

YSI Incorporated  
1725 Brannum Lane  
Yellow Springs, Ohio 45387

FEDERAL COMMUNICATIONS COMMISSION  
1270 Fairfield Road  
Gettysburg PA 17325-7245

### Application Narrative for Proposed Special Equipment Program

#### Proposed Program

YSI Incorporated is a manufacturer of water quality measurement devices used to monitor and acquire the environmental parameters pertaining to surface and ground water evaluations. These instruments are used by organizations such as United States Geological Survey (USGS), both Federal and State EPA along with numerous academic concerns. Location information of where measurements have been made form an important part of any environmental study. GPS information is routinely used in field studies to supply this information.

With the steady increase in GPS requirements in all facets of YSI's business, it is YSI's intent to incorporate GPS capabilities and expertise into our products to further enhance their benefit and usefulness to our customers. We propose to install the GPS re-radiating equipment at our manufacturing facility to allow reception of GPS signals within this facility to support testing functions during manufacturing operations of YSI's GPS receiver equipped instruments.

The proposed equipment is of a design and power output similar to a kit which has been licensed (WD2XTF) to re-radiate in their test lab.

GPS Repeater Kit P/N: HNRRKIT-N/5/110  
GPS Roof Antenna: L1GPSA-N

#### Objectives

We seek to accomplish the following objectives:

1. Illumination of product assembly area with re-radiated GPS Signals
2. Further design, development and enhancement of GPS systems
3. Ability to troubleshoot and analyze GPS equipment inside the manufacturing area

#### Contribution to Radio Art

Projects are currently under way at YSI Incorporated to produce more innovative environmental water quality instrumentation incorporating GPS-derived information in a variety of innovative applications with focus on providing state-of-art testing and quality control measurement equipment.