

Quick Card

SCU-1800 Return Sweep Setup

The following procedures will show how to properly set the forward telemetry frequency and output level. Return telemetry frequency and Sweep points

Prerequisite

Please Review SCU-1800 Getting Started Guide

Please Review SCU-1800 Options

Please Review SCU-1800 Preparing for Return Sweep

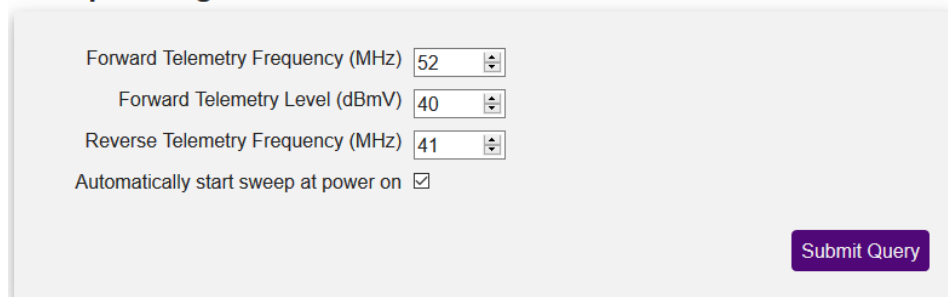
System Requirements

SCU-1800
48V DC supply
10/100 BaseT Ethernet connection with static IP
ONX-620/630

SCU-1800 Sweep Settings

- **Set the Forward Telemetry Frequency**
 - Choose an area of the forward spectrum not occupied.
 - Typical placement is at 52 MHz, 74.2 MHz, 90MHz
 - Must be **1 MHz** from any other carrier.
- **Set the Forward Telemetry Level**
 - Set the level the same as QAM level in spectrum analyzer
 - Verify Level at head end forward TP or Fiber node TP

Sweep Settings



Forward Telemetry Frequency (MHz) 52

Forward Telemetry Level (dBmV) 40

Reverse Telemetry Frequency (MHz) 41

Automatically start sweep at power on

Submit Query

Figure 1: Sweep Settings

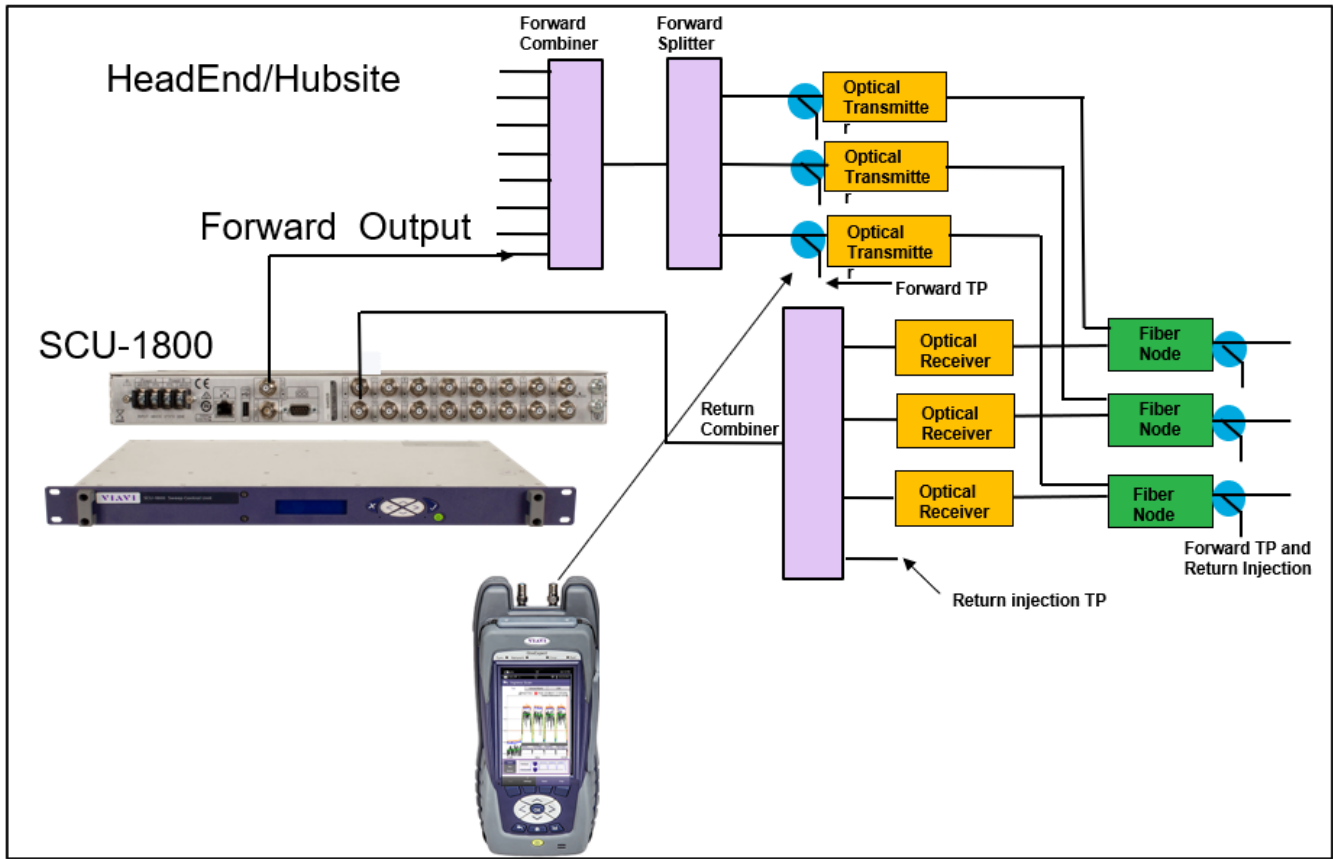


Figure 2: Forward Telemetry Placement and Level

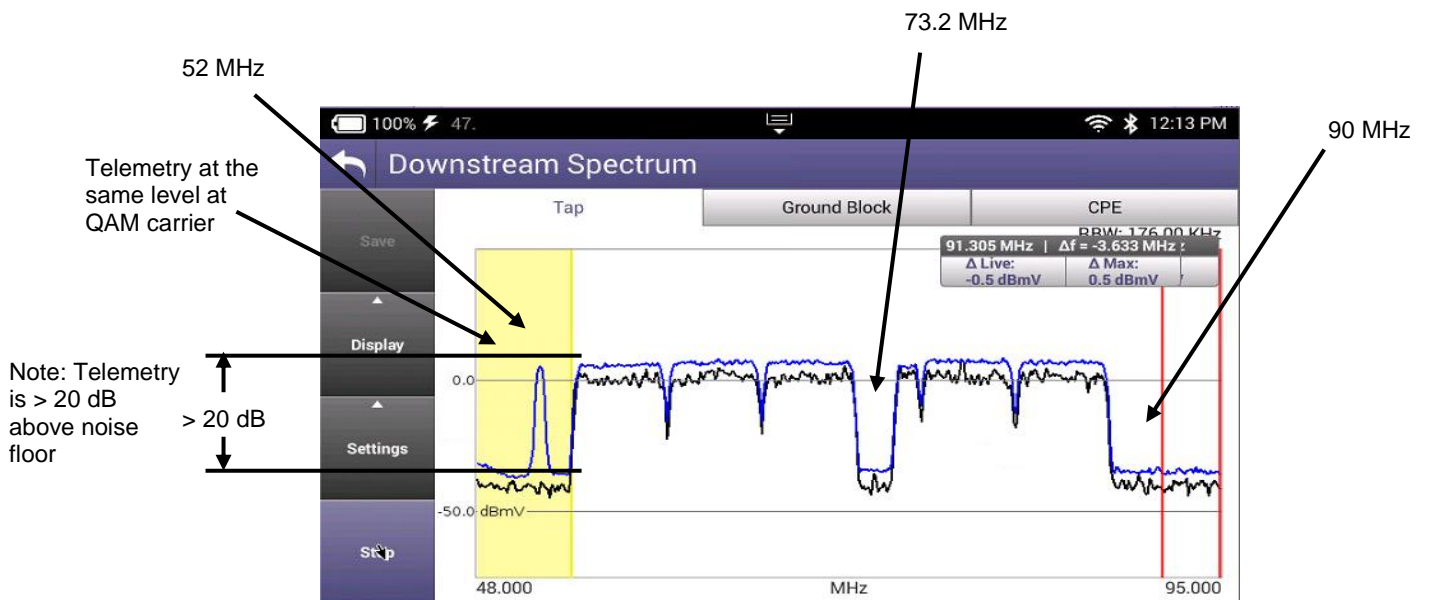


Figure 3: Forward Telemetry Placement and Level

- **Set the Return Telemetry Frequency**
 - Review Quick Card SCU-1800 Preparing the Return Sweep
- **Building a New Reverse Sweep Plan**
 - Should be where no other carriers are present and > 500Khz

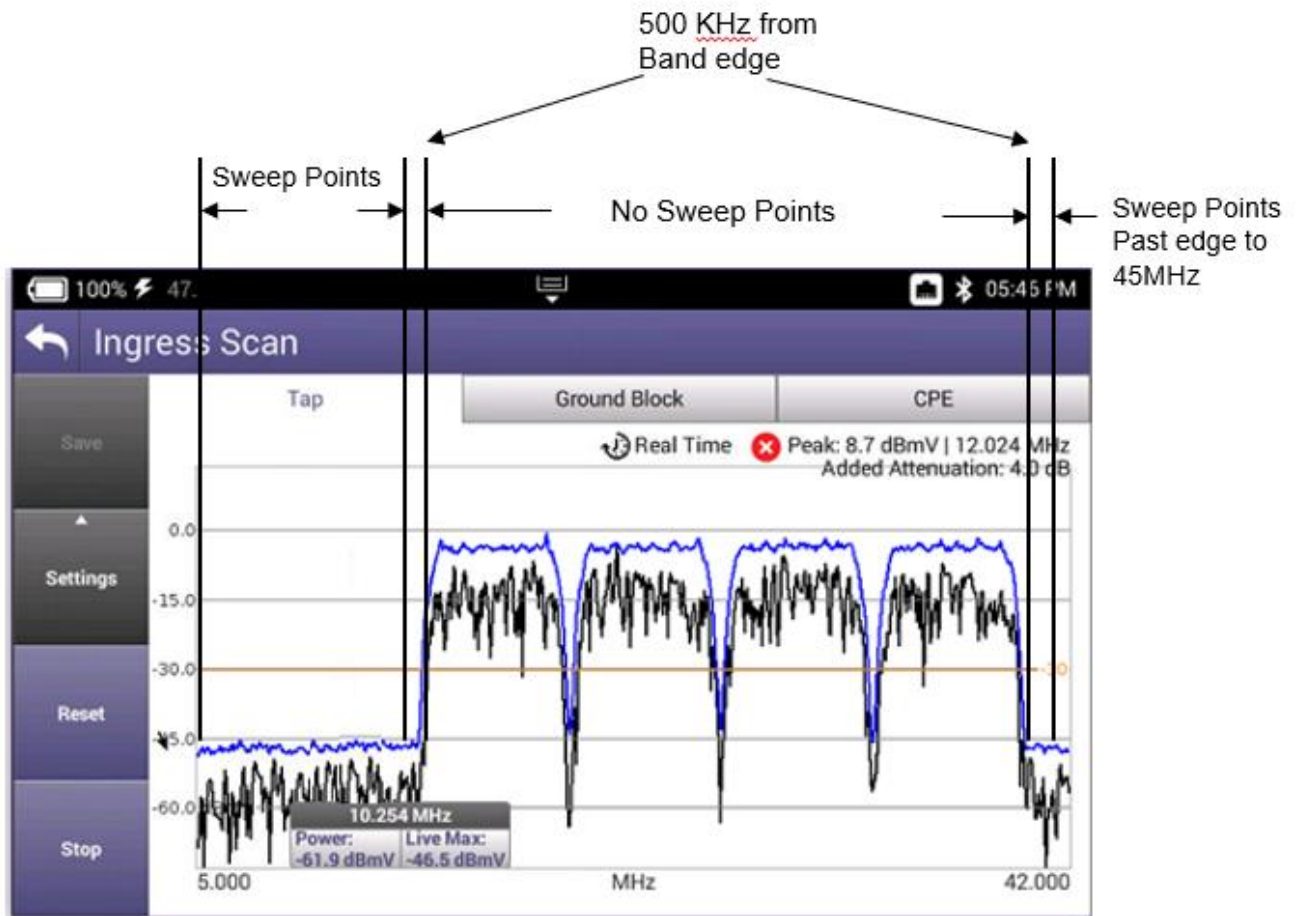


Figure 4: Telemetry Placement and Level

- **Building a Reverse Plan**
 - Set Name

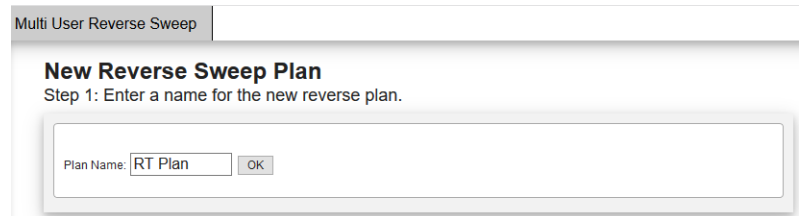


Figure 5: Building a New Reverse Plan

- **Building a Reverse Plan**
 - Set start and stop frequencies. Typically from 5 to 14 MHz at 250 kHz and then add a single carrier at the end of the plan.
 - This eliminates the need to deleted sweep points in the occupied band.

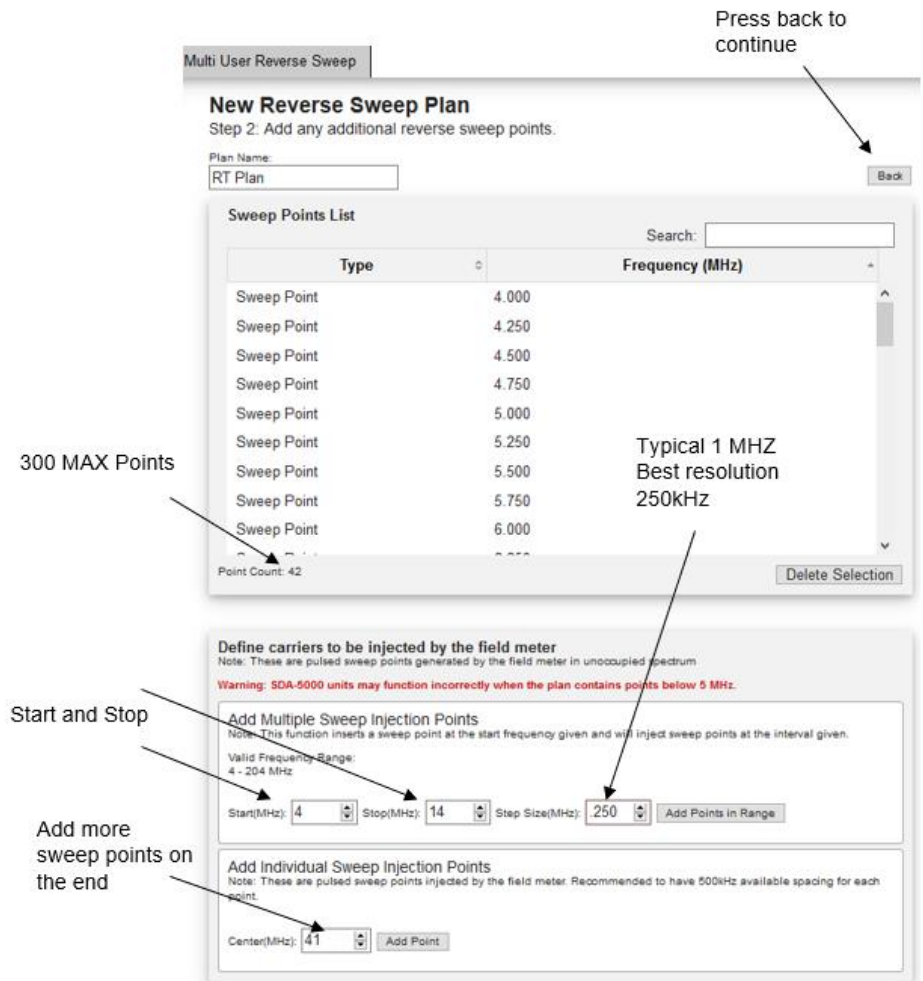


Figure 6: Start and Stop Frequencies

- **Activate Sweep Plan**
 - Select Sweep Plan and activate
 - Click Green tab to start sweep
 - Click Red tab to stop sweep

Note: When the sweep plan is running the forward telemetry can be **verified** in the forward spectrum in live max trace.
Must be 20 dB above the noise floor

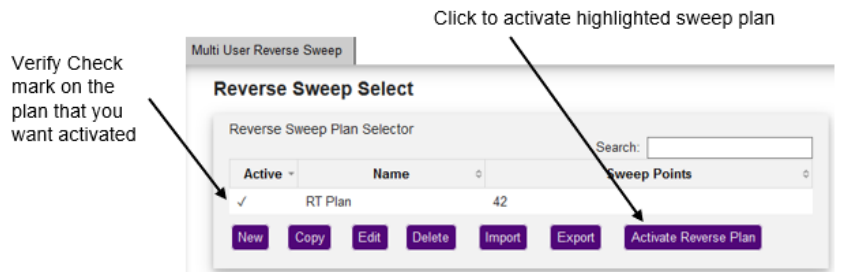


Figure 7: Activate Sweep Plan

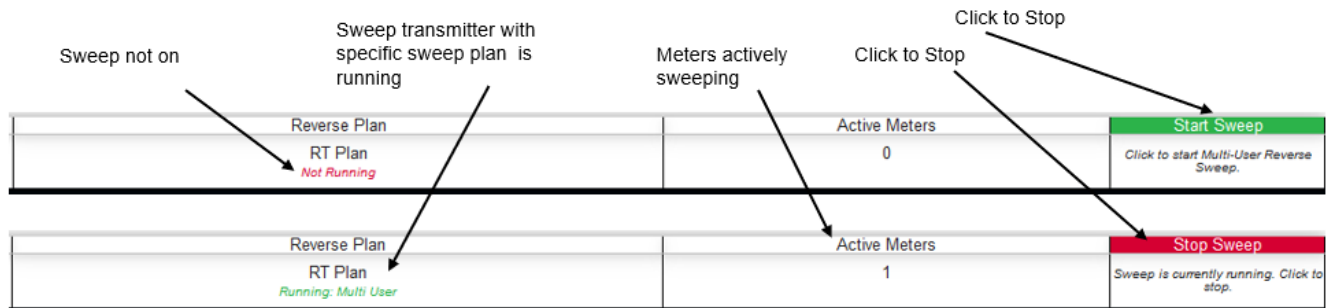


Figure 8: Start Sweep

Test at the Fiber Node

- Set Sweep Configuration on ONX
- Set Telemetry and Sweep mode
- Set Test point parameters

Note: To test sweep inside the headend attach splitter at the Reverse injection point TP and Forward TP. Set the TP reverse telemetry level and sweep insertion point to 10 dBmV or where the level into the SCU-1800 is < 25 dBmV. Set the Forward Telemetry on SCU-1800 to 20 or Received level in ONX < 20 dBmV

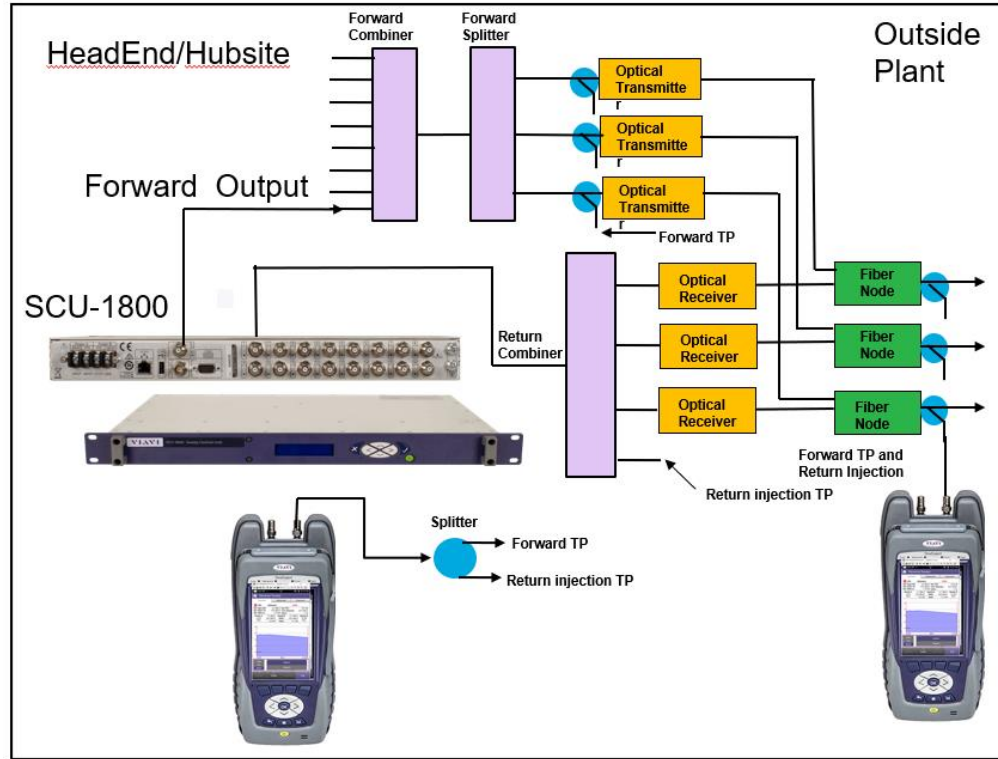


Figure 9: Headend/Outside plant testing

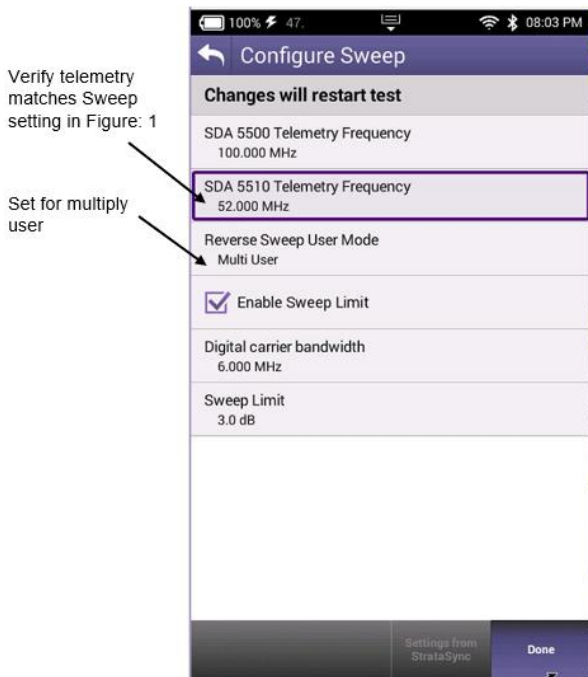


Figure 10: Sweep Configure Screen

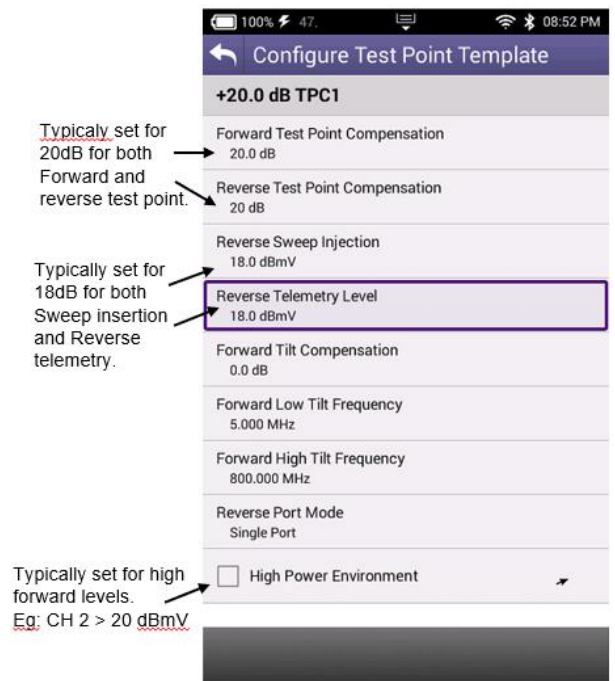


Figure 11: Typical Test Point setting for node

Successful Sweep



Figure 12: Successful Return sweep!

