Could enumerate out all 256 possibilities

0 0 0 0 0 0 0 0

0 0 0 0 0 0 0 1

0 0 0 0 0 0 1 0

0 0 0 0 0 0 1 1

0 0 0 0 0 1 0 0

0 0 0 0 0 1 0 1

0 0 0 0 0 1 1 0

0 0 0 0 0 1 1 1

0 0 0 0 1 0 0 0

0 0 0 0 1 0 0 1

0 0 0 0 1 0 1 0

0 0 0 0 1 0 1 1

0 0 0 0 1 1 0 0

0 0 0 0 1 1 0 1

0 0 0 0 1 1 1 0

0 0 0 0 1 1 1 1

0 0 0 1 0 0 0 0

0 0 0 1 0 0 0 1

0 0 0 1 0 0 1 0

0 0 0 1 0 0 1 1

0 0 0 1 0 1 0 0

0 0 0 1 0 1 0 1

0 0 0 1 0 1 1 0

0 0 0 1 0 1 1 1

0 0 0 1 1 0 0 0

0 0 0 1 1 0 0 1

0 0 0 1 1 0 1 0

0 0 0 1 1 0 1 1

0 0 0 1 1 1 0 0

0 0 0 1 1 1 0 1

0 0 0 1 1 1 1 0

0 0 0 1 1 1 1 1

Bits 7and 6 indicate class (11 jump/10 load/store/ 01 operational)

5-4-3-2 (information based on class)

1-0 (00 – Inherent / 01 – Immediate / 1 0 – Direct )

1 1 x x x x x x Jump Instructions

0 0 x x x x x x Not Used

1 0 0 0 0 0 1 0 Load Direct addressing mode

1 0 0 0 0 0 0 1 Load Immediate addr mode

1 0 1 0 0 0 1 0 Store Direct addressing mode only

1 0 All other 1 0 \* \* \* \* \* \* unused

0 1 0 0 0 0 1 0 Add Direct

0 1 0 0 0 0 0 1 Add Immediate

0 1 0 0 1 0 1 0 Add w Carry Direct

0 1 0 0 1 0 0 1 Add w Carry Immediate

0 1 0 1 0 0 1 0 Sub Direct

0 1 0 1 0 0 0 1 Sub Immediate

0 1 0 1 1 0 1 0 Sub Direct

0 1 0 1 1 0 0 1 Sub Immediate

0 1 0 0 1 1 0 0 Increment Inherent

0 1 0 0 0 1 0 0 Decrement Inherent

0 1 1 0 0 0 1 0 AND Direct

0 1 1 0 0 0 0 1 AND Immediate

0 1 1 1 0 0 1 0 OR Direct

0 1 1 1 0 0 0 1 OR Immediate

0 1 1 0 0 1 0 0 INV Inherent

0 1 1 0 1 1 1 0 XOR Direct

0 1 1 0 1 1 0 1 XOR Immediate

0 1 1 0 0 1 0 0 CLRA Inherent

0 1 1 1 1 1 1 0 CMP Direct

0 1 1 1 1 1 0 1 CMP Immediate

Center 4

0000 Add

0001 Decrement

0010 Add w Carry

0011 Increment

0100 Subtract

0101

0110 Subtract w Carry

0111

1000 AND (w last 2 00 CLRA)

1001 INV

1010

1011 XOR

1100 OR

1101 CLRA

1110

1111 CMP