

Agata_Digitiser_Ramp_test

Tick ramp box(see snapshot below). This produces a sawtooth waveform with a period of 800ms (an incrementing value is written to the dac that adjusts the offset of the input signal).

Enable the ramp for segment.segment1, segment.segment2, core.segment1, core.segment2.

Check all 6 channels.

Then enable ramp for segment.segment 3, segment.segment4, core.core and repeat for all channels.

Collect 500K-1M samples.

The screenshot shows the 'Channels setup' section of the software interface. It contains a table with the following data:

Channel	ADC Bus	Gain	Offset	Synchro	Readout	Inspection Line	Selection
1	On	Regular	0.0°	Selected	-	<input checked="" type="checkbox"/> Input	Channel 1
2	On	Regular	0.0°	-	-	<input checked="" type="checkbox"/> Analog 1	Channel 5
3	On	Regular	0.0°	-	-	<input checked="" type="checkbox"/> Analog 2	Channel 6
4	On	Regular	0.0°	-	-	<input type="checkbox"/> Digital 1	TRIG Internal
5	On	Regular	0.0°	-	-	<input type="checkbox"/> Digital 2	TRIG No Signal
6	On	Regular	0.0°	-	-		

Below the table, the 'Ramp' checkbox is checked, and 'User reset' is unchecked. The 'Trigger setup' section shows a table with the following data:

Type	Threshold	Differentiation	Integration	Slope	Delay	Gain	Shift	Force Trigger
Digital	1000	2	4	+	80	1/2	10	<input type="checkbox"/>

The 'Energy Computation Setup' section shows a table with the following data:

Gain	BL corr.	Rise time	Top time	Avg shift	Avg width	PoleZero 1	PoleZero 2	PoleZero 3	X factor	PileupReject
1	0	2000	2000	200	200	50000	5300	5300	819	yes

The 'Pole Zero mode' is set to 'Single pole'. A note at the bottom states: 'Risettime, toptime average shift and length are expressed in ns'.

Examples of ramp histograms for 4 channels are shown below :







