SF2 RO PPA of SF/Intel methodology (vs. 04LPP)

- Difference between two methodology within 2%
  - SF also sees 1.12x freq@iso-power, 0.73x Power@iso-freq, 1.24x freq@iso-leakage in CH138 25NS with Vdd sweep

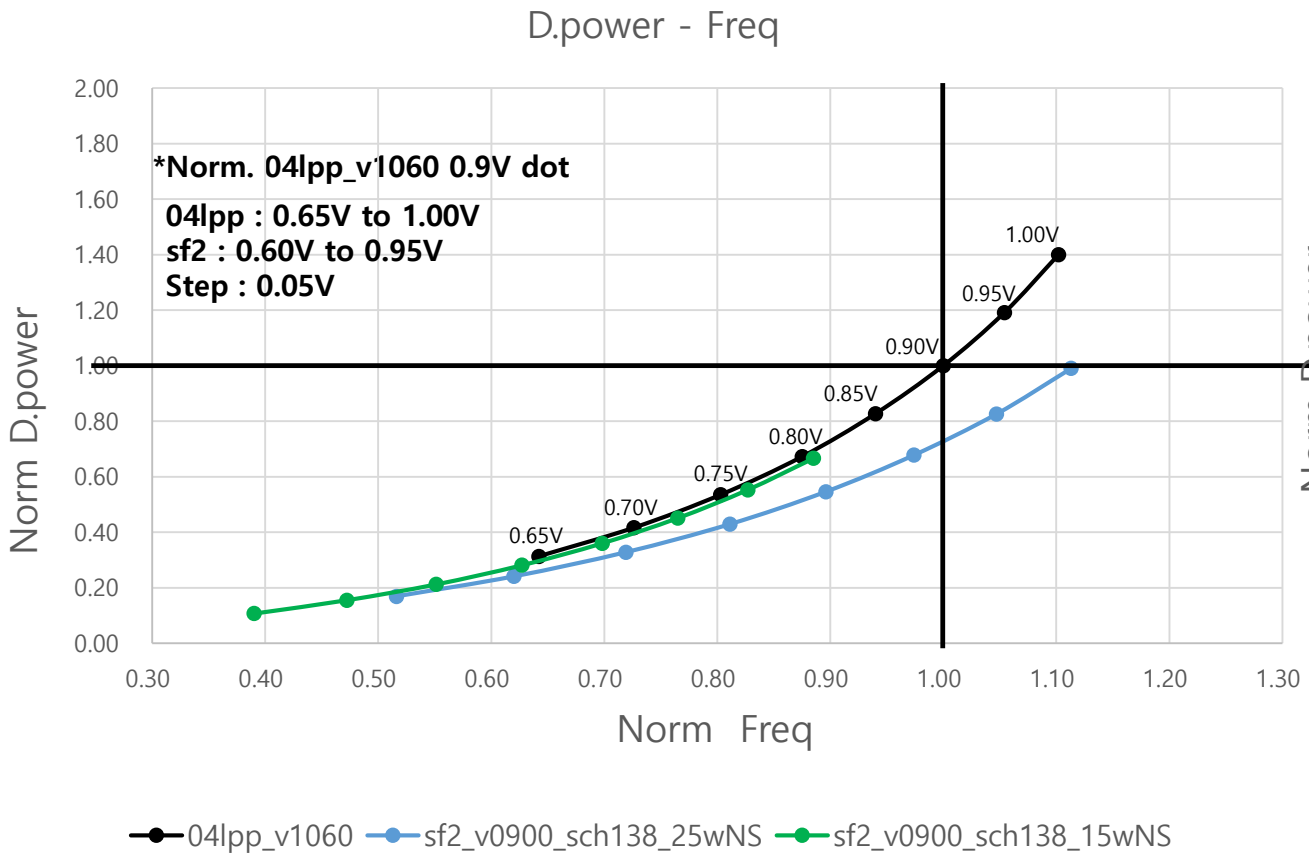
	Samsung	Intel
FoM Averaging	After Calculating gain of each of cells, and then average the FoM value	average each cells data at once
Freq@iso-leakage	universal curve @Vop	Vdd sweep

	PDK	04LPP		SF2			SF2				
		V1060	V1070	V0510			V0900				
	architecture	6.25T	6.25T	6.25T	6T	5.3T	6.25T	6T	5.3T	5T	5T
	cell height	200	200	200	168	148	200	168	148	138	138
	#fin, wNS	2	2	45	40	25	45	40	25	25	15
	Vnom[V]	0.75	0.75	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Samsung	Fmax@0.9V	1.00	0.95	1.27	1.21	1.03	1.26	1.21	1.04	1.05	0.83
	Fmax@Vop	1.00	0.95	1.15	1.09	0.90	1.12	1.07	0.90	0.90	0.69
	Ceff@Vop	1.00	1.02	1.16	1.05	0.80	1.16	1.04	0.80	0.79	0.67
	freq@iso-Leakage	1.00	0.95	1.06	1.06	0.94	1.08	1.07	0.96	0.96	0.83
	Dpower@iso-freq[norm. 0.75V]	1.00	1.11	0.85	0.83	0.81	0.88	0.84	0.80	0.79	0.96
	freq@iso-Dpower[norm. 0.75V]	1.00	0.96	1.08	1.09	1.09	1.06	1.08	1.10	1.11	1.02
	Dpower@iso-freq[norm. 0.9V]	1.00	1.16	0.76	0.75	0.76	0.79	0.76	0.75	0.73	0.90
	freq@iso-Dpower[norm. 0.9V]	1.00	0.96	1.11	1.12	1.10	1.10	1.11	1.11	1.12	1.05
Intel	Fmax@0.9V	1.00	0.95	1.27	1.21	1.03	1.25	1.21	1.04	1.05	0.83
	Fmax@Vop	1.00	0.95	1.14	1.08	0.90	1.12	1.06	0.90	0.90	0.69
	Ceff@Vop	1.00	1.02	1.17	1.06	0.81	1.18	1.06	0.81	0.80	0.67
	freq@iso-Leakage	1.00	0.96	1.05	1.05	0.94	1.07	1.06	0.96	0.96	0.83
	Dpower@iso-freq[norm. 0.75V]	1.00	1.11	0.86	0.82	0.80	0.88	0.84	0.79	0.78	0.94
	freq@iso-Dpower[norm. 0.75V]	1.00	0.96	1.07	1.09	1.10	1.06	1.08	1.10	1.11	1.02
	Dpower@iso-freq[norm. 0.9V]	1.00	1.16	0.76	0.74	0.75	0.78	0.75	0.74	0.72	0.90
	freq@iso-Dpower[norm. 0.9V]	1.00	0.96	1.11	1.12	1.10	1.10	1.11	1.11	1.12	1.06

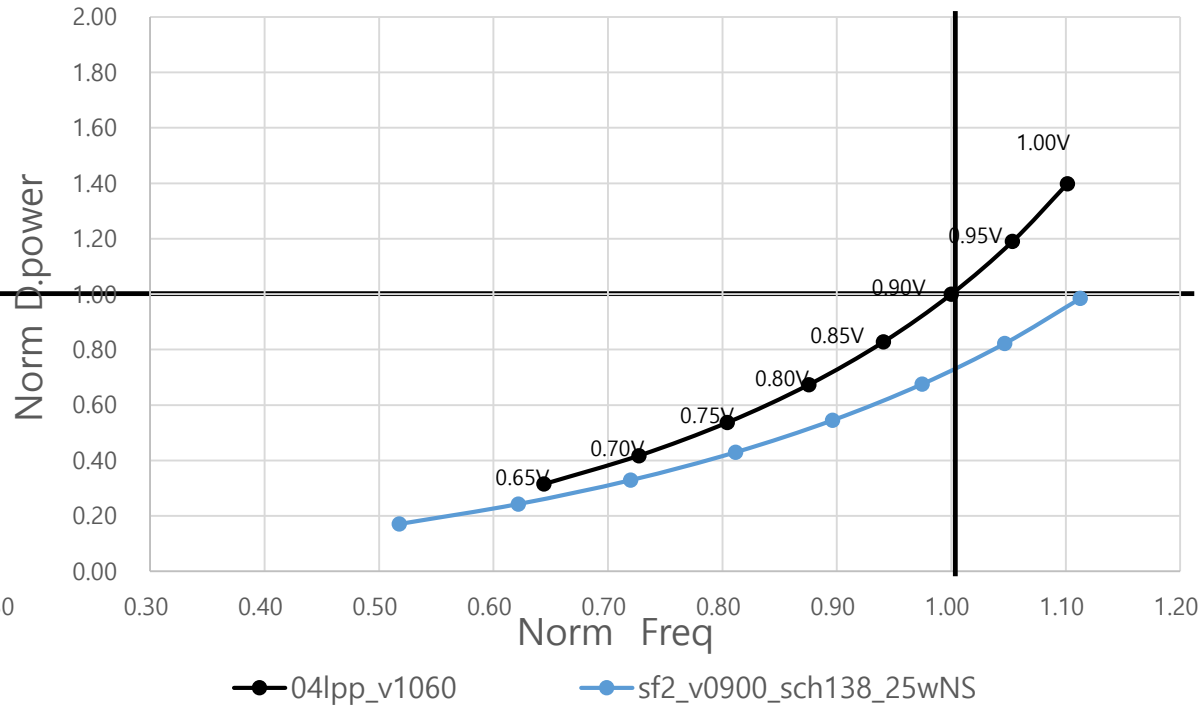
SF2 RO PPA of SF/intel methodology (vs. 04LPP)

- Comparison between D.power – Freq graphs

Samsung methodology

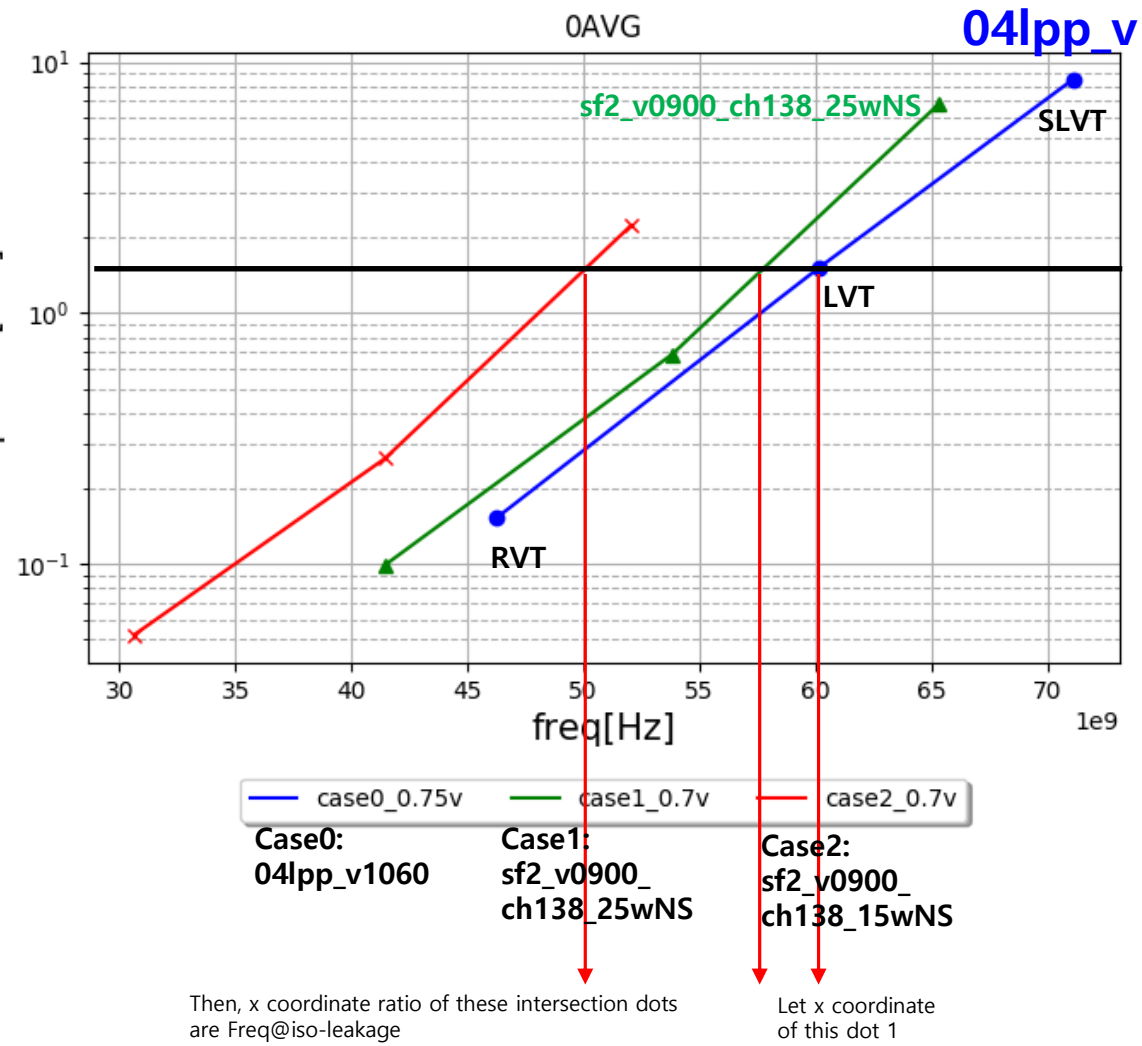


Intel methodology



SF2 RO PPA of SF/intel methodology (vs. 04LPP)

Samsung methodology



Intel methodology

Leakage - Freq