

# Quick Card – SCU-1800



## Return Sweep Setup

The following procedures will show how to verify the RF input and recommend input to the SCU-1800 for reverse sweep.

### Prerequisite

Please Review SCU-1800 Getting Started Guide: <https://velocity.viavisolutions.com/docs/DOC-7516>

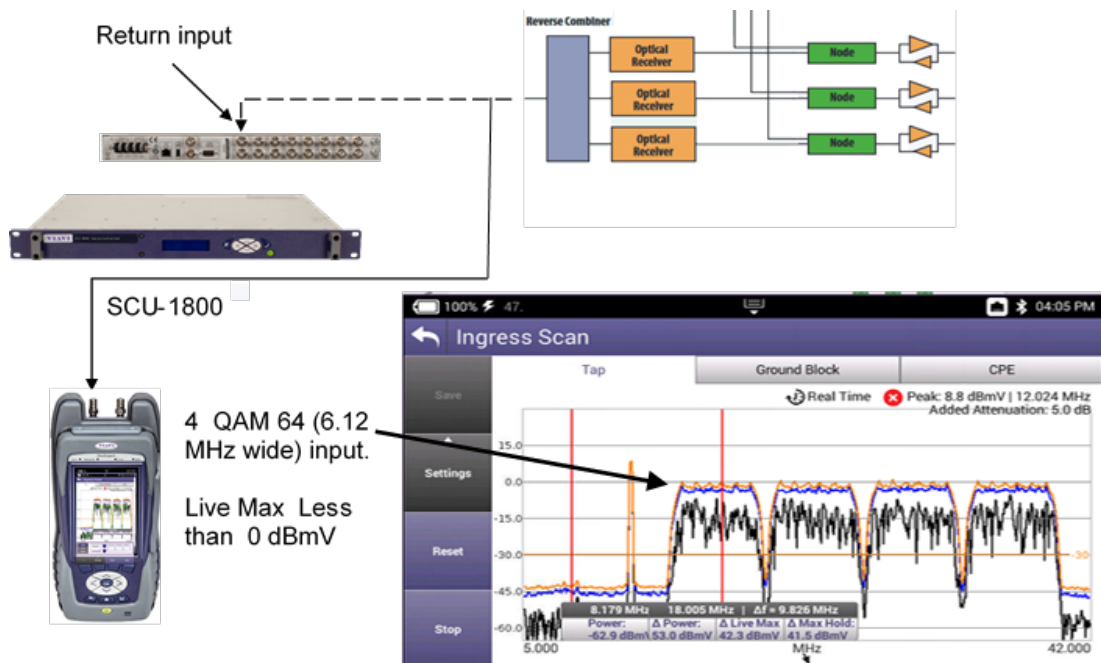
### System Requirements

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

### RF Return Power

- Verify Return Carriers to each of the 16 ports of SCU-1800
  - Use ONX 620/630 in Ingress Scan with AGC checked, Live Max
  - Verify Level Live max is set to < 0 dBmV for all return QAMs as seen on Spectrum analyzer

**Note:** if QAM level > 7 dBmV it may exceed the total integrated power of 15 dB



## Return Sweep Setup

### Total Integrated Power

- Add all the power in bandwidth at Input of SCU-1800
- If TIP exceeds 15 dB on SCU-1800 Return input, the return telemetry data will not get thru.

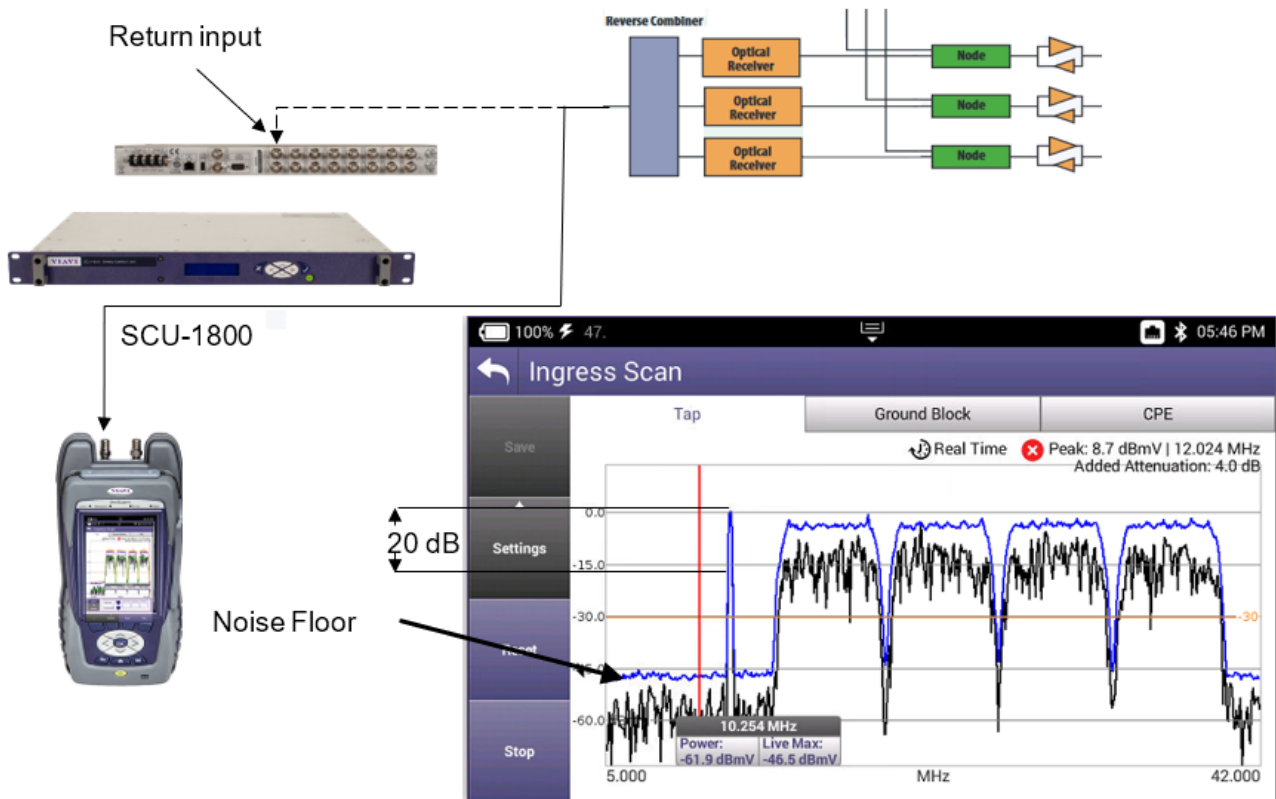
**Note:** The peak power of 1 QAM carrier at 12.7 dBmV is equal to 4 QAM carriers at 6.0 dBmV.



## Return Sweep Setup

### Where to set Return Telemetry?

- Set where no active return carrier.
- 1 MHz from any return carrier
- Where noise floor is less than -23dBmV
- This example is a 12 MHz
- **Note:** Telemetry C/N ratio should be > 20 dB



## Return Sweep Setup

### Optimizing the Node and Setting Telemetry

- Verify return carriers to each of the 16 ports of SCU-1800
- Use RSG to Inject typical level 38 dBmV CW @ **return telemetry** frequency carrier into the fiber node
- Use ONX 620/630 in Ingress Scan to measure Level

