Subject: FW: SiPM read out etc. Date: Friday, January 29, 2016 at 1:55:20 PM Mountain Standard Time Ming Liu (ming@bnl.gov) From: To: Xuan Li CC: Ming Liu (ming@bnl.gov) fyi Ming Xiong Liu P-25, MS H846 TEL: 505-667-7125 **Physics Division** 631-344-7821(BNL) LANL 630-840-5708(FNAL)

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FAX:

From: Steve Boose <<u>steve@boose.com</u>>
Date: Wednesday, November 25, 2015 at 9:58 AM
To: Ming Liu <<u>ming@bnl.gov</u>>
Cc: Stephen Boose <<u>boose@bnl.gov</u>>, "Chiu, Mickey" <<u>chiu@rcf.rhic.bnl.gov</u>>, Sean Stoll <<u>stoll@bnl.gov</u>>,
Mike Lenz <<u>mlenz@rcf.rhic.bnl.gov</u>>
Subject: Re: SiPM read out etc.

Hi Ming,

I forgot to send those details. The grey wires are for adding a bias offset. The black wires are ground and a voltage can be added to the red wire to adjust the bias for each of 6 channels. If you twist each black and red pair together then all sipms will see the main bias voltage. Example: if you connect -70V to the bias wires and you want all channels to get 70v except channel zero which you want to get 71V, then you could ground the red wires of chan1 through chan5 and put +1V on the chan0 grey wire. Normally in the system we would have DACs driving these but you can use low voltage power supplies.

Sent from my iPhone

Los Alamos, NM 87545

On Nov 24, 2015, at 6:40 PM, Ming Liu (<u>ming@bnl.gov</u>) <<u>ming@bnl.gov</u>> wrote:

Hi Steve, Mickey, Sean and Mike,

I received the kit this afternoon at LANL, thanks!

One quick question – I see there are 6 grey cables ended with bare wires (ch0, ch1 ...ch5), what are they for? Signal outputs?

BTW, do you have schematics for these boards?