
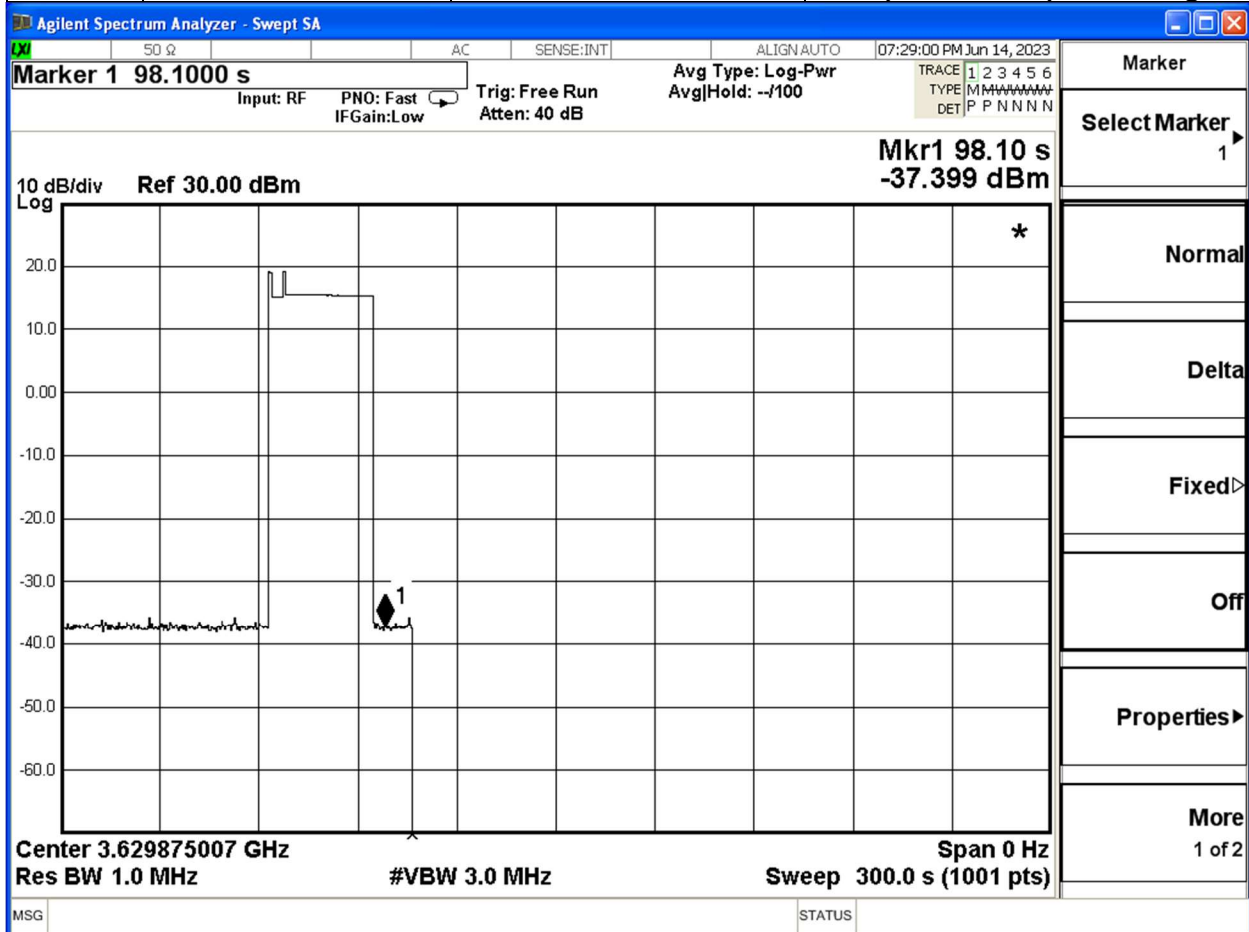



Client	<b>CradlePoint, Inc.</b>	
Product	<b>Cradlepoint Cellular access points, Models A2400 Indoor Unit FCC ID: UXX-S1A227A A2405 Outdoor Unit FCC ID: UXX-S1A228A</b>	
Standard(s)	FCC Part 96 SAS requirements (CBRS Test Plan)	

6.6.4.1.2	WINNF.FT.D.RLQ.2	Domain Proxy Successful Relinquishment	Monitor RF transmission. Ensure: <ul style="list-style-type: none"> <li>• CBSD stops transmission at any time prior to sending the relinquishmentRequest message.</li> </ul>	P
-----------	------------------	----------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---

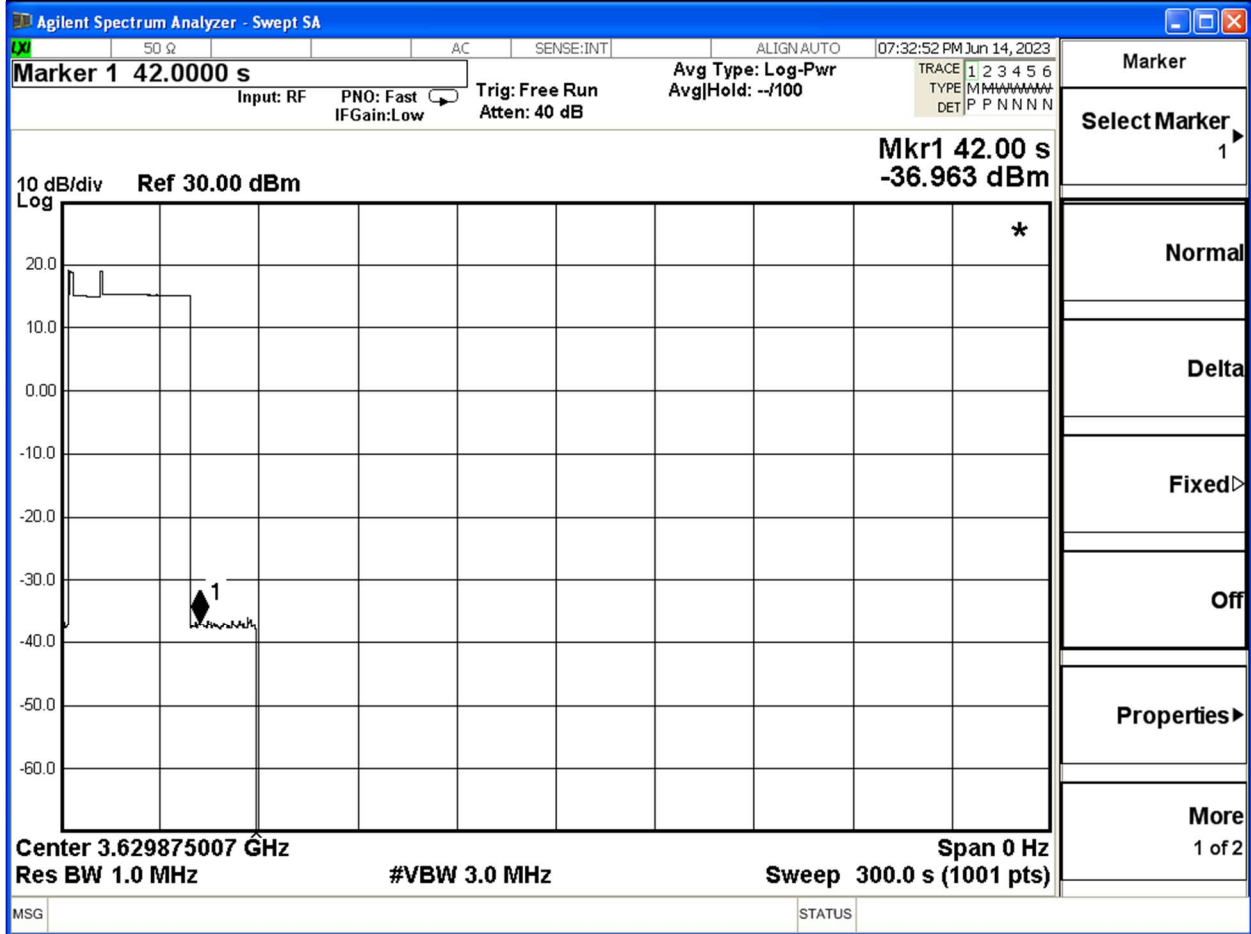


Test Harness logs and timing on graph was verified, the EUT passed the requirement.

Shutdown time taken from Domain Proxy logs, and shutdown confirmed by RF monitoring.


Client	<b>CradlePoint, Inc.</b>	
Product	<b>Cradlepoint Cellular access points, Models A2400 Indoor Unit FCC ID: UXX-S1A227A A2405 Outdoor Unit FCC ID: UXX-S1A228A</b>	
Standard(s)	FCC Part 96 SAS requirements (CBRS Test Plan)	

6.7.4.1.2	WINNF.FT.D.DRG.2	Domain Proxy Successful Deregistration	Monitor RF transmission. Ensure: <ul style="list-style-type: none"> <li>• CBSD stops transmission at any time prior to sending the relinquishmentRequest message or deregistrationRequest message (whichever is sent first)</li> </ul>	P
-----------	------------------	----------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---



Test Harness logs and timing on graph was verified, the EUT passed the requirement.

Shutdown time taken from Domain Proxy logs, and shutdown confirmed by RF monitoring.


Client	<b>CradlePoint, Inc.</b>	
Product	<b>Cradlepoint Cellular access points, Models A2400 Indoor Unit FCC ID: UXX-S1A227A A2405 Outdoor Unit FCC ID: UXX-S1A228A</b>	
Standard(s)	FCC Part 96 SAS requirements (CBRS Test Plan)	

Confirm that the device transmits at a power level less than or equal to the maximum power level approved by the SAS.

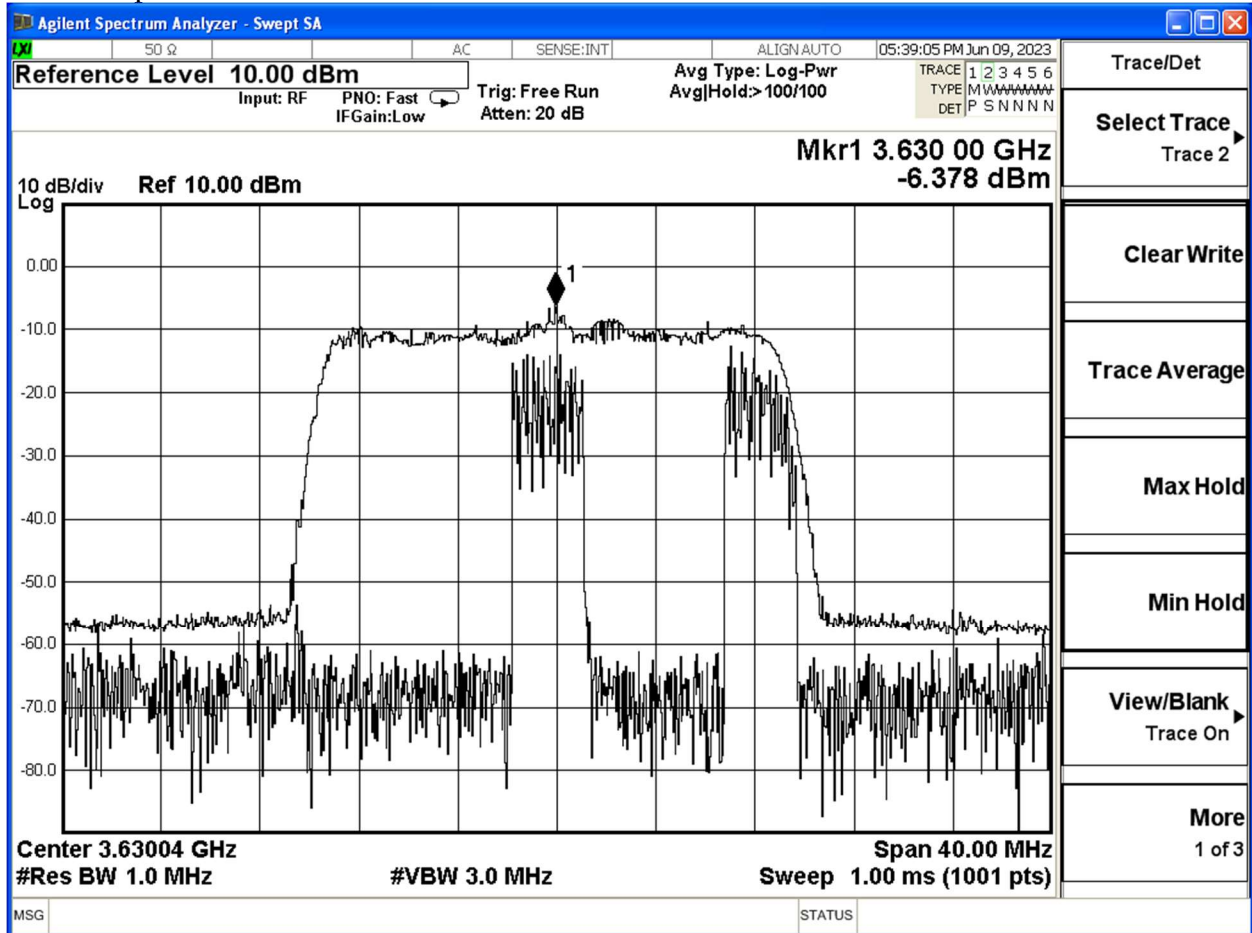
7.1.4.1.1	X	X	WINNF.PT.C.H BT	UUT RF Transmit Power Measurement	Power Spectral Density test case.  Assume we use 1 carrier bandwidth (say, 5 or 10 MHz), one frequency (say middle channel in band) for test. Measure at max transmit power, and reduce in steps of 3 dB to minimum declared transmit power.	P
-----------	---	---	--------------------	--------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---


### Test Table

Channel	Freq (MHz)	Conducted Power Density dBm/MHz	Directional gain dBi	Power Density	Max EIRP(dBm)	Pass/Fail
Middle	3630	-6.37	15.82	-0.03	17	Pass
Middle	3630	11.09	15.82	17.12	36	Pass

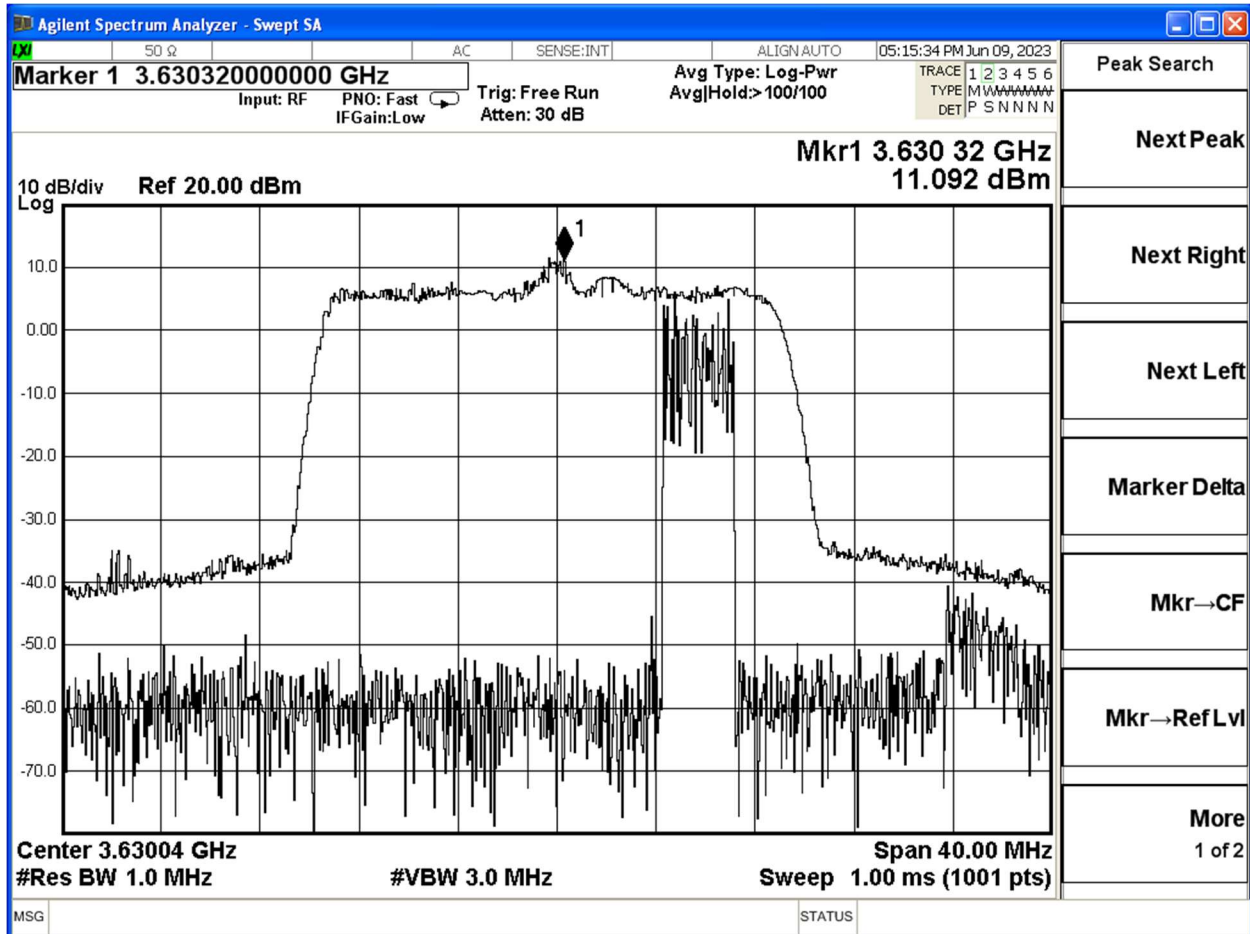
Client	CradlePoint, Inc.	
Product	Cradlepoint Cellular access points, Models A2400 Indoor Unit FCC ID: UXX-S1A227A A2405 Outdoor Unit FCC ID: UXX-S1A228A	
Standard(s)	FCC Part 96 SAS requirements (CBRS Test Plan)	


3630 low power



Client	CradlePoint, Inc.	
Product	Cradlepoint Cellular access points, Models A2400 Indoor Unit FCC ID: UXX-S1A227A A2405 Outdoor Unit FCC ID: UXX-S1A228A	
Standard(s)	FCC Part 96 SAS requirements (CBRS Test Plan)	

3630-high power



Client	CradlePoint, Inc.	
Product	Cradlepoint Cellular access points, Models A2400 Indoor Unit FCC ID: UXX-S1A227A A2405 Outdoor Unit FCC ID: UXX-S1A228A	
Standard(s)	FCC Part 96 SAS requirements (CBRS Test Plan)	

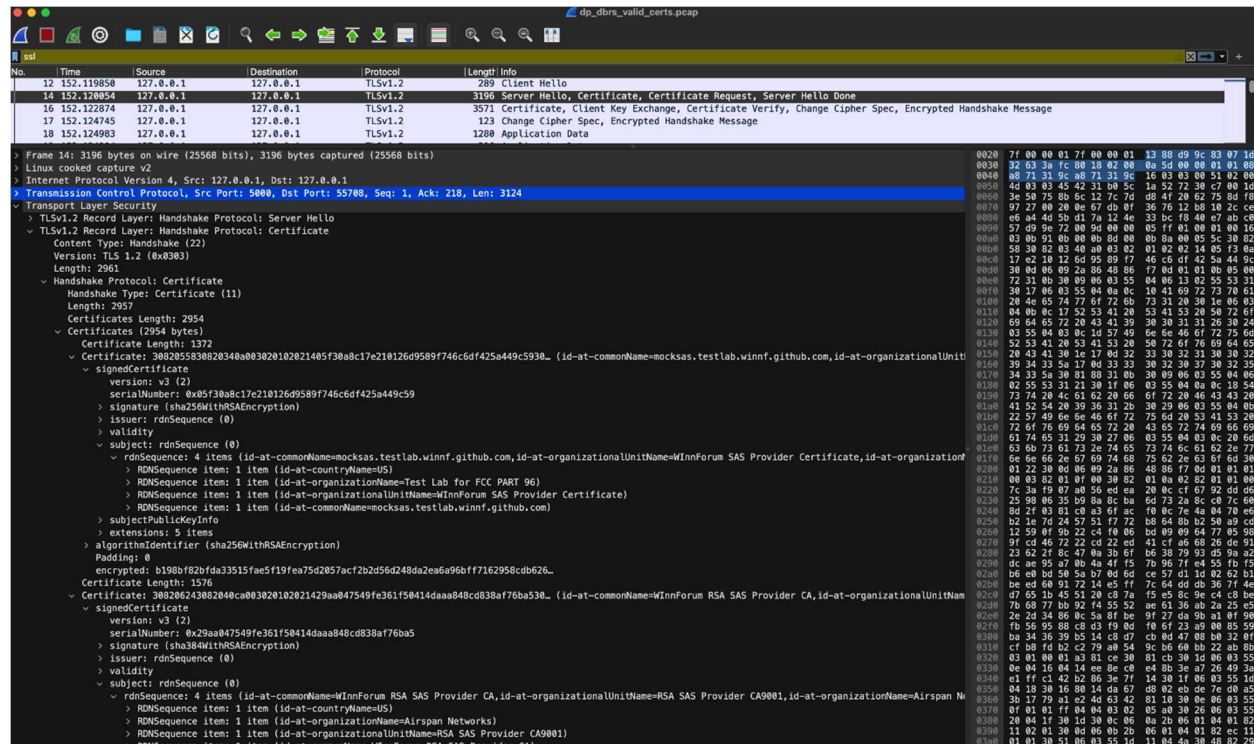
## DOT CBRS Radio: WINNF / Security Test Case Analysis

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

Successful TLS connection between UUT and SAS Test Harness

### PCAP Capture

Server Cert




The screenshot shows a Wireshark capture of a TLS handshake. The packet list pane shows the following packets:

- 12 152.119850 127.0.0.1 127.0.0.1 TLSv1.2 289 Client Hello
- 14 152.124745 127.0.0.1 127.0.0.1 TLSv1.2 3196 Server Hello, Certificate, Certificate Request, Server Hello Done
- 15 152.122874 127.0.0.1 127.0.0.1 TLSv1.2 3571 Certificate, Client Key Exchange, Certificate Verify, Change Cipher Spec, Encrypted Handshake Message
- 17 152.124745 127.0.0.1 127.0.0.1 TLSv1.2 123 Change Cipher Spec, Encrypted Handshake Message
- 18 152.124983 127.0.0.1 127.0.0.1 TLSv1.2 1289 Application Data

The packet details pane for packet 14 shows the following structure:

- Transmission Control Protocol, Src Port: 5000, Dst Port: 55708, Seq: 1, Ack: 218, Len: 3124
- Transport Layer Security
  - TLSv1.2 Record Layer: Handshake Protocol: Server Hello
  - TLSv1.2 Record Layer: Handshake Protocol: Certificate
    - Content Type: Handshake (22)
    - Version: TLS 1.2 (0x0303)
    - Length: 2961
    - Handshake Protocol: Certificate
      - Handshake Type: Certificate (11)
      - Length: 2957
      - Certificates Length: 2954
      - Certificates (2954 bytes)
        - Certificate Length: 1372
          - Certificate: 3082055830820340a003020102012405f30a8c17e210126d9589f746c6df425a449c5930\_ (id-at-commonName=mocksas.testlab.winnf.github.com,id-at-organizationalUnitName=WINNF.FT.C.SCS.1)
          - signedCertificate
            - version: v3 (2)
            - serialNumber: 0x85f30a8c17e210126d9589f746c6df425a449c59
            - signature (sha256WithRSAEncryption)
            - issuer: rdnSequence (0)
            - validity
              - subject: rdnSequence (0)
              - rdnSequence: 4 items (id-at-commonName=mocksas.testlab.winnf.github.com,id-at-organizationalUnitName=WINNF.FT.C.SCS.1)
              - RDNSequence item: 1 item (id-at-countryName=US)
              - RDNSequence item: 1 item (id-at-organizationName=Test Lab for FCC PART 96)
              - RDNSequence item: 1 item (id-at-organizationalUnitName=WINNF.FT.C.SCS.1)
              - RDNSequence item: 1 item (id-at-organizationalUnitName=WINNF.FT.C.SCS.1)
              - subjectPublicKeyInfo
                - extensions: 5 items
                - algorithmIdentifier (sha256WithRSAEncryption)
                - padding: 0
                - encrypted: b198bf82b1da33515fae5f19fea7542857acf2b2d56d248da2e6a96b7f162958c6b626\_
                - Certificate Length: 1576
                - Certificate: 308206243082040ca003020102012429aa047549fe361f50414daaa848cd838af76ba530\_ (id-at-commonName=WINNF.FT.C.SCS.1,id-at-organizationalUnitName=WINNF.FT.C.SCS.1)
                - signedCertificate
                  - version: v3 (2)
                  - serialNumber: 0x29aa047549fe361f50414daaa848cd838af76ba5
                  - signature (sha384WithRSAEncryption)
                  - issuer: rdnSequence (0)
                  - validity
                    - subject: rdnSequence (0)
                    - rdnSequence: 4 items (id-at-commonName=WINNF.FT.C.SCS.1,id-at-organizationalUnitName=WINNF.FT.C.SCS.1)
                    - RDNSequence item: 1 item (id-at-countryName=US)
                    - RDNSequence item: 1 item (id-at-organizationName=Airspan Networks)
                    - RDNSequence item: 1 item (id-at-organizationalUnitName=RSA SAS Provider CA0001)
                    - RDNSequence item: 1 item (id-at-organizationalUnitName=RSA SAS Provider CA0001)




|             |                                                                                                                                        |                                                                                     |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Client      | <b>CradlePoint, Inc.</b>                                                                                                               |  |
| Product     | <b>Cradlepoint Cellular access points, Models<br/>A2400 Indoor Unit FCC ID: UXX-S1A227A<br/>A2405 Outdoor Unit FCC ID: UXX-S1A228A</b> |                                                                                     |
| Standard(s) | FCC Part 96 SAS requirements (CBRS Test Plan)                                                                                          |                                                                                     |

```

{"lvl":"DEBUG","ts":"2023-06-14T17:39:34.531Z","at":"dp/aggregator/aggregator_generics.go:131","msg":"Aggregated 1 registration requests"}
{"lvl":"DEBUG","ts":"2023-06-14T17:39:34.533Z","at":"helpers/tls-helper/peer_verifier.go:45","msg":"No OCSP servers provided","certSubject":"mocksas.testlab.winnf.github.com"}
{"lvl":"INFO","ts":"2023-06-14T17:39:34.62Z","at":"dp/aggregator/aggregator_generics.go:240","msg":"SAS http request succeeded","httpStatus":200,"httpMethod":"POST","duration":"87.872327ms","url":"https://mocksas.testharness.cbsd.winnf.github.com:5000/v1.2/registration"}
{"lvl":"DEBUG","ts":"2023-06-14T17:39:34.62Z","at":"dp/cbsd_mgr/interface.go:185","msg":"response received","response":{"cbsdId":"UXX-S1A228AMock-SAS2209DPT000261","response":{"responseCode":0}}}
{"lvl":"INFO","ts":"2023-06-14T17:39:34.62Z","at":"dp/kpi_mgr/kpi_mgr.go:109","msg":"KPI metric received","serialNumber":"2209DPT000261","metricKey":"ap_sas_registration_success"}

```



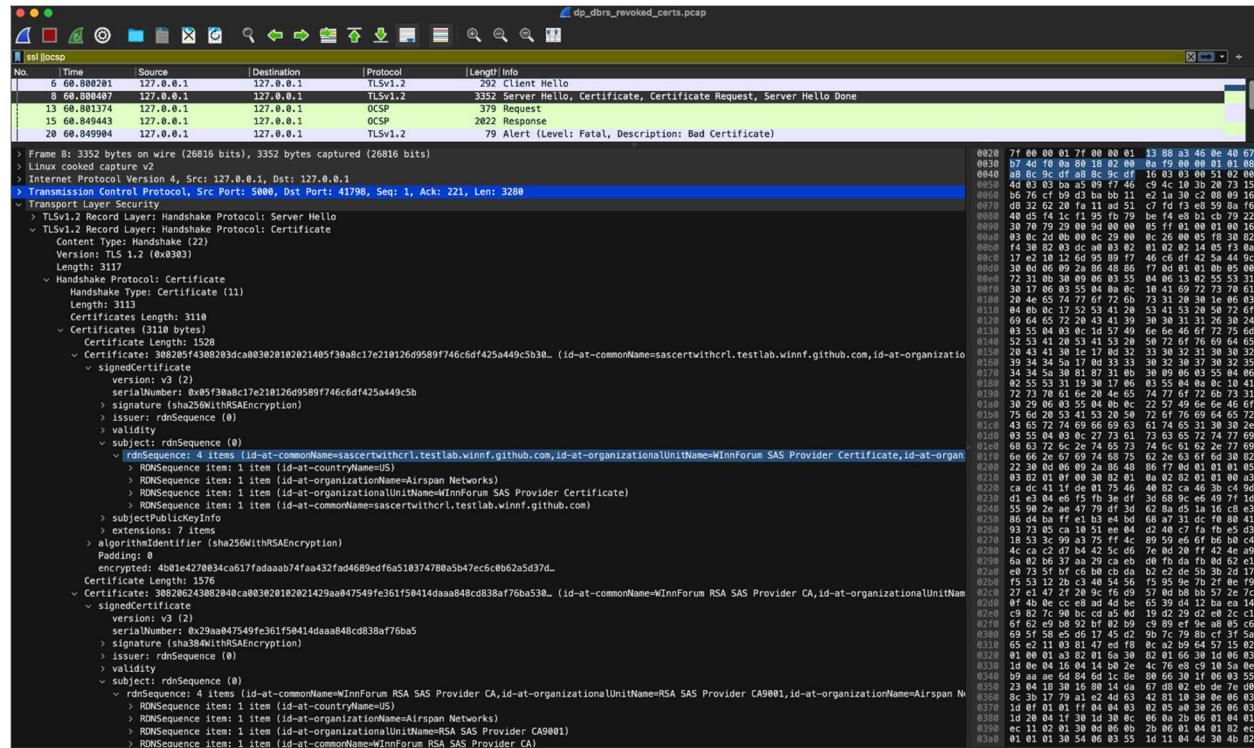
|             |                                                                                                                               |                                                                                     |
|-------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Client      | CradlePoint, Inc.                                                                                                             |  |
| Product     | Cradlepoint Cellular access points, Models<br>A2400 Indoor Unit FCC ID: UXX-S1A227A<br>A2405 Outdoor Unit FCC ID: UXX-S1A228A |                                                                                     |
| Standard(s) | FCC Part 96 SAS requirements (CBRS Test Plan)                                                                                 |                                                                                     |

# WINNF.TC.SCS.2

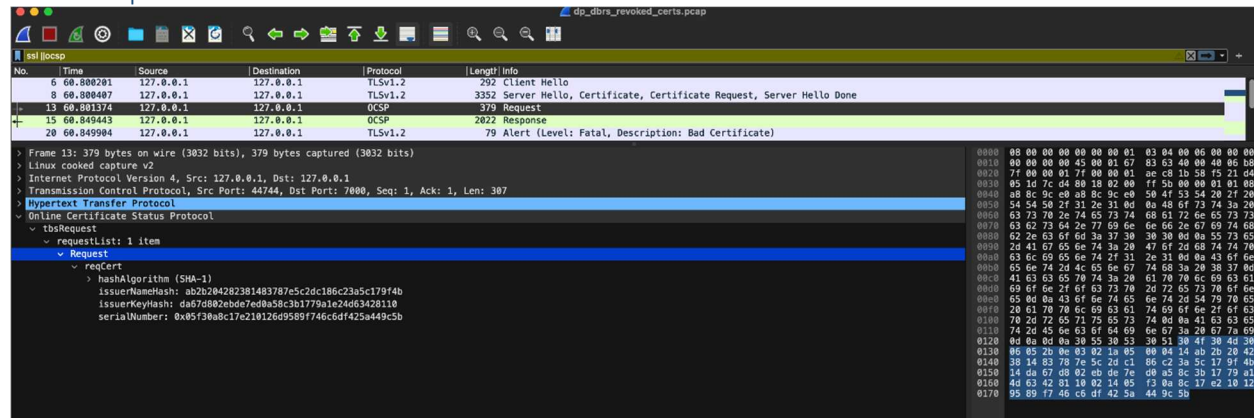
TLS failure due to revoked certificate

## PCAP Capture


Server Cert



## OCSAP Request






|             |                                                                                                                                        |                                                                                     |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Client      | <b>CradlePoint, Inc.</b>                                                                                                               |  |
| Product     | <b>Cradlepoint Cellular access points, Models<br/>A2400 Indoor Unit FCC ID: UXX-S1A227A<br/>A2405 Outdoor Unit FCC ID: UXX-S1A228A</b> |                                                                                     |
| Standard(s) | FCC Part 96 SAS requirements (CBRS Test Plan)                                                                                          |                                                                                     |

```
{
  "lvl": "INFO",
  "ts": "2023-06-14T20:15:32.001Z",
  "at": "helpers/tls-helper/peer_verifier.go:79",
  "msg": "Checking certificate status with OCSP server",
  "ocspServer": "http://ocsp.testharness.cbsd.winnf.github.com:7000/"
}
{
  "lvl": "WARN",
  "ts": "2023-06-14T20:15:32.05Z",
  "at": "helpers/tls-helper/peer_verifier.go:21",
  "msg": "Certificate status is Revoked",
  "certSubject": "sascertwithcrl.testlab.winnf.github.com",
  "issuerCertSubject": "WInnForum RSA SAS Provider CA",
  "serialNumber": "33964953731498854550067417388306975434247281755"
}
```




|             |                                                                                                                                        |                                                                                     |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Client      | <b>CradlePoint, Inc.</b>                                                                                                               |  |
| Product     | <b>Cradlepoint Cellular access points, Models<br/>A2400 Indoor Unit FCC ID: UXX-S1A227A<br/>A2405 Outdoor Unit FCC ID: UXX-S1A228A</b> |                                                                                     |
| Standard(s) | FCC Part 96 SAS requirements (CBRS Test Plan)                                                                                          |                                                                                     |

```

eu5wj_ZLuEneKCUNZcoXCctCexvtRburbUlwMfB6S_z5k-3bQKDQy2DHj0-0wZXepececIM4P-
6XZ4UPp9UpjgBePzVMqz2g-
CFv6U_niSuB1hFCCQfQ48_Ly7wTEImeohniJ02lMYNss5VNVUPkN5p_LwbAE7Vvfw"}}}}
{"lvl":"DEBUG","ts":"2023-06-
14T19:54:12.973Z","at":"dp/aggregator/aggregator_generics.go:131","msg":"Aggregated 1
registration requests"}
{"lvl":"INFO","ts":"2023-06-14T19:54:12.974Z","at":"dp/kpi-
mgr/kpi_mgr.go:109","msg":"KPI metric
received","serialNumber":"2209DPT000350","metricKey":"ap_sas_derregistration_success"
}
{"lvl":"ERROR","ts":"2023-06-
14T19:54:12.974Z","at":"dp/aggregator/aggregator_generics.go:210","msg":"Unable to
perform http request","error":"Post
\"https://mocksas.testharness.cbsd.winnf.github.com:5000/v1.2/registration\": x509:
certificate has expired or is not yet valid: current time 2023-06-14T19:54:12Z is
after 2023-02-11T02:59:44Z"}
{"lvl":"ERROR","ts":"2023-06-14T19:54:12.974Z","at":"dp/cbsd-
mgr/interface.go:181","msg":"Error received from the channel","error":"Post
\"https://mocksas.testharness.cbsd.winnf.github.com:5000/v1.2/registration\": x509:
certificate has expired or is not yet valid: current time 2023-06-14T19:54:12Z is
after 2023-02-11T02:59:44Z"}

```



|             |                                                                                                                                        |                                                                                     |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Client      | <b>CradlePoint, Inc.</b>                                                                                                               |  |
| Product     | <b>Cradlepoint Cellular access points, Models<br/>A2400 Indoor Unit FCC ID: UXX-S1A227A<br/>A2405 Outdoor Unit FCC ID: UXX-S1A228A</b> |                                                                                     |
| Standard(s) | FCC Part 96 SAS requirements (CBRS Test Plan)                                                                                          |                                                                                     |


```

eu5wj_ZLuEneKCUNZcoXCctCexvtRburbUlwMfB6S_z5k-3bQKDQy2DHj0-0wZXepececIM4P-
6XZ4UPp9UpjgBePzVMqz2g-
CFv6U_niSuB1hFCCQfQ48_Ly7wTEImeohniJ02lMYNs5VNVUPkN5p_LwbAE7Vwfw"}}}
{"lvl":"DEBUG","ts":"2023-06-
14T20:02:20.395Z","at":"dp/aggregator/aggregator_generics.go:131","msg":"Aggregated 1
registration requests"}
{"lvl":"INFO","ts":"2023-06-14T20:02:20.395Z","at":"dp/kpi-
mgr/kpi_mgr.go:109","msg":"KPI metric
received","serialNumber":"2209DPT000350","metricKey":"ap_sas_derregistration_success"
}
{"req":"OUT","ts":"2023-06-
14T20:02:20.395Z","dur":"1.370908ms","status":500,"trace_id":"","method":"POST","clie
nt":"192.168.50.82","path":"/v1.2/registration"}
{"lvl":"ERROR","ts":"2023-06-
14T20:02:20.395Z","at":"dp/aggregator/aggregator_generics.go:210","msg":"Unable to
perform http request","error":"Post
\"https://mocksas.testharness.cbsd.winnf.github.com:5000/v1.2/registration\": x509:
certificate signed by unknown authority"}
{"lvl":"ERROR","ts":"2023-06-14T20:02:20.395Z","at":"dp/cbsd-
mgr/interface.go:181","msg":"Error received from the channel","error":"Post
\"https://mocksas.testharness.cbsd.winnf.github.com:5000/v1.2/registration\": x509:
certificate signed by unknown authority"}

```





|             |                                                                                                                                        |                                                                                     |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Client      | <b>CradlePoint, Inc.</b>                                                                                                               |  |
| Product     | <b>Cradlepoint Cellular access points, Models<br/>A2400 Indoor Unit FCC ID: UXX-S1A227A<br/>A2405 Outdoor Unit FCC ID: UXX-S1A228A</b> |                                                                                     |
| Standard(s) | FCC Part 96 SAS requirements (CBRS Test Plan)                                                                                          |                                                                                     |


```

6XZ4UPp9UpjgBePzVMqz2g-
CFv6U_niSuB1hFCCQfQ48_Ly7wTEImeohniJ021MYNss5VNvUPkN5p_LwbAE7Vwfw"}}}
{"lvl":"DEBUG","ts":"2023-06-
14T19:57:45.986Z","at":"dp/aggregator/aggregator_generics.go:131","msg":"Aggregated 1
registration requests"}
{"lvl":"INFO","ts":"2023-06-14T19:57:45.987Z","at":"dp/kpi-
mgr/kpi_mgr.go:109","msg":"KPI metric
received","serialNumber":"2209DPT000350","metricKey":"ap_sas_derregistration_success"
}
{"lvl":"ERROR","ts":"2023-06-
14T19:57:45.987Z","at":"dp/aggregator/aggregator_generics.go:210","msg":"Unable to
perform http request","error":"Post
\"https://mocksas.testharness.cbsd.winnf.github.com:5000/v1.2/registration\": x509:
certificate signed by unknown authority (possibly because of \"crypto/rsa:
verification error\" while trying to verify candidate authority certificate
\"WInnForum RSA SAS Provider CA\")"}
{"lvl":"ERROR","ts":"2023-06-14T19:57:45.987Z","at":"dp/cbsd-
mgr/interface.go:181","msg":"Error received from the channel","error":"Post
\"https://mocksas.testharness.cbsd.winnf.github.com:5000/v1.2/registration\": x509:
certificate signed by unknown authority (possibly because of \"crypto/rsa:
verification error\" while trying to verify candidate authority certificate
\"WInnForum RSA SAS Provider CA\")"}
{"req":"OUT","ts":"2023-06-
14T19:57:45.987Z","dur":"1.83542ms","status":500,"trace_id":"","method":"POST","clien
t":"192.168.50.82","path":"/v1.2/registration"}


```

## Test Equipment

| Instrument      | Manufacturer | Type No. | Serial No | Calibration Period (months) | Calibration Due |
|-----------------|--------------|----------|-----------|-----------------------------|-----------------|
| Signal Analyzer | Agilent      | MXA      | SSG013930 | 24 months                   | 2024-04-26      |
|                 |              |          |           |                             |                 |


|             |                                                                                                                                        |                                                                                     |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Client      | <b>CradlePoint, Inc.</b>                                                                                                               |  |
| Product     | <b>Cradlepoint Cellular access points, Models<br/>A2400 Indoor Unit FCC ID: UXX-S1A227A<br/>A2405 Outdoor Unit FCC ID: UXX-S1A228A</b> |                                                                                     |
| Standard(s) | FCC Part 96 SAS requirements (CBRS Test Plan)                                                                                          |                                                                                     |

**Appendix A – EUT & Client Provided Details**

|             |                                                                                                                                        |                                                                                     |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Client      | <b>CradlePoint, Inc.</b>                                                                                                               |  |
| Product     | <b>Cradlepoint Cellular access points, Models<br/>A2400 Indoor Unit FCC ID: UXX-S1A227A<br/>A2405 Outdoor Unit FCC ID: UXX-S1A228A</b> |                                                                                     |
| Standard(s) | FCC Part 96 SAS requirements (CBRS Test Plan)                                                                                          |                                                                                     |

#### General EUT Description

|                               |                                                    |
|-------------------------------|----------------------------------------------------|
| Manufacturer                  | Cradlepoint, Inc                                   |
| Address                       | 1100W. Idaho Street<br>Boise, Idaho 83702-5389 USA |
| Product Name                  | A2400/A2405                                        |
| Product Number(s)             | S1A227A/S1A228A                                    |
| Serial Number(s)              | 2210CW5000134/2209DPT000261                        |
| Software Version              | DG3933v7@2305312023                                |
| Hardware Version              | 2.0/2.0                                            |
| Test Specification/Issue/Date | FCC CFR 47 Part 96: 2022                           |


|             |                                                                                                                                        |                                                                                     |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Client      | <b>CradlePoint, Inc.</b>                                                                                                               |  |
| Product     | <b>Cradlepoint Cellular access points, Models<br/>A2400 Indoor Unit FCC ID: UXX-S1A227A<br/>A2405 Outdoor Unit FCC ID: UXX-S1A228A</b> |                                                                                     |
| Standard(s) | FCC Part 96 SAS requirements (CBRS Test Plan)                                                                                          |                                                                                     |

**Technical Description**

The Equipment Under Test (EUT) is shown in the photograph below. A full technical description can be found in the Manufacturer’s documentation.



Indoor Unit (IDU) model A2400


|             |                                                                                                                                        |                                                                                     |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Client      | <b>CradlePoint, Inc.</b>                                                                                                               |  |
| Product     | <b>Cradlepoint Cellular access points, Models<br/>A2400 Indoor Unit FCC ID: UXX-S1A227A<br/>A2405 Outdoor Unit FCC ID: UXX-S1A228A</b> |                                                                                     |
| Standard(s) | FCC Part 96 SAS requirements (CBRS Test Plan)                                                                                          |                                                                                     |



Outdoor Unit Model A2405

#### EUT Configuration

Please see Appendix B for close up pictures of the unit as configured during testing  
Cables and earthing when applicable were connected as per manufacturer's specification.


|             |                                                                                                                                        |                                                                                     |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Client      | <b>CradlePoint, Inc.</b>                                                                                                               |  |
| Product     | <b>Cradlepoint Cellular access points, Models<br/>A2400 Indoor Unit FCC ID: UXX-S1A227A<br/>A2405 Outdoor Unit FCC ID: UXX-S1A228A</b> |                                                                                     |
| Standard(s) | FCC Part 96 SAS requirements (CBRS Test Plan)                                                                                          |                                                                                     |

**Appendix B – EUT, Peripherals, and Test Setup Photos**

**PERIPHERALS**


“Shuttle” computer



|             |                                                                                                                                        |                                                                                     |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Client      | <b>CradlePoint, Inc.</b>                                                                                                               |  |
| Product     | <b>Cradlepoint Cellular access points, Models<br/>A2400 Indoor Unit FCC ID: UXX-S1A227A<br/>A2405 Outdoor Unit FCC ID: UXX-S1A228A</b> |                                                                                     |
| Standard(s) | FCC Part 96 SAS requirements (CBRS Test Plan)                                                                                          |                                                                                     |

Cradlepoint ES3000 Router



|             |                                                                                                                                        |                                                                                     |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Client      | <b>CradlePoint, Inc.</b>                                                                                                               |  |
| Product     | <b>Cradlepoint Cellular access points, Models<br/>A2400 Indoor Unit FCC ID: UXX-S1A227A<br/>A2405 Outdoor Unit FCC ID: UXX-S1A228A</b> |                                                                                     |
| Standard(s) | <b>FCC Part 96 SAS requirements (CBRS Test Plan)</b>                                                                                   |                                                                                     |

Test setup

