Zywyn

ZT3241F/ZT3243F

Low Power +3V to +5.5V, 3D/5R 1000kbps RS232 Transceivers

Features

- Meets or Exceeds the EIA/TIA-232F and CCITT V.28/V.24 Specifications for V_{CC} at +3.3V ±10% and +5V ±10% Operations
- Interoperable with EIA/TIA-232 and adheres to EIA/TIA-562 down to a +2.7V power source
- Low quiescent current – 0.5mA typ., 1mA max.
- Low shutdown current (where applicable) - 1µA typical, 10µA max.
- Guaranteed data rate 1000kbps
- Proprietary Switch-Capacitor Regulated Voltage Converters (patent pending)
- Proprietary AUTOGREEN Power Saving (patent pending)
- Latch-up Free
- ESD Protection for RS-232 I/O's
  - ±15kV Human Body Model (HBM)
  - ±15kV IEC1000-4-2 Air Gap Discharge
  - ±8kV IEC1000-4-2 Contact Discharge
- Pin and Function Compatible Replacements for MAX3245E, ICL3245, ISL4245E, and SP3243U
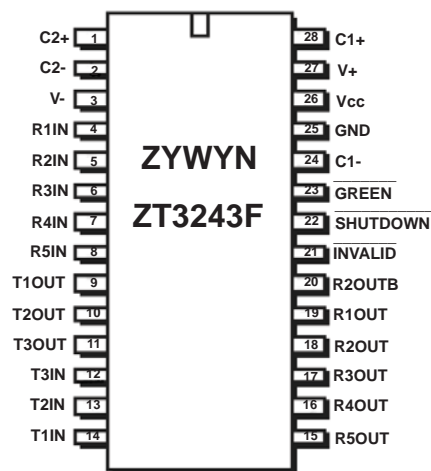- Standard Data Rate at 250kbps Available on ZT3243E Series

Applications

- Battery-Powered And Hand-Held Applications
- Notebooks, Subnotebooks, and Palmtops
- Industrial and Embedded PCs
- Data Cables for Cell Phones and PDAs
- Terminal Adapters and POS terminals
- Peripherals interface
- Routers and HUBs

General Description

The ZT3243F Series devices are 3V powered EIA/TIA-232 and V.28/V.24 communication interfaces with low power requirements. They consist of three line drivers, five line receivers and the proprietary switch-capacitor regulated voltage converters. These devices operate from a single 3V to 5.5V power supply at the guaranteed data rate of 1000k bits/sec with enhanced electrostatic discharge (ESD) protection in all RS232 I/O pins exceeding ±15kV IEC1000-4-2 Air Gap Discharge and ±8kV IEC1000-4-2 Contact Discharge.

The ZT3243F Series feature the AUTOGREEN (patent pending) proprietary function which automatically powers down the on-chip regulated voltage converters and driver circuits when an RS-232 cable is disconnected from the host interface or when a connected peripheral device is turned off.

C2+	1	28	C1+
C2-	2	27	V+
V-	3	26	Vcc
R1IN	4	25	GND
R2IN	5	24	C1-
R3IN	6	23	GREEN
R4IN	7	22	SHUTDOWN
R5IN	8	21	INVALID
T1OUT	9	20	R2OUTB
T2OUT	10	19	R1OUT
T3OUT	11	18	R2OUT
T3IN	12	17	R3OUT
T2IN	13	16	R4OUT
T1IN	14	15	R5OUT

ZYWYN ZT3243F

28-pin SSOP/TSSOP/WSOIC

Product Selection Guide

Part Number	Power Supply	RS232 Drivers	RS232 Receivers	Data Rate (kbps)	15KV ESD IEC1000 4-2	Receiver Enable	SHUTDOWN Enable	AUTOGREEN Function	Package Types	Pin-to-Pin Cross Reference
ZT3241F	+3V to +5.5V	3	5	1000	RS232 I/O	YES	YES	NO	28-SSOP, 28-TSSOP, 28-WSOIC	n/a
ZT3243F	+3V to +5.5V	3	5	1000	RS232 I/O	NO	YES	YES	28-SSOP, 28-TSSOP, 28-WSOIC, 32-VQFN	MAX3245E, ICL3245, ISL4245E, SP3243U

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