



DESCRIPTION		KEY FEATURES
<p>Microsemi's LX6504 is a cost reduced, third generation CCFL (Cold Cathode Fluorescent Lamp) controller. The integrated controller is optimized to drive CCFLs using resonant full bridge inverter topology.</p> <p>Resonant full bridge topology provides near sinusoidal waveforms over a wide supply voltage range in order to maximize the life of CCFL lamps, control EMI emissions, and maximize efficiency.</p> <p>The LX6504 includes safety features that limit the transformer secondary voltage and protect against fault conditions which include open lamp, and broken lamp faults etc.</p>	<p>A unique programmable strike frequency control is provided with LX6504. By connecting different components on the strike frequency control pin, the user can control the strike frequency profile at will.</p> <p>LX6504 can accept a burst dimming control signal that is either a DC analog voltage or a low frequency PWM.</p> <p>LX6504 also features integrated gate drivers for the four external power MOSFETs.</p> <p>An integrated 4V LDO powering all internal control circuitry greatly simplifies supply voltage requirement.</p> <p>The LX6504 is available in a 20-pin SOIC package.</p>	<ul style="list-style-type: none"> <li>• Integrated Gate Drive</li> <li>• Burst dimming range: &gt;20 to 1</li> <li>• Soft Rise/Fall For Burst Dimming Control</li> <li>• Programmable Strike Frequency</li> <li>• Programmable Burst Dimming Frequency</li> <li>• Programmable Strike Time-out and Fault Timing Protection</li> <li>• Operating Status Signal Output</li> <li>• Fixed Operating Frequency</li> <li>• Open-Lamp Voltage Protection</li> </ul>
		APPLICATIONS
		<ul style="list-style-type: none"> <li>• LCD TV</li> <li>• LCD Monitor</li> <li>• CCFL Backlight System</li> </ul>
<p><b>IMPORTANT:</b> : For the most current data, consult MICROSEMI's website: <a href="http://www.microsemi.com">http://www.microsemi.com</a> Protected by U.S. Patents: 5,615,093; 5,923,129; 5,930,121; 6,198,234; 7,112,929; Patents Pending</p>		

www.microsemi.com

LX6504

PACKAGE ORDER INFO		THERMAL DATA
$T_A$ (°C)	<b>DW</b> Plastic SOIC 20-Pin	$\theta_{JA} = 65.8$ °C/W
	RoHS Compliant / Pb-free	THERMAL RESISTANCE-JUNCTION TO AMBIENT
-20 to 85	<b>LX6504IDW</b>	Junction Temperature Calculation: $T_J = T_A + (P_D \times \theta_{JA})$ .
Note: Available in Tape & Reel. Append the letters "TR" to the part number. (i.e. LX6504IDW-TR)		The $\theta_{JA}$ numbers are guidelines for the thermal performance of the device/pc-board system. All of the above assume no ambient airflow.



**Microsemi**<sup>®</sup>

## INFORMATION

*Thank you for your interest in Microsemi<sup>®</sup> Analog Mixed Signal products.*

The full data sheet for this device contains proprietary information.

To obtain a copy, please contact your local Microsemi sales representative. The name of your local representative can be obtained at the following link

<http://www.microsemi.com/contact/contactfind.asp>

**or**

Contact us directly by sending an email to:

[IPGdatasheets@microsemi.com](mailto:IPGdatasheets@microsemi.com)

Be sure to specify the data sheet you are requesting and include your company name and contact information and or vcard.

*We look forward to hearing from you.*