



THE UNIVERSITY  
*of* EDINBURGH



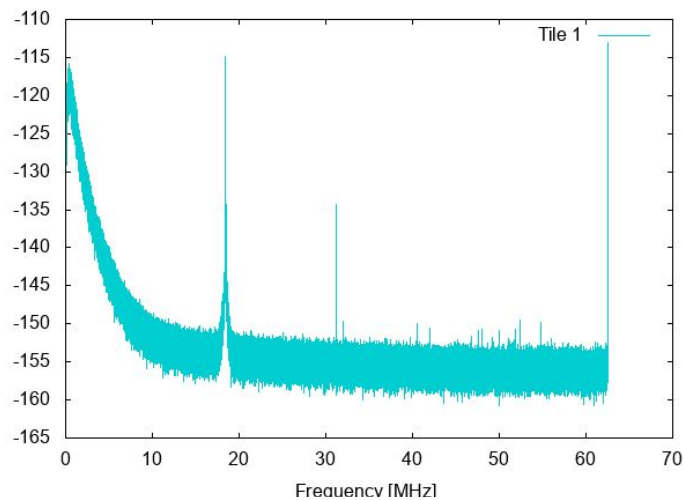
# vPDU3 Cold Noise Plots

## Tile plot overlays and analysis (using gnuplot :))

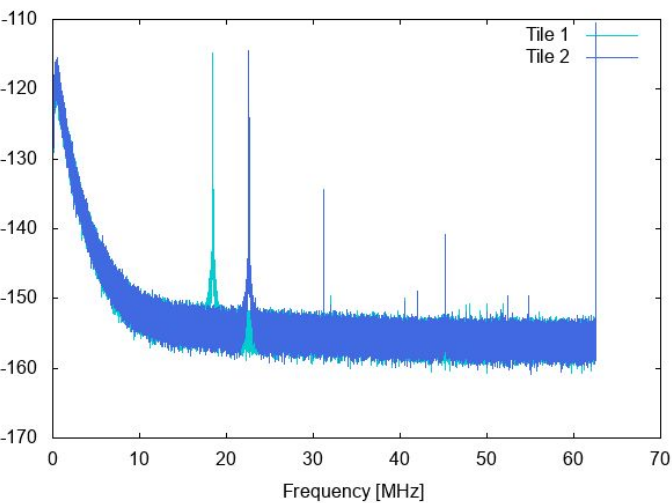
Edinburgh Test Stand  
for DarkSide 20-k

From data taken  
in November 2023

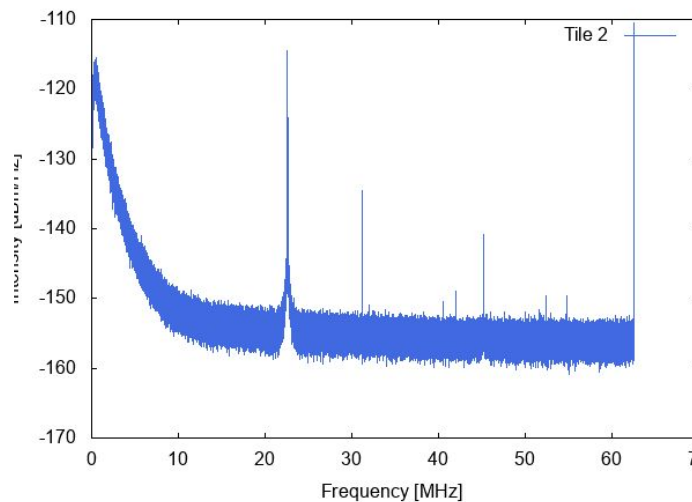
COLD Noise | Quadrant 1 tiles



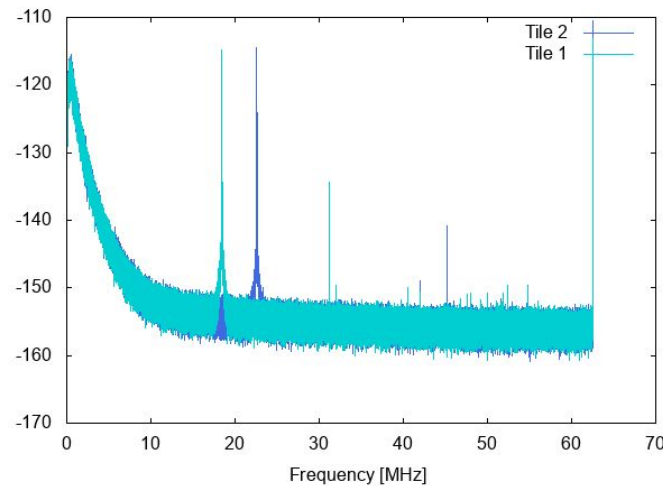
COLD Noise | Quadrant 1 tiles



COLD Noise | Quadrant 1 tiles



COLD Noise | Quadrant 1 tiles



# Quadrant 1 Noise

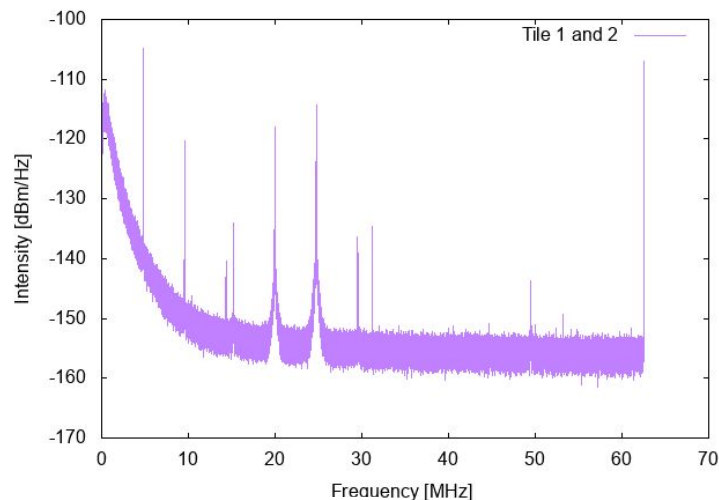
Tiles 1  
Tiles 2



Tiles 1, 2 OVERLAY  
Tiles 2, 1 OVERLAY

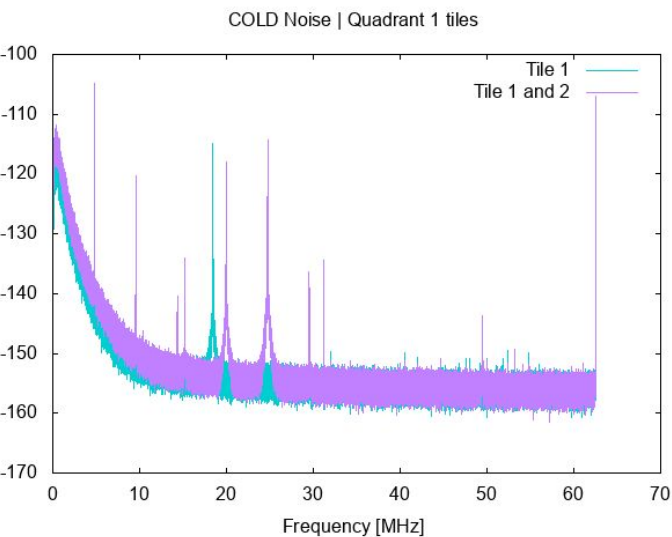


Bias voltage: 40V  
Laser: OFF  
Frequency: 500 Hz  
Trigger: P.g. 500Hz  
Temperature: COLD  
Wf length: 4000 $\mu$ s/500000samples

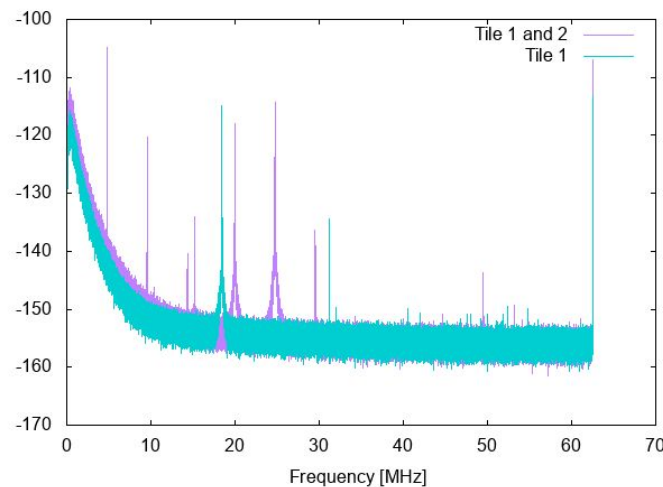


# Quadrant 1 Noise

← Tiles 1and2

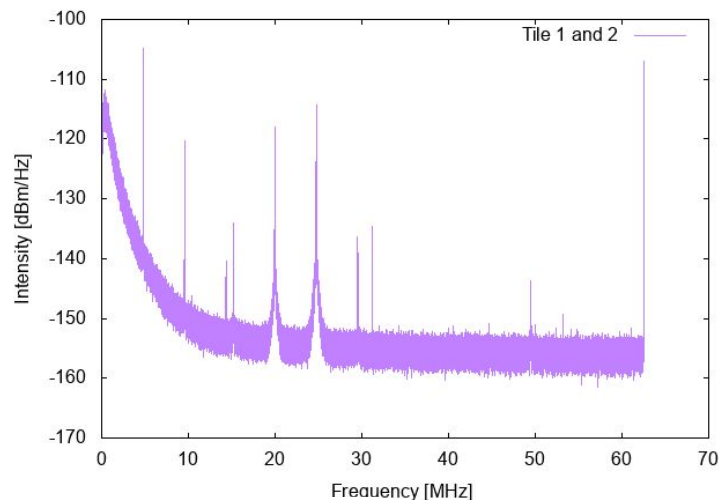


COLD Noise | Quadrant 1 tiles



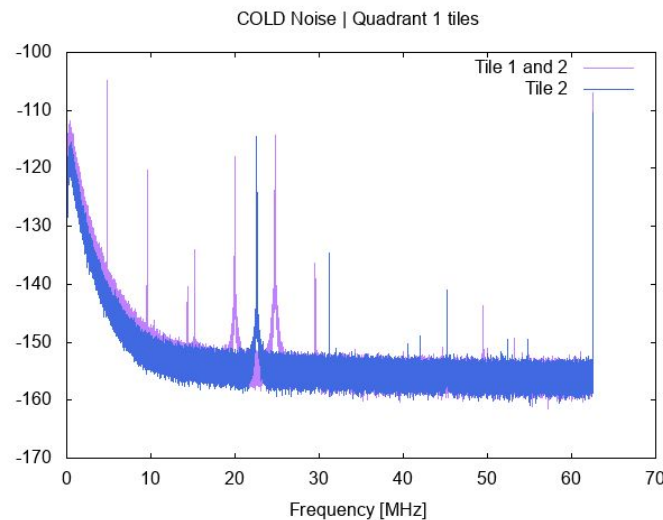
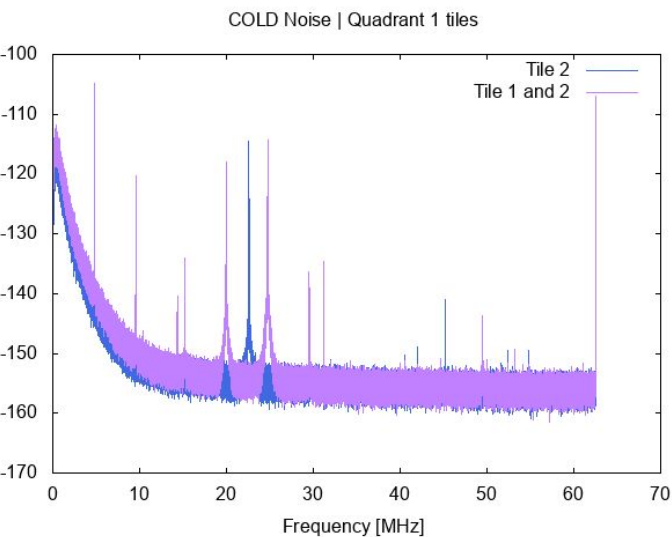
← Tiles 1, 1and2  
OVERLAY

Bias voltage: 40V  
Laser: OFF  
Frequency: 500 Hz  
Trigger: P.g. 500Hz  
Temperature: COLD  
Wf length: 4000 $\mu$ s/500000samples



# Quadrant 1 Noise

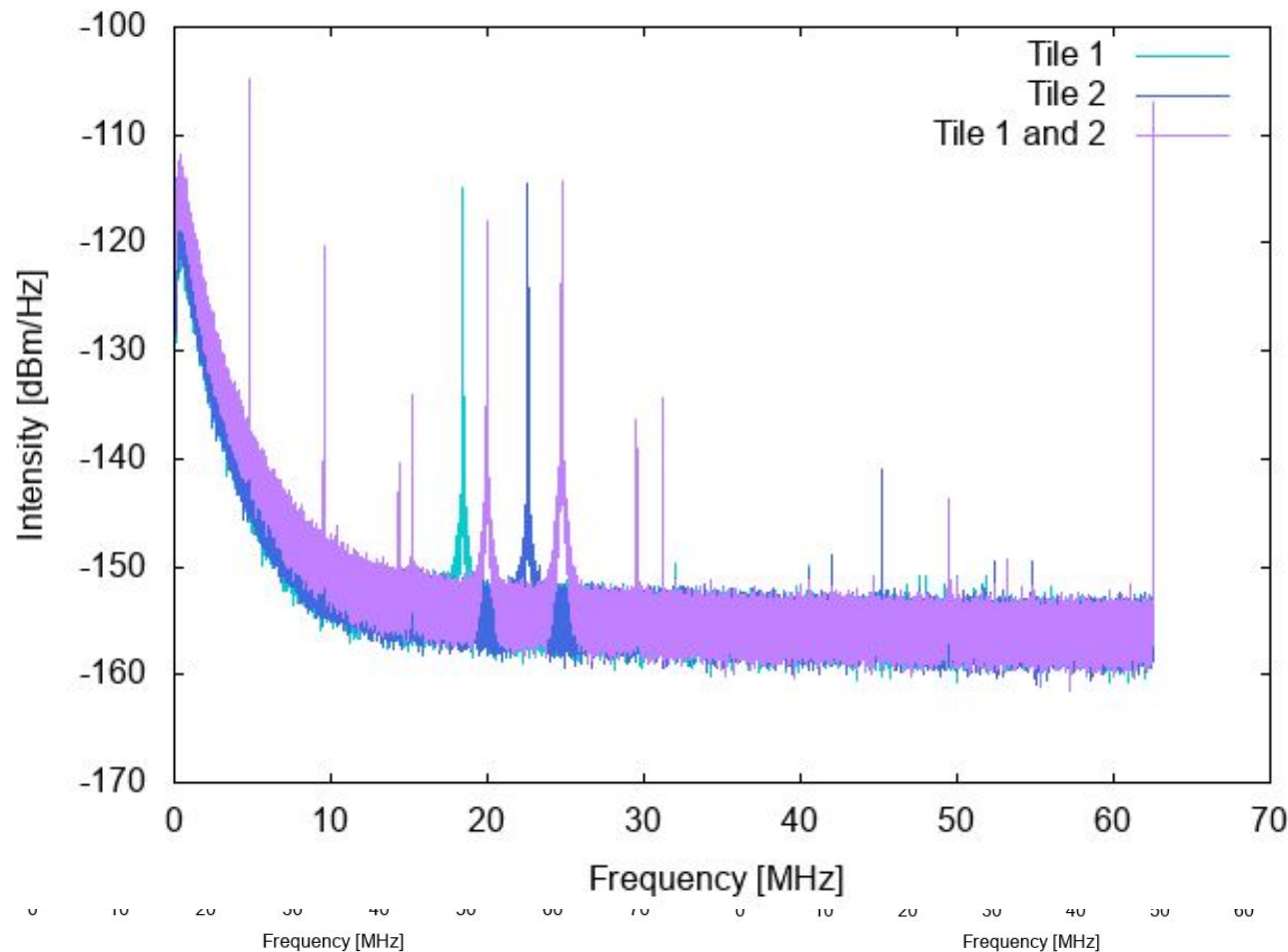
← Tiles 1and2



← Tiles 2, 1and2  
OVERLAY

Bias voltage: 40V  
Laser: OFF  
Frequency: 500 Hz  
Trigger: P.g. 500Hz  
Temperature: COLD  
Wf length: 4000 $\mu$ s/500000samples

## COLD Noise | Quadrant 1 tiles

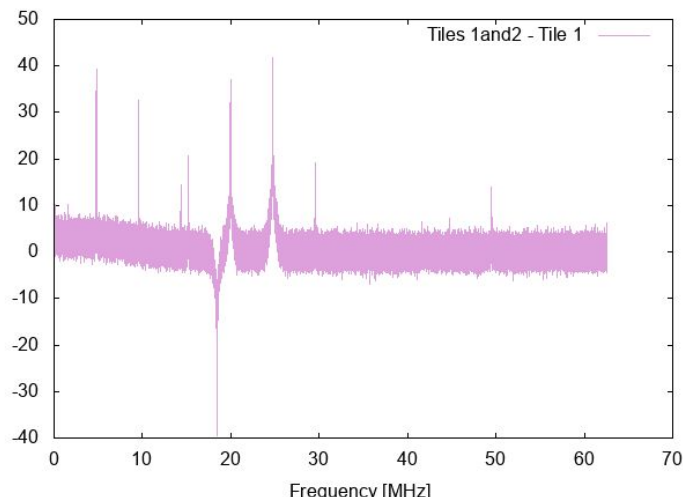


# Quadrant 1 Noise

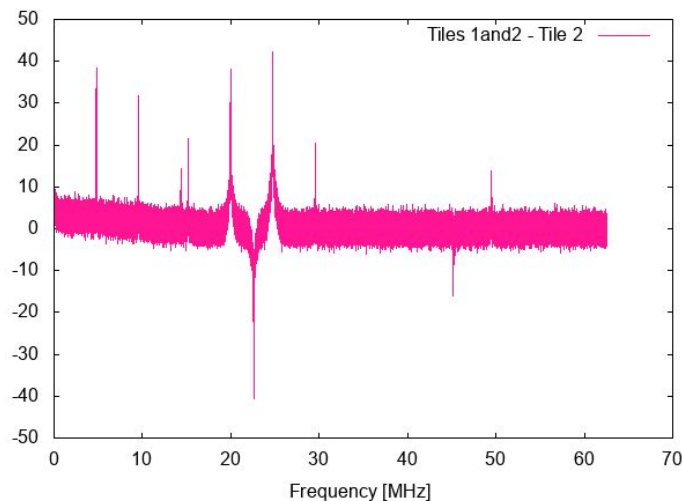
← Tiles 1, 2, 1and2  
OVERLAY

Bias voltage: 40V  
Laser: OFF  
Frequency: 500 Hz  
Trigger: P.g. 500Hz  
Temperature: COLD  
Wf length: 4000 $\mu$ s/500000samples

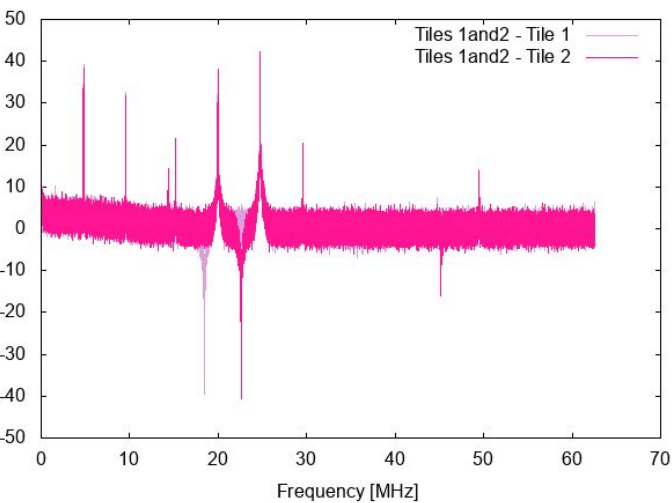
COLD Noise | Quadrant 1 tiles



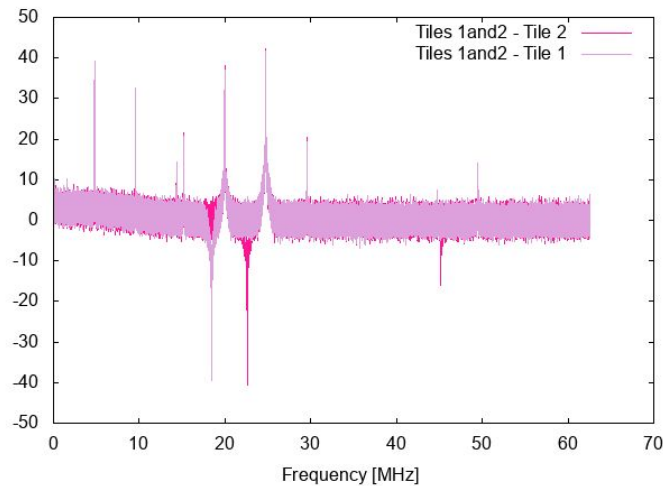
COLD Noise | Quadrant 1 tiles



COLD Noise | Quadrant 1 tiles



COLD Noise | Quadrant 1 tiles



# Quadrant 1 Noise



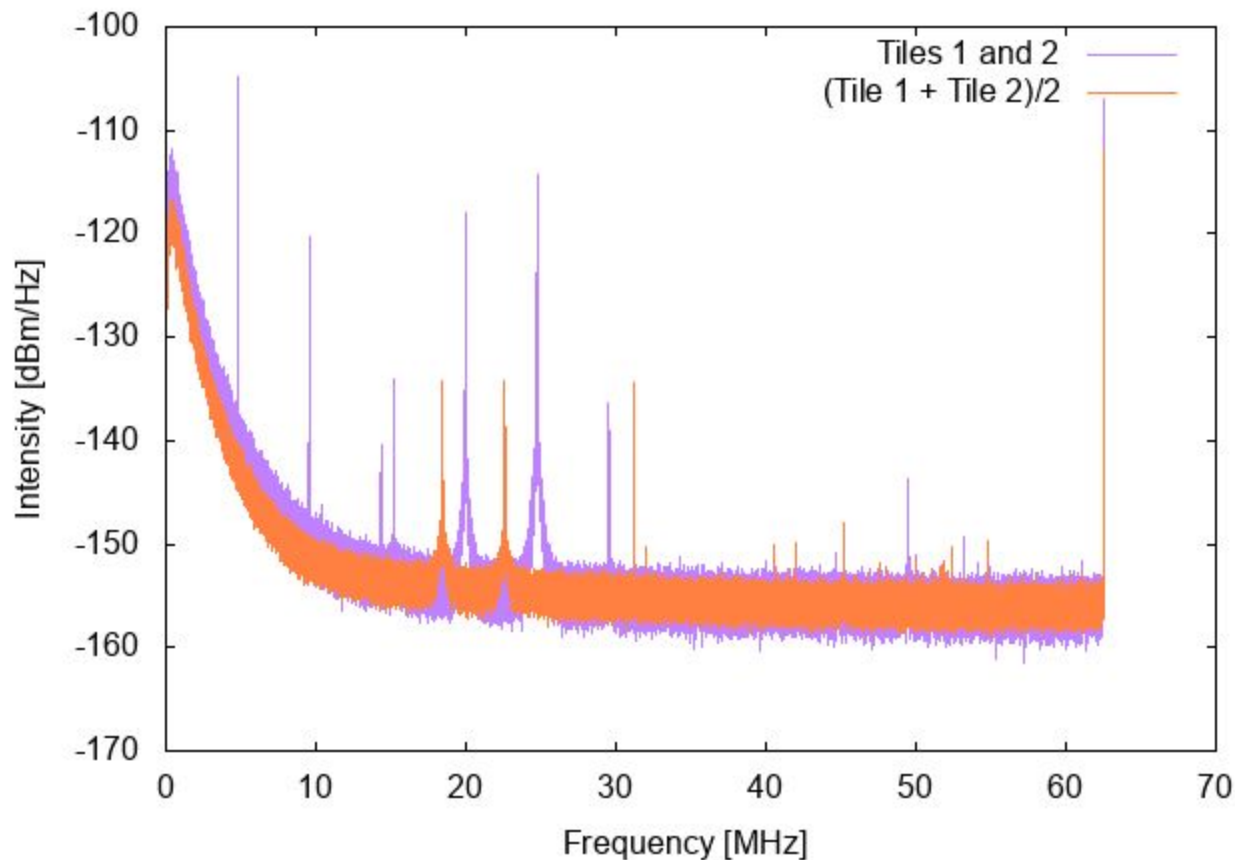
Tiles 1and2 - Tile1  
Tiles 1and2 - Tile2



Above  
OVERLAY

Bias voltage: 40V  
Laser: OFF  
Frequency: 500 Hz  
Trigger: P.g. 500Hz  
Temperature: COLD  
Wf length: 4000 $\mu$ s/500000samples

## COLD Noise | Quadrant 1 tiles



# Quadrant 1 Noise

Tiles 1  
Tiles 2

Tiles 1, 2 OVERLAY  
Tiles 2, 1 OVERLAY

Bias voltage: 40V

Laser: OFF

Frequency: 500 Hz

Trigger: P.g. 500Hz

Temperature: COLD

Wf length: 4000 $\mu$ s/500000samples