# EX-6 Block Data Part B

Kirk, Achim, John 8-19-2011

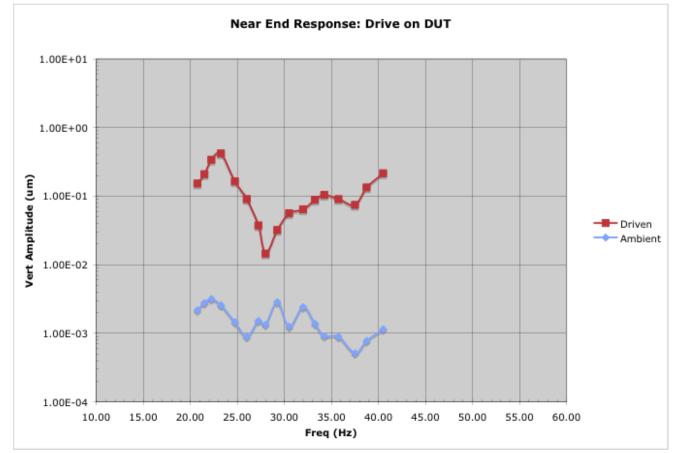
#### Measurements

- Tuesday 8-16
  - Impulses on block
  - Vibrator on ground and on block



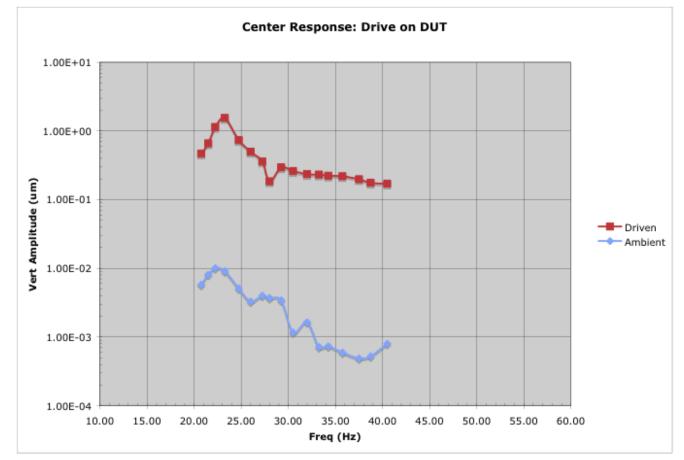
Vibrator and Sensors on Block

#### Response: near end of block



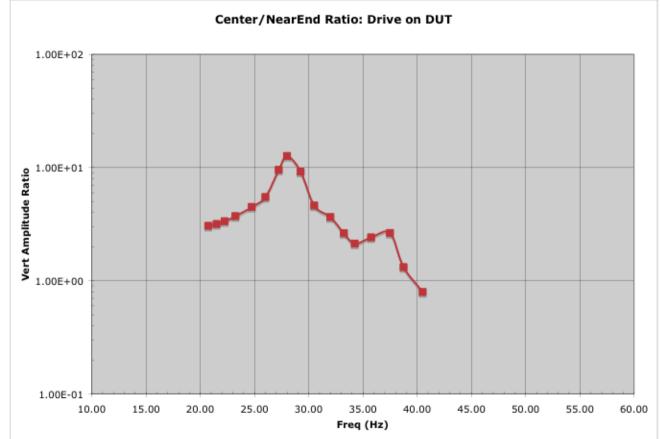
Vibrator mounted to block Resonance ~23 Hz

#### Response: center of block



Vibrator mounted to block Resonance ~23 Hz

#### Ratio: center to near end

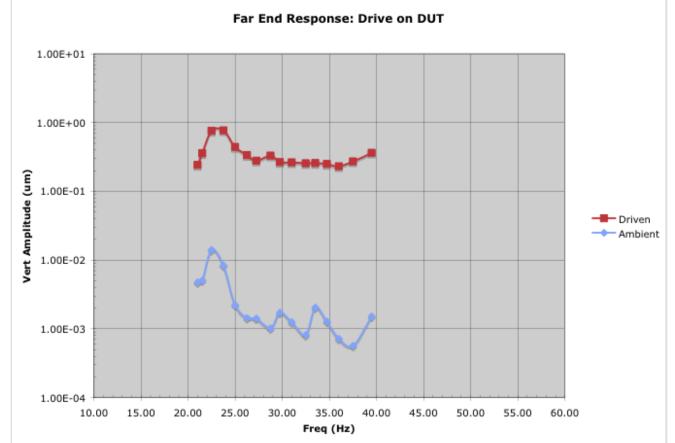


#### Vibrator mounted to block

#### Peak ~ 28 Hz??

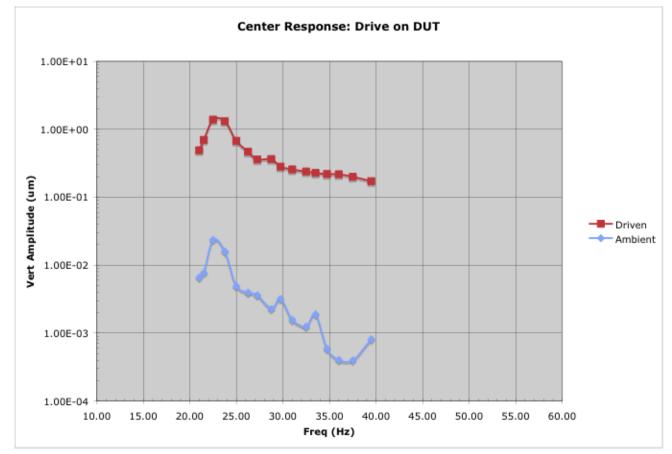
Center moves more than near end (more than far end, too)

### Response: far end of block



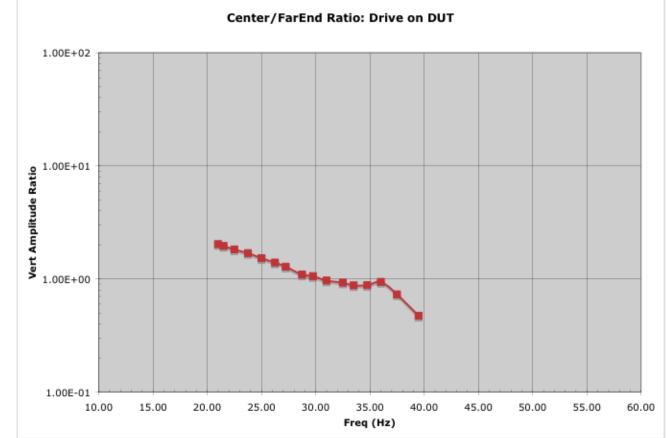
Vibrator mounted to block Resonance ~23 Hz; null at ~28 Hz is now absent (why?)

#### Response: center of block



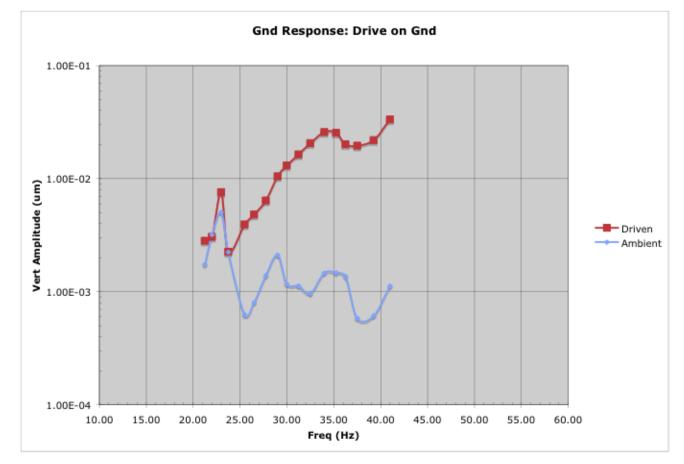
Vibrator mounted to block Resonance ~23 Hz; similar to prev, except ~28 Hz

#### Ratio: center to far end



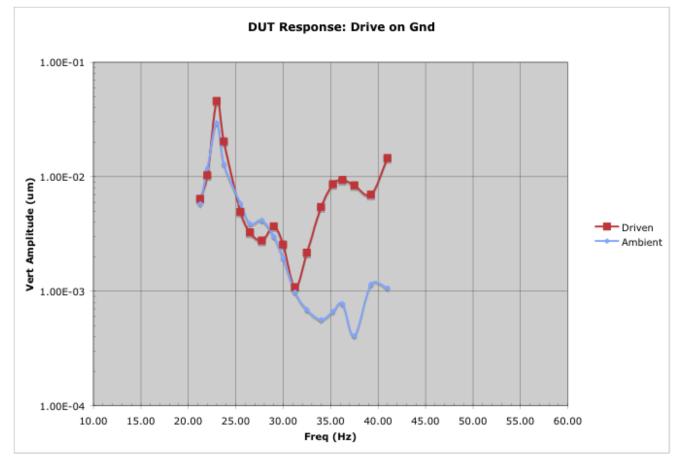
Vibrator mounted to block Small peak ~ 36 Hz?? (but only ~1x) Center moves more than near end at LF, less at HF

#### **Response:** floor



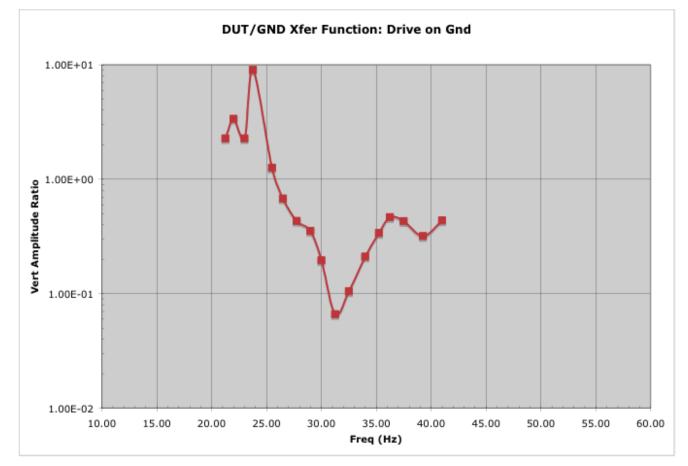
Vibrator mounted to floor Resonance ~23 Hz, maybe ~35 Hz??

#### Response: center of block



Vibrator mounted to floor Resonance ~23 Hz, maybe ~35 Hz??

#### Xfer Function: block/floor



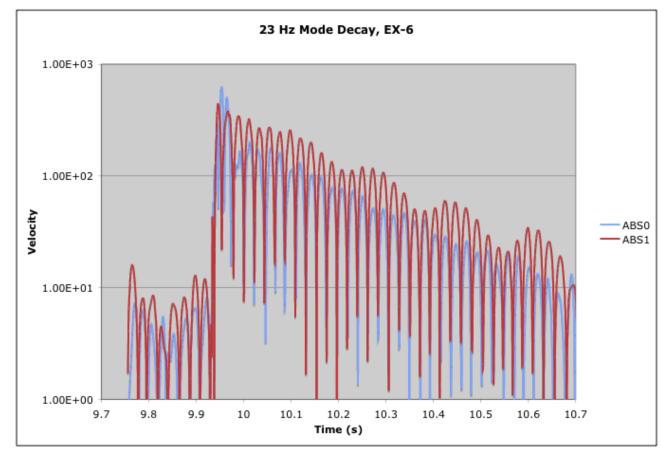
Vibrator mounted to floor Peaks ~23 Hz, maybe ~37 Hz??

#### Impulse Response



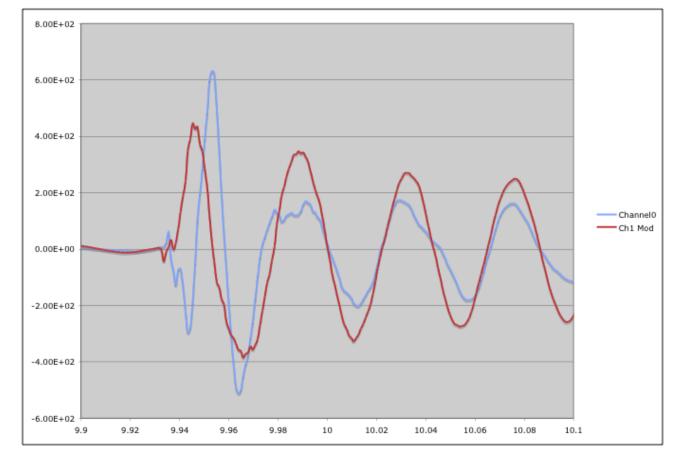
Jumping on block end; ch0 at far end, ch1 at center Resonance ~ 23 Hz (nothing ~35 Hz)

#### Impulse Response Decay



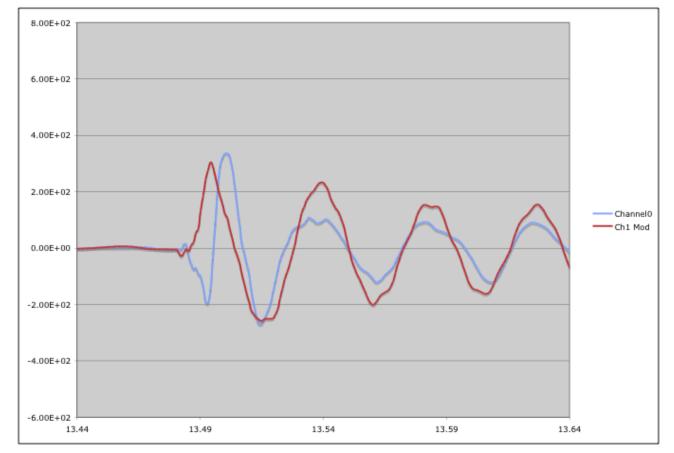
Jumping on block end; ch0 at far end, ch1 at center Damping constant (zeta) ~0.032

### **Beginning of Impulse**



Jumping on block end; ch0 at far end, ch1 at center Interesting, strange, repeatable behavior

# **Beginning of 2nd Impulse**



Jumping on block end; ch0 at far end, ch1 at center Interesting, strange, repeatable behavior