respective assembly code is at the end

**Notices**:

In the line with muli there is a mulf, deleted on my personal version

May have issues with negative numbers, for example mulpp, or this may just be my fault

**Floating point values to check**:

4 : 0x4080

-4 : 0xc080

255 : 0x437f

-16 : 0xc180

¼ : 0x3e80

4+(-4) : 0x0000

4\*(-4) : 0xc180

aik instruction verilog output

;i2f, f2i

t1:

cii $r1, 0xff OPCII: 1, 255, ffff

i2f $r1 OPI2F: 1, bf80

f2i $r1 OPF2I: 1, ffff

bnz $r1, t2 Branch to 5

trap

;addf

t2:

ci8 $r1, 4 OPCI8: 1, 4, 0004

i2f $r1 OPI2F: 1, 4080

ci8 $r2, -4 OPCI8: 2, 252, fffc

i2f $r2 OPI2F: 2, c080

addf $r1, $r2 OPADDF: 1, 2, 0000

f2i $r1 OPF2I: 1, 0000

bz $r1, t3 Branch to 13

trap

;mulf

t3:

ci8 $r1, 4 OPCI8: 1, 4, 0004

i2f $r1 OPI2F: 1, 4080

ci8 $r2, -4 OPCI8: 2, 252, fffc

i2f $r2 OPI2F: 2, c080

mulf $r1, $r2 OPMULF: 1, 2, c180

f2i $r1 OPF2I: 1, fff0

bnz $r1, t4 Branch to 21

trap

;ii2pp,pp2ii, addpp

t4:

ci8 $r1, 4 OPCI8: 1, 4, 0004

ii2pp $r1 OPII2PP: $ 1, 0070

ci8 $r2, -4 OPCI8: 2, 252, fffc

ii2pp $r2 OPII2PP: $ 2, c090

addpp $r1, $r2 OPADDPP: 1, 2, c000

pp2ii $r1 OPPP2II: $ 1, 0000

bz $r1, t5 Branch to 29

trap

;mulpp

t5:

ci8 $r1, 4 OPCI8: 1, 4, 0004

ii2pp $r1 OPII2PP: $ 1, 0070

ci8 $r2, -4 OPCI8: 2, 252, fffc

ii2pp $r2 OPII2PP: $ 2, c090

mulpp $r1, $r2 OPMULPP: 1, 2, 0084

pp2ii $r1 OPPP2II: $ 1, 00f1

bnz $r1, t6 Branch to 37

trap

;invf,pp2f

t6:

ci8 $r1, 4 OPCI8: 1, 4, 0004

ii2pp $r1 OPII2PP: $ 1, 0070

pp2f $r1 OPPP2F: $ 1, 4080

invf $r1 OPINVF: 1, 3e80

f2i $r1 OPF2I: 1, 0000

bz $r1, t7 Branch to 44

trap

;negf

t7:

ci8 $r1, 4 OPCI8: 1, 4, 0004

ii2pp $r1 OPII2PP: $ 1, 0070

pp2f $r1 OPPP2F: $ 1, 4080

negf $r1 OPNEGF: 1, c080

f2i $r1 OPF2I: 1, fffc

bz $r1, t8 Branch to 51

trap

;dup

t8:

cii $r2, 0xff OPCII: 2, 255, ffff

dup $r1, $r2 OPDUP: 1, 2, ffff

bnz $r1, t9 Branch to 55

trap

t9:

trap

trap

Assembly

//generated by AIK version 20190916

@0000

cff1

2001

2201

f021

0000

b041

2001

bfc2

2002

6021

2201

e0a1

0000

b041

2001

bfc2

2002

6221

2201

fed1

0000

b041

2101

bfc2

2102

6121

2301

e021

0000

b041

2101

2701

2401

2201

e021

0000

b041

2101

2701

3401

2201

e021

0000

cff2

7821

0000

//end