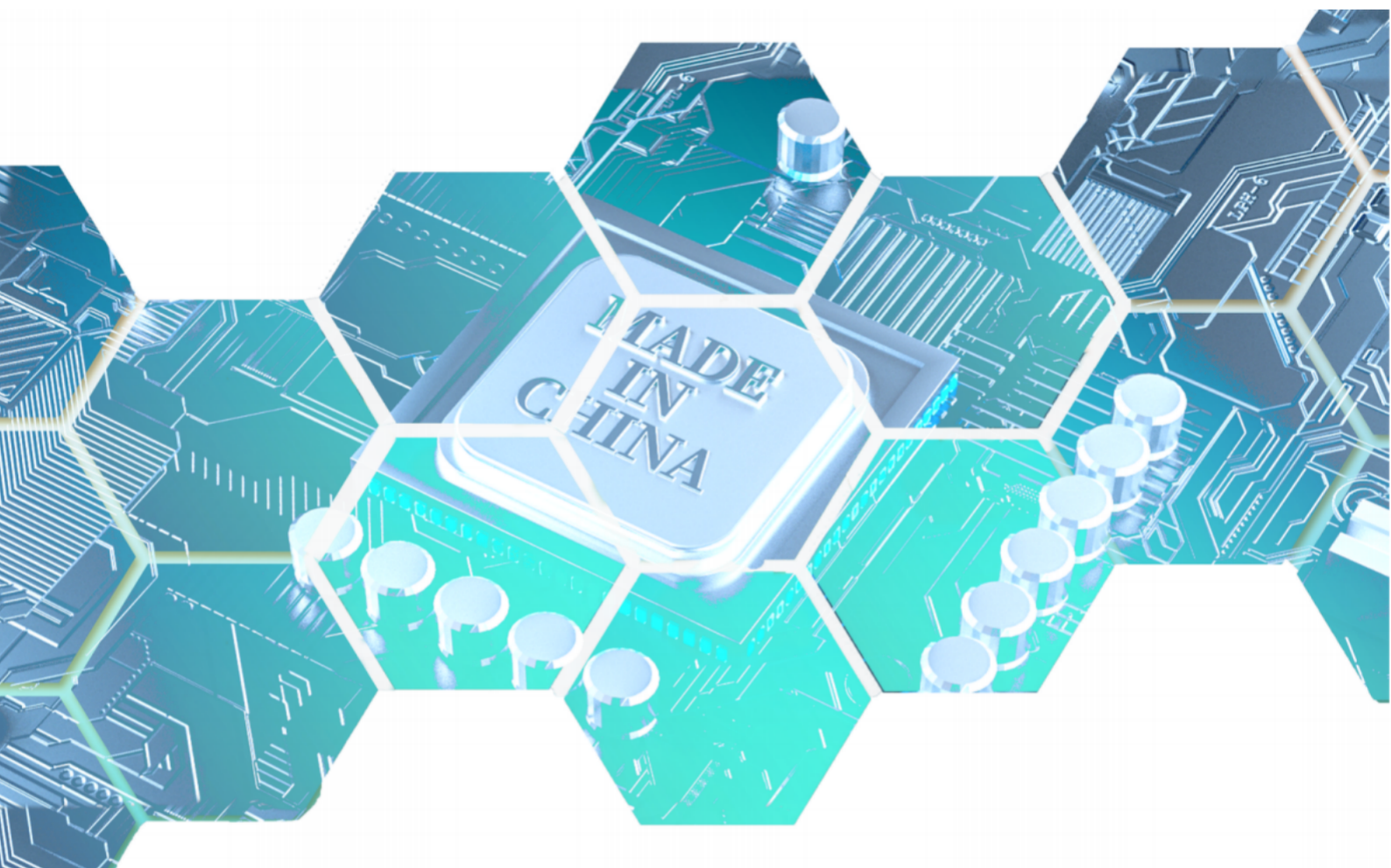


# SIET



## Product Selection Guide

**Integrated Circuit Products**

Ver. 2026. 01

陕西省电子技术研究所有限公司  
Shanxi Institute of Electronic Technology Co., Ltd

# ABOUT US

Shaanxi Electronic Technology Research Institute Co., Ltd. (affiliated with Shaanxi Science and Technology Holding Group) was established in 1975. It has won multiple provincial and ministerial-level new product awards, national-level new product recognitions, and several national patents. Its production scale, hardware facilities, and technical capabilities rank among the top in the domestic industry.

We possess multiple qualifications, including the National Military Standard Quality System, National Level II Confidentiality Qualification, Weapons and Equipment Research and Production License, Equipment Research and Manufacturing Qualification, High-Tech Enterprise Certification, National and Defense Laboratory Accreditation (CNAS, DILAC), and Military Calibration and Testing Laboratory Certification. It is also a key innovation special fund implementation unit in Shaanxi Province, a Xi'an civil-military integration enterprise, a provincial specialized, refined, distinctive, and innovative enterprise.

Main products include motor drive controllers, hybrid integrated circuits, military ICs/SIPs, military power modules and systems, military boards, professional testing instruments and systems, as well as electronic component testing, screening, and environmental testing services.

The company upholds the values of "vision, innovation, and responsibility," driven by high-quality innovation and precise positioning to catch up and surpass, striving to break through key technologies, develop flagship products, serve users, create value, and become a top-tier enterprise in the electronics industry.

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Водитель шины и интерфейсная схема
-  TVS, ideal diode, protection switch /  
TVS, диод, защитный переключатель
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Микромодуль питания понижающего преобразователя
-  Temperature sensor / Датчик температуры
-  VDMOS
-  Radiation-hardened integrated circuit /  
Радиационно-стойкая интегральная схема
-  Radiation-hardened driver / Радиационно-стойкий драйвер
-  Radiation-hardened LDO regulator / Радиационно-стойкий LDO-регулятор
-  Radiation-Hardened DC/DC Step-Down  $\mu$ Module Regulator /  
Радиационно-стойкий понижающий DC/DC  $\mu$ Module-стабилизатор
-  CMOS FLASH MEMORY / Флэш-память CMOS

## FPGA / ПЛИС

Device Model Модель	Package Тип ы корпусов	Logic Unit	DSP units	Dis-RAM (Kbit)	BRAM (Kbit)	Clock Management Unit	SerDes	PCIe (units)	Maximum user I/O	Compatible Model Совместимая модель
SEQ7S50	FGGA484	52k	120	0.6k	2.7k	5	--	--	250	XC7S50-FFG484
	CSGA324	52k	120	0.6k	2.7k	5	--	--	210	XC7S50-CSG324
SEQ7A50T	CSGA324	52k	120	0.6k	2.7k	5	--	--	210	XC7A50T-CSG324
SEQ7K325T	FFG900	326k	840	4k	16k	10	16 lanes, 12.5Gbps	1(max support x8 Gen2)	500	XC7K325T- FFG900
	FFG676	326k	840	4k	16k	10	8 lanes, 12.5Gbps	1(max support x8 Gen2)	400	XC7K325T- FFG676
SEQ7VX690T	FFG1927	693k	3600	11k	53k	20	80 lanes, 13.1Gbps	3(max support x8 Gen3)	600	XC7VX690T- FFG1927
	FFG1761	693k	3600	11k	53k	20	36 lanes, 13.1Gbps	3(max support x8 Gen3)	850	XC7VX690T- FFG1761
	FFG1157	693k	3600	11k	53k	20	20 lanes, 13.1Gbps	3(max support x8 Gen3)	600	XC7VX690T- FFG1157
SE10K50Q240 -4	CQFP240	2880	--	--	20	--	--	--	189	EPF10K50

## Operational Amplifier / Операционный усилитель

Type Тип	Device Model Модель	Features Основные функции	Compatible Model Совместимая модель	Package Типы корпусов
Instrumentation Amplifier	SE620	Low drift, low power operational amplifier with gain setting range from 1 to 10,000	AD620ARZ	SOIC-8 CDIP-8
	SE8221	Low drift, low power operational amplifier with gain setting range from 1 to 1000	AD8221	SOP-8 MSOP-8
Operational Amplifier	SE082	Dual-channel, 10MHz, 9V/μs, Rail-to-Rail Input, Input to V-, 36V	TL082TL082IDR	SOIC-8
	SE084	Four-channel, 10 MHz, 9 V/μs, input-to-V?, 36 V	TL084IDR	SOIC- 14
	SE350	Single-channel, 5V single-supply, rail-to-rail, 38MHz high-speed, low-noise	OPA350UA	SOIC-8
	SE2350	Dual-channel, 5V single-supply, rail-to-rail, 38MHz high-speed, low-noise	OPA2350UA	SOIC-8
	SE4350	Four-channel, 5V single-supply, rail-to-rail, 38MHz high-speed, low-noise	OPA4350UA	SOIC- 14
	SE211	Single-channel bipolar, Supply Voltage: ±2.25~±18V Open-Loop Gain: 140 dB, Gain Bandwidth: 14MHz, Slew Rate: 16V/μs, Low Noise: 1.6nV/√Hz (1kHz) Rail-to-Rail Output	OPA211AIDGKT	SOIC-8DFN-8
	SE809X	Single / Dual / Quad Channel, Supply Voltage: ±2~±24V Gain Bandwidth Product: 22MHz, Slew Rate: 20V/μs Low Noise: 8nV/√Hz (1kHz), Common-Mode Rejection Ratio: 120dB, Low Bias Current, EMI/RFI Filtered Input	OPA97	SOIC-8L, SOT23-5L, MSOP-8L, DFN3×3-8L SOIC-14L, TSSOP-14L

Type Тип	Device Model Модель	Features Основные функции	Compatible Model Совместимая модель	Package Типы корпусов
Operational Amplifier	SE811	Single Channel, $\pm 5 \sim \pm 18V$ Supply Voltage 140MHz Bandwidth (3dB, $G=+1$ ), 120MHz Bandwidth (3dB, $G=+2$ ), 35MHz bandwidth (0.1dB, $G=+2$ ), THD = -74dB (at 10MHz), Slew rate: 2500V/ $\mu$ s Low noise: 1.9nV/ $\sqrt$ Hz (at 1kHz), Current feedback type	AD811	SOIC-8
	SE8052	Dual-channel, 3V to 12V single-supply, 200MHz wideband video operational amplifier	AD8052	SOIC-8
	SE8054	Four-channel, 3V to 12V single-supply, 200MHz wideband video operational amplifier	AD8054	SOIC- 14
	SE07	Next-generation ultra-low offset, low-drift, 36V precision	OP07	SOIC-8
	SE77	Next-generation ultra-low offset, low-drift, input-to-V-, 36V precision	OP77	SOIC-8
	SE27	Next-generation low-offset, low-noise, high-speed (4.5 MHz) precision	OP27	SOIC-8
	SE270	New-generation low-noise, precision, dual-channel	OP270	SOIC-8
	SE470	Next-generation low-noise, precision, four-channel	OP470	SOIC- 14
	SE37	Low-noise, high-speed, precision	OP37	SOIC-8
	SE147	Four-channel, 40V, 10MHz, low offset current	LF147	SOIC- 14
	SE158	Dual-channel, 36V, 1MHz	LM158	SOIC-8 DIP-8
	SE124	Four-channel, 36V, 1MHz	LM124DR	SOIC- 14
	SE8551	Zero-drift, single-supply, RRIO, single-channel	AD8551ARZ	SOIC-8
	SE8552	Zero-drift, single-supply, RRIO, dual-channel	AD8552ARZ	SOIC-8
	SE8554	Zero-drift, single-supply, RRIO, four-channel	AD8554ARZ	SOIC- 14
	SE333	Single-channel, micro-Power, 1.8V, zero-drift CMOS precision	AD8551ARZ	SOIC-8
	SE2333	Dual-channel, micropower, 1.8V, zero-drift CMOS precision	AD8552ARZ	SOIC-8
	SE200	Next-generation low-offset, low-power, dual-channel 40V	OP200GSZ	SOIC-8
	SE400	Next-generation low-offset, low-power, quad-channel 40V	OP400HSZ	SOIC-14 CSOP-14
	SE148	Four-channel, 36V, low bias current, 1MHz	LM148	SOIC- 14
	SE184	Next-generation precision, 4MHz bandwidth, input to V-, single-channel	OP184	SOIC-8
	SE284	Next-generation precision, 4MHz bandwidth, input to V-, dual-channel	OP284	SOIC-8
	SE484	Next-generation precision, 4MHz bandwidth, input to V-, quad-channel	OP484	SOIC- 14
	SE712	Precision, high-speed 20V/ $\mu$ s, low input bias current, dual-channel	AD712	SOIC-8
	SE8138	Single-channel high-speed (320MHz) differential amplifier with high common-mode rejection ratio (-77dB)	AD8138ARZ	SOIC-8

Type Тип	Device Model Модель	Features Основные функции	Compatible Model Совместимая модель	Package Типы корпусов
Comparator	SE193	36V, low power, low offset, dual-channel comparator	LM193L M2903	SOIC-8
	SE139	36V, low power, low offset, quad comparator	LM139 LM2901	SOIC-14
	SE119	Dual Channel, $\pm 2.5 \sim \pm 15V$ Supply Voltage, Input Offset Voltage: 0.7mV Saturation Voltage: 0.75V, High Common-Mode Slew Rate Compatible with RTL, DTL, and TTL circuits	LM119	CDIP8 TO-100
	SE111	Single Channel, $\pm 2.5 \sim \pm 18V$ Supply Voltage Input Offset Voltage: 3mV, Differential Input Voltage: $\pm 30V$ From emitter output to VCC-: 30V, From collector output to VCC-: 50V	LM1117 LT1117	SOIC-8 CDIP-8, CSOP-8
	SE3201	5.5V, high-speed, low-power, single-channel push-pull comparator	TLV3201	SOT23-5
	SE3202	5.5V, high-speed, low-power, dual push-pull comparator	TLV3202	SOIC-8
Current-sense Amplifier	SE199	26V, bidirectional / low-side / high-side, voltage output, zero-drift current sense amplifier	INA199	SC70-6
	SE4080	-2V~76V, unidirectional, zero-drift current sense amplifier	MAX4080	SOIC-8
	SE240	-4V~80V, bidirectional, ultra-precision current sense amplifier with enhanced PWM rejection	INA240	SOIC-8

## LDO linear regulator / Линейный стабилизатор LDO

Type Тип	Device Model Модель	Features Основные функции	Compatible Model Совместимая модель	Package Типы корпусов
Low-noise Low-dropout Linear Regulator	SE1963	Input Voltage Range: 2.21V~20V Adjustable output voltage: 1.21V~20V Output Current: 1.5A (Dropout Voltage 450mV)	LT1963A	TO263-5L SOP-8
	SE1763	Input voltage: 1.9V to 20V, Maximum output current: 0.5A Input/output dropout voltage: 90mV@0.5A Quiescent current: $\leq 1.0mA$ , PSRR: 81dB@100Hz Fixed voltage (1.5V, 1.8V, 2.5V, 3.3V, 5V) output or adjustable voltage output	LT1763	DFN3x4-12 SOIC-8
	SE1764	Input Voltage: 2.21V to 20V, Maximum Output Current: 3A Input/Output Dropout Voltage: 550mV@3A Quiescent Current: $\leq 3.0mA$ , PSRR: 65dB@120Hz Fixed voltage (1.5V, 1.8V, 2.5V, 3.3V, 5V) output or adjustable voltage output	LT1764	TO263-5L SOP-8
Ultra-low Dropout Linear Regulator	SE74401	Input Voltage Range: 1.1V~5.5V Adjustable output voltage: 0.8V to 3.6V Output Current: 3A (Dropout Voltage 115mV)	TPS74401	VQFN-20
Linear Voltage Regulator(LDO)	SE7142	40V, 200mA, Low Noise, CMOS LDO Linear Regulator	ADP7142	SOIC-8
Linear Voltage Regulator	SE7A8300	2A, 1.1V Low VIN 0.8V Low VOUT, Low Noise, High Precision, Ultra-Low Dropout Regulator	TPS7A8300(A)	QFN5x5-20
	SE7A8400	3A, 1.1V Low VIN 0.8V Low VOUT, Low Noise, High Precision, Ultra-Low Dropout Regulator	TPS7A8400(A)	QFN3.5x3.5-20
	SE7A8401	3A, 1.1V Low VIN 0.5V Low VOUT, Low Noise, High Precision, Ultra-Low Dropout Regulator	TPS7A8401A	QFN3.5x3.5-20
	SE7A7300	3A, 1.425V Low VIN 0.8V Low VOUT, High Precision, Ultra-Low Dropout Regulator	TPS7A7300	QFN5x5-20

Type Тип	Device Model Модель	Features Основные функции	Compatible Model Совместимая модель	Package Типы корпусов
Linear Voltage Regulator	SE7A8400	3A, 1.1V Low VIN 0.8V Low VOUT, Low Noise, High Precision, Ultra-Low Dropout Regulator	TPS7A8400(A)	QFN3.5×3.5-20
	SE7A8401	3A, 1.1V Low VIN 0.5V Low VOUT, Low Noise, High Precision, Ultra-Low Dropout Regulator	TPS7A8401A	QFN3.5×3.5-20
	SE7A7300	3A, 1.425V Low VIN 0.8V Low VOUT, High Precision, Ultra-Low Dropout Regulator	TPS7A7300	QFN5×5-20
	SE1763	3A, Low VIN Low VOUT (L1O), Low Noise, CMOS Linear Regulator	ADP1763	QFN3×3- 16
	SE1764	4A, Low VIN Low VOUT (L1O), Low Noise, CMOS Linear Regulator	ADP1764	QFN3×3- 16
	SE1762	2A, Low VIN Low VOUT (L1O), Low Noise, CMOS Linear Regulator	ADP1762	QFN3×3- 16
	SE51200	2.5V ±0.15% Series Voltage Reference with 20ppm/°C Temperature Drift	TPS51200	DFN3×3- 10
	SE7172	6.5V, 2A, Ultra-Low Noise, High PSRR, Fast Transient Response CMOS LDO	ADM7172	DFN3×3-8
	SE7171	6.5V, 1A, Ultra-Low Noise, High PSRR, Fast Transient Response CMOS LDO	ADM7171	DFN3×3-8
	SE7151-02	Input voltage: 4.5V to 16V, Maximum output current: 0.8A Output voltage range: 1.5V to 4V, Quiescent current: ≤4.3mA PSRR:94dB@100kHz, Low Noise	ADM7151-02	DFN3×3-8
	SE7151-04	Input voltage: 4.5V to 16V, Maximum output current: 0.8A Output voltage range: 1.5V to 5.1V Input/output voltage differential: 600mV@0.8A Quiescent current: ≤4.3mA, PSRR:94dB@100kHz, Low Noise	ADM7151-04	DFN3×3-8
	SE117	1.5A Adjustable Linear Regulator with Short-Circuit Protection	LM117	SOT223TO220
	SE1117	800mA 15V Linear Regulator	LM1117 LT1117	SOT-223-3L SOT89-3L, TO-252-2L
SE1086	1.5A, 29V Linear Regulator	LM1086 LT1086	TO220TO263	

## RF driver chip / RF-драйверный чип

Type Тип	Device Model Модель	Features Основные функции	Compatible Model Совместимая модель	Package Типы корпусов
58V input 8.5A peak current, integrated negative voltage protection high-power modulation switch	SE7126	Input voltage: 2.7V~58V Output current: Continuous current 7A, peak current 8.5A On-resistance: 10mΩ; provides 1 integrated N MOSFET output	XC6106	QFN4×4-20
60V input voltage, fast high-side N-channel MOSFET gate driver chip	SE7003	Power supply voltage: 5V~60V Fast turn-off and turn-on: 1Ω pull-down (turn-off), 2.2Ω pull-up resistor (turn-on), with 35ns delay Integrated 100% duty cycle charge pump Provide 5V gate drive	LTC7003	QFN16T SSOP16
32V input voltage, 8A continuous current, high-power modulation switch chip	SE7128	Input voltage: 5V~50V Output current: Continuous current 8A On-resistance: 18mΩ; provides 1 channel Integrated N MOSFET output	XC6109	DFN5.5×4-20

## ADC, DAC

Type Тип	Device Model Модель	Features Основные функции	Compatible Model Совместимая модель	Package Типы корпусов
ADC	SE9268	16-bit, 110MSPS, 1.8V, dual-channel analog-to-digital converter	AD9268BCPZ- 125	QFN-64

Type Тип	Device Model Модель	Features Основные функции	Compatible Model Совместимая модель	Package Типы корпусов
ADC	SE9253-110	4-Channel, 14-Bit, 110MSPS, Serial LVDS, 1.8V ADC	AD9253BCPZ-105	QFN-48
	SE9253-125	4-channel, 14-bit, 125MSPS, serial LVDS, 1.8V ADC	AD9253BCPZ-125	QFN-48
	SE08D1500	8-bit, dual-channel 1.5GSPS or single-channel 3.0GSPS	ADC08D1500	QFN-128
	SE7606	8-channel DAS, 16-bit, 200kSPS, bipolar input, simultaneous sampling ADC	ADC7606B	QFN-64L QFP-64
	SE7606C-16	Eight-channel, 16-bit, SNR: 93dBFS, SFDR: 109dBc Sampling rate: 1MSPS, Power consumption: 170mW	AD7606C-16	LQFP-64
	SE7606C-18	Eight-channel, 18-bit, SNR: 94.5dBFS, SFDR: 109dBc, Sampling rate: 1MSPS, Power consumption: 175mW	AD7606C-18	LQFP-64
	SE7616	16-channel, 16-bit, SNR: 91.5 dBFS, SFDR: 104 dBc Sampling Rate: 1MSPS, Power consumption: 180 mW	AD7616	LQFP-80
	SE976	Single-Channel, 16-bit, SNR: 83dBFS, SFDR: 90dBc Sampling Rate: 200kSPS, Power consumption: 100mW	AD976	SOP-28 CDIP-28
	SE1284	A 31-bit ultra-high resolution 4kSPS 2-channel ADC with PGA and low-power mode for seismic monitoring and geospatial exploration	ADS1284	QFN5×4-24
	SE4449	4-channel, 14-bit SNR: 69dBFS (170MHz@250MSPS) SFDR: 90dBc (170MHz@250MSPS) Sampling rate: 250MHz, Power consumption: 410mW Data interface: LVDS interface	ADS4449	BGA-144
	SE9643T	Dual-Channel, 14-Bit, 250MSPS, LVDS Parallel Output, 1.8V ADC	AD9643	QFN-64
DAC	SE9122ME	Dual-Channel, 16-Bit, 1 GSPS, LVDS Parallel Input, 1.8V DAC	AD9122 (Functional replacement)	QFN72
	SE9747	Dual-Channel, 16-Bit, 250 MSPS, LVCMOS Parallel Input, 1.8V DAC	AD9747	QFN-72
	SE12DS130A	4-channel, 12-bit, 3 GSPS, LVDS parallel input, 5V/3.3V	EV12DS130A	CBGA196
	SE12DS460	4-channel, 12-bit, 6.4 GSPS, LVDS parallel input, 5V/3.3V	EV12DS460	PBGA196

## SDR Transceiver / SDR Трансивер

Type Тип	Device Model Модель	Features Основные функции	Compatible Model Совместимая модель	Package Типы корпусов
SDR Transceiver	SE9361	2-channel, 12-bit, 30MHz ~ 6000MHz, CMOS parallel or LVDS, ultra-wideband zero-IF transceiver	AD9361	BGA-144
	SE9364	Single-channel, 12-bit, 30MHz ~ 6000MHz, CMOS parallel or LVDS, ultra-wideband zero-IF transceiver	AD9364	BGA-144
	SE9009	2-channel, 50MHz to 6GHz, high-performance, highly integrated broadband RF transceiver	ADRV9009	BGA-196

## Single-Chip R/D Converter / Однокристальный RDC

Type Тип	Device Model Модель	Resolution(bit)	Accuracy (arc minutes)	Operating Voltage Рабочее напряжение	Compatible Model Совместимая модель	Package Типы корпусов
Single-Chip R/D Converter	SEG2S80A	16	±4	± 12V(or ±15V), 5V	AD2S80	CDIP-40
	SEG2S1210	16	±2.5	+5V	AD2S1210	LQFP-48
	SER19230	16	±1.3	+5V	RD-19230	QFP-64

**MCU**

Тип Type	Device Model Модель	Features Основные функции	Compatible Model Совместимая модель	Package Типы корпусов
32-bit Microcontroller	SE32F103VBT	Up to 72MHz ARM CPU core, maximum 128KB capacity, 32-bit Flash data bus, 20KB high-speed SRAM; 1 7-channel DMA and 1 5-channel DMA	STM32F103VBT	LQFP- 100
	SE32F103RBT		STM32F103RBT	LQFP-64
	SE32F103CBT		STM32F103CBT	LQFP-48
	SE32F103TBU		STM32F103TBU	VQFN-36
	SE32F103KBU		STM32F103KBU	QFN-32
	SE32F103ZG	Up to 72MHz ARM CPU core; built-in 32-bit single-cycle hardware multiplier; up to 8-channel PWM output; supports Flash memory ISP and IAP high-performance 32-bit ARM CPU core; maximum 1MB Flash, 96KB SRAM	STM32F103ZG	LQFP- 144
	SE32F107VCH	Up to 72MHz ARM CPU core; built-in 32-bit single-cycle hardware multiplier; up to 8-channel PWM output; supports Flash memory ISP and IAP high-performance 32-bit ARM CPU core; maximum 1MB Flash, 128KB SRAM; built-in PLL, can be multiplied to 72MHz, supports 32K real-time clock (RTC)	STM32F107VC	BGA- 100
	SE32F407	32-bit Arm Cortex-M4 core with FPU, operating frequency up to 168MHz, Flash memory up to 1MB, system SRAM (192KB) + backup (4KB), EMMC supports CF card, SRAM, PSRAM, SDRAM, NOR, NAND memory, VDD range 1.8-3.6V	ST32F407	LQFP-64 LQFP-100 LQFP-144 QFP-176

**Power supply detection reset chip, monitor /  
Микросхема сброса обнаружения питания, монитор**

Тип Type	Device Model Модель	Features Основные функции	Compatible Model Совместимая модель	Package Типы корпусов
Voltage Reference	SE431	2.495V, adjustable precision shunt	TL431	SOT23
	SE432	2.495V, adjustable precision shunt	TL432	SOT23
	SE3312	1.25V±0.15%, 20ppm/°C temperature drift series	REF3112, REF3212, REF3312	SOT23
	SE3320	2.048V±0.15%, 20ppm/°C temperature drift series	REF3120, REF3220, REF3320	SOT23
	SE3325	2.5V±0.15%, 20ppm/°C temperature drift series	REF3125 REF3325	SOT23
	SE3330	3.0V±0.15%, 20ppm/°C temperature drift series	REF3130 REF3330	SOT23
	SE3333	3.3V ±0.15%, 20ppm/°C temperature drift series	REF3133 REF3333	SOT23
	SE3340	4.096V ±0.15%, 20ppm/°C temperature drift series	REF3140 REF3340	SOT23
MCU Monitor & Reset IC	SE706	3V Voltage Monitoring and Microprocessor Monitoring Circuit	MAX706TESA	SOIC-8L
	SE3808	Low quiescent current monitor with programmable delay and manual reset function	TPS3808G01DBVR	SOT-23-6L
	SE708	Operating Voltage Range: 1.2V~5.5V Reset Threshold Voltage: 2.85V~3.0V Reset Output High Level: 1.5V, Reset Output Low Level: 0.4V Monitor the 3V power supply in a 3V to 5V microprocessor system, Provides functions such as reset, watchdog, and power error indication signals	MAX708S	SOIC-8

**Bus driver and interface circuit / Водитель шины и интерфейсная схема**

Type Тип	Device Model Модель	Features Основные функции	Compatible Model Совместимая модель	Package Типы корпусов
Analog Multiplexer	SE506	16-channel, Power Supply Voltage: $\pm 17V$ On-resistance: $< 100\Omega$ , Leakage Current: $< 100nA$ , Turn-on time: $< 400ns$	ADG506A	SOP-28C SOP-28
	SE508	8-channel, Power supply voltage: $\pm 17V$ , On-resistance: $< 300\Omega$ , Leakage Current: $< 100nA$ , Turn-on time: $< 300ns$	ADG508A	SOIC-16C SOP-16
CAN Bus Driver	SE1050	Operating Voltage VDD1: 2.5V~5.5V Supply voltage VDD2: 4.5V~5.5V; Maximum Transmission rate 1Mbps; Can connect at least 110 nodes to the bus	TJA1050	SOP-8
RS-422/485 Bus Driver	SE488/ SE488PAS	Powered by a 5V supply voltage, Maximum data rate up to 1Mbps, Output low voltage: 0.4V, Output high level: VCC-1.5V	MAX488	SOIC-8
	SE490	4.5V-5.5V Power Supply, Data transfer rate up to 2.5Mbps, Output low voltage: 0.4V, Output high level: VCC-1.5V	MAX490ESA	SOIC-8
	SE485PAS	Operating voltage: $5V \pm 0.25V$ , Maximum transmission rate: 2.5Mbps, Output high-level voltage: $\geq 3.5V$ Output low-level voltage: $\leq 0.4V$	MAX485	SOIC-8
LVD Bus Driver	SE65LVDS1D/ 2D	3.3V Single Power Supply, Data Rate Up to 1Mbps, Output low voltage: 0.4V, Output High Level: 2.4V	--	SOIC-8
Bus Transceiver	SE3232	Operating Voltage: +3V to +5.5V Minimum Data Rate at Full Load: 250Kbps Maximum Data Rate: 1000Kbps Output Low Voltage: 0.4V, Output High Level: VCC - 0.4V	MAX3232	CSOP-16
	SE8T245AVC	Power supply voltage range: 1.4~3.6V 1.2V, 1.5V, 1.8V, 2.5V, and 3.3V voltage node universal low-voltage bidirectional conversion	SNT4AXC8T245	TSSOP-24
	SE8T245LVC	Supply voltage range: 1.65~5.5V Universal low-voltage bidirectional conversion between 1.8V, 2.5V, 3.3V, and 5.5V voltage nodes	SN74LVC2T45	TSSOP-24
	SE8T245ACT	Power supply voltage range: 4.5~5.5V Input can accept 5.5V voltage, Maximum tpd at 5V is 9ns	SN74ACT245	TSSOP-20
	SE0108	Power supply voltage range for side A: 1.3~3.6V, Power supply voltage range for side B: 1.65~5.5V, Universal low-voltage bidirectional conversion between voltage nodes of 1.2V, 1.5V, 1.8V, 2.5V, 3.3V	TXB0108	TSSOP-20
	SELVC16T245	Power supply voltage range for A and B ends: 1.2~5.5V Control input port VIH VCCI $\times 0.65$ and VIL level VCCI $\times 0.35 \pm 24mA$ output drive (Vcc=3.0V)	SN74LVC16T245	CSOP-48T SSOP-48
32-channel Discrete Interface Circuit	SE8435	32 independently programmable discrete channels. High/Low threshold, hysteresis function programmable, programming step 0.5V, range from 2V to 22V. Output voltage noise: Logic operating voltage range from 3.0V to 5.0V. 20MHz Serial Peripheral Interface (SPI): Supports high-speed data communication, Built-in self-test function	--	CQFP-44L QFP-44
RS-485/422 Signal Transceiver	SE3485	Operating Voltage: +3.0V to +5.5V Maximum Data Rate: 12 Mbps Bus Fault Tolerance Voltage: Up to $\pm 15V$ 1/8 Unit Load, allows up to 256 devices to connect to the bus	MAX3485ESA	SOP-8
RS-422 / 485 Bus Transceiver	SE3490	Operating Voltage: +3.0V to +5.5V Maximum data rate: 14Mbps 1/8 Unit Load, allows up to 256 devices to connect to the bus	MAX3490ESA	SOP-8
RS-422 Bus Transceiver	SE3030	Operating Voltage: 3.3V Maximum Data Transfer Rate: 10Mbps Maximum Data Transfer Delay: 123ns	MAX3030	SOP-16
RS-422/485 Signal Receiver	SE3096	Operating Voltage: 3.3V Maximum Data Transfer Rate: 10Mbps Maximum Data Transfer Latency: 123ns	MAX3096	SOP-16
RS-422/485 Signal Receiver	SE2582	Operating Voltage: 4.5V ~ 5.5V Maximum Data Transfer Rate: 16 Mbps 1/8 Unit Load, allows up to 256 devices to connect to the bus	ADM2582	SOIC-20 SOIC-16

**TVS, ideal diode, protection switch / TVS, диод, защитный переключатель**

Тип Type	Device Model Модель	Features Основные функции	Compatible Model Совместимая модель	Package Типы корпусов
SESY14CA	SE14	3000W transient voltage suppressor diode, reverse standoff voltage 14V	SMDJ14CA	DO-214AB
SESY15CA	SE15	3000W transient voltage suppressor diode, reverse standoff voltage 15V	SMDJ15CA	DO-214AB
SESY6.0CA	SE6.0	3000W transient voltage suppressor diode, reverse standoff voltage 6V	SMDJ6.0CA	DO-214AB
SESY7.5CA	SE7.5	3000W transient voltage suppressor diode, reverse standoff voltage 7.5V	SMDJ7.5CA	DO-214AB
SESY43CA	SE43	5000W transient voltage suppressor diode, reverse standoff voltage 43V	5.0SMDJ43CA	DO-214AB
SESY51CA	SE51	600W transient voltage suppressor diode, reverse standoff voltage 51V	SMBJ51CA	DO-214AA
SESY36CA	SE36	600W transient voltage suppressor diode, reverse standoff voltage 36V	SMBJ36CA	DO-214AA
SESY12CA	SE12	600W transient voltage suppressor diode, reverse standoff voltage 12V	SMBJ12CA	DO-214AA
Ideal Diode	SE24900	Dual-channel high-side ideal diode controller, input voltage range 6V - 80V, maximum output current 5A	--	DFN4×3- 14
Protective Switch	SE6885	60V, 5A protection switch	--	QFN3×3- 16
	SE6885	60V, 5A protection switch	--	Die

**Buck converter power micro-module /****Микромодуль питания понижающего преобразователя**

Тип Type	Device Model Модель	Features Основные функции	Compatible Model Совместимая модель	Package Типы корпусов
DC-DC	SE28706	Buck converter, input voltage range 2.5V~6.0V, maximum output current 6A, switching frequency 1MHz	--	DFN2×2-7
	SE8493	High-side buck regulator, input voltage range 4.3V to 40V, maximum output current 3A, adjustable switching frequency 200kHz to 2.5MHz	LMR16030	ESOP-8
	SE76083	Buck power module, input voltage range 1.8V - 5.5V, maximum output current 0.6A	--	QFN2×1.5-8
	SE76195	Buck power module, input voltage range 4.5V - 15V, maximum output current 5A	--	QFN5×5-20
	SE7304	Boost converter, input voltage range 3V to 33V, maximum output current 4A, switching frequency 1MHz	--	DFN3×3- 10
	SE9329	Buck-Boost Converter, input voltage range 4V~28V, maximum output current 6A/8A/10A, selectable switching frequency 250kHz~1MHz	--	QFN4×4-32
	SE9701	Buck-Boost Converter, input voltage range 2.6V~5.5V, maximum output current 1.2A, switching frequency 1MHz	--	DFN3×3- 14
	SE9702	Buck-Boost Converter, Input Voltage Range 2.6V~5.5V, Maximum Output Current 2A, Switching Frequency 1MHz	--	QFN2×3- 13
PWM Controller	SE7901	Low-side N-channel controller, wide input voltage range 2.97V-40V, output voltage range 1.26V~500V, switching frequency 100kHz~1MHz	LM3478 LM3481, LM3488	DFN3×3- 10
	SE5026	Active Clamp Current Mode Controller, wide input voltage range 13V to 100V, includes a high-frequency oscillator, with programmable undervoltage lockout, soft start, and overcurrent protection	LM5026	TSSOP- 16
Microcircuit Module	SE4644	Input voltage: 4V~14V Adjustable output voltage: 0.6V~5.5V Output current: four channels at 4A or a single channel at 16A	LTM4644	BGA-77

Тип Type	Device Model Модель	Features Основные функции	Compatible Model Совместимая модель	Package Типы корпусов
Microcircuit Module	SE4630	Input voltage: 4.5V~15V, Adjustable output voltage: 0.6V~5.3V Dual-channel 18A, single-channel 36A, voltage regulation: $\pm 0.5\%$ Load regulation: $\pm 0.4\%$	LTM4630	LGA- 144
	SE4620	Input voltage: 4.5V~16V, Adjustable output voltage: 0.6V~5.3V, Output current: dual-channel 13A, single-channel 26A, Voltage regulation: $\pm 0.5\%$ , Load regulation: $\pm 0.5\%$ , Output ripple voltage: 30mVP-P	LTM4620	LGA- 144
	SE4650	Single-channel 50A, output or dual-channel 25A output, Wide input voltage range: 4.5V~15V, Output voltage range: 0.6V~1.8V	LTM4650	BGA144
	SE4600	Input voltage: 4.5V~20V, Adjustable output voltage: 0.6V to 5.0V, Voltage regulation: 0.5%, Load regulation: 0.5%, Output current: single channel 10A	LTM4600	LGA- 104
	SE4613	Input voltage: 5V~36V, Adjustable output voltage: 3.3V~15V, Output current: 8A, Voltage regulation: $\pm 0.5\%$ , Load regulation: $\pm 0.5\%$	LTM4613	LGA- 133 BGA-133
	SE4616	Input voltage: 3.3V~5.5V, Adjustable output voltage: 0.6V~5V, Output current: dual-channel 8A, Output ripple voltage: 20mVP-P	LTM4616	LGA- 144 BGA- 144
	SE4622	Input voltage: 3.6V~20V, Adjustable output voltage: 0.6V~5.5V, Output current: dual-channel 2.5A, single-channel 5A, Voltage regulation: $\pm 1.5\%$ , Output ripple voltage: 5 mV	LTM4622	LGA-25 BGA-25
	SE4628	Input voltage: 4.5V~26.5V, Adjustable output voltage: 0.6V~5.5V, Output current: dual-channel 8A, single-channel 16A, Voltage regulation: $\pm 0.5\%$ ; load regulation: $\pm 0.4\%$ , Output ripple voltage: 30mVP-P	LTM4628	LGA- 144
	SE4601	Input voltage: 4.5V~20V, Adjustable output voltage: 0.6V~5V, Output current: 12A, Voltage regulation: $\pm 0.5\%$ , Load regulation: $\pm 0.5\%$	LTM4601	LGA- 133
	SE4632	Input voltage: 3.6V~15V, Adjustable output voltage: 0.6V~2.5V, Output current: dual-channel $\pm 3A$ , Voltage regulation: $\pm 1.5\%$ , Output ripple voltage: 30mVP-P	LTM4632	LGA-25 BGA-25
	SE4615	Input voltage: 4.5V~5.5V, Adjustable output voltage: 1.0V~3.3V, Output current: dual-channel 6A, single-channel 12A, Voltage regulation: $\pm 0.5\%$ , Output ripple voltage: 30mVp-p	LTM4615	LGA- 144
	SE4671	Input voltage: 3.1V~20V, Adjustable output voltage: 0.6V~5.5V; 0.6V~3.3V, Output current: 4-channel: 12A, 5A, Voltage regulation: $\leq 1\%$ , $\leq 1.5\%$ , Output ripple voltage: 8mVp-p	LTM4671	BGA-209

## Temperature sensor / Датчик температуры

Тип Type	Device Model Модель	Features Основные функции	Compatible Model Совместимая модель	Package Типы корпусов
Temperature Sensor	SE75	$\pm 2^\circ\text{C}$ accuracy, I2C interface, 12-bit digital temperature sensor	ADT75ARMZ LM75AIMMX	MSOP-8 SOP-8
	SE18B20	1-wire digital thermometer with programmable resolution	DS18B20	TO-92 MSOP-8
	SE112	Digital Temperature Sensor with I2C, $\pm 0.5^\circ\text{C}$ , 1.4V to 3.6V	TMP112 TMP102	DFN1.6x1.6-6L SOT-563
	SE2990	4-channel, I2C interface, voltage, current, and temperature monitor	LTC2990	MSOP- 10L
	SE2991	8-channel, I2C interface, voltage, current, and temperature monitor	LTC2991	MSOP- 16L

**VDMOS**

Device Model Модель	Quality Level Уровень качества	Drain-Source Breakdown Voltage BVDSS (V)	Maximum drain continuous current I <sub>D</sub> (A)	Threshold voltage V <sub>GS</sub> (TH) (V)	Static drain- source on- resistance R <sub>DS(ON)</sub> (mΩ)	Maximum power dissipation P <sub>D</sub> (W)	Radiation Hardness Радиационная стойкость	Package Типы корпусов	Compatible Model Совместимая модель
SEN6690S	JT	30	11	2~4	50	62.5		SMD-0.5	FDS6690A
SENR7467S	YB(CAST)	30	75	2~4	3.5	250	100Krad(si)	SMD-2	IRHNA57Z60/ 2N7467U2
SENR7394T	YB(CAST)	60	35	2~4	27	150	100Krad(si)	TO-254AA	IRHM7054/ 2N7394
SENR7261T	YB(CAST/ SAST)	100	8	2~4	180	25	100Krad(si)	TO-39	IRHF7130/2N7261
SENR7587T	YB(CAST/ SAST)	100	20	2~4	50	75	100Krad(si)	TO-257AA	IRHYS67130/ 2N7588T3
SENR7587S	YB(CAST/ SAST)	100	22	2~4	50	75	100Krad(si)	SMD-0.5	IRHNJ67130/ 2N7587U3
SENR7481S	YB(SAST)	100	22	2~4	60	75	100Krad(si)	SMD-0.5	IRHNJ57130/ 2N7481U3
SENR7224S	YB(SAST)	100	34	2~4	70	150	100Krad(si)	SMD-1	IRFN150/ 2N7224U
SEPR7469T	YB(CAST)	100	45	2~4	14	208	100Krad(si)	TO-254AA	IRHMS57160/ 2N7471T1
SENR7469S	YB(CAST/ SAST)	100	75	2~4	12	250	100Krad(si)	SMD-2	IRHNA57160/ 2N7469U2
SENR7262T	YB(CAST/ SAST)	200	5.5	2~4	350	25	100Krad(si)	TO-39	IRHF7230/2N7262
SENR7262S	YB(CAST/ SAST)	200	9.4	2~4	400	75	100Krad(si)	SMD-0.5	IRHNJ7230/ 2N7262
SENR7591T	YB(CAST/ SAST)	200	16	2~4	130	75	100Krad(si)	TO-257AA	IRHYS67230/ 2N7592T3
SENR7591S	YB(CAST/ SAST)	200	16	2~4	130	75	100Krad(si)	SMD-0.5	IRHNJ67230/ 2N7591U3
SENR7269T	YB(CAST)	200	26	2~4	100	150	100Krad(si)	TO-254AA	IRHM7250/ 2N7269
SENR7269S	YB(CAST)	200	26	2~4	100	150	100Krad(si)	SMD-1	IRHN7250/ 2N7269
SENR7583T	YB(CAST/ SAST)	200	45	2~4	29	208	100Krad(si)	TO-254AA	IRHMS67260/ 2N7584T1
SENR7583S	YB(CAST/ SAST)	200	56	2~4	28	250	100Krad(si)	SMD-2	IRHNA67260/ 2N7583U2
SENR7586T	YB(CAST/ SAST)	250	45	2~4	41	208	100Krad(si)	TO-254AA	IRHMS67264/ 2N7586T1
SENR7586S	YB(CAST/ SAST)	250	50	2~4	40	250	100Krad(si)	SMD-2	IRHNA67264/ 2N7585U2
SENR7465S	YB(CAST/ SAST)	400	5	2.5~4.5	1390	75	100Krad(si)	SMD-0.5	IRHNJ7330/ 2N7465U3
SENR7391A T	YB(CAST)	400	22	2.5~4.5	250	250	100Krad(si)	TO-254AA	IRHM7360/ 2N7391
SENR7464T	YB(CAST)	500	2.5	2.5~4.5	1770	25	100Krad(si)	TO-39	IRHF7430SE/ 2N7464T2
SENL842S	YB(CAST/ SAST)	500	9.6	2~4.5	600	125	50Krad(si)	SMD-1	/
SEPL4435S	JT	-30	-8.8	-2~4	100	62.5	50Krad(si)	SMD-0.5	FDS4435
SEPL9024S	JT	-55	-11	-2~4	175	38	50Krad(si)	SMD-0.5	IRFR9024/ IRFU9024

Device Model Модель	Quality Level Уровень качества	Drain-Source Breakdown Voltage BVDS (V)	Maximum drain continuous current ID (A)	Threshold voltage VGS (TH) (V)	Static drain- source on- resistance RDS(ON) (mΩ)	Maximum power dissipation PD (W)	Radiation Hardness Радиационная стойкость	Package Типы корпусов	Compatible Model Совместимая модель
SEPR5305T	YB(CAST)	-55	-18	-2~-4	65	75	100Krad(si)	TO-257AA	IRF5Y5305CM
SEPR7382T	YB(CAST/ SAST)	-100	-6.5	-2~-4	300	25	100Krad(si)	TO-39	IRHF9130/2N7389
SEPR7382T	YB(CAST/ SAST)	-100	-11	-2~-4	300	75	100Krad(si)	TO-257AA	IRHY9130/ 2N7382
SEPR7382S	YB(CAST/ SAST)	-100	-11	-2~-4	290	75	100Krad(si)	SMD-0.5	IRHNJ9130
SEPR7422AS	YB(SAST)	-100	-22	-2~-4	80	150	100Krad(si)	SMD-1	IRHN9150/ 2N7422U
SEPR5210S	YB(SAST)	-100	-31	-2~-4	60	125	100Krad(si)	SMD-1	IRF5N5210
SEPR7425T	YB(SAST)	-100	-35	-2~-4	73	250	100Krad(si)	TO-254AA	IRHM9160/ 2N7425
SEPR7425AS	YB(CAST)	-100	-38	-2~-4	68	300	100Krad(si)	SMD-2	IRHNA9160/ 2N7425U
SEPR7425AT	YB(CAST)	-100	-35	-2~-4	73	250	100Krad(si)	TO-254AA	IRHM9160/ 2N7425
SEPR7390S	YB(CAST/ SAST)	-200	-6.5	-2~-4	800	75	100Krad(si)	SMD-0.5	IRHNJ9230
SEPR7426T	YB(CAST/ SAST)	-200	-27	-2~-4	160	250	100Krad(si)	TO-254AA	IRHM9260/ 2N7426
SENR7468S	JCT	60	75	2~4	6.5	250	100Krad(si)	SMD-2	IRHNA57064/ 2N7468U2
SEPR7587AT	-	100	20	2~4	42	75	100Krad(si)	TO-257AA	JANSR2N7587T1
SENR7587AS	-	100	22	2~4	42	75	100Krad(si)	SMD-0.5	JANSR2N7587U3
SENR7579AT	-	100	45	2~4	11	208	100Krad(si)	TO-254AA	/
SENR7579AS	-	100	56	2~4	10	250	100Krad(si)	SMD-2	JANSR2N7579U2 A
SENR7224AT	-	100	40	2~4	40	150	100Krad(si)	TO-254AA	JANTXV2N7224
SENR7224AS	-	100	40	2~4	40	150	100Krad(si)	SMD-1	JANTXV2N7224U
SENR7589AS	-	150	19	2~4	88	75	100Krad(si)	SMD-0.5	JANSR2N7589U3
SENR7581AS	-	150	56	2~4	18	250	100Krad(si)	SMD-2	JANSR2N7581U2 A
SENR7591AS	-	200	16	2~4	130	75	100Krad(si)	SMD-0.5	JANSR2N7591U
SENR7591AT	-	200	16	2~4	130	75	100Krad(si)	TO-39	JANSR2N7591
SENR7591BT	-	200	9.1	2~4	145	25	100Krad(si)	TO-257AA	JANSR2N7591A
SENR7593AT	-	250	12.4	2~4	210	75	100Krad(si)	TO-257AA	/
SENR7593AS	-	250	12	2~4	220	75	100Krad(si)	SMD-0.5	/
SENR7583AT	-	200	45	2~4	29	208	100Krad(si)	TO-254AA	JANSR2N7583T1 A
SENR7583AS	-	200	56	2~4	28	250	100Krad(si)	SMD-2	JANSR2N7583U2 A
SENR7586AT	-	250	45	2~4	41	208	100Krad(si)	TO-254AA	JANSR2N7586T1
SENR7586AS	-	250	50	2~4	40	250	100Krad(si)	SMD-2	/
SENR7391BT	-	400	26	2.5~4.5	180	250	100Krad(si)	TO-254AA	JANSR2N7391

Device Model Модель	Quality Level Уровень качества	Drain-Source Breakdown Voltage BVDSS (V)	Maximum drain continuous currentID (A)	Threshold voltage VGS (TH) (V)	Static drain- source on- resistance RDS(ON) (mΩ)	Maximum power dissipation PD (W)	Radiation Hardness Радиационная стойкость	Package Типы корпусов	Compatible Model Совместимая модель
SENR7391BS	-	400	26	2.5~4.5	180	250	100Krad(si)	SMD-2	/
SENR7392T	-	500	22	2.5~4.5	250	250	100Krad(si)	TO-254AA	JANSR2N7391
SENR7392S	-	500	22	2.5~4.5	250	250	100Krad(si)	SMD-2	/
SENR7450AS	-	500	12	2.5~4.5	510	150	100Krad(si)	SMD-1	/
SENR7450AT	-	500	12	2.5~4.5	510	150	100Krad(si)	TO-254AA	/
SENR7464S	-	500	4.4	2.5~4.5	1900	75	100Krad(si)	SMD-0.5	/
SERP4001T	-	-400	-20	-2~-4	345	250	100Krad(si)	TO-254AA	/
SEPRP4001S	-	-400	-20	-2~-4	345	250	100Krad(si)	SMD-2	/
SEPR7382S	-	-100	-14	-2~-4	165	75	100Krad(si)	SMD-0.5	/
SEPR7382T	-	-100	-14	-2~-4	165	75	100Krad(si)	TO-257AA	JANSR2N7382
SEPR7382T3	-	-100	-8.5	-2~-4	175	25	100Krad(si)	TO-39	/
SEPR7422T	-	-100	-37	-2~-4	60	150	100Krad(si)	TO-254AA	JANSR2N7422
SEPR7422S	-	-100	-37	-2~-4	60	150	100Krad(si)	SMD-1	JANSR2N7422U
SEPR7390AS	-	-200	-9	-2~-4	430	75	100Krad(si)	SMD-0.5	JANSR2N7426U
SEPR7390AT	-	-200	-9	-2~-4	430	75	100Krad(si)	TO-257AA	JANSR2N7426
SEPR7390AT	-	-200	-5.2	-2~-4	440	25	100Krad(si)	TO-39	/
SEPR7426AT	-	-200	-37	-2~-4	90	250	100Krad(si)	TO-254AA	JANSR2N7426
SEPR7426AS	-	-200	-37	-2~-4	90	250	100Krad(si)	SMD-2	JANSR2N7426U

### Radiation-hardened integrated circuit / Радиационно-стойкая интегральная схема

Type Тип	Type Тип	Device Model Модель	Quality Level Уровень качества	Package Типы корпусов	Operating Voltage (V)	Weight Вес	Compatible Model Совместимая модель	Manufacturer Производитель
54 Series	Quad 2-Input AND Gate	SE54HCS08RHD	YB	DIP14	4.5V~5.5V	1.3±0.2g	HCS08DMSR	Intersil
	Quad 2-Input AND Gate	SE54HCS08RHF	YB	CFP14	4.5V~5.5V	0.5±0.1g	HCS08DMSR	Intersil
	Triple 3-Input AND Gate	SE54HCS11RHF	YB	FP14	4.5V~5.5V	0.5±0.1g	HCS11KMSR	Intersil
	Hex Inverting Schmitt Trigger	SE54HCS14RHD	YB	DIP14	4.5V~5.5V	1.3±0.2g	HCS14DMSR	Intersil
	Hex Inverting Schmitt Trigger	SE54HCS14RHF	YB	FP14	4.5V~5.5V	0.5±0.1g	HCS14KMSR	Intersil
	Quad 2-Input OR Gate	SE54HCS32RHD	YB	DIP14	4.5V~5.5V	1.3±0.2g	HCS32DMSR	Intersil
	Quad 2-Input OR Gate	SE54HCS32RHF	YB	FP14	4.5V~5.5V	0.5±0.1g	HCS32KMSR	Intersil
	Dual D flip-flop	SE54HCS74RHD	YB	DIP14	4.5V~5.5V	1.3±0.2g	CD54HC74F3A	TI
	Quad 2-Input XOR Gate	SE54HCS86RHD	YB	DIP14	4.5V~5.5V	1.3±0.2g	HCS86DMSR	Intersil
	Dual Positive- Edge-Triggered J-K Flip-Flop	SE54HCS109RHF	YB	FP16	4.5V~5.5V	0.53 g±0.17g	SNJ54HC109W	TI

Тип Тип	Тип Тип	Device Model Модель	Quality Level Уровень качества	Package Типы корпусов	Operating Voltage (V)	Weight Вес	Compatible Model Совместимая модель	Manufacturer Производитель
54 Series	Dual Negative-Edge-Triggered J-K Flip-Flop	SE54HCS112RHD	YB	DIP16	4.5V~5.5V	1.5g±0.2g	CD54HC112F3A	TI
	Dual Retriggerable Monostable Multivibrator	SE54HCS123RHF	YB	FP16	4.5V~5.5V	0.55g×(1+10%) g	CD54HC123F	TI
	Tri-State Buffer	SE54HCS125RHD	YB	DIP14	4.5V~5.5V	1.3±0.2g	CD54HC125F3A	TI
	3-to-8 Line Decoder	SE54HCS138RHF	YB	FP16	4.5V~5.5V	0.5g±0.1g	HCS138KMSR	Intersil
	4-Bit Binary Synchronous Counter	SE54HCS163RH	YB	DIP16	4.5V~5.5V	1.4g±0.2g	HCS163DMSR	Intersil
	8-bit (serial-in, parallel-out) shift register	SE54HCS164RHD	YB	DIP14	4.5V~5.5V	1.4g±0.2g	SNJ54HC164J	TI
	Eight-bit (serial input, parallel output) shift register	SE54HCS164RH	YB	FP14	4.5V~5.5V	0.5g±0.1g	HCS164KMSR	Intersil
	Eight-bit reverse (parallel input/serial output) shift register	SE54HCS165RH	YB	FP16	4.5V~5.5V	0.5g±0.1g	HCS165KMSR	Intersil
	8-bit reverse (parallel-in/serial-out) shift register	SE54HCS166RHD	YB	DIP16	4.5V~5.5V	1.3g±0.2g	SNJ54HC166J	TI
	4-bit Binary Synchronous Up/Down Counter	SE54HCS193RHD	YB	DIP16	4.5V~5.5V	1.5g±0.15g	SNJ54HC193J	TI
	Dual-channel monostable multivibrator with reset function	SE54HCS221RHD	YB	DIP16	4.5V~5.5V	1.5g±0.2g	CD54HC221F3A	TI
	8-bit bidirectional bus transceiver	SE54HCS245RHF	YB	FP20	4.5V~5.5V	0.5g±0.1g	HCS245KMSR	Intersil
	8-bit bidirectional bus transceiver	SE54HCS245RHD	YB	DIP20	4.5V~5.5V	1.8g±0.2g	HCS245DMSR	Intersil
	8-bit D-type flip-flop with reset	SE54HCS273RHD	YB	DIP20	4.5V~5.5V	1.8g±0.2g	HCS273DMSR	Intersil
	8-bit D-type flip-flop with reset	SE54HCS273RHF	YB	FP20	4.5V~5.5V	0.5±0.1g	HCS273KMSR	Intersil
	9-bit Odd-Even Parity Generator	SE54HCS280RHF	YB	FP14	4.5V~5.5V	0.5±0.1g	CD54HC280F3A	TI
	4-bit binary full adder	SE54HCS283RHD	YB	DIP16	4.5V~5.5V	1.5±0.2g	CD54HC283F3A	TI
	4-bit binary full adder	SE54HCS283RHF	YB	FP16	4.5V~5.5V	0.5±0.1g	CD54HC283F3A	TI
	Octal D-Type Latch with Three-State Outputs	SE54HCS373RHD	YB	DIP20	4.5V~5.5V	1.8g±0.2g	HCS373DMSR	Intersil
	Octal D-Type Latch with Three-State Outputs	SE54HCS373RHF	YB	FP20	4.5V~5.5V	0.5g±0.1g	HCS373KMSR	Intersil
	Octal D-Type Latch with Three-State Outputs	SE54HCS573RHD	YB	DIP20	4.5V~5.5V	1.8g±0.2g	HCS573DMSR	Intersil
	Octal D-Type Latch with Three-State Outputs	SE54HCS573RHF	YB	FP20	4.5V~5.5V	0.5g±0.1g	HCS573KMSR	Intersil
	8-bit comparator	SE54HCS688RHD	YB	DIP20	4.5V~5.5V	1.8g±0.2g	SNJ54HC688J	TI
	8-bit comparator	SE54HCS688RHF	YB	FP20	4.5V~5.5V	0.5g±0.1g	M54HC688	ST
	12-stage asynchronous counter	SE54HCS4040RHD	YB	DIP16	4.5V~5.5V	1.5g±0.2g	CD54HC4040F3A	TI

Type Тип	Type Тип	Device Model Модель	Quality Level Уровень качества	Package Типы корпусов	Operating Voltage (V)	Weight Вес	Compatible Model Совместимая модель	Manufacturer Производитель
54 Series	14-stage asynchronous counter	SE54HCS4060RHD	YB	DIP16	4.5V~5.5V	1.5g±0.2g	CD54HC4060F3A	TI
	4-16 line decoder/multiplexer with input latches	SE54HCS4514RHD	YB	DIP24	4.5V~5.5V	5g±0.2g	CD54HC4514F3A	TI
Radiation-hardened PROM	Radiation-Hardened 64Kbit Synchronous Access PROM	SE6664RD	YB	CDIP28	2.97V~3.63V	-	HS-6664RH	Intersil
	Radiation-hardened 1 Mbit (128k × 8-bit) EEPROM	SE1M08LC	YB	CSOP64	3.0V~3.6V	-	3DEE1M08VS1192	3DPLUS
	Radiation-hardened 8Mbit (256k×32-bit) EEPROM	SE8M32LC	YB	CSOP64	3.0V~3.6V	-	3DEE8M32VS8094	3DPLUS
SRAM Series (SOI)	8k×8-bit SOI CMOS Static Random Access Memory	SE064RH	YB	DIP28	4.5V~5.5V	5.0g±0.5g	HS-65647RH	HARRIS
	512k×8-bit SOI CMOS Static Random Access Memory	SE8Q512K8RH	YB	CFP36	3.3V±0.3V	7.0g	UT8Q512E	AEROFLEX
	512k×32-bit SOI CMOS Static Random Access Memory	SE8Q512K32RH	YB	CQFP68	3.3V±0.3V	16g±3g	UT8Q512K32E	AEROFLEX
	1024k×8-bit SOI CMOS Static Random Access Memory	SE8Q1024K8RH	YB	CQFP68	3.3V±0.3V	19.0g	UT8Q1024K8	AEROFLEX
SRAM Series (COMS)	Low-power radiation-hardened static SRAM 40 Mbit (1,048,576 words × 39 bits)	SE1M40RH	YB	CQFP84	3.3V	-	UT1M39	AEROFLEX
	Low-power radiation-hardened static SRAM 20Mbit (512K×32)	SE512K32RH	YB	CSOP64	3.3V	-	—	—
	20Mbit×40Mbit SOI CMOS Static Random Access Memory	SE8R1M40RH	YB	CQFP84	3.3V	-		
Radiation-hardened Parallel FLASH	64Mbit(4M×16bit) Parallel NOR FLASH	SE29LV641RC	YB	CSOP48	2.7V~3.63V	-	AM29LV641	AMD
	256Mbit (16M×16bit) Parallel NOR FLASH	SE29GL256FC	YB	CSOP48	2.7V~3.63V	-	S29GL256	SPANSION

### Radiation-hardened driver / Радиационно-стойкий драйвер

Type Тип	Radiation Hardness Радиационная стойкость	Device Model Модель	Package Типы корпусов	Operating Voltage (V)	Input Voltage Входное напряжение	Compatible Model Совместимая моде ль	Manufacturer Производитель
Radiation-hardened Driver	TID >100Krad (Si) SEL >75MeV·cm <sup>2</sup> /mg	SE4424RF	FP-16	12V~18V	0-18V	Intersil4424	Intersil
	TID >50Krad (Si) SEL >TBD	SE2110RD	DIP-14	10V~20V	0-20V	IR2110	Infineon
	TID >100Krad (Si) SEB: 37MeV·cm <sup>2</sup> /mg	SE18200R-2D	DIP-24	12V~55V	VIH?2V	LMD18200	TI
	TID: >100k rad(si) LET: >75 MeV·cm <sup>2</sup> /mg	SE3709RHB	CQFN-48	5V ~ 15V	0-15V	UCC2752	TI

**Radiation-hardened LDO regulator / Радиационно-стойкий LDO-регулятор**

Type Тип	Device Model Модель	Package Типы корпусов	Input voltage Входное напряжение (V)	Output voltage Выходное напряжение (V)	Output Current Выходной ток (A)	Compatible Model Совместимая модель	Quality Level Уровень качества
Three-route Voltage Regulator	SE7H1101RF	CFP-16	1.5-7	0.8- (Vin-Vd)	3	TPS7H1101A-SP	YB/CH
DDR Terminal Voltage Regulator	SE7H3301RF	CFP-16	2.5-3.5	±2.5	3	TPS7H3301A-SP	YB/CH
Linear Voltage Regulator	SE4913RHF/S	SMD-5C	3-12	1.2- (Vin-Vd)	3	RHFL4913A	YB/CH
Linear Voltage Regulator	SE7913RS	SMD-5C	-12--3	-1.22-G10(Vin-Vd)	3	RHFL7913A	YB/CH
POL Point Load	SE50601RF	CFP-16	3-17	--	8	TPS50601-SP	YB/CH

**Radiation-Hardened DC/DC Step-Down  $\mu$ Module Regulator /  
Радиационно-стойкий понижающий DC/DC  $\mu$ Module-стабилизатор**

Type Тип	Device Model Модель	Package Типы корпусов	Input voltage Входное напряжение (V)	Output voltage Выходное напряжение (V)	Output Current Выходной ток (A)	Compatible Model Совместимая модель	Quality Level Уровень качества
DC/DC Step-Down $\mu$ Module Regulator	SE4644ARH	BGA-77	4V ~ 12V	0.6V ~ 5.5V	4	LTM4644	QY/CH

**CMOS FLASH MEMORY / Флэш-память CMOS**

Type Тип	Device Model Модель	Capacity	Operating Voltage (V) Рабочее напряжение	Interface Интерфейс	Compatible Model Совместимая модель	Package Типы корпусов
NOR FLASH	SE25L256	256Mbit (32M* 8bit)	3.3V	SPI	W25Q256M25P256	SOP-8, SOP-16, BGA-14