

# GPS Repeaters for Manufacturing Test

## Description

At Teledyne RD Instruments we manufacture equipment for stream gauging that are broadly used by government agencies (USGS, USACE) and by other governments around the world. These units have internal GPS receivers to assist with the stream gauging measurements.

Our manufacturing process requires testing that the internal GPS receivers are functional prior to shipment, and this is currently accomplished by taking each individual unit outside to clear sky. In addition to the time added, this also adds risk to the instruments, and is weather dependent because of the kit required to power and communicate with the instrument during the test. The goal here is to repurpose a GPS antenna we have on our roof to feed two repeater antennas internal to the building, one in our main production area and one in our repair department. The two areas we propose to cover are outlined in blue below:

