

Power Management

Audio ICs	<u>AudioMAX Products</u>
Backlight Controller	<u>CCFL Backlight Controller IC</u>
Backlight Inverters	<u>Backlight Cable Assembly</u> <u>CCFL Inverter Module - Dual Lamp</u> <u>CCFL Inverter Module - Quad Lamp</u> <u>CCFL Inverter Module - Single Lamp</u>
Drivers	<u>Driver - Dual HI Speed MOSFET, Inverting</u> <u>Driver - Dual HI Speed MOSFET, Non-Inverting</u> <u>Driver - Dual Peripheral NAND</u> <u>Driver - Dual Peripheral NOR</u> <u>Driver - Dual Peripheral OR</u> <u>Driver - Dual Peripheral Positive AND</u> <u>Driver - Half Bridge</u> <u>Driver - Medium Current Array</u>
LDOs	<u>Low Drop Out Regulator - Dual</u> <u>Low Drop Out Regulator - Positive Adjustable</u> <u>Low Drop Out Regulator - Positive Fixed</u>
LEDs and Drivers	<u>LED Driver</u>
Op-Amp	<u>Operational Amplifier - Dual Power</u> <u>Operational Amplifier - High Voltage</u> <u>Operational Amplifier - Power</u>
Opto-Electronics	<u>Thermo Electric Controller IC</u>
Post Regulators	<u>AC Synchronous, Secondary-Side Controller</u>
PWMs	<u>Current Mode PWMs</u> <u>Power Factor Controller</u> <u>Voltage Mode PWMs</u>
SCSI Terminators	<u>SCSI - Low Voltage Differential (LVD)</u> <u>SCSI - Multi-Mode</u> <u>SCSI - Single Ended</u>
Switching Regulators	<u>DC:DC Controller - Programmable</u> <u>DC:DC Converter</u> <u>PWM Controllers</u> <u>Voltage Reference - Programmable</u>
TEC Controllers	<u>Thermo Electric Controller IC</u>
Voltage-Regulators	<u>Linear Voltage Regulator - Positive Adjustable Rad Hard</u> <u>Negative Adjustable Linear Voltage Regulators</u> <u>Negative Fixed Linear Voltage Regulators</u> <u>Positive Adjustable Linear Voltage Regulators</u> <u>Positive Fixed Linear Voltage Regulators</u> <u>Voltage Regulation Module</u>

MSC / Linfinity - Power Supply Products

Low Dropout Regulators

Fixed and Adjustable Regulators

LX8117-xx/LX8117A-xx/8117B-xx - 0.8A, 1A & 1.2A LDO Positive Regulators:*Adj.*, 2.5V, 2.8V, 3.3V, 5V

LX8382-xx/LX8382A-xx - 10A Low Dropout Positive Regulators:*Adjustable*, 3.3V

LX8383-xx/LX8383A-xx/**LX8383B-xx - 7.5A Low Dropout Positive Regulators:*Adjustable*, 3.3V

LX8384-xx/LX8384A-xx/**LX8384B-xx - 5A Low Dropout Positive Regulators:*Adjustable*, 1.5V,3.3V

LX8385-xx/LX8385A-xx/**LX8385B-xx - 3A Low Dropout Positive Regulators:*Adjustable*, 3.3V, 5V

LX8386-xx/LX8386A-xx/**LX8386B-xx - 1.5A Low Dropout Positive Regulators:*Adjustable*, 3.3V

LX8415-xx - 0.5A Low Dropout Regulators:*Adjustable*, 2.5V, 3.3V

LX8554-xx - 5A Extremely Low Dropout Positive Regulators:*Adjustable*, 3.3V

LX8580 - 7A Very Low Dropout Positive Adjustable Regulators:*Adjustable only*

LX8582A-xx - 8.5A Low Dropout Positive Regulators:*Adjustable*, 3.3V

LX8584-xx/LX8584A-xx/**LX8584B-xx - 7A Low Dropout Positive Regulators:*Adjustable*, 3.3V

LX8585-xx/LX8585A-xx - 4.6A Low Dropout Positive Regulators:*Adjustable*, 1.5V,3.3V

LX8586-xx/LX8586A-xx - 6A Low Dropout Positive Regulators:*Adjustable*, 3.3V

LX8587-xx/LX8587A-xx - 3A Low Dropout Positive Regulators: *Adjustable*, 1.5V,3.3V

LX8610-xx - 1A BiCMOS Very Low Dropout Regulators:*Adjustable*, 2.5V, 3.3V

LX8630-xx - 3A BiCMOS Very Low Dropout Regulators:*Adjustable*, 2.5V, 3.3V

LX8940 - 5V Low Dropout Regulator:*5V only*

LX8941 - Adjustable Low Dropout Regulator:*Adjustable only*

SG29055/29055A - Low Dropout Dual Regulator:5V, 5V

SG29085/29085A - Low Dropout Dual Regulator:8.2V, 5V

SG29125/29125A - Low Dropout Dual Regulator:12V, 5V

CCFL Backlight Inverter Modules

Single Lamp Inverters

LXM1596-01** - Wide Input CCFL Inverter Modules

LXM1597-01** - 5V CCFL Inverter Modules

LXM1598-01** - 12V CCFL Inverter Modules

LXM1610-01 - Direct Drive™ CCFL Inverter Modules

LXM1611-01* -**RangeMAX™** Digital Dimming, Direct Drive CCFL Inverter Modules

LXM1612-05-xx* -**RangeMAX™** 5V Highly-Integrated, Digital Dimming CCFL Inverter Module

LXM1612-12-xx* -**RangeMAX™** 12V Highly-Integrated, Digital Dimming CCFL Inverter Module

LXM1614-12-01* (1) -**RangeMAX™** 12V Highly-Integrated, Digital Dimming CCFL Inverter Module

LXM1653-01** - Floating Output Drive, CCFL Inverter Modules

Dual Lamp Inverters

LXM1620-xx - Direct Drive CCFL Inverter Modules

LXM1621-xx* -RangeMAX™ Digital Dimming, Direct Drive CCFL Inverter Modules

Quad Lamp Inverters

LXM1640-01 - Direct Drive CCFL Inverter Modules

LXM1641-xx* -RangeMAX™ Digital Dimming, Direct Drive CCFL Inverter Modules

- RangeMAX inverter for extended dimming range applications.
** Linfinity's CS-ZVS patented Current Synchronous, Zero Voltage Switching topology for selected panels.
(1) Product Preview data sheet available only.

CCFL Controller Ics

LX1686 -RangeMAX™ Digital Dimming CCFL Controller IC

Secondary-Side Post Regulators

LX1570/1571 - Phase Modulated AC Synchronous Secondary-Side Controller

Switching Regulators and Advanced Microprocessor Solutions

LX1660/1661 - Advanced PWM Controller

LX1662/62A, LX1663/63A - Single-Chip Programmable PWM Controllers with 5-Bit DAC

LX1664/64A, LX1665/66A - Dual Output PWM Controllers with 5-Bit DAC

LX1668 - Programmable Multiple Output DC:DC Controller

LX1669- Programmable DC:DC Controller

LX1670 - 5-Bit Programmable Voltage Reference

LX1681/1682- Voltage-Mode PWM Controllers

LXM1700-xx/1700A-xx - Pentium® II VRM Module

Pulse Width Modulators

LX1552/1553/1554/1555 - Ultra-Low Start-Up Current, Current Mode PWM

LX1562/1563 - Second-Generation Power Factor Controller

SG1524/2524/3524 - Voltage Mode PWM

SG1524B/2524B/3524B - Voltage Mode PWM

SG1525A/2525A/3525A - Voltage Mode PWM

SG1526/2526/3526 - Voltage Mode PWM

SG1526B/2526B/3526B - Voltage Mode PWM

SG1527A/2527A/3527A - Voltage Mode PWM

SG1842/2842/3842 - Current Mode PWM

SG1843/2843/3843 - Current Mode PWM

SG1844/2844/3844 - Current Mode PWM

SG1845/2845/3845 - Current Mode PWM

SG1846/2846/3846 - Current Mode PWM

UC184xA/284xA/384xA (x = 2, 3, 4, 5) - Current Mode PWM Controller

Linear Voltage Regulators

SG109/309 - Positive Fixed Voltage Regulator

SG117/217/317, SG117A/217A/317A - Positive Adjustable Voltage Regulator

SGR117A - Rad Hard 1.4A Adjustable Voltage Regulator

SG1532/2532/3532 - Precision Positive Adjustable Voltage Regulator

SG723 - Precision Positive Adjustable Voltage Regulator

SG7800/7800A Series - Positive Fixed Voltage Regulator - 5V

SG7900/7900A Series - Negative Fixed Voltage Regulator - 5V

Supervisors

LX7001 - Transient Immune Undervoltage Sensing Circuit

MC33064/34064 - Undervoltage Sensing Circuit

MC33164/34164 - 5V Micropower Sensing Circuit (Formerly SG33164/34164)

MC33164-3/34164-3 - 3V Undervoltage Sensing Circuit

SG1543/2543/3543 - Power Supply Output Supervisory Circuit

SG1548/2548/3548 - Quad Power Fault Monitor

SG3546 - 3.3V Undervoltage Sensing Circuit

FET Drivers

SG1626/2626/3626 - Dual High-Speed MOSFET Driver

SG1644/2644/3644 - Dual High-Speed MOSFET Driver

Support Functions

SG1549/2549/3549 - Current Sense Latch

Low Dropout Regulators

LDO Fixed and Adjustable Regulators Selection Guide

Single Channel							
Output Current (A)	LinFinity Part Number	Maximum Dropout Voltage (V)	Fixed Output Voltage (V)	Adjustable Voltage Range (V)	Maximum Input Voltage (V)	Available Packages	
10	LX8382-xx LX8382A-xx	1.4 1.2	3.3	1.25 to 8	10	TO-220 (P) TO-257 (V)	
8.5	LX8582A-xx	1.3	3.3	1.25 to 8	10	TO-220 (P) TO-247 (V)	
7.5	LX8383-xx LX8383A-xx LX8383B-xx**	1.5 1.3 1.3	3.3	1.25 to 8	10	TO-220 (P) TO-247 (V)	
	LX8580A	0.65	n/a	1.25 to 6	7	TO-263(DD), TO-220(P), S-Pak (DF) 5-pin	
7	LX8584-xx LX8584A-xx LX8584B-xx**	1.4 1.2 1.4	3.3	1.25 to 8	10	TO-220 (P) TO-247 (V)	
6	LX8586-xx LX8586A-xx	1.3 1.1	3.3	1.25 to 8	10	TO-220 (P) TO-247 (V)	
5	LX8554-xx	1	3.3	1.25 to 8	10	TO-220 (P), TO-263 (DD)	
	LX8384-xx LX8384A-xx LX8384B-xx**	1.5 1.3 1.3	1.5 & 3.3			TO-220 (P), TO-263 (DD) TO-252 (DT)	
	LX8587-xx LX8587A-xx	1.3 1.2	1.5 & 3.3			TO-220 (P) TO-263 (DD)	
3	LX8385-xx LX8385A-xx LX8385B-xx**	1.5 1.3 1.3	3.3 & 5.0	1.25 to 8	10	TO-220 (P), TO-263 (DD), TO-252 (DT)	
	LX8630-xx	0.6	2.5, 3.3			5.5	TO-220 (P) 3 & 5-pin TO-263 (DD) 3 & 5-pin
	LX8386-xx LX8386A-xx LX8386B-xx**	1.5 1.3 1.3	3.3			1.25 to 8	10
1.2	LX8117B-xx	1.3	2.5, 2.85 3.3, 5.0	1.25 to 8	15	SOT-223 (ST) TO-263 (DD) TO-252 D-Pak (DT)	
1	LX8940	0.8	5.0	n/a	26	TO-220 (P)	
	LX8941	0.8	n/a	1.25 to 25		TO-220 (P) 5-pin TO-263 (DD) 5-pin	
	LX8610-xx	0.45	2.5, 3.3	1.25 to 4.9	5.5	SOIC (DM) 8-pin SOT-223 (ST) 3-pin	
	LX8117A-xx	1.3	2.5, 2.85 3.3, 5.0	1.25 to 8	15	SOT-223 (ST) TO-263 (DD) TO-252 D-Pak (DT)	
0.8	LX8117-xx	1.2	2.5, 2.85 3.3, 5.0	1.25 to 8	15	SOT-223 (ST) TO-263 (DD) TO-252 D-Pak (DT)	
0.5	LX8415-xx	1.3	2.5, 3.3	1.25 to 8	15	SOT-223 (ST)	
0.15	LX8211	0.3	2.5, 2.7, 3.0	1.25 to 5.5	6	SOT-23 (SE) 5-pin	

**0.8% initial accuracy (25 degrees Celsius), 1% voltage reference accuracy over line, load, and temperature.

Dual Channel							
Output Current (A)	LinFinity Part Number	Maximum Dropout Voltage (V)	Fixed Output 1 (V)	Fixed Output 2 (V)	Adjustable Voltage Range (V)	Maximum Input Voltage (V)	Available Packages
2.5	<u>LX8817</u>	0.63	2.5 + Adj	Adj	1.25 to 3.3	10	S-Pak (DF) 7-pin
1	<u>LX8816</u>	1.3	3.3	2.5	1.25 to 10	12	S-Pak (DF) 5-pin
			Adj	3.3			
0.15	<u>LX8221</u>	0.3	2.5 2.7 3.0 Adj	Please See Factory	1.25 to 3.0	6	MSOP (DU) 10-pin

Switching Regulators

Microsemi LinFinity Part No.	Pkg.	5-bit VID	Power Good	OVP Driver	Adaptive Voltage Positioning	Hiccup Mode Current Limit	Synchronous Rectification	External LDO	Internal LDO	Current Sense Threshold (mV)
LX1660	SO-16									100
LX1661	SO-16									100
LX1662	SO-14									100
LX1662A	SO-14									60
LX1663	SO-16									100
LX1663A	SO-16									60
LX1664	SO-16									100
LX1664A	SO-16									60
LX1665	SO-18									100
LX1665A	SO-18									60
LX1668	SO-20 TSSOP	(TTL)								60
LX1669	SO-16	(TTL)								60

Signal Conditioning

Voltage References

LM385-xx / 385A-xx / 385B-xx - 1.2 & 2.5V Micropower Voltage Reference

LX432 - Low Voltage Adjustable Precision Shunt Regulators

LX1004 - 1.2 & 2.5V Micropower Voltage Reference

LX1431 - Programmable Reference

LX6431 / 6431A / 6431B - Adjustable Shunt Reference

SG1503 / 2503 / 3503 - Precision 2.5V Reference

TL431 / 431A / 431B - Precision Programmable References

Data Communication Products

SCSI Terminators

> [SCSI Selection Guide](#) <

- LX5107** - 9-Line Low-Capacitance μ Power SCSI Terminator
- LX5111/5112** - UltraMAX™ ULTRA 9-Line SCSI Terminator
- LX5111A/5112A** - UltraMAX™ - ULTRA 9-Line SCSI Terminator
- LX5115** - UltraMAX™ ULTRA 9-Line SCSI Terminator
- LX5115A** - UltraMAX™ - ULTRA 9-Line SCSI Terminator
- LX5119** - UltraMAX™ - ULTRA 27-Line SCSI Terminator
- LX5120** - UltraMAX™ - ULTRA 27-Line SCSI Terminator
- LX5121** - UltraMAX™ ULTRA 27-Line Plug and Play SCSI Terminator
- LX5122** - UltraMAX™ ULTRA 27-Line Plug and Play SCSI Terminator
- LX5202** - 18-Line μ Power SCSI Terminator
- LX5203** - 9-Line SCSI Active Terminator
- LX5204** - 9-Line Hot Swap μ Power SCSI Terminator
- LX5205** - 18-Line Plug and Play μ Power SCSI Terminator
- LX5207** - 18-Line Low-Capacitance μ Power SCSI Terminator
- LX5208** - 18-Line Low-Capacitance μ Power SCSI Terminator
- LX5211** - 9-Line Low-Capacitance μ Power SCSI Terminator
- LX5212** - 9-Line Low-Capacitance μ Power SCSI Terminator
- LX5213** - 9-Line Low-Capacitance μ Power SCSI Terminator
- LX5218** - UltraMAX™ 9-Line Plug and Play SCSI Terminator
- LX5219** - UltraMAX™ ULTRA 9-Line SCSI Terminator
- LX5225** - UltraMAX™ ULTRA 18-Line Plug and Play SCSI Terminator
- LX5226** - UltraMAX™ ULTRA 18-Line Plug and Play SCSI Terminator
- LX5240** - UltraMAX™ Multimode Plug and Play SCSI Terminator
- LX5241/5242/5243** - UltraMAX™ Multimode SCSI Terminators
- LX5245/5246/5247** - UltraMAX™ - 9-Line LVD SCSI Terminators
- LX5248/5249** - UltraMAX™ - 9-Line LVD SCSI Terminator

SCSI Terminators

Part Number	SCSI Standard			Output Cap (pF)	Hot Swap	Plug n' Play	Enabled	Available Packages
	SE	Multi Mode	LV D					
LX5212	Y			2.5	Y	N	L	TSSOP-24 (PWP) SOIC-16 (DP) DIP-16 (N)
LX5107	Y			3	Y	N	H	TSSOP-20 (PWP) WIDE SOIC-16 (DW)
LX5111/5112 UltraMAX™	Y			3	Y	N	H / L	SOIC-16 (DP) TSSOP-24 (PWP)
LX5111A/5112A UltraMAX™	Y			3	Y	N	H / L	SOIC-16 (DP) TSSOP-24 (PWP)
LX5115 UltraMAX™	Y			3	Y	N	H	SOIC-16 (D) WIDE SOIC-16 (DW) TSSOP-20 (PWP)
LX5115A UltraMAX™	Y			3	Y	N	H	SOIC-16 (D) WIDE SOIC-16 (DW) TSSOP-20 (PWP)
LX5218 UltraMAX™	Y			3	Y	Y	H	TSSOP-20 (PW) WIDE SOIC-16 (DW)
LX5219 UltraMAX™	Y			4	Y	N	H	TSSOP-20 (PW) WIDE SOIC-16 (DW)
LX5240 UltraMAX™		Y		3	Y	Y	L	TSSOP-24 (PW) SSOP-36 (DB)
LX5241/5242 UltraMAX™		Y		3	Y	N	L / H	TSSOP-24 (PW) SSOP-36 (DB)
LX5243 UltraMAX™		Y		3	Y	N	L	TSSOP-28 (PW)
LX5245/46/47 UltraMAX™			Y	3	Y	N	L / H	TSSOP-24 & 28 (PW)
LX5248/5249 UltraMAX™			Y	3	Y	N	L	TSSOP-24 (PW) SSOP-36 (DB)
LX5207	Y			2.5	Y	N	L	WIDE SOIC-28 (DWP)
LX5205	Y			2.5	Y	Y	H	WIDE SOIC-28 (DWP) DIP-24 (N)
LX5225 UltraMAX™	Y			3	Y	Y	H	WIDE SOIC-28 (DWP) SSOP-28 (DB)
LX5226 UltraMAX™	Y			3	Y	N	L	WIDE SOIC-28 (DWP) SSOP-28 (DB)
LX5119 (PDF) UltraMAX™	Y			3	Y	Y	H	SSOP-36 (DB)
LX5120 (PDF) UltraMAX™	Y			3	Y	Y	L	SSOP-36 (DB)
LX5121 UltraMAX™	Y			3	Y	Y	H	SSOP-44 (DB)
LX5122 UltraMAX™	Y			3	Y	Y	L	SSOP-44 (DB)

SG1731 / 2731 / 3731

DC Motor Pulse Width Modulator

The SG1731 is a pulse width modulator circuit designed specifically for DC motor control. It provides a bi-directional pulse train output in response to the magnitude and polarity of an analog error signal input. The device is useful as the control element in motor-driven servo systems for precision positioning and speed control, as well as in audio modulators and amplifiers using carrier frequencies to 350kHz.

The circuit contains a triangle waveform oscillator, a wideband operational amplifier for error voltage generation, a summing/scaling network for level-shifting the triangle waveform, externally programmable PWM comparators and dual $\pm 100\text{mA}$, $\pm 22\text{V}$ totem pole drivers with commutation diodes for full bridge output. A SHUTDOWN-BAR terminal forces the drivers into a floating high-impedance state when driven LOW. Supply voltage to the control circuitry and to the output drivers may be from either dual positive and negative supplies, or single-ended.

Features

- $\pm 3.5\text{V}$ To $\pm 15\text{V}$ Control Supply
- $\pm 2.5\text{V}$ To $\pm 22\text{V}$ Driver Supply
- Dual 100mA Source/Sink Output Drivers
- 5kHz To 350kHz Oscillator Range
- High Slew Rate Error Amplifier
- Adjustable Deadband Operation
- Digital SHUTDOWN-BAR Input

High Reliability Features

- Available To MIL-STD-883
- LMI Level "S" Processing Available

PDF Files *

- **Data Sheet:**
[SG1731](#)
- **Package Dimensions:**
[J-16 - 16-Pin DIP](#)
[N-16 - 16-Pin DIP](#)

For a full list of available packages, application notes, and other support information, visit our

Product Support page.