	ALU	Slices	s PLA	trutl	h tab	les														
			ctor: Pro			T .														
Slices 1-30	PLA in	outs	PL	A outp	uts	Instruct	ions: Fill in the	PI A outnuts o	olumns and obt	ain TS. Co. ar	nd R minterm	s based on t	he PLA outn	uts						
	In83	In20		Out1						10, 00, 0.		Dasca on t								
Instruction	func50	ABC	TS	Co	R		TS minterms	Co minterms	R minterms											
add/addu	10000x	000	0	0	0		1xxxxxxxx													
	10000x	001	0	0	1				10000x001											
	10000x	010	0	0	1				10000x010											
	10000x	011	0	1	0			10000x011												
	10000x	100	0	0	1				10000x100											
	10000x	101	0	1	0			10000x101												
	10000x	110	0	1	0			10000x110												
	10000x	111	0	1	1			10000x111												
sub/subu	10001x	000	0	0	1				10001x000											
	10001x	001	0	1	0			10001x001												-
	10001x	010	0	0	0															-
	10001x	011	0	0	1	-			10001x011											-
	10001x	100	0	1	0	1		10001x100	10001::101						-					
	10001x 10001x	101 110	0	0	1	1		10001x101	10001x101 10001x110											
	10001x 10001x	111	0	1	0	-		10001x111	10001X110											-
and	10001x 100100	000	0	0	0	1		TOOOTXIII												
unu	100100	000	0	0	0	1														
	100100	010	0	0	0															
	100100	011	0	0	0															
	100100	100	0	0	0															
	100100	101	0	0	0															
	100100	110	0	0	1				100100110											
	100100	111	0	0	1				100100111											
or	100101	000	0	0	0															
	100101	001	0	0	0															
	100101	010	0	0	1				100101010											
	100101	011	0	0	1				100101011											
	100101	100	0	0	1				100101100											
	100101	101	0	0	1				100101101											
	100101	110	0	0	1				100101110											
	100101	111	0	0	1				100101111											-
xor	100110	000	0	0	0	-														-
	100110	001	0	0	1				100110001											
	100110	010	0	0	1				100110010											-
	100110 100110	011 100	0	0	0				100110100											
	100110	101	0	0	0				100110100											
	100110	110	0	0	0															_
	100110	111	0	0	1				100110111											
nor	100111	000	0	0	1	1			100111000											
	100111	001	0	0	1				100111001											
	100111	010	0	0	0															
	100111	011	0	0	0															
	100111	100	0	0	0															
	100111	101	0	0	0															
	100111	110	0	0	0															
	100111	111	0	0	0	1														
slt	101010	000	0	0	0	-														
	101010	001	0	1	0			101010001												-
	101010	010	0	0	0	-														-
	101010	011	0	0	0	1														-
	101010	100	0	1	0	-		101010100												
	101010	101	0	1	0	-		101010101												
	101010	110	0	0	0	1		101010111												
clt	101010	111	0	1	0	+		101010111												
sltu	101011 101011	000 001	0	0	0	-		101011001												
	101011	010	0	0	0	1		101011001												-
	101011	010	0	0	0										-					-
	101011	100	0	1	0	1		101011100												
	101011	101	0	1	0	1		101011101												
	101011	110	0	0	0	1		101011101												
	101011	111	0	1	0			101011111												
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Slice MSB	PLA in			A outp			Instructions: I	Fill in the PLA o	utputs colum	ns and obtain	Ov, TS, slt, ar	id R minterms	based on t	he PLA outp	uts					
	In83	In20		Out2		Out0	1													
Instruction	func50	ABC	Ov	TS	slt	R		Ov minterms		slt minterms	R minterms									
add/addu	10000x	000	0	0	0	0			1xxxxxxxx											
	10000x	001	1	0	0	1		10000x001			10000x001									
	10000x	010	0	0	0	1					10000x010									
	10000x	011	0	0	0	0														
	10000x	100	0	0	0	1					10000x100									
	10000x	101	0	0	0	0														
	10000x	110	1	0	0	0		10000x110												
	10000x	111	0	0	0	1					10000x111									
sub/subu	10001x	000	0	0	0	1					10001x000									
	10001x	001	0	0	0	0														
	10001x	010	0	0	0	0														
	10001x	011	1	0	0	1		10001x011			10001x011									
	10001x	100	1	0	0	0		10001x100												
	10001x	101	0	0	0	1					10001x101									
	10001x	110	0	0	0	1					10001x110									
	10001x	111	0	0	0	0														
and	100100	000	0	0	0	0														
	100100	001	0	0	0	0														
	100100	010	0	0	0	0														
	100100	011	0	0	0	0														
	100100	100	0	0	0	0														
	100100	101	0	0	0	0														
	100100	110	0	0	0	1					100100110									
	100100	111	0	0	0	1					100100110									
or	100100	000	0	0	0	0	1				100100111									
J	100101	001	0	0	0	0														
	100101	010	0	0	0	1					100101010									
	100101	010	0	0	0	1					100101010									
	100101	100	0	0	0	1					100101100						_			
	100101	101	0	0	0	1					100101101									
	100101	110	0	0	0	1					100101110									
	100101	111	0	0	0	1	-				100101111						-			
xor	100110	000	0	0	0	0														
	100110	001	0	0	0	1					100110001									
	100110	010	0	0	0	1					100110010						_			
	100110	011	0	0	0	0														
	100110	100	0	0	0	1					100110100									
	100110	101	0	0	0	0														
	100110	110	0	0	0	0														
	100110	111	0	0	0	1					100110111									
nor	100111	000	0	0	0	1					100111000									
	100111	001	0	0	0	1					100111001									
	100111	010	0	0	0	0														
	100111	011	0	0	0	0														
	100111	100	0	0	0	0														
	100111	101	0	0	0	0														
	100111	110	0	0	0	0														
	100111	111	0	0	0	0														
slt	101010	000	0	0	1	0				101010 001										
	101010	001	0	0	0	0														
	101010	010	0	0	0	0														
	101010	011	0	0	0	0														
	101010	100	0	0	1	0				101010 100										
	101010	101	0	0	1	0				101010 110										
	101010	110	0	0	1	0				101010 111										
	101010	111	0	0	0	0														
sltu	101011	000	0	0	1	0				101010 000										
	101011	001	0	0	0	0														
	101011	010	0	0	1	0				101010 010										
	101011	011	0	0	1	0				101010 010										
	101011	100	0	0	0	0				_51510 011										
	101011	101	0	0	0	0														
	101011	110	0	0	1	0				101010 110							+			
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Slice 0	PLA in			A outp		Instruct	ions: Fill in the	PLA outputs co	olumns and ob	tain TS, Co, a	nd R minterm	s based on the	e PLA outpu	its						
		In20																		
Instruction	func50	A B slt	TS	Co	R	1	TS minterms	Co minterms	R minterms											

add/addu	10000x	000	0	0	0	1xxxxxxxx										
,	10000x	001	0	0	1		10000x001									
	10000x	010	0	0	1		10000x010									
	10000x	011	0	1	0	10000x011										
	10000x	100	0	0	1		10000x100									
	10000x	101	0	1	0	10000x101										
	10000x	110	0	1	0	10000×110										
	10000x	111	0	1	1	10000x111	10000x111									
sub/subu	10001x	000	0	0	1		10001x000									
500,5000						40004-004										
	10001x	001	0	1	0	10001x001										
	10001x	010	0	0	0											
	10001x	011	0	0	1		10001x011									
	10001x	100	0	1	0	10001x100										
	10001x	101	0	1	1	10001x101	10001x101									
	10001x	110	0	0	1		10001x110									
	10001x	111	0	1	0	10001x111										
and	100100	000	0	0	0											
anu									-		-					
	100100	001	0	0	0											
	100100	010	0	0	0											
	100100	011	0	0	0											
	100100		0	0	0											
		100										-				
	100100	101	0	0	0											
	100100	110	0	0	1		100100110									
	100100	111	0	0	1		100100111									
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or	100101	000	0	0	0		-		-							
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	100101	010	0	0	1		100101010									
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	100101	101	0	0	1		100101101									
	100101	110	0	0	1		100101110									
	100101	111	0	0	1		100101111									
xor	100110	000	0	0	0											
AUI							100110001									
	100110	001	0	0	1		100110001									
	100110	010	0	0	1		100110010									
	100110	011	0	0	0											
	100110	100	0	0	1		100110100									
							100110100									
	100110	101	0	0	0											
	100110	110	0	0	0											
	100110	111	0	0	1		100110111									
nor	100111	000	0	0	1		100111000									
	100111	001	0	0	1		100111001									
							100111001									
	100111	010	0	0	0											
	100111	011	0	0	0											
	100111	100	0	0	0											
	100111	101	0	0	0						-					
	100111	110	0	0	0											
	100111	111	0	0	0											
slt	101010	000	0	0	0											
t						101010001										
	101010	001	0	1	0	101010001										
	101010	010	0	0	0											
	101010	011	0	0	0											
	101010	100	0	1	0	101010100										
	101010		0			101010101										
		101		1	0	101010101			-			-				
	101010	110	0	0	0											
	101010	111	0	1	0	101010111										
sltu	101011	000	0	0	0											
Ju						101011001						1				
	101011	001	0	1	0	101011001			-			-				
	101011	010	0	0	0											
	101011	011	0	0	0											
		100		1		101011100										
	101011	101	0	1	0	101011101						-				
	101011	110	0		0											
	101011	111	0	_1	0	101011111										
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