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ERRATUM

Hardware efficient fast computation of the discrete fourier transform

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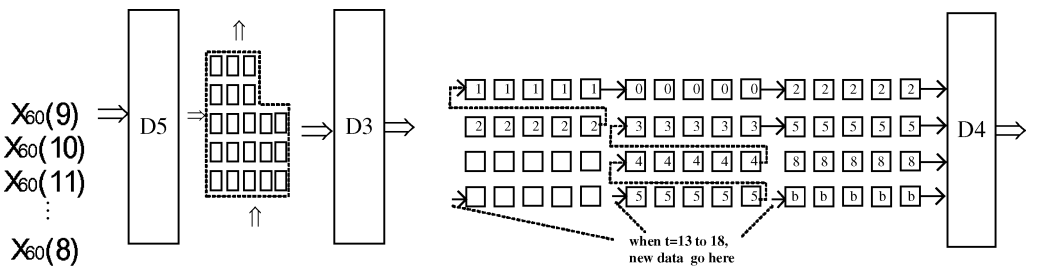
Abstract Typographical errors were printed in the print and online versions of the original article. The correct versions of Equation 25 (page 168), Figure 6(c) (page 169), and Table 2 (page 170) are printed below, respectively.

The online version of the original article can be found at
http://dx.doi.org/10.1007/s11265-005-4187-4

$$R.D. = 2\sum_{i=1}^{r-1}\left(\prod_{j=1}^{r} N_j\right) + \sum_{i=1}^{r} D(D_{Ni}) + 2|N_r - N_{r-1}| \cdot \min(N_{r-1}, N_r) \tag{25}$$



(c)

Figure 6. Data flow of proposed 60-point DFT.

Table 2. Comparison between proposed DFT structures and previous DFT design with computational complexity $O(\log N)$ in terms the number of required real multiplications *(R.M.)*, real additions *(R.A.)*, delay elements *(R.D.)* for real data and computation time cycles for a complete DFT (*R.T.*).

	DFT of $O(\log N)$ [6]				Proposed DFT structures				
	R.M.	*R.A.*	*R.D.*	*R.T.*		*R.M.*	*R.A.*	*R.D.*	*R.T.*
N	*R.M./N*	*R.A./N*	*R.D./N*	*R.T./N*	*N*	*R.M./N*	*R.A./N*	*R.D./N*	*R.T./N*
16	16	24	38	16	20	8	34	80	8
	1	1.5	2.4	1	(4×5)	0.4	1.7	4	0.4
32	20	30	72	32	28	12	38	132	12
	0.625	0.94	2.26	1	(4×7)	0.429	1.375	4.7	0.43
64	24	36	138	64	60	12	48	202	24
	0.375	0.56	2.2	1	(4×3×5)	0.24	0.8	3.4	0.40
128	28	42	266	128	140	20	56	454	60
	0.22	0.33	2.1	1	(4×5×7)	0.143	0.4	3.24	0.43
256	32	48	526	256	280	24	92	734	120
	0.125	0.188	2.12	1	(8×5×7)	0.086	0.33	2.62	0.43
512	36	54	1040	512	660	32	78	1956	300
	0.07	0.106	2.04	1	(4×3×5×11)	0.049	0.118	2.96	0.45
1024	40	60	2066	1024	1540	40	86	4336	700
	0.039	0.059	2.02	1	(4×5×7×11)	0.026	0.056	2.8	0.45
2048	44	66	4166	2048	3080	44	122	7316	1400
	0.022	0.032	2.01	1	(8×5×7×11)	0.014	0.04	2.375	0.45