SILICON INTERNET OF THINGS TECHNOLOGY

LIN

RS232

CAN

CANFD

RS422

RS485

芯力特电子科技有限公司
SILICON INTERNET OF THINGS TECHNOLOGY CO., LTD

关于我们
ABOUT US

芯力特车载CAN/CAN FD/LIN系列芯片

SIT1042
SIT1043
SIT1021
SIT1028

AVAS-低速提示音
车机导航
ADAS-驾驶辅助

BMS-锂电管理

SIT1044T

TBOX-车载终端

BCM-车身控制

OBD-在线诊断

PEPS-无钥匙系统
氛围灯控制

OBC-车载充电机

芯力特电子科技有限公司 是由多名在海外有多年留学和工作经验的归国学者及东南大学"国家ASIC中心"等博士共同创办的集成电路设计企业，被认定为"国家高新技术企业"、"科技部中小企业"，通过ISO9001国际质量体系认证、欧盟CE认证，拥有授权国家发明专利十余项。

Silicon Internet of Things Technology Co., Ltd. is an integrated circuit design enterprise founded by a number of returned scholars with many years of overseas study and doctors from the National ASIC Center of Southeast University. It is recognized as "National High-tech Technology Enterprise" and "Small and Media-Sized Enterprises of the Ministry of Science and Technology", our company has passed the ISO9001 international quality system certification, has acquired CE certification of EU and has authorized more than 10 national invention patents.

芯力特专业从事面向工业与汽车电子领域芯片设计。目前研发产品主要围绕以下系列展开：CAN总线接口芯片系列，CAN FD总线接口芯片系列，LIN 总线接口芯片系列，RS485总线接口芯片系列，RS422总线接口芯片系列，RS232总线接口芯片系列。在通讯接口芯片这一细分领域，芯力特以聚焦的态度、专业的技术、齐全的系列，获得市场的极大关注与客户的共同认可，已成为工业与车载通讯接口芯片领域的知名模拟IC厂商。

Silicon specializes in chip design for the industrial and automotive electronics field. Currently, our products are mainly researched and developed around the following series: CAN bus interface chip series, CAN FD bus interface chip series, LIN bus interface chip series, RS485 bus interface chip series, RS422 bus interface chip series, RS232 bus interface chip series. With the focused attitude, professional technology and complete series, Silicon has won great attentions from the markets and recognition form the customers in the subdivided field of communication interface chips, and has become a well-known analogy IC manufacture in the field of the industrial and automotive communication interface chips.

芯力特在国内率先突破芯片级集成抗雷击器件的关键技术并产业化；抗雷击RS485芯片产品由中国半导体行业协会评选为"第十一届（2016年度）中国半导体创新产品"，带休眠与唤醒功能的高性能CAN总线系列芯片SIT1040获得2019年度"中国芯"优秀技术创新产品，核心技术获得市科技进步奖，车载本地互联网络LIN收发器芯片SIT1021获得2021年度"中国芯"优秀技术创新产品。芯力特将不断耕耘工业和车载领域，开发出更多更高水平的模拟芯片。

Silicon is the first company in China to have the breakthrough in the core technology of chip-level integrated lightning prevention devices and have industrialized it; the lightning prevention RS485 chip product was evaluated by China Semiconductor Industry Association as the "11th (2016) China Semiconductor Innovative Product", the chip SIT1040 from the CAN bus series with high performance in hibernation and the waking function has won the 2019 "China Chips" outstanding technological innovation product, its core technology has won the city's science progress award, The on-board local Internet LIN transceiver chip SIT1021 has won the 2021 "China Chips" outstanding technological innovation product. Silicon will continue to cultivate in the industrial and automotive fields and develop more and more high-level analogy chips.

CAN系列产品列表
CAN PRODUCT LIST

Part Number 型号	Supply Voltage(s) (V) 供电电压	Signaling Rate (Mbps) 速率	Wake up & Sleep 唤醒与休眠	Low power Current (uA) 低功耗电流	Dominant Time-Out 显性超时	Self-Diagnostic Or Autobaud 自诊断	Bus Fault Protection Voltage 总线容错电压范围	Package 封装	Pin to pin 替换型号
SIT82C250T	4.5~5.5	1	Standby Hardware Wakeup	5 (standby)	N	N	-8~18	SOP8	PCA82C250T
SIT82C251T	4.5~5.5	1	Standby Hardware Wakeup	5 (standby)	N	N	-36~36	SOP8	PCA82C251T
SIT2551T	4.5~5.5	0.03~1	Standby Bus Wakeup	5 (standby)	Y	N	-40~40	SOP8	MCP2551T
SIT1050QT	4.5~5.5	0.04~1	Silent	3500 (silent)	Y	N	-40~40	SOP8	TJA1050T
SIT1040QT	4.5~5.5	0.04~1	Standby Bus Wakeup	5 (standby)	Y	N	-40~40	SOP8	TJA1040T
SIT65HVD230DR	3.0~3.6	1	Silent	650 (silent)	N	N	-16~16	SOP8	SN65HVD230DR
SIT65HVD231DR	3.0~3.6	1	Sleep, Hardware Wakeup	0.4(sleep)	N	N	-16~16	SOP8	SN65HVD231DR
SIT65HVD232DR	3.0~3.6	1	N	-	N	N	-16~16	SOP8	SN65HVD232DR
SIT65HVD233DR	3.0~3.6	1	Silent	650 (silent)	N	Self-Diagnostic	-36~36	SOP8	SN65HVD233DR
SIT65HVD234DR	3.0~3.6	1	Silent, Sleep, (Hardware Wakeup)	370 (silent) 0.05(sleep)	N	N	-36~36	SOP8	SN65HVD234DR
SIT65HVD235DR	3.0~3.6	1	Silent	360(silent)	N	Autobaud	-36~36	SOP8	SN65HVD235DR
SIT3051ESA	3.0~3.6	1	Standby(Bus Wakeup), Shutdown(Hardwake up)	8 (standby) 1(shutdown)	N	N	-36~36	SOP8	MAX3051ESA

CAN FD系列产品列表
CAN FD PRODUCT LIST

Part Number 型号	Supply Voltage(s) (V) 供电电压	Signaling Rate (Mbps) 速率	Wake up & Sleep 唤醒与休眠	Low power Current (uA) 低功耗电流	Dominant Time-Out 显性超时	Self-Diagnostic Or Autobaud 自诊断	Bus Fault Protection Voltage 总线容错电压范围	Package 封装	Pin to pin 替换型号
SIT1044QT	4.75~5.25	0.015~5	Standby Bus Wake up	15	Y	N	-40~40	SOP8	TJA1044T
SIT1044QT/3	4.75~5.25 IO兼容3.3V	0.015~5	Standby Bus Wake up	5	Y	N	-40~40	SOP8	TJA1044T/3
SIT1044QTK/3	4.75~5.25 IO兼容3.3V	0.015~5	Standby Bus Wake up	5	Y	N	-40~40	DFN3*3-8(HVSON8)	TJA1044TK/3
SIT1042AQT	4.5~5.5	0.015~5	Standby Bus Wake up	12	Y	N	-58~58	SOP8	TJA1042T
SIT1042AQT/3	4.5~5.5 IO兼容3.3V	0.015~5	Standby Bus Wake up	0.5	Y	N	-58~58	SOP8	TJA1042T/3
SIT1042AQTK/3	4.5~5.5 IO兼容3.3V	0.015~5	Standby Bus Wake up	0.5	Y	N	-58~58	DFN3*3-8(HVSON8)	TJA1042TK/3
SIT1051AQT	4.5~5.5	0.015~5	silent	1000	Y	N	-58~58	SOP8	TJA1051T
SIT1051AQT/E	4.5~5.5	0.015~5	Low Current Off Hardware Wakeup	0.5	Y	N	-58~58	SOP8	TJA1051T/E
SIT1051AQT/3	4.5~5.5 IO兼容3.3V	0.015~5	silent	1000	Y	N	-58~58	SOP8	TJA1051T/3
SIT1051AQTK/3	4.5~5.5 IO兼容3.3V	0.015~5	silent	1000	Y	N	-58~58	DFN3*3-8(HVSON8)	TJA1051TK/3
SIT1043QT	VBAT=4.5~40 VCC=4.5~5.5 IO兼容3.3V	0.04~5	Standby Sleep	1	Y	Y	-58~58	SOP14	TJA1043T
SIT1043QTK	VBAT=4.5~40 VCC=4.5~5.5 IO兼容3.3V	0.04~5	Standby Sleep	1	Y	Y	-58~58	DFN14(HVSON14)	TJA1043TK
SIT1057QT	4.75~5.25	0.015~5	silent	1200	Y	N	-40~40	SOP8	TJA1057T
SIT1057QT/3	4.75~5.25 IO兼容3.3V	0.015~5	silent	1200	Y	N	-40~40	SOP8	TJA1057T/3
SIT1057QTK/3	4.75~5.25 IO兼容3.3V	0.015~5	silent	1200	Y	N	-40~40	DFN3*3-8(HVSON8)	TJA1057TK/3
SIT1145QAT	VBAT=4.5~28 VCC=4.5~5.5 IO兼容3.3V	5	Standby Sleep	3.8	Y	Y	-58~58	SOP14	TJA1145AT
SIT1145QATK	VBAT=4.5~28 VCC=4.5~5.5 IO兼容3.3V	5	Standby Sleep	3.8	Y	Y	-58~58	DFN14(HVSON14)	TJA1145ATK

LIN系列产品列表
LIN PRODUCT LIST

Part Number 型号	Supply Voltage(s) (V) 供电电压	Signaling Rate (Mbps) 速率	Wake up & Sleep 唤醒与休眠	Low power Current (uA) 低功耗电流	Dominant Time-Out 显性超时	Package 封装	Pin to pin 替换型号
SIT1021QT	5.5~27	0.02	Standby,Sleep	5(Sleep)	Y	SOP8	TJA1021T
SIT1021QTK	5.5~27	0.02	Standby,Sleep	5(Sleep)	Y	DFN3*3-8(HVSON8)	TJA1021TK
SIT1022QT	5.5~18	0.02	Standby,Sleep	6(Sleep)	Y	SOP14	TJA1022T
SIT1022QTK	5.5~18	0.02	Standby,Sleep	6(Sleep)	Y	DFN14（HVSON14）	TJA1022TK
SIT1024QHG	5.5~18	0.02	Standby,Sleep	6(Sleep)	Y	QFN24	TJA1024HG
SIT1027QT	5~27	0.02	Standby,Sleep	4(Sleep)	N	SOP8	TJA1027T
SIT1027QTK	5~27	0.02	Standby,Sleep	4(Sleep)	N	DFN3*3-8(HVSON8)	TJA1027TK
SIT1028QT	5.5~28	0.02	Standby,Sleep	8(Sleep)	Y	SOP8	TJA1028T
SIT1028QTK	5.5~28	0.02	Standby,Sleep	8(Sleep)	Y	DFN3*3-8(HVSON8)	TJA1028TK
SIT1029QT	5~18	0.02	Standby,Sleep	7(Sleep)	Y	SOP8	TJA1029T
SIT1029QTK	5~18	0.02	Standby,Sleep	7(Sleep)	Y	DFN3*3-8(HVSON8)	TJA1029TK

RS232系列产品列表
RS232 PRODUCT LIST

Part Number 型号	Power Supply (V) 供电电源	Signaling Rate (Mbps) 速率	ESD Ability (KV) ESD	NO. OF EXTERNAL CAPACITORS (µF) 外接电容	Operating Temperature Range(℃) 温度	No. of TX 发送通道	No. of RX 接收通道	Package 封装	Pin to pin 替换型号
SIT232	5	0.12	2	4(1)	-40~85	2	2	SOP16/SOPW16	MAX232
SIT232E	5	0.12	15	4(1)	-40~85	2	2	SOP16	MAX232E
SIT202E	5	0.12	15	4(0.1)	-40~85	2	2	SOP16	MAX202
SIT3232E	3.3~5	0.12	15	4(0.1)	-40~85	2	2	SOP16/SSOP16/TSSOP16/SOPW16	MAX3232

电源产品列表
POWER CHIP LIST

Part Number 型号	Vin(Max)(V) 最大输入电压	Vout(V) 输出电压	Iout(Max)(A) 最大输出电流	IQ(mA) 静态电流	ISTBY(uA) 待机静态电流	Switching frequency (Min)(kHz) 最小开关频率	Switching frequency (Max)(kHz) 最大开关频率	Operating temperature range(℃) 工作温度	Package 封装	Pin to pin 替换型号
SIT2596S-3.3	40	3.3	3	0.5	100	110	173	-40~125	TO-220/TO-263	LM2596S-3.3
SIT2596S-5.0	40	5	3	0.5	100	110	173	-40~125	TO-220/TO-263	LM2596S-5.0
SIT2596S-12	40	12	3	0.5	100	110	173	-40~125	TO-220/TO-263	LM2596S-12
SIT2596S-ADJ	40	ADJ	3	0.5	100	110	173	-40~125	TO-220/TO-263	LM2596S-ADJ

RS485系列产品列表
RS485 PRODUCT LIST

Part Number 型号	Power Supply (V) 供电电压	Signaling Rate (Mbps) 速率	Dupex 全/半双工	Polarity Correction 极性校正	Number of Nodes 节点数	ESD Ability (KV) 静电能力	ICC (uA) 功耗	Package 封装	Pin to pin 替换型号
SIT485E	5	0.5	Half	N	256	15	180	SOP8/DIP8/MSOP8	MAX485E
SIT3085E	5	1	Half	N	256	16	165	SOP8/DIP8/MSOP8	MAX3085E
SIT3082E	5	0.2	Half	N	256	15	170	SOP8/DIP8/MSOP8	MAX3082E
SIT3485	3.3	12	Half	N	256	\	540	SOP8/DIP8/MSOP8	MAX3485
SIT3485E	3.3/5	12	Half	N	256	15	280	SOP8/DIP8/MSOP8	MAX3485E
SIT65176B	3.3/5	10	Half	N	256	15	360	SOP8	SN65176B
SIT75176B	3.3/5	10	Half	N	32	15	280	SOP8/DIP8	SN75176B
SIT65HVD08	3.3/5	10	Half	N	256	15	580	SOP8/DIP8/MSOP8	SN65HVD08
SIT65HVD75	3.3/5	20	Half	N	32	15	400	SOP8/DIP8/DFN3*3-8/MSOP8	SN65HVD75
SIT3088E	3.3/5	14	Half	N	256	15	280	SOP8/DIP8/DFN3*3-8/MSOP8	MAX3088E

RS422系列产品列表
RS422 PRODUCT LIST

Part Number 型号	Power Supply (V) 供电电压	Signaling Rate (Mbps) 速率	Dupex 全/半双工	Polarity Correction 极性校正	Number of Nodes 节点数	ESD Ability (KV) 静电能力	ICC (uA) 功耗	Package 封装	Pin to pin 替换型号
SIT3490E	3.3/5	14	Full	N	256	15	240	SOP8/DIP8/MSOP8	MAX3490E
SIT3491E	3.3/5	12	Full	N	256	15	220	SOP14/DIP14	MAX3491E
SIT488E	5	1	Full	N	256	15	300	SOP8/DIP8/MSOP8	MAX488E
SIT490E	5	12	Full	N	256	15	220	SOP8/DIP8	MAX490E
SIT491E	5	12	Full	N	256	15	220	SOP14/DIP14	MAX491E

TVS系列产品列表
TVS PRODUCT LIST

| Part Number 型号	Directional 方向	VRWM (V)(Max) 工作电压	IPP@8/20us (A)(Max) 峰值电流	VCL@IPP (V)(Max) 钳位电压	CJ@0V/1MHz (pF)(Type) 电容	Package 封装
SITLC143T5V2UA	Uni.	5	5	15	1.2	SOT-143
SITUC10F5V4U	Uni.	5	4.5	12	0.6	DFN2510-10L
SIT2105L	Uni.	24	6	63	30	SOT-23
SITLC3D3V1BL	Uni.	3.3	20	20	1.0	SOD323
SITNC712A	Bi.	7/12	17/17	19/26	55	SOT-23

产品推荐
PRODUCT RECOMMENDATION
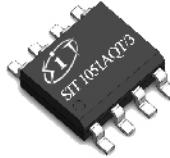
SIT1042AQT/3
- ○ 5V供电
- ○ 5V power supply
- ○ I/O兼容3.3/5V
- ○ I/O compatible with 3.3/5V
- ○ CAN FD
- ○ CAN FD
- ○ 待机与远程唤醒
- ○ Standby and Remote Wake up
- ○ ±58V耐压
- ○ ±58 with stand voltage

SIT1044QT/3
- ○ 5V供电
- ○ 5V power supply
- ○ I/O兼容3.3/5V
- ○ I/O compatible with 3.3/5V
- ○ CAN FD
- ○ CAN FD
- ○ 待机与远程唤醒
- ○ Standby and Remote Wake up
- ○ ±40V耐压
- ○ ±40V with stand voltage
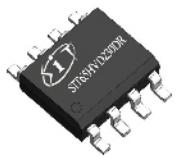
SIT1051AQT/3
- ○ 5V供电
- ○ 5V power supply
- ○ I/O兼容3.3/5V
- ○ I/O compatible with 3.3/5V
- ○ CAN FD
- ○ CAN FD
- ○ 静音模式
- ○ Silent mode
- ○ ±58V耐压
- ○ ±58V with stand voltage
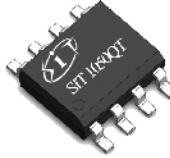
SIT1057QT/3
- ○ 5V供电
- ○ 5V power supply
- ○ I/O兼容3.3/5V
- ○ I/O compatible with 3.3/5V
- ○ CAN FD
- ○ CAN FD
- ○ 静音模式
- ○ Silent mode
- ○ ±40V耐压
- ○ ±40V with stand voltage
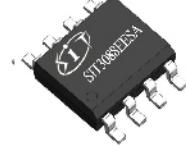
SIT65HVD230DR
- ○ 3.3V供电
- ○ 3.3V power supply
- ○ 高速
- ○ High speed

SIT1050QT
- ○ 5V供电
- ○ 5V power supply
- ○ 高速
- ○ High speed
- ○ 静音模式
- ○ Silent mode
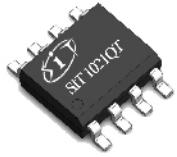
SIT3088EESA
- ○ 半双工
- ○ Half duplex
- ○ 3.3/5V兼容
- ○ 3.3/5V compatible
- ○ 高速
- ○ High speed
- ○ 低功耗关断
- ○ Low Power Off Function

SIT3490EESA
- ○ 全双工
- ○ Full duplex
- ○ 3.3/5V兼容
- ○ 3.3/5V compatible
- ○ 高速
- ○ High speed

SIT1021QT
- ○ 5.5V~27V供电
- ○ 5.5V~27V power supply
- ○ 休眠模式
- ○ Sleep mode
- ○ 本地和远程唤醒
- ○ Local and remote wake-up

SIT1022QT
- ○ 5.5V~18V供电
- ○ 5.5V~18V power supply
- ○ 休眠模式
- ○ Sleep mode
- ○ 远程唤醒
- ○ Remote wake-up

SIT1028QT
- ○ LDO 5V/3.3V输出
- ○ LDO 5V/3.3V output
- ○ 休眠模式
- ○ Sleep mode
- ○ 远程唤醒
- ○ Remote wake-up
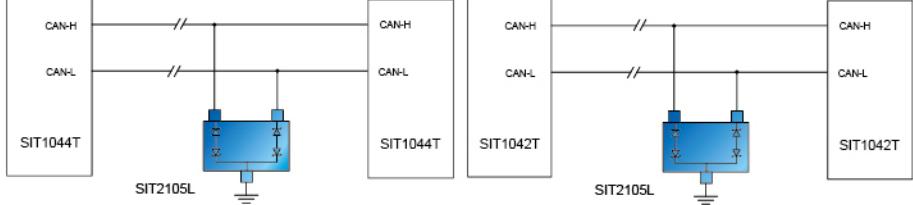
SIT3232EESE
- ○ 3.3V~5V供电
- ○ 3.3V~5V power supply
- ○ 双通道
- ○ Dual-channel
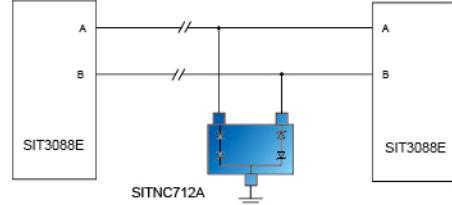
典型保护电路
TYPICAL ESD / TVS PROTECTION APPLICATIONS


CAN总线接口ESD 保护方案
ESD protection scheme of CAN bus interface

RS485/RS422总线接口 ESD 保护方案
RS485/RS422 bus interface ESD protection scheme

证书与资质
CERTIFICATE AND QUALIFICATION

部分合作伙伴

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Visteon　CJAE　上海三菱电梯 SHANGHAI MITSUBISH ELEVATOR　MEGMEET 麦格米特

Midea　QUECTEL 移远通信－无线模块专家　Panasonic 松下空调　大豪 DAHAO TECHNOLOGY 科技
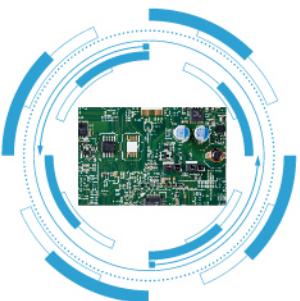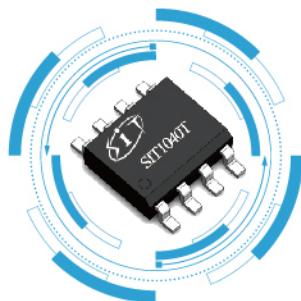
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