



Name	BRAM_18K	DSP48E	FF	LUT	URAM
DSP	-	-	-	-	-
Expression	-	-	0	328	-
FIFO	-	-	-	-	-
Instance	18	192	15859	21768	-
Memory	-	-	-	-	-
Multiplexer	-	-	-	1170	-
Register	-	-	1345	-	-
Total	18	192	17204	23266	0
Available	280	220	106400	53200	0
Utilization (%)	6	87	16	43	0

- **Detail**

- **Instance**

Instance	Module	BRAM_18K	DSP48E	FF	LUT	URAM
grp_bit_reverse_fu_298	bit_reverse	0	0	504	511	0
fft_crtl_bus_s_axi_U	fft_crtl_bus_s_axi	0	0	112	168	0
fft_ddiv_64ns_64nsc4_U46	fft_ddiv_64ns_64nsc4	0	0	3211	3658	0
fft_fadd_32ns_32nocq_U38	fft_fadd_32ns_32nocq	0	2	205	390	0
fft_faddfsb_32nsncg_U37	fft_faddfsb_32nsncg	0	2	205	390	0
fft_fmul_32ns_32npcA_U39	fft_fmul_32ns_32npcA	0	3	143	321	0
fft_fmul_32ns_32npcA_U40	fft_fmul_32ns_32npcA	0	3	143	321	0
fft_fmul_32ns_32npcA_U41	fft_fmul_32ns_32npcA	0	3	143	321	0
fft_fmul_32ns_32npcA_U42	fft_fmul_32ns_32npcA	0	3	143	321	0
fft_fpext_32ns_64rcU_U45	fft_fpext_32ns_64rcU	0	0	100	138	0
fft_fptrunc_64ns_qcK_U43	fft_fptrunc_64ns_qcK	0	0	128	277	0
fft_fptrunc_64ns_qcK_U44	fft_fptrunc_64ns_qcK	0	0	128	277	0
fft_gmem_m_axi_U	fft_gmem_m_axi	2	0	512	580	0
fft_sitodp_32ns_6tde_U47	fft_sitodp_32ns_6tde	0	0	412	645	0
grp_sin_or_cos_double_s_fu_260	sin_or_cos_double_s	8	88	4885	6725	0
grp_sin_or_cos_double_s_fu_279	sin_or_cos_double_s	8	88	4885	6725	0
Total	16	18	192	15859	21768	0

- **DSP48E**

N/A

- **Memory**

N/A

- **FIFO**

N/A

- **Expression**

Variable Name	Operation	DSP48E	FF	LUT	Bitwidth P0	Bitwidth P1
add_ln79_1_fu_483_p2	+	0	0	39	32	32
add_ln79_fu_478_p2	+	0	0	39	32	32

add_ln82_fu_488_p2	+	0	0	39	32	32
add_ln83_fu_493_p2	+	0	0	39	32	32
i_V_1_fu_498_p2	+	0	0	39	32	32
i_lower_V_fu_473_p2	+	0	0	39	32	32
j_V_fu_445_p2	+	0	0	14	10	1
stage_V_fu_451_p2	+	0	0	13	4	1
icmp_ln58_fu_406_p2	icmp	0	0	9	4	4
icmp_ln68_fu_440_p2	icmp	0	0	13	10	10
icmp_ln887_fu_467_p2	icmp	0	0	18	22	1
ap_block_state45_on_subcall_done	or	0	0	2	1	1
DFTpts_V_fu_412_p2	shl	0	0	25	1	11
Total	13	0	0	328	244	221

◦ **Multiplexer**

Name	LUT	Input Size	Bits	Total Bits
a_0_reg_239	9	2	32	64
ap_NS_fsm	601	134	1	134
gmem_ARADDR	41	8	32	256
gmem_ARBURST	9	2	2	4
gmem_ARCACHE	9	2	4	8
gmem_ARID	9	2	1	2
gmem_ARLEN	15	3	32	96
gmem_ARLOCK	9	2	2	4
gmem_ARPROT	9	2	3	6
gmem_ARQOS	9	2	4	8
gmem_ARREGION	9	2	4	8
gmem_ARSIZE	9	2	3	6
gmem_ARUSER	9	2	1	2
gmem_ARVALID	15	3	1	3
gmem_AWADDR	33	6	32	192
gmem_AWBURST	9	2	2	4
gmem_AWCACHE	9	2	4	8
gmem_AWID	9	2	1	2
gmem_AWLEN	15	3	32	96
gmem_AWLOCK	9	2	2	4
gmem_AWPROT	9	2	3	6
gmem_AWQOS	9	2	4	8
gmem_AWREGION	9	2	4	8
gmem_AWSIZE	9	2	3	6
gmem_AWUSER	9	2	1	2
gmem_AWVALID	15	3	1	3
gmem_BREADY	15	3	1	3
gmem_RREADY	15	3	1	3
gmem_WDATA	21	4	32	128
gmem_WID	9	2	1	2
gmem_WLAST	9	2	1	2
gmem_WSTRB	15	3	4	12
gmem_WUSER	9	2	1	2
gmem_WVALID	15	3	1	3
gmem_blk_n_AR	9	2	1	2

gmem_blk_n_AW	9	2	1	2
gmem_blk_n_B	9	2	1	2
gmem_blk_n_R	9	2	1	2
gmem_blk_n_W	9	2	1	2
grp_fu_306_opcode	15	3	2	6
grp_fu_306_p0	27	5	32	160
grp_fu_306_p1	27	5	32	160
grp_fu_331_p0	15	3	64	192
i_V_reg_228	9	2	10	20
p_0183_0_reg_251	9	2	32	64
t_V_reg_216	9	2	4	8
Total	1170	252	434	1715

◦ Register

Name	FF	LUT	Bits	Const Bits
X_I3_reg_543	30	0	30	0
X_R1_reg_549	30	0	30	0
a_0_reg_239	32	0	32	0
a_reg_648	32	0	32	0
add_ln79_1_reg_661	32	0	32	0
add_ln79_reg_656	32	0	32	0
add_ln82_reg_666	32	0	32	0
add_ln83_reg_671	32	0	32	0
ap_CS_fsm	133	0	133	0
c_reg_636	32	0	32	0
e_reg_597	32	0	32	0
gmem_addr_1_read_reg_708	32	0	32	0
gmem_addr_1_reg_688	32	0	32	0
gmem_addr_2_reg_701	32	0	32	0
gmem_addr_3_reg_739	32	0	32	0
gmem_addr_read_reg_695	32	0	32	0
gmem_addr_reg_681	32	0	32	0
grp_bit_reverse_fu_298_ap_start_reg	1	0	1	0
grp_sin_or_cos_double_s_fu_260_ap_start_reg	1	0	1	0
grp_sin_or_cos_double_s_fu_279_ap_start_reg	1	0	1	0
i_V_1_reg_676	32	0	32	0
i_V_reg_228	10	0	10	0
j_V_reg_610	10	0	10	0
lshr_ln_reg_576	10	0	10	0
p_0183_0_reg_251	32	0	32	0
p_cast7_reg_555	30	0	32	2
p_cast_reg_561	30	0	32	2
r_V_reg_592	10	0	32	22
reg_351	32	0	32	0
reg_358	32	0	32	0
reg_363	32	0	32	0
reg_369	32	0	32	0
s_reg_642	32	0	32	0
t_V_reg_216	4	0	4	0
temp_I_reg_734	32	0	32	0

tmp_2_reg_587	64	0	64	0
tmp_7_reg_714	32	0	32	0
tmp_8_reg_719	32	0	32	0
tmp_9_reg_724	32	0	32	0
tmp_reg_582	64	0	64	0
tmp_s_reg_729	32	0	32	0
x_assign_reg_620	64	0	64	0
zext_ln59_reg_570	11	0	32	21
zext_ln887_reg_602	10	0	32	22
Total	1345	0	1414	69

## Interface

- Summary

RTL Ports	Dir	Bits	Protocol	Source Object	C Type
s_axi_ctrl_bus_AWVALID	in	1	s_axi	ctrl_bus	scalar
s_axi_ctrl_bus_AWREADY	out	1	s_axi	ctrl_bus	scalar
s_axi_ctrl_bus_AWADDR	in	5	s_axi	ctrl_bus	scalar
s_axi_ctrl_bus_WVALID	in	1	s_axi	ctrl_bus	scalar
s_axi_ctrl_bus_WREADY	out	1	s_axi	ctrl_bus	scalar
s_axi_ctrl_bus_WDATA	in	32	s_axi	ctrl_bus	scalar
s_axi_ctrl_bus_WSTRB	in	4	s_axi	ctrl_bus	scalar
s_axi_ctrl_bus_ARVALID	in	1	s_axi	ctrl_bus	scalar
s_axi_ctrl_bus_ARREADY	out	1	s_axi	ctrl_bus	scalar
s_axi_ctrl_bus_ARADDR	in	5	s_axi	ctrl_bus	scalar
s_axi_ctrl_bus_RVALID	out	1	s_axi	ctrl_bus	scalar
s_axi_ctrl_bus_RREADY	in	1	s_axi	ctrl_bus	scalar
s_axi_ctrl_bus_RDATA	out	32	s_axi	ctrl_bus	scalar
s_axi_ctrl_bus_RRESP	out	2	s_axi	ctrl_bus	scalar
s_axi_ctrl_bus_BVALID	out	1	s_axi	ctrl_bus	scalar
s_axi_ctrl_bus_BREADY	in	1	s_axi	ctrl_bus	scalar
s_axi_ctrl_bus_BRESP	out	2	s_axi	ctrl_bus	scalar
ap_clk	in	1	ap_ctrl_hs	fft	return value
ap_rst_n	in	1	ap_ctrl_hs	fft	return value
interrupt	out	1	ap_ctrl_hs	fft	return value
m_axi_gmem_AWVALID	out	1	m_axi	gmem	pointer
m_axi_gmem_AWREADY	in	1	m_axi	gmem	pointer
m_axi_gmem_AWADDR	out	32	m_axi	gmem	pointer
m_axi_gmem_AWID	out	1	m_axi	gmem	pointer
m_axi_gmem_AWLEN	out	8	m_axi	gmem	pointer
m_axi_gmem_AWSIZE	out	3	m_axi	gmem	pointer
m_axi_gmem_AWBURST	out	2	m_axi	gmem	pointer
m_axi_gmem_AWLOCK	out	2	m_axi	gmem	pointer
m_axi_gmem_AWCACHE	out	4	m_axi	gmem	pointer
m_axi_gmem_AWPROT	out	3	m_axi	gmem	pointer
m_axi_gmem_AWQOS	out	4	m_axi	gmem	pointer
m_axi_gmem_AWREGION	out	4	m_axi	gmem	pointer
m_axi_gmem_AWUSER	out	1	m_axi	gmem	pointer

m_axi_gmem_WVALID	out	1	m_axi	gmem	pointer
m_axi_gmem_WREADY	in	1	m_axi	gmem	pointer
m_axi_gmem_WDATA	out	32	m_axi	gmem	pointer
m_axi_gmem_WSTRB	out	4	m_axi	gmem	pointer
m_axi_gmem_WLAST	out	1	m_axi	gmem	pointer
m_axi_gmem_WID	out	1	m_axi	gmem	pointer
m_axi_gmem_WUSER	out	1	m_axi	gmem	pointer
m_axi_gmem_ARVALID	out	1	m_axi	gmem	pointer
m_axi_gmem_ARREADY	in	1	m_axi	gmem	pointer
m_axi_gmem_ARADDR	out	32	m_axi	gmem	pointer
m_axi_gmem_ARID	out	1	m_axi	gmem	pointer
m_axi_gmem_ARLEN	out	8	m_axi	gmem	pointer
m_axi_gmem_ARSIZE	out	3	m_axi	gmem	pointer
m_axi_gmem_ARBURST	out	2	m_axi	gmem	pointer
m_axi_gmem_ARLOCK	out	2	m_axi	gmem	pointer
m_axi_gmem_ARCACHE	out	4	m_axi	gmem	pointer
m_axi_gmem_ARPROT	out	3	m_axi	gmem	pointer
m_axi_gmem_ARQOS	out	4	m_axi	gmem	pointer
m_axi_gmem_ARREGION	out	4	m_axi	gmem	pointer
m_axi_gmem_ARUSER	out	1	m_axi	gmem	pointer
m_axi_gmem_RVALID	in	1	m_axi	gmem	pointer
m_axi_gmem_RREADY	out	1	m_axi	gmem	pointer
m_axi_gmem_RDATA	in	32	m_axi	gmem	pointer
m_axi_gmem_RLAST	in	1	m_axi	gmem	pointer
m_axi_gmem_RID	in	1	m_axi	gmem	pointer
m_axi_gmem_RUSER	in	1	m_axi	gmem	pointer
m_axi_gmem_RRESP	in	2	m_axi	gmem	pointer
m_axi_gmem_BVALID	in	1	m_axi	gmem	pointer
m_axi_gmem_BREADY	out	1	m_axi	gmem	pointer
m_axi_gmem_BRESP	in	2	m_axi	gmem	pointer
m_axi_gmem_BID	in	1	m_axi	gmem	pointer
m_axi_gmem_BUSER	in	1	m_axi	gmem	pointer

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