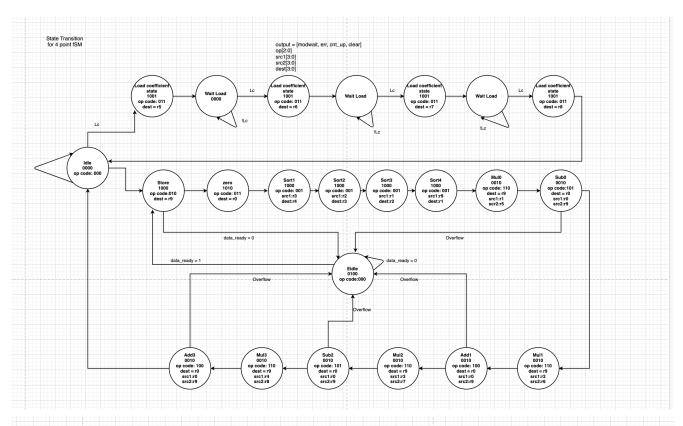
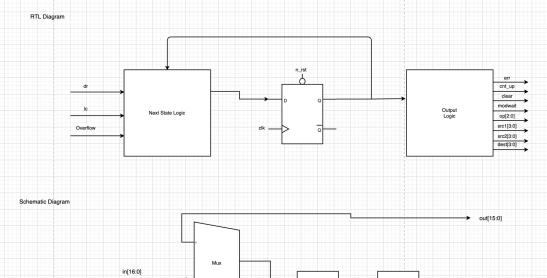


Psuedocode for idle; if(data_ready=0) goto idle; store: if (data_ready=0) goto eidle; 4 point r9= data; err=0; zero: r0 = 0; sort1: r4 = r3; sort2:r3 = r2; sort3:r2 = r1;sort4: r1= r9; r1 = sample r2 = sample2 mul0: r9 = r1 * r5 r3 = sample3 sub0: r0 = r0 + r9r4 = sample4 r5 = f0(first co)(Small N) r6 = f1 (Large P) if(overflow) goto eidle; mul1: r9 = r2* r6 add1: r0 = r0 + r9 r7 = f2(Large N)r8 = f3(Small P) if(overflow) goto eidle; r9 = temp r0 = register mult2: r9 = r3 * r7 sub2: r0 = r0 - r9 if(overflow) goto eidle; mul3: r9 = r4 * r8 add3: r0 = r0 + r9if(overflow) goto eidle; else goto idle; eidle: err = 1; if (data_ready = 1) goto store if (data_ready = 0) goto eidle





out[15:0]