

GDD600 Benchmarks.txt

// GDD600 benchmarks CPU = C6416 600MHz
 // T in cycles
 // fastrts64x has been modified to correct results of multiplication
 // by 0.0e0
 // GDD floating-point simulation math results have all correct bits and
 // coincide with results obtained on a C67xx. TI's fastmath routines
 // have less correct bits in results.

// TRANSFORMS ----- GDD math fastrts64x*

cfftinit ()	m = 10	T = 25940	T = 18835
cfft ()	m = 10	T = 1142706	T = 1391654
cfft ()	m = 10	T = 1063491	T = 1389905
cfftbr ()	m = 10	T = 1148855	T = 1410726
cfftbr ()	m = 10	T = 1058602	T = 1392097
rfftinit ()	m = 10	T = 147057	T = 104246
rfft ()	m = 10	T = 558048	T = 667979
rfft ()	m = 10	T = 530722	T = 685389
fhtinit ()	m = 10	T = 146989	T = 104219
fht ()	m = 10	T = 568096	T = 720796
fht2fft ()	m = 10	T = 49118	T = 64975
fft2fht ()	m = 10	T = 27780	T = 34423
fctinit ()	m = 10	T = 671771	T = 460596
fctf ()	m = 10	T = 747499	T = 762840
fcti ()	m = 10	T = 1007375	T = 702206

// DSP -----

autocov ()	n = 512 m = 1024	T = 46720255	T = 35201854
crosscov ()	n = 512 m = 1024	T = 50687051	T = 35203658
di ffeq ()	n = 1024 k = 10 m = 10	T = 1693159	T = 1287906
di ffeq22 ()	n = 1024	T = 365146	T = 291945
convoltn ()	n = 1024 m = 512	T = 49414326	T = 35213759
decmfir ()	n = 1024 p = 1 m = 256	T = 24575975	T = 17618003
x20db ()	n = 1024	T = 1218280	T = 847023
hist ()	n = 1024 kp2 = 102	T = 1392532	T = 1385663
expavrg ()	n = 1024	T = 131821	T = 95912
linavrg ()	n = 1024	T = 139468	T = 95386
hanning2 ()	n = 1024	T = 482812	T = 293536
hamming2 ()	n = 1024	T = 429663	T = 294068
blackmn2 ()	n = 1024	T = 527505	T = 357376
bartlet2 ()	n = 1024	T = 84448	T = 55350
parzen2 ()	n = 1024	T = 142060	T = 96467
welch2 ()	n = 1024	T = 164582	T = 112332
autospec ()	n = 1024	T = 175603	T = 130230
crosspec ()	n = 1024	T = 380408	T = 258615
coherfct ()	n = 1024	T = 267969	T = 181970
transfct ()	n = 1024	T = 174631	T = 118309

// REAL VECTORS -----

isamax ()	n = 1024	T = 30134	T =
isamin ()	n = 1024	T = 29746	T =
ismax ()	n = 1024	T = 30722	T =
ismin ()	n = 1024	T = 33721	T =
sasum ()	n = 1024	T = 51890	T = 35909
svsum ()	n = 1024	T = 52732	T = 35916
snrm2 ()	n = 1024	T = 88045	T = 68591
scopy ()	n = 1024	T = 1113	T =
sswap ()	n = 1024	T = 2479	T =

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sfill	()	n = 1024	T = 843	T =
sdot	()	n = 1024	T = 94837	T = 64608
saxpy2	()	n = 1024	T = 94270	T = 63554
sscal2	()	n = 1024	T = 48185	T = 34881
sshift2	()	n = 1024	T = 53312	T = 35904
svadd2	()	n = 1024	T = 52291	T = 34883
svsub2	()	n = 1024	T = 54196	T = 37956
svmpy2	()	n = 1024	T = 49219	T = 35930
svdiv2	()	n = 1024	T = 87099	T = 58424
srotg	()	n = 1024	T = 2336	T = 1755
srot2	()	n = 1024	T = 280697	T = 193612

// COMPLEX VECTORS -----

icamax	()	n = 1024	T = 61924	T =
icamin	()	n = 1024	T = 61494	T =
scasum	()	n = 1024	T = 98362	T = 63592
cvsum	()	n = 1024	T = 98334	T = 63564
scnrm2	()	n = 1024	T = 191669	T = 129990
ccopy	()	n = 1024	T = 1151	T =
cswap	()	n = 1024	T = 3593	T =
cfill	()	n = 1024	T = 1107	T =
cdotc	()	n = 1024	T = 400571	T = 277771
cdotu	()	n = 1024	T = 412835	T = 277725
caxpy2	()	n = 1024	T = 363683	T = 265340
caxcpy2	()	n = 1024	T = 363677	T = 333932
cscal2	()	n = 1024	T = 261212	T = 190540
csscal2	()	n = 1024	T = 91204	T = 64570
cshift2	()	n = 1024	T = 97346	T = 62516
cvadd2	()	n = 1024	T = 99462	T = 64635
cvsub2	()	n = 1024	T = 103567	T = 70783
cvmpy2	()	n = 1024	T = 294017	T = 204909
cvdiv2	()	n = 1024	T = 588981	T = 401585
crotg	()	n = 1024	T = 3780	T = 2817
csrot2	()	n = 1024	T = 563649	T = 389568

// DATA CONVERSIONS -----

dec2plr	()	n = 1024	T = 2589521	T = 2073279
plr2dec	()	n = 1024	T = 1666199	T = 1449568
r2cmplx	()	n = 1024	T = 3741	T =
cmplx2r	()	n = 1024	T = 3301	T =
IEEE754_2_Q12	()	n = 1024	T = 76870	T = 54347
Q12_2_IEEE754	()	n = 1024	T = 73994	T = 50441
IEEE754_2_Q15	()	n = 1024	T = 76864	T = 54333
Q15_2_IEEE754	()	n = 1024	T = 73788	T = 50235
IEEE754_2_INT8	()	n = 1024	T = 75826	T = 53306
INT8_2_IEEE754	()	n = 1024	T = 72769	T = 49216
IEEE754_2_INT16	()	n = 1024	T = 75839	T = 53312
INT16_2_IEEE754	()	n = 1024	T = 72752	T = 49202
IEEE754_2_INT32	()	n = 1024	T = 75832	T = 53312
INT32_2_IEEE754	()	n = 1024	T = 72945	T = 49386

// SCALAR OPERATIONS -----

pythag	()		T = 1394	T = 1086
ibitrn32	()		T = 40	T =
cabs1	()		T = 77	T = 63
cabs2	()		T = 1313	T = 1141
conj	()		T = 24	T =

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csroot	()		T = 2765	T = 2381
csign	()		T = 2907	T = 2367
cadd	()		T = 136	T = 93
ccadd	()		T = 146	T = 105
caddc	()		T = 139	T = 98
csub	()		T = 147	T = 115
ccsub	()		T = 146	T = 116
csubc	()		T = 138	T = 105
cmpy	()		T = 336	T = 241
ccmpy	()		T = 329	T = 248
cmpyc	()		T = 329	T = 241
cmac	()		T = 420	T = 293
ccmac	()		T = 427	T = 304
cmacc	()		T = 414	T = 300
cdi v	()		T = 727	T = 538
ccd i v	()		T = 738	T = 552
cdi vc	()		T = 720	T = 529
cpowi	()		T = 1789	T = 1333 (arg > 0)
cpowi	()		T = 2298	T = 1755 (arg < 0)
cpowf	()		T = 6829	T = 5315
cpowz	()		T = 7507	T = 5808
cl og	()		T = 3870	T = 2926
cexp	()		T = 2811	T = 2198
csi n	()		T = 5023	T = 3763
ccos	()		T = 4883	T = 3678

// LIMITS -----

vcl ip2	()	n = 1024	T = 29766	T =
vthresh2	()	n = 1024	T = 31800	T =

// MISC FUNCTIONS -----

sbitrv32	()	m = 10	T = 1884	T =
sbrcpy32	()	m = 10	T = 1607	T =
sscal rp2	()	m = 10	T = 42036	T = 36915
svneg2	()	n = 1024	T = 1190	T =
svsqr2	()	n = 1024	T = 982117	T = 474153
svabs2	()	n = 1024	T = 1170	T =
svrcpr2	()	n = 1024	T = 38977	T = 57429
smach	()		T = 22	T =

// complex data functions

cbitr32	()	m = 10	T = 3090	T =
cbrcpy32	()	m = 10	T = 1738	T =
cscal rp2	()	m = 10	T = 75835	T = 67635
cvconj 2	()	n = 1024	T = 1634	T =
cvneg2	()	n = 1024	T = 1656	T =
cvmagn	()	n = 1024	T = 1151109	T = 980040
cvrcpr2	()	n = 1024	T = 308329	T = 212068
cmach	()		T = 22	T =

// DATA GENERATION -----

sinwave	()	m = 10	T = 26493	T = 28760
coswave	()	m = 10	T = 27741	T = 20630
rndvect	()	n = 1024	T = 133150	T = 117890
set_seed	()		T = 66	T =
get_seed	()		T = 56	T =
get_rmx	()		T = 10	T =

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i random	()	T = 48	T =
srandom	()	T = 107	T =
urandom	()	T = 242	T = 192



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