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| 函数名称 | 功能描述 | CPU | 阵列控制器 |
| CPU |  | Xeon 2.0 | Intel 80321 |
| Memory |  | 512MB | 1GB |
| Fiber Channel HBA |  | Qlogic 23102G | Agilent DX2 |
| OS |  | Windows 2003 | ARM Linux |

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| 函数名称 | 函数描述 | CPU | 阵列控制器 |
| CUDA\_FFDST |  | Xeon 2.0 | Intel 80321 |
| CUDA\_PBF4 |  | 512MB | 1GB |
| CUDA\_PBF8\_SK |  | Qlogic 23102G | Agilent DX2 |
| CUDA\_PBF8\_MS |  | Windows 2003 | ARM Linux |
| CUDA\_PBF8\_SK |  |  |  |
| CUDA\_PBF16\_MS |  |  |  |
| CUDA\_PBF16\_SK |  |  |  |
| CUDA\_PBF8\_MS |  |  |  |
| CUDA\_PBF8\_SK |  |  |  |
| CUDA\_PBF8\_MS |  |  |  |

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| 测试环境项 | 测试环境值 |
| CPU | Intel i5-4210H 2.9GHz |
| GPU | NVDIA GTX860M |
| 操作系统 | Window8.1 64位专业版 |
| 编码总帧数 | 60 |
| 编译环境 | Visual Studio 2017 |

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| 函数名称 | 功能描述 | 线程块 | 线程数 | 理论并行度 |
| CUDA\_FFDST | CUDA快速离散正弦变换 | 1 | 16 | 16 |
| CUDA\_PBF4 | CUDA 4×4蝶形变换 | 1 | 8 | 8 |
| CUDA\_PBF8\_SK | CUDA 8×8单核函数蝶形变换 | 1 | 64 | 64 |
| CUDA\_PBF8\_MS | CUDA 8×8多核函数蝶形变换 | 1 | 64 | 64 |
| CUDA\_PBF16\_MS | CUDA 16×16单核函数蝶形变换 | 8 | 16 | 128 |
| CUDA\_PBF16\_SK | CUDA 16×16多核函数蝶形变换 | 16 | 16 | 256 |
| CUDA\_PBF32\_MS | CUDA 32×32单核函数蝶形变换 | 16 | 32 | 512 |
| CUDA\_PBF32\_SK | CUDA 32×32多核函数蝶形变换 | 32 | 32 | 1024 |

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| 函数名称 | 功能描述 | 线程块 | 线程数 | 理论并行度 |
| CUDA\_HAD4 | CUDA 4×4哈达玛失真 | 1 | 16 | 16 |
| CUDA\_HAD8 | CUDA 8×8哈达玛失真 | 1 | 64 | 64 |
| CUDA\_PIA | CUDA 预测值计算 | 1 | （64，64） | 4096 |
| CUDA\_Intra | CUDA 模块整体优化 | 35 | 1 | 35 |
| CUDA\_Intra  +CUDA\_HAD4 | CUDA 模块整体优化  +4×4哈达玛失真 | （35，64） | 16 | 35840 |
| CUDA\_Intra  +CUDA\_HAD8 | CUDA 模块整体优化  +8×8哈达玛失真 | （35，64） | 64 | 143360 |
| CUDA\_Intra  +CUDA\_PIA | CUDA 模块整体优化  +预测值计算 | （35） | （64，64） | 143360 |

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| 函数名 | 理论并行度 | 平均加速比 |
| CUDA\_HADs\_Z | 32 | 1.158 |
| CUDA\_HADs\_D | 64 | 1.2655 |

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| 函数名 | 理论并行度 | 平均加速比 |
| CUDA\_HADs | 64 | 1.2655 |
| CUDA\_HADs\_MA | 143360 | 9.1975 |
| CUDA\_PIA | 4096 | 1.1095 |
| CUDA\_PIA\_MA | 143360 | 1.7836 |

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| 函数名 | 理论并行度 | 平均加速比 |
| CUDA\_PBF32\_SK | 512 | 8.1153 |
| CUDA\_PBF32\_MS | 1024 | 5.505 |

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| 函数名 | 理论并行度 | 平均加速比 |
| CUDA\_PBF32\_SK | 512 | 8.1153 |
| CUDA\_PBF16\_SK | 128 | 1.7448 |
| CUDA\_PBF8\_SK | 64 | 1.4106 |
| CUDA\_PBF4 | 8 | 1.2092 |

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| 函数名 | 理论并行度 | 平均加速比 |
| CUDA\_HADs\_Z | 32 | 1.158 |
| CUDA\_HADs\_D | 64 | 1.2655 |

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| 函数名 | 理论并行度 | 平均加速比 |
| CUDA\_HADs\_Z | 32 | 1.158 |
| CUDA\_HADs\_D | 64 | 1.2655 |

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| 测试序列 | CUDA\_HADs\_Z | 平均加速比 |
| CUDA\_HADs\_Z | 32 | 1.158 |
| CUDA\_HADs\_D | 64 | 1.2655 |