

# IP BPM Waveform Analysis @ IP

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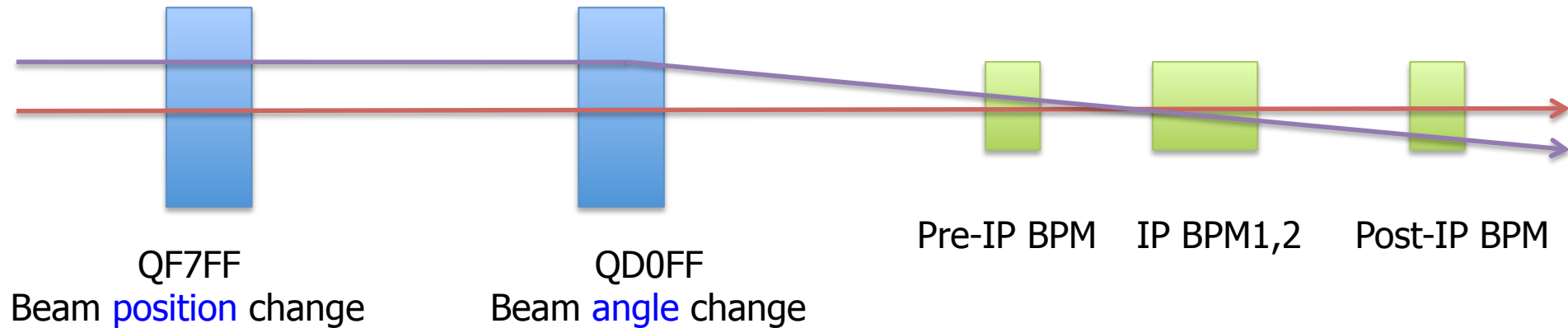
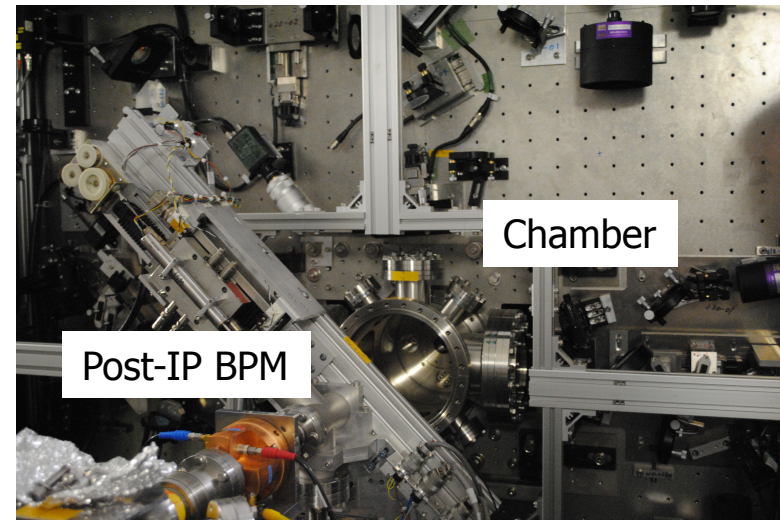
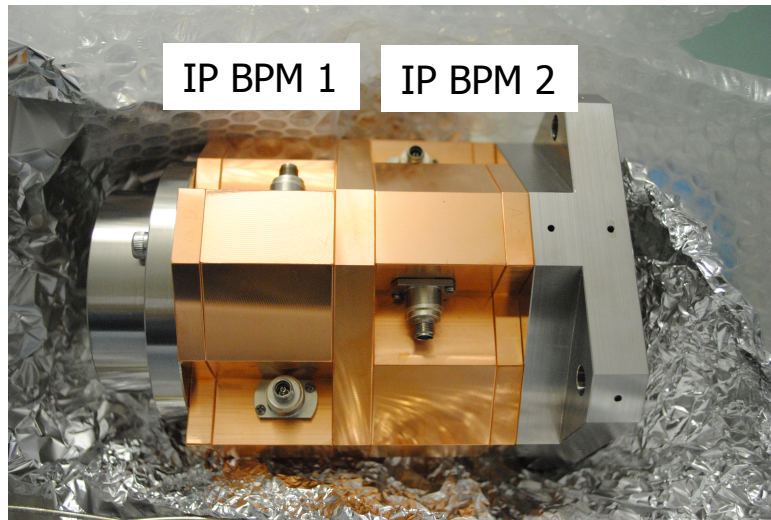
YoungIm Kim

*KNU*

2011. 01. 13

# Introduction

- IP BPM installed : September, 2010

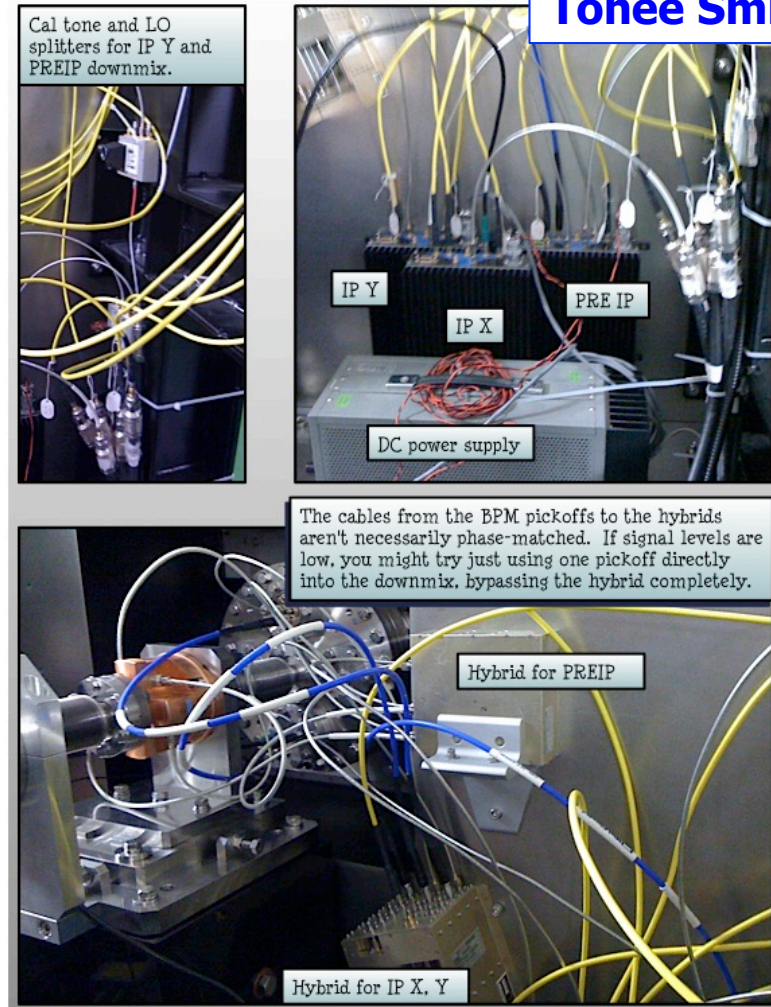




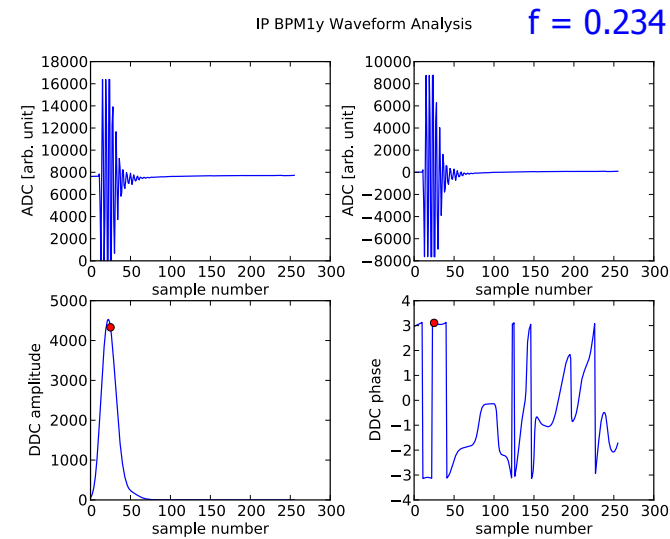
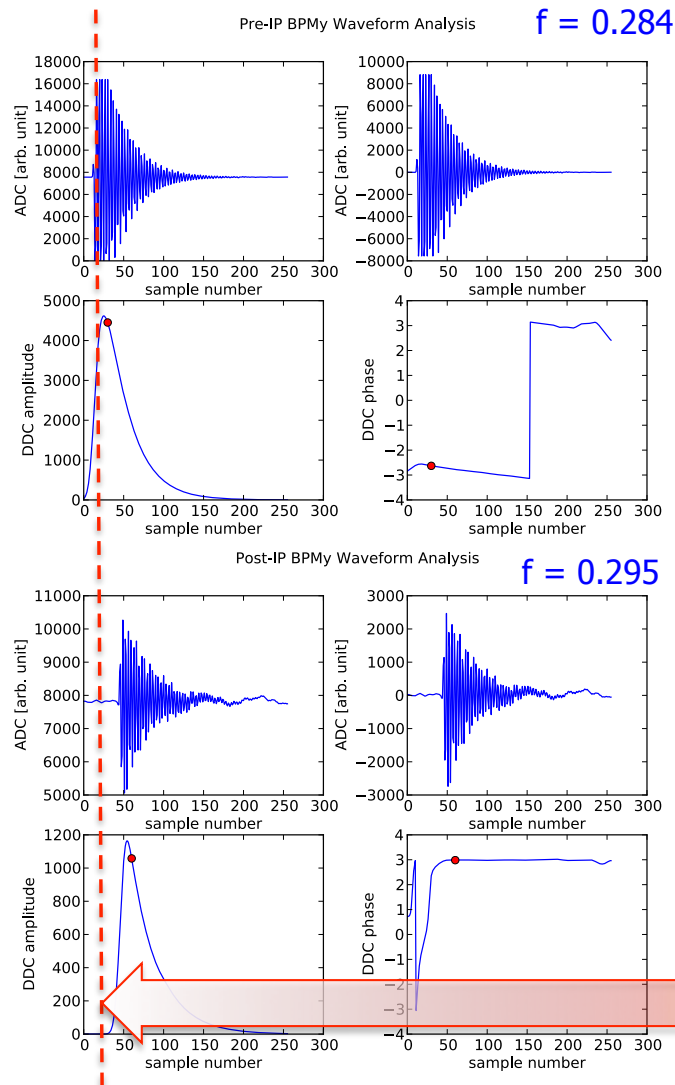
# Electronics

- Installed electronics
- C-band reference electronics were used for IP BPM and Pre-IP
- 20 dB attenuator connected to Pre and Post IP BPM
- 10 dB attenuator connected to IP BPM1 and IP BPM2

**Tonee Smith**



# Waveform analysis

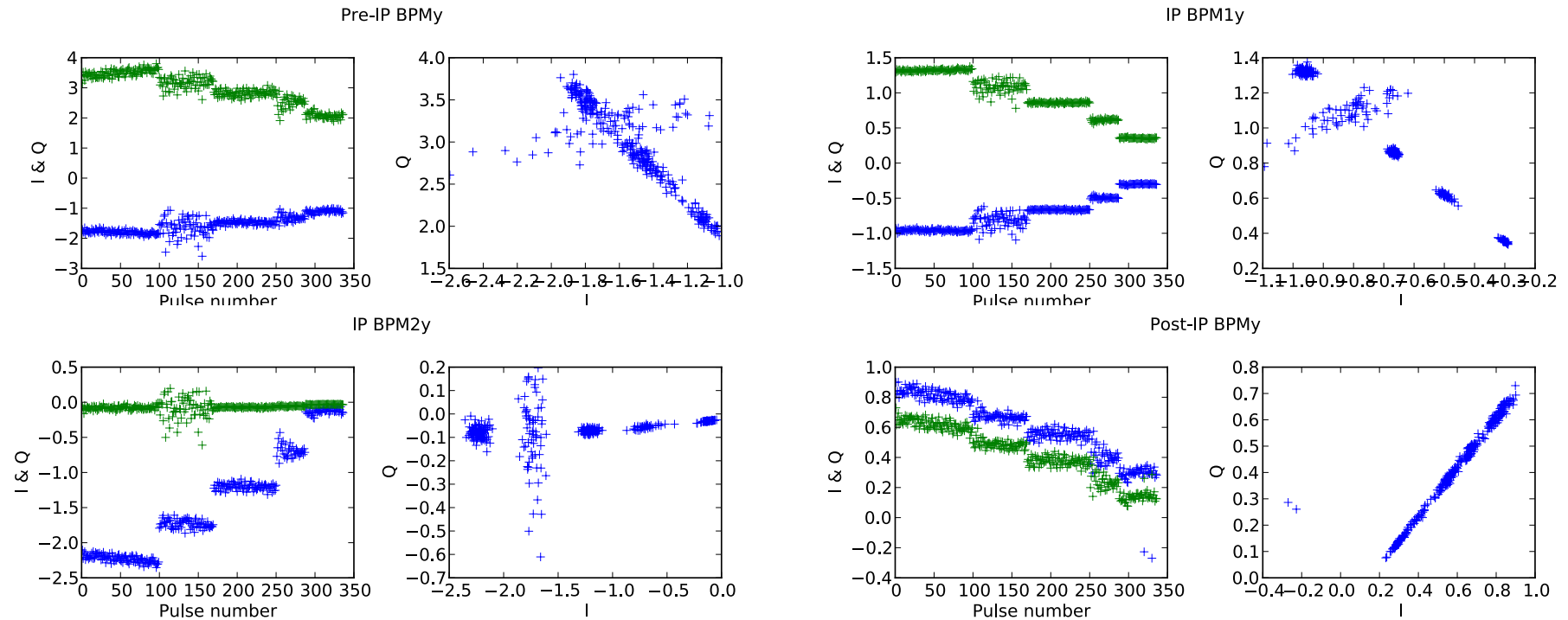


Bandwidth : 30 MHz  
Different frequency & sample point (sp)  
IP BPM decay time : 30 ns

Need more study : bw and sp scan  
Unsaturated signal required

Start point was different

# I and Q



We can see clear I and Q change  
One data set was really noisy (need more study...)

# plan

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- X LO for reference is too low. Need to increase!
- Good orbit and alignment need
- Change attenuator for IP BPM
  - Variable attenuator?
- Redo waveform analysis
- Complete analysis
- Online processing
- Calibration
  - Reproducibility
  - Systematics?
- Resolution study
- Shift plan

# Thank you ☺

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