

Quick Card

Sweep Errors

The following document will show how to correct common sweep errors on a ONX meter when trying to perform forward sweep and return sweep with the SCU-1800

Prerequisite

Please Review SCU-1800 Getting Started Guide

Please Review SCU-1800 Preparing for Return Sweep

System Requirements

SCU-1800

48V DC supply

10/100 BaseT Ethernet connection with static IP

ONX-620/630

Telemetry Not Found

- This error happens on performing forward sweep, single user return sweep, or multiple return sweep. Verify the forward telemetry on the ONX matches the telemetry on the SCU 1800
- The forward telemetry is not at proper level. Greater than 20 dB above the noise floor.
- The forward telemetry is too close to another carrier.

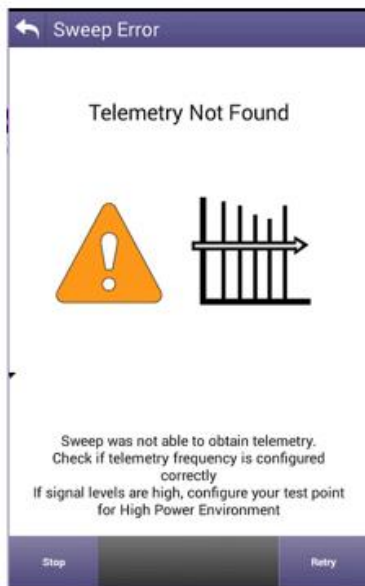


Figure 1: Forward Telemetry Error not found

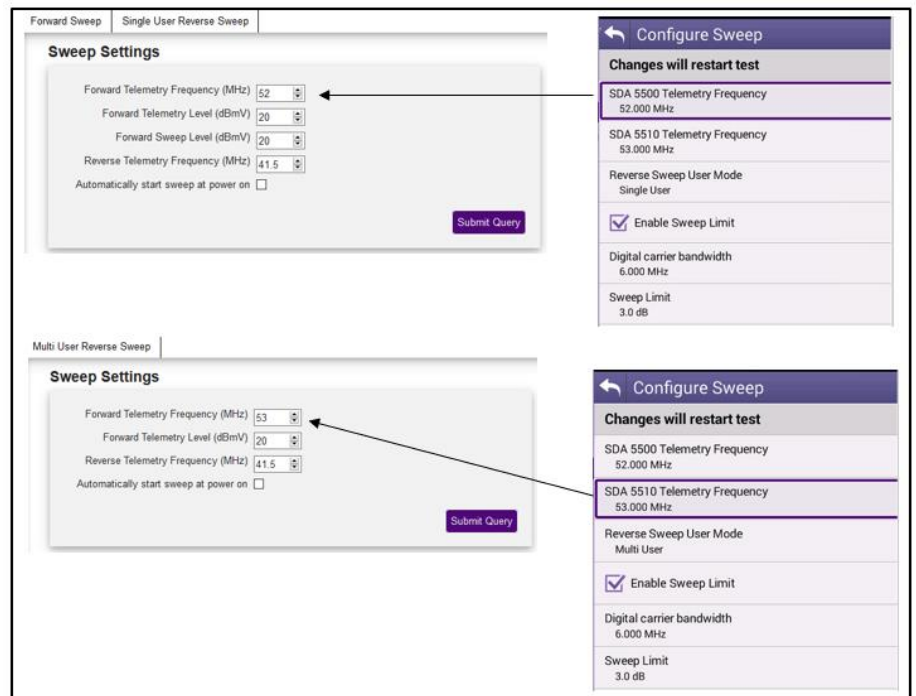


Figure 2: Settings for Forward Telemetry on SCU-1800 and ONX

Verify Telemetry

- Using the downstream spectrum set max hold (telemetry will pulse about 1 a second) Verify the frequency and forward telemetry level is about the same level as the QAM carrier and has a level 20 dB greater than noise floor.
- Note: If using both SCU-1800 forward sweep and another SCU-1800 multiple return sweep then there will be 2 telemetry carriers.

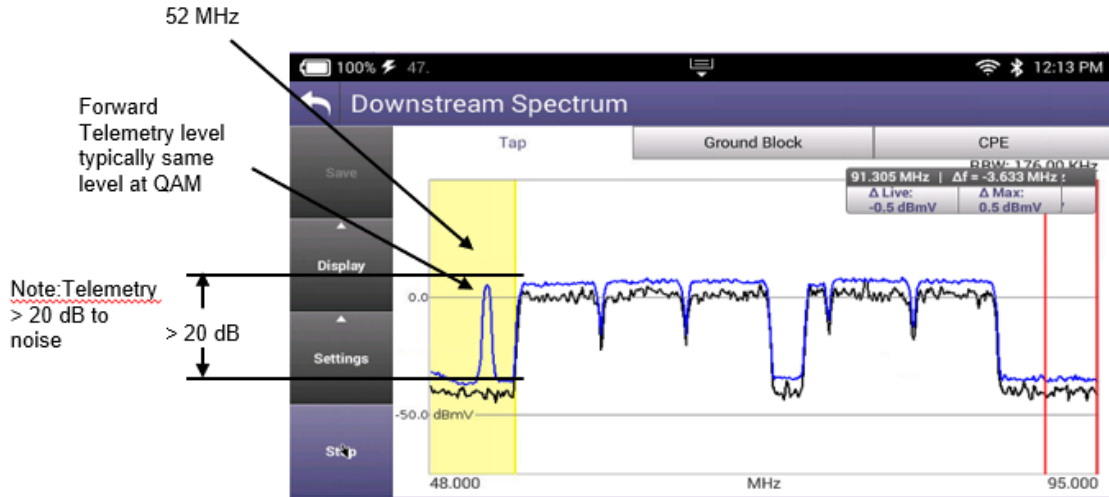


Figure 3: Settings for Forward Telemetry on SDU-1800 and ONX

Invalid Telemetry

- 3 possibilities
- #1. Using the multiple user frequency when sweeping the forward sweep single sweep or when sweeping forward. using multiple users frequency. See figure 2
- Verify correct telemetry.
- #2. The input level is of telemetry exceed +25 dBmV into ONX
- #3. RF channel power into the ONX exceeds 20 dBmV.

Check the High Power Environment in the Test Point template

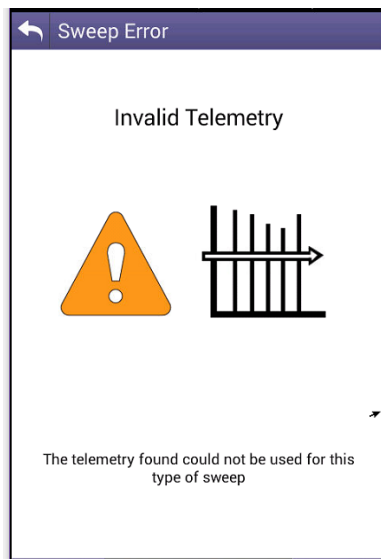


Figure 4: High Power setting

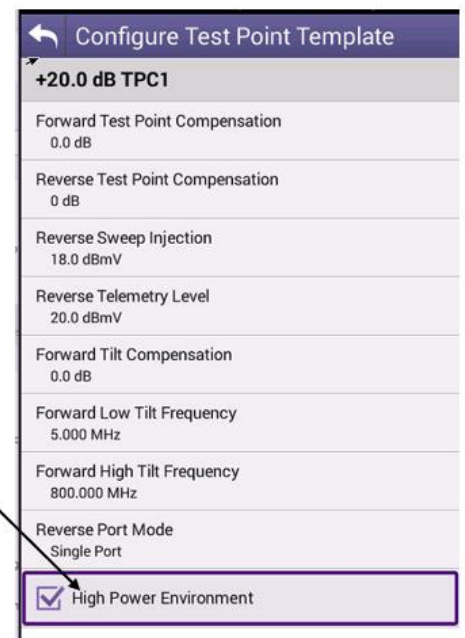


Figure 5: High Power setting

Return Sweep Error Part 1

- If Telemetry not found after pressing the Return sweep application review Figure 1,2,3.
- If error is Invalid telemetry review Figure 4,5.

Return Sweep Error Part 2

- If Telemetry not found after pressing the Return sweep application review Figure 1,2,3.
- If error is Invalid telemetry review Figure 4,5.

Return Sweep Error Part 3

- Login Failure
- **Typically cause by the return Telemetry level is too low for the SCU-1800 to decode or not present at the SCU-1800. Increase telemetry output level.**
- Return Telemetry > 30 dB to the input of the SCU-1800
- Total integrated power on return band is greater than 15 dBmV

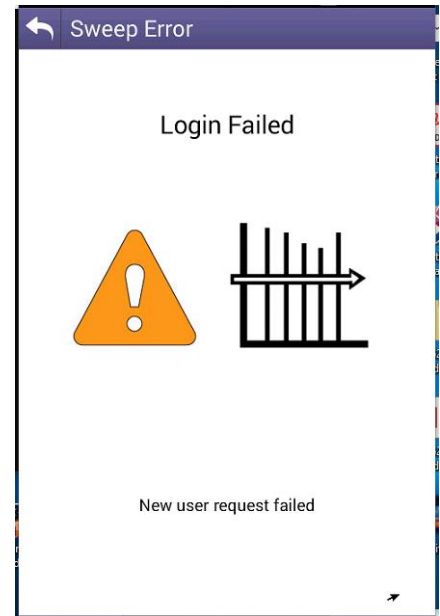
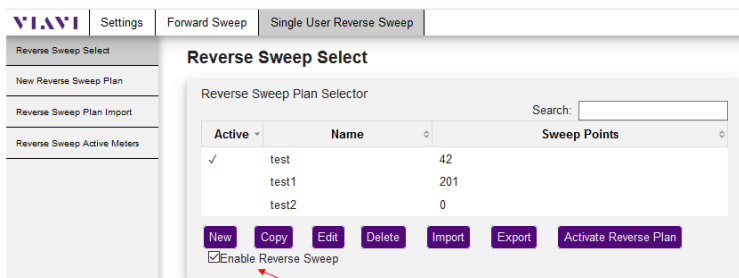


Figure 6: Login Failure

Return Sweep Error Part 3

- Sweep Offline
- Verify Reverse Sweep is check on SCU-1800
- Too much return RF power. Verify out put on ONX is not too high.
- **Please Review SCU-1800 Getting Started Guide**



Enable Reverse Sweep

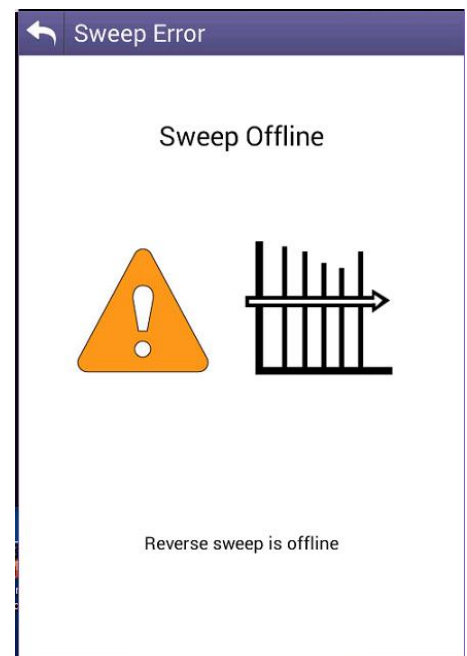


Figure 7: Enable Reverse

Figure 8: Sweep Offline.