

FAN7310

LCD Backlight Inverter Drive Integrated Circuit

Features

- High-Efficiency, Single-Stage Power Conversion
- Wide Input Voltage Range: 5V to 24V
- Backlight Lamp Ballast and Soft Dimming
- Reduce External Components
- Precision Voltage Reference Trimmed to 2%
- ZVS full-bridge topology
- Soft-Start Feature
- PWM Control at Fixed Frequency
- Analog and Burst Dimming Function
- Synchronizable Switching Frequency with External Signal
- Open-Lamp Protection
- Open-Lamp Regulation
- 20-Pin SSOP

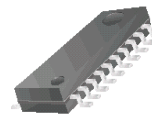
Applications

- LCD TV
- LCD Monitor

Description

The FAN7310 provides all the control functions for a series parallel resonant converter and contains a pulse width modulation (PWM) controller to develop a supply voltage. Typical operating frequency range is between 30kHz and 250kHz, depending on the CCFL and the transformer's characteristics. The FAN7310 has a patent-pending on phase-shift control.

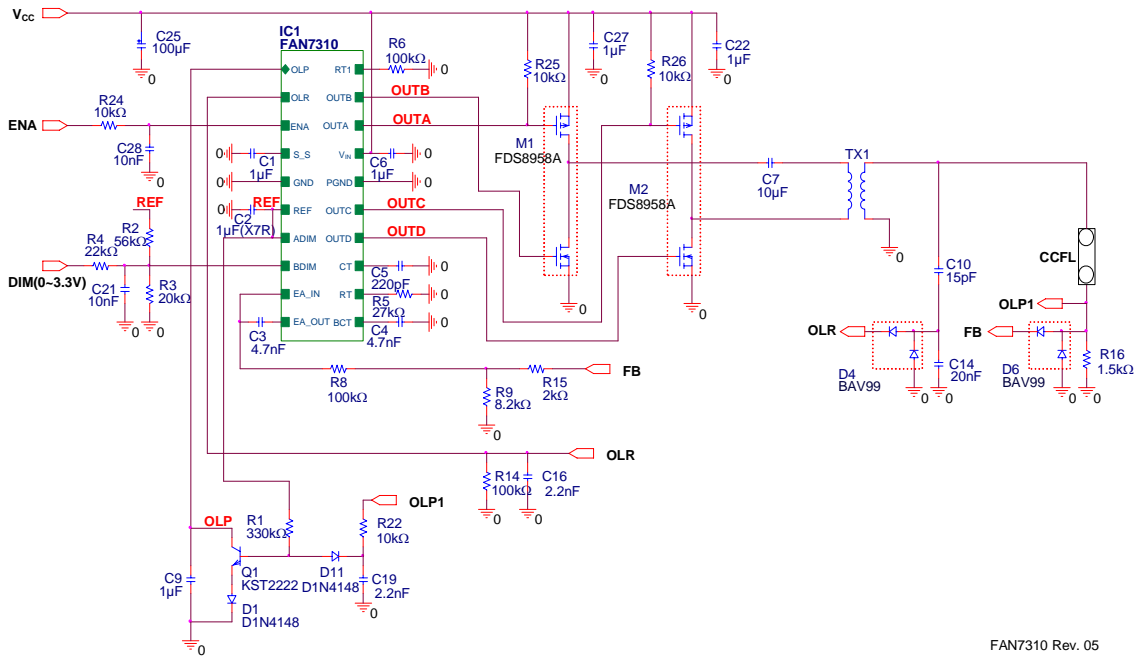
20-SSOP



Ordering Information

Part Number	Package	Pb-Free	Operating Temperature Range	Packing Method
FAN7310G	20-SSOP	Yes	-25°C ~ 85°C	Rail
FAN7310GX	20-SSOP	Yes		Tape & Reel

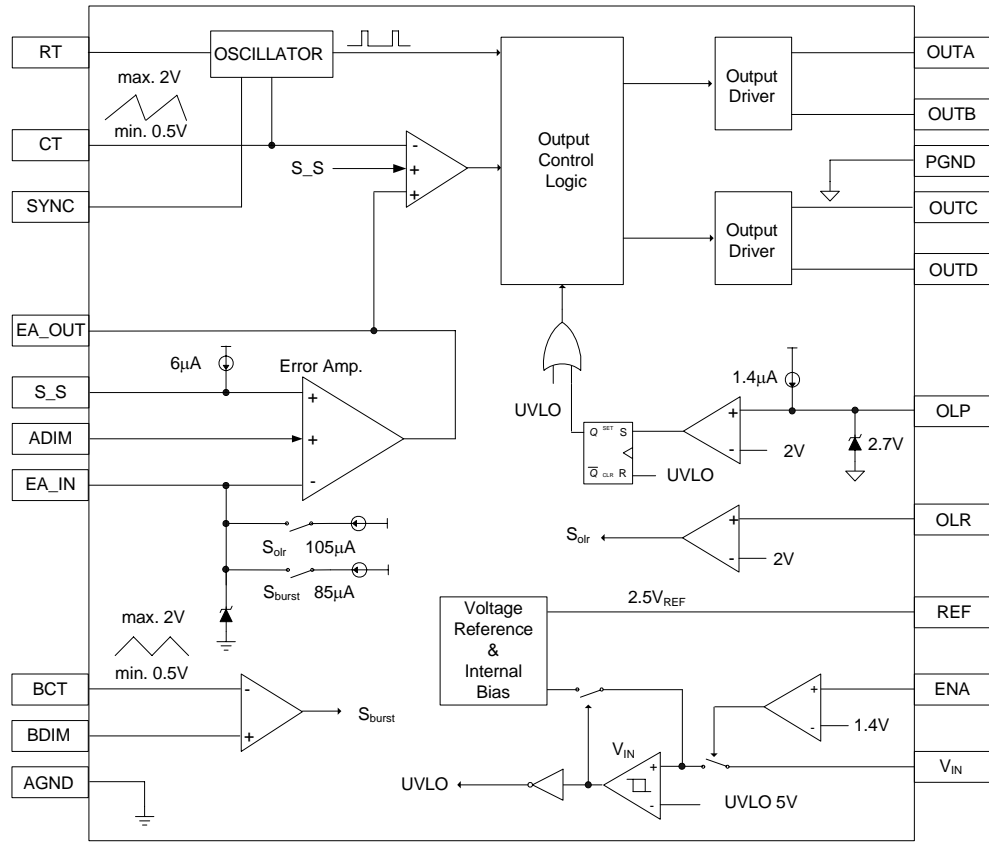
Typical Application



FAN7310 Rev. 05

Figure 1. Application Circuit for CCFL

Internal Block Diagram




FAN7310 Rev.03

Figure 2. Functional Block Diagram



TRADEMARKS

The following are registered and unregistered trademarks and service marks Fairchild Semiconductor owns or is authorized to use and is not intended to be an exhaustive list of all such trademarks.

ACE [®]	Green FPS [™] e-Series [™]	Power-SPM [™]	SyncFET [™]
Build it Now [™]	GTO [™]	PowerTrench [®]	The Power Franchise [®]
CorePLUS [™]	<i>i-Lo</i> [™]	Programmable Active Droop [™]	 [™]
CROSSVOLT [™]	IntelliMAX [™]	QFET [®]	TinyBoost [™]
CTL [™]	ISOPLANAR [™]	QS [™]	TinyBuck [™]
Current Transfer Logic [™]	MegaBuck [™]	QT Optoelectronics [™]	TinyLogic [®]
EcoSPARK [®]	MICROCOUPLER [™]	Quiet Series [™]	TINYOPTO [™]
FACT Quiet Series [™]	MicroPak [™]	RapidConfigure [™]	TinyPower [™]
FACT [®]	Motion-SPM [™]	SMART START [™]	TinyPWM [™]
FAST [®]	OPTOLOGIC [®]	SPM [®]	TinyWire [™]
FastvCore [™]	OPTOPLANAR [®]	STEALTH [™]	μSerDes [™]
FPS [™]	PDP-SPM [™]	SuperFET [™]	UHC [®]
FRFET [®]	Power220 [®]	SuperSOT [™] -3	UniFET [™]
Global Power Resource SM	Power247 [®]	SuperSOT [™] -6	VCX [™]
Green FPS [™]	POWEREDGE [®]	SuperSOT [™] -8	

DISCLAIMER

FAIRCHILD SEMICONDUCTOR RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION, OR DESIGN. FAIRCHILD DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICENSE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS. THESE SPECIFICATIONS DO NOT EXPAND THE TERMS OF FAIRCHILD'S WORLDWIDE TERMS AND CONDITIONS, SPECIFICALLY THE WARRANTY THEREIN, WHICH COVERS THESE PRODUCTS.

LIFE SUPPORT POLICY

FAIRCHILD'S PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS WITHOUT THE EXPRESS WRITTEN APPROVAL OF FAIRCHILD SEMICONDUCTOR CORPORATION.

As used herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury of the user.
2. A critical component in any component of a life support, device, or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

PRODUCT STATUS DEFINITIONS



Definition of Terms

Datasheet Identification	Product Status	Definition
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
Preliminary	First Production	This datasheet contains preliminary data; supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve design.
No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve design.
Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild Semiconductor. The datasheet is printed for reference information only.

Rev. I28

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

-  [View FAN7310GX on WIN SOURCE](#)
-  [Fairchild/ON Semiconductor Information](#)

Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management