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INTRODUCTION

Fairchild Semiconductor provides complete portable design solutions to assist in your design challenges and accelerate time to market in the ever fast moving design cycle. We offer a large portfolio of leading-edge products that incorporates our expertise in power management, signal conditioning and advanced packaging technologies. For example, Fairchild's µSerDes™, the market leading serializer/deserializer solution, has been proven in millions of small factor platforms. In addition, our IntelliMAX™ family of products simplifies integrated load management switches, reduces design time and cost, while our USB switches offer the best combination of performance and small packaging. In this Design Guide you will find solutions for solving miniaturization, convergence and power efficiency challenges for portable devices. This guide also includes application diagrams, parametric tables and information on Fairchild's Global Power Resource℠.

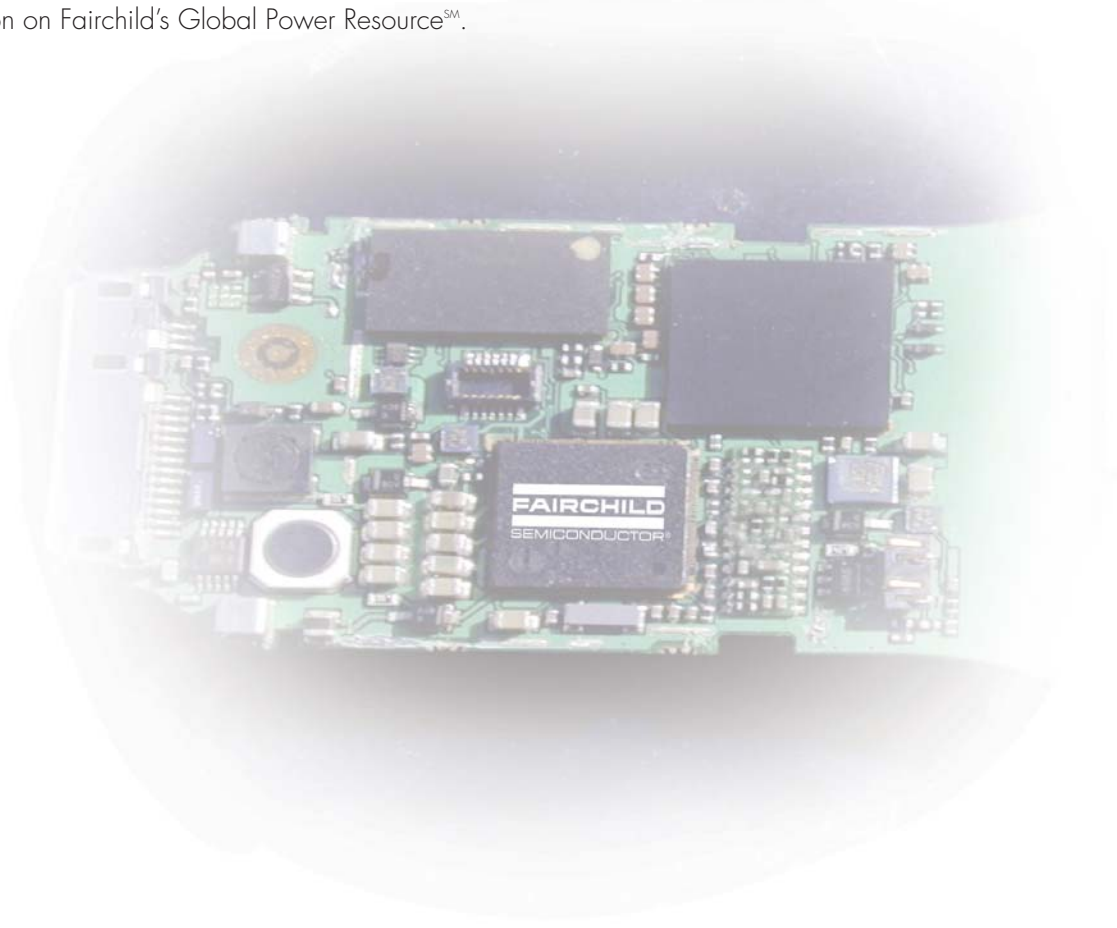


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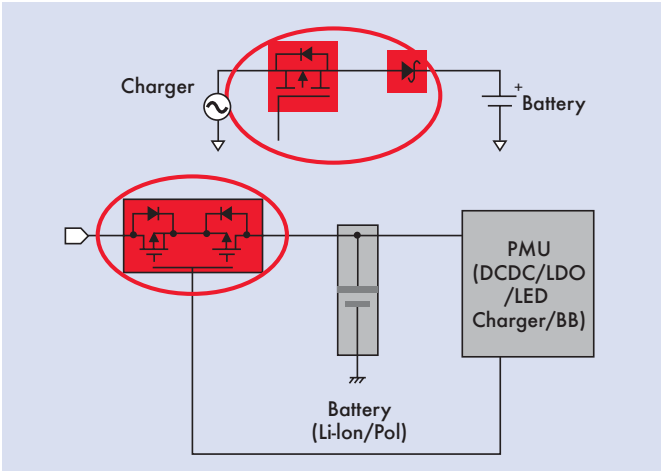
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Please note: all Fairchild products in diagrams are illustrated in red.

Charge Switches

Part Number	Polarity	BV_{DSS} Min. (V)	Config.	$R_{DS(ON)}$ Max (Ω) @ V_{GS} =				$Q_{g(TOT)}$ Typ. (nC) @V_{GS}=4.5V	I_D (A)	P_D (W)	Package
				10V	4.5V	2.5V	1.8V				
FDZ191P	P	-20	Single	-	0.085	0.123	-	9	3	1.5	WL-CSP 1.0x1.5
FDZ193P	P	-20	Single	-	0.09	0.13	-	7	3	1.5	WL-CSP 1.0x1.5
FDMA520PZ	P	-20	Single	-	0.03	0.053	-	14	7.3	2.4	MicroFET 2x2
FDMA291P	P	-20	Single	-	0.042	0.058	0.0968	10	6.6	2.4	MicroFET 2x2
FDMA1029PZ	P	-20	Dual	-	0.06	0.088	-	7	3.1	1.4	MicroFET 2x2
FDMA530PZ	P	-30	Single	0.035	0.065	-	-	16	6.8	2.4	MicroFET 2x2
FDMA1023PZ	P	-20	Dual	-	0.072	0.095	0.13	8.6	3.7	1.5	MicroFET 2x2
FDMA1027P	P	-20	Dual	-	0.12	0.16	0.24	4	2.2	1.4	MicroFET 2x2
FDMA1025P	P	-20	Dual	-	0.155	0.22	-	3.4	3.1	1.4	MicroFET 2x2
FDMB506P	P	-20	Single	-	0.03	0.038	0.07	3.5	6.8	1.9	MicroFET 3x1.9
FDMB668P	P	-20	Single	-	0.035	0.05	0.07	42	6.1	1.9	MicroFET 3x1.9
FDMJ1023PZ	P	-20	Dual	-	0.112	0.16	0.21	4.6	2.9	1.4	SC-75 MicroFET
FDJ127P	P	-20	Single	-	0.06	0.085	0.133	7.2	4.1	1.6	SC75-6 FLMP
FDJ129P	P	-20	Single	-	0.07	0.12	-	4	4.2	1.6	SC75-6 FLMP
FDJ1027P	P	-20	Dual	-	0.16	0.23	0.39	3	2.8	1.5	SC75-6 FLMP
FDC6506P	P	-30	Dual	0.17	0.28	-	-	2.3	1.8	0.96	SSOT-6
FDC697P	P	-20	Single	-	0.02	0.025	0.035	39	8	2	SSOT-6 FLMP
FDC699P	P	-20	Single	-	0.022	0.03	-	27	7	2	SSOT-6 FLMP
FDC6036P	P	-20	Dual	-	0.044	0.064	0.095	10	5	1.8	SSOT-6 FLMP

Note: See specific device datasheet for full $Q_{g(TOT)}$ test conditions



Charger Application: MOSFET used as a Current Source.

Charge Switches with Integrated Schottky Diodes

Part Number	V_{DS} (V)	I_D (A)	$R_{DS(ON)}$ Max (Ω) V_{GS}=					Q_g		Schottky Diode		P_D (W)	Package
			10V	4.5V	2.5V	1.8V	1.5V	(nC)	@ V_{GS} (V)	V_F (V)	@ I_F (A)		
FDFMA2P029Z	-20	3.1	-	0.095	0.141	-	-	7	4.5	0.37	0.5	1.4	MicroFET 2x2
FDFMA2P857	-20	2.2	-	0.12	0.16	0.24	-	4	4.5	0.4	0.1	1.4	MicroFET 2x2
FDFMA2P853	-20	2.2	-	0.12	0.16	0.24	-	4	4.5	0.46	0.5	1.4	MicroFET 2x2
FDFMJ2P023Z	-20	2.9	-	0.112	0.16	0.21	0.3	4.6	4.5	0.4	0.1	1.4	MicroFET SC-75

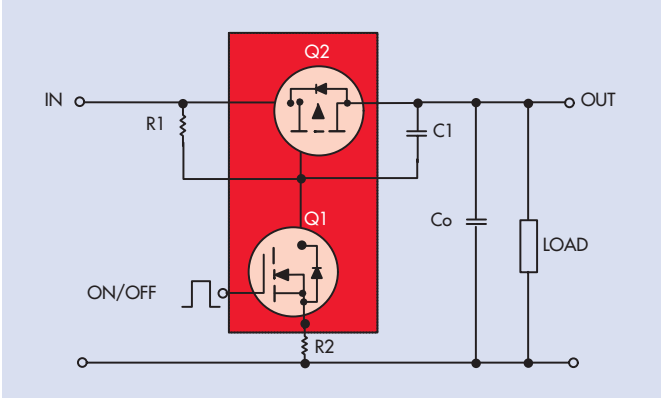
Power/Load Switches

Part Number	Polarity	BV_{DSS} Min. (V)	Config.	$R_{DS(ON)}$ Max (Ω) @ V_{GS} =				$Q_{g(TOT)}$ Typ. (nC) @V_{GS}=4.5V	I_D (A)	P_D (W)	Package
				10V	4.5V	2.5V	1.8V				
FDZ193P	P	-20	Single	-	0.09	0.13	-	7	3	1.5	1.0x1.5 WL-CSP
FDZ191P	P	-20	Single	-	0.085	0.123	-	9	3	1.5	1.0x1.5 WL-CSP
FDMA2002NZ	N	30	Dual	-	0.123	0.163	-	2.4	2.9	1.5	MicroFET 2x2
FDMA1028NZ	N	20	Dual	-	0.037	0.05	-	4	3.7	1.4	MicroFET 2x2
FDMA1023PZ	P	-20	Dual	-	0.072	0.095	0.13	8.6	3.7	1.5	MicroFET 2x2
FDMJ1023PZ	P	-20	Dual	-	0.112	0.16	0.21	4.6	2.9	1.4	MicroFET 2x2
FDMA1029PZ	P	-20	Dual	-	0.06	0.088	-	7	3.1	1.4	MicroFET 2x2
FDMA1027P	P	-20	Dual	-	0.12	0.16	0.24	4	2.2	1.4	MicroFET 2x2
FDMA1025P	P	-20	Dual	-	0.155	0.22	-	3.4	3.1	1.4	MicroFET 2x2
FDMA430NZ	N	30	Single	-	0.04	-	-	7.3	5	2.4	MicroFET 2x2
FDMA420NZ	N	20	Single	-	0.03	-	-	8.8	5.7	2.4	MicroFET 2x2
FDMA530PZ	P	-30	Single	0.035	0.065	-	-	16	6.8	2.4	MicroFET 2x2
FDMA520PZ	P	-20	Single	-	0.03	0.053	-	14	7.3	2.4	MicroFET 2x2
FDMA291P	P	-20	Single	-	0.042	0.058	0.0968	10	6.6	2.4	MicroFET 2x2
FDMB3800N	N	30	Dual	0.04	0.051	-	-	4	4.8	1.6	MicroFET 3x1.9
FDMB668P	P	-20	Single	-	0.035	0.05	0.07	42	6.1	1.9	MicroFET 3x1.9
FDMB506P	P	-20	Single	-	0.03	0.038	0.07	3.5	6.8	1.9	MicroFET 3x1.9
FDJ1028N	N	20	Dual	-	0.09	0.13	-	2	3.2	1.5	SC75-6 FLMP
FDJ1027P	P	-20	Dual	-	0.16	0.23	0.39	3	2.8	1.5	SC75-6 FLMP
FDJ128N	N	20	Single	-	0.037	0.051	-	5	5.5	1.6	SC75-6 FLMP
FDJ129P	P	-20	Single	-	0.07	0.12	-	4	4.2	1.6	SC75-6 FLMP
FDJ127P	P	-20	Single	-	0.06	0.085	0.133	7.2	4.1	1.6	SC75-6 FLMP
FDC655BN	N	30	Single	0.025	0.033	-	-	6	6.3	1.6	SSOT-6
FDC653N	N	30	Single	0.035	0.055	-	-	12	5	1.6	SSOT-6
FDC637AN	N	20	Single	-	0.024	0.032	-	10.5	6.2	1.6	SSOT-6
FDC633N	N	30	Single	-	0.042	0.054	-	11	5.2	1.6	SSOT-6
FDC658AP	P	-30	Single	0.05	0.075	-	-	6	4	1.6	SSOT-6
FDC654P	P	-30	Single	0.075	0.125	-	-	6.2	3.6	1.6	SSOT-6
FDC654P	P	-30	Single	0.075	0.125	-	-	6.2	3.6	1.6	SSOT-6
FDC642P	P	-20	Single	-	0.065	0.1	-	7.2	4	1.6	SSOT-6
FDC640P	P	-20	Single	-	0.053	0.08	-	9	4.5	1.6	SSOT-6
FDC638P	P	-20	Single	-	0.048	0.065	-	10	4.5	1.6	SSOT-6
FDC638APZ	P	-20	Single	-	0.043	0.068	-	8	4.5	1.6	SSOT-6
FDC636P	P	-20	Single	-	0.13	0.18	-	6	2.8	1.6	SSOT-6
FDC634P	P	-20	Single	-	0.08	0.11	-	7.2	3.5	1.6	SSOT-6
FDC610PZ	P	-30	Single	0.042	0.075	-	-	9	4.9	1.6	SSOT-6
FDC608PZ	P	-20	Single	-	0.03	0.043	-	17	5.8	1.6	SSOT-6
FDC606P	P	-12	Single	-	0.026	0.035	0.053	18	6	1.6	SSOT-6
FDC604P	P	-20	Single	-	0.033	0.043	0.06	19	5.5	1.6	SSOT-6
FDC602P	P	-20	Single	-	0.035	0.05	-	14	5.5	1.6	SSOT-6

Power/Load Switches Continued

Part Number	Polarity	BV_{DSS} Min. (V)	Config.	$R_{DS(ON)}$ Max (Ω) @ V_{GS} =				$Q_{g(TOT)}$ Typ. (nC) @V_{GS}=4.5V	I_D (A)	P_D (W)	Package
				10V	4.5V	2.5V	1.8V				
FDC6000NZ	N	20	Dual	-	0.02	0.028	-	8	7.3	1.6	SSOT-6 FLMP
FDC6036P	P	-20	Dual	-	0.044	0.064	0.095	10	5	1.8	SSOT-6 FLMP
FDC796N	N	30	Single	0.009	0.012	-	-	14	12.5	2	SSOT-6 FLMP
FDC699P	P	-20	Single	-	0.022	0.03	-	27	7	2	SSOT-6 FLMP
FDC697P	P	-20	Single	-	0.02	0.025	0.035	39	8	2	SSOT-6 FLMP

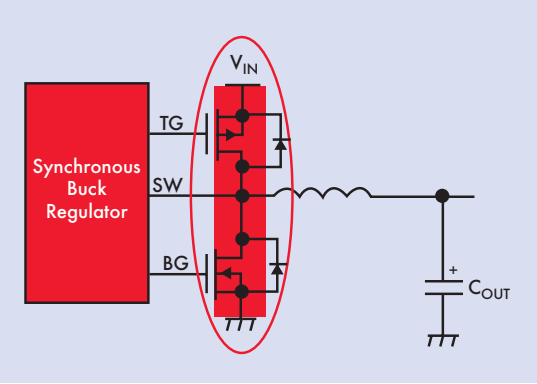
Note: See specific device datasheet for full $Q_{g(TOT)}$ test conditions



Integrated Load Switch

Integrated Load Switches

Part Number	V_{IN} Max (V)	V_{GS} Max (V)	$R_{DS(ON)}$ Max (Ω) @ V_{GS} =						Package
			12V	4.5V	3.3V	2.5V	1.8V	1.5V	
FDG6323L	8	8	-	0.55	-	0.75	-	-	SC-70
FDG6331L	8	8	-	0.26	-	0.33	0.45	-	SC-70
FDG6342L	8	8	-	0.15	-	0.195	0.28	0.48	SC-70
FDG6324L	20	8	0.55	0.75	-	-	-	-	SC-70
FDC6323L	8	8	-	0.2	0.3	-	-	-	SSOT-6
FDC6325L	8	8	-	0.13	-	0.18	-	-	SSOT-6
FDC6329L	8	8	-	0.07	-	0.105	-	-	SSOT-6
FDC6331L	8	8	-	0.055	-	0.07	0.1	-	SSOT-6
FDC6324L	20	20	0.2	0.3	-	-	-	-	SSOT-6
FDC6326L	20	20	0.125	0.2	-	-	-	-	SSOT-6
FDC6330L	20	20	0.08	0.125	-	-	-	-	SSOT-6

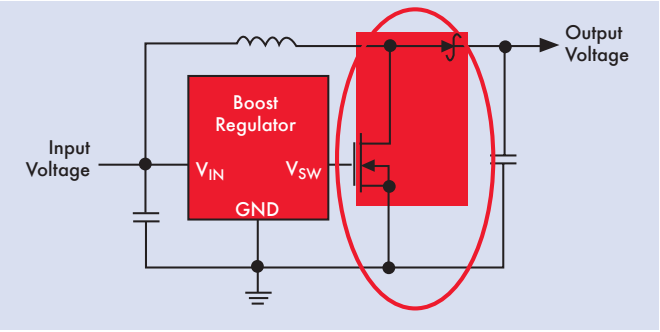


DC-DC Switcher Application

DC-DC Switches

Part Number	Polarity	BV_{DSS} Min. (V)	Config.	$R_{DS(ON)}$ Max (Ω) @ V_{GS} =			$Q_{g(TOT)}$ Typ. (nC) @V_{GS}=4.5V	I_D (A)	P_D (W)	Package
				4.5V	2.5V	1.8V				
FDMA1032CZ	N/P	20/20	Complementary	.037/.06	.05/.088	-	4/7	3.7	1.4	MicroFET 2x2
FDG6320C	N/P	25/25	Complementary	4/10	5@2.7V/ 13@2.7V	-	.29/.22	.22/.14	0.3	SC70-6
FDG6321C	N/P	25/25	Complementary	.45/1.1	.6@2.7V/ 1.5@2.7V	-	1.64/1.1	.5/.41	0.3	SC70-6
FDG6322C	N/P	25/25	Complementary	4/1.1	5@2.7V/ 1.5@2.7V	-	.29/1.1	.22/.41	0.3	SC70-6
FDG6332C	N/P	20/20	Complementary	.3/.42	.4/.63	-	1.1/1.4	.7/.6	0.3	SC70-6
FDJ1032C	N/P	20/20	Complementary	.16/.09	.23/.13	0.39 (P)	3/2	2.8/3.2	1.5	SC75-6 FLMP
FDY4000CZ	N/P	20/20	Complementary	.7/1.2	0.85/1.6	1.25/2.7	.8/1	.6/.35	625	SC89
FDY4001CZ	N/P	20/20	Complementary	5/8	7/12	9/15	.8/1	.2/.15	625	SC89
FDC6320C	N/P	25/25	Complementary	4/10	5@2.7V/ 13@2.7V	-	.29/.23	.22/.12	0.9	SSOT-6
FDC6321C	N/P	25/25	Complementary	.45/1.1	-	-	1.64/1.1	.68/.46	0.9	SSOT-6
FDC6322C	N/P	25/25	Complementary	4/1.1	5@2.7V/ 1.5@2.7V	-	.49/1	.22/.46	0.9	SSOT-6
FDC6327C	N/P	20/20	Complementary	.08/.17	.12/.25	-	3.25/2.85	2.7/1.9	0.96	SSOT-6
FDC6420C	N/P	20/20	Complementary	.07/.125	.095/.19	-	3.3/3.7	3/2.2	0.96	SSOT-6
FDC6020C	N/P	20/20	Complementary	.055/.027	.082/.039	-	7/6	4.2/5.9	1.6	SSOT-6 FLMP

Note: See specific device datasheet for full $Q_{g(TOT)}$ test conditions



Typical Boost Application

Boost Switches

Part Number	V_{DS} (V)	I_D (A)	$R_{DS(ON)}$ Max (Ω) V_{GS}=			Q_g		Schottky Diode		P_D (W)	Package
			10V	4.5V	2.5V	(nC)	@ V_{GS} (V)	V_F (V)	@ I_F (A)		
FDFMA2N028Z	20	3.7	-	0.068	0.086	4	4.5	0.37	0.5	1.4	MicroFET 2x2
FDFMA3N109	30	2.9	-	0.123	0.163	2.4	15	0.5	1	1.5	MicroFET 2x2

Miscellaneous Switches

Part Number	Polarity	BV_{DSS} Min. (V)	Config.	$R_{DS(ON)}$ Max (Ω) @ V_{GS} =				$Q_{g(TOT)}$ Typ. (nC) @V_{GS}=4.5V	I_D (A)	P_D (W)	Package
				10V	4.5V	2.5V	1.8V				
FDG8850NZ	N	30	Dual	-	0.4	.5@2.7V	-	1.03	0.75	0.36	SC70-6
FDG6335N	N	20	Dual	-	0.3	0.4	-	1.1	0.7	0.3	SC70-6
FDG6317NZ	N	20	Dual	-	0.4	0.55	-	0.76	0.7	0.3	SC70-6
FDG6313N	N	25	Dual	-	0.45	.6@2.7V	-	1.64	0.5	0.3	SC70-6
FDG6303N	N	25	Dual	-	0.45	.6@2.7V	-	1.64	0.5	0.3	SC70-6
FDG6301N	N	25	Dual	-	4	5@2.7V	-	0.29	0.22	0.3	SC70-6
FDG6318PZ	P	-20	Dual	-	0.78	1.2	-	1.08	0.5	0.3	SC70-6
FDG6318P	P	-20	Dual	-	0.78	1.2	-	0.86	0.5	0.3	SC70-6
FDG6316P	P	-12	Dual	-	0.27	0.36	0.65	1.7	0.7	0.3	SC70-6
FDG6308P	P	-20	Dual	-	0.4	0.55	0.8	1.8	0.6	0.3	SC70-6
FDG6306P	P	-20	Dual	-	0.42	0.63	-	1.4	0.6	0.3	SC70-6
FDG6304P	P	-25	Dual	-	1.1	1.5@2.7V	-	1.1	0.41	0.3	SC70-6
FDG6302P	P	-25	Dual	-	10	13@2.7V	-	0.22	0.14	0.3	SC70-6
FDG315N	N	30	Single	0.12	0.16	-	-	2.1	2	0.75	SC70-6
FDG313N	N	25	Single	-	0.45	.6@2.7V	-	1.64	0.95	0.75	SC70-6
FDG311N	N	20	Single	-	0.115	0.15	-	3	1.9	0.75	SC70-6
FDG329N	N	20	Single	-	0.09	0.115	-	3.3	1.5	0.42	SC70-6
FDG327NZ	N	20	Single	-	0.09	0.1	0.14	4.2	1.5	0.42	SC70-6
FDG327N	N	20	Single	-	0.09	0.1	0.14	4.5	1.5	0.42	SC70-6
FDG332PZ	P	-20	Single	-	0.095	0.115	0.16	7.6	2.6	0.75	SC70-6
FDG330P	P	-12	Single	-	0.11	0.15	0.215	5	2	0.75	SC70-6
FDG328P	P	-20	Single	-	0.145	0.21	-	3.7	1.5	0.75	SC70-6
FDG326P	P	-20	Single	-	0.14	0.18	0.25	4.4	1.5	0.75	SC70-6
FDG316P	P	-30	Single	0.19	0.3	-	-	3.5	1.6	0.75	SC70-6
FDG314P	P	-25	Single	-	1.1	1.5@2.7V	-	1.1	0.65	0.75	SC70-6
FDG312P	P	-20	Single	-	0.18	0.25	-	3.3	1.2	0.75	SC70-6
FDY3001NZ	N	20	Dual	-	5	7	9	0.8	0.2	0.63	SC89

Note: See specific device datasheet for full $Q_{g(TOT)}$ test conditions

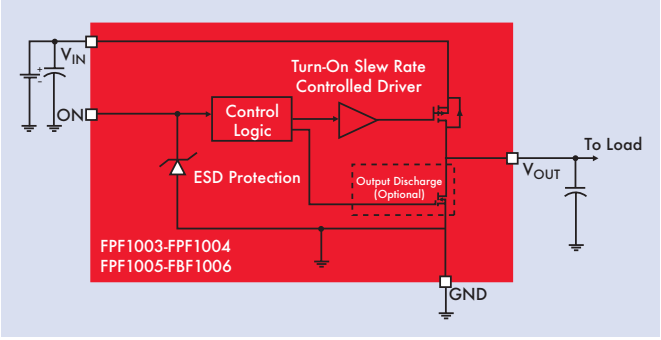
Miscellaneous Switches (Continued)

Part Number	Polarity	BV_{DSS} Min. (V)	Config.	$R_{DS(ON)}$ Max (Ω) @ V_{GS} =				$Q_{g(TOT)}$ Typ. (nC) @V_{GS}=4.5V	I_D (A)	P_D (W)	Package
				10V	4.5V	2.5V	1.8V				
FDY3000NZ	N	20	Dual	-	0.7	0.85	1.25	0.8	0.6	0.63	SC89
FDY2001PZ	P	-20	Dual	-	8	12	15	1	0.15	0.63	SC89
FDY2000PZ	P	-20	Dual	-	1.2	1.6	2.7	1	0.35	0.63	SC89
FDY301NZ	N	20	Single	-	5	7	9	0.8	0.2	0.63	SC89
FDY300NZ	N	20	Single	-	0.7	0.85	1.25	0.8	0.6	0.63	SC89
FDY101PZ	P	-20	Single	-	8	12	15	1	0.15	0.63	SC89
FDY100PZ	P	-20	Single	-	1.2	1.6	2.7	1	0.35	0.63	SC89
FDV305N	N	20	Single	-	0.22	0.3	-	1.1	0.9	0.35	SOT-23
FDV303N	N	25	Single	-	0.45	.6@2.7V	-	1.64	0.68	0.35	SOT-23
FDV301N	N	25	Single	-	4	5@2.7V	-	0.49	0.22	0.35	SOT-23
FDV304P	P	-25	Single	-	1.1	1.5@2.7V	-	1.1	0.46	0.35	SOT-23
FDV302P	P	-25	Single	-	10	13@2.7V	-	0.22	0.12	0.35	SOT-23
FDC6401N	N	20	Dual	-	0.07	0.095	-	3.3	3	0.96	SSOT-6
FDC6561AN	N	30	Dual	0.095	0.145	-	-	2.1	2.5	0.9	SSOT-6
FDC6305N	N	20	Dual	-	0.08	0.12	-	3.5	2.7	0.9	SSOT-6
FDC6303N	N	25	Dual	-	0.45	.6@2.7V	-	1.64	0.68	0.9	SSOT-6
FDC6301N	N	25	Dual	-	4	5@2.7V	-	0.49	0.22	0.9	SSOT-6
FDC6506P	P	-30	Dual	0.17	0.28	-	-	2.3	1.8	0.96	SSOT-6
FDC6318P	P	-12	Dual	-	0.09	0.125	0.2	5.4	2.5	0.96	SSOT-6
FDC6312P	P	-20	Dual	-	0.115	0.155	0.225	4.4	2.3	0.96	SSOT-6
FDC6310P	P	-20	Dual	-	0.125	0.19	-	3.7	2.2	0.96	SSOT-6
FDC6306P	P	-20	Dual	-	0.17	0.25	-	3	1.9	0.96	SSOT-6
FDC6304P	P	-25	Dual	-	1.1	1.5@2.7V	-	1.1	0.46	0.9	SSOT-6
FDC6302P	P	-25	Dual	-	10	13@2.7V	-	0.22	0.12	0.9	SSOT-6
FDN361BN	N	30	Single	0.11	0.16	-	-	1.3	1.4	0.5	SuperSOT
FDN359BN	N	30	Single	0.046	0.06	-	-	5	2.7	0.5	SuperSOT
FDN357N	N	30	Single	0.06	0.09	-	-	4.2	1.9	0.5	SuperSOT
FDN339AN	N	20	Single	-	0.035	0.05	-	7	3	0.5	SuperSOT
FDN337N	N	30	Single	-	0.065	0.082	-	7	2.2	0.5	SuperSOT
FDN335N	N	20	Single	-	0.07	0.1	-	3.5	1.7	0.5	SuperSOT
FDN327N	N	20	Single	-	0.07	0.08	0.12	4.5	2	0.5	SuperSOT
FDN360P	P	-30	Single	0.08	0.125	-	-	6.2	2	0.5	SuperSOT
FDN358P	P	-30	Single	0.125	0.2	-	-	4	1.5	0.5	SuperSOT
FDN352AP	P	-30	Single	0.18	0.3	-	-	1.4	1.3	0.5	SuperSOT
FDN342P	P	-20	Single	-	0.08	0.13	-	6.3	2	0.5	SuperSOT
FDN340P	P	-20	Single	-	0.07	0.11	-	7.2	2	0.5	SuperSOT
FDN338P	P	-20	Single	-	0.115	0.155	-	4.4	1.6	0.5	SuperSOT
FDN336P	P	-20	Single	-	0.2	0.27	-	3.6	1.2	0.5	SuperSOT
FDN308P	P	-20	Single	-	0.125	0.19	-	3.8	1.5	0.5	SuperSOT
FDN306P	P	-12	Single	-	0.04	0.05	0.08	12	2.6	0.5	SuperSOT
FDN304PZ	P	-20	Single	-	0.052	0.07	0.1	12	2.4	0.5	SuperSOT
FDN304P	P	-20	Single	-	0.052	0.07	0.1	12	2.4	0.5	SuperSOT
FDN302P	P	-20	Single	-	0.055	0.08	-	9	2.4	0.5	SuperSOT

Note: See specific device datasheet for full $Q_{g(TOT)}$ test conditions

Fairchild's IntelliMAX family of full function load management switches reduces board space, part count and complexity in power management designs for the latest generation of battery-powered devices. This unique combination of protection, control and fault monitoring features allows for a simple, space-saving solution in critical time to market product applications without sacrificing design performances.

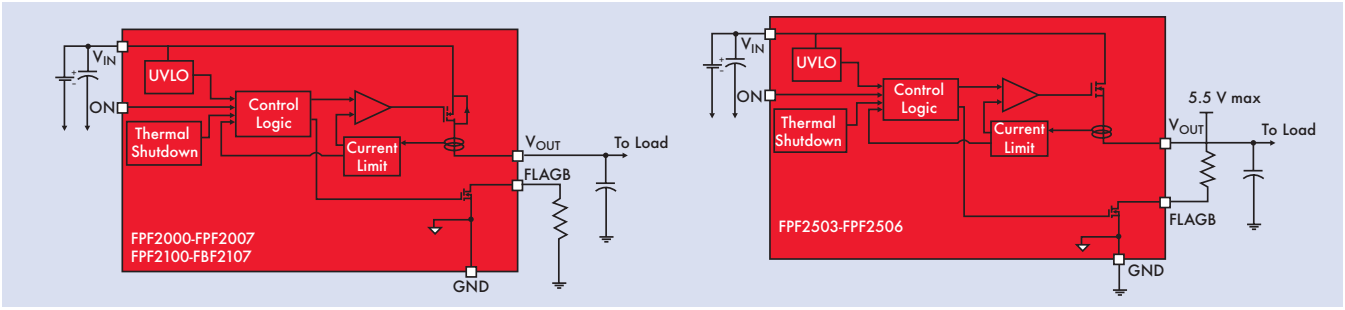
Please visit www.fairchildsemi.com/intellimax for more information.



Slew Rate Controlled Load Switches

Slew Rate Controlled Load Switches

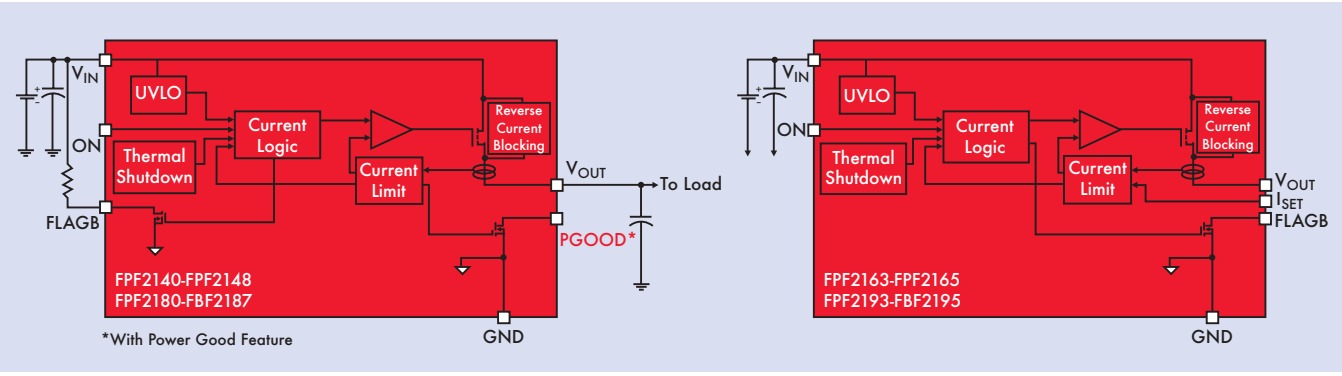
Part Number	V_{IN} Max (V)	R_{ON} Typ (mΩ)	On-Pin State	Output Discharge Resistor	Package
FPF1003	5.5	20	Active HI	No	1.0x1.5 WL-CSP
FPF1004	5.5	20	Active HI	Yes	1.0x1.5 WL-CSP
FPF1005	5.5	50	Active HI	No	MLP 2x2 6 L
FPF1006	5.5	60	Active HI	Yes	MLP 2x2 6 L



Current Protection Load Switches

Current Protection Load Switches

Part Number	I Lim Min (mA)	V_{IN} Max (V)	R_{ON} Typ (mΩ)	On-Pin State	UVLO Min (V)	Behavior/ Options	Flag Output Pin	Package
FPF2000	50	5.5	700	Active HI	1.5	Auto Reset	Yes	SC70
FPF2001	50	5.5	700	Active LO	1.5	Auto Reset	Yes	SC70
FPF2002	50	5.5	700	Active HI	1.5	Shut Down	Yes	SC70
FPF2003	50	5.5	700	Active HI	1.5	Current Source	Yes	SC70
FPF2004	100	5.5	700	Active HI	1.5	Auto Reset	Yes	SC70
FPF2005	100	5.5	700	Active LO	1.5	Auto Reset	Yes	SC70
FPF2006	100	5.5	700	Active HI	1.5	Shut Down	Yes	SC70
FPF2007	100	5.5	700	Active HI	1.5	Current Source	Yes	SC70
FPF2100	200	5.5	125	Active HI	1.5	Auto Reset	Yes	SOT-23
FPF2101	200	5.5	125	Active LO	1.5	Auto Reset	Yes	SOT-23
FPF2102	200	5.5	125	Active HI	1.5	Shut Down	Yes	SOT-23
FPF2103	200	5.5	125	Active HI	1.5	Current Source	Yes	SOT-23
FPF2104	400	5.5	125	Active HI	1.5	Auto Reset	Yes	SOT-23
FPF2105	400	5.5	125	Active LO	1.5	Auto Reset	Yes	SOT-23
FPF2106	400	5.5	125	Active HI	1.5	Shut Down	Yes	SOT-23
FPF2107	400	5.5	125	Active HI	1.5	Current Source	Yes	SOT-23
FPF2500	Adj. (500-2000)	20	320	Active HI	3.75	Auto Reset	No	SOT-23
FPF2501	Adj. (500-2000)	20	320	Active HI	3.75	Shut Down	No	SOT-23
FPF2502	Adj. (500-2000)	20	320	Active HI	3.75	Current Source	No	SOT-23
FPF2503	400	20	320	Active HI	3.75	Auto Reset	Yes	SOT-23
FPF2504	400	20	320	Active HI	3.75	Current Source	Yes	SOT-23
FPF2505	800	20	320	Active HI	3.75	Auto Reset	Yes	SOT-23
FPF2506	800	20	320	Active HI	3.75	Current Source	Yes	SOT-23



Integrated Load Switches With Protection and Reverse Blocking

Integrated Load Switches With Protection and Reverse Blocking									
Part Number	I Lim Min (mA)	V_{IN} Max (V)	R_{ON} Typ (mΩ)	On-Pin State	UVLO Min (V)	Behavior/ Options	Flag Output Pin	Power Good	Package
FPF2108	400	5.5	125	Active LO	1.5	Shut Down	Yes	No	SOT-23
FPF2109	200	5.5	125	Active HI	1.5	Current Source	Yes	No	SOT-23
FPF2110	400	5.5	125	Active HI	1.5	Current Source	Yes	No	SOT-23
FPF2116	200	5.5	125	Active HI	1.5	Auto Reset	Yes	No	SOT-23
FPF2123	Adjustable	5.5	125	Active HI	1.5	Auto Reset	No	No	SOT-23
FPF2124	Adjustable	5.5	125	Active HI	1.5	Shut Down	No	No	SOT-23
FPF2125	Adjustable	5.5	125	Active HI	1.5	Current Source	No	No	SOT-23
FPF2140	200	5.5	110	Active HI	1.55	Auto Restart	Yes	Yes	MLP 2x2
FPF2142	200	5.5	110	Active HI	1.55	Shut Down	Yes	Yes	MLP 2x2
FPF2143	200	5.5	110	Active HI	1.55	Current Source	Yes	Yes	MLP 2x2
FPF2144	400	5.5	110	Active HI	1.55	Auto Restart	Yes	Yes	MLP 2x2
FPF2146	400	5.5	110	Active HI	1.55	Shut Down	Yes	Yes	MLP 2x2
FPF2147	400	5.5	110	Active HI	1.55	Current Source	Yes	Yes	MLP 2x2
FPF2148	200	5.5	110	Active LO	1.55	Current Source	Yes	Yes	MLP 2x2
FPF2163	Adj. (0.15-1.5A)	5.5	120	Active HI	1.55	Auto Restart	Yes	No	MLP 2x2
FPF2164	Adj. (0.15-1.5A)	5.5	120	Active HI	1.55	Shut Down	Yes	No	MLP 2x2
FPF2165	Adj. (0.15-1.5A)	5.5	120	Active HI	1.55	Current Source	Yes	No	MLP 2x2
FPF2172	200	5.5	125*	Active HI	1.5	Shut Down	Yes	No	MLP 3x3 6L
FPF2174	200	5.5	125*	Active HI	1.5	Shut Down	Yes	No	MLP 3x3 6L
FPF2180	200	5.5	75	Active HI	1.55	Auto Restart	Yes	Yes	CSP 1x1.5
FPF2182	200	5.5	75	Active HI	1.55	Shut Down	Yes	Yes	CSP 1x1.5
FPF2183	200	5.5	75	Active HI	1.55	Current Source	Yes	Yes	CSP 1x1.5
FPF2184	400	5.5	75	Active HI	1.55	Auto Restart	Yes	Yes	CSP 1x1.5
FPF2186	400	5.5	75	Active HI	1.55	Shut Down	Yes	Yes	CSP 1x1.5
FPF2187	400	5.5	75	Active HI	1.55	Current Source	Yes	Yes	CSP 1x1.5
FPF2193	Adj. (0.15-1.5A)	5.5	75	Active HI	1.55	Auto Restart	Yes	No	CSP 1x1.5
FPF2194	Adj. (0.15-1.5A)	5.5	75	Active HI	1.55	Shut Down	Yes	No	CSP 1x1.5
FPF2195	Adj. (0.15-1.5A)	5.5	75	Active HI	1.55	Current Source	Yes	No	CSP 1x1.5

** The $R_{DS(ON)}$ for FPF2172 and FPF2174 is125mΩ. This specification is based on the internal power device switch only.*

Synchronous and Asynchronous Boost Regulators

Part Number	Type	V_{IN} (V)	V_{OUT} (V)	Load (mA)	Operating Frequency (MHz)	Max Efficiency (%)	Shutdown Current (µA)	Package
FAN5330	Async	1.8-5.5	<30, ADJ	32	1.6	80	3	SOT-23
FAN5331	Async	2.7-5.5	<20, ADJ	50	1.6	88	2	SOT-23
FAN5332A	Async	2.7-5.5	<30, ADJ	75	1.6	88	3	SOT-23
FAN5333B	Async	1.8-5.5	<30, ADJ	75	1.6	80	3	SOT-23
FAN5336	Async	2.7-5.5	<33V, ADJ	125	1.5	80	3	MLP 3x3 6L
FAN4855	Sync	1.6-4.5	3-5, ADJ	500	PFM	95	1	MSOP-8

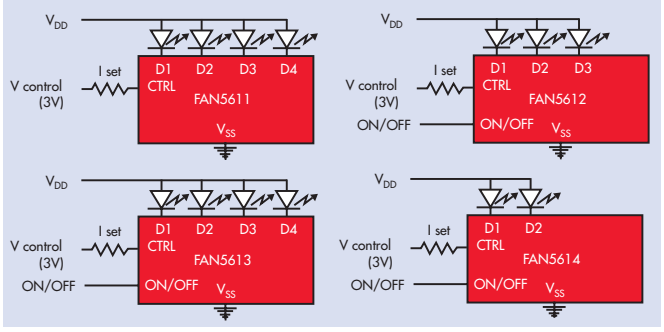
Synchronous Buck Regulators

Part Number	V_{IN} (V)	V_{OUT} (V)	Load (mA)	Operating Frequency (MHz)	Max Efficiency (%)	Quiescent Current (µA)	Package
FAN5307	2.5-6	0.7-V_{IN}	300	1	95	15	SOT-23
FAN5308	2.5-5.5	0.8-V_{IN}	800	1.3	95	25	MLP 3x3
FAN5350	2.7-5.5	1.82	600	3	94	16	WL-CSP 1x1.37. 5 Bump
FAN5355	2.7-5.5	0.75-1.975	800/1000	3	94	37	WL-CSP 1.46x2.23. 12 Bump
FAN2001/2002	2.5-5.5	0.8-V_{IN}	1000	1.3	95	25	MLP 3x3
FAN2011/2012	4.5-5.5	0.8-V_{IN}	1500	1.3	95	7mA	MLP 3x3
FAN2013	4.5-5.5	0.8-V_{IN}	2000	1.3	95	5mA	MLP 3x3
FAN20LV03*	4.5-5.5	0.8-V_{IN}	3000	1.3	95	20	MLP 4x4

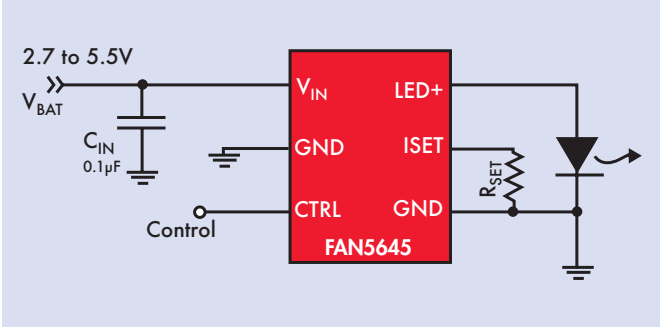
** In Development*

LED Drivers

Part Number	Configuration	Number of LEDs	Input Voltage (V)	LED Current (mA)	Boost	Brightness Control	Max Efficiency (%)	Package
FAN5607	Parallel	4	2.7-5.5	30	Adaptive Charge Pump	Analog, PWM	92	MLP 4x4
FAN5608	Serial	2*6	2.7-5	20	Inductor, Built-in Schottky	Analog, PWM, Digital	85	MLP 3x3, 4x4
FAN5609	Parallel	1	2.7-5.5	20	Adaptive Charge Pump	PWM, Digital	86	MLP 4x4
FAN5610	Parallel	1	2.7-5.5	21	No Boost	PWM, Digital	91	MLP 3x3
FAN5611	Parallel	1	3.3-5.5	40	No Boost	Analog, PWM	90	SC70
FAN5612	Parallel	1	3.3-5.5	40	No Boost	Analog, PWM	90	SC70
FAN5613	Parallel	1	3.3-5.5	40	No Boost	Analog, PWM	90	MLP
FAN5614	Parallel	1	3.3-5.5	80	No Boost	Analog, PWM	90	SC70
FAN5616	Parallel	3	2.5-5.5	40	Adaptive Charge Pump	Analog, PWM, Digital	90	MLP 3x3
FAN5617	Parallel	4	2.7-5.5	30	Adaptive Charge Pump	Analog, PWM, Digital	90	MLP 3x3
FAN5645	NA	1	2.7-5.5	20	LED Blinker	Analog, Digital	–	MLP 3x3



LED Drivers



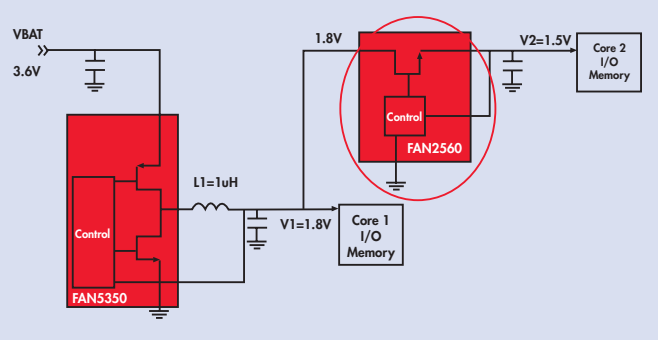
Indicator LED Blinker with Single-Wire Interface

Charge Pump Converters

Part Number	V_{IN} (V)	V_{OUT} (V)	Load (mA)	Operating Frequency (MHz)	Max Efficiency (%)	Ground Current (µA)	Package
FAN5601	2.2-5.5	1-1.8	250	2	>85	30	MLP 3x3
FAN5602	2.7-5.5	3.3, 4.5, 5.0	200	1	90	100	MLP 3x3
FAN5631	2.2-5.5	1.2, 1.5	250	1.5	90	60	MLP 3x3 10L
FAN5632	2.2-5.5	1.2, 1.5	250	1.5	90	60	MLP 3x3 10L
FAN5665	2.9-5.5	5	30	1.2	92	190	WL-CSP 1.21 x 1.21. 8 Bump

Linear Regulators (LDOs)

Part Number	Output Type	Preset Output Voltage TYP (V)	Adj. Output Voltage		Output Current (A)	Dropout Voltage (V)	Input Voltage Max (V)	Package
			Min (V)	Max (V)				
FAN1084	Single	ADJ/1.5/3.3	1.25	5.7	4.5	1.5	7	TO-220AB/TO-252(DPAK)/ TO-263(D2PAK)
FAN1086	Single	ADJ/2.5/2.85/ 3.3/5.0	1.25	5.5	1.5	1.5	7.5	SOT-223/TO-252(DPAK)/ TO-263(D2PAK)/TO-252(DPAK)/ TO-263(D2PAK)
FAN1112	Single	1.2	-	-	1	1.2	18	SOT-223/TO-252(DPAK)
FAN1117A	Single	ADJ/1.8/2.5/ 2.85/3.3/5.0	1.25	18	1	1.1	17	SOT-223/TO-220AB/TO-252(DPAK)
FAN1539B	Single	3.3	-	-	1	1.2	7	MLP
FAN1540B	Single	3.3	-	-	1	1.2	7	MLP
FAN1581	Single	ADJ/1.5/2.5	1.25	5.7	5	0.6	7	TO-263(D2PAK)
FAN1582	Single	ADJ/1.5/2.5	1.25	5.7	3	0.6	7	TO-263(D2PAK)
FAN1585A	Single	ADJ/1.5	1.25	7	5.4	1.3	7	TO-220AB/TO-263(D2PAK)
FAN1587A	Single	ADJ/1.5/3.3	1.5	3.6	3	1.3	12	TO-220AB/TO-252(DPAK)/ TO-263(D2PAK)
FAN1589	Single	1.2	-	-	2.7	1.3	7	TO-252(DPAK)/TO-263(D2PAK)
FAN1616A	Single	ADJ/1.8/2.5/ 3.3/5.0	1.25	18	0.5	1.1	18	SOT-223/TO-252(DPAK)
FAN1655	Single	DDR VTT	1.1	1.8	3	1.1	3.6	MLP/SOIC/eTSSOP
FAN1950	Single	1.8/2.5	-	-	1.5	0.5	14	TO-252(DPAK)
FAN2500	Single	ADJ/2.5/2.6/ 2.7/2.8/ 2.85/3.0/3.3	1.32	7	0.1	0.1	7	SOT-23
FAN2501	Single	2.5/2.6/2.7/2.8/2.8 5/3.0/3.3	-	-	0.1	0.1	7	SOT-23
FAN2502	Single	ADJ/2.5/2.6/2.7/2.8 /2.85/3.0/3.3	1.32	7	0.15	0.15	7	SOT-23
FAN2503	Single	2.5/2.6/2.7/2.8/2.8 5/3.0/3.3	-	-	0.15	0.15	7	SOT-23
FAN2504	Single	ADJ/2.5/2.6/2.7/2.8 /2.85/3.0/3.3	1.32	7	0.2	0.2	7	SOT-23
FAN2505	Single	2.5/2.6/2.7/2.8/2.8 5/3.0/3.3	-	-	0.2	0.2	7	SOT-23
FAN2508	Single	ADJ/2.5/2.6/2.7/2.8 /2.85/3.0/3.3	1.8	7	0.05	0.05	7	SOT-23
FAN2509	Single	2.5/2.6/2.7/2.8/2.8 5/3.0/3.3	-	-	0.05	0.05	7	SOT-23
FAN2510	Single	ADJ/2.5/2.6/2.7/2.8 /2.85/3.0/3.3	1.32	7	0.1	0.1	7	SOT-23



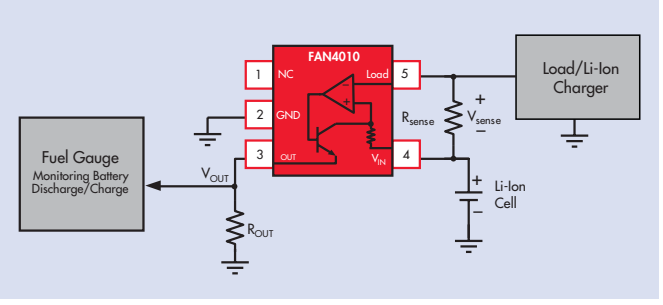
High Efficiency Low V_{IN} LDO Application

Linear Regulators (LDOs) Continued

Part Number	Output Type	Preset Output Voltage TYP (V)	Adj. Output Voltage		Output Current (A)	Dropout Voltage (V)	Input Voltage Max (V)	Package
			Min (V)	Max (V)				
FAN2511	Single	2.5/3.3/2.6/2.7/2.8/2.85/3.0	-	-	0.1	0.1	7	SOT-23
FAN2512	Single	ADJ/2.5/2.6/2.7/2.8/2.85/3.0/3.3	1.32	7	0.15	0.15	6.5	SOT-23
FAN2513	Single	2.5/2.6/2.7/2.8/2.85/3.0/3.3	-	-	0.15	0.15	6.5	SOT-23
FAN2514	Single	ADJ/2.5/2.6/2.7/2.8/2.85/3.0/3.3	1.32	7	0.2	0.2	7	SOT-23
FAN2515	Single	2.5/2.6/2.7/2.8/2.85/3.0/3.3	-	-	0.2	0.2	7	SOT-23
FAN2518	Single	ADJ/2.5/2.6/2.7/2.8/2.85/3.0/3.3	1.32	7	0.05	0.05	7	SOT-23
FAN2519	Single	2.5/2.6/2.7/2.8/2.85/3.0/3.3	-	-	0.05	0.05	7	SOT-23
FAN2558	Single	ADJ/1.0/1.2/1.3/1.5/1.8/2.5/3.3/3.5/3.6/3.8	1	3.3	0.18	0.25	5.5	MLP/SOT-23
FAN2559	Single	ADJ/1.0/1.2/1.3/1.5/1.8	1	3.3	0.18	0.25	5.5	MLP/SOT-23
FAN2560	Single	1.3/1.5	-	-	0.35	0.07	5.5	WL-CSP

Current Sense Amplifiers

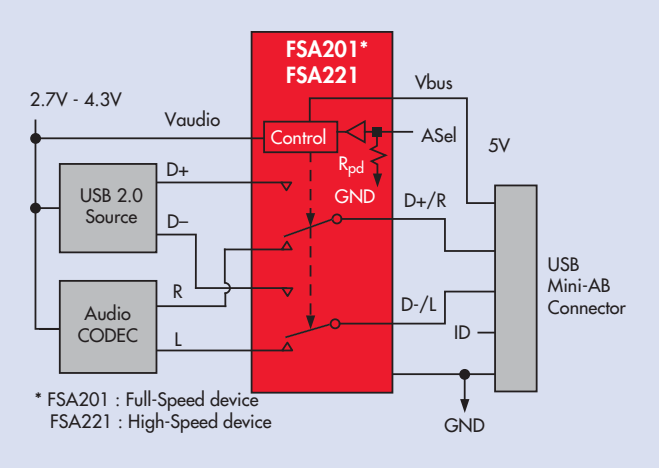
Part Number	Input Voltage (V)	Accuracy @ V_{SENSE}	Supply Current Is (µA)	Gain I_{OUT} V_{SENSE}	Band-width	Package
FAN4010	2-6	0.2% @ 100mV	3.5	10mA/V	2.0	SOT-23



Current Sense Amplifier Application

Temperature Sensors

Part Number	Output Slope (Sensor Gain) (mV/Celsius)	Supply Voltage MIN (V)	Supply Voltage MAX (V)	Supply Current Max (µA)	Accuracy (±Celsius)	Package
FM20	-12	2.4	6	12	3	SC70, SOT-23
FM50	10	2.4	6	130	3	SOT-23
FM75	-	2.7	5.5	150	3	SOIC

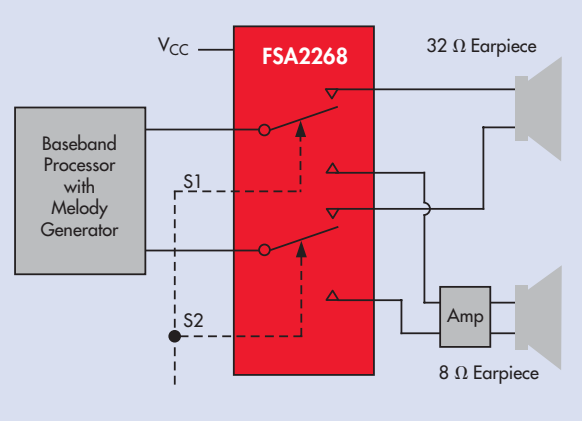


Multimedia Switches with Negative Swing Capability

Multimedia Switches with Negative Swing Capability

Part Number	Configuration*		Low I_{CCT} Device	On Resistance R_{ON} (Ω)	V_{CC} Supply Voltage Range (V)	Band-width (MHz)	C_{ON} (pF)	Package Type
FSA110**	1x DPST	USB Path	-	1.5	2.7-4.3	n/a	n/a	VSOP-8, UMLP-10
		Audio Path	-	1.5	2.7-4.3	n/a	n/a	
FSA201	1x DPDT	USB Path	√	3.0	4.25-5.5	400	25	MicroPak 10, UMLP-10 and MSOP-10
		Audio Path	√	0.5	3.0-3.6	n/a	29	
FSA203**	1x DPDT	USB Path	√	4.0	4.25-5.5	780	7.6	DQFN20, TSSOP-20
		Audio Path	√	3.5	3.0-3.6	n/a	9.7	
		Video (mic)	√	3.0	3.0-3.6	400	10	
		Video (filter)	√	3.0	3.0-3.6	9	n/a	
FSA221**	1x DPDT	USB Path	√	4.0	4.25-5.5	720	9	MicroPak 10, MSOP-10 and UMLP-10
		Audio Path	√	3.0	3.0-3.6	n/a	10	
FSA223**	1x DPDT	USB Path	√	4.0	2.7-5.5	720	4.5	MicroPak 10, UMLP-10 and MSOP-10
		Audio Path	√	3.0	2.7-5.5	n/a	4.5	
FSA2457	2x DPDT		-	5.0	2.7-3.6	>160	12	UMLP-16
FSA2567	2x DPDT		√	6.0	2.7-4.3	475	10	MLP-16, UMLP-16
Application Specific								
FSSD06	6PDT	Host Side	n/a	3.0	1.65-3.6	n/a	9.5	MLP-24
		SDIO Card	n/a	3.0	V_{DDH}-3.6	n/a	9.5	

** Configuration Definition: Switch configurations are defined by the number of poles/select pin(s) which, in turn, specify the number of channels per select pin(s). For example, a "DPDT" is a 2-channel/double throw switch with a single select pin. A "Dual SPDT" is a 2-channel/double throw switch with two independent select pins*
*** High-speed device*

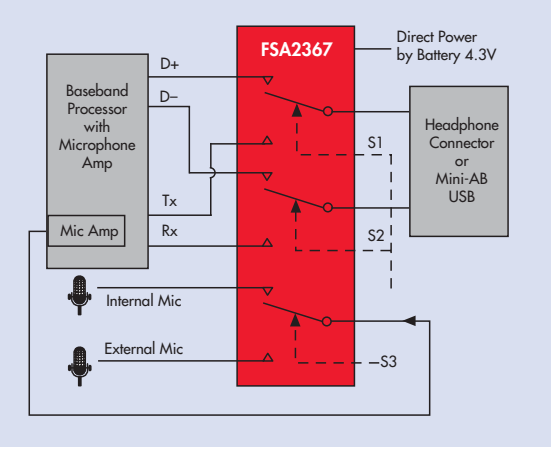


Low R_{ON} Switches

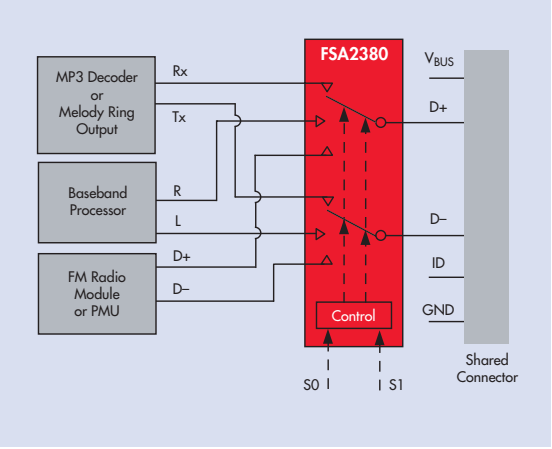
Low R_{ON} Analog/Audio Switches

Part Number	Configuration*	Low I_{CCT} Device	On Resistance R_{ON} (Ω)	V_{CC} Supply Voltage Range (V)	Bandwidth (MHz)	C_{ON} (pF)	Package
FSA1156	1x SPST (NO)	-	0.75	1.65-5.5	300	65	SC70, MicroPak 6
FSA1157	1x SPST (NC)	-	0.75	1.65-5.5	300	65	SC70, MicroPak 6
FSA1256	2x SPST (NO)	-	0.95	1.65-5.5	300	27	MicroPak 8
FSA1256A	2x SPST (NO)	√	0.95	2.7-5.5	300	27	MicroPak 8
FSA1257	2x SPST (NC)	-	0.95	1.65-5.5	300	27	MicroPak 8
FSA1257A	2x SPST (NC)	√	0.95	2.7-5.5	300	27	MicroPak 8
FSA1258	2x SPST (NO/NC)	-	0.95	1.65-5.5	300	27	MicroPak 8
FSA1258A	2x SPST (NO/NC)	√	0.95	2.7-5.5	300	27	MicroPak 8
FSA1259	2x SPST (NO/NC)	-	0.10	1.65-5.5	240	47	US8-8
FSA2156	1x SPST	√	0.40	1.65-4.3	80	115	MicroPak 6, SC70
FSA2257	2x SPDT	-	0.95	1.65-5.5	350	40	MicroPak 10, TSSOP 14
FSA2267	2x SPDT	-	0.35	1.65-3.6	45	126	MicroPak 10
FSA2267A	2x SPDT	√	0.35	2.3-4.3	45	126	MicroPak 10, MSOP-10
FSA2268 (T)	2x SPDT	√	0.40	1.65-4.3	50	120	UMLP-10, MicroPak 10
FSA2467	2x DPDT	√	0.40	1.65-4.3	85	118	MLP 16 (3x3mm), TSSOP 16
FSA3259	2x SP3T	-	9.00	1.65-5.5	250	15	DQFN 16
FSA4157	1x SPDT	-	0.95	1.65-5.5	300	40	MicroPak 6, SC70-6
FSA4157A	1x SPDT	√	0.95	2.7-5.5	350	40	MicroPak 6, SC70-6
FSA4159	1x SPDT	-	1.0	1.65-5.5	180	41	SC70-6
FSA5157	1x SPDT	√	0.40	1.65-4.3	80	90	MicroPak 6, SC70

** Configuration Definition: Switch configurations are defined by the number of poles/select pin(s) which, in turn, specify the number of channels per select pin(s). For example, a "DPDT" is a 2-channel/double throw switch with a single select pin. A "Dual SPDT" is a 2-channel/double throw switch with two independent select pins*
*** High-speed device*



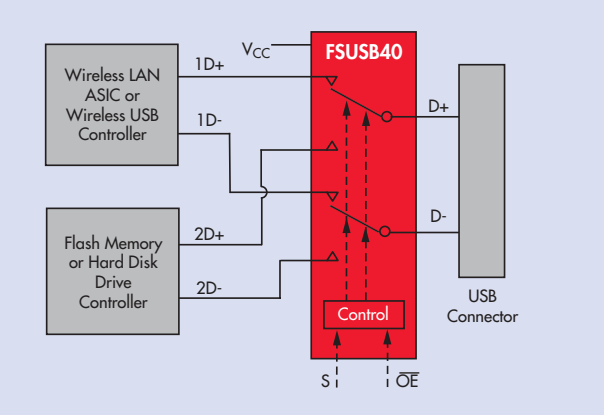
Negative Swing Audio Switch



Negative Swing Audio Switch

Negative Swing Audio Switches							
Part Number	Configuration*	Low I_{CCT} Device	On Resistance R_{ON} (Ω)	V_{CC} Supply Voltage Range (V)	Bandwidth (MHz)	C_{ON} (pF)	Package
FSA2269 (TS)	2 xSPDT	√	0.40	1.65-4.3	50	120	UMLP-10, MicroPak 10
FSA2270 (T)	2 xSPDT	√	0.40	1.65-4.3	50	120	UMLP-10, MicroPak 10
FSA2271 (T)	2 xSPDT	√	0.40	1.65-4.3	50	120	UMLP-10, MicroPak 10
FSA2367	3 x SPDT	√	0.75	2.7 - 4.3	50	55	DQFN 14, TSSOP 14L
FSA2380	1 x DP3T	√	0.75	2.7 - 4.3	120	70	DQFN 14, TSSOP 14L
FSA6157	1x SPDT	√	0.80	1.65-4.3	50	150	MicroPak 6L

** Configuration Definition: Switch configurations are defined by the number of poles/select pin(s) which, in turn, specify the number of channels per select pin(s). For example, a "DPDT" is a 2-channel/double throw switch with a single select pin. A "Dual SPDT" is a 2-channel/double throw switch with two independent select pins*
*** High-speed device*



USB Switch Application

USB Switches

Part Number	Configuration*	Low I_{CCT} Device	On Resistance R_{ON} (Ω)	V_{CC} Supply Voltage Range (V)	Bandwidth (MHz)	C_{ON} (pF)	Package
FSUSB11	1 Port (SPDT) USB, FS	-	1.0	1.65-5.5	350	40	MicroPak 10, TSSOP 14
FSUSB22**	2 Port (4PDT) USB, HS	-	5.0	3.0-3.6	750	12	DQFN 16, TSSOP 16
FSUSB30**	1 Port (DPDT) USB, HS	√	6.5	3.0-4.3	720	3.7	MicroPak 10, DQFN 14, MSOP-10, ULMP-10
FSUSB31**	1 Port (DPST) USB, HS	√	6.5	3.0-4.3	720	3.7	MicroPak 8, US8
FSUSB40**	1 Port (DPDT) USB, HS	√	3.9	3.0-4.3	720	6.5	MicroPak 10, UMLP-10
FSUSB42**	1 Port (DPDT) USB, HS	√	3.9	3.0-4.3	720	3.7	UMLP-10
FSUSB45**	1 Port (DPDT) USB, HS	√	3.9	3.0-4.3	720	7	MicroPak 10, UMLP-10

Other Analog Switches

Part Number	Configuration*	Low I_{CCT} Device	On Resistance R_{ON} (Ω)	V_{CC} Supply Voltage Range (V)	Bandwidth (MHz)	C_{ON} (pF)	Package
FSA66	1xSPST (NO)	-	7.0	1.65-5.5	300	18	SC70, MicroPak 6
FSA266	2xSPST	-	7.0	1.65-5.5	300	10	US8, MicroPak 8
FSA3157B	1xSPDT	-	5.0	1.65-5.5	250	19	SC70, MicroPak 6
FSAU3157	1xSPDT	-	5.0	1.65-5.5	250	19	SC70, MicroPak 6
FSA3357	1x SP3T	-	6.0	1.65-5.5	250	14	US8-8

** Configuration Definition: Switch configurations are defined by the number of poles/select pin(s) which, in turn, specify the number of channels per select pin(s). For example, a "DPDT" is a 2-channel/double throw switch with a single select pin. A "Dual SPDT" is a 2-channel/double throw switch with two independent select pins*
*** High-speed device*

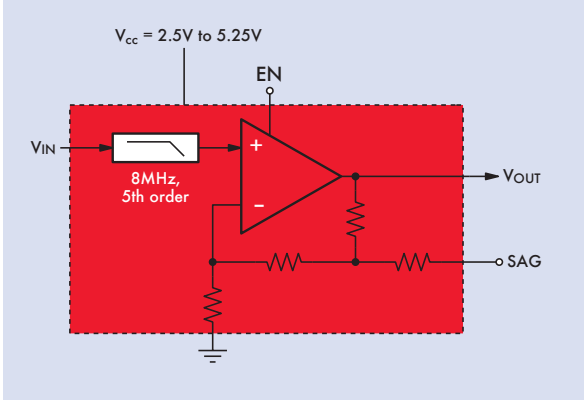
Audio Amplifiers

Part Number	Description	V_{CC} M_{IN} (V)	V_{CC} MAX (V)	Output Power (Watts)	Number of Channels	Auxiliary Headphone Drive	Mute	Thermal Shutdown	Load Mode	Shutdown	Package
FAN3800	Mono & Stereo Amplifier with Microphone	2.7	4.5	0.02	2	Yes	Yes	Yes	-	No	MLP-L24
FPA6101	2.4W Stereo Audio Power Amplifier & Headphone Driver	4.5	5.5	-	2	-	-	-	-	-	TSSOP-28

High Performance Amplifiers

Part Number	Number of Amps	Power down	RRIO	BW[2] (MHz)	SR (V/µs)	I_S[4] (mA)	I_{OUT} (mA)	V_{IO} (mV)	I_b (µA)	A_{OL} (dB)	Min V_S (V)	Max V_S (V)	Packages
FAN4174	1	No	Both	3.7[1]	3	0.2	+34,-12	0	5pA	102	2.5	5.5	SOT23-5, SC70-5
FAN4274	2	No	Both	3.7[1]	3	0.2	+34,-12	0	5pA	102	2.5	5.5	MSOP-8
FHP3130	1	No	Output	50[2]	110	2.5	±100	1	-1.8	100	2.7	12	SOT23-5, SOIC-8
FHP3230	2	No	Output	50[2]	110	2.5	±100	1	-1.8	100	2.7	12	MSOP-8, SOIC-8
FHP3132	1	No	Output	85[3]	400	2.5	±100	1	-1.8	100	2.7	12	SOT23-5
FHP3232	2	No	Output	85[3]	400	2.5	±100	1	-1.8	100	2.7	12	SOIC-8
FHP3131	1	Yes	Output	28[2]	45	0.4	+35,-25	1	1.4	100	2.5	12	SOT23, µPAK-6

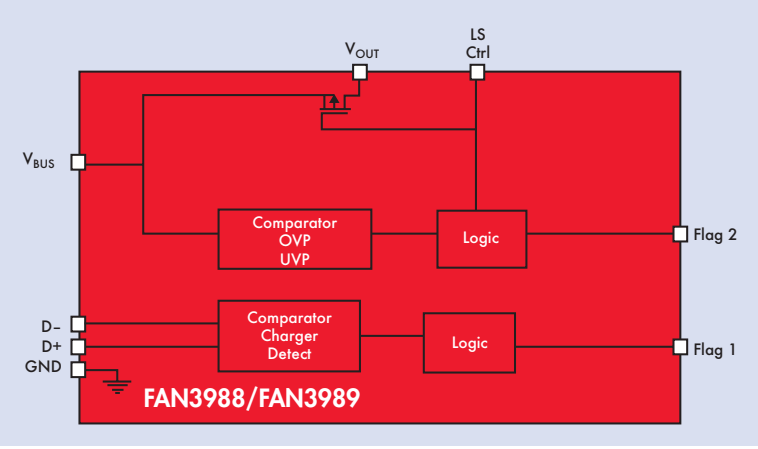
[1] *Gain Bandwidth Product*
[2] *Small Signal Bandwidth, G=2*
[3] *Small Signal Bandwidth, G=5*
[4] *Supply Current Per Channel*



Video Filter Driver

Video Filter Drivers

Part Number	Input Format	Output Format	Channels	Cutoff Frequency	Package
FMS6141	Composite	Composite	1	7.1	SOIC 8 & SC70-5
FMS6151	Composite	Composite	1	8	MicroPak
FMS6152	YC	YC/CV	2	8	MLP-10



USB Over Voltage Protection (OVP)

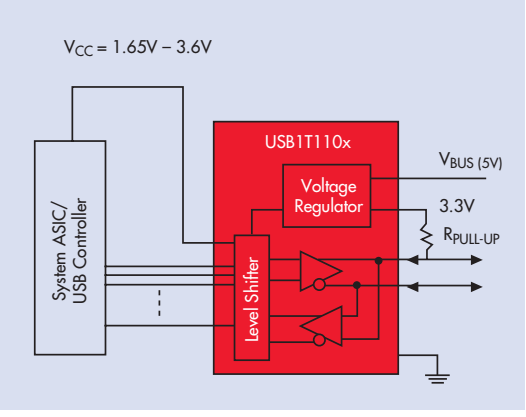
The USB Over Voltage Protection (OVP) family provides a new function for cell phone USB charging over voltage protection.

USB Over Voltage Protection (OVP)

Part Number	OVP**	UVP***	Charger Detect	Std USB Detect	OV Flag Output	UV Flag Output	Input Detect Flag Output	Load Switch
FAN3988*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
FAN3989*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

**In development*
***OVP = Over Voltage Protection*
****UVP = Under Voltage Protection*

Fairchild's USB transceivers provide a USB 2.0 interface for low (1.5 Mbps) and full (12 Mbps) speed applications. Ideal for portable and consumer applications, these transceivers provide designers "off the shelf" USB 2.0 electrical compliance with features such as onboard voltage regulation, voltage level translation and 15 kV ESD protection. Fairchild's USB transceivers are offered in TSSOP and ultra-small MLP packages with common industry footprints. These features and package options offer designers flexibility while minimizing time to market, board space and total implementation cost.



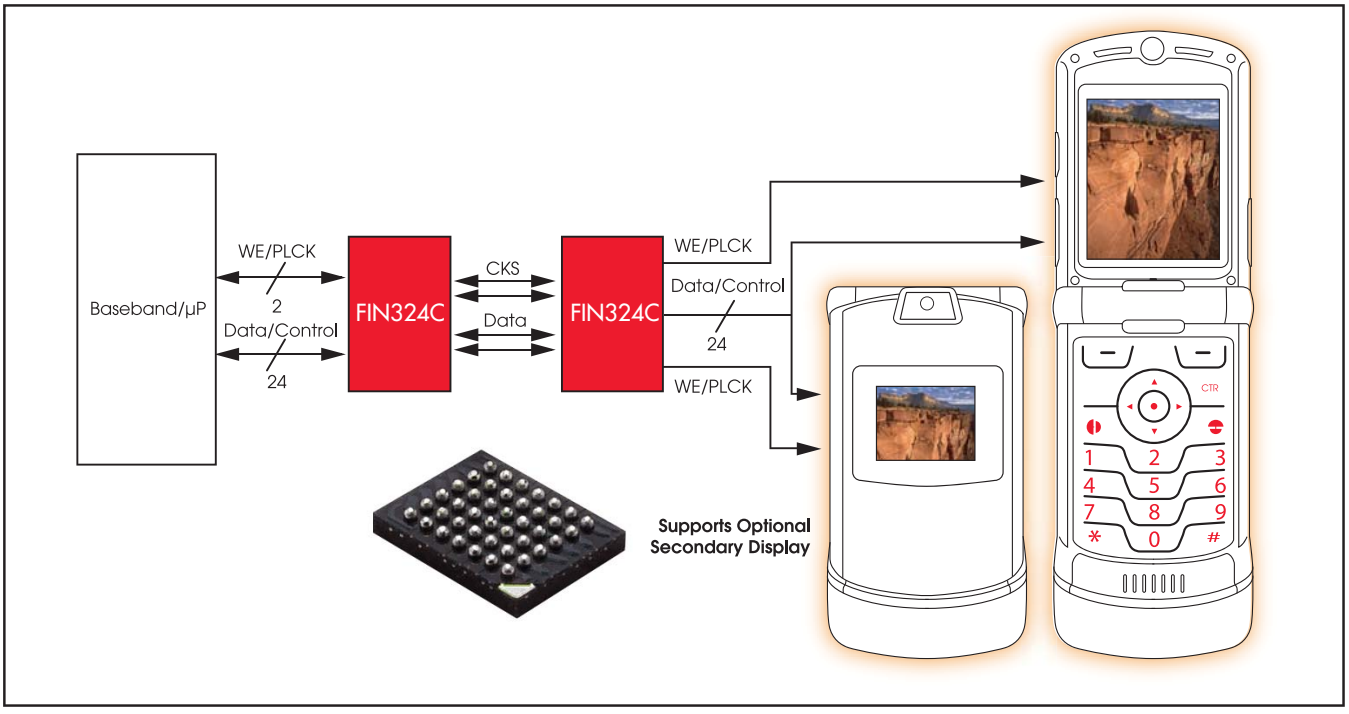
USB Transceivers

USB Transceivers

Part Number	Compliance	Speed (Mbps)	Supply Voltage (V)	ESD (kV)	Package
USB1T11A	1.1	12	3.3	9.5	MLP, SOIC, TSSOP
USB1T20	2	12	3.3	9.5	MLP, TSSOP
USB1T1102	2	12	3.3	15	MLP, MHBCC
USB1T1103	2	12	3.3	15	MLP, MHBCC
USB1T1105A	2	12	3.3	15	MHBCC

For more information about USB Transceivers, please visit www.fairchildsemi.com/products/interface/usb.html

Fairchild's μSerDes is a family of ultra-compact serializers/deserializers designed for parallel interconnects in cellular phones and small form factor display applications. μSerDes offers ideal solutions for reducing flexible cable size, power consumption, and electromagnetic interference (EMI). Moreover, μSerDes is available in BGA and MLP packages to help minimize board space and component count in size-limited portable devices.



μSerDes Application

μSerDes Serializers/Deserializers

Part Number	Number of Bits	Max Frequency (MHz)	$V_{DDA/S}$ Core Voltage (V)	V_{DDP} Parallel Voltage (V)	Read/Write	ESD (kV)	Recommended Interface	Ideal Application	External Timing Required	Package
FIN212AC	12	40	2.5 to 3.6	1.65 to 3.6	Write	14	μController/ RGB	Camera, Small LCD	Yes	BGA, MLP
FIN224AC	22	26	2.5 to 3.3	1.65 to 3.6	Write	15	μController/ RGB	Small LCD	Yes	BGA, MLP
FIN324C	24	15	2.5 to 3.0	1.6 to VDDA/S	Read/Write	15	μController/ RGB/SPI	Small LCD	No	BGA, MLP

For more information about μSerDes, please visit www.fairchildsemi.com/userdes

Logic level translators are often required in systems that utilize different voltage (V_{CC}) levels. Typical applications where translators are required contain a microprocessor with I/Os at 1.8 V and peripheral devices at levels of 3.3 V and higher. Logic level translators provide a means to interface these peripherals efficiently to the microprocessor by allowing a seamless stream of data between two dissimilar voltage platforms.

High Performance Low Voltage Translators

Part Number	V_{CCA} Supply Range (V)	V_{CCB} Supply Range (V)	Bit Widths	Max I/O Drive (mA)	Package	Key Features
FXL2TD245	1.1 to 3.6	1.1 to 3.6	2	24	MicroPak 10	Independent, Bi-directional bit controls
FXL4TD245	1.1 to 3.6	1.1 to 3.6	4	24	DQFN	Independent, Bi-directional bit controls
FXLH1T45	1.1 to 3.6	1.1 to 3.6	1	24	MicroPak 6	Independent, Bi-directional bit controls & Bus hold
FXL2T245	1.1 to 3.6	1.1 to 3.6	2	24	MicroPak	Bi-directional data capability
FXL4T245	1.1 to 3.6	1.1 to 3.6	4	24	DQFN	Bi-directional data capability
FXL4245	1.1 to 3.6	1.1 to 3.6	8	24	MLP	8 bits of data and compact form factor
FXLH42245	1.1 to 3.6	1.1 to 3.6	8	24	MLP	8 data channels, compact form factor and Bus hold
FXL5T244	1.1 to 3.6	1.1 to 3.6	5	24	DQFN	Unique, 5-data channel capability
FXLP34	1.0 to 3.6	1.0 to 3.6	1	2.6	MicroPak 6, SC-70	Economical, compact form factor
FXL2SD106*	1.1 to 3.6	1.1 to 3.6	6	.022	DQFN 16	SD interface translator
FXM2IC102*	1.65 to 5.5	1.65 to 5.5	2	6	MicroPak 8	I^2C interface voltage translator
FXLA102*	1.1 to 3.6	1.1. to 3.6	2	.004	MicroPak 8	Auto direction detection

**In development*

Bi-directional, Dual Supply, Translating, Mixed Supply Voltage and Current

Part Number	V_{CCA} Supply Range (V)	V_{CCB} Supply Range (V)	Bit Widths	Max I/O Drive (mA)	Package	Key Features
74LVX4245	4.5 to 5.5	2.7 to 3.6	8	24	QSOP, SOIC-Wide, TSSOP	Bi-directional, Dual Supply, Translating, Mixed Supply Voltage and Current
74LVXC4245	4.5 to 5.5	2.7 to 5.5	8	24	QSOP, SOIC-Wide, TSSOP	Bi-directional, Dual Supply, Configurable, Mixed Supply Voltage and Current
74LVX3245	2.7 to 3.6	4.5 to 5.5	8	24	QSOP, SOIC-Wide, TSSOP	Bi-directional, Dual Supply, Translating, Mixed Supply Voltage and Current
74LVXC3245	2.7 to 3.6	4.5 to 5.5	8	24	QSOP, SOIC-Wide, TSSOP	Bi-directional, Dual Supply, Configurable, Mixed Supply Voltage and Current
74VCX163245	2.3 to 3.6	1.65 to 2.7	16	24	BGA, TSSOP	Low Voltage, Bi-directional, Dual Supply, Translating, Asynchronous, High Speed, Live Insertion, Mixed Supply Voltage and Current
74VCX164245	1.65 to 2.7	2.3 to 3.6	16	24	BGA, TSSOP	Low Voltage, Bi-directional, Dual Supply, Translating, Asynchronous, High Speed, Live Insertion, Mixed Supply Voltage and Current

Open Drain Uni-Directional Translators

Part Number	V_{CCA} Supply Range (V)	V_{CCB} Supply Range (V)	Bit Widths	Max I/O Drive (mA)	Package
74LCX760	2.3 to 3.6	1.8 to 5.5	8	24	SOIC, SSOP, TSSOP
74LCX06	2.3 to 3.6	1.8 to 5.5	6	24	SOIC, SOP, TSSOP
74LCX07	2.3 to 5.5	1.8 to 5.5	6	32	SOIC, SOP, TSSOP, DQFN
NC7WZ07	1.65 to 5.5	1.65 to 5.5	2	32	SC70, MicroPak
NC7SZ05	1.65 to 5.5	1.65 to 5.5	1	32	SC70, MicroPak
NC7WV07	1.1 to 3.6	1.1 to 3.6	2	24	SC70, MicroPak
NC7SV05	1.1 to 3.6	1.1 to 3.6	1	24	SC70, MicroPak
NC7SP05	1.1 to 3.6	1.1 to 3.6	1	2.6	SC70, MicroPak

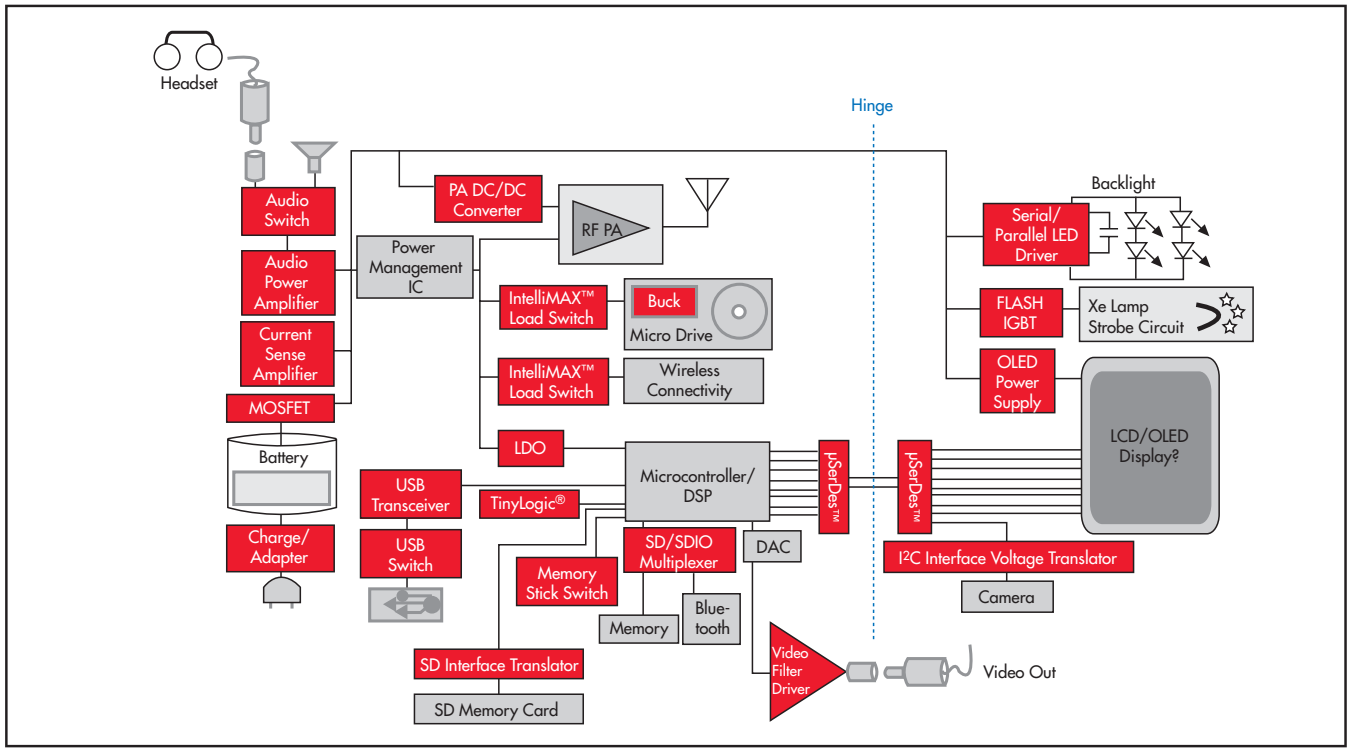
Fairchild's TinyLogic family consists of a broad spectrum of high speed, low power, CMOS single and dual gate logic functions in a choice of six space saving packages: SOT23-5, SC70 6-lead, US8 8-lead, and MicroPak™ 6 and 8 terminal leadless packages. TinyLogic facilitates efficient system designs in any application. When of single- and dual-logic functions are placed exactly where needed, signal routing is simplified while minimizing propagation delays and noise generation.

Family Comparison

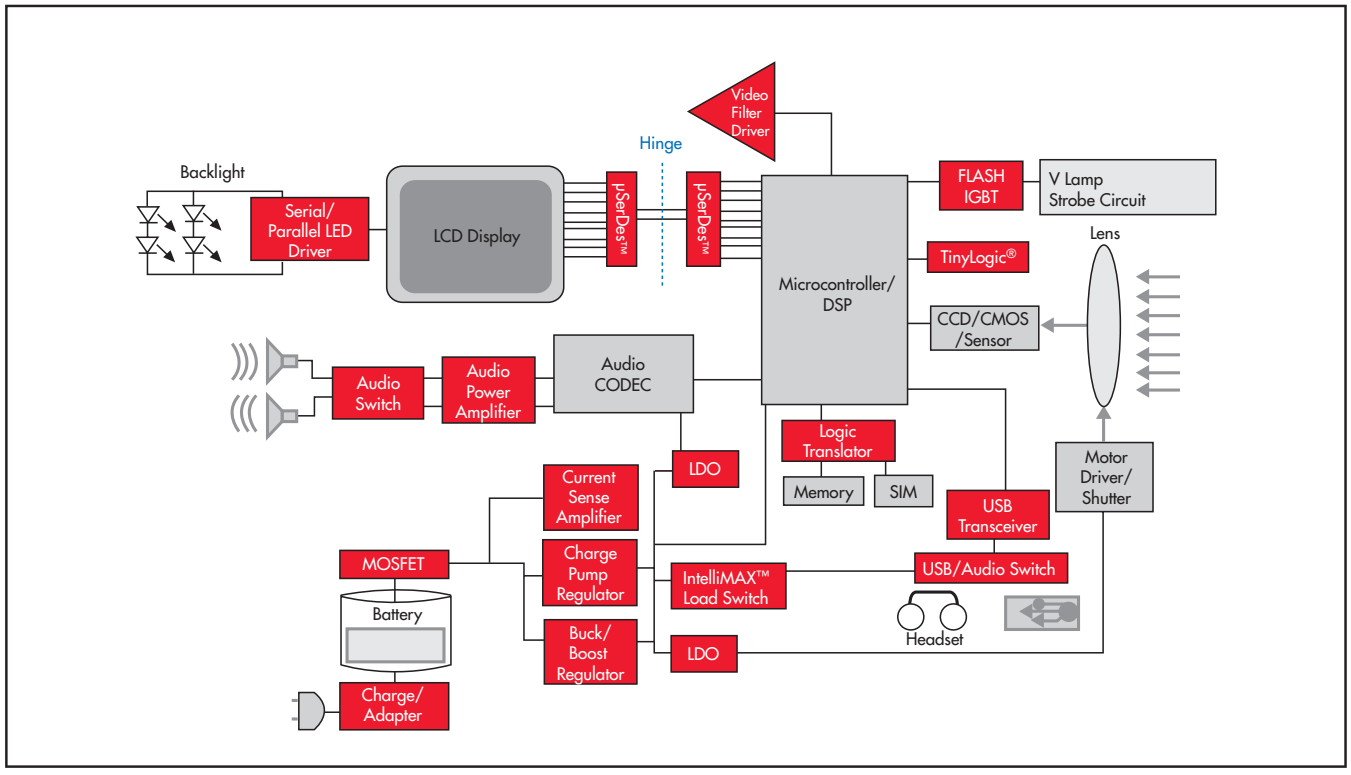
Family	Standard Logic Family Equivalent	I_{cc} (µA)	V_{cc} (V)	Drive (mA @ V)	Speed (ns @ V)
HS	HC	10	2–6	±1.1 @ 3.0; ±2.0 @ 4.5	25 @ 4.5
HST	HCT	10	4.5–5.5	±2.0 @ 4.5	20 @ 2.0
UHS	LCX/LVC	20	1.8–5.5	±4.0 @ 1.65; ±24.0 @ 3.3	4.7 @ 3.3
ULP		0.9	0.9–3.6	±1.0 @ 1.5; ±2.6 @ 3.0	16 @ 1.5; 7.0 @ 3.3
ULP-A	VCX	0.9	0.9–3.6	±4.0 @ 1.5; 24.0 @ 3.3	7.2 @ 1.5

Functional Description (S Single-Bit Logic, W Dual-Bit Logic, N Triple-Bit Logic)	Device Type	Family				Packages					
		HS (NC7)	HST (NC7xT)	UHS (NC7xZ)	ULP/ULP-A (NC7xP/NC7xV)	SOT23 5-lead	SC70 5-lead	SC70 6-lead	US8 8-lead	MicroPak 6-lead	MicroPak 8-lead
NAND Gate	00	S	S	S W	S W	S	S		W	S	W
NOR Gate	02	S	S	S W	S W	S	S		W	S	W
Inverter	04	S	S	S W N	S W N	S	S	W	N	S W	N
Unbuffered Inverter	U04	S		S W N	S	S	S	W	N	S W	N
Inverter w/ Open Drain Output	05			S	S	S	S			S	
Buffer w/ Open Drain Output	07			W	W			W		W	
AND Gate	08	S	S	S W	S W	S	S		W	S	W
3-Input NAND Gate	10			S				S		S	
3-Input AND Gate	11			S	S			S		S	
Inverter w/ Schmitt Trigger Input	14	S		S W N	S W N	S	S	W	N	S W	N
Dual Buffer	16			W				W		W	
Buffer w/ Schmitt Trigger Input	17			W N	S W		S	W	N	S W	N
1 of 2 Demux w/ 3-STATE Output	18			S				S		S	
1 of 2 Decoder/Demultiplexer	19				S			S		S	
3-Input NOR Gate	27			S				S		S	
OR Gate	32	S	S	S W	S W		S		W	S	W
Buffer	34			N	S N		S		N	S	N
NAND Gate w/ Open Drain Output	38			S W	S W		S	S	W	S	W
Universal Configurable 2-Input Gate	57			S	S			S		S	
Universal Configurable 2-Input Gate	58			S	S					S	
D Flip-Flop w/ Pre-Set and Clear	74			S	S				S		S
XOR Gate	86	S	S	S W	S W	S	S		W	S	W
Buffer w/ Low-Enabled 3-STATE Output	125			S W	S W	S	S		W	S	W
Buffer w/ High-Enabled 3-STATE Output	126			S W	S W	S	S		W	S	W
NAND Gate w/ Schmitt Trigger Input	132			W	W				W		W
2-Input Non-Inverting Multiplexer	157			S	S			S		S	
2-Input Inverting Multiplexer	158				S			S		S	
D Flip-Flop w/ Asynchronous Clear	175			S				S		S	
Inverting Buffer w/ 3-STATE Output	240			W	W				W		W
Inverting Buffer w/ High- / Low-Enabled 3-STATE Output	241			W	W				W		W
3-Input OR Gate	332			S				S		S	
D Latch w/ 3-STATE Output	373			S				S		S	
D Flip-Flop w/ 3-STATE Output	374			S				S		S	
3-Input XOR Gate	386			S				S		S	

APPLICATION BLOCK DIAGRAMS

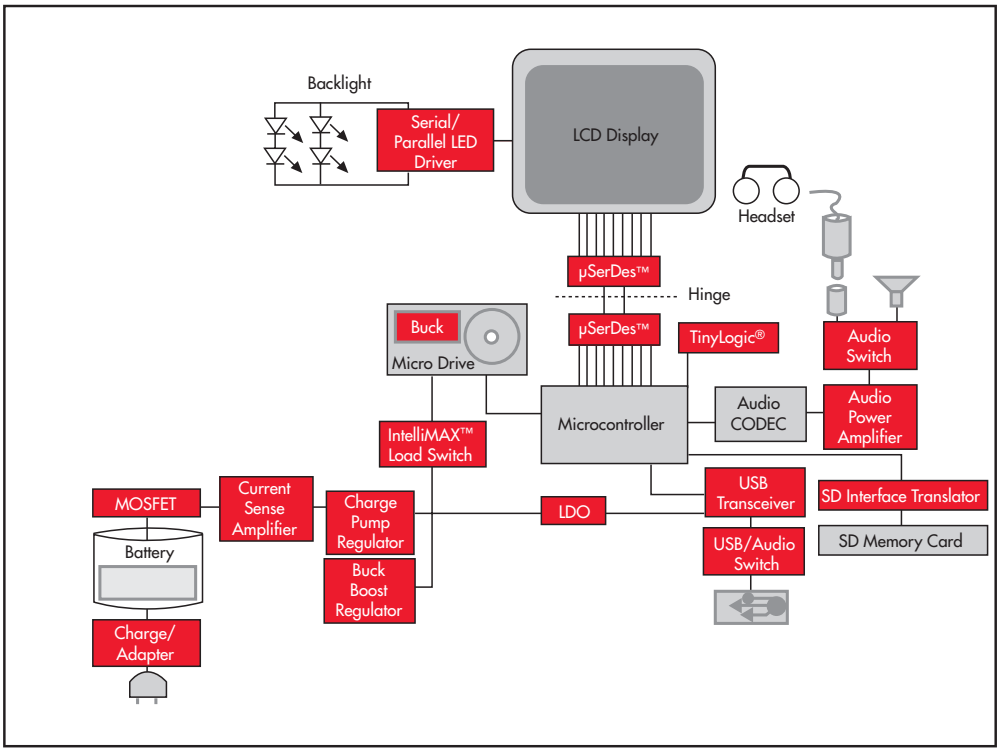


Cell Phone

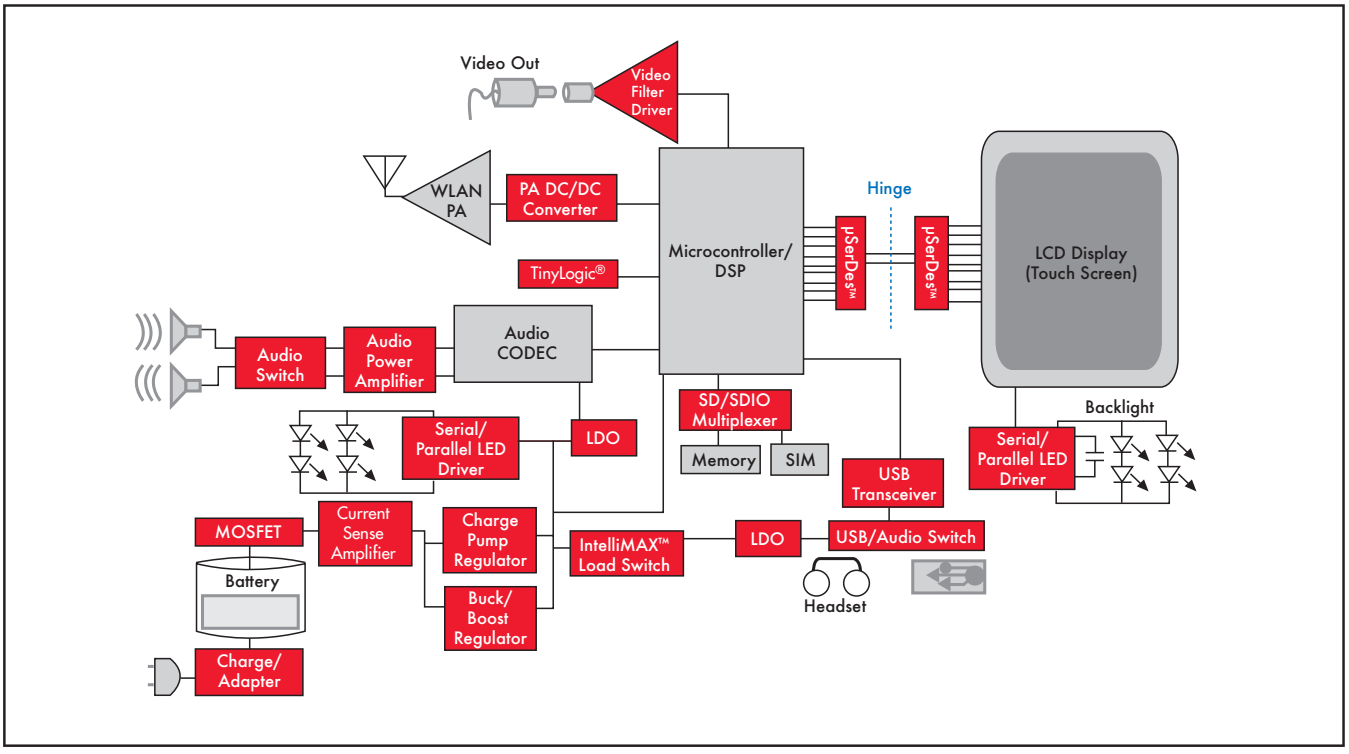


Digital Still Camera

APPLICATION BLOCK DIAGRAMS

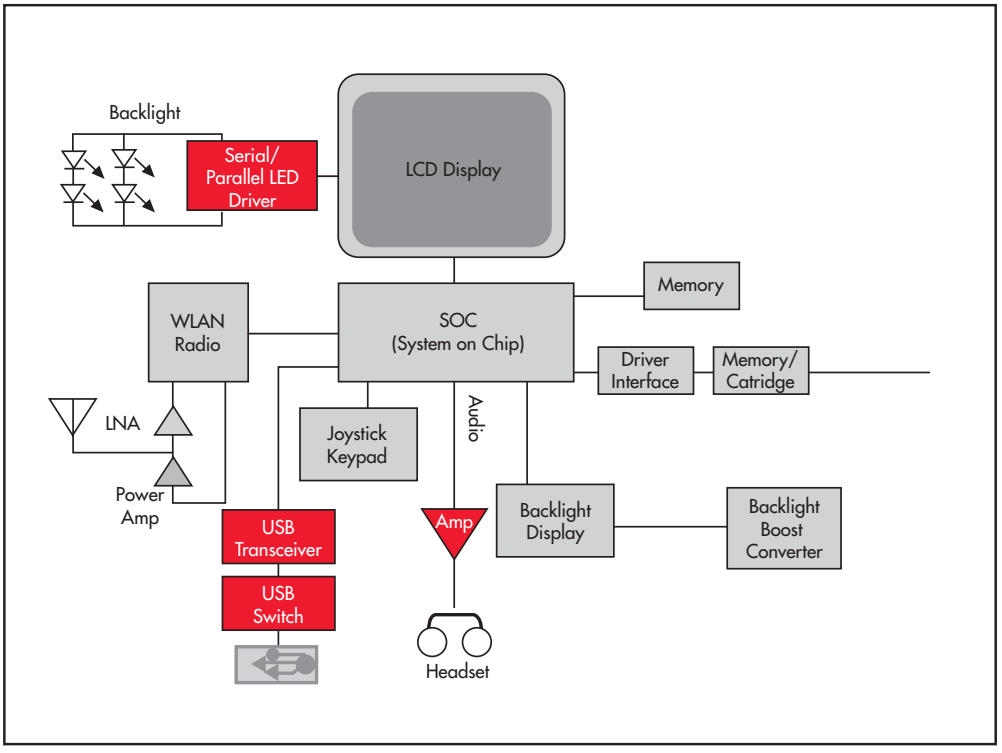


MP3 Player

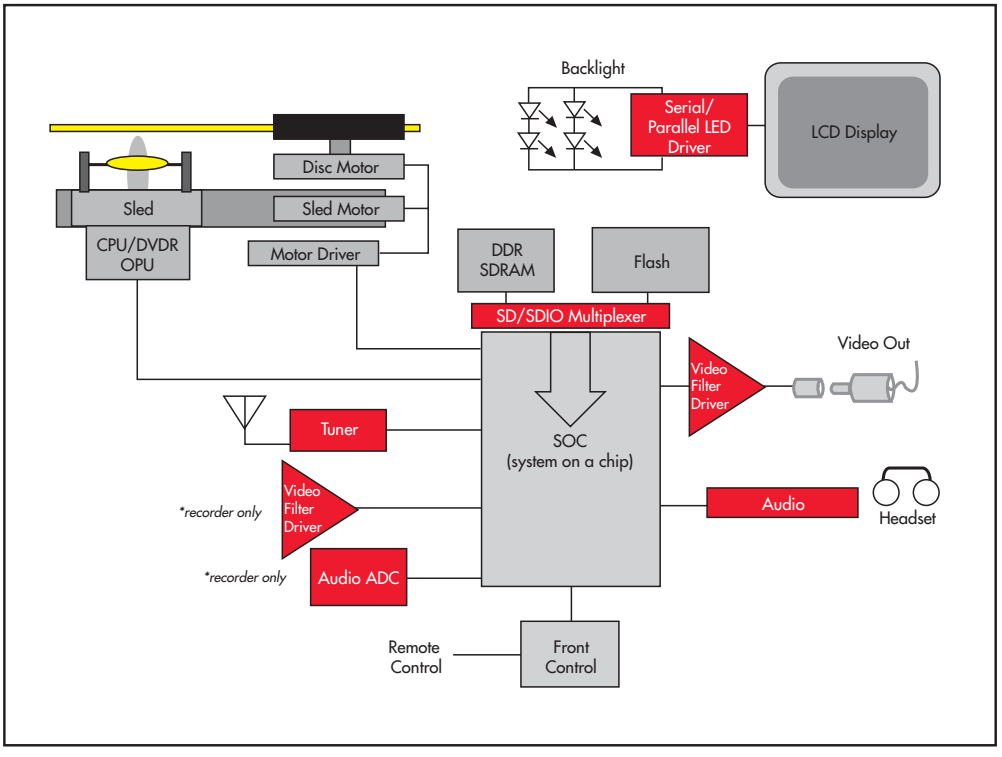


PDA

APPLICATION BLOCK DIAGRAMS

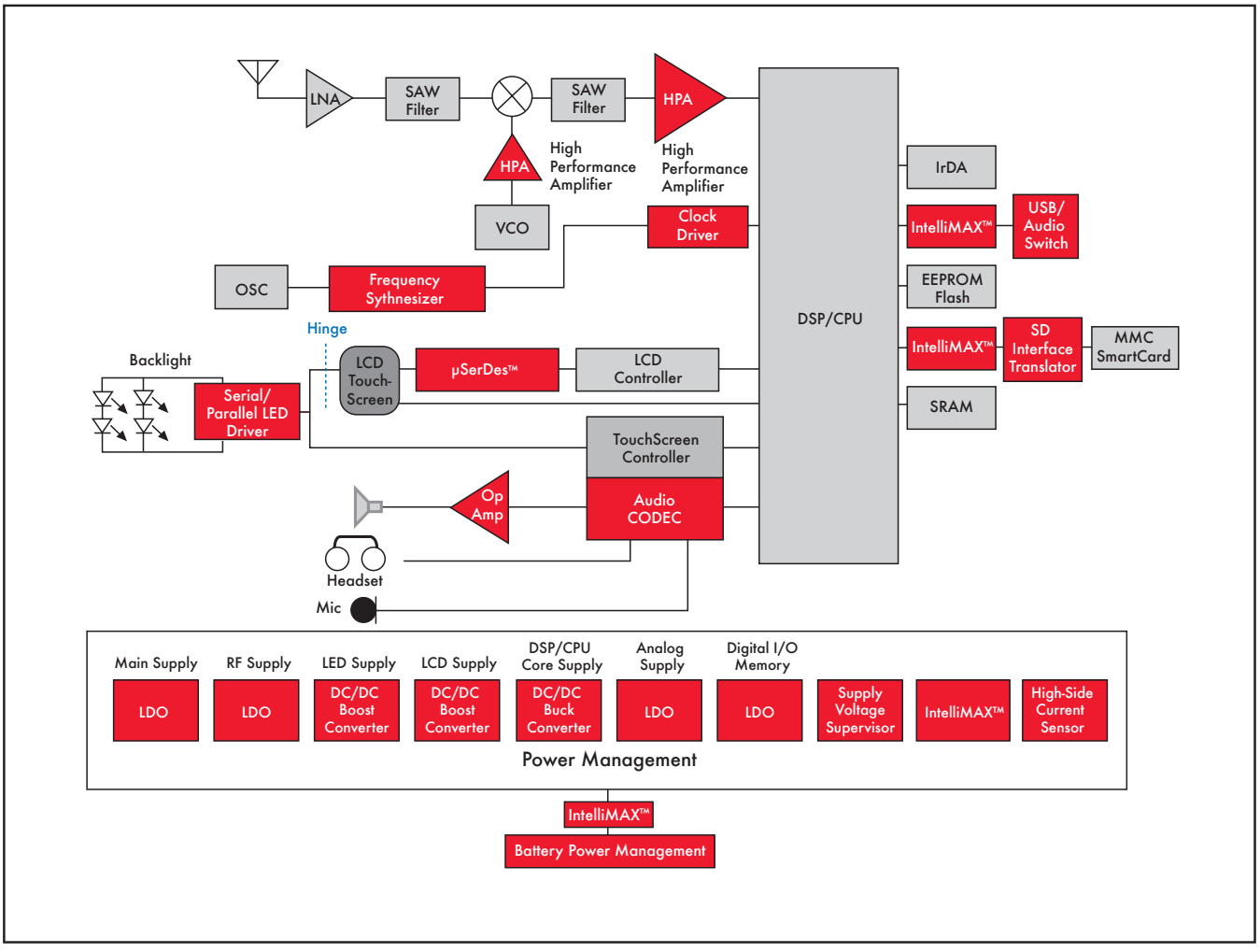


Portable Gaming Device



Portable DVD Recorder/Camcorder Player

APPLICATION BLOCK DIAGRAMS



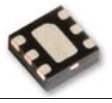
GPS

PACKAGING TECHNOLOGIES

www.fairchildsemi.com/packaging/

As a world leader in high performance semiconductors specializing in products for the optimization of system power, Fairchild Semiconductor offers you the most advanced packages designed for minimal size, highest reliability and maximum thermal performances. One hundred percent of Fairchild's products are RoHS (Restriction of Hazardous Substances in Electrical and Electronic Equipment) compliant and are qualified with lead-free alternative plating materials.

Overview of Fairchild Packaging Technology

Package type	Package Image	Dimension (mm)	Package type	Package Image	Dimension (mm)
BGA 1.5x1.5		1.5x1.5	SOIC 14		14 Leads
MLP 8 Lead Dual		3x1.9	SOIC 16		16 Leads
MLP 8 Lead Single		3x1.9	SO-8		5x6
MicroPak™		6, 8 & 10 Leads	SO-8 FMLP		5x6
MLP 2x5		2x5	SSOT6		3x3
MLP 3x3		3x3	SSOT6 FMLP		3x3
MLP (MicroFET™)		2x2	TSSOP8		3.1x6.6
DQFN		14, 16, 20, 24 Leads	WL-CSP 5 lead		1x1.37
SC70-6		2x2.1	WL-CSP 6 lead		1x1.5
SC75 FMLP		1.7x2.15	WL-CSP 8 lead		1.21x1.21

For more information, please visit www.fairchildsemi.com/packaging/

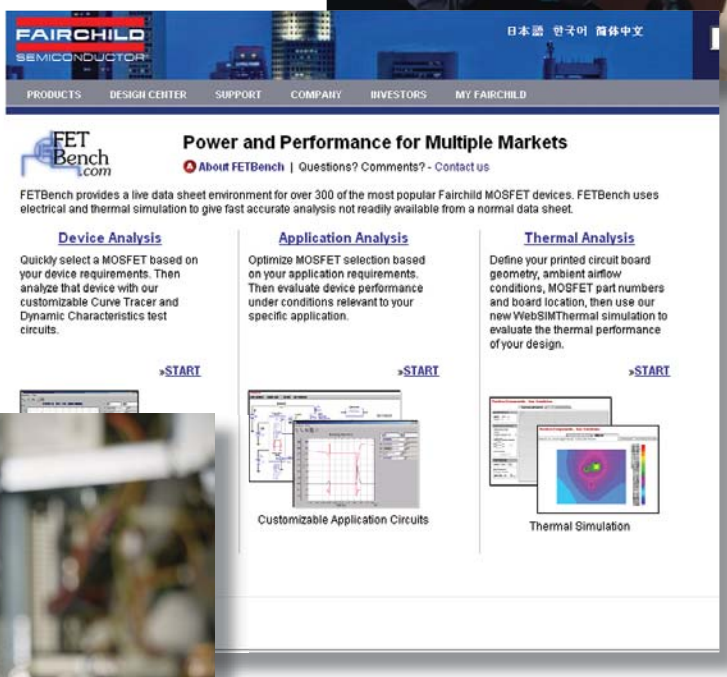
GLOBAL POWER RESOURCE℠

Engineers need a comprehensive portfolio of components and design support services to solve today's power and energy problems. It is this foundation of practical solutions that has allowed us to deploy the industry standard for customer support. We call it our Global Power Resource (GPR)—and here are some of the ways you can leverage it for your designs.

Online Support—Our power and application engineers in the labs, and in the field, have combined their skills to offer a comprehensive suite of design and knowledge tools. These are available 24/7 in the Design Center on our website. The Design Center includes application notes, eval boards, on-line design tools, etc.



GPR Centers—Each is a fully-equipped applications laboratory, staffed by a PhD-level team of power engineers. These regional centers can take a design from concept, to full schematics, to a completed board with fully characterized engineering and manufacturing files, or to any stage in between.



Field Application Engineers—Our FAEs are power engineers, with years of design experience. They bring the full range of Fairchild's power expertise to your facility, to be an extension of your design team.



Application Notes	
App Notes	Description
AN-1030	Design with MOSFET Load Switches
AN-5015	USB1T11A Transceiver and Specification compliance
AN-5052	Implementing the Physical Layer in a USB 2.0 Compliant System
AN-5053	Using the FIN24A/FIN12A with a Synchronous Pixel interface
AN-5054	Low Noise Leadless Packages Advance Portable Designs
AN-5055	Portability and Ultra Low Power TinyLogic
AN-5058	µSerDes Family Frequently Asked Questions (FAQ)
AN-5059	LVDS Technology Solves Typical EMI Problems Associated with Cell Phone Cameras and Displays
AN-5061	µSerDes Layout Guidelines
AN-5064	Low-ICCT Analog Switches for Ultra Portable Designs
AN-5066	Improve Your Design with Adoption of High Speed USB Switches
AN-6011	FAN2011 Family Component Calculation and Simulation Tools
AN-6019	Fairchild Analog Switch Products ESD Test Methodology Overview
AN-6022	Using the FSUB30 to Comply with USB 2.0 Fault Condition Requirements
AN-6031	Using SPI Read and Write with the µSerDes FIN324C
AN-7007	Simplifying Portable Power Management and Protection Circuit Using the FPF200X Integrated Switch Product Family (IntelliMAX)
AN-7525	PCB Land Pattern Design and Surface mount Guidelines for MicroFET Packages
AN-7526	Single Channel MicroFET 3x2 Power MOSFET Recommended Land Pattern and Thermal Performance
AN-7527	Dual Channel MicroFET 3x2 Power MOSFET Recommended Land Pattern and Thermal Performance
AN-8005	FMS6151 NoSAG/SAG Applications
AN-8017	FMS6151 NoSAG/SAG Applications
AN-9006	IGBT Application Note for Camera Strobe
MS-502	TinyLogic Introduction
MS-503	Family Characteristics TinyLogic HS/HST and UHS Series
MS-545	TinyLogic Ordering Information, Packaging and Physical Dimensions

For more application note information, please visit www.fairchildsemi.com/apnotes/

EVALUATION BOARDS

www.fairchildsemi.com/evalboard/

Evaluation Boards		
Board #/User Guide	**Description**	**Featured Products**
730021-001	IntelliMAX FPF2172 Demo Board	FPF2172
730028-001	IntelliMAX FPF2144 Demo Board	FPF2144
FPF2163-001	IntelliMAX FPF2163 Demo Board	FPF2163
730012-001	IntelliMAX FPF210X & FPF2110 Demo Board	FPF210X & FPF2110
730014-001	FPF2123,4,5 Demo Board	FPF2123/FPF2124/FPF2125
730016-001	IntelliMAX FPF200X Demo Board	FPF200X family
730017-001	IntelliMAX FPF1002 Demo Board	FPF1003
730018-001	IntelliMAX FPF1005 Demo Board	FPF1005
730019-001	IntelliMAX FPF1004 Demo Board	FPF1004
730022-001	IntelliMAX FPF2174 Demo Board	FPF2174
730023-001	IntelliMAX FPF2500,1,2 Demo Board	FPF2500/FPF2501/FPF2502
730024-001f	IntelliMAX FPF2503,4,5,6 Demo Board	FPF2503/FPF2504/FPF2505/FPF2506
730025-001	IntelliMAX FPF1006 Eval Board	FPF1006
730029-001	IntelliMAX FPF2163 Eval Board	FPF2163
FEB137-001	FAN2001MPX (6-Lead 3x3 MLP) - 1A High Efficiency Step-Down DC/DC	FAN2001
FEB138-001	FAN2002MPX (6-Lead 3x3 MLP) - 1A High Efficiency Step-Down DC/DC Converter	FAN2002
FEB140-001	FAN5308MPX (6-Lead 3x3 MLP) - 800mA High Efficiency Step-Down DC/DC Converter	FAN5308
FEB141-001	FAN5330SX (5-Lead SOT23) - High Efficiency Serial LED Driver with 30V Integrated Switch	FAN5330
FEB142-001	FAN5331XS (5-Lead SOT23) - High Efficiency Serial LED Driver and OLED Supply with 20V Integrated Switch	FAN5331
FEB143-001	FAN5332ASX (5-Lead SOT23) - High Efficiency, High Current Serial LED Driver and OLED Supply with 30V Integrated Switch	FAN5332
FEB144-001	FAN5333ASX (110mV Feedback Voltage in a 5 Lead SOT23) - High Efficiency, High Current Serial LED Driver with 30V Integrated Switch	FAN5333
FEB169-001	1.5 a Low Voltage Current Mode Synchronous PWM Buck Regulator	FAN2012MPX
FEB170-001	2A Low Voltage Current Mode Synchronous PWM Buck Regulator	FAN2013MPX
FEB171-001	500mA High Efficiency Boost Regulator with Adjustable Output, Shutdown and Low Battery Detect	FAN4855MTCS
FEB172-001	High-Efficiency, High-Current Serial LED Driver with 30V Integrated Switch	FAN5333BSX
FEB173-001	1.5MHz Boost Regulator with 33V Integrated FET Switch	FAN5336MPX
FEB175-001	High-Efficiency, Constant-Current LED Driver with TinyWire™ Brightness Control	FAN5617MPX
FEB206-001	Indicator LED Blinker with Single-Wire Interface	
FEB178-001	3MHz, 600mA Step-Down, DC-DC Converter in Chip-Scale Packaging	FAN5350MPX
FEB179-001	3MHz, 600mA Step-Down, DC-DC Converter in Chip-Scale Packaging	FAN5350UCX

Please contact your local sales office to order evaluation and/or demo boards.
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POWER MANAGEMENT ICS

AC-DC: Power Factor Correction

- Continuous Conduction Mode (CCM) PFC Controllers
- Critical (CrCM) / Boundary Conduction Mode (BCM) PFC Controllers
- PFC + PWM Combination (Combo) Controllers

Isolated DC-DC

- Green-Mode PWM Controllers
- Integrated Green-Mode PWM Regulators (Green FPS™)
- Integrated PWM Regulators (FPS™)
- Primary-side only CV/CC Controllers
- Standard SMPS PWM Controllers

Non-Isolated DC-DC

- Charge-Pump Converters
- Multi-phase Controllers
- Step-down Controllers (External Switch)
- Step-down Regulators (Integrated Switch)
- Step-up Regulators (Integrated Switch)

Power Drivers

- DrMOS Integrated Drivers
- High Voltage Gate Drivers (HVIC)
- Low-Side Gate Drivers
- Synchronous Rectifier Controllers/Drivers
- Synchronous-Buck/Multi-phase Drivers

Supervisory/Monitor ICs

- Ground Fault Interrupt (GFI) Controllers
- Supervisors + PWM
- Temperature Sensors
- Voltage Supervisors/Detectors/Stabilizers

Voltage Regulators

- LDOs
- Positive Voltage Linear Regulators
- Negative Voltage Linear Regulators
- Shunt Regulators

POWER SEMICONDUCTORS

Diodes & Rectifiers

- Bridge Rectifiers
- Rectifiers
- Schottky Diodes and Rectifiers
- Small Signal Diodes
- Transient Voltage Suppressors
- Zener Diodes

Integrated Power Solutions

- DrMOS Integrated Drivers
- IGBT Module
- Full Function Load Switches (IntelliMAX™)
- MOSFET/Schottky Combos
- Solenoid Drivers
- Smart Power Modules (SPM®)

Transistors

- BJTs
- IGBT Discrete
- JFETs
- Load Switches
- MOSFETs
- MOSFET/Schottky Combos
- Small Signal Transistors

TRIACs

- TRIACs

LIGHTING AND DISPLAY

- CCFL Ballast IC
- CFL/Lighting Ballast Control IC
- Critical (CrCM)/Boundary Conduction Mode (BCM) PFC Controllers for Lighting
- High Voltage Gate Drivers (HVIC)
- LED Drivers
- PDP Smart Power Module (PDP-SPM™)

SIGNAL PATH ICS

Amplifiers & Comparators

- Comparators
- High Performance Amplifiers (>15 MHz)
- Operational Amplifiers

Signal Conversion

- Triple Video DACs
- Video Filter Drivers
- Video Switch Matrix/Multiplexers

Interface

- LVDS
- Serializer/Deserializer (µSerDes™)
- USB Transceiver

Switches

- Analog/Audio Switches
- Bus Switches
- USB Switches
- Video Switches

LOGIC | TINYLOGIC®

- Buffers, Drivers, Transceivers
- Flip flops, Latches, Registers
- Gates
- MSI Functions
- Multiplexer/Demultiplexer Encoders/Decoders
- Specialty Logic
- TinyLogic®
- Voltage Level Translators

OPTOELECTRONICS

- Infrared Products
- Optocouplers

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