Product Selection Guide

Mixed Signal Processing Product Line

ADC Product

Product	ADC	OPAMP	Interface	DMM Function	Frequency Counter	Voltage Reference	Package	Product Status
FS501	18-bit	2	4 bits bus	-	-	-	LQFP44	Available
FS511	18-bit	1	SPI	-	-	Y	DIP/SOP20	Available
FS970X	18-bit	2	4 bits bus	Y	Y	-	LQFP64	Available

Mask ROM MCU with 14-bit ΔΣADC

Product	ROM Words	RAM Bytes	I/O	LCD	ADC	OPAMP	Stack	LVR	System Clock	Package	Product Status
FS9932	2k	128	10	4x12	14-bit, 6 ch	1	6	Y	Ext.32768Hz or Ext.4MHz, Int.1MHz	LQFP64	Available
FS9934	2k	128	10	4x12	11-bit, 6 ch	1	6	Y	Ext.32768Hz Or Ext.4MHz, Int.1MHz	LQFP64	Available
FS9934B	2k	128	10	4 x12	12-bit, 6 ch	1	6	Y	Ext.32768Hz Or Ext.4MHz, Int.1MHz	LQFP64	Available
FS9912R	4k	128	16	4x16	14-bit, 8 ch	1	8	Y	Ext.4MHz	LQFP64	Available

Standard Code	Description
FS9912R_LCS2	FS9912R standard code for 3,000 counts low cost scale application.

OTP ROM MCU with 14-bit ΔΣADC

Product	ROM Words	RAM Bytes	I/O	LCD	ADC	OPAMP	Stack	LVR	System Clock	Package	Product Status
FS98O21	2k	128	16	4x12	14-bit, 6 ch	1	6	Y	Ext.32768Hz, Int.1MHz	LQFP64	Available
FS98M21 Mask Type	2k	128	16	4x12	14-bit, 6 ch	1	6	Y	Ext.32768Hz, Int.1MHz	LQFP64	Available
FS98O22	4k	256	24	4x20	14-bit, 8 ch	1	8	Y	Ext.32768Hz, Int.1MHz	QFP100	Available
FS98O23	8k	384	28	4x40	14-bit, 12 ch	2	8	Y	Ext.32768Hz, Int.1MHz	QFP100	Available

Mask ROM MCU with R2F Function

Product	ROM Words	RAM Bytes	I/O	LCD	R2F Function	Operating Voltage	Stack	LVR	System Clock	Package	Product Status
FS9168	1k	64	8*	3x13	1 ch	1.2V~1.65V	3	-	Ext RC	LQFP44	Available
FS9169	2k	128	12	3x20, 4x20	2 ch	1.2V~3.6V	6	Y	Ext RC, Ext 32768Hz	LQFP64	Available

* 4 input ports and 4 I/O ports.

Standard Code	Description
FS9168-002	FS9168 standard code for digital clinical thermometer application.
FS9168-015	FS9168 standard code for digital clinical thermometer application.
FS9168-017	FS9168 standard code for -50°C -300°C wide range thermometer application.

Mixed Signal Processing Product Line

Auto Range Digital Multi-function Meter (DMM) IC

Product	Counts	Measure	Frequency Counter	Cap	Over Range Beeper Alarm	RS232	Function Key	Auto Power Off	Package	Product Status
FS9952_LP1	2000	V, A, Ω, Diode, BJT, Temp	-	-	Y	-	Hold, Max Hold	15 min	LQFP64	Available
FS9721B	2500	V, A, Ω, Cap, Hz, Duty, Diode	5.000Hz~ 5.000MHz	2.500nF~ 25.00μF	-	Y	Hold, Relative, Hz/Duty	30 min	QFP100	Available
FS9721_LP1	4000	V, A, Ω, Cap, Hz, Duty, Diode, BJT, Temp	9.999Hz~ 9.999MHz	4.000nF~ 100.0μF	Y	-	Hold, Relative, Hz/Duty	15 min	QFP100	Available
FS9721_LP3	4000	V, A, Ω, Cap, Hz, Duty, Diode	5.000Hz~ 5.000MHz	5.000nF~ 100.0μF	-	Y	Hold, Relative, Hz/Duty	30 min	QFP100	Available
FS9922_DMM3	4000	V, A, Ω, Cap, Hz, Duty, Diode, BJT, Temp	9.999Hz~ 9.999MHz	40.00nF~ 4000μF	Y	Y	Hold, Relative, Hz/Duty, Max/Min	15 min	QFP100	Available
FS9922_DMM4	6000	V, A, Ω, Cap, Hz, Duty, Diode, BJT, Temp, RPM	9.999Hz~ 999.9MHz	40.00nF~ 4000μF	Y	Y	Hold, Relative, Hz/Duty, Max/Min	15 min	QFP100	Available

Energy Metering & Management Product Line

Electricity Power Metering IC

Part No.	Package	Accuracy (%)	Phase	Dynamic Range	Temperature Coefficient (ppm/°C)	Description	Pin Compatible	Product Status
FS6611	SSOP24	0.1	Single	500:1	30	Electricity Power Metering	ADE7755	Available

Flow (Water/Gas) Metering IC

Part No.	Package	VDD (V)	Clock	ROM	RAM	INT	Timer	I/O	LCD	SIO	RTC	WDT	Product Status
FS6811	LQFP64	3.0 ~ 3.6	32768Hz And 4MHz	4K	256B	7	1	16	4×20	UART	1	-	Sample Available

Thermal Sensor IC

Part No.	Package	V_{DD} (V)	V_{OUT} (V)	Temperature (°C)	Accuracy (°C)	Resolution (°C)	Description	Function Compatible	Product Status
FS5908	SOP8	2.5 ~ 5.5	2.5~5.5	-128~127	±2	0.125	Temperature Metering	LM75	Available

Product Selection Guide

Battery Management Product Line

One-Cell Lithium-ion/Polymer Battery Protection IC

Part No.	Function	Overcharge Detection Voltage (Accuracy) (V)	Overdischarge Detection Voltage (Accuracy) (V)	Overcurrent Detection Voltage 1 (Accuracy) (mV)	Package	Application	Pin Compatible Parts
DW01	One-cell protection IC	4.250(±0.050)	2.40(±0.10)	150(±30)	SOT-23-6	Cellular Phone PDA,DSC	-
DW01+	One-cell protection IC	4.300(±0.025)	2.40(±0.10)	150(±30)	SOT-23-6	Cellular Phone PDA,DSC	-
FS326C	One-cell protection IC	4.325(±0.025)	2.50(±0.08)	150(±30)	SOT-23-6	Cellular Phone PDA,DSC	Seiko 8261-G2J
FS326E	One-cell protection IC	4.300(±0.040)	2.50(±0.08)	150(±30)	SOT-23-6	Cellular Phone PDA,DSC	Seiko 8261
FS326F	One-cell protection IC	4.275(±0.025)	2.30(±0.08)	100(±30)	SOT-23-6	Cellular Phone PDA,DSC	Seiko 8261-G2N
FS326G	One-cell protection IC	4.280(±0.025)	2.90(±0.08)	150(±30)	SOT-23-6	Cellular Phone PDA,DSC	Seiko 8261-G3J
FS326H	One-cell protection IC	4.250(±0.025)	2.30(±0.08)	150(±30)	SOT-23-6	Cellular Phone PDA,DSC	Seiko 8261
FS312F	One-cell protection IC	4.250(±0.025)	2.90(±0.08)	150(±30)	SOT-23-6	Cellular Phone PDA,DSC	Seiko8261-G3J

Two-Cell Lithium-ion/Polymer Battery Protection IC

Part No.	Function	Overcharge Detection Voltage (Accuracy) (V)	Overdischarge Detection Voltage (Accuracy) (V)	Overcurrent Detection Voltage 1 (Accuracy)(mV)	Package	Application	Pin Compatible Parts
FS3332A	Two-cell protection IC	4.250(±0.025)	2.40(±0.08)	200(±20)	SOT-23-6	P-DVD, PDA,DSC	Seiko 8232

Lithium-ion/Polymer & NiMH Battery Charger IC

Product	ROM (word)	RAM	I/O	PDM	Current Regulation	Voltage Regulation	System Clock	Package
FS3861	1k	64 byte	4	YES	25mA~1A	1.2V~4.3V	4MHz RC	SSOP16
FS3862	1k	64 byte	4	NO	25mA~1A	1.2V~4.3V	200kHz RC	SSOP16

Linear Charger Management IC for One/Two-cell Lithium-ion/Polymer Battery

Part No	Function	VCC (V)	Charge Regulation Voltage (V)	Package	Application	Pin compatible Parts
FS3871A	One-cell Charger	4.5~15	4.2	TSSOP-8	Charger,DV,MP3,MP4,DSC	BQ2057

Power Management Product Line

Low Dropout Linear Regulators

Part No.	Vin Range (V)	Vout Range (V)	Iout (mA)	Iq (µA)	Dropout Voltage	Description	Package	Application	Pin Compatible Parts
FS8853	2.5 ~ 9.0	1.5 ~ 5.0	300	30	400mV @ 300mA	Low Dropout	SOT-23, SOT-89,TO-92	Portable Devices	XC6201
FS8853A	2.5 ~ 9.0	1.5 ~ 5.0	300	40	400mV @ 300mA	Low Dropout with EN	SOT-25	Portable Devices	S-814
FS8854	2.5 ~ 6.5	1.5 ~ 4.5	350	65	500mV @ 350mA	Low Dropout	SOT-23, SOT-89,TO-92	Portable Devices	XC6201
FS8855	2.5 ~ 9.0	1.5 ~ 5.0	500	30	650mV @ 500mA	Low Dropout	SOT-89, TO-92	CD-ROM CD-R/W	FAN1616A
FS8855A	2.5 ~ 9.0	1.5 ~ 5.0	500	40	650mV @ 500mA	Low Dropout with EN	SOT-89-5	CD-ROM LCD-Panel	-
FS8860	2.5 ~ 7.0	1.5 ~ 4.5 Adjustable	1000	65	700mV @ 1A	Low Dropout	SOT-223, TO-252	M/B, LAN, VGA, DVD	LM1117A, FAN1117A

Low Noise LDO Linear Regulator

Part No.	Vin Range (V)	Vout Range (V)	Iout (mA)	Output Noise	Dropout Voltage	Description	Package	Application	Pin Compatible Parts
FS8832	2.5 ~ 9.0	1.5 ~ 5.0	150	40uV$_{RMS}$	150mV @ 100mA	Low Noise with EN	SOT-25	Cell Phone, Wireless.	MAX8877/8

Low Quiescent Current LDO Linear Regulators

Part No.	Vin Range (V)	Vout Range (V)	Iout (mA)	Iq (µA)	Dropout Voltage	Description	Package	Application	Pin Compatible Parts
FS8841	2.5 ~ 18	1.5 ~ 5.0	50	1.0 typ	600mV @ 50mA	Low Quiescent Current	SOT-23, SOT-89, TO-92	Portable Devices.	S-812xxSG, RX5RLxxA
FS8842	2.5 ~ 6.5	1.5 ~ 5.0	150	1.4 typ	420mV @ 150mA	Low Quiescent Current	SOT-23, SOT-89	Portable Devices.	XC62FP, XC6201
FS8844	2.5 ~ 6.5	1.5 ~ 5.0	250	2.0 typ	550mV @ 250mA	Low Quiescent Current with EN	SOT-23, SOT-25, SOT-89	Portable Devices.	AAT3321/2, XC6206,RT9169

Low Quiescent Current Voltage Detectors

Part No.	Vin Range (V)	Detection Voltage Range (V)	Accuracy	Iq (µA)	Output Type	Description	Package	Application	Pin Compatible Parts
FS8821	2.5 ~ 6.5	1.8 ~ 5.0	+/- 2%	1.0 typ	Nch Open Drain or CMOS	Voltage Detector	SOT-23, SOT-89	Portable Devices.	S-808, XC61C, HT70xx, AIC1680
FS8822	2.5 ~ 6.5	1.8 ~ 5.0	+/- 2%	1.0 typ	Nch Open Drain or CMOS	Reset IC with 200ms delay	SOT-23, SOT-89	MCU reset	MAX809,S-809, XC61F, AME8500

Power Management Product Line

Step-Up DC-DC Switching Regulators

Part No.	Vin Range (V)	Vout Range (V)	Iout (mA)	Iq (μA) (SW off)	Freq. (KHz)	Effi. (%) Max	Description	Package	Application	Pin Compatible Parts
FS8800	1.0 ~ 5.5	3.3, 5.0, Adjustable	--	35	300	88	PWM Step-up Controller	SOT-25	DSC, MP3, PDA	XC6367, NCP1450, R1210xx2, RT9261A
FS8801	1.0 ~ 5.5	3.3, 5.0	300	35	300	90	PWM Step-up Converter with EN	SOT-25 SOT-89	DSC, MP3, PDA, Portable Devices	XC6371C,NCP1400A, R1210xx1
FS8802	1.0 ~5.5	Adjustable 2.5 ~ 6.0	400	35	550	90	PWM Step-up Converter with Low Battery Detect	SOP-8	DSC, MP3, PDA, Portable Devices	RT9262A
FS8804	1.0 ~ 5.5	3.0, 3.3, 3.6, 4.0, 5.0	100	4	--	82	PFM Step-up Converter	SOT-89	RF Mouse, DSC, Portable Devices	RT9261, AIC1642, XC6382/83C
FS8806	1.0 ~ 5.5	2.7, 3.0, 3.3, 3.6, 4.0, 5.0	200	8	--	87	PFM Step-up Converter	SOT-89	RF Mouse, DSC, Portable Devices	RT9261B, AIC1638, XC6382/83C
FS8807	2.5 ~ 5.5	Adjustable Vin ~ 18	80	30	--	85	Step-up White LED Driver with OVP	SOT-26	Cellular Phone, PDA	LM2703, LTC1937