDGefYk2DbtGSByZ1nhMioXm1FC1K0ieV1h4PL2xqauDTOKRsd9Lte1S
t279INDT3j-4MN0W44JRdKCYFPmkuheMjk0p_VWVOKpCGG5eYuxVGMCljTZHCJaGk9jZqkWIHzAUmEt2
B0OWAMgh_8vmUO1fc1QOw",

"encodedCpiSignedData":

"eyJjYnNkU2VyaWFsTnVtYmVyljoiMTIwMzAwMDA3OTIwMIZQMDAzMyIsImZjY0IkljoiMkFHMzJFRzcvMTB
BliwiaW5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUUF6aW11dGgiOjAsImFudGVubmFCZWFTd2lkdGgi
OjkwLjJhbnRlbn5hRG93bnRpbHQiOjAsImFudGVubmFHYWluljoxNCwiYW50ZW5uYU1vZGVsljoiRXh0ZX
JuYWwiLCJoZWlnaHQiOjU1LjAsImhlaWdodFR5cGUiOiJBR0wiLCJob3Jpem9udGFsQWNjdXJhY3kiOjMslm
luZG9vckRlcGxveW1lbnQiOnRydWUsImxhdGI0dWRlljo0Ny41Mjc2MDUsImxvbmddpdHVkZSI6LTk3LjYyNzA
5NiwidmVydGljYWxBY2N1cmFjeSI6M30sInByb2Zlc3Npb25hbEluc3RhbGxlckRhdGEiOnsiY3BpSWQiOiIlLC
JjcGlOYW1lIjoilwiawW5zdGFsbENlcnRpZmljYXRpb25UaW1lIjoimjAyMC0wNC0yM1QwMDowMDowMFoifX0
"

"protectedHeader": "eyJhbnRlcjoiJSUz1NilsInR5cCI6IkpXVCJ9"

},

"fccId": "2AG32EG7010A",

"groupingParam": [

{

"groupId": "Baicells_01",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "Baicells_01"

}

]

}

2020-06-06T07:29:12.779Z - INFO - Registration message contains cpiSignatureData

2020-06-06T07:29:12.779Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2020-06-06T07:29:12.779Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"antennaAzimuth": 0,

"heightType": "AGL",

"antennaModel": "External",

"longitude": -97.627096,

"height": 55.0,

```
        "indoorDeployment": true,
        "latitude": 47.527605,
        "horizontalAccuracy": 3,
        "antennaDowntilt": 0,
        "antennaBeamwidth": 90,
        "antennaGain": 14,
        "verticalAccuracy": 3
    },
    "fcclId": "2AG32EG7010A",
    "professionalInstallerData": {
        "cpiName": "",
        "installCertificationTime": "2020-04-23T00:00:00Z",
        "cpild": ""
    },
    "cbsdSerialNumber": "1203000079202VP0033"
}
2020-06-06T07:29:12.842Z - INFO - verified signature on cpiSignatureData
2020-06-06T07:29:12.842Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-06T07:29:12.842Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2020-06-06T07:29:19.450Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "operationParam": {
                "maxEirp": 27,
                "operationFrequencyRange": {
                    "highFrequency": 3635000000,
                    "lowFrequency": 3615000000
                }
            }
        }
    ]
}
2020-06-06T07:29:19.450Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "channelType": "GAA",
            "grantExpireTime": "2020-06-13T07:29:19Z",
            "grantId": "396533559",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2020-06-06T07:29:26.170Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
```

```
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "396533559",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2020-06-06T07:29:26.186Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "396533559",
      "response": {
        "responseCode": 501
      },
      "transmitExpireTime": "2020-06-06T07:29:26Z"
    }
  ]
}
2020-06-06T07:31:12.812Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "396533559"
    }
  ]
}
2020-06-06T07:31:12.828Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "396533559",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-06T07:31:14.000Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-06T07:31:14.000Z - INFO - the question is : Did the CBSD transmit at any time during the test?
please choose one of the answers :
2020-06-06T07:31:21.844Z - INFO - for the question : Did the CBSD transmit at any time during the test? , the
user choose n
2020-06-06T07:31:22.344Z - INFO - The final result of the test : WINNF.FT.C.HBT.5 is – passed
```

2.5 WINNF.FT.C.HBT.6

2020-06-06T07:35:52.029Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2020-06-06T07:35:52.029Z - INFO - the selected test from the user : WINNF.FT.C.HBT.6 is starting now

2020-06-06T07:36:12.247Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "E_UTRA"

},

"callSign": "baicells",

"cbsdCategory": "B",

"cbsdSerialNumber": "1203000079202VP0033",

"cpiSignatureData": {

"digitalSignature":

"pII9WcX2JXG_j3XqCQf-p_rSRc_zXStALi65iLnh9FEq187EDDQpPkWu347tZ4yfkYza9CpWFiA9ck7QW93O
 3eRU_-04BmYd7uerQXIMYBBLxnOvEJLE1tJXISjO9ExWrTRvU69ek-Fhp0pbAhboy_XZyffUixNNi-gSbUvU-
 gGkQHU7keNDqzpLSXrJ_rQyg8zO2tTyZSox83i8e1qP2zvN6J77cyx0DNxCh89UipmDGGdt_Owj2MKjDCSI
 NR6oWcfom6vCarWM2k6K4VV0TcwdvgMj4QB5HldBh_PAzpOoAMxHhXS3fFFCiMOKil_0GN2NW3OezkG
 n2XAhIQiCiy-jYnC7rndSYdg8h2KiaToVvqj_fKweEnBbbM-AnYkBO9dR20NAtoDdQRTwZ0huDJ8YxIH8_WK
 VaC7Xh23RXiaJt0gwi46yKXSsRZNfkeMuNX1wCugxpnzMNn5_UApmwh_ANttvJtUX8cupw4KGxRS9qS_nf
 pFb0mWjw-mSnoi11A_HeiH380rxDGefYk2DbtGSByZ1nhMioXm1FC1K0ieV1h4PL2xqauDTOKRsd9Lte1S
 t279INDT3j-4MN0W44JRdKCYFPmkuheMjk0p_VWVOKpCGG5eYuxVGMCljTZHCJaGk9jZqkWIHzAUmEt2
 B0OWAMgh_8vmUO1fc1QOw",

"encodedCpiSignedData":

"eyJjYnNkU2VyaWFsTnVtYmVyljoiMTIwMzAwMDA3OTIwMIZQMDAzMyIsImZjY0IkljoiMkFHMzJFRzcwMTB
 BliwiaW5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUUF6aW11dGgiOjAsImFudGVubmFCZWFTd2lkdGgi
 OjkwLjJhbnRlbn5hRG93bnRpbHQiOjAsImFudGVubmFHYWluljoxNCwiYW50ZW5uYU1vZGVsljoiRXh0ZX
 JuYWwiLCJoZWlnaHQiOjU1LjAsImhlaWdodFR5cGUiOiJBR0wiLCJob3Jpem9udGFsQWNjdXJhY3kiOjMslm
 luZG9vckRlcGxveW1lbnQiOnRydWUsImxhdGI0dWRlljo0Ny41Mjc2MDUsImxvbmddpdHVkZSI6LTk3LjYyNzA
 5NiwidmVydGljYWx2N1cmFjeSI6M30sInByb2Zlc3Npb25hbEluc3RhbGxlckRhdGEiOnsiY3BpSWQiOiIiLC
 JjcGlOYW1lIjoilwiaW5zdGFsbENlcnRpZmljYXRpb25UaW1lIjoiMjAyMC0wNC0yM1QwMDowMDowMFoifX0
 "

"protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "2AG32EG7010A",

"groupingParam": [

{

"groupId": "Baicells_01",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "Baicells_01"

}

]

}

2020-06-06T07:36:12.295Z - INFO - Registration message contains cpiSignatureData

2020-06-06T07:36:12.295Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2020-06-06T07:36:12.295Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"antennaAzimuth": 0,

"heightType": "AGL",

"antennaModel": "External",

"longitude": -97.627096,

"height": 55.0,


```

    "indoorDeployment": true,
    "latitude": 47.527605,
    "horizontalAccuracy": 3,
    "antennaDowntilt": 0,
    "antennaBeamwidth": 90,
    "antennaGain": 14,
    "verticalAccuracy": 3
  },
  "fcclId": "2AG32EG7010A",
  "professionalInstallerData": {
    "cpiName": "",
    "installCertificationTime": "2020-04-23T00:00:00Z",
    "cpild": ""
  },
  "cbsdSerialNumber": "1203000079202VP0033"
}
2020-06-06T07:36:12.357Z - INFO - verified signature on cpiSignatureData
2020-06-06T07:36:12.357Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-06T07:36:12.357Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-06T07:36:18.888Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "inquiredSpectrum": [
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      ]
    }
  ]
}
2020-06-06T07:36:18.888Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```

    }
  ]
}
2020-06-06T07:36:23.404Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "inquiredSpectrum": [
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      ]
    }
  ]
}
2020-06-06T07:36:23.418Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-06T07:36:29.963Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "operationParam": {
        "maxEirp": 27,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2020-06-06T07:36:29.963Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "channelType": "GAA",
      "grantExpireTime": "2020-06-13T07:36:29Z",
      "grantId": "477663472",
      "heartbeatInterval": 60,

```

```
        "response": {
            "responseCode": 0
        }
    ]
}
2020-06-06T07:36:36.839Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "477663472",
            "grantRenew": false,
            "operationState": "GRANTED"
        }
    ]
}
2020-06-06T07:36:36.855Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "477663472",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2020-06-06T07:39:56Z"
        }
    ]
}
2020-06-06T07:37:37.963Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "477663472",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2020-06-06T07:37:37.963Z - INFO - Time interval between two heartbeat request messages is: 61.123, limit
is: 65.0
2020-06-06T07:37:37.963Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "477663472",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2020-06-06T07:40:57Z"
        }
    ]
}
2020-06-06T07:38:38.523Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "477663472",
            "grantRenew": false,
```

```
        "operationState": "AUTHORIZED"
    }
]
}
2020-06-06T07:38:38.523Z - INFO - Time interval between two heartbeat request messages is: 60.56, limit is:
65.0
2020-06-06T07:38:38.523Z - INFO - engine sent successfully, the response to CBRS  :{
    "heartbeatResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "477663472",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2020-06-06T07:41:58Z"
        }
    ]
}
2020-06-06T07:39:39.121Z - INFO - heartbeat request from CBRS  :{
    "heartbeatRequest": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "477663472",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2020-06-06T07:39:39.121Z - INFO - Time interval between two heartbeat request messages is: 60.598, limit
is: 65.0
2020-06-06T07:39:39.121Z - INFO - engine sent successfully, the response to CBRS  :{
    "heartbeatResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "477663472",
            "response": {
                "responseCode": 501
            },
            "transmitExpireTime": "2020-06-06T07:39:39Z"
        }
    ]
}
2020-06-06T07:40:28.043Z - INFO - relinquishment request from CBRS  :{
    "relinquishmentRequest": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "477663472"
        }
    ]
}
2020-06-06T07:40:28.043Z - INFO - engine sent successfully, the response to CBRS  :{
    "relinquishmentResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "477663472",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
```

```
}  
]  
}
```

2020-06-06T07:40:29.559Z - INFO - arrived to nstep starting question answer session with the technician

2020-06-06T07:40:29.559Z - INFO - the question is : Did the CBSD stop RF transmission within 60 seconds of receiving Heartbeat response with responseCode = 501? please choose one of the answers :

2020-06-06T07:40:34.950Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds of receiving Heartbeat response with responseCode = 501? , the user choose y

2020-06-06T07:40:35.309Z - INFO - The final result of the test : WINNF.FT.C.HBT.6 is - passed

2.6 WINNF.FT.C.HBT.7

2020-06-06T07:42:32.762Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2020-06-06T07:42:32.762Z - INFO - the selected test from the user : WINNF.FT.C.HBT.7 is starting now

2020-06-06T07:42:45.762Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "E_UTRA"

},

"callSign": "baicells",

"cbsdCategory": "B",

"cbsdSerialNumber": "1203000079202VP0033",

"cpiSignatureData": {

"digitalSignature":

"pII9WcX2JXG_j3XqCQf-p_rSRc_zXStAl65iLnh9FEq187EDDQpPkWu347tZ4yfkYza9CpWFiA9ck7QW93O
 3eRU_-04BmYd7uerQXIMYBBLxnOvEJLE1tJXISjO9ExWrTRvU69ek-Fhp0pbAhboy_XZyffUixNNi-gSbUvU-
 gGkQHU7keNDqzpLSXrJ_rQyg8zO2tTyZSox83i8e1qP2zvN6J77cyx0DNxCh89UipmDGGdt_Owj2MKjDCSI
 NR6oWcfom6vCarWM2k6K4VV0TcwdvgMj4QB5HldBh_PAzpOoAMxHhXS3fFFCiMOKil_0GN2NW3OezkG
 n2XAhIQiCiy-jYnC7rndSYdg8h2KiaToVvqj_fKweEnBbbM-AnYkBO9dR20NAtoDdQRTwZ0huDJ8YxIH8_WK
 VaC7Xh23RXiaJt0gwi46yKXSsRZNfkeMuNX1wCugxpnzMNn5_UApmwh_ANttvJtUX8cupw4KGxRS9qS_nf
 pFb0mWjw-mSnoiu11A_HeiH380rxDGefYk2DbtGSByZ1nhMioXm1FC1K0ieV1h4PL2xqauDTOKRsd9Lte1S
 t279INDT3j-4MN0W44JRdKCYFPmkuheMjk0p_VWVOKpCGG5eYuxVGMCljTZHCJaGk9jZqkWIHzAUmEt2
 B0OWAMgh_8vmUO1fc1QOw",

"encodedCpiSignedData":

"eyJjYnNkU2VyaWFsTnVtYmVyljoiMTIwMzAwMDA3OTIwMIZQMDAzMyIsImZjY0IkljoiMkFHMzJFRzcvMTB
 BliwiaW5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUJF6aW11dGgiOjAsImFudGVubmFCZWFTd2lkdGgi
 OjkwLjJhbnRlbn5hRG93bnRpbHQiOjAsImFudGVubmFHYWluljoxNCwiYW50ZW5uYU1vZGVsljoiRXh0ZX
 JuYWwiLCJoZWlnaHQiOjU1LjAsImhlaWdodFR5cGUiOiJBR0wiLCJob3Jpem9udGFsQWNjdXJhY3kiOjMslm
 luZG9vckRlcGxveW1lbnQiOnRydWUsImxhdGloZWVljo0Ny41Mjc2MDUsImxvbmdbpdHVkZSI6LTk3LjYyNzA
 5NiwidmVydGlyYWxBY2N1cmFjeSI6M30sInByb2Zlc3Npb25hbEluc3RhbGxlckRhGEiOnsiY3BpSWQiOiIiLC
 JjcGlOYW1lIjoilwiaW5zdGFsbENlcnRpZmljYXRpb25UaW1lIjoIMjAyMC0wNC0yM1QwMDowMDowMFoifX0
 "

"protectedHeader": "eyJhbGciOiJSUzU1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "2AG32EG7010A",

"groupingParam": [

{

"groupId": "Baicells_01",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "Baicells_01"

}

]

}

2020-06-06T07:42:45.809Z - INFO - Registration message contains cpiSignatureData

2020-06-06T07:42:45.809Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2020-06-06T07:42:45.809Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"antennaAzimuth": 0,

"heightType": "AGL",

"antennaModel": "External",

"longitude": -97.627096,

"height": 55.0,

```
    "indoorDeployment": true,
    "latitude": 47.527605,
    "horizontalAccuracy": 3,
    "antennaDowntilt": 0,
    "antennaBeamwidth": 90,
    "antennaGain": 14,
    "verticalAccuracy": 3
  },
  "fcclId": "2AG32EG7010A",
  "professionalInstallerData": {
    "cpiName": "",
    "installCertificationTime": "2020-04-23T00:00:00Z",
    "cpild": ""
  },
  "cbsdSerialNumber": "1203000079202VP0033"
}
2020-06-06T07:42:45.871Z - INFO - verified signature on cpiSignatureData
2020-06-06T07:42:45.871Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-06T07:42:45.871Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-06T07:42:52.434Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "inquiredSpectrum": [
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      ]
    }
  ]
}
2020-06-06T07:42:52.450Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
```

```
    }
  ]
}
2020-06-06T07:42:58.997Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "operationParam": {
        "maxEirp": 27,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2020-06-06T07:42:58.997Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "channelType": "GAA",
      "grantExpireTime": "2020-06-13T07:42:58Z",
      "grantId": "784383167",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-06T07:43:05.592Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "784383167",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2020-06-06T07:43:05.607Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "784383167",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-06T07:46:25Z"
    }
  ]
}
2020-06-06T07:44:06.161Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "784383167",
```



```
        "grantRenew": false,
        "operationState": "AUTHORIZED"
    }
]
}
2020-06-06T07:44:06.161Z - INFO - Time interval between two heartbeat request messages is: 60.569, limit
is: 65.0
2020-06-06T07:44:06.161Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "784383167",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2020-06-06T07:47:26Z"
        }
    ]
}
2020-06-06T07:45:06.671Z - INFO - heartbeat request from CBRS  : {
    "heartbeatRequest": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "784383167",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2020-06-06T07:45:06.671Z - INFO - Time interval between two heartbeat request messages is: 60.51, limit is:
65.0
2020-06-06T07:45:06.687Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "784383167",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2020-06-06T07:48:26Z"
        }
    ]
}
2020-06-06T07:46:07.240Z - INFO - heartbeat request from CBRS  : {
    "heartbeatRequest": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "784383167",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2020-06-06T07:46:07.240Z - INFO - Time interval between two heartbeat request messages is: 60.57, limit is:
65.0
2020-06-06T07:46:07.240Z - INFO - engine sent successfully, the response to CBRS  : {
    "heartbeatResponse": [
        {
```

```

    "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
    "grantId": "784383167",
    "response": {
      "responseCode": 502
    },
    "transmitExpireTime": "2020-06-06T07:46:07Z"
  }
]
}
2020-06-06T07:46:36.390Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "784383167"
    }
  ]
}
2020-06-06T07:46:36.390Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "784383167",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2020-06-06T07:46:37.548Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-06T07:46:37.548Z - 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 :
2020-06-06T07:47:41.635Z - INFO - for the question : Did the CBSD stop RF transmission within 60 seconds
of receiving Heartbeat response with responseCode = 502? , the user choose y
2020-06-06T07:47:42.026Z - INFO - The final result of the test : WINNF.FT.C.HBT.7 is - passed

```

2.7 WINNF.FT.C.HBT.9

2020-06-06T07:51:48.555Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2020-06-06T07:51:48.555Z - INFO - the selected test from the user : WINNF.FT.C.HBT.9 is starting now

2020-06-06T07:52:10.835Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "E_UTRA"

},

"callSign": "baicells",

"cbsdCategory": "B",

"cbsdSerialNumber": "1203000079202VP0033",

"cpiSignatureData": {

"digitalSignature":

"pII9WcX2JXG_j3XqCQf-p_rSRc_zXStALi65iLnh9FEq187EDDQpPkWu347tZ4yfkYza9CpWFiA9ck7QW93O
 3eRU_-04BmYd7uerQXIMYBBLxnOvEJLE1tJXISjO9ExWrTRvU69ek-Fhp0pbAhboy_XZyffUixNNi-gSbUvU-
 gGkQHU7keNDqzpLSXrJ_rQyg8zO2tTyZSox83i8e1qP2zvN6J77cyx0DNxCh89UipmDGGdt_Owj2MKjDCSI
 NR6oWcfom6vCarWM2k6K4VV0TcwdvgMj4QB5HldBh_PAzpOoAMxHhXS3fFFCiMOKil_0GN2NW3OezkG
 n2XAhIQiCiy-jYnC7rndSYdg8h2KiaToVvqj_fKweEnBbbM-AnYkBO9dR20NAtoDdQRTwZ0huDJ8YxIH8_WK
 VaC7Xh23RXiaJt0gwi46yKXSsRZNfkeMuNX1wCugxpnzMNn5_UApmwh_ANttvJtUX8cupw4KGxRS9qS_nf
 pFb0mWjw-mSnoi11A_HeiH380rxDGefYk2DbtGSByZ1nhMioXm1FC1K0ieV1h4PL2xqauDTOKRsd9Lte1S
 t279INDT3j-4MN0W44JRdKCYFPmkuheMjk0p_VWVOKpCGG5eYuxVGMCljTZHCJaGk9jZqkWIHzAUmEt2
 B0OWAMgh_8vmUO1fc1QOw",

"encodedCpiSignedData":

"eyJjYnNkU2VyaWFsTnVtYmVyljoiMTIwMzAwMDA3OTIwMIZQMDAzMyIsImZjY0IkljoiMkFHMzJFRzcvMTB
 BliwiaW5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUUF6aW11dGgiOjAsImFudGVubmFCZWFTd2lkdGgi
 OjkwLjJhbnRlbn5hRG93bnRpbHQiOjAsImFudGVubmFHYWluljoxNCwiYW50ZW5uYU1vZGVsljoiRXh0ZX
 JuYWwiLCJoZWlnaHQiOjU1LjAsImhlaWdodFR5cGUiOiJBR0wiLCJob3Jpem9udGFsQWNjdXJhY3kiOjMslm
 luZG9vckRlcGxveW1lbnQiOnRydWUsImxhdGI0dWRlljo0Ny41Mjc2MDUsImxvbmddpdHVkZSI6LTk3LjYyNzA
 5NiwidmVydGljYWxvY2N1cmFjeSI6M30sInByb2Zlc3Npb25hbEluc3RhbGxlckRhGEiOnsiY3BpSWQiOiIiLC
 JjcGlOYW1lIjoilwiaw5zdGFsbENlcnRpZmljYXRpb25UaW1lIjoIMjAyMC0wNC0yM1QwMDowMDowMFoifX0
 "

"protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"

},

"fcellId": "2AG32EG7010A",

"groupingParam": [

{

"groupId": "Baicells_01",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "Baicells_01"

}

]

}

2020-06-06T07:52:10.865Z - INFO - Registration message contains cpiSignatureData

2020-06-06T07:52:10.865Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2020-06-06T07:52:10.865Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"antennaAzimuth": 0,

"heightType": "AGL",

"antennaModel": "External",

"longitude": -97.627096,

"height": 55.0,

```
        "indoorDeployment": true,
        "latitude": 47.527605,
        "horizontalAccuracy": 3,
        "antennaDowntilt": 0,
        "antennaBeamwidth": 90,
        "antennaGain": 14,
        "verticalAccuracy": 3
    },
    "fcclId": "2AG32EG7010A",
    "professionalInstallerData": {
        "cpiName": "",
        "installCertificationTime": "2020-04-23T00:00:00Z",
        "cpild": ""
    },
    "cbsdSerialNumber": "1203000079202VP0033"
}
2020-06-06T07:52:10.927Z - INFO - verified signature on cpiSignatureData
2020-06-06T07:52:10.927Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-06T07:52:10.927Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2020-06-06T07:52:17.631Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "operationParam": {
                "maxEirp": 27,
                "operationFrequencyRange": {
                    "highFrequency": 3635000000,
                    "lowFrequency": 3615000000
                }
            }
        }
    ]
}
2020-06-06T07:52:17.631Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "channelType": "GAA",
            "grantExpireTime": "2020-06-13T07:52:17Z",
            "grantId": "667972016",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2020-06-06T07:52:24.272Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
```

```
{
  "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
  "grantId": "667972016",
  "grantRenew": false,
  "operationState": "GRANTED"
}
]
```

2020-06-06T07:55:44.289Z - INFO - engine sent successfully, the response to CBRS : {
 "heartbeatResponse": [
 {
 "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
 "grantId": "667972016",
 "response": {
 "responseCode": 501
 },
 "transmitExpireTime": "2020-06-06T07:55:44Z"
 }
]
}

2020-06-06T07:55:46.196Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-06T07:55:46.196Z - INFO - the question is : Were there RF transmissions from the CBSD during the test? please choose one of the answers :
2020-06-06T07:55:59.743Z - INFO - for the question : Were there RF transmissions from the CBSD during the test? , the user choose n
2020-06-06T07:56:00.134Z - INFO - The final result of the test : WINNF.FT.C.HBT.9 is – passed

2.8 WINNF.FT.C.HBT.10

2020-06-06T08:14:23.296Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2020-06-06T08:14:23.296Z - INFO - the selected test from the user : WINNF.FT.C.HBT.10 is starting now

2020-06-06T08:14:44.528Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "E_UTRA"

},

"callSign": "baicells",

"cbsdCategory": "B",

"cbsdSerialNumber": "1203000079202VP0033",

"cpiSignatureData": {

"digitalSignature":

"pII9WcX2JXG_j3XqCQf-p_rSRc_zXStALi65iLnh9FEq187EDDQpPkWu347tZ4yfkYza9CpWFiA9ck7QW93O
 3eRU_-04BmYd7uerQXIMYBBLxnOvEJLE1tJXISjO9ExWrTRvU69ek-Fhp0pbAhboy_XZyffUixNNi-gSbUvU-
 gGkQHU7keNDqzpLSXrJ_rQyg8zO2tTyZSox83i8e1qP2zvN6J77cyx0DNxCh89UipmDGGdt_Owj2MKjDCSI
 NR6oWcfom6vCarWM2k6K4VV0TcwdvgMj4QB5HldBh_PAzpOoAMxHhXS3fFFCiMOKil_0GN2NW3OezkG
 n2XAhIQiCiy-jYnC7rndSYdg8h2KiaToVvqj_fKweEnBbbM-AnYkBO9dR20NAtoDdQRTwZ0huDJ8YxIH8_WK
 VaC7Xh23RXiaJt0gwi46yKXSsRZNfkeMuNX1wCugxpnzMNn5_UApmwh_ANttvJtUX8cupw4KGxRS9qS_nf
 pFb0mWjw-mSnoiu11A_HeiH380rxDGefYk2DbtGSByZ1nhMioXm1FC1K0ieV1h4PL2xqauDTOKRsd9Lte1S
 t279INDT3j-4MN0W44JRdKCYFPmkuheMjk0p_VWVOKpCGG5eYuxVGMCljTZHCJaGk9jZqkWIHzAUmEt2
 B0OWAMgh_8vmUO1fc1QOw",

"encodedCpiSignedData":

"eyJjYnNkU2VyaWFsTnVtYmVyljoiMTIwMzAwMDA3OTIwMIZQMDAzMyIsImZjY0IkljoiMkFHMzJFRzcvMTB
 BliwiaW5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUUF6aW11dGgiOjAsImFudGVubmFCZWFTd2lkdGgi
 OjkwLjJhbnRlbn5hRG93bnRpbHQiOjAsImFudGVubmFHYWluljoxNCwiYW50ZW5uYU1vZGVsljoiRXh0ZX
 JuYWwiLCJoZWlnaHQiOjU1LjAsImhlaWdodFR5cGUiOiJBR0wiLCJob3Jpem9udGFsQWNjdXJhY3kiOjMslm
 luZG9vckRlcGxveW1lbnQiOnRydWUsImxhdGI0dWRlljo0Ny41Mjc2MDUsImxvbmddpdHVkZSI6LTk3LjYyNzA
 5NiwidmVydGljYWxvY2N1cmFjeSI6M30sInByb2Zlc3Npb25hbEluc3RhbGxlckRhdGEiOnsiY3BpSWQiOiIiLC
 JjcGlOYW1lIjoilwliaW5zdGFsbENlcnRpZmljYXRpb25UaW1lIjoilMjAyMC0wNC0yM1QwMDowMDowMFoifX0
 "

"protectedHeader": "eyJhbnRlcGciOiJSUzU1NiIsInR5cCI6IkpvcXVCJ9"

},

"fccId": "2AG32EG7010A",

"groupingParam": [

{

"groupId": "Baicells_01",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "Baicells_01"

}

]

}

2020-06-06T08:14:44.559Z - INFO - Registration message contains cpiSignatureData

2020-06-06T08:14:44.559Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2020-06-06T08:14:44.559Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"antennaAzimuth": 0,

"heightType": "AGL",

"antennaModel": "External",

"longitude": -97.627096,

"height": 55.0,

```

    "indoorDeployment": true,
    "latitude": 47.527605,
    "horizontalAccuracy": 3,
    "antennaDowntilt": 0,
    "antennaBeamwidth": 90,
    "antennaGain": 14,
    "verticalAccuracy": 3
  },
  "fcclId": "2AG32EG7010A",
  "professionalInstallerData": {
    "cpiName": "",
    "installCertificationTime": "2020-04-23T00:00:00Z",
    "cpild": ""
  },
  "cbsdSerialNumber": "1203000079202VP0033"
}
2020-06-06T08:14:44.621Z - INFO - verified signature on cpiSignatureData
2020-06-06T08:14:44.621Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-06T08:14:44.621Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-06T08:14:51.403Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "inquiredSpectrum": [
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      ]
    }
  ]
}
2020-06-06T08:14:51.403Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "response": {
        "responseCode": 0
      }
    }
  ]
}

```

```
    }
  ]
}
2020-06-06T08:15:00.200Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "operationParam": {
        "maxEirp": 27,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2020-06-06T08:15:00.214Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "channelType": "GAA",
      "grantExpireTime": "2020-06-13T08:15:00Z",
      "grantId": "800270256",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-06T08:15:06.809Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "800270256",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2020-06-06T08:15:06.809Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "800270256",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-06T08:18:26Z"
    }
  ]
}
2020-06-06T08:16:07.559Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "800270256",
```



```

        "grantRenew": false,
        "operationState": "AUTHORIZED"
    }
]
}
2020-06-06T08:16:07.559Z - INFO - Time interval between two heartbeat request messages is: 60.75, limit is:
65.0
2020-06-06T08:16:07.573Z - INFO - engine sent successfully, the response to CBRS  :{
    "heartbeatResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "800270256",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2020-06-06T08:19:27Z"
        }
    ]
}
2020-06-06T08:17:08.127Z - INFO - heartbeat request from CBRS  :{
    "heartbeatRequest": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "800270256",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2020-06-06T08:17:08.127Z - INFO - Time interval between two heartbeat request messages is: 60.568, limit
is: 65.0
2020-06-06T08:17:08.127Z - INFO - LAST HBT RESPONSE THAT SET TRANSMIT_EXPIRE_TIME WAS AT:
2020-06-06 08:16:07.559000
2020-06-06T08:20:28.134Z - INFO - engine sent successfully, the response to CBRS  :{
    "heartbeatResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "800270256",
            "response": {
                "responseCode": 501
            },
            "transmitExpireTime": "2020-06-06T08:20:28Z"
        }
    ]
}
2020-06-06T08:20:29.165Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-06T08:20:29.165Z - INFO - the question is : Did the CBSD stop RF transmissions within
(transmitExpireTime + 60seconds) of last valid heartbeat response? please choose one of the answers :
2020-06-06T08:21:27.838Z - INFO - for the question : Did the CBSD stop RF transmissions within
(transmitExpireTime + 60seconds) of last valid heartbeat response? , the user choose y
2020-06-06T08:21:28.494Z - INFO - The final result of the test : WINNF.FT.C.HBT.10 is - passed

```

3. CBSD Relinquishment Process

3.1 WINNF. FT.C. RLQ.1

2020-06-06T05:00:22.078Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2020-06-06T05:00:22.092Z - INFO - the selected test from the user : WINNF. FT.C. RLQ.1 is starting now

2020-06-06T05:00:35.530Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA"
    },
    "callSign": "baicells",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "1203000079202VP0033",
    "cpiSignatureData": {
      "digitalSignature":
"pII9WcX2JXG_j3XqCQf-p_rSrc_zXStAlI65iLnh9FEq187EDDQpPkWu347tZ4yfkYza9CpWFiA9ck7QW93O
3eRU_-04BmYd7uerQXIMYBBLxnOvEJLE1tJXISjO9ExWrTRvU69ek-Fhp0pbAhboy_XZyffUixNNi-gSbUvU-
gGkQHU7keNDqzpLSXrJ_rQyg8zO2tTyZSox83i8e1qP2zvN6J77cyx0DNxCh89UipmDGGdt_Owj2MKjDCSI
NR6oWcfom6vCarWM2k6K4VV0TcwdvgMj4QB5HldBh_PAzpOoAMxHhXS3fFFCiMOKiI_0GN2NW3OezkG
n2XAhIQiCiy-jYnC7rndSYdg8h2KiaToVvqj_fKweEnBbbM-AnYkBO9dR20NAtoDdQRtwZ0huDJ8YxIH8_WK
VaC7Xh23RXiaJt0gwi46yKXSsRZNFkeMuNX1wCugxpnzMNn5_UApmwh_ANttvJtUX8cupw4KGxRS9qS_nf
pFb0mWjw-mSnoiu11A_HeiH380rxDGefYk2DbItGSByZ1nhMioXm1FC1K0ieV1h4PL2xqauDTOKRsd9Lte1S
t279INDT3j-4MN0W44JRdKCYFPmkuheMjk0p_VWVOKpCGG5eYuxVGMCljTZHCJaGk9jZqkWIHzAUmEt2
B0OWAMgh_8vmUO1fc1QOw",
      "encodedCpiSignedData":
"eyJjYnNkU2VyaWFsTnVtYmVyljoiMTIwMzAwMDA3OTIwMIZQMDAzMyIsImZjY0lkjoiMkFHMzJFRzcvMTB
BliwiaW5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUF6aW11dGgiOjAsImFudGVubmFCZWZtd2lkdGgi
OjkwLjJhbnRlbn5hRG93bnRpbHQiOjAsImFudGVubmFHYWluljoxNCwiYW50ZW5uYU1vZGVsljoiRXh0ZX
JuYWwiLCJoZWlnaHQiOjU1LjAsImhlaWdodFR5cGUiOiJBR0wiLCJob3Jpem9udGFsQWNjdXJhY3kiOjMsIm
luZG9vckRlcGxveW1lbnQiOnRydWUslmxdGI0dWRlljo0Ny41Mjc2MDUslmxbmdpdHVkZSI6LTK3LjYyNzA
5NiwidmVydGljYWx2N1cmFjeSI6M30slmByb2Zlc3Npb25hbEluc3RhbGxlckRhdGEiOnsiY3BpSWQiOiIlLC
JjcGlOYW1lIjoilwliaW5zdGFsbENlcnRpZmljYXRpb25UaW1lIjoilMjAyMC0wNC0yM1QwMDowMDowMfoifX0
",
      "protectedHeader": "eyJhbnRlcGciOiJSUz11NiIsInR5cCI6IkpXVCJ9"
    },
    "fccId": "2AG32EG7010A",
    "groupingParam": [
      {
        "groupId": "Baicells_01",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [],
    "userId": "Baicells_01"
  }
]
```

2020-06-06T05:00:35.562Z - INFO - Registration message contains cpiSignatureData

2020-06-06T05:00:35.562Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2020-06-06T05:00:35.562Z - INFO - encodedCpiSignedData contents = {

```
"installationParam": {
  "antennaAzimuth": 0,
  "heightType": "AGL",
  "antennaModel": "External",
  "longitude": -97.627096,
  "height": 55.0,
```

```

    "indoorDeployment": true,
    "latitude": 47.527605,
    "horizontalAccuracy": 3,
    "antennaDowntilt": 0,
    "antennaBeamwidth": 90,
    "antennaGain": 14,
    "verticalAccuracy": 3
  },
  "fcclId": "2AG32EG7010A",
  "professionalInstallerData": {
    "cpiName": "",
    "installCertificationTime": "2020-04-23T00:00:00Z",
    "cpild": ""
  },
  "cbsdSerialNumber": "1203000079202VP0033"
}
2020-06-06T05:00:35.625Z - INFO - verified signature on cpiSignatureData
2020-06-06T05:00:35.625Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-06T05:00:35.625Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-06T05:00:42.296Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "operationParam": {
        "maxEirp": 27,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2020-06-06T05:00:42.296Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "channelType": "GAA",
      "grantExpireTime": "2020-06-13T05:00:42Z",
      "grantId": "613331023",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-06T05:00:48.905Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [

```

```

    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "613331023",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2020-06-06T05:00:48.905Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "613331023",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-06T05:04:08Z"
    }
  ]
}
2020-06-06T05:01:49.530Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "613331023",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2020-06-06T05:01:49.530Z - INFO - Time interval between two heartbeat request messages is: 60.625, limit
is: 65.0
2020-06-06T05:01:49.546Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "613331023",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-06T05:05:09Z"
    }
  ]
}
2020-06-06T05:02:50.092Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "613331023"
    }
  ]
}
2020-06-06T05:02:50.108Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "613331023",
      "response": {

```

```
"responseCode": 0
```

```
}
```

```
}
```

```
]
```

```
}
```

2020-06-06T05:02:52.046Z - INFO - arrived to nstep starting question answer session with the technician

2020-06-06T05:02:52.046Z - INFO - the question is : Did CBSD1 cease RF transmission before receipt of Relinquishment Request by Test Harness? please choose one of the answers :

2020-06-06T05:02:55.016Z - INFO - for the question : Did CBSD1 cease RF transmission before receipt of Relinquishment Request by Test Harness? , the user choose y

2020-06-06T05:02:55.484Z - INFO - The final result of the test : WINNF.FT.C.RLQ.1 is - passed

4 CBSD Deregistration Process

4.1 WINNF.FT.C.DRG.1

2020-06-06T05:05:39.446Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2020-06-06T05:05:39.446Z - INFO - the selected test from the user : WINNF.FT.C.DRG.1 is starting now

2020-06-06T05:06:06.368Z - INFO - registration request from CBRS : {

```
"registrationRequest": [
  {
    "airInterface": {
      "radioTechnology": "E_UTRA"
    },
    "callSign": "baicells",
    "cbsdCategory": "B",
    "cbsdSerialNumber": "1203000079202VP0033",
    "cpiSignatureData": {
      "digitalSignature":
"pII9WcX2JXG_j3XqCQf-p_rSRc_zXStALi65iLnh9FEq187EDDQpPkWu347tZ4yfkYza9CpWFiA9ck7QW93O
3eRU_-04BmYd7uerQXIMYBBLxnOvEJLE1tJXISjO9ExWvTRvU69ek-Fhp0pbAhboy_XZyffUixNNi-gSbUvU-
gGkQHU7keNDqzpLSXrJ_rQyg8zO2tTyZSox83i8e1qP2zvN6J77cyx0DNxCh89UipmDGGdt_Owj2MKjDCSI
NR6oWcfom6vCarWM2k6K4VV0TcwdvgMj4QB5HldBh_PAzpOoAMxHhXS3fFFCiMOKil_0GN2NW3OezkG
n2XAhIQiCiy-jYnC7rndSYdg8h2KiaToVvqj_fKweEnBbbM-AnYkBO9dR20NAtoDdQRtwZ0huDJ8YxIH8_WK
VaC7Xh23RXiaJt0gwi46yKXSsRZNfkeMuNX1wCugxpnzMNn5_UApmwh_ANttvJtUX8cupw4KGxRS9qS_nf
pFb0mWjw-mSnoiu11A_HeiH380rxDGefYk2DbtGSByZ1nhMioXm1FC1K0ieV1h4PL2xqauDTOKRsd9Lte1S
t279INDT3j-4MN0W44JRdKCYFPmkuheMjk0p_VWVOKpCGG5eYuxVGMCljTZHCJaGk9jZqkWIHzAUmEt2
B0OWAMgh_8vmUO1fc1QOw",
      "encodedCpiSignedData":
"eyJjYnNkU2VyaWFsTnVtYmVyljoiMTIwMzAwMDA3OTIwMIZQMDAzMyIsImZjY0IkljoiMkFHMzJFRzcvMTB
BliwiaW5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUUF6aW11dGgiOjAsImFudGVubmFCZWZtd2lkdGgi
OjkwLjJhbnRlbn5hRG93bnRpbHQiOjAsImFudGVubmFHYWluljoxNCwiYW50ZW5uYU1vZGVsljoiRXh0ZX
JuYWwiLCJoZWlnaHQiOjU1LjAsImhlaWdodFR5cGUiOiJBR0wiLCJob3Jpem9udGFsQWNjdXJhY3kiOjMslm
luZG9vckRlcGxveW1lbnQiOnRydWUslmxhdGI0dWRlljo0Ny41Mjc2MDUslmxvbmdpdHVkZSI6LTK3LjYyNzA
5NiwidmVydGljYWx2N1cmFjeSI6M30slnByb2Zlc3Npb25hbEluc3RhbGxlckRhGEiOnsiY3BpSWQiOiIlLC
JjcGlOYW1lIjoilwliaW5zdGFsbENlcnRpZmljYXRpb25UaW1lIjoilMjAyMC0wNC0yM1QwMDowMDowMFoifX0
",
      "protectedHeader": "eyJhbnRlcGciOiJSUzUz1NilslnR5cCI6IkpXVCJ9"
    },
    "fccId": "2AG32EG7010A",
    "groupingParam": [
      {
        "groupId": "Baicells_01",
        "groupType": "INTERFERENCE_COORDINATION"
      }
    ],
    "measCapability": [],
    "userId": "Baicells_01"
  }
]
```

2020-06-06T05:06:06.414Z - INFO - Registration message contains cpiSignatureData

2020-06-06T05:06:06.414Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2020-06-06T05:06:06.414Z - INFO - encodedCpiSignedData contents = {

```
"installationParam": {
  "antennaAzimuth": 0,
  "heightType": "AGL",
  "antennaModel": "External",
  "longitude": -97.627096,
  "height": 55.0,
```

```
        "indoorDeployment": true,
        "latitude": 47.527605,
        "horizontalAccuracy": 3,
        "antennaDowntilt": 0,
        "antennaBeamwidth": 90,
        "antennaGain": 14,
        "verticalAccuracy": 3
    },
    "fcclId": "2AG32EG7010A",
    "professionalInstallerData": {
        "cpiName": "",
        "installCertificationTime": "2020-04-23T00:00:00Z",
        "cpild": ""
    },
    "cbsdSerialNumber": "1203000079202VP0033"
}
2020-06-06T05:06:06.476Z - INFO - verified signature on cpiSignatureData
2020-06-06T05:06:06.476Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-06T05:06:06.476Z - INFO - engine sent successfully, the response to CBRS : {
    "registrationResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2020-06-06T05:06:13.007Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "operationParam": {
                "maxEirp": 27,
                "operationFrequencyRange": {
                    "highFrequency": 3635000000,
                    "lowFrequency": 3615000000
                }
            }
        }
    ]
}
2020-06-06T05:06:13.007Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "channelType": "GAA",
            "grantExpireTime": "2020-06-13T05:06:13Z",
            "grantId": "581237101",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2020-06-06T05:06:19.617Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
```

```
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "581237101",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2020-06-06T05:06:19.617Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "581237101",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-06T05:09:39Z"
    }
  ]
}
2020-06-06T05:07:20.647Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "581237101",
      "grantRenew": false,
      "operationState": "AUTHORIZED"
    }
  ]
}
2020-06-06T05:07:20.647Z - INFO - Time interval between two heartbeat request messages is: 61.03, limit is:
65.0
2020-06-06T05:07:20.647Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "581237101",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-06T05:10:40Z"
    }
  ]
}
2020-06-06T05:08:21.209Z - INFO - relinquishment request from CBRS : {
  "relinquishmentRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "581237101"
    }
  ]
}
2020-06-06T05:08:21.209Z - INFO - engine sent successfully, the response to CBRS : {
  "relinquishmentResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "581237101",
      "response": {
```



```
        "responseCode": 0
      }
    ]
  }
2020-06-06T05:08:21.724Z - INFO - deregistration request from CBRS : {
  "deregistrationRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033"
    }
  ]
}
2020-06-06T05:08:21.740Z - INFO - engine sent successfully, the response to CBRS : {
  "deregistrationResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-06T05:08:23.536Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-06T05:08:23.536Z - 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 :
2020-06-06T05:08:46.710Z - 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
2020-06-06T05:08:47.085Z - INFO - The final result of the test : WINNF.FT.C.DRG.1 is - passed
```

5 CBSD Security Validation

5.1 WINNF.FT.C.SCS.1

2020-06-05T08:18:21.519Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2020-06-05T08:18:21.519Z - INFO - the selected test from the user : WINNF.FT.C.SCS.1 is starting now

2020-06-05T08:19:02.826Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "E_UTRA"

},

"callSign": "baicells",

"cbsdCategory": "B",

"cbsdSerialNumber": "1203000079202VP0033",

"cpiSignatureData": {

"digitalSignature":

"pII9WcX2JXG_j3XqCQf-p_rSRc_zXStAl65iLnh9FEq187EDDQpPkWu347tZ4yfkYza9CpWFiA9ck7QW93O3eRU_-04BmYd7uerQXIMYBBLxnOvEJLE1tJXISjO9ExWrTRvU69ek-Fhp0pbAhboy_XZyffUixNNi-gSbUvU-gGkQHU7keNDqzpLSXrJ_rQyg8zO2tTyZSox83i8e1qP2zvN6J77cyx0DNxCh89UipmDGGdt_Owj2MKjDCSINR6oWcfom6vCarWM2k6K4VV0TcwdvgMj4QB5HldBh_PAzpOoAMxHhXS3fFFCiMOKil_0GN2NW3OezkGn2XAhIQiCiy-jYnC7rndSYdg8h2KiaToVvqj_fKweEnBbbM-AnYkBO9dR20NAtoDdQRTwZ0huDJ8YxIH8_WKVAC7Xh23RXiaJt0gwi46yKXSsRZNFkeMuNX1wCugxpnzMNn5_UApmwh_ANttvJtUX8cupw4KGxRS9qS_nfpFb0mWjw-mSnoiu11A_HeiH380rxDGefYk2DbtGSByZ1nhMioXm1FC1K0ieV1h4PL2xqauDTOKRsd9Lte1St279INDT3j-4MN0W44JRdKCYFPmkuheMjk0p_VWVOKpCGG5eYuxVGMCljTZHCJaGk9jZqkWIHzAUmEt2B0OWAMgh_8vmUO1fc1QOw",

"encodedCpiSignedData":

"eyJjYnNkU2VyaWFsTnVtYmVyljoiMTIwMzAwMDA3OTIwMIZQMDAzMyIsImZjY0IkljoiMkFHMzJFRzcvMTBBLiwiaw5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUUF6aW11dGgiOjAsImFudGVubmFCZWFTd2lkdGgiOjkwLjJhbnRlbn5hRG93bnRpbHQiOjAsImFudGVubmFHYWluljoxNCwiYW50ZW5uYU1vZGVsljoiRXh0ZXJuYWwiLCJoZWlnaHQiOjU1LjAsImhlaWdodFR5cGUiOiJBR0wiLCJob3Jpem9udGFsQWNjdXJhY3kiOjMslmluZG9vckRlcGxveW1lbnQiOnRydWUsImxhdGI0dWRlljo0Ny41Mjc2MDUsImxvbmddpdHVkZSI6LTk3LjYyNzA5NiwidmVydGljYWx2N1cmFjeSI6M30sInByb2Zlc3Npb25hbEluc3RhbGxlckRhdGEiOnsiY3BpSWQiOiIiLCJjcGlOYW1lIjoilwiaw5zdGFsbENlcnRpZmljYXRpb25UaW1lIjoilMjAyMC0wNC0yM1QwMDowMDowMFoifX0"

"protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"

},

"fcclId": "2AG32EG7010A",

"groupingParam": [

{

"groupId": "Baicells_01",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "Baicells_01"

}

]

}

2020-06-05T08:19:02.858Z - INFO - Registration message contains cpiSignatureData

2020-06-05T08:19:02.858Z - INFO - protectedHeader = {u'alg': u'RS256', u'typ': u'JWT'}

2020-06-05T08:19:02.858Z - INFO - encodedCpiSignedData contents = {

"installationParam": {

"antennaAzimuth": 0,

"heightType": "AGL",

"antennaModel": "External",

"longitude": -97.627096,

"height": 55.0,

```
"indoorDeployment": true,
"latitude": 47.527605,
"horizontalAccuracy": 3,
"antennaDowntilt": 0,
"antennaBeamwidth": 90,
"antennaGain": 14,
"verticalAccuracy": 3
},
"fcclId": "2AG32EG7010A",
"professionalInstallerData": {
  "cpiName": "",
  "installCertificationTime": "2020-04-23T00:00:00Z",
  "cpild": ""
},
"cbstdSerialNumber": "1203000079202VP0033"
}
2020-06-05T08:19:02.927Z - INFO - verified signature on cpiSignatureData
2020-06-05T08:19:02.943Z - INFO - cpiSignatureData data successfully validated against jsonschema
2020-06-05T08:19:02.943Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbstdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
}
2020-06-05T08:19:03.974Z - INFO - arrived to nstep starting question answer session with the technician
2020-06-05T08:19:03.974Z - INFO - the question is : Were there RF transmissions from the CBSD1 during
the test? please choose one of the answers :
2020-06-05T08:22:23.552Z - INFO - for the question : Were there RF transmissions from the CBSD1 during
the test? , the user choose n
2020-06-05T08:22:23.852Z - INFO - The final result of the test : WINNF.FT.C.SCS.1 is - passed
```

5.2 WINNF.FT.C.SCS.2

2020-06-05T08:27:53.280Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13
2020-06-05T08:27:53.280Z - INFO - the selected test from the user : WINNF.FT.C.SCS.2 is starting now

5.3 WINNF.FT.C.SCS.3

2020-06-05T08:36:21.617Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13
2020-06-05T08:36:21.617Z - INFO - the selected test from the user : WINNF.FT.C.SCS.3 is starting now

5.4 WINNF.FT.C.SCS.4

2020-06-05T08:40:59.069Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13
2020-06-05T08:40:59.069Z - INFO - the selected test from the user : WINNF.FT.C.SCS.4 is starting now

5.5 WINNF.FT.C.SCS.5

2020-06-05T08:45:46.905Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13
2020-06-05T08:45:46.905Z - INFO - the selected test from the user : WINNF.FT.C.SCS.5 is starting now

CBSD RF POWER MEASUREMENT

5.6 WINNF.PT.C.HBT.1(Max Eirp = 25 dBm/MHz)

2020-06-05T07:22:48.243Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2020-06-05T07:22:48.243Z - INFO - Selected spectrum frequency is {'lowFrequency': 361500000L, 'highFrequency': 3635000000L}

2020-06-05T07:22:48.243Z - INFO - Granted Spectrum Max Eirp = 25dBm/MHz

2020-06-05T07:22:48.243Z - INFO - the selected test from the user : PowerMeasTest is starting now

2020-06-05T07:22:59.957Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "E_UTRA"

},

"callSign": "baicells",

"cbsdCategory": "B",

"cbsdSerialNumber": "1203000079202VP0033",

"cpiSignatureData": {

"digitalSignature":

```

"pII9WcX2JXG_j3XqCQf-p_rSRc_zXStALi65iLnh9FEq187EDDQpPkWu347tZ4yfkYza9CpWFiA9ck7QW93O
3eRU_-04BmYd7uerQXIMYBBLxnOvEJLE1tJXISjO9ExWrTRvU69ek-Fhp0pbAhboy_XZyffUixNNi-gSbUvU-
gGkQHU7keNDqzpLSXrJ_rQyg8zO2tTyZSox83i8e1qP2zvN6J77cyx0DNxCh89UipmDGGdt_Owj2MKjDCSI
NR6oWcfom6vCarWM2k6K4VV0TcwdvgMj4QB5HldBh_PAzpOoAMxHhXS3fFFCiMOKiI_0GN2NW3OezkG
n2XAhIQiCiy-jYnC7rndSYdg8h2KiaToVvqj_fKweEnBbbM-AnYkBO9dR20NAtoDdQRTwZ0huDJ8YxIH8_WK
VaC7Xh23RXiaJt0gwi46yKXSsRZNfkeMuNX1wCugxpnzMNn5_UApmwh_ANttvJtUX8cupw4KGxRS9qS_nf
pFb0mWjw-mSnoiu11A_HeiH380rxDGefYk2DbtGSByZ1nhMioXm1FC1K0ieV1h4PL2xqauDTOKRsd9Lte1S
t279INDT3j-4MN0W44JRdKCYFPmkuheMjk0p_VWVOKpCGG5eYuxVGMCljTZHCJaGk9jZqkWIHzAUmEt2
B0OWAMgh_8vmUO1fc1QOw",

```

"encodedCpiSignedData":

```

"eyJjYnNkU2VyaWFsTnVtYmVyljoiMTlwMzAwMDA3OTlwMIZQMDAzMyIsImZjY0lkljoiMkFHMzJFRzZcwMTB
BliwiaW5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUUF6aW11dGgiOjAsImFudGVubmFCZWZtd2lkdGgi
OjkwLjJhbnRlbn5hRG93bnRpbHQiOjAsImFudGVubmFHYWluljoxNCwiYW50ZW5uYU1vZGVsljoiRXh0ZX
JuYWwiLCJoZWlnaHQiOjU1LjAsImhlaWdodFR5cGUiOiJBR0wiLCJob3Jpem9udGFsQWNjdXJhY3kiOjMsIm
luZG9vckRlcGxveW1lbnQiOnRydWUsImxhdGloZWVljo0Ny41Mjc2MDUsImxvbmddpdHVkZSI6LTk3LjYyNzA
5NiwidmVydGljYWxjY2N1cmFjeSI6M30sInByb2Zlc3Npb25hbEluc3RhbGxlckRhdGEiOnsiY3BpSWQiOiIlLC
JjcGLOYW1ljoiliwiaW5zdGFsbENlcnRpZmljYXRpb25UaW1ljoimjAyMC0wNC0yM1QwMDowMDowMfoifX0
",

```

"protectedHeader": "eyJhbnRlcGciOiJSUzU1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "2AG32EG7010A",

"groupingParam": [

{

"groupId": "Baicells_01",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "Baicells_01"

}

]

}

2020-06-05T07:22:59.987Z - INFO - engine sent successfully, the response to CBRS : {

"registrationResponse": [

{

"cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",

"response": {

"responseCode": 0

```

    }
  ]
}
2020-06-05T07:23:00.342Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "callSign": "baicells",
      "cbsdCategory": "B",
      "cbsdSerialNumber": "1203000079202VP0033",
      "cpiSignatureData": {
        "digitalSignature":
"pII9WcX2JXG_j3XqCQf-p_rSRc_zXStALi65iLnh9FEq187EDDQpPkWu347tZ4yfkYza9CpWFiA9ck7QW93O
3eRU_-04BmYd7uerQXIMYBBLxnOvEJLE1tJXISjO9ExWrTRvU69ek-Fhp0pbAhboy_XZyffUixNNi-gSbUvU-
gGkQHU7keNDqzpLSXrJ_rQyg8zO2tTyZSox83i8e1qP2zvN6J77cyx0DNxCh89UipmDGGdt_Owj2MKjDCSI
NR6oWcfom6vCArWM2k6K4VV0TcwdvgMj4QB5HldBh_PAzpOoAMxHhXS3fFFCiMOKiI_0GN2NW3OezkG
n2XAhIQiCiy-jYnC7rndSYdg8h2KiaToVvqj_fKweEnBbbM-AnYkBO9dR20NAtoDdQRTwZ0huDJ8YxIH8_WK
VaC7Xh23RXiaJt0gwi46yKXSSrZNFkeMuNX1wCugxpnzMNn5_UApmwh_ANttvJtUX8cupw4KGxRS9qS_nf
pFb0mWjw-mSnoiu11A_HeiH380rxDGefYk2DbtGSByZ1nhMioXm1FC1K0ieV1h4PL2xqauDTOKRsd9Lte1S
t279INDT3j-4MN0W44JRdKCYFPmkuheMjk0p_VWVOKpCGG5eYuxVGMCljTZHCJaGk9jzqkWIHzAUmEt2
B0OWAMgh_8vmUO1fc1QOw",
        "encodedCpiSignedData":
"eyJjYnNkU2VyaWFsTnVtYmVyljoiMTIwMzAwMDA3OTIwMIZQMDAzMyIsImZjY0IkljoiMkFHMzJFRzcvMTB
BliwiaW5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUUF6aW11dGgiOjAsImFudGVubmFCZWZtd2lkdGgi
OjkwLkRlbnRlbn5hRG93bnRpbHQiOjAsImFudGVubmFHYWluljoxNCwiYW50ZW5uYU1vZGVsljoiRXh0ZX
JuYWwiLCJoZWlnaHQiOjU1LjAsImhlaWdodFR5cGUiOiJBR0wiLCJob3Jpem9udGFsQWNjdXJhY3kiOjMslm
luZG9vckRlcGxveW1lbnQiOnRydWUsImxhdGloZWVljo0Ny41Mjc2MDUsImxvbmVudHVkZSI6LTk3LjYyNzA
5NiwidmVydGlyYWxkY2N1cmFjeSI6M30sInByb2Zlc3Npb25hbEluc3RhbGxlckRhdGEiOnsiY3BpSWQiOiIiLC
JjcGLOYW1lIjoilwiaW5zdGFsbENlcnRpZmljYXRpb25UaW1lIjoiMjAyMC0wNC0yM1QwMDowMDowMFoifX0
",
        "protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"
      },
      "fcclId": "2AG32EG7010A",
      "groupingParam": [
        {
          "groupId": "Baicells_01",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "measCapability": [],
      "userId": "Baicells_01"
    }
  ]
}
2020-06-05T07:23:00.404Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-05T07:23:08.581Z - INFO - grant request from CBRS : {

```

```
"grantRequest": [
  {
    "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
    "operationParam": {
      "maxEirp": 25,
      "operationFrequencyRange": {
        "highFrequency": 3635000000,
        "lowFrequency": 3615000000
      }
    }
  }
]
}
2020-06-05T07:23:08.596Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "channelType": "GAA",
      "grantExpireTime": "2020-06-12T07:23:08Z",
      "grantId": "655721686",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-05T07:23:09.065Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "operationParam": {
        "maxEirp": 25,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2020-06-05T07:23:09.065Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "channelType": "GAA",
      "grantExpireTime": "2020-06-12T07:23:09Z",
      "grantId": "348004120",
      "heartbeatInterval": 60,
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-05T07:23:15.236Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
```

```
        "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
        "grantId": "655721686",
        "grantRenew": false,
        "operationState": "GRANTED"
    }
]
}
2020-06-05T07:23:15.236Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "655721686",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2020-06-05T07:26:35Z"
        }
    ]
}
2020-06-05T07:23:15.753Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "348004120",
            "grantRenew": false,
            "operationState": "GRANTED"
        }
    ]
}
2020-06-05T07:23:15.753Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "348004120",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2020-06-05T07:26:35Z"
        }
    ]
}
```


5.7 WINNF.PT.C.HBT.1(Max Eirp = 26 dBm/MHz)

2020-06-05T07:16:40.950Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2020-06-05T07:16:40.950Z - INFO - Selected spectrum frequency is {'lowFrequency': 361500000L, 'highFrequency': 3635000000L}

2020-06-05T07:16:40.950Z - INFO - Granted Spectrum Max Eirp = 26dBm/MHz

2020-06-05T07:16:40.950Z - INFO - the selected test from the user : PowerMeasTest is starting now

2020-06-05T07:16:51.668Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "E_UTRA"

},

"callSign": "baicells",

"cbsdCategory": "B",

"cbsdSerialNumber": "1203000079202VP0033",

"cpiSignatureData": {

"digitalSignature":

"pII9WcX2JXG_j3XqCQf-p_rSRc_zXStAl65iLnh9FEq187EDDQpPkWu347tZ4yfkYza9CpWFiA9ck7QW93O3eRU_-04BmYd7uerQXIMYBBLxnOvEJLE1tJXISjO9ExWrTRvU69ek-Fhp0pbAhboy_XZyffUixNNi-gSbUvU-gGkQHU7keNDqzpLSXrJ_rQyg8zO2tTyZSox83i8e1qP2zvN6J77cyx0DNxCh89UipmDGGdt_Owj2MKjDCSINR6oWcfom6vCarWM2k6K4VV0TcwdvgMj4QB5HldBh_PAzpOoAMxHhXS3fFFCiMOKil_0GN2NW3OezkGn2XAhIQiCiy-jYnC7rndSYdg8h2KiaToVvqj_fKweEnBbbM-AnYkBO9dR20NAtoDdQRTwZ0huDJ8YxIH8_WKVAC7Xh23RXiaJt0gwi46yKXSsRZNFkeMuNX1wCugxpnzMNn5_UApmwh_ANttvJtUX8cupw4KGxRS9qS_nfpFb0mWjw-mSnoiu11A_HeiH380rxDGefYk2DbtGSByZ1nhMioXm1FC1K0ieV1h4PL2xqauDTOKRsd9Lte1St279INDT3j-4MN0W44JRdKCYFPmkuheMjk0p_VWVOKpCGG5eYuxVGMCljTZHCJaGk9jZqkWIHzAUmEt2B0OWAMgh_8vmUO1fc1QOw",

"encodedCpiSignedData":

"eyJjYnNkU2VyaWFsTnVtYmVyljoiMTIwMzAwMDA3OTIwMIZQMDAzMyIsImZjY0kljoiMkFHMzJFRzcwMTBBliaW5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUUF6aW11dGgiOjAsImFudGVubmFCZWZtd2lkdGgiOjkwLjJhbnRlbn5hRG93bnRpbHQiOjAsImFudGVubmFHYWluljoxNCwiYW50ZW5uYU1vZGVsljoiRXh0ZXJuYWwiLCJoZWlnaHQiOjU1LjAsImhlaWdodFR5cGUiOiJBR0wiLCJob3Jpem9udGFsQWNjdXJhY3kiOjMslmluZG9vckRlcGxveW1lbnQiOnRydWUsImxhdGloZWVljo0Ny41Mjc2MDUsImxvbmddpdHVkZSI6LTk3LjYyNzA5NiwidmVydGlyYWx2N1cmFjeSI6M30sInByb2Zlc3Npb25hbEluc3RhbGxlckRhdGEiOnsiY3BpSWQiOiIiLCJjcGlOYW1lIjoilwW5zdGFsbENlcnRpZmljYXRpb25UaW1lIjoilMjAyMC0wNC0yM1QwMDowMDowMFoifX0"

"protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "2AG32EG7010A",

"groupingParam": [

{

"groupId": "Baicells_01",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "Baicells_01"

}

]

}

2020-06-05T07:16:51.700Z - INFO - engine sent successfully, the response to CBRS : {

"registrationResponse": [

{

"cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",

"response": {

"responseCode": 0

}

}

]

```

}
2020-06-05T07:16:52.341Z - INFO - registration request from CBRS : {
  "registrationRequest": [
    {
      "airInterface": {
        "radioTechnology": "E_UTRA"
      },
      "callSign": "baicells",
      "cbsdCategory": "B",
      "cbsdSerialNumber": "1203000079202VP0033",
      "cpiSignatureData": {
        "digitalSignature":
"pII9WcX2JXG_j3XqCQf-p_rSrc_zXStALi65iLnh9FEq187EDDQpPkWu347tZ4yfkYza9CpWFiA9ck7QW93O
3eRU_-04BmYd7uerQXIMYBBLxnOvEJLE1tXISjO9ExWrTRvU69ek-Fhp0pbAhboy_XZyffUixNNi-gSbUvU-
gGkQHU7keNDqzpLSXrJ_rQyg8zO2tTyZSox83i8e1qP2zvN6J77cyx0DNxCh89UipmDGGdt_Owj2MKjDCSI
NR6oWcfom6vCArWM2k6K4VV0TcwdvgMj4QB5HldBh_PAzpOoAMxHhXS3fFFCiMOKiI_0GN2NW3OezkG
n2XAhIQiCiy-jYnC7rndSYdg8h2KiaToVvqj_fKweEnBbbM-AnYkBO9dR20NAtoDdQRTwZ0huDJ8YxIH8_WK
VaC7Xh23RXiaJt0gwi46yKXSSrZNFkeMuNX1wCugxpnzMNn5_UApmwh_ANttvJtUX8cupw4KGxRS9qS_nf
pFb0mWjw-mSnoiu11A_HeiH380rxDGefYk2DbItGSByZ1nhMioXm1FC1K0ieV1h4PL2xqauDTOKRsd9Lte1S
t279INDT3j-4MN0W44JRdKCYFPmkuheMjK0p_VWVOKpCGG5eYuxVGMCljTZHCJaGk9jZqkWIHzAUmEt2
B0OWAMgh_8vmUO1fc1QOw",
        "encodedCpiSignedData":
"eyJjYnNkU2VyaWFsTnVtYmVyljoiMTIwMzAwMDA3OTIwMIZQMzAzMyIsImZjY0IkljoiMkFHMzJFRzZcwMTB
BliwiaW5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUUF6aW11dGgiOjAsImFudGVubmFCZWFtd2lkdGgi
OjkwLkRlbnRlbn5hRG93bnRpbHQiOjAsImFudGVubmFHYWluljoxNCwiYW50ZW5uYU1vZGVsljoiRXh0ZX
JuYWwiLCJoZWlnaHQiOjU1LjAsImhlaWdodFR5cGUiOiJBR0wiLCJob3Jpem9udGFsQWNjdXJhY3kiOjMslm
luZG9vckRlcGxveW1lbnQiOnRydWUsImxhdGltWRlljo0Ny41Mjc2MDUsImxvbmVudHVkZSI6LTk3LjYyNzA
5NiwidmVydGlljYXWxY2N1cmFjeSI6M30sInByb2Zlc3Npb25hbEluc3RhbGxlckRhdGEiOnsiY3BpSWQiOiIiLC
JjcGLOYW1lIjoilwiaW5zdGFsbENlcnRpZmljYXRpb25UaW1lIjoiMjAyMC0wNC0yM1QwMDowMDowMFoifX0
",
        "protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"
      },
      "fcclId": "2AG32EG7010A",
      "groupingParam": [
        {
          "groupId": "Baicells_01",
          "groupType": "INTERFERENCE_COORDINATION"
        }
      ],
      "measCapability": [],
      "userId": "Baicells_01"
    }
  ]
}
2020-06-05T07:16:52.371Z - INFO - engine sent successfully, the response to CBRS : {
  "registrationResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-05T07:17:00.309Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",

```

```
        "operationParam": {
            "maxEirp": 26,
            "operationFrequencyRange": {
                "highFrequency": 3635000000,
                "lowFrequency": 3615000000
            }
        }
    }
]
}
2020-06-05T07:17:00.309Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "channelType": "GAA",
            "grantExpireTime": "2020-06-12T07:17:00Z",
            "grantId": "973980407",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2020-06-05T07:17:00.950Z - INFO - grant request from CBRS : {
    "grantRequest": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "operationParam": {
                "maxEirp": 26,
                "operationFrequencyRange": {
                    "highFrequency": 3635000000,
                    "lowFrequency": 3615000000
                }
            }
        }
    ]
}
2020-06-05T07:17:00.950Z - INFO - engine sent successfully, the response to CBRS : {
    "grantResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "channelType": "GAA",
            "grantExpireTime": "2020-06-12T07:17:00Z",
            "grantId": "761312155",
            "heartbeatInterval": 60,
            "response": {
                "responseCode": 0
            }
        }
    ]
}
2020-06-05T07:17:12.903Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "973980407",
            "grantRenew": false,
```

```
        "operationState": "GRANTED"
      }
    ]
  }
2020-06-05T07:17:12.918Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "973980407",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-05T07:20:32Z"
    }
  ]
}
2020-06-05T07:17:13.543Z - INFO - heartbeat request from CBRS : {
  "heartbeatRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "761312155",
      "grantRenew": false,
      "operationState": "GRANTED"
    }
  ]
}
2020-06-05T07:17:13.543Z - INFO - engine sent successfully, the response to CBRS : {
  "heartbeatResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "grantId": "761312155",
      "response": {
        "responseCode": 0
      },
      "transmitExpireTime": "2020-06-05T07:20:33Z"
    }
  ]
}
```

5.8 WINNF.PT.C.HBT.1(Max Eirp = 27 dBm/MHz)

2020-06-05T07:01:32.015Z - INFO - WINNF TEST HARNESS RELEASE: 1.0.0.3 - 2018-November-13

2020-06-05T07:01:32.015Z - INFO - Selected spectrum frequency is {'lowFrequency': 361500000L, 'highFrequency': 363500000L}

2020-06-05T07:01:32.015Z - INFO - Granted Spectrum Max Eirp = 27dBm/MHz

2020-06-05T07:01:32.015Z - INFO - the selected test from the user : PowerMeasTest is starting now

2020-06-05T07:01:42.967Z - INFO - registration request from CBRS : {

"registrationRequest": [

{

"airInterface": {

"radioTechnology": "E_UTRA"

},

"callSign": "baicells",

"cbsdCategory": "B",

"cbsdSerialNumber": "1203000079202VP0033",

"cpiSignatureData": {

"digitalSignature":

"pII9WcX2JXG_j3XqCQf-p_rSRc_zXStAl65iLnh9FEq187EDDQpPkWu347tZ4yfkYza9CpWFiA9ck7QW93O3eRU_-04BmYd7uerQXIMYBBLxnOvEJLE1tJXISjO9ExWrTRvU69ek-Fhp0pbAhboy_XZyffUixNNi-gSbUvU-gGkQHU7keNDqzpLSXrJ_rQyg8zO2tTyZSox83i8e1qP2zvN6J77cyx0DNxCh89UipmDGGdt_Owj2MKjDCSINR6oWcfom6vCarWM2k6K4VV0TcwdvgMj4QB5HldBh_PAzpOoAMxHhXS3fFFCiMOKil_0GN2NW3OezkGn2XAhIQiCiy-jYnC7rndSYdg8h2KiaToVvqj_fKweEnBbbM-AnYkBO9dR20NAtoDdQRTwZ0huDJ8YxIH8_WKVAC7Xh23RXiaJt0gwi46yKXSsRZNfkeMuNX1wCugxpnzMNn5_UApmwh_ANttvJtUX8cupw4KGxRS9qS_nfpFb0mWjw-mSnoiu11A_HeiH380rxDGefYk2DbtGSByZ1nhMioXm1FC1K0ieV1h4PL2xqauDTOKRsd9Lte1St279INDT3j-4MN0W44JRdKCYFPmkuheMjk0p_VWVOKpCGG5eYuxVGMCljTZHCJaGk9jZqkWIHzAUmEt2B0OWAMgh_8vmUO1fc1QOw",

"encodedCpiSignedData":

"eyJjYnNkU2VyaWFsTnVtYmVyljoiMTIwMzAwMDA3OTIwMIZQMDAzMyIsImZjY0IkljoiMkFHMzJFRzcwMTBBliaW5zdGFsbGF0aW9uUGFyYW0iOnsiYW50ZW5uYUUF6aW11dGgiOjAsImFudGVubmFCZWZtd2lkdGgiOjkwLjJhbnRlbn5hRG93bnRpbHQiOjAsImFudGVubmFHYWluljoxNCwiYW50ZW5uYU1vZGVsljoiRXh0ZXJuYWwiLCJoZWlnaHQiOjU1LjAsImhlaWdodFR5cGUiOiJBR0wiLCJob3Jpem9udGFsQWNjdXJhY3kiOjMslmluZG9vckRlcGxveW1lbnQiOnRydWUsImxhdGloZWVljo0Ny41Mjc2MDUsImxvbmddpdHVkZSI6LTk3LjYyNzA5NiwidmVydGlyYWx2N1cmFjeSI6M30sInByb2Zlc3Npb25hbEluc3RhbGxlckRhdGEiOnsiY3BpSWQiOiIiLCJjcGlOYW1lIjoilwW5zdGFsbENlcnRpZmljYXRpb25UaW1lIjoilMjAyMC0wNC0yM1QwMDowMDowMFoifX0"

"protectedHeader": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9"

},

"fccId": "2AG32EG7010A",

"groupingParam": [

{

"groupId": "Baicells_01",

"groupType": "INTERFERENCE_COORDINATION"

}

],

"measCapability": [],

"userId": "Baicells_01"

}

]

}

2020-06-05T07:01:42.983Z - INFO - engine sent successfully, the response to CBRS : {

"registrationResponse": [

{

"cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",

"response": {

"responseCode": 0

}

}

]

```

}
2020-06-05T07:01:51.608Z - INFO - spectrumInquiry request from CBRS : {
  "spectrumInquiryRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "inquiredSpectrum": [
        {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      ]
    }
  ]
}
2020-06-05T07:01:51.608Z - INFO - The requested spectrum is in the range, SpectrumInquiry response code
is 0
2020-06-05T07:01:51.608Z - INFO - engine sent successfully, the response to CBRS : {
  "spectrumInquiryResponse": [
    {
      "availableChannel": [
        {
          "channelType": "GAA",
          "frequencyRange": {
            "highFrequency": 3635000000,
            "lowFrequency": 3615000000
          },
          "maxEirp": 27,
          "ruleApplied": "FCC_PART_96"
        }
      ],
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "response": {
        "responseCode": 0
      }
    }
  ]
}
2020-06-05T07:02:00.483Z - INFO - grant request from CBRS : {
  "grantRequest": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "operationParam": {
        "maxEirp": 27,
        "operationFrequencyRange": {
          "highFrequency": 3635000000,
          "lowFrequency": 3615000000
        }
      }
    }
  ]
}
2020-06-05T07:02:00.483Z - INFO - engine sent successfully, the response to CBRS : {
  "grantResponse": [
    {
      "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
      "channelType": "GAA",
      "grantExpireTime": "2020-06-12T07:02:00Z",
      "grantId": "274333446",

```

```
        "heartbeatInterval": 60,
        "response": {
            "responseCode": 0
        }
    ]
}
2020-06-05T07:02:15.086Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "274333446",
            "grantRenew": false,
            "operationState": "GRANTED"
        }
    ]
}
2020-06-05T07:02:15.086Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "274333446",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2020-06-05T07:05:35Z"
        }
    ]
}
2020-06-05T07:03:15.789Z - INFO - heartbeat request from CBRS : {
    "heartbeatRequest": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "274333446",
            "grantRenew": false,
            "operationState": "AUTHORIZED"
        }
    ]
}
2020-06-05T07:03:15.805Z - INFO - engine sent successfully, the response to CBRS : {
    "heartbeatResponse": [
        {
            "cbsdId": "2AG32EG7010AMock-SAS1203000079202VP0033",
            "grantId": "274333446",
            "response": {
                "responseCode": 0
            },
            "transmitExpireTime": "2020-06-05T07:06:35Z"
        }
    ]
}
```