Product Guideline SRO-100
How To Simplify The Use Of The Smart SRO-100 Rb Product

On your system:

Below are some basic guidelines on how SpectraTime is expecting customers to use and interface the SRO-100 to simplify your system design.

1. Power ON the SRO-100 and let it stabilize as long as possible. For very good performance, leave it alone for 1 day without interruptions, such as power OFF and Reset.

2. Check out the SRO-100 operation. To see if it is working perfectly, use the command ST or BT5, providing the Status every second through the serial port. Pin 4 (RbLock) can also be used.

3. Check out or Set the tracking parameters. The most important is the tracking loop time constant as follows:

<table>
<thead>
<tr>
<th>To track a maser:</th>
<th>set</th>
<th>TC001000</th>
</tr>
</thead>
<tbody>
<tr>
<td>To track a GPS:</td>
<td>set</td>
<td>TC002000 to TC006000</td>
</tr>
<tr>
<td>Automatic:</td>
<td></td>
<td>TC000000</td>
</tr>
</tbody>
</table>

4. Connect the PPSREF, typically a GPS reference, to pin 8 and check out its quality with the command BT1. For a good tracking, its value should not change within 1 minute typically.

5. Start a tracking with the command TR1.

6. To check out the tracking, use the command BT3.

7. If the PPSREF disappears, the SRO-100 will go in holdover mode. Do nothing, nor sending the command TR0.

8. If the SRO-100 is tracking a GPS and you know that there is a problem with the GPS reference, then disconnect physically the PPSREF from the GPS and do nothing on the SRO-100, especially not sending the command TR0.

9. If the SRO-100 was in holdover mode for more than 24 hours, you may restart a tracking command by sending the command TR0, then wait 2 seconds, and then send the command TR1.