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7
Display ICs

V_{COM} and Gamma Buffers Programmable V_{COM} Amplifiers

Device	# of DCP Channels	# of V _{COM}	V _{SUPPLY} (V)	BW @ -3dB (MHz)	Slew Rate (V/μs)	EEPROM	Rail-to-Rail	Interface	Package
EL9200	1	1	4.5 to 16.5	44	10	Y	Y	Up/Down	12 Ld DFN
EL9201	1	2	4.5 to 16.5	44	10	Y	Y	Up/Down	24 Ld QFN
EL9202	1	4	4.5 to 16.5	44	10	Y	Y	Up/Down	24 Ld QFN
ISL45041	1	N/A	4.5 to 18	N/A	N/A	Y	N/A	I ² C	8 Ld DFN
ISL45042	1	N/A	4.5 to 18	N/A	N/A	Y	N/A	Up/Down	8 Ld DFN
ISL45042A	1	N/A	4.5 to 18	N/A	N/A	Y	N/A	Up/Down	8 Ld DFN

V_{COM} Amplifiers and Panel Repair

Device	# of Channels	V _{SUPPLY} (V)	BW @ -3dB (MHz)	Slew Rate (V/μs)	Rail-to-Rail	Supply/Amp (mA)	I _{OUT} Peak (mA)	Package
EL5111	1	4.5 to 18	60	75	In/Out	2.5	180	5 Ld TSOT, 8 Ld HMSOP
EL5120	1	4.5 to 18	12	10	In/Out	0.5	30	5 Ld TSOT, 8 Ld HMSOP
EL5210	2	4.5 to 18	30	33	In/Out	2.5	120	8 Ld MSOP, 8 Ld SOIC
EL5211	2	4.5 to 18	60	75	In/Out	2.5	180	8 Ld HMSOP
EL5211A	2	4.5 to 18	60	75	In/Out	2.5	180	8 Ld HMSOP
EL5220	2	4.5 to 18	12	10	In/Out	0.5	30	8 Ld MSOP
EL5410	4	4.5 to 18	30	33	In/Out	2.5	120	14 Ld SOIC, 14 Ld TSSOP
EL5411	4	4.5 to 18	60	75	In/Out	2.5	180	14 Ld HTSSOP, 14 Ld TSOP
EL5420	4	4.5 to 18	12	10	In/Out	0.5	30	14 Ld SOIC, 14 Ld TSSOP, 16 Ld QFN
EL5611	6	4.5 to 18	60	75	In/Out	2.5	180	24 Ld HTSSOP
EL5811	8	4.5 to 18	60	75	In/Out	2.5	180	28 Ld HTSSOP
EL9211	1	4.5 to 14	130	115	In	2.4	300	5 Ld SOT-23, 8 Ld HMSOP
EL9212	2	4.5 to 14	130	115	In	2.4	300	8 Ld HMSOP
EL9214	4	4.5 to 14	130	115	In	2.4	300	14 Ld HTSSOP

Programmable Gamma Reference Generators

Device	# of Channels	V _{RANGE} (V)	I/F	I/F Speed (MHz)	Rail-to-Rail	I _{SUPPLY} (mA)	Package
EL5126	8	5 to 18	I ² C	0.4	Out	10	32 Ld QFN
EL5225	10	5 to 18	SPI	5	Out	9.1	24 Ld TSSOP
EL5226	10	5 to 18	I ² C	0.4	Out	11.5	28 Ld TSSOP
EL5325	12	5 to 18	SPI	5	Out	10.6	28 Ld TSSOP
EL5326	12	5 to 18	I ² C	0.4	Out	13	28 Ld TSSOP
EL5525	18	5 to 18	SPI	5	Out	14	38 Ld HTSSOP
EL5825	8	5 to 18	SPI	5	Out	7.6	24 Ld QFN, 24 Ld TSSOP
ISL24006	18	5 to 18	I ² C	0.4	Out	30	32 Ld TQFN

Gamma Buffers

Device	# of Channels	V _{SUPPLY} (V)	BW @ -3dB (MHz)	Slew Rate (V/μs)	Rail-to-Rail	Supply/Amp (mA)	Package
EL5027	2	4.5 to 18	2.5	1.2	In/Out	0.11	6 Ld TSOT
EL5123	4	4.5 to 18	12	15	In/Out	0.5	10 Ld MSOP
EL5127	4	4.5 to 18	2.5	1.5	In/Out	0.15	10 Ld MSOP
EL5221	2	4.5 to 18	12	10	In/Out	0.5	6 Ld SOT-23, 8 Ld MSOP
EL5223	8	4.5 to 18	12	15	In/Out	0.5	20 Ld TSSOP, 24 Ld QFN
EL5227	8	4.5 to 18	2.5	1.5	In/Out	0.15	20 Ld TSSOP, 24 Ld QFN
EL5323	10	4.5 to 18	12	15	In/Out	0.5	24 Ld QFN, 24 Ld TSSOP
EL5327	10	4.5 to 18	2.5	1.5	In/Out	0.15	24 Ld QFN, 24 Ld TSSOP
EL5421	4	4.5 to 18	12	10	In/Out	0.5	10 Ld MSOP
EL5423	12	4.5 to 18	12	15	In/Out	0.5	28 Ld TSSOP, 32 Ld QFN
EL5427	12	4.5 to 18	2.5	1.5	In/Out	0.15	28 Ld TSSOP, 32 Ld QFN
EL5623	6	4.5 to 18	10	6	In/Out	0.65	16 Ld TSSOP

Integrated Gamma Buffers with V_{COM} Amplifier

Device	# of Buffers	# of V _{COM}	V _{RANGE} (V)	V _{COM} BW (MHz)	Gamma BW (MHz)	V _{COM} I _{SC} (mA)	I _{SUPPLY} (mA)	Package
EL5128	1	2	4.5 to 18	12	12	120	1.5	10 Ld MSOP
EL5129	6	1	4.5 to 18	15	10	170	3.5	20 Ld HTSSOP
EL5224	8	1	4.5 to 18	1.2	12	160	5.8	24 Ld HTSSOP, 24 Ld QFN
EL5324	10	1	4.5 to 18	1.2	12	160	7	28 Ld HTSSOP, 32 Ld QFN
EL5329	10	1	4.5 to 18	15	10	170	5.5	28 Ld HTSSOP
EL5424	12	1	4.5 to 18	1.2	12	160	8.2	32 Ld QFN
EL5524	4	1	4.5 to 18	60	12	140	4.9	14 Ld HTSSOP
EL5624	6	1	4.5 to 18	60	12	140	6.1	20 Ld HTSSOP
EL5724	8	1	4.5 to 18	60	12	140	7.3	24 Ld HTSSOP
EL5824	10	1	4.5 to 18	60	12	140	8.5	28 Ld HTSSOP
ISL24003	18	1	4.5 to 18	35	10	180	11.5	44 Ld QFN

Integrated DC/DC Regulators

Device	Input Voltage (V)	V _{BOOST} (V)	FET Size (A)	V _{ON} (V)	V _{OFF} (V)	V _{LOGIC} (V)	# of V _{COM}	# of Gamma	Features	Package
EL7515	1.8 to 13.2	4.5 to 17	1.4	N/A	N/A	N/A	N/A	N/A	Adjustable frequency, Adjustable softstart, low battery test/indicator	10 Ld MSOP
EL7516	2.6 to 5.5	4.5 to 17	1.5	N/A	N/A	N/A	N/A	N/A	Adjustable soft-start, 600kHz/1.2MHz	8 Ld MSOP
EL7520	3 to 5.5	5.5 to 20	Ext FET	5 to 32	-15 to 0	1.2 to 3.3	N/A	N/A	Start-up sequencing (inc. V _{LOGIC}), fault protection	20 Ld QFN
EL7520A	3 to 5.5	5.5 to 20	Ext FET	5 to 32	-15 to 0	1.2 to 3.3	N/A	N/A	Start-up sequencing (exc. V _{LOGIC}), fault protection	20 Ld QFN
EL7581	2.7 to 14	5 to 17	2.75	5 to 40	-40 to 0	N/A	N/A	N/A	Adjustable frequency, adjustable soft-start	20 Ld HTSSOP
EL7583	2.7 to 14	5 to 17	1.75	5 to 40	-40 to 0	N/A	N/A	N/A	Adjustable frequency, adjustable soft-start	20 Ld HTSSOP, 20 Ld TSSOP
EL7584	2.7 to 14	5 to 17	1.75	5 to 40	-40 to 0	N/A	1	N/A	Adjustable frequency, adjustable soft-start	24 Ld TSSOP
EL7585	3 to 5.5	5.5 to 20	3.5	5 to 32	-15 to 0	1.2 to 3.3	N/A	N/A	Start-up sequencing (inc. V _{LOGIC}), fault protection	20 Ld QFN
EL7585A	3 to 5.5	5.5 to 20	3.5	5 to 32	-15 to 0	1.2 to 3.3	N/A	N/A	Start-up sequencing (exc. V _{LOGIC}), fault protection	20 Ld QFN
EL7586	3 to 5.5	5.5 to 20	2	5 to 32	-15 to 0	1.2 to 3.3	N/A	N/A	Start-up sequencing (inc. V _{LOGIC}), fault protection	20 Ld QFN
EL7586A	3 to 5.5	5.5 to 20	2	5 to 32	-15 to 0	1.2 to 3.3	N/A	N/A	Start-up sequencing (exc. V _{LOGIC}), fault protection	20 Ld QFN
EL7640	2.6 to 5.5	5.5 to 20	3	5 to 30	-15 to 0	N/A	1	N/A	Power sequencing, overload protection, thermal shutdown, V _{ON} slice	32 Ld QFN
EL7640A	2.6 to 5.5	5.5 to 20	3	5 to 30	-15 to 0	N/A	1	N/A	Power sequencing, overload protection, thermal shutdown, V _{ON} slice	32 Ld QFN
EL7641	2.6 to 5.5	5.5 to 20	3	5 to 30	-15 to 0	N/A	1	2	Power sequencing, overload protection, thermal shutdown, V _{ON} slice	32 Ld QFN
EL7641A	2.6 to 5.5	5.5 to 20	3	5 to 30	-15 to 0	N/A	1	2	Power sequencing, overload protection, thermal shutdown, V _{ON} slice	32 Ld QFN
EL7642	2.6 to 5.5	5.5 to 20	3	5 to 30	-15 to 0	N/A	1	4	Power sequencing, overload protection, thermal shutdown, V _{ON} slice	32 Ld QFN
EL7642A	2.6 to 5.5	5.5 to 20	3	5 to 30	-15 to 0	N/A	1	4	Power sequencing, overload protection, thermal shutdown, V _{ON} slice	32 Ld QFN
ISL97516	2.3 to 5.5	5 to 25	2	N/A	N/A	N/A	N/A	N/A	Adjustable Soft-Start, 600kHz/1.2MHz	8 Ld MSOP
ISL97522	4.5 to 20	5 to 30	Ext FET	5.5 to 30	-15 to 0	1 to 3.3 Ext FET	N/A	N/A	Power sequencing, overload protection, thermal shutdown, V _{ON} slice	32 Ld QFN
ISL97645A	2.7 to 5.5	5 to 20	2.6	N/A	N/A	N/A	1	N/A	Programmable V _{ON} slice, UV and OT protection	24 Ld QFN
ISL97652	8 to 15	10 to 19.5	2	5 to 34	-20 to 0	1.2 to 5.5	2	N/A	OVP, Integrated Delay FET, Dual V _{COM}	48 Ld QFN
ISL97653	5 to 14	6 to 20	2.8	7 to 34	-5 to -15	1.8 to 5	N/A	N/A	High Voltage Test Mode	40 Ld QFN
ISL97536	2.5 to 6	N/A	N/A	N/A	N/A	0.8 to 6	N/A	N/A	Internal Compensated Voltage Mode	10 Ld MSOP
ISL97644	3 to 5.5	5 to 20	2.6	N/A	N/A	2.5/2.85/3.3	1	0	V _{ON} slice, UV and OT Protection	24 Ld QFN
ISL97645	3 to 5.5	5 to 20	2.6	N/A	N/A	N/A	1	0	V _{ON} slice, UV and OT Protection	24 Ld QFN
ISL97650	4 to 13.2	5.5 to 20	3	5.5 to 32	-18 to 0	1 to 3.3 2A FET	N/A	N/A	Power sequencing, overload protection, thermal shutdown, V _{ON} slice	36 Ld QFN
ISL97651	4 to 5.5	5.5 to 20	4.4	5.5 to 32	-18 to 1	2 to 3.3 2A FET	N/A	N/A	Power sequencing, overload protection, thermal shutdown, V _{ON} slice	36 Ld QFN

Ambient Light Sensors Light to Current

Device	Peak Spectral Sensitivity (nm)	Supply Voltage (Min) (V)	Supply Voltage (Max) (V)	Supply Current @ E _V = 100Lux (μA)	Lux Range (Max) (Lux)	Output Current @ E _V = 100Lux (μA)	Dark Current @ E _V = 0Lux (μA)	Rise Time (μs)	Fall Time (μs)	Delay Time, Rising Edge (μs)	Delay Time, Falling Edge (μs)	Package Dimensions (mm)	Pb-Free?	Enable Pin?	Package
EL7900	540	2.5	5.5	62	10000	60.5	0.15	105 @ 300Lux	170 @ 300Lux	165 @ 300Lux	65 @ 300Lux	2.1x2.0x0.7	Y	Y	5 Ld ODFN
ISL29000	540	2.5	5.5	7.4	10000	6.1	0.15	27 @ 1000Lux	78 @ 1000Lux	80 @ 1000Lux	35 @ 1000Lux	2.1x2.0x0.7	Y	Y	5 Ld ODFN

Light to Digital

Device	Peak Spectral Sensitivity (nm)	Supply Voltage (Min) (V)	Supply Voltage (Max) (V)	Supply Current (μA)	Resolution (bits)	Lux Range (Max) (Lux)	Counts per Lux (Max) (counts)	Dark ADC Code @ E _V = 0Lux (Max) (Count)	Gain Selection?	Output Interface	Address Selection Pins?	Enable Pin?	Package Dimensions (mm)	Package
ISL29001	550	2.25	3.63	280	15	10,000	15	1	No	I ² C	No	Yes	2.0x2.1x0.7	6 Ld ODFN
ISL29002	550	2.25	3.63	300	15	100,000	1.65	1	No	I ² C	Yes	No	3.0x3.0x0.7	8 Ld ODFN
ISL29003	550	2.25	3.63	290	16	64,000	65	1	Yes	I ² C	No	Software Enabled	2.0x2.1x0.7	6 Ld ODFN
ISL29004	550	2.25	3.63	300	16	64,000	65	1	Yes	I ² C	Yes	Software Enabled	3.0x3.0x0.7	8 Ld ODFN

White LED Drivers

Device	Topologies	Number of LEDs (max)	FoL PCB Size	F _{OUT} (max) (mA)	Peak Efficiency (%)	V _{IN} (V)	V _{OUT} (max) (V)	Frequency (MHz)	I _{CC} (max) (mA)	I _q (max) (μA)	I _{sw} (typ) (mA)	Integrated Diode	OVP	Fault Disconnected Switch	Brightness Control	Package
EL7513	Inductor Boost	12	3.5" to 4.3"	75	91	2.6 to 13.2	18	1	1.5	1	500	N	Y	N	DC or Averaged PWM	8 Ld MSOP, 8 Ld TSOT
EL7630	Inductor Boost	6	1.8" to 3.5"	30	86	2.7 to 5.5	27	1.35	1	1	350	N	N	N	PWM up to 1kHz	5 Ld TSOT, 6 Ld SC-70
ISL97631	Inductor Boost	6	1.8" to 3.5"	30	85	2.7 to 5.5	27	1.35	1	1	350	Y	N	N	PWM up to 1kHz	6 Ld TSOT
ISL97632	Inductor Boost	3, 4, 6	1.8" to 3.5"	30	85	2.7 to 5.5	27	1.3	1	1	470	Y	Y	Y	Digital 5-Bit Dimming	8 Ld DFN T+R
ISL97634	Inductor Boost	3, 4, 6	1.8" to 3.5"	30	85	2.7 to 5.5	27	1.3	1	1	470	Y	Y	Y	PWM up to 20kHz	8 Ld DFN T+R

OLED Power ICs

Device	Topologies	I _{OUT} (max) (mA)	Peak Efficiency (%)	V _{IN} (V)	V _{OUT} (max) (V)	Frequency (MHz)	I _{CC} (max) (mA)	I _q (max) (μA)	I _{sw} (typ) (mA)	Integrated Diode	OVP	Package
ISL97702	Inductor Boost	130	87	2.3 to 5.5	28	1	1	1	1200	Y	Y	10 Ld DFN

7
Display ICs

LCD and LED Display Drivers

Device	Alphanumeric?	# of Digits	Display Type	Multiplexed?	Font	Interface	Cycle Time (ns)	Package
ICM7211AM	No	4	LCD, DD	No	CODE B	MUX BCD	200	40 Ld PDIP, 44 Ld MQFP
ICM7218	No	8	LED, CA or CC	Yes	CODE B, HEX	BIT PAR., DIGIT SER.	400	28 Ld CerDIP
ICM7228	No	8	LED, CA or CC	Yes	CODE B, HEX	BIT PAR., DIGIT SER.	500	28 Ld PDIP, 28 Ld SOIC
ICM7243	Yes	8	LED, CC	Yes	ASCII	BIT PAR., DIGIT SER., RANDOM	250	40 Ld PDIP, 44 Ld MQFP

Level Shifters

Device	# of Channels	Output Voltage Range (V)	Continuous Output Current (mA)	Peak Output Current (mA)	Rise/Fall Times (ns)	Propagation Delay (ns)	Capacitive Load Driving (pF)	Supply Current (mA)	Temperature Range (°C)	Package
ISL24010	8	20 to +40	10	25	150/210	250	3000	1.8	-40 to +85	20 Ld TSSOP
ISL24011	8	20 to +40	10	25	260/290	230	50000	5	-40 to +85	Eval Board, 20 Ld TSSOP

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