

	time	0	1	2	3	4	5
stage1	Commutator LI	x0	x1	x2	x3	x4	x5
	Commutator UO	x0	x1	x2	x3	x4	x5
	Commutator LO						
	Butterfly UI						
	Butterfly LI						
	Butterfly UO						
	Butterfly LO						
	Multiplier						
	Commutator UI						
	Commutator LI						
stage2	Commutator UO						
	Commutator LO						
	Butterfly UI						
	Butterfly LI						
	Butterfly UO						
	Butterfly LO						
	Multiplier						
	Commutator UI						
	Commutator LI						
	Commutator UO						
stage3	Commutator LO						
	Butterfly UI						

Butterfly
LI
Butterfly
UO
Butterfly
LO

Multiplier

Commutator
UI
Commutator
LI
Commutator
UO
Commutator
LO

stage4

Butterfly
UI
Butterfly
LI
Butterfly
UO
Butterfly
LO

Multiplier

Commutator
UI
Commutator
LI
Commutator
UO
Commutator
LO

stage5

Butterfly
UI
Butterfly
LI
Butterfly
UO
Butterfly
LO

Multiplier

6	7	8	9	10	11	12	13	14	15
x6	x7	x8	x9	x10	x11	x12	x13	x14	x15
x6	x7	x8	x9	x10	x11	x12	x13	x14	x15

16	17	18	19	20	21	22	23	24	25
x16	x17	x18	x19	x20	x21	x22	x23	x24	x25

x16	x17	x18	x19	x20	x21	x22	x23	x24	x25
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

x0	x1	x2	x3	x4	x5	x6	x7	x8	x9
----	----	----	----	----	----	----	----	----	----

x16	x17	x18	x19	x20	x21	x22	x23	x24	x25
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

g0	g1	g2	g3	g4	g5	g6	g7	g8	g9
----	----	----	----	----	----	----	----	----	----

h0	h1	h2	h3	h4	h5	h6	h7	h8	h9
----	----	----	----	----	----	----	----	----	----

W32_0	W32_1	W32_2	W32_3	W32_4	W32_5	W32_6	W32_7	W32_8	W32_9
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g0	g1	g2	g3	g4	g5	g6	g7	g8	g9
----	----	----	----	----	----	----	----	----	----

h'0	h'1
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g0	g1	g2	g3	g4	g5	g6	g7	h'0	h'1
----	----	----	----	----	----	----	----	-----	-----

g8	g9
----	----

g0	g1
----	----

g8	g9
----	----

p0	p1
----	----

q0	q1
----	----

W32_0	W32_2
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p0	p1
----	----

p0	p1
----	----

26	27	28	29	30	31	32	33	34	35
x26	x27	x28	x29	x30	x31				
x26	x27	x28	x29	x30	x31				
x10	x11	x12	x13	x14	x15				
x26	x27	x28	x29	x30	x31				
g10	g11	g12	g13	g14	g15				
h10	h11	h12	h13	h14	h15				
W32_10	W32_11	W32_12	W32_13	W32_14	W32_15				
g10	g11	g12	g13	g14	g15				
h'2	h'3	h'4	h'5	h'6	h'7	h'8	h'9	h'10	h'11
h'2	h'3	h'4	h'5	h'6	h'7				
g10	g11	g12	g13	g14	g15	h'8	h'9	h'10	h'11
g2	g3	g4	g5	g6	g7	h'0	h'1	h'2	h'3
g10	g11	g12	g13	g14	g15	h'8	h'9	h'10	h'11
p2	p3	p4	p5	p6	p7	m0	m1	m2	m3
q2	q3	q4	q5	q6	q7	n0	n1	n2	n3
W32_4	W32_6	W32_8	W32_10	W32_12	W32_14	W32_0	W32_2	W32_4	W32_6
p2	p3	p4	p5	p6	p7	m0	m1	m2	m3
		q'0	q'1	q'2	q'3	q'4	q'5	q'6	q'7
p2	p3	q'0	q'1	q'2	q'3	m0	m1	m2	m3
		p4	p5	p6	p7	q'4	q'5	q'6	q'7
		p0	p1	p2	p3	q'0	q'1	q'2	q'3

p4	p5	p6	p7	q'4	q'5	q'6	q'7
a0	a1	a2	a3	c0	c1	c2	c3
b0	b1	b2	b3	d0	d1	d2	d3
W32_0	W32_4	W32_8	W32_12	W32_0	W32_4	W32_8	W32_12
a0	a1	a2	a3	c0	c1	c2	c3
		b'0	b'1	b'2	b'3	d'0	d'1
a0	a1	b'0	b'1	c0	c1	d'0	d'1
		a2	a3	b'2	b'3	c2	c3
		a0	a1	b'0	b'1	c0	c1
		a2	a3	b'2	b'3	c2	c3
		aa0	aa1	cc0	cc1	ee0	ee1
		bb0	bb1	dd0	dd1	ff0	ff1
		W32_0	W32_8	W32_0	W32_8	W32_0	W32_8
		aa0	aa1	cc0	cc1	ee0	ee1
			bb'0	bb'1	dd'0	dd'1	ff'0
		aa0	bb'0	cc0	dd'0	ee0	ff'0
			aa1	bb'1	cc1	dd'1	ee1
			aa0	bb'0	cc0	dd'0	ee0
			aa1	bb'1	cc1	dd'1	ee1
			X0	X8	X4	X12	X2
			X16	X24	X20	X28	X18

36	37	38	39	40	41	42	43	44	45
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h'12	h'13	h'14	h'15
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h'12	h'13	h'14	h'15
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h'4	h'5	h'6	h'7
-----	-----	-----	-----

h'12	h'13	h'14	h'15
------	------	------	------

m4	m5	m6	m7
----	----	----	----

n4	n5	n6	n7
----	----	----	----

W32_8	W32_10	W32_12	W32_14
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m4	m5	m6	m7
----	----	----	----

n'0	n'1	n'2	n'3	n'4	n'5	n'6	n'7
-----	-----	-----	-----	-----	-----	-----	-----

n'0	n'1	n'2	n'3
-----	-----	-----	-----

m4	m5	m6	m7	n'4	n'5	n'6	n'7
----	----	----	----	-----	-----	-----	-----

m0	m1	m2	m3	n'0	n'1	n'2	n'3
----	----	----	----	-----	-----	-----	-----

m4	m5	m6	m7	n'4	n'5	n'6	n'7		
e0	e1	e2	e3	g0	g1	g2	g3		
f0	f1	f2	f3	h0	h1	h2	h3		
W32_0	W32_4	W32_8	W32_12	W32_0	W32_4	W32_8	W32_12		
e0	e1	e2	e3	g0	g1	g2	g3		
d'2	d'3	f'0	f'1	f'2	f'3	h'0	h'1	h'2	h'3
e0	e1	f'0	f'1	g0	g1	h'0	h'1		
d'2	d'3	e2	e3	f'2	f'3	g2	g3	h'2	h'3
d'0	d'1	e0	e1	f'0	f'1	g0	g1	h'0	h'1
d'2	d'3	e2	e3	f'2	f'3	g2	g3	h'2	h'3
gg0	gg1	ii0	ii1	kk0	kk1	mm0	mm1	oo0	oo1
hh0	hh1	jj0	jj1	ll0	ll1	nn0	nn1	pp0	pp1
W32_0	W32_8	W32_0	W32_8	W32_0	W32_8	W32_0	W32_8	W32_0	W32_8
gg0	gg1	ii0	ii1	kk0	kk1	mm0	mm1	oo0	oo1
ff'1	hh'0	hh'1	jj'0	jj'1	ll'0	ll'1	nn'0	nn'1	pp'0
gg0	hh'0	ii0	jj'0	kk0	ll'0	mm0	nn'0	oo0	pp'0
ff'1	gg1	hh'1	ii1	jj'1	kk1	ll'1	mm1	nn'1	oo1
ff'0	gg0	hh'0	ii0	jj'0	kk0	ll'0	mm0	nn'0	oo0
ff'1	gg1	hh'1	ii1	jj'1	kk1	ll'1	mm1	nn'1	oo1
X10	X6	X14	X1	X9	X5	X13	X3	X11	X7
X26	X22	X30	X17	X25	X21	X29	X19	X27	X23

46

47

48

49

50

51

52

53

54

55

pp'1

pp'1

pp'0

pp'1

X15

X31

56

57

58

59

60

61

62

63

64

65

66

67

68

69

70

71