FMA-64

March 25, 2012

1 Design Map

Tables are tables

INFO_Pareto	0	0	0	0	
TOP.DesignIndex	0	1	2	3	
TOP.VT	svt	svt	svt	svt	
TOP.Voltage	0.8	0.8	0.8	0.8	
TOP.top_FMA.FMA.Designware_MODE	OFF	OFF	OFF	OFF	
TOP.top_FMA.FMA.EnableDenormals	YES	YES	YES	YES	
TOP.top_FMA.FMA.ExponentWidth	11	11	11	11	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.BoothType	1	1	1	1	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.Designware_MODE	OFF	OFF	OFF	OFF	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.TreeType	Array	OS1	Wallace	ZM	
TOP.top_FMA.FMA.FractionWidth	52	52	52	52	
TOP.top_FMA.FMA.UseInc	NO	NO	NO	NO	

INFO_Pareto	1	0	1	1	
TOP.DesignIndex	4	5	6	7	
TOP.VT	svt	svt	svt	svt	
TOP.Voltage	0.8	0.8	0.8	0.8	
TOP.top_FMA.FMA.Designware_MODE	OFF	OFF	OFF	OFF	
TOP.top_FMA.FMA.EnableDenormals	YES	YES	YES	YES	
TOP.top_FMA.FMA.ExponentWidth	11	11	11	11	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.BoothType	2	2	2	2	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.Designware_MODE	OFF	OFF	OFF	OFF	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.TreeType	Array	OS1	Wallace	ZM	
TOP.top_FMA.FMA.FractionWidth	52	52	52	52	
TOP.top_FMA.FMA.UseInc	NO	NO	NO	NO	

INFO_Pareto	1	1	1	1	
TOP.DesignIndex	8	9	10	11	
TOP.VT	svt	svt	svt	svt	
TOP.Voltage	0.8	0.8	0.8	0.8	
TOP.top_FMA.FMA.Designware_MODE	OFF	OFF	OFF	OFF	
TOP.top_FMA.FMA.EnableDenormals	YES	YES	YES	YES	
TOP.top_FMA.FMA.ExponentWidth	11	11	11	11	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.BoothType	3	3	3	3	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.Designware_MODE	OFF	OFF	OFF	OFF	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.TreeType	Array	OS1	Wallace	ZM	
TOP.top_FMA.FMA.FractionWidth	52	52	52	52	
TOP.top_FMA.FMA.UseInc	NO	NO	NO	NO	

INFO_Pareto	0	1	1	1	
TOP.DesignIndex	12	13	14	15	
TOP.VT	svt	svt	svt	svt	
TOP.Voltage	0.8	0.8	0.8	0.8	
TOP.top_FMA.FMA.Designware_MODE	OFF	OFF	OFF	ON	
TOP.top_FMA.FMA.EnableDenormals	YES	YES	YES	YES	
TOP.top_FMA.FMA.ExponentWidth	11	11	11	11	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.BoothType	4	4	NA	NA	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.Designware_MODE	OFF	OFF	ON	NA	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.TreeType	Array	Wallace	NA	NA	
TOP.top_FMA.FMA.FractionWidth	52	52	52	52	
TOP.top_FMA.FMA.UseInc	NO	NO	NO	NO	

INFO_Pareto	0	0	0	0	
TOP.DesignIndex	16	17	18	19	
TOP.VT	svt	svt	svt	svt	
TOP.Voltage	0.9	0.9	0.9	0.9	
TOP.top_FMA.FMA.Designware_MODE	OFF	OFF	OFF	OFF	
TOP.top_FMA.FMA.EnableDenormals	YES	YES	YES	YES	
TOP.top_FMA.FMA.ExponentWidth	11	11	11	11	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.BoothType	1	1	1	1	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.Designware_MODE	OFF	OFF	OFF	OFF	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.TreeType	Array	OS1	Wallace	ZM	
TOP.top_FMA.FMA.FractionWidth	52	52	52	52	
TOP.top_FMA.FMA.UseInc	NO	NO	NO	NO	

INFO_Pareto	1	0	1	1	
TOP.DesignIndex	20	21	22	23	
TOP.VT	svt	svt	svt	svt	
TOP.Voltage	0.9	0.9	0.9	0.9	
TOP.top_FMA.FMA.Designware_MODE	OFF	OFF	OFF	OFF	
TOP.top_FMA.FMA.EnableDenormals	YES	YES	YES	YES	
TOP.top_FMA.FMA.ExponentWidth	11	11	11	11	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.BoothType	2	2	2	2	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.Designware_MODE	OFF	OFF	OFF	OFF	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.TreeType	Array	OS1	Wallace	ZM	
TOP.top_FMA.FMA.FractionWidth	52	52	52	52	
TOP.top_FMA.FMA.UseInc	NO	NO	NO	NO	

INFO_Pareto	0	1	0	0	
TOP.DesignIndex	24	25	26	27	
TOP.VT	svt	svt	svt	svt	
TOP.Voltage	0.9	0.9	0.9	0.9	
TOP.top_FMA.FMA.Designware_MODE	OFF	OFF	OFF	OFF	
TOP.top_FMA.FMA.EnableDenormals	YES	YES	YES	YES	
TOP.top_FMA.FMA.ExponentWidth	11	11	11	11	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.BoothType	3	3	3	3	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.Designware_MODE	OFF	OFF	OFF	OFF	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.TreeType	Array	OS1	Wallace	ZM	
TOP.top_FMA.FMA.FractionWidth	52	52	52	52	
TOP.top_FMA.FMA.UseInc	NO	NO	NO	NO	

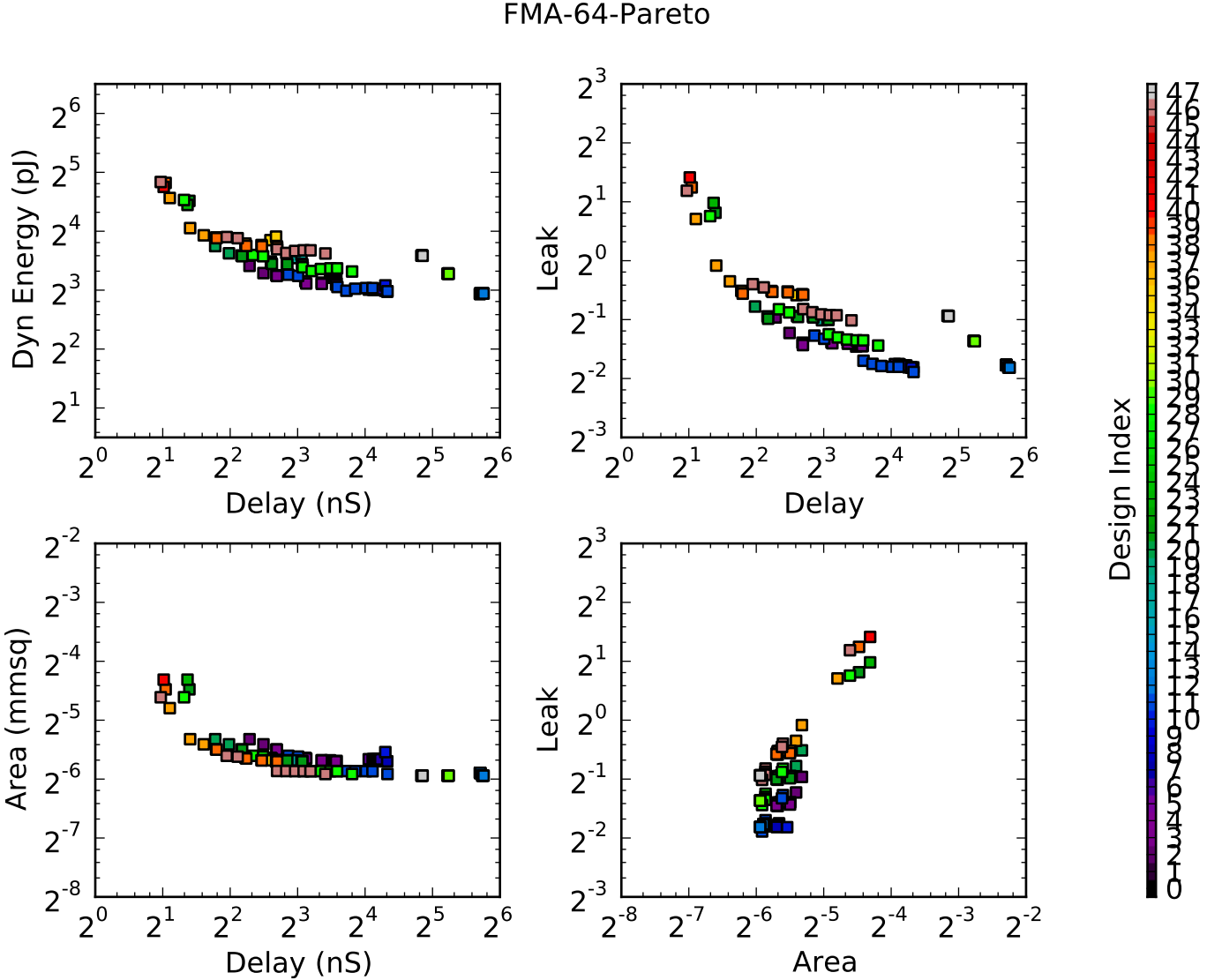
INFO_Pareto	0	0	1	1	
TOP.DesignIndex	28	29	30	31	
TOP.VT	svt	svt	svt	svt	
TOP.Voltage	0.9	0.9	0.9	0.9	
TOP.top_FMA.FMA.Designware_MODE	OFF	OFF	OFF	ON	
TOP.top_FMA.FMA.EnableDenormals	YES	YES	YES	YES	
TOP.top_FMA.FMA.ExponentWidth	11	11	11	11	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.BoothType	4	4	NA	NA	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.Designware_MODE	OFF	OFF	ON	NA	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.TreeType	Array	Wallace	NA	NA	
TOP.top_FMA.FMA.FractionWidth	52	52	52	52	
TOP.top_FMA.FMA.UseInc	NO	NO	NO	NO	

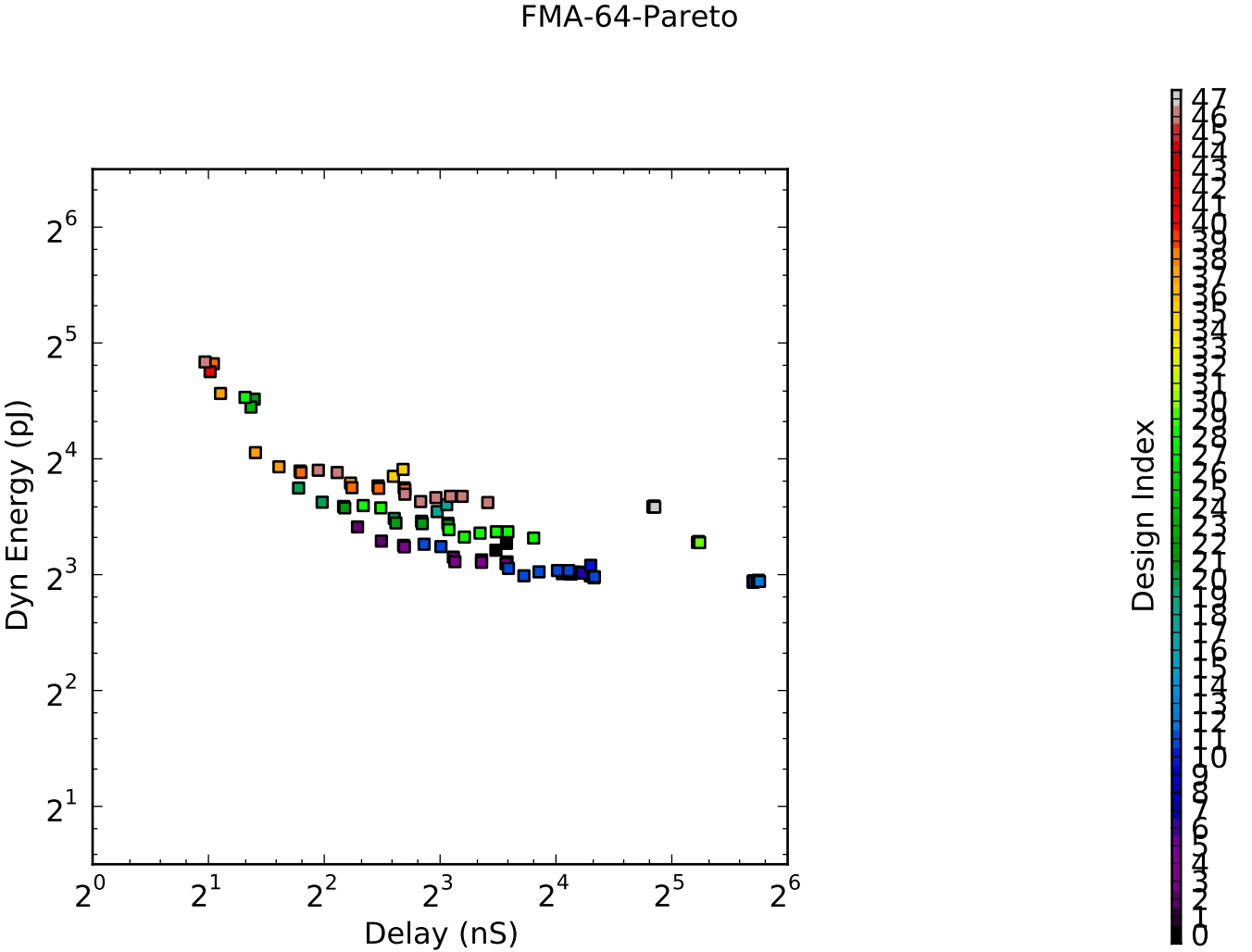
INFO_Pareto	0	0	0	0	
TOP.DesignIndex	32	33	34	35	
TOP.VT	svt	svt	svt	svt	
TOP.Voltage	1.0	1.0	1.0	1.0	
TOP.top_FMA.FMA.Designware_MODE	OFF	OFF	OFF	OFF	
TOP.top_FMA.FMA.EnableDenormals	YES	YES	YES	YES	
TOP.top_FMA.FMA.ExponentWidth	11	11	11	11	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.BoothType	1	1	1	1	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.Designware_MODE	OFF	OFF	OFF	OFF	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.TreeType	Array	OS1	Wallace	ZM	
TOP.top_FMA.FMA.FractionWidth	52	52	52	52	
TOP.top_FMA.FMA.UseInc	NO	NO	NO	NO	

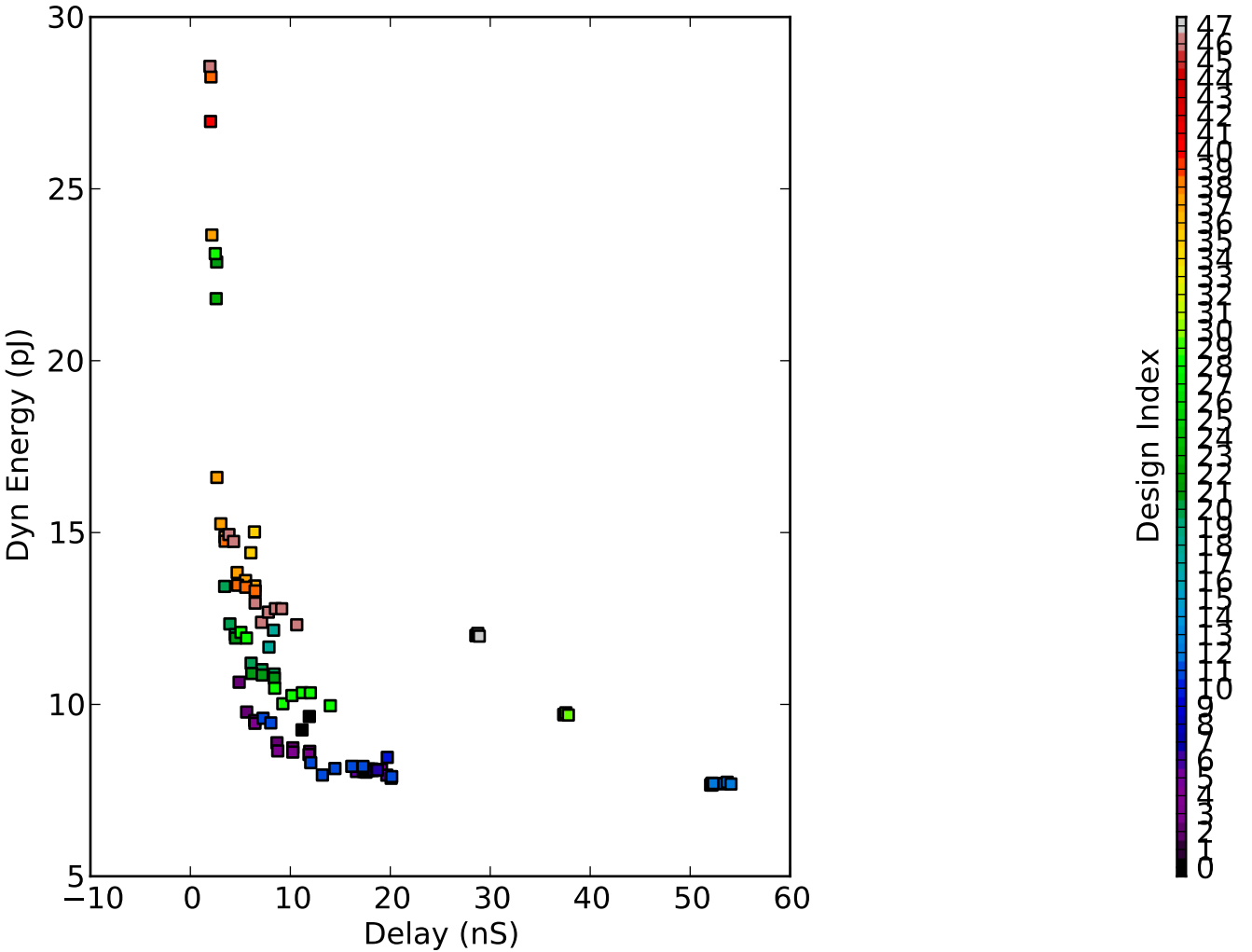
INFO_Pareto	1	0	1	1	
TOP.DesignIndex	36	37	38	39	
TOP.VT	svt	svt	svt	svt	
TOP.Voltage	1.0	1.0	1.0	1.0	
TOP.top_FMA.FMA.Designware_MODE	OFF	OFF	OFF	OFF	
TOP.top_FMA.FMA.EnableDenormals	YES	YES	YES	YES	
TOP.top_FMA.FMA.ExponentWidth	11	11	11	11	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.BoothType	2	2	2	2	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.Designware_MODE	OFF	OFF	OFF	OFF	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.TreeType	Array	OS1	Wallace	ZM	
TOP.top_FMA.FMA.FractionWidth	52	52	52	52	
TOP.top_FMA.FMA.UseInc	NO	NO	NO	NO	

INFO_Pareto	0	1	0	0	
TOP.DesignIndex	40	41	42	43	
TOP.VT	svt	svt	svt	svt	
TOP.Voltage	1.0	1.0	1.0	1.0	
TOP.top_FMA.FMA.Designware_MODE	OFF	OFF	OFF	OFF	
TOP.top_FMA.FMA.EnableDenormals	YES	YES	YES	YES	
TOP.top_FMA.FMA.ExponentWidth	11	11	11	11	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.BoothType	3	3	3	3	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.Designware_MODE	OFF	OFF	OFF	OFF	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.TreeType	Array	OS1	Wallace	ZM	
TOP.top_FMA.FMA.FractionWidth	52	52	52	52	
TOP.top_FMA.FMA.UseInc	NO	NO	NO	NO	

INFO_Pareto	0	0	1	1	
TOP.DesignIndex	44	45	46	47	
TOP.VT	svt	svt	svt	svt	
TOP.Voltage	1.0	1.0	1.0	1.0	
TOP.top_FMA.FMA.Designware_MODE	OFF	OFF	OFF	ON	
TOP.top_FMA.FMA.EnableDenormals	YES	YES	YES	YES	
TOP.top_FMA.FMA.ExponentWidth	11	11	11	11	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.BoothType	4	4	NA	NA	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.Designware_MODE	OFF	OFF	ON	NA	
TOP.top_FMA.FMA.FMA_MAN0.MUL0.TreeType	Array	Wallace	NA	NA	
TOP.top_FMA.FMA.FractionWidth	52	52	52	52	
TOP.top_FMA.FMA.UseInc	NO	NO	NO	NO	


FMA-64-Pareto
Dyn Energy (pJ)
Delay (nS)
Leak
Delay
Area (mmsq)
Delay (nS)
Leak
Area
Design Index


FMA-64-Pareto
Dyn Energy (pJ)
Delay (nS)
Design Index


FMA-64-Pareto
Dyn Energy (pJ)
Delay (nS)
Design Index
30
25
20
15
10
5
−10
0
10
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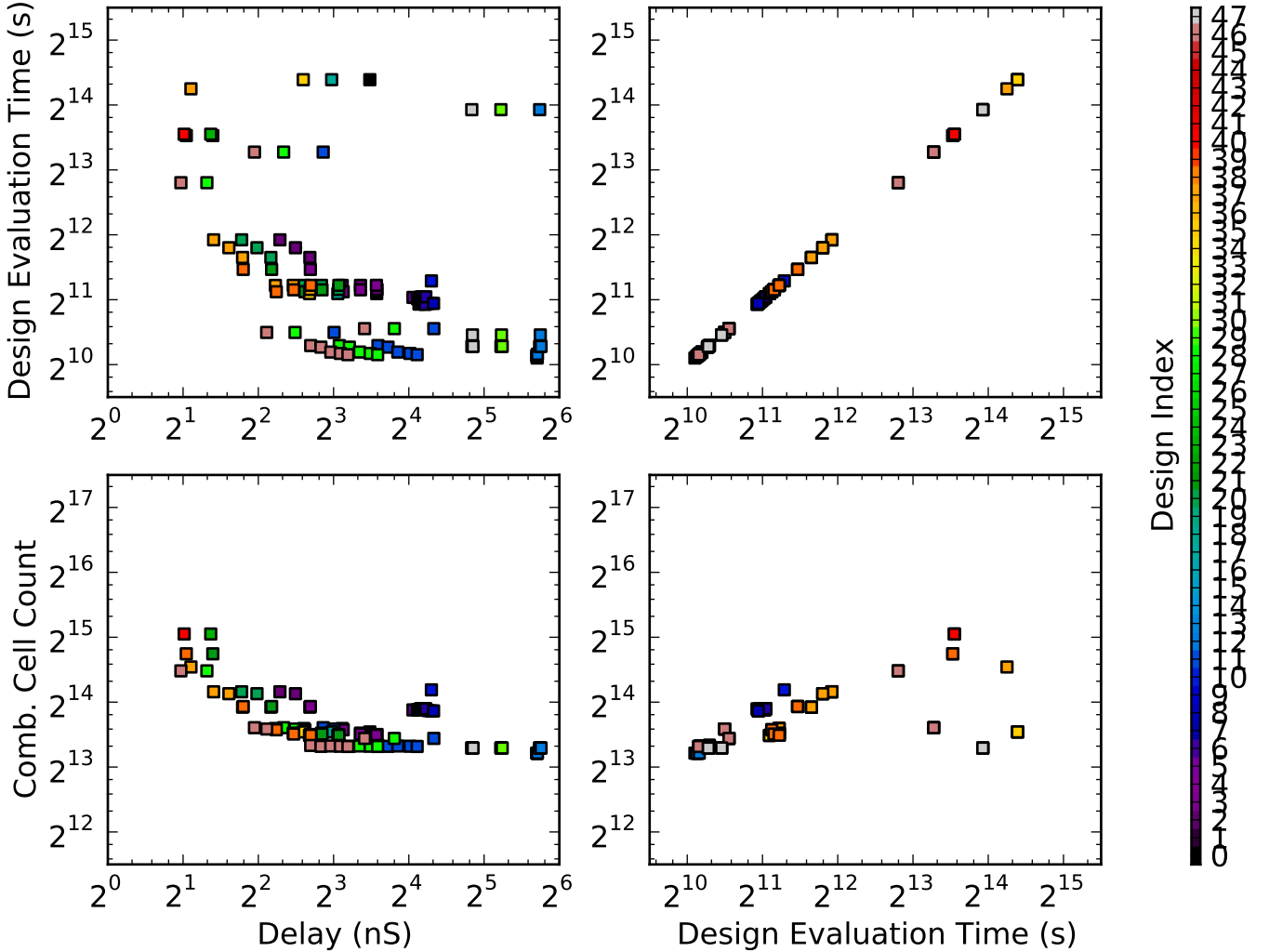
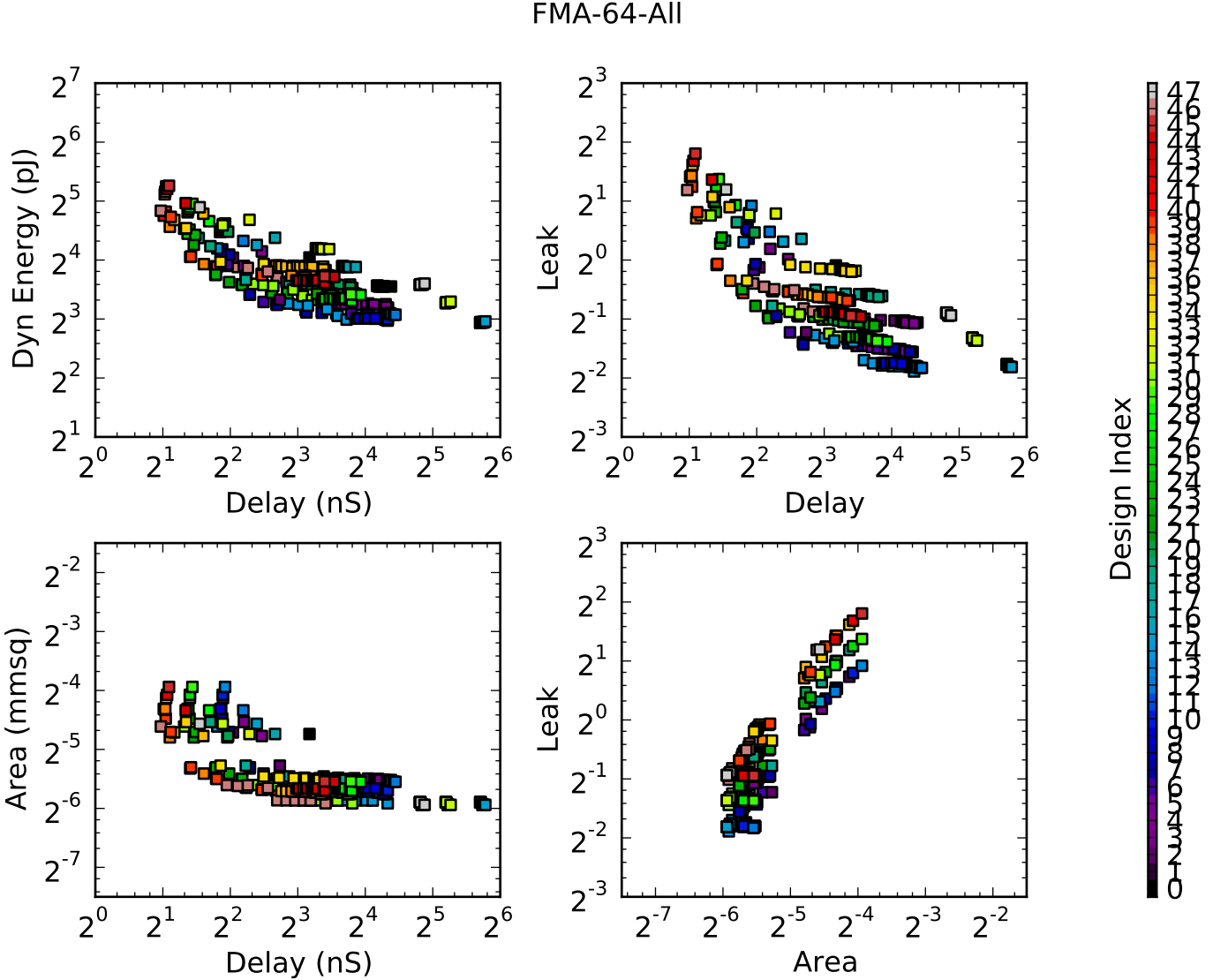
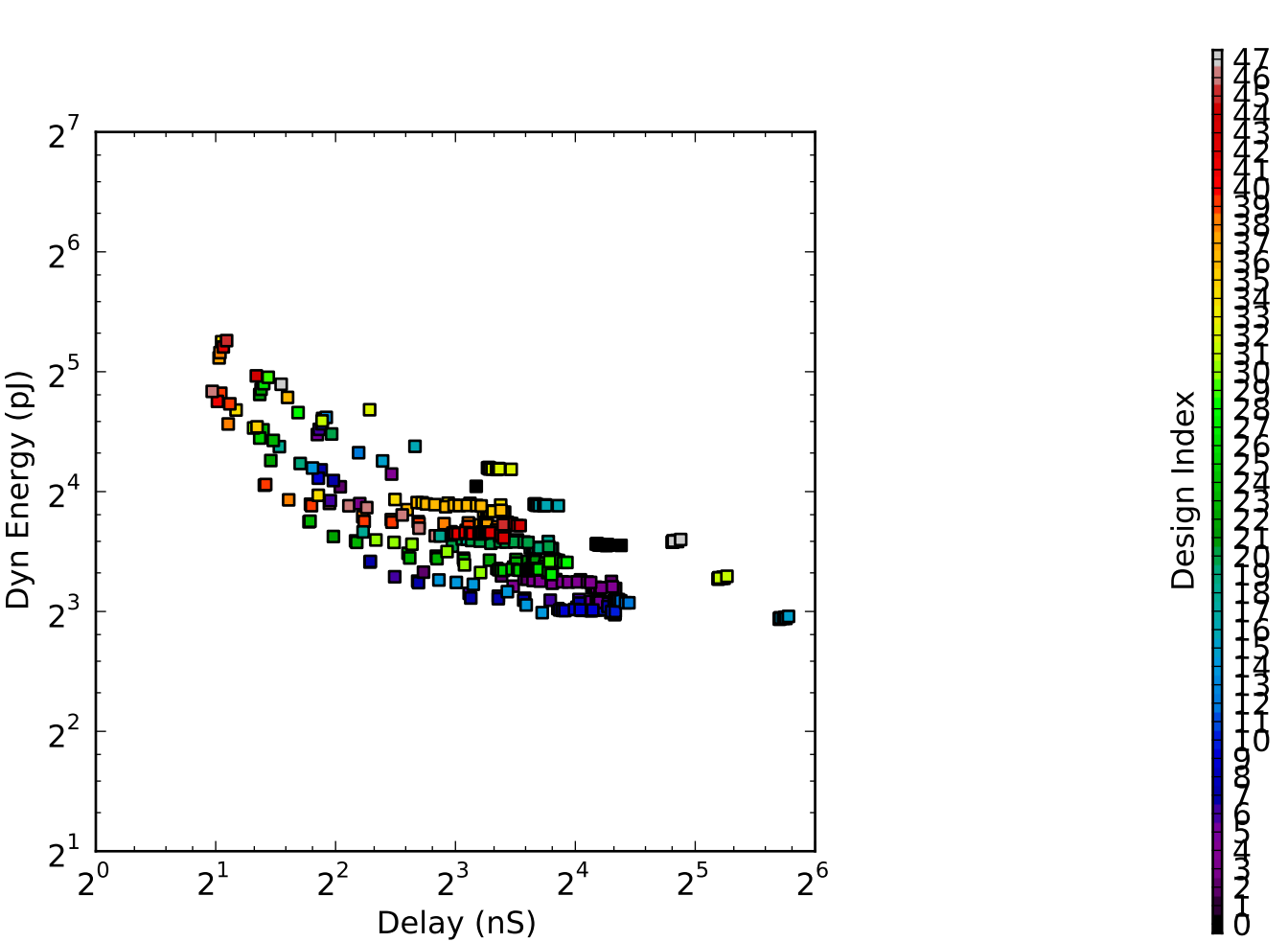
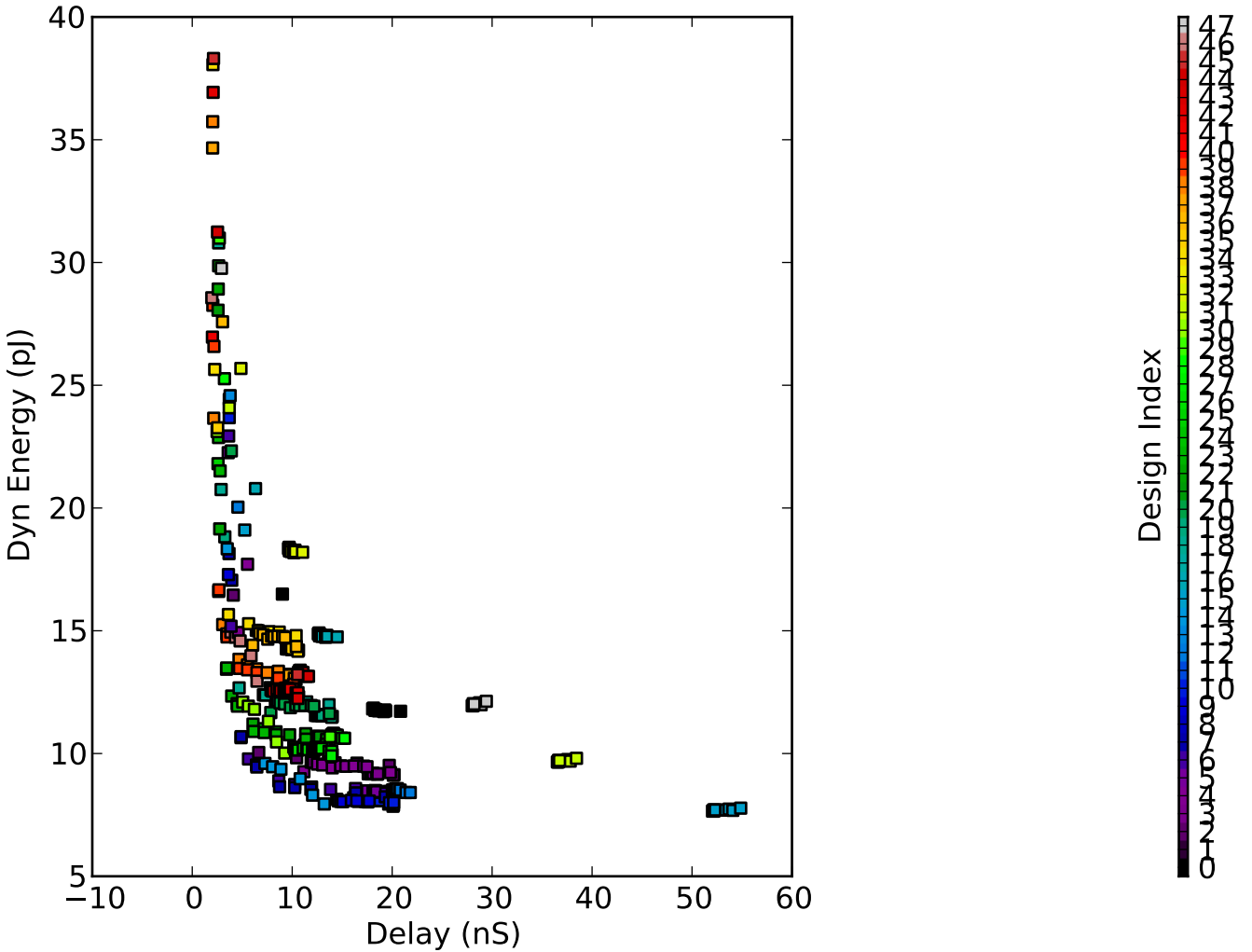
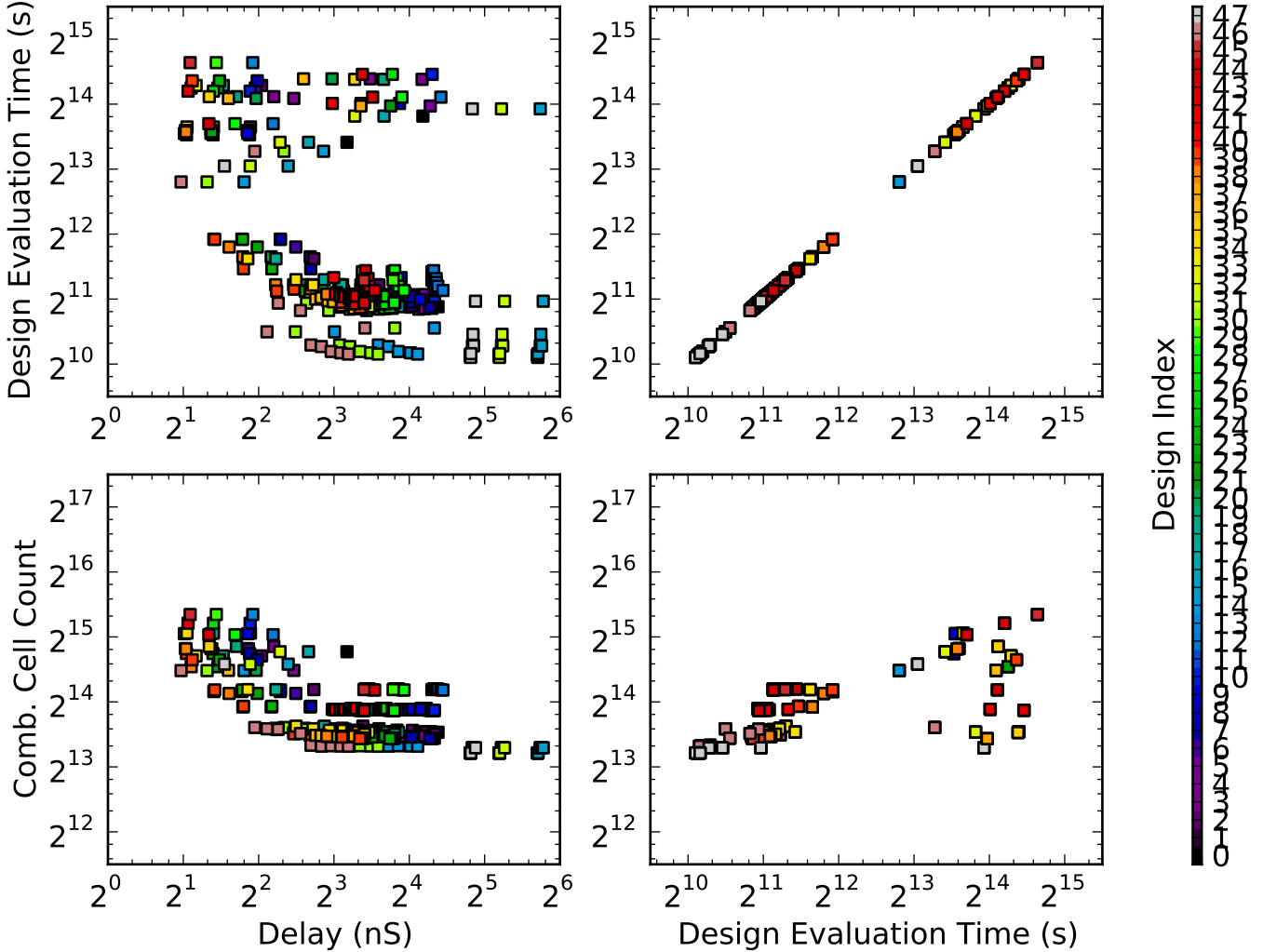
50
60
47
0


FMA-64-Pareto
Design Evaluation Time (s)
Comb. Cell Count
Delay (nS)
Design Evaluation Time (s)
Design Index


FMA-64-All
Dyn Energy (pJ)
Delay (nS)
Leak
Delay
Area (mmsq)
Delay (nS)
Leak
Area
Design Index


FMA-64-All
Dyn Energy (pJ)
Delay (nS)
Design Index


FMA-64-All
Dyn Energy (pJ)
Delay (nS)
Design Index


FMA-64-All
Design Evaluation Time (s)
Comb. Cell Count
Delay (nS)
Design Evaluation Time (s)
Design Index