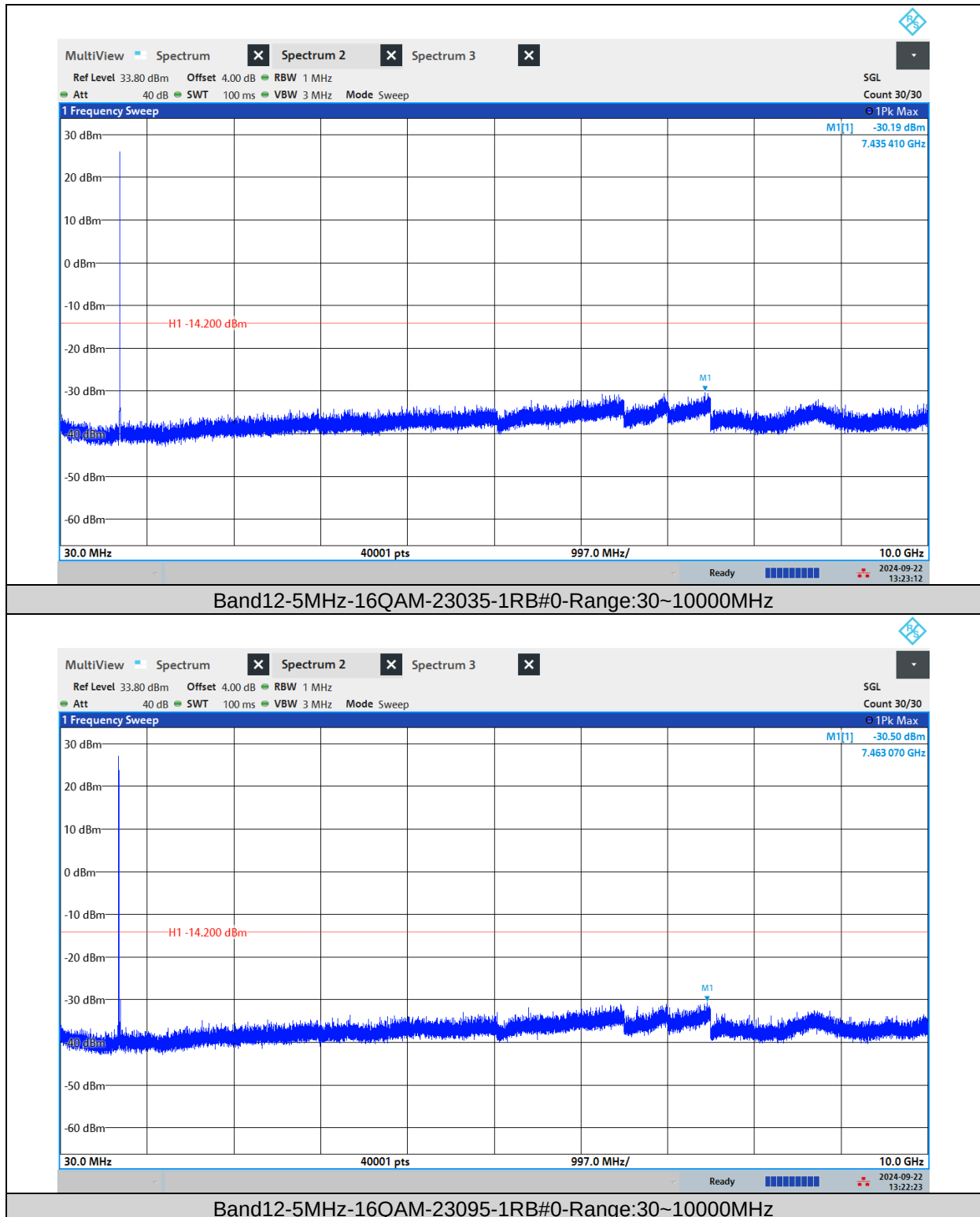




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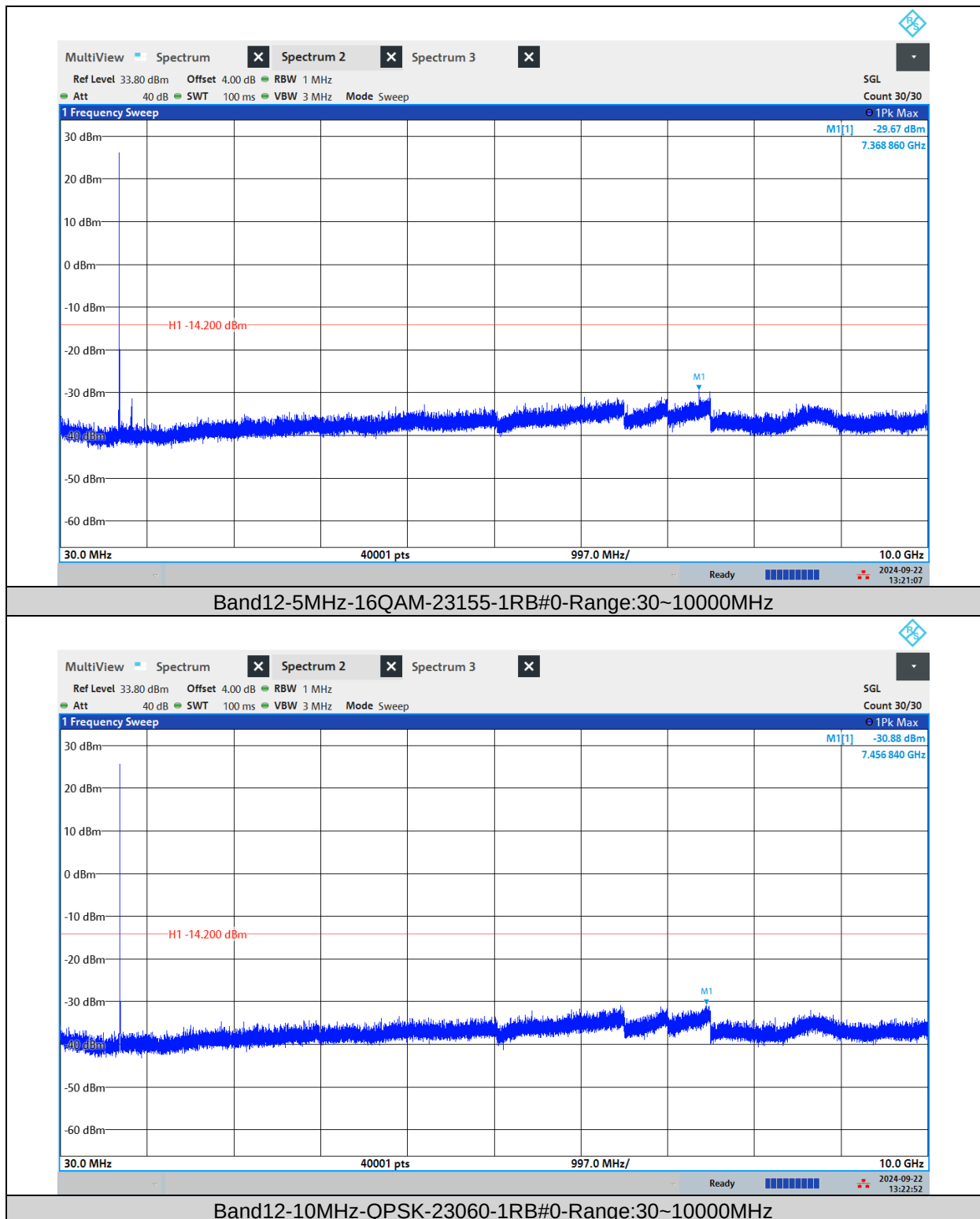
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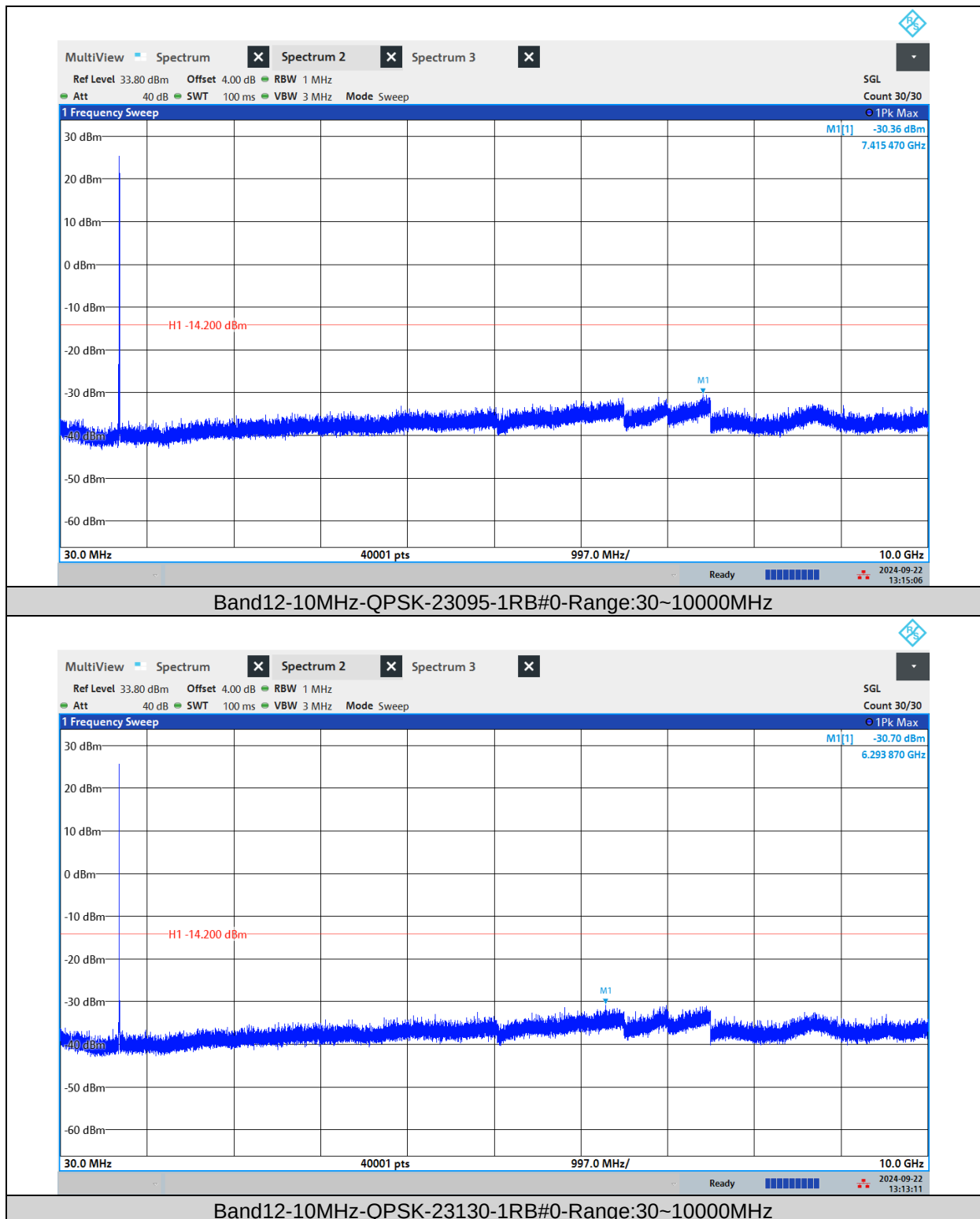
Test Report No.: PSU-QBJ2408220111RF03





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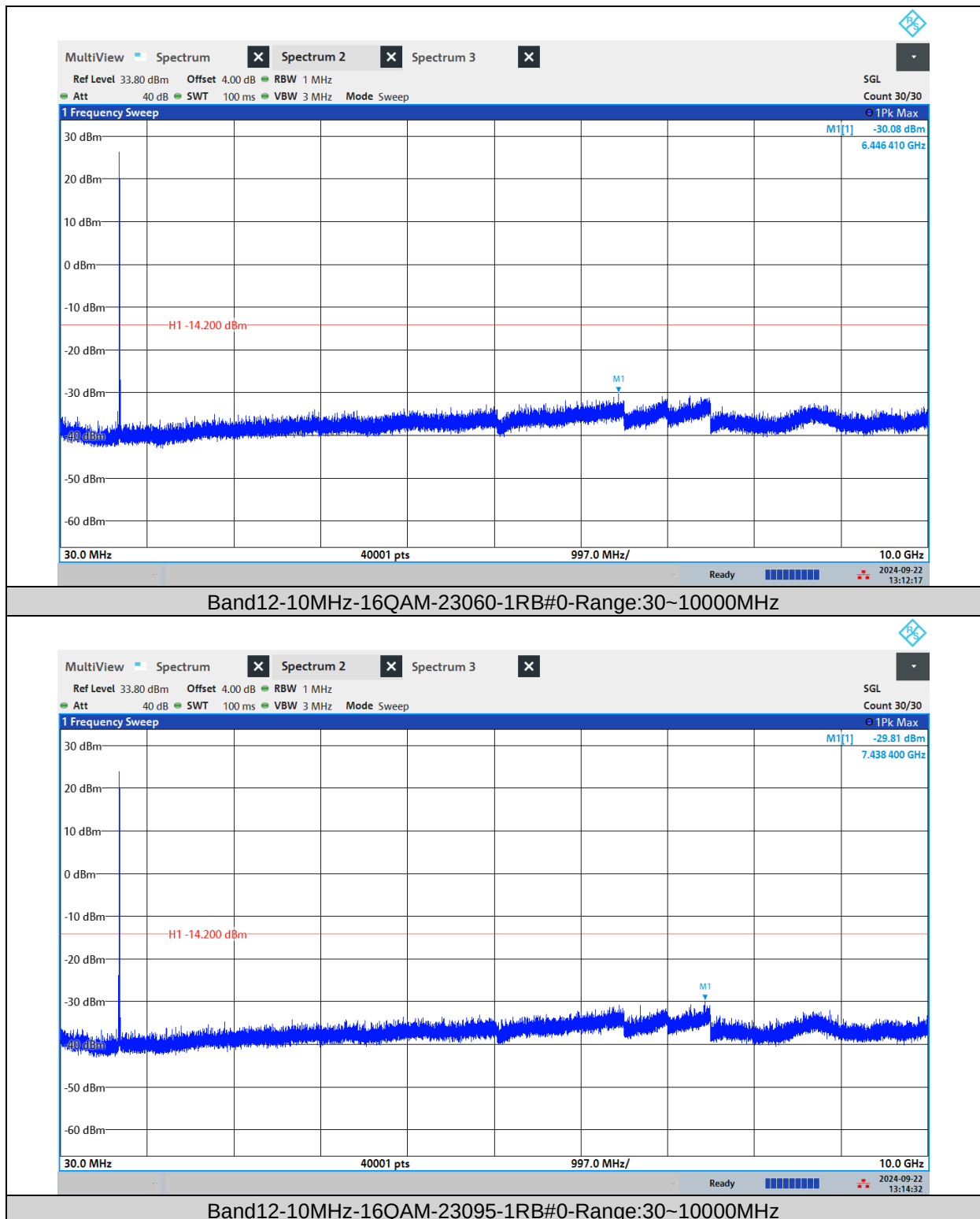
Test Report No.: PSU-QBJ2408220111RF03





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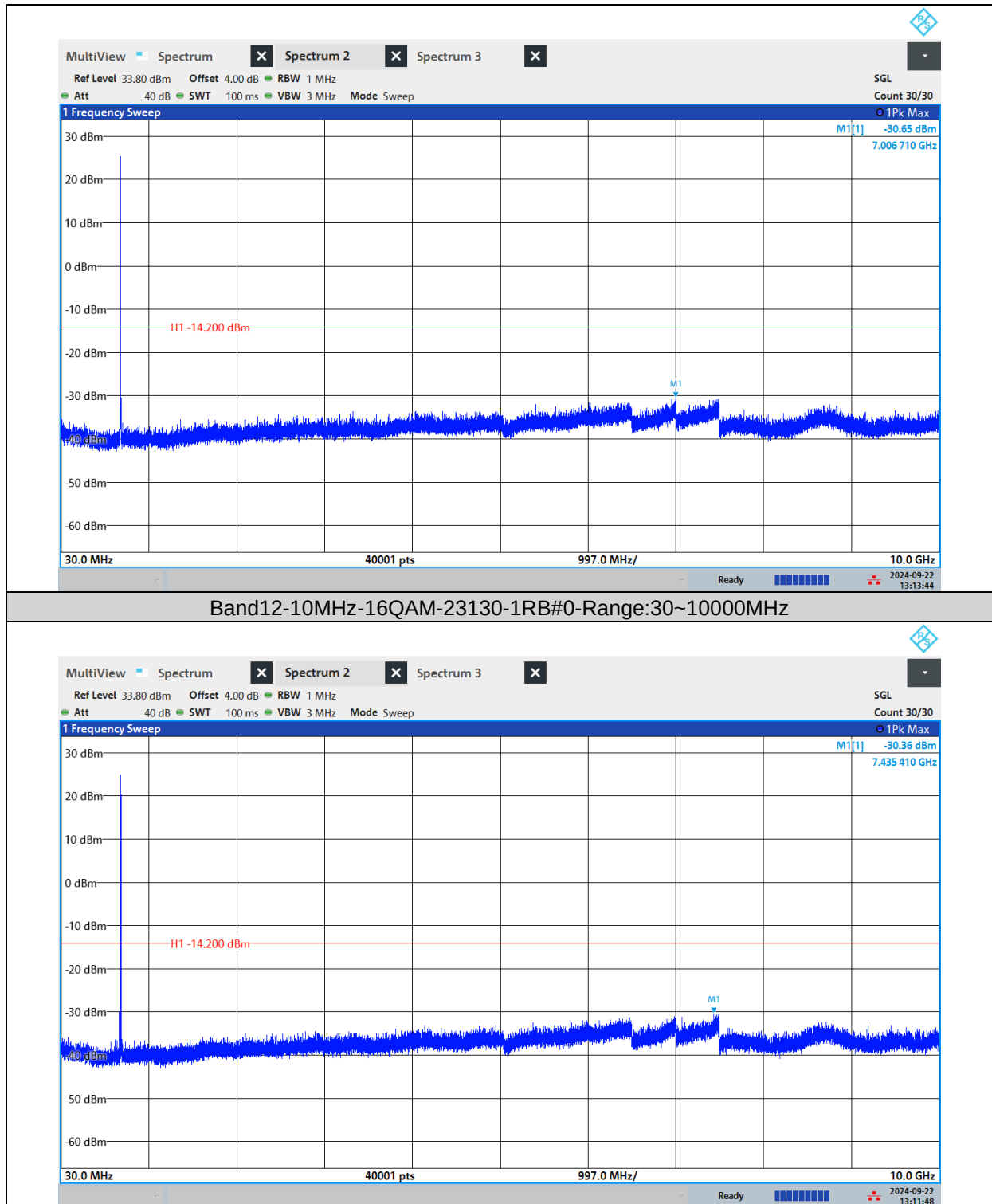
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## FREQUENCY STABILITY

### Test Result

Voltage



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| Band   | Bandwidth | Modulation | Channel | RB Configure | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
|--------|-----------|------------|---------|--------------|---------------|------------------|----------------|-----------------|-------------|---------|
| Band12 | 10MHz     | QPSK       | 23060   | 6RB#0        | VL            | NT               | -18.49         | -0.0074         | ±2.5        | PASS    |
| Band12 | 10MHz     | QPSK       | 23060   | 6RB#0        | VN            | NT               | -7.25          | -0.0029         | ±2.5        | PASS    |
| Band12 | 10MHz     | QPSK       | 23060   | 6RB#0        | VH            | NT               | -12.91         | -0.0051         | ±2.5        | PASS    |
| Band12 | 10MHz     | QPSK       | 23095   | 6RB#0        | VL            | NT               | -14.48         | -0.0057         | ±2.5        | PASS    |
| Band12 | 10MHz     | QPSK       | 23095   | 6RB#0        | VN            | NT               | 1.24           | 0.0005          | ±2.5        | PASS    |
| Band12 | 10MHz     | QPSK       | 23095   | 6RB#0        | VH            | NT               | -5.03          | -0.0020         | ±2.5        | PASS    |
| Band12 | 10MHz     | QPSK       | 23130   | 6RB#0        | VL            | NT               | 7.06           | 0.0028          | ±2.5        | PASS    |
| Band12 | 10MHz     | QPSK       | 23130   | 6RB#0        | VN            | NT               | -11.44         | -0.0045         | ±2.5        | PASS    |
| Band12 | 10MHz     | QPSK       | 23130   | 6RB#0        | VH            | NT               | 17.11          | 0.0067          | ±2.5        | PASS    |

| Voltage |           |            |         |              |               |                  |                |                 |             |         |
|---------|-----------|------------|---------|--------------|---------------|------------------|----------------|-----------------|-------------|---------|
| Band    | Bandwidth | Modulation | Channel | RB Configure | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| Band12  | 10MHz     | QPSK       | 23060   | 6RB#0        | NV            | -30              | 8.10           | 0.0032          | ±2.5        | PASS    |
| Band12  | 10MHz     | QPSK       | 23060   | 6RB#0        | NV            | -20              | 2.20           | 0.0009          | ±2.5        | PASS    |
| Band12  | 10MHz     | QPSK       | 23060   | 6RB#0        | NV            | -10              | -23.20         | -0.0092         | ±2.5        | PASS    |
| Band12  | 10MHz     | QPSK       | 23060   | 6RB#0        | NV            | 0                | -7.80          | -0.0031         | ±2.5        | PASS    |
| Band12  | 10MHz     | QPSK       | 23060   | 6RB#0        | NV            | 10               | 4.50           | 0.0018          | ±2.5        | PASS    |
| Band12  | 10MHz     | QPSK       | 23060   | 6RB#0        | NV            | 20               | -1.80          | -0.0007         | ±2.5        | PASS    |
| Band12  | 10MHz     | QPSK       | 23060   | 6RB#0        | NV            | 30               | 16.00          | 0.0064          | ±2.5        | PASS    |
| Band12  | 10MHz     | QPSK       | 23060   | 6RB#0        | NV            | 40               | 25.60          | 0.0102          | ±2.5        | PASS    |
| Band12  | 10MHz     | QPSK       | 23060   | 6RB#0        | NV            | 50               | 28.40          | 0.0113          | ±2.5        | PASS    |
| Band12  | 10MHz     | QPSK       | 23095   | 6RB#0        | NV            | -30              | -26.30         | -0.0104         | ±2.5        | PASS    |
| Band12  | 10MHz     | QPSK       | 23095   | 6RB#0        | NV            | -20              | -15.04         | -0.0059         | ±2.5        | PASS    |
| Band12  | 10MHz     | QPSK       | 23095   | 6RB#0        | NV            | -10              | 24.47          | 0.0097          | ±2.5        | PASS    |
| Band12  | 10MHz     | QPSK       | 23095   | 6RB#0        | NV            | 0                | -11.91         | -0.0047         | ±2.5        | PASS    |
| Band12  | 10MHz     | QPSK       | 23095   | 6RB#0        | NV            | 10               | -10.33         | -0.0041         | ±2.5        | PASS    |
| Band12  | 10MHz     | QPSK       | 23095   | 6RB#0        | NV            | 20               | -0.69          | -0.0003         | ±2.5        | PASS    |
| Band12  | 10MHz     | QPSK       | 23095   | 6RB#0        | NV            | 30               | 0.31           | 0.0001          | ±2.5        | PASS    |
| Band12  | 10MHz     | QPSK       | 23095   | 6RB#0        | NV            | 40               | 28.05          | 0.0111          | ±2.5        | PASS    |
| Band12  | 10MHz     | QPSK       | 23095   | 6RB#0        | NV            | 50               | -4.02          | -0.0016         | ±2.5        | PASS    |
| Band12  | 10MHz     | QPSK       | 23130   | 6RB#0        | NV            | -30              | 26.40          | 0.0103          | ±2.5        | PASS    |
| Band12  | 10MHz     | QPSK       | 23130   | 6RB#0        | NV            | -20              | -18.60         | -0.0073         | ±2.5        | PASS    |
| Band12  | 10MHz     | QPSK       | 23130   | 6RB#0        | NV            | -10              | -2.60          | -0.0010         | ±2.5        | PASS    |
| Band12  | 10MHz     | QPSK       | 23130   | 6RB#0        | NV            | 0                | 20.80          | 0.0081          | ±2.5        | PASS    |
| Band12  | 10MHz     | QPSK       | 23130   | 6RB#0        | NV            | 10               | -20.80         | -0.0081         | ±2.5        | PASS    |
| Band12  | 20MHz     | QPSK       | 23130   | 6RB#0        | NV            | 20               | -21.50         | -0.0084         | ±2.5        | PASS    |
| Band12  | 20MHz     | QPSK       | 23130   | 6RB#0        | NV            | 30               | 24.30          | 0.0095          | ±2.5        | PASS    |
| Band12  | 20MHz     | QPSK       | 23130   | 6RB#0        | NV            | 40               | 2.00           | 0.0008          | ±2.5        | PASS    |
| Band12  | 20MHz     | QPSK       | 23130   | 6RB#0        | NV            | 50               | 16.10          | 0.0063          | ±2.5        | PASS    |

## MAX Deviation calculation



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| Frequency Stability            | Frequency<br>(MHz) | Limit<br>Line(MHz) | Result |
|--------------------------------|--------------------|--------------------|--------|
| $f_L -  \text{MAX}(\Delta f) $ | 703.4519716        | $\geq 699$         | PASS   |
| $f_H +  \text{MAX}(\Delta f) $ | 711.54747          | $\leq 716$         |        |

- Note : 1.  $|\text{MAX}(\Delta f)|$  = Max Deviation  
2.  $f_L$  = Occ low channel  $f_L$ (-13dBm/MHz)  
3.  $f_H$  = Occ High channel  $f_H$ (-13dBm/MHz)  
4.  $|\text{MAX}(\Delta f)|$  =28.4Hz.

--END--