BLITZ Instruction Set

	A	B	C	D	E	F	G
add				X	X		
sub				X	X		
mul				X	X		
div				X	X		
sll				X	X		
srl				X	X		
sra				X	X		
or				X	X		
and				X	X		
andn				X	X		
xor				X	X		
rem				X	X		
load...				4	4		
store...				4	4		
call			X			X	
jmp			X			X	
b***XX***...			16			16	
push			X				
pop			X				
sethi							X
setlo							X
ldaddr							X
syscall							X
nop	X						
wait	X						
debug	X						
debug2	X						
seti,cleari,...	5						
reti	X						
ret	X						
tset			X				
readu			X		X		
writeu			X		X		
ldptbr		X					
ldptlr		X					
ftoi			X				
itof			X				
fadd				X			
fsub				X			
fmul				X			
fdiv				X			
fcmp			X				
fsqrt			X				
fneg			X				
fabs			X				
fload				X	X		
fstore				X	X		

Key:

X = This instruction exists
num = Several instructions exist

Format A:
Format B: Rc
Format C: Rc,Ra
Format D: Rc,Ra,Rb
Format E: Rc,Ra,data16
Format F: data24
Format G: Rc,data16

BLITZ Instruction Set

Op Code (Decimal)	Op Code (Hex)	Instruction		Format	Privileged Instruction	Modifies Cond. Codes
96	60	add	R_a,R_b,R_c	D		X
128	80	add	R_a,data16,R_c	E		X
97	61	sub	R_a,R_b,R_c	D		X
129	81	sub	R_a,data16,R_c	E		X
98	62	mul	R_a,R_b,R_c	D		X
130	82	mul	R_a,data16,R_c	E		X
99	63	div	R_a,R_b,R_c	D		X
131	83	div	R_a,data16,R_c	E		X
100	64	sll	R_a,R_b,R_c	D		X
132	84	sll	R_a,data16,R_c	E		X
101	65	srl	R_a,R_b,R_c	D		X
133	85	srl	R_a,data16,R_c	E		X
102	66	sra	R_a,R_b,R_c	D		X
134	86	sra	R_a,data16,R_c	E		X
103	67	or	R_a,R_b,R_c	D		X
135	87	or	R_a,data16,R_c	E		X
104	68	and	R_a,R_b,R_c	D		X
136	88	and	R_a,data16,R_c	E		X
105	69	andn	R_a,R_b,R_c	D		X
137	89	andn	R_a,data16,R_c	E		X
106	6A	xor	R_a,R_b,R_c	D		X
138	8A	xor	R_a,data16,R_c	E		X
115	73	rem	R_a,R_b,R_c	D		X
149	95	rem	R_a,data16,R_c	E		X
107	6B	load	[R_a+R_b],R_c	D		
139	8B	load	[R_a+data16],R_c	E		
108	6C	loadb	[R_a+R_b],R_c	D		
140	8C	loadb	[R_a+data16],R_c	E		
109	6D	loadv	[R_a+R_b],R_c	D	X	
141	8D	loadv	[R_a+data16],R_c	E	X	
110	6E	loadbv	[R_a+R_b],R_c	D	X	
142	8E	loadbv	[R_a+data16],R_c	E	X	
111	6F	store	R_c,[R_a+R_b]	D		
143	8F	store	R_c,[R_a+data16]	E		
112	70	storeb	R_c,[R_a+R_b]	D		
144	90	storeb	R_c,[R_a+data16]	E		
113	71	storev	R_c,[R_a+R_b]	D	X	
145	91	storev	R_c,[R_a+data16]	E	X	
114	72	storebv	R_c,[R_a+R_b]	D	X	
146	92	storebv	R_c,[R_a+data16]	E	X	

BLITZ Instruction Set

Op Code (Decimal)	Op Code (Hex)	Instruction		Format	Privileged Instruction	Modifies Cond. Codes
64	40	call	R_a+R_c	C		
160	A0	call	data24	F		
65	41	jmp	R_a+R_c	C		
161	A1	jmp	data24	F		
66	42	be	R_a+R_c	C		
162	A2	be	data24	F		
67	43	bne	R_a+R_c	C		
163	A3	bne	data24	F		
68	44	bl	R_a+R_c	C		
164	A4	bl	data24	F		
69	45	ble	R_a+R_c	C		
165	A5	ble	data24	F		
70	46	bg	R_a+R_c	C		
166	A6	bg	data24	F		
71	47	bge	R_a+R_c	C		
167	A7	bge	data24	F		
72	48					
168	A8					
73	49					
169	A9					
74	4A	bvs	R_a+R_c	C		
170	AA	bvs	data24	F		
75	4B	bvc	R_a+R_c	C		
171	AB	bvc	data24	F		
76	4C	bns	R_a+R_c	C		
172	AC	bns	data24	F		
77	4D	bnc	R_a+R_c	C		
173	AD	bnc	data24	F		
78	4E	bss	R_a+R_c	C		
174	AE	bss	data24	F		
79	4F	bsc	R_a+R_c	C		
175	AF	bsc	data24	F		
80	50	bis	R_a+R_c	C		
176	B0	bis	data24	F		
81	51	bic	R_a+R_c	C		
177	B1	bic	data24	F		
82	52	bps	R_a+R_c	C		
178	B2	bps	data24	F		
83	53	bpc	R_a+R_c	C		
179	B3	bpc	data24	F		

BLITZ Instruction Set

Op Code (Decimal)	Op Code (Hex)	Instruction		Format	Privileged Instruction	Modifies Cond. Codes
84	54	push	R_c,[--R_a]	C		
85	55	pop	[R_a++],R_c	C		
192	C0	sethi	data16,R_c	G		
193	C1	setlo	data16,R_c	G		
194	C2	ldaddr	data16,R_c	G		
195	C3	syscall	R_c+data16	G		
0	00	nop		A		
1	01	wait		A	X	
2	02	debug		A		
3	03	cleari		A	X	
4	04	seti		A	X	
5	05	clearp		A	X	
6	06	setp		A	X	
7	07	clears		A	X	
8	08	reti		A	X	
9	09	ret		A		
10	0A	debug2		A		
88	58	tset	[R_a],R_c	C		
86	56	readu	R_c,R_a	C	X	
147	93	readu	R_c,[R_a+data16]	E	X	
87	57	writeu	R_a,R_c	C	X	
148	94	writeu	[R_a+data16],R_c	E	X	
32	20	ldptbr	R_c	B	X	
33	21	ldptlr	R_c	B	X	
89	59	ftoi	F_a,R_c	C		
90	5A	itof	R_a,F_c	C		
116	74	fadd	F_a,F_b,F_c	D		
117	75	fsub	F_a,F_b,F_c	D		
118	76	fmul	F_a,F_b,F_c	D		
119	77	fdiv	F_a,F_b,F_c	D		
91	5B	fcmp	F_a,F_c	C		X
92	5C	fsqrt	F_a,F_c	C		
93	5D	fneg	F_a,F_c	C		
94	5E	fabs	F_a,F_c	C		
120	78	fload	[R_a+R_b],F_c	D		
150	96	fload	[R_a+data16],F_c	E		
121	79	fstore	F_c,[R_a+R_b]	D		
151	97	fstore	F_c,[R_a+data16]	E		