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| **苏州中德睿博智能科技有限公司** |
| 时间同步器规格书 |
| RS-TS5时间同步器 |



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* 输入输出脉冲参数通串口可调
* 同时支持八路信号同步
* 同时支持内部、外部脉冲触发，无外部脉冲时自动切换内部脉冲触发
* 低频率误差，误差不大于10PPM
* 同步精度小于5us

2.2. 模块系统参数

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| 参数名称 | 参数值 | 描述 |
| 输入脉冲特性 | 输入脉冲范围 | 0~10hz |
| 输入电平类型 | TTL电平（0-3.3V) |
| 电平保持时间 | >1ms |
| 输出脉冲特性 | 输出脉冲范围 | 1~4000hz |
| 输出电平类型 | TTL电平（0-3.3V) |
| 电平保持时间 | >250us |
| 同步特性 | 输入-输出同步精度 | <5us |
| 输出-输出同步精度 | <5us |
| 内部频率稳定性 | ±10ppm |
| 环境特性 | 工作温度范围 | -40℃~+85℃ |
| 存储温度范围 | -45℃~+85℃ |
| 湿度范围 | 0~95% |
| 抗振动、抗冲击 | IEC 60068-2-6:2007IEC 60068-2-27:2008 |
| 防水防尘 | IP63 |

2.3. 接口描述2.4. 引脚定义

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| **引脚号** | **定义** | **输入/输出** | **描述** |
| **1** | RESERV | IN | 内部保留 |
| **2** | GND | OUT | 电源地 |
| **3** | GND | OUT | 电源地 |
| **4** | GND | OUT | 电源地 |
| **5** | GND | OUT | 电源地 |
| **6** | GND | OUT | 电源地 |
| **7** | GND | OUT | 电源地 |
| 8 | GND | OUT | 电源地 |
| **9** | GND | OUT | 电源地 |
| **10** | GND | OUT | 电源地 |
| **11** | TXD | OUT | 参数配置串口发 |
| **12** | GND | OUT | 电源地 |
| **13** | 5V | IN | 电源正 |
| **14** | RXD | IN | 参数配置串口收 |
| **15** | CH1 | OUT | 同步输出1 |
| **16** | CH2 | OUT | 同步输出2 |
| **17** | CH3 | OUT | 同步输出3 |
| **18** | CH4 | OUT | 同步输出4 |
| **19** | CH5 | OUT | 同步输出5 |
| **20** | CH6 | OUT | 同步输出6 |
| **21** | CH7 | OUT | 同步输出7 |
| **22** | CH8 | OUT | 同步输出8 |
| **23** | PPS | IN | PPS输入 |
| **24** | RESERV | OUT | 内部保留 |

2.5. 电气参数* 供电电压：DC5V±5%
* 整机功耗：<1W
* 输出脉冲最大电流：<5MA
* 测量状态平均电流：<80mA(5V供电)

典型应用* 基于GNSS的1PPS的多频率信号生成；
* 多传感器同步采集；
* 多设备时间同步；

机械尺寸（单位：毫米）结构尺寸：48\*45\*18.5 交付清单1. 同步采集器盒子

2.外部连接线重要声明⚫ 中德睿博保留对本说明书中所有内容的最终解释权及修改权。 ⚫ 由于随着产品的硬件及软件的不断改进，本说明书可能会有所更改，恕不另行告知，最终应以最新版的说明书为准。 修订历史

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| 版本 | 修订日期 | 修订说明 |
| V1.0 | 2023.05.21 | 初始版本 |
| V1.1 | 2023.08.16 | 修改外壳尺寸和接口 |

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