FB MODULE NORMALIZATION COUNT

48 BIT COEFFICIENT															
2^{47}	SEC. 2	2^{32}	2^{31}	SEC. 1	2^{16}	2^{15}	SEC. 0	2^{0}

2^{15} 2^{12}	2^{11} 2^{8}	2^{7} 2^{4}	2^{3} 2^{0}

SHIFT VALUE BIT	5	4	3,2	3	2	1	0
SHIFT DISPLACEMENT	32	16	12	8	4	2	1

The leading zero count on the FB is done by dividing the 48 bit coefficient into three 16 bit sections and further dividing each section into four 4 bit groups.

The state of bits 2, 3, 4 and 5 are determined on the FB module. These are sent to the FC to tell the FC whether or not to shift 0, 4, 8, 12, 16, or 32 places to the left.

The state of bits 0 and 1 is partially determined on the FB. The FB has time to determine what the state of bits 0 and 1 should be for each section but you do not know which section to use as the result. The final state of bits 0 and 1 of the shift value is determined on the FC module.

The FC module looks at bits 4 and 5 of the shift count to determine the final state of bits 0 and 1. Bits 4 and 5 are used to determine which section contains the final set bit.