

Mott Delayed Analysis

Helicity Info

1. FADC Hel:

FADC Chan	Signal
1	E LEFT
2	E RIGHT
3	E UP
4	E DOWN
5	ΔE LEFT
6	ΔE RIGHT
7	ΔE UP
8	ΔE DOWN
9	BFM
10	
11	Mott DetTr
12	
13	Helicity
14	T_Settle
15	Pattern-Sync
16	Pair-Sync

Used for No Delay analysis

2. Scalers Hel:

S1 CONTROL Chan	Signal
1	Load-Next-Event (LNE)
2	Helicity
3	Pattern Sync
4	GATE (nT_Settle)

Used for No Delay and Delay=8 analysis (Ring Buffer)

Mott Asymmetry

No Delay	A (%)		Delay=8	A (%)
	FADC Hel	Scalers Hel		Scalers Hel
8218	33.33±0.28	32.53±0.28	8219	32.55±0.29
8220	33.59±0.26	32.16±0.26	8221	31.81±0.28
8222	33.68±0.29	32.15±0.29	8223	32.54±0.29

Mott asymmetry measured using FADC Helicity is slightly larger than using Scalers Helicity. Why?

Charge Asymmetry

No Delay	Aq (ppm)	Delay=8	Aq (ppm)
	Scalers Hel		Scalers Hel
8218	532±28	8219	496±28
8220	548±26	8221	523±28
8222	589±29	8223	524±28