

New SCD Instruction Scheduling

10 Dec. 2020

Below is the **Scheduling** of PE array to calculate alpha profile of the SCD.

Cycle	PE_0	PE_1	PE_2	PE_K	PE_K+1	PE255
32	X_0^T, Y_0^T					
32	MULT	X_1^T, Y_1^T				
160	FFT_32	MULT	X_2^T, Y_2^T			
16	Abs	FFT_32	MULT			
32	$X_0^T Y_1^T$	Abs	FFT_32	.....	
32	MULT	$X_1^T Y_2^T$	Abs		.....
160	FFT_32	MULT	$X_2^T Y_3^T$			
16	Abs	FFT_32	MULT			
16	Max	Abs	FFT_32	.....	
8	Forward	Max	Abs		.....
32	$X_0^T Y_2^T$	Forward	Max			
	.....	$X_1^T Y_3^T$	Forward			
		.....	$X_2^T Y_4^T$			
					
					
					.....	$X_{255}^T Y_{255}^T$
						MULT
			$X_2^T Y_{255}^T$			FFT_32
		$X_1^T Y_{255}^T$	MULT			Abs
	$X_0^T Y_{255}^T$	MULT	FFT_32			Max
	MULT	FFT_32	Abs			alpha_255
	FFT_32	Abs	Max			
	Abs	Max	alpha_2			
	Max	alpha_1				
	alpha_0					
	$X_0'^T, Y_0'^T$					
	MULT	$X_1'^T, Y_0'^T$				