Instruction Scheduling of the PE Array

28 Oct. 2020

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_0^T				
80*2	FFT_32	MULT	X_2^T , Y_0^T			
16	Output	FFT_32	MULT	……		
32	X_0^T Y_1^T	Output	FFT_32		……	
		X_1^T Y_1^T	Output			X_{255}^T , Y_0^T
			X_2^T Y_1^T			MULT
				……		FFT_32
					……	Output
						X_{255}^T , Y_1^T

Latency = 32 + (32 + 80*2 + 16) + (32 + 32 + 80*2 + 16) * 255 + 255 * 32

= 69600 cycles = 0.139 ms