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MICRO FIELD DEFINITIONS

REV 2 - Y-11143 Q3 B
3215

FCTL/=3,6,53,D

A,AND,B=41
D,AND,A=45
A,OR,B=31
D,OR,A=35
D,XOR,A=65
BBAR=73
QPASS=62
BFASS=63
APASS=64
DPASS=67
ZERO=42
ABAR,AND,B=51
DBAR,AND,A=55
A+B=1
D+A=5
BPLUS=3
B-1=13
-B-1=23
B-A-1=11
A-D-1=15
A-B-1=21
D-A-1=25

ECTL/=3,6,59,D

A,AND,B=41
D,AND,A=45
D,OR,A=35
A,XOR,B=61
D,XOR,A=65
BBAR=73
QPASS=62
BPASS=63
APASS=64
DPASS=67
ZERO=42
ABAR,AND,B=51
DBAR,AND,A=55
A+B=1
D+A=5
BPLUS=3
B-1=13
-B-1=23
B-A-1=11
A-D-1=15
A-B-1=21
D-A-1=25

ECIN/=0,1,60,D

ZERO=0
ONE=1

RET/=1,1,69,D

CONST/=10,6,81,D

RETURN=0
STAY=1

BUT/=0,6,75,D

BSEL/=3,2,62,D
AC,OR,1=0
FDST=1
FSRC=1
AC=2
BROM=3
ASEL/=1,1,63,D
AC=0
AROM=1
TOUT/=1,1,64,D
NOP=0
1134_TBUS=1
DCTL/=0,4,68,D
NOP=0
LDBT=1
LDBF=2
LDQF=3
ROTL=4
ROTR=5
SLALU=6
SROALU=7
SRIALU=10
SLALU.LDBF=11
SRIALU.LDBF=12
SROALU=14
SLALUQ=15

NOP=0
ENBT=54
EZBT=52
BUSRQ=55
FNBT=56
XZBT=57
QB,QAO=60
COUT63=61
EZBT,OP1A=13
FID=41
EZBT,Y8,Y9=62
EZBT,Y8=63
ENBT,Y8=64
ENBT,EZBT,FNBT=65
FNBT,XZBT=66
FIV=42
Y62=43
FIU=45
FIUV=46
FIC=47
FT=44
ENBT,EZBT=67
Y8=50
Y61=44
FD,FIU=2
Y62,OP1A=3
BREAKOUT=31
FD=32
OP1B=34
OP1C=35
OP1D=36
OP1E=37
FDST=71
FSRC=71
DST=72
SRC=72
GR7=73
GR7,FLBAR=74
FL=75
FLBAR=76
OP2A=77

MISC/=11,4,85,D

TBUS_1134=0
TBUS_BUF=1
BUF_TBUS=4
BUF_1134=5
FDFL_TBUS=6
FCC_TBUS=7
SERV,BR=10
NOP=11
FDFL_BUF=12
FDFL_BUF_TBUS=13
FDFL_BUFH_TBUS=15

TITLE	SIZE	CODE	NUMBER	REV
FPII-A	8	BFD	FPII-A-5	
FLOW DIAGRAMS	SHEET 2 OF 8			

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RSPA/=0,4,47,D
PC=10
R11=6
R12=5
R14=3
R17=0

FORCE KER/=0,1,43,D
KER=1

BUT SERV/=0,1,42,D
SERV=1

PREVIOUS MODE/=1,1,41,D
ASSERT=0

FORCE RS+1/=1,1,40,D
RS+1=0

DST SEL/=3,2,39,D
RD=2
ROM=0

SRC SEL/=0,2,37,D
RD=2
ROM=0
RBA=3

BUT BITS/=0,4,35,D
NOP=0
NBIT=1
ZBIT=2
COS=3
COUT=7
NBITZBIT=11
NOSERV=17

AMUX/=1,2,31,D
UBUS=3
ALU=1

SSMUX/=0,2,29,D
STRT=0
SWAB=2

BBX CTRL/=0,4,27,D
HOLD=0
LOADB=1
LOADBX=2

ALU BLEG/=5,5,23,D
ZERO=0
A+1=2
A-1=3
A-B=4
A=5
B=6
A+B=10
A-BX=22
A+2=24
A-2=25
BX=27
BBAR=30

AUX CTRL/=0,1,18,D
AUX=1

CYCLE/=1,1,17,D
SHORT=1
LONG=0

LOAD BA/=0,1,16,D
BA=1

ENAB MAINT/=0,1,15,D
MAINT=1

BUS CTRL/=0,2,14,D
DATI=0
DATO=2

DATA TRAN/=0,1,12,D
TRAN=1

MISC CTRL/=0,3,11,D
NOP=0
LOADCC=3
LOADC=6
COUNT=7

J/=0,9,8,+

AROM/=0,3,88,D
AR10=0
AR11=1
AR12=2
AR13=3
AR14=4
FCCR=6
FPS=7

BROM/=0,3,91,D

BR10=0
BR11=1
BR12=2
BR13=3
BR14=4
FEC=5
FCCR=6
FPS=7

SECT/=17,4,95,D
S1=1
S2=2
S3=3
S4=4
S7=7
S10=10
S14=14
S17=17

TITLE	FP11-A	SIZECODE	NUMBER	REV
FLOW DIAGRAMS		BFD	FP11-A-5	

REV	3-A-111	Q3	B
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FP11A MACRO DEFINITIONS

AC(32)-X10
AC(32)-ZERO
AC,OR,1(32)-X12
AC,OR,1(32)-X14
AC,OR,1(32)-ZERO
AC,OR,1-X12
AC,OR,1-X14
AC,OR,1-ZERO
AC-X10
AC-ZERO
BA-PC
BA-R12
BA-R12 R12-R12+2
BA-RD
BUF-FPS
BUF-RD B-RD
BUF-UDATA
BUT (Q8,Q40)
BUT (Q8,Q40) ZBIT
BUT BR,OR,PFail
BUT BREAKOUT
BUT COUT15
BUT COUT63 ZBIT
BUT DST
BUT ENBT
BUT ENBT EZBT
BUT ENBT EZBT XNBT
BUT ENBT Y8
BUT EZBT
BUT EZBT OP1A
BUT EZBT Y8
BUT EZBT Y9 Y8
BUT FD
BUT FDST
BUT FIC
BUT FID
BUT FIU
BUT FIUV
BUT FIV
BUT FIV FD
BUT FL
BUT FLAG
BUT FLBAR
BUT FSRC
BUT FT
BUT GR7
BUT GR7,OR,FLBAR
BUT NBIT
BUT NBIT ZBIT
BUT NOSERV
BUT OP1B
BUT OP1C
BUT OP1D
FCTL/APASS,ECTL/APASS,DCTL/LDBF,BSEL/AC,AROM/AR10,SECT/S14
FCTL/ZERO,ECTL/ZERO,DCTL/LDBF,BSEL/AC,SECT/S14
FCTL/APASS,ECTL/APASS,DCTL/LDBF,BSEL/AC,OR,1,AROM/AR12,SECT/S14
FCTL/APASS,ECTL/APASS,DCTL/LDBF,BSEL/AC,OR,1,AROM/AR14,SECT/S14
FCTL/ZERO,ECTL/ZERO,DCTL/LDBF,BSEL/AC,OR,1,SECT/S14
FCTL/APASS,ECTL/APASS,DCTL/LDBF,BSEL/AC,OR,1,AROM/AR12
FCTL/APASS,ECTL/APASS,DCTL/LDBF,BSEL/AC,OR,1,AROM/AR14
FCTL/ZERO,ECTL/ZERO,DCTL/LDBF,BSEL/AC,OR,1
FCTL/APASS,ECTL/APASS,DCTL/LDBF,BSEL/AC,AROM/AR10
FCTL/ZERO,ECTL/ZERO,DCTL/LDBF,BSEL/AC
LOAD BA/BA,RSPA/PC
LOAD BA/BA,RSPA/R12
LOAD BA/BA,DST SEL/ROM,RSPA/R12,ALU BLEG/A+2,TOUT/NOP
LOAD BA/BA,SRC SEL/RD
FCTL/BPASS,ECTL/BPASS,CONST/BYTE10,MISC/BUF_TBUS,BROM/FPS
MISC/BUF_1134,BBX CTRL/LOADR,SRC SEL/RD,TOUT/NOP,CONST/NOP
MISC/BUF_1134,AMUX/UBUS,TOUT/NOP,CONST/NOP
BUT/Q8,Q40,CYCLE/LONG
BUT/Q8,Q40,BUT BITS/ZBIT,CYCLE/LONG
BUT/BUSREQ,CYCLE/LONG
BUT/BREAKOUT
BUT BITS/COUT,CYCLE/LONG
BUT/COUT63,BUT BITS/ZBIT,CYCLE/LONG
BUT/DST
BUT/ENBT,CYCLE/LONG
BUT/ENBT,EZBT,CYCLE/LONG
BUT/ENBT,EZBT,FNBT,CYCLE/LONG
BUT/ENBT,Y8,CONST/BYTE07,CYCLE/LONG
BUT/EZBT,CYCLE/LONG
BUT/EZBT,OP1A,CYCLE/LONG
BUT/EZBT,Y8,CONST/BYTE07,CYCLE/LONG
BUT/EZBT,Y8,Y9,CONST/BYTE07,CYCLE/LONG
BUT/FN
BUT/FDST
BUT/FIC,CYCLE/LONG
BUT/FID,CYCLE/LONG
BUT/FIU,CYCLE/LONG
BUT/FIUV,CYCLE/LONG
BUT/FIV,CYCLE/LONG
BUT/FIV,FIV,CYCLE/LONG
BUT/FL
BUT BITS/COS
BUT/FLBAR
BUT/FSRC
BUT/FT,CYCLE/LONG
BUT/GR7
BUT/GR7,FLBAR
BUT BITS/NBIT,CYCLE/LONG
BUT BITS/NBITZBIT,CYCLE/LONG
BUT BITS/NOSERV
BUT/OP1B
BUT/OP1C
BUT/OP1D

TITLE	SIZECODE	NUMBER	REV
FP11-A FLOWS	B FD	FP11-A-5	

REV	3-A-111F	CODE	B
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BUT OP1E
BUT OP2A
BUT SERV(BR,OR,FAIL)
BUT SRC
BUT XNBT
BUT XNBT XZBT
BUT XZBT
BUT Y61
BUT Y62
BUT Y62 OP1A
BUT Y8
BUT ZBIT
BX-R11
BX-R14
BX-R17-BX
BX-X11(L) SWAB
BX-X11(L) SWAB F-EAC
BX-ZERO
B-(10,4,2)
B-(4,10,2)
B-(4,2)
B-2 CLEAR FDFL
B-244
B-B SWAB
B-B+R17
B-R17
B-UDATA
B-UDATA BUF_UDATA
B-X11(H) SWAB
B-X11(H) SWAB F-EAC
B-X13-X14 SWAB
B-X14-X13 SWAB
CC-FCC
CLEAR FD(FPS)
CLEAR FDFL
CLEAR FL(FPS)
CLEAR FLAG
CLEAR SIGN
CLEAR SIGN T-X12
DATI
DATO
F10-F10 E10-E10,AND,177
F10-F10 E10-E10,XOR,200
F11-SR1(F11) E11-E11
F11-SR1(F11) E11-ZERO
F12-F12 E12-B
F12-F12 E12-E12+200
F12-F12 E12-E12,AND,360
F12-F12,OR,F10 E12-E12
F12-SL0(F12) E12-E13
F12-SR1(F12) E12-ZERO
F13-ZERO E13-E11
F13-ZERO E13-E11,XOR,200
F13-ZERO E13-E12
F13-ZERO E13-E12 T-X12

BUT/OP1E
BUT/OP2A
BUT SERV/SERV,MISC/SERV,BR
BUT/SRC
BUT/FNBT,CYCLE/LONG
BUT/FNBT,XZBT,CYCLE/LONG
BUT/XZBT,CYCLE/LONG
BUT/Y61,CONST/BYTE65,CYCLE/LONG
BUT/Y62,CONST/BYTE65,CYCLE/LONG
BUT/Y62,OP1A,CONST/BYTE65,CYCLE/LONG
BUT/Y8,CONST/BYTE10,CYCLE/LONG
BUT BITS/ZBIT,CYCLE/LONG
BBOX CTRL/LOADBX,RSPA/R11,TOUT/NOP
BBOX CTRL/LOADBX,RSPA/R14,TOUT/NOP
BBOX CTRL/LOADBX,RSPA/R17,ALU BLEG/A-BX,TOUT/NOP
FCTL/BPASS,ECTL/BPASS,CONST/BYTE43,BROM/BR11,BBX CTRL/LOADBX,SSMUX/SWAB
FCTL/BPASS,ECTL/APASS,ASEL/AC,CONST/BYTE43,BROM/BR11,BBX CTRL/LOADBX,SSMUX/SWAB
BBOX CTRL/LOADBX,ALU BLEG/ZERO,TOUT/NOP
CONST/OCT10,4,2,BBX CTRL/LOADB
CONST/OCT4,10,2,BBX CTRL/LOADB
CONST/OCT4,2,BBX CTRL/LOADB
CONST/OCT2,MISC/FDFL-TBUS,BBX CTRL/LOADB
CONST/OCT244,BBX CTRL/LOADB
BBOX CTRL/LOADB,ALU BLEG/B,SSMUX/SWAB,TOUT/NOP
DST SEL/ROM,RSPA/R17,ALU BLEG/A+B,BBX CTRL/LOADB,TOUT/NOP
BBOX CTRL/LOADB,RSPA/R17,TOUT/NOP
BBOX CTRL/LOADB,AMUX/UBUS,TOUT/NOP
BBOX CTRL/LOADB,AMUX/UBUS,MISC/BUF_1134,TOUT/NOP,CONST/NOP
FCTL/BPASS,ECTL/BPASS,CONST/BYTE65,BROM/BR11,BBX CTRL/LOADB,SSMUX/SWAB
FCTL/BPASS,ECTL/APASS,ASEL/AC,CONST/BYTE65,BROM/BR11,BBX CTRL/LOADB,SSMUX/SWAB
BBOX CTRL/LOADB,FCTL/B-A-1,ECTL/A-B-1,ECIN/ONE,CONST/BYTE07,AROM/AR13,BROM/BR14,SSMUX/SWAB,CYCLE/LONG
BBOX CTRL/LOADB,FCTL/B-A-1,ECTL/B-A-1,ECIN/ONE,CONST/BYTE07,AROM/AR13,BROM/BR14,SSMUX/SWAB,CYCLE/LONG
MISC/TBUS-BUF,MISC CTRL/LOADCC,CONST/NOP
FCTL/DBAR,AND,A,ECTL/DBAR,AND,A,ECTL/LDBF,CONST/OCT200,AROM/FPS,BROM/FPS
CONST/ZERO,MISC/FDFL-TBUS
FCTL/DBAR,AND,A,ECTL/DBAR,AND,A,ECTL/LDBF,CONST/OCT100,AROM/FPS,BROM/FPS
MISC CTRL/LOADC,ALU BLEG/ZERO,TOUT/NOP
FCTL/ZERO,ECTL/ZERO,ECTL/LDBF,BROM/BR10
FCTL/ZERO,ECTL/ZERO,ECTL/LDBT,AROM/AR12,BROM/BR10
DATA TRAN/TRAN
DATA TRAN/TRAN,BUS CTRL/DATO,CYCLE/LONG
FCTL/BPASS,ECTL/DBAR,AND,A,ECTL/LDBF,CONST/OCT100000,AROM/AR10,BROM/BR10
FCTL/BPASS,ECTL/D,XOR,A,ECTL/LDBF,CONST/OCT100000,AROM/AR10,BROM/BR10
FCTL/BPASS,ECTL/BPASS,ECTL/SR1ALU,LDBF,BROM/BR11
FCTL/BPASS,ECTL/ZERO,ECTL/SR1ALU,LDBF,BROM/BR11
FCTL/BPASS,ECTL/DPASS,ECTL/LDBF,MISC/TBUS_1134,BROM/BR12,ALU BLEG/B,TOUT/NOP,CONST/NOP
FCTL/BPASS,ECTL/D+A,ECTL/LDBF,CONST/OCT100000,AROM/AR12,BROM/BR12
FCTL/BPASS,ECTL/D,AND,A,ECTL/LDBF,CONST/OCT170000,AROM/AR12,BROM/BR12
FCTL/A,OR,B,ECTL/BPASS,ECTL/LDBF,AROM/AR10,BROM/BR12
FCTL/BPASS,ECTL/APASS,ECTL/SLALU,LDBF,AROM/AR13,BROM/BR12
FCTL/BPASS,ECTL/ZERO,ECTL/SR1ALU,LDBF,BROM/BR12
FCTL/ZERO,ECTL/APASS,ECTL/LDBF,AROM/AR11,BROM/BR13
FCTL/ZERO,ECTL/APASS,ECTL/D,XOR,A,ECTL/LDBF,CONST/OCT100000,AROM/AR11,BROM/BR13
FCTL/ZERO,ECTL/APASS,ECTL/LDBF,AROM/AR12,BROM/BR13
FCTL/ZERO,ECTL/APASS,ECTL/LDBT,AROM/AR12,BROM/BR13

TITLE	SIZECODE	NUMBER	REV
FP11-A FLOWS	BFD	FP11-A-5	

SHEET	5 of	8
B	F	D

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F14-SLO(F14) E14-E13
F14-ZERO E14-E12
F14-ZERO E14-E12 T-X12
FCCR-FCCR,OR,02
FCC-00
FCC-00 FCCR-00
FCC-04 FCCR-04
FCC-04(FZ)
FCC-05(FZFC)
FCC-06(FZFU)
FCC-10 FCCR-10
FCC-10(FN)
FCC-14 FCCR-14
FCC-14(FNFZ)
FCC-FCCR
FDFL, BUFH-FPS X10-X10
FDFL, BUF-FPS
FDFL, BUF-FPS F-E13
FDFL, BUF
FDFL-FDFLBAR
FDS(3)-X10
FEC-02
FEC-04
FEC-06
FEC-10
FEC-12
FEC-14
FPS-BUF
FPS-BUF CC-BUF
FPS-FPS, AND, 147757
FPS-FPS, OR, 100000
FSRC(32)-X11
FSRC-X11
F-AC
F-AC, XOR, 200
F-0
F-X10
F-X10BAR
F-X12
F-X13
MAINT
PC-PC+2
PC-PC-2
Q-(F12*EAC)
Q-FDST
Q-FSRC
Q-X12
Q-ZERO
R11-BX
R11-R11-2
R12-R12+2
R12-RD
R12-RD+B
R12-RD-2
R12-RD-B

FCTL/BPASS, ECTL/APASS, DCTL/SLALU0, LDBF, AROM/AR13, BROM/BR14
FCTL/ZERO, ECTL/APASS, DCTL/LDBF, AROM/AR12, BROM/BR14
FCTL/ZERO, ECTL/APASS, DCTL/LDBT, AROM/AR12, BROM/BR14
FCTL/D, OR, A, ECTL/D, OR, A, DCTL/LDBF, CONST/OCT2, AROM/FCCR, BROM/FCCR
CONST/ZERO, MISC/FCC, TBUS
FCTL/DPASS, ECTL/DPASS, DCTL/LDBF, CONST/ZERO, MISC/FCC, TBUS, BROM/FCCR
FCTL/DPASS, ECTL/DPASS, DCTL/LDBF, CONST/OCT4, MISC/FCC, TBUS, BROM/FCCR
CONST/OCT4, MISC/FCC, TBUS
CONST/OCT5, MISC/FCC, TBUS
CONST/OCT6, MISC/FCC, TBUS
FCTL/DPASS, ECTL/DPASS, DCTL/LDBF, CONST/OCT10, MISC/FCC, TBUS, BROM/FCCR
CONST/OCT10, MISC/FCC, TBUS
FCTL/DPASS, ECTL/DPASS, DCTL/LDBF, CONST/OCT14, MISC/FCC, TBUS, BROM/FCCR
CONST/OCT14, MISC/FCC, TBUS
FCTL/BPASS, ECTL/BPASS, CONST/BYTE10, MISC/FCC, TBUS, BROM/FCCR
FCTL/BPASS, ECTL/BPASS, DCTL/LDBT, CONST/BYTE10, MISC/FDPL, BUFH, TBUS, AROM/FPS, TROM/BR10
FCTL/BPASS, ECTL/APASS, CONST/BYTE10, MISC/FDPL, BUF, TBUS, BROM/FPS
MISC/FDPL, BUF, CONST/NOP
CONST/FDPLBAR, MISC/FDPL, TBUS
FCTL/APASS, ECTL/APASS, DCTL/LDBF, BSEL/FDST, AROM/AR10, SECT/S10
FCTL/DPASS, ECTL/DPASS, DCTL/LDBF, CONST/OCT2, BROM/FEC
FCTL/DPASS, ECTL/DPASS, DCTL/LDBF, CONST/OCT4, BROM/FEC
FCTL/DPASS, ECTL/DPASS, DCTL/LDBF, CONST/OCT6, BROM/FEC
FCTL/DPASS, ECTL/DPASS, DCTL/LDBF, CONST/OCT10, BROM/FEC
FCTL/DPASS, ECTL/DPASS, DCTL/LDBF, CONST/OCT12, BROM/FEC
FCTL/DPASS, ECTL/DPASS, DCTL/LDBF, MISC/TBUS, BUF, BROM/FPS, CONST/NOP
FCTL/DPASS, ECTL/DPASS, DCTL/LDBF, MISC/TBUS, BUF, BROM/FPS, MISC, CTRL/LOADCC, CONST/NOP
FCTL/D, AND, A, ECTL/D, AND, A, DCTL/LDBF, MISC/TBUS, BUF, BROM/FPS, MISC, CTRL/LOADCC, CONST/NOP
FCTL/D, OR, A, ECTL/D, OR, A, DCTL/LDBF, CONST/OCT147757, AROM/FPS, BROM/FPS
FCTL/APASS, ECTL/APASS, DCTL/LDBF, BSEL/FSRC, AROM/AR11, SECT/S14
FCTL/APASS, ECTL/APASS, DCTL/LDBF, BSEL/FSRC, AROM/AR11
FCTL/BPASS, ECTL/BPASS, BSEL/AC
FCTL/D, XOR, A, ECTL/D, XOR, A, ASEL/AC, CONST/OCT100000
FCTL/DPASS, ECTL/DPASS
FCTL/BPASS, ECTL/BPASS, BROM/BR10
FCTL/BBAR, ECTL/BBAR, BROM/BR10
FCTL/BPASS, ECTL/BPASS, BROM/BR12
FCTL/BPASS, ECTL/BPASS, BROM/BR13
ENAB MAINT/MAINT*
DST SEL/ROM, RSPA/FC, ALU BLEG/A+2, TOUT/NOP
DST SEL/ROM, RSPA/PC, ALU BLEG/A-2, TOUT/NOP
FCTL/APASS, ECTL/BPASS, DCTL/LDQF, BSEL/AC, AROM/AR12
FCTL/BPASS, ECTL/BPASS, DCTL/LDQF, BSEL/FDST
FCTL/BPASS, ECTL/BPASS, DCTL/LDQF, BSEL/FSRC
FCTL/BPASS, ECTL/BPASS, DCTL/LDQF, BROM/BR12
FCTL/ZERO, ECTL/ZERO, DCTL/LDQF
DST SEL/ROM, RSPA/R11, ALU BLEG/BX, TOUT/NOP
DST SEL/ROM, RSPA/R11, ALU BLEG/A-2, TOUT/NOP
DST SEL/ROM, RSPA/R12, ALU BLEG/A+2, TOUT/NOP
DST SEL/ROM, RSPA/R12, SRC SEL/RD, TOUT/NOP
DST SEL/ROM, RSPA/R12, SRC SEL/RD, ALU BLEG/A+B, TOUT/NOP
DST SEL/ROM, RSPA/R12, SRC SEL/RD, ALU BLEG/A-2, TOUT/NOP
DST SEL/ROM, RSPA/R12, SRC SEL/RD, ALU BLEG/A-B, TOUT/NOP

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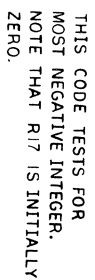
R12-UDATA
R14-(237,217)
R14-(70,30)
R14-(72,32)
R14-4
R14-B
R14-BX
R14-R14 SWAB
R14-R14+1
R14-R14+1 SWAB
R14-R14-1
R14-X11 SWAB
R14-X13 SWAB
R14-X14 SWAB
R17-(71,31)
R17-2
R17-B
R17-BBAR
R17-FEC
R17-FPS
R17-R17-B
R17-X13 SWAB
R17-ZERO
RD-R17
RD-RD+2
RD-RD+B
RD-RD-2
RD-RD-B
RETURN
SERV(BR,OR,PFail)
SET FD(FPS)
SET FDFL
SET FL(FPS)
SET FLAG
SET SIGN
TBUS-BUF
T-B
T-R14
T-R14-B
T-R17+B
UDATA-BX
UDATA-R17
UDATA-X10(3)
UDATA-X11(0)
UDATA-X11(1)
UDATA-X11(2)
UDATA-X11(3)
X10(0)-BUF
X10(1)-BUF
X10(10)-ZERO
X10(2)-BUF
X10(210)-ZERO
X10(3)-BUF
X10-Q
X10-ROTL(ZERO*(EAC,XOR,E10)
*DST SEL/ROM,RSPA/R12,AMUX/UBUS,TOUT/NOP.
*CONST/(143,159),DST SEL/ROM,RSPA/R14.
*CONST/(56,24),DST SEL/ROM,RSPA/R14.
*CONST/(58,26),DST SEL/ROM,RSPA/R14.
*CONST/OCT4,DST SEL/ROM,RSPA/R14.
*DST SEL/ROM,RSPA/R14,ALU BLEG/B,TOUT/NOP.
*DST SEL/ROM,RSPA/R14,ALU BLEG/BX,TOUT/NOP.
*DST SEL/ROM,RSPA/R14,SSMUX/SWAB,TOUT/NOP.
*DST SEL/ROM,RSPA/R14,ALU BLEG/A+1,TOUT/NOP.
*DST SEL/ROM,RSPA/R14,ALU BLEG/A-1,SSMUX/SWAB,TOUT/NOP.
*DST SEL/ROM,RSPA/R14,ALU BLEG/A-1,TOUT/NOP.
*FCTL/BPASS,ECTL/BPASS,CONST/BYTE07,BROM/BR11,DST SEL/ROM,RSPA/R14,SSMUX/SWAB,CYCLE/LONG.
*FCTL/BPASS,ECTL/BPASS,CONST/BYTE07,BROM/BR13,DST SEL/ROM,RSPA/R14,SSMUX/SWAB,CYCLE/LONG.
*FCTL/BPASS,ECTL/BPASS,CONST/BYTE07,BROM/BR14,DST SEL/ROM,RSPA/R14,SSMUX/SWAB,CYCLE/LONG.
*DST SEL/ROM,RSPA/R17,CONST/(57,25).
*CONST/OCT2,DST SEL/ROM,RSPA/R17.
*DST SEL/ROM,RSPA/R17,ALU BLEG/B,TOUT/NOP.
*DST SEL/ROM,RSPA/R17,ALU BLEG/BBAR,TOUT/NOP.
*FCTL/BPASS,ECTL/BPASS,CONST/BYTE10,BROM/FEC,DST SEL/ROM,RSPA/R17,CYCLE/LONG.
*FCTL/BPASS,ECTL/BPASS,CONST/BYTE10,BROM/FPS,DST SEL/ROM,RSPA/R17,CYCLE/LONG.
*DST SEL/ROM,RSPA/R17,ALU BLEG/A-B,TOUT/NOP.
*FCTL/BPASS,ECTL/BPASS,CONST/BYTE07,BROM/BR13,DST SEL/ROM,RSPA/R17,SSMUX/SWAB,CYCLE/LONG.
*DST SEL/ROM,RSPA/R17,ALU BLEG/ZERO,TOUT/NOP.
*DST SEL/RD,SRC SEL/RD,ALU BLEG/A+2,TOUT/NOP.
*DST SEL/RD,SRC SEL/RD,ALU BLEG/A+2,TOUT/NOP.
*DST SEL/RD,SRC SEL/RD,ALU BLEG/A+B,TOUT/NOP.
*DST SEL/RD,SRC SEL/RD,ALU BLEG/A-2,TOUT/NOP.
*DST SEL/RD,SRC SEL/RD,ALU BLEG/A-B,TOUT/NOP.
*RET/RETURN.
*MISC/SERV,BR.
*FCTL/D,OR,A,ECTL/D,OR,A,DCTL/LDBF,CONST/OCT200,AROM/FPS,BROM/FPS.
*CONST/ONES,MISC/FDFL,TBUS.
*FCTL/D,OR,A,ECTL/D,OR,A,DCTL/LDBF,CONST/OCT100,AROM/FPS,BROM/FPS.
*MISC CTRL/COUNT.
*FCTL/ZERO,ECTL/DPASS,DCTL/SLALU0,CONST/OCT100000,BROM/BR10.
*MISC/TBUS-BUF,CONST/NOP.
*ALU BLEG/B,TOUT/NOP.
*RSPA/R14,TOUT/NOP.
*RSPA/R14,ALU BLEG/A-B,TOUT/NOP.
*RSPA/R17,ALU BLEG/A+B,TOUT/NOP.
*ALU BLEG/BX,TOUT/NOP.
*SRC SEL/ROM,RSPA/R17,TOUT/NOP.
*FCTL/BPASS,ECTL/BPASS,CONST/BYTE76,BROM/BR10.
*FCTL/BPASS,ECTL/BPASS,CONST/BYTE10,BROM/BR11.
*FCTL/BPASS,ECTL/BPASS,CONST/BYTE32,BROM/BR11.
*FCTL/BPASS,ECTL/BPASS,CONST/BYTE54,BROM/BR11.
*FCTL/BPASS,ECTL/BPASS,CONST/BYTE76,BROM/BR11.
*FCTL/DPASS,ECTL/DPASS,DCTL/LDBF,MISC/TBUS-BUF,BROM/BR10,SECT/S1,CONST/NOP.
*FCTL/DPASS,ECTL/DPASS,DCTL/LDBF,MISC/TBUS-BUF,BROM/BR10,SECT/S2,CONST/NOP.
*FCTL/ZERO,ECTL/ZERO,DCTL/LDBF,BROM/BR10,SECT/S3.
*FCTL/DPASS,ECTL/DPASS,DCTL/LDBF,MISC/TBUS-BUF,BROM/BR10,SECT/S4,CONST/NOP.
*FCTL/ZERO,ECTL/ZERO,DCTL/LDBF,BROM/BR10,SECT/S7.
*FCTL/DPASS,ECTL/DPASS,DCTL/LDBF,MISC/TBUS-BUF,BROM/BR10,SECT/S10,CONST/NOP.
*FCTL/QPASS,ECTL/QPASS,DCTL/LDBF,BROM/BR10.
*FCTL/ZERO,ECTL/A,XOR,B,DCTL/ROTL,ASEL/AC,BROM/BR10.

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X10-ROTR(X12)
X10-X11
X11(10)-ZERO
X11-(70,30)-X14
X11-AC
X11-ROTL(X11)
X11-ROTR(X12)
X11-SLO(X11-X12) Q-SLC63(Q)
X11-SLO(X12+X11) Q-SLC63(Q)
X11-SRO(X11)
X11-SR1(X11)
X11-X12
X11-ZERO
X12(1)-BUF
X12(2)-BUF
X12-X12
X12-ROTL(X10)
X12-ROTL(X11)
X12-ROTR(F10,OR,F12)*E12
X12-SLO(Q)
X12-SLO(X12)
X12-SLO(X12)
X12-SRO(X11+X12) Q-SRO(Q)
X12-SRO(X11BAR,AND,X12)
X12-SRO(X12)
X12-SRO(X12) Q-SRO(Q)
X12-X10
X12-X11-X12
X12-X12+X11
X12-X12+X14
X12-X12-X11
X12-ZERO
X13-(37,17)-X13
X13-R14
X13-X13+1
X13-X13+200
X13-X13+X14
X13-X13-1
X13-X13-200
X13-X13-X14
X13-X14
X14(1)-40000
X14(3)-40000
X14-R14
X14-ROTR(F10,OR,F14)*E14
X14-X11,AND,X14
X14-X12
X14-X13,XOR,200
X14-ZERO

FCTL/APASS,ECTL/APASS,DCTL/ROTR,AROM/ARI2,BROM/BR10
FCTL/APASS,ECTL/APASS,DCTL/LDBF,AROM/ARI1,BROM/BR10
FCTL/ZERO,ECTL/ZERO,DCTL/LDBF,BROM/BR11,SECT/S3
FCTL/D-A-1,ECTL/D-A-1,DCTL/LDBF,ECIN/ONE,CONST/(56,24),AROM/ARI4,BROM/BR11,CYCLE/LONG*
FCTL/APASS,ECTL/APASS,DCTL/LDBF,ASEL/AC,BROM/BR11
FCTL/BPASS,ECTL/BPASS,DCTL/ROTL,BROM/BR11
FCTL/APASS,ECTL/APASS,DCTL/ROTR,AROM/ARI2,BROM/BR11
FCTL/B-A-1,ECTL/B-A-1,DCTL/SLALUO,ECIN/ONE,AROM/ARI2,BROM/BR11
FCTL/BPASS,ECTL/BPASS,DCTL/SROALU,BROM/BR11
FCTL/BPASS,ECTL/BPASS,DCTL/SROALU,BROM/BR11
FCTL/APASS,ECTL/APASS,DCTL/LDBF,AROM/ARI2,BROM/BR11
FCTL/ZERO,ECTL/ZERO,DCTL/LDBF,BROM/BR11
FCTL/DPASS,ECTL/DPASS,DCTL/LDBF,MISC/TBUS-BUF,BROM/BR12,SECT/S2,CONST/NOP
FCTL/DPASS,ECTL/DPASS,DCTL/LDBF,MISC/TBUS-BUF,BROM/BR12,SECT/S4,CONST/NOP
FCTL/-B-1,ECTL/-B-1,ECIN/ONE,DCTL/LDBF,BROM/BR12,CYCLE/LONG
FCTL/APASS,ECTL/APASS,DCTL/ROTL,AROM/ARI0,BROM/BR12
FCTL/APASS,ECTL/APASS,DCTL/ROTL,AROM/ARI1,BROM/BR12
FCTL/A,OR,B,ECTL/BPASS,DCTL/ROTR,AROM/ARI0,BROM/BR12
FCTL/DPASS,ECTL/DPASS,DCTL/SLALUO,BROM/BR12
FCTL/BPASS,ECTL/BPASS,DCTL/SLALUO,BROM/BR12
FCTL/A+B,ECTL/A+B,DCTL/SLALUO,AROM/ARI2,BROM/BR12,CYCLE/LONG
FCTL/A+B,ECTL/A+B,DCTL/SROALU,AROM/ARI1,BROM/BR12
FCTL/ABAR,AND,B,ECTL/ABAR,AND,B,DCTL/SROALU,AROM/ARI1,BROM/BR12
FCTL/BPASS,ECTL/BPASS,DCTL/SROALU,AROM/ARI1,BROM/BR12
FCTL/BPASS,ECTL/BPASS,DCTL/SROALU,AROM/ARI1,BROM/BR12
FCTL/APASS,ECTL/APASS,DCTL/LDBF,AROM/ARI0,BROM/BR12
FCTL/A-B-1,ECTL/A-B-1,DCTL/LDBF,ECIN/ONE,AROM/ARI1,BROM/BR12,CYCLE/LONG
FCTL/A+B,ECTL/A+B,DCTL/LDBF,ECIN/ONE,AROM/ARI1,BROM/BR12,CYCLE/LONG
FCTL/A+B,ECTL/A+B,DCTL/LDBF,AROM/ARI1,BROM/BR12,CYCLE/LONG
FCTL/B-A-1,ECTL/B-A-1,DCTL/LDBF,ECIN/ONE,AROM/ARI1,BROM/BR12,CYCLE/LONG
FCTL/B-A-1,ECTL/B-A-1,DCTL/LDBF,ECIN/ONE,AROM/ARI1,BROM/BR12,CYCLE/LONG
FCTL/ZERO,ECTL/ZERO,DCTL/LDBF,BROM/BR12
FCTL/D-A-1,ECTL/D-A-1,DCTL/LDBF,ECIN/ONE,CONST/(31,15),AROM/ARI3,BROM/BR13,CYCLE/LONG
FCTL/DPASS,ECTL/DPASS,DCTL/LDBF,MISC/TBUS_1134,BROM/BR13,RSFA/R14,CYCLE/LONG,TOUT/NOP,CONST/NOP
FCTL/BPLUS,ECTL/BPLUS,DCTL/LDBF,ECIN/ONE,BROM/BR13
FCTL/D+A,ECTL/D+A,DCTL/LDBF,CONST/OCT100000,AROM/ARI3,BROM/BR13,CYCLE/LONG
FCTL/A+B,ECTL/A+B,DCTL/LDBF,AROM/ARI4,BROM/BR13
FCTL/B-1,ECTL/B-1,DCTL/LDBF,BROM/BR13
FCTL/A-D-1,ECTL/A-D-1,DCTL/LDBF,ECIN/ONE,CONST/OCT100000,AROM/ARI3,BROM/BR13,CYCLE/LONG
FCTL/B-A-1,ECTL/B-A-1,ECIN/ONE,DCTL/LDBF,AROM/ARI4,BROM/BR13
FCTL/APASS,ECTL/APASS,DCTL/LDBF,AROM/ARI4,BROM/BR13
FCTL/DPASS,ECTL/DPASS,DCTL/LDBF,CONST/OCT40000,BROM/BR14,SECT/S2
FCTL/DPASS,ECTL/DPASS,DCTL/LDBF,CONST/OCT40000,BROM/BR14,SECT/S10
FCTL/DPASS,ECTL/DPASS,DCTL/LDBF,MISC/TBUS_1134,BROM/BR14,RSFA/R14,CYCLE/LONG,TOUT/NOP,CONST/NOP
FCTL/A,AND,B,ECTL/BPASS,DCTL/ROTR,AROM/ARI0,BROM/BR14
FCTL/APASS,ECTL/APASS,DCTL/LDBF,AROM/ARI1,BROM/BR14
FCTL/D,XOR,A,ECTL/D,XOR,A,DCTL/LDBF,CONST/OCT100000,AROM/ARI3,BROM/BR14
FCTL/ZERO,ECTL/ZERO,DCTL/LDBF,BROM/BR14

TITLE	SIZE CODE	NUMBER	REV
FPII-A FLOWS	BFD	FPII-A-5	



TITLE	SIZE/CODE	NUMBER	REV.
FP11-A FLOWS (31)	D FD	FP11-A-2	
SCALE	SHEET	34 OF 40	DIST.
1/4" = 1'	2		1

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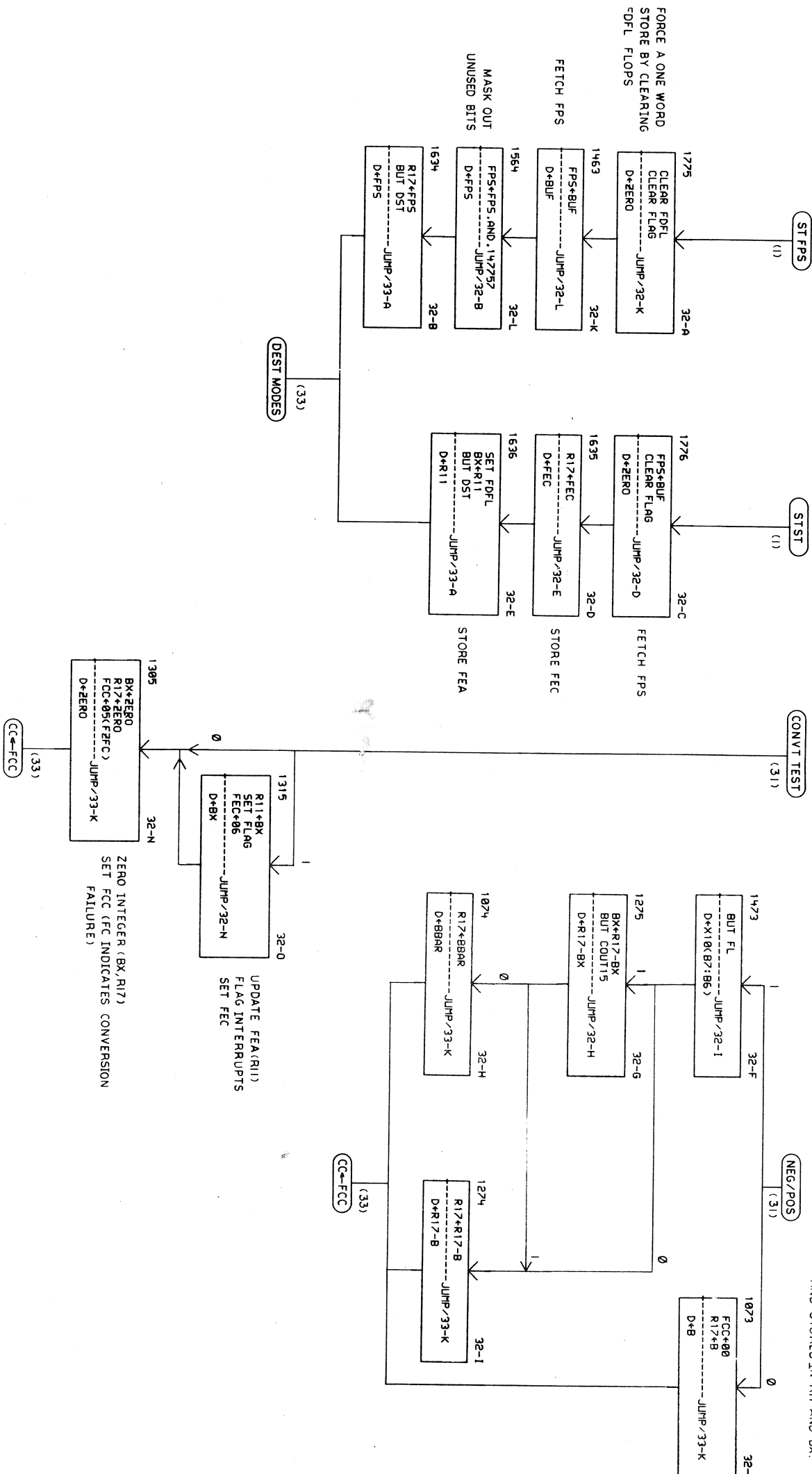
2

1

2

2

UPON ENTERING THIS ROUTINE, THE INTEGER IS IN B AND BX, R17 CONTAINS ZERO. THE INTEGER IS COMPLEMENTED (IF NECESSARY) AND STORED IN R17 AND BX.



REVISIONS		
CHK	CHANGE NO.	REV.

8

7

6

5

4

3

2

1

TITLE		SIZE CODE		NUMBER		REV.	
FP11-A FLOWS		(32)		D FD		FP11-A-2	
SCALE		35 OF 40		DIST.			

SIZE CODE NUMBER REV.

D FD FP11-A-2

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