



ISSN 1002-2279

CN 21-1216/TP

# 微处理机

## MICROPROCESSORS

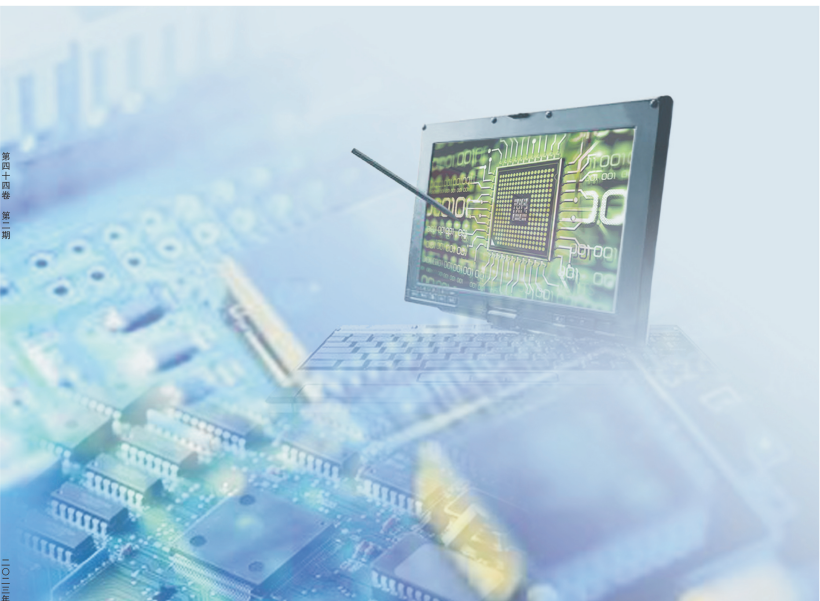
2  
第44卷  
2023

中国期刊全文数据库 | 中国学术期刊(光盘版) | 中国核心期刊遴选数据库 | 万方数据库 |  
中国学术期刊综合评价数据库 | 《CAJ-CD规范》执行优秀期刊 | 维普数据库 | 《中国电子科技文摘》 |

微  
处  
理  
机

第  
四  
十  
四  
卷  
第  
二  
期

中  
国  
电  
子  
科  
技  
集  
团  
公  
司  
第  
四  
十  
七  
研  
究  
所  
主  
办



ISSN 1002-2279



中国电子科技集团公司第四十七研究所主办

目 次

·大规模集成电路设计、制造与应用·

一种低功耗无片外电容低压差线性稳压器设计  
.....任 建,袁 申,辛晓宁,姜 龙(1)

宽输入高抑制比带隙基准电路设计  
.....孙宏建,张锦龙,霍建龙,朱锦程,赵 媛,赵浩生,阮 昊(5)

一种负反馈式双极结型晶体管工艺实现  
.....王 莉,宋文斌,刘盛意,徐晓萍,刘中湘,方文远(9)

一种可校准的高精度低温漂 RC 振荡器的设计  
.....朱恒军,潘靖雪,康嘉浩,杨 轲,徐 正(13)

3D NAND flash 存储器总剂量效应研究  
.....朱晓锐,唐 越,邓玉良,殷中云,陈剑锋,方晓伟(19)

一种增益可调的集成运算放大器设计  
.....吴颖莹,阮 昊,霍建龙(23)

超级结MOSFET 特性仿真分析  
.....王卉如,张治国,祝永峰,贾文博,李 颖,任向阳,钱薪竹(27)

一种可编程双向过流检测电路设计  
.....林雨佳,张 丹(31)

C8051F005 微控制器功耗管理技术研究  
.....徐宏祥(35)

·微机软件·

基于随机森林和深度神经网络的药物 ADMET 性质预测  
.....王肖成,阮 昊,鹏奕锟,李成堃,陈 雪(39)

基于改进小波函数的虹膜识别算法  
.....王 义,田小情,郑 悦(44)

基于多目标优化算法的多相机视频浓缩  
.....刘鹏飞,李捍东(48)

基于深度学习的交通流预测  
.....付宗强,马先进,刘文杰,张盛春,赵采芹(52)

·微机应用·

基于西门子 PLC 的自动化立体仓库系统设计与仿真  
.....胥远兴(56)

空管设备运维管理系统设计与应用  
.....张 跃,张 雷,王笑怡,吴全兴(61)

# MICROPROCESSORS

No.2 2023

Vol.44

Total 218

---

## CONTENTS

### Large Scale Integrated Circuit Design, Manufacture and Application

- Design of a Low-Power LDO Linear Regulator without Off-Chip Capacitor  
.....REN Jian, YUAN Shen, XIN Xiaoning, JIANG Long( 1 )
- Design of Bandgap Reference Circuit with Wide Input and High Rejection Ratio  
.....SUN Hongjian, ZHANG Jinlong, HUO Jianlong, ZHU Jincheng, ZHAO Yuan, ZHAO Haosheng, RUAN Hao( 5 )
- Process Implementation of a Negative Feedback Bipolar Junction Transistor  
.....WANG Li, SONG Wenbin, LIU Shengyi, XU Xiaoping, LIU Jinxiang, FANG Wenyuan( 9 )
- Design of a Calibratable High Precision Low Temperature Drift RC Oscillator  
.....ZHU Hengjun, PAN Jingxue, KANG Jiahao, YANG Ke, XU Zheng( 13 )
- Study on Total Ionizing Dose Effects of 3D NAND Flash Memory  
.....ZHU Xiaorui, TANG Yue, DENG Yuliang, YIN Zhongyun, CHEN Jianfeng, FANG Xiaowei( 19 )
- Design of an Integrated Operational Amplifier with Adjustable Gain  
.....WU Jiongying, RUAN Hao, HUO Jianlong( 23 )
- Simulation and Analysis of Characteristics of a Super Junction MOSFET  
.....WANG Huiru, ZHANG Zhiguo, ZHU Yongfeng, JIA Wenbo, LI Ying, REN Xiangyang, QIAN Xinzhu( 27 )
- Design of a Programmable Bidirectional Overcurrent Detection Circuit  
.....LIN Yujia, ZHANG Dan( 31 )
- Research on Power Consumption Management Technology of Microcontroller C8051F005  
.....XU Hongxiang( 35 )

### Computer Software

- Prediction of Drug ADMET Properties Based on Random Forest and Deep Neural Network  
.....WANG Xiaocheng, RUAN Hao, PENG Yikun, LI Chengkun, CHEN Xue( 39 )
- Iris Recognition Algorithm Based on Improved Wavelet Function  
.....WANG Yi, TIAN Xiaoqing, ZHENG Yue( 44 )
- Multi-Camera Video Concentration Based on Multi-Objective Optimization Algorithm  
.....LIU Pengfei, LI Handong( 48 )
- Traffic Flow Prediction Based on Deep Learning  
.....FU Zongqiang, MA Xianjin, LIU Wenjie, ZHANG Shengchun, ZHAO Caiqin( 52 )

### Computer Application

- Design and Simulation of Automated Storage and Retrieval Systems Based on Siemens PLC  
.....XU Yuanxing( 56 )
- Design and Application of Air Traffic Control Equipment Operation and Maintenance Management System  
.....ZHANG Yue, ZHANG Lei, WANG Xiaoyi, WU Quanxing( 61 )