

# Ecool BPM Detector Bench Measurements and Mapping

Should we make use of the Ecool  
BPM electronics?

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# Options for Signal Processing

- Ecool BPM development system
  - Exact electronics used in Ecool BPM +
  - Low effort to bring up (we think) +
  - Not a permanent solution for test stand -
  - Direct manpower conflict with other RR projects -
- Echotek Recycler type system
  - Different analog front-end and digital filters -
  - Permanent solution?? +
- VSA
  - Large development effort -

# Requirements

- Preamps, power supply, cables - Greg Saewert
- VXI crate, subnet 23 ethernet, tclk, 65 MHz clock, console connection to PC, etc. - Barry Barnes
- Software support. - Paul Joireman
- Other electronics- 32/90 kHz signal source, RF amplifiers, mechanical survey - Instrumentation/ Jim Crisp
- This project must be completed in a short time frame!
  - This system is our Ecool development system and its use for these measurements precludes any changes to Ecool BPM.
  - One month seems like a reasonable target.

# Procedure

- Calibrate the signal chain.
- Measure BPM in *XY* grid at 32 and 89 kHz
- Switch cable polarity and repeat(if needed)
- Calculate correction factors and apply to system.
- Repeat measurements