

Andrew Guthrie  
Joseph Pang  
Kunal Patel  
Vijayrahul Raja  
Scott Wright

**TG-403-H**

**SDR Spectrum Analyzer**

### Customer voice table

Verbatim (VOC)	Restated as customer need	Derived Requirement
Want this to be light, cost effective, and less time consuming	Develop an affordable and handy spectrum analyzer using USRP	Affordable, Timeliness, Price
Want to come up with a process to automatically scan a large bandwidth and lock onto possible signals.	Ability to scan a large bandwidth and identify the necessary signals of interest.	Accuracy, High Performance Level
Develop some type of classification scheme to break down the signal into its constituents to provide meaningful metric.	Develop an algorithm that provides accurate signal detection into meaningful, human readable information. A neural network could be one of the suitable candidate for the algorithm.	Precision, Ease of Use (interpreting output)
Ability to differentiate signals from noise and lock onto their bandwidth.	Identify signals in noisy environments. Accurately detect signals. Determine the bandwidth of signals of interest.	Accuracy

**“I pledge my Honor that I have abided by the Stevens Honor System”.**

- Scott Wright - Vijayrahul Raja      - Joseph Pang      - Andrew Guthrie      - Kunal Patel