

**PULSE-WIDTH-MODULATION CONTROL CIRCUITS****AZ7500E****Description**

The AZ7500E is a voltage mode pulse width modulation switching regulator control circuit designed primarily for power supply control.

The AZ7500E consists of a reference voltage circuit, two error amplifiers, an on-chip adjustable oscillator, a dead-time control (DTC) comparator, a pulse-steering control flip-flop, and an output control circuit. The precision of voltage reference ( $V_{REF}$ ) is improved up to  $\pm 1\%$  through trimming and this provides a better output voltage regulation. The AZ7500E provides for push-pull or single-ended output operation, which can be selected through the output control.

AZ7500E is the enhanced version of AZ7500B for it improves REF Pin's reliability comparing with AZ7500B.

**Parametric Table**

Reference Voltage (V)	4.95
Reference Voltage Tolerance	1%
Frequency Change with Temperature (Max)	1%
Open Loop Voltage Gain (db)	95
Unity-Gain Bandwidth (KHz)	650
Output Saturation Voltage (Common Emitter) (V)	1.1
Rise Time (ns)	100
Fall Time (ns)	25
Supply Voltage (V)	7 to 36
Packages	DIP-16
	SOIC-16

**Features**

- Stable 4.95V Reference Voltage Trimmed to  $\pm 1.0\%$  Accuracy
- Uncommitted Output TR for 200mA Sink or Source Current
- Single-End or Push-Pull Operation Selected by Output Control
- Internal Circuitry Prohibits Double Pulse at Either Output
- Complete PWM Control Circuit with Variable Duty Cycle
- On-Chip Oscillator With Master or Slave Operation

**Applications**

- SMPS
- Back Light Inverter
- Charger

**Benefits**

- Higher Power Glitch Rejection
- Very competitive price

**Additional Available Materials**

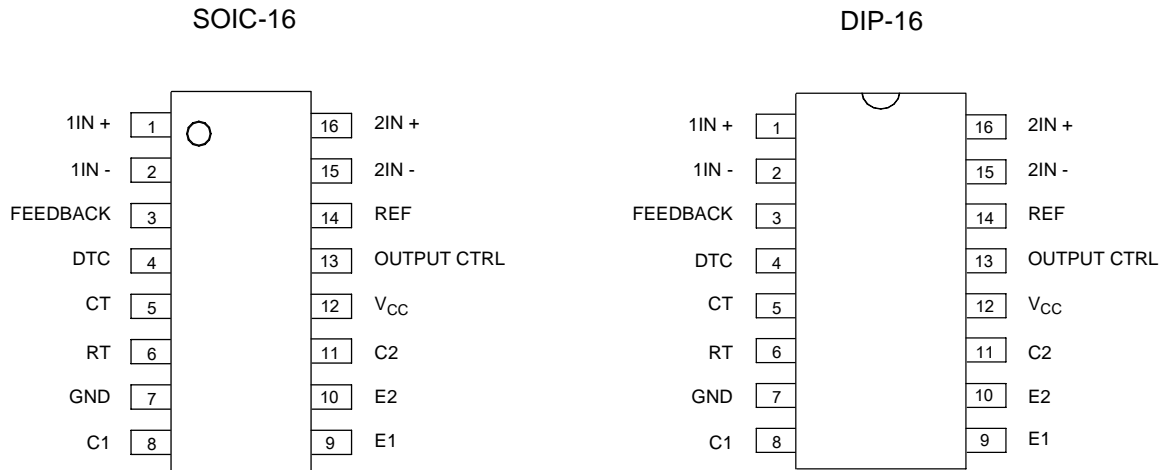
- Samples
- Data Sheet
- Reliability Report
- ESD Report
- Application Notes
- Demo Board



**PULSE-WIDTH-MODULATION CONTROL CIRCUITS**

**AZ7500E**

**Pin Configuration**



**Ordering Information**

Package	Temperature Range	Part Number		Marking ID		Packing Type
		Lead Free	Green	Lead Free	Green	
SOIC-16	-40 to 85°C	AZ7500EM-E1	AZ7500EM-G1	AZ7500EM-E1	AZ7500EM-G1	Tube
		AZ7500EMTR-E1	AZ7500EMTR-G1	AZ7500EM-E1	AZ7500EM-G1	Tape & Reel
DIP-16		AZ7500EP-E1	AZ7500EP-G1	AZ7500EP-E1	AZ7500EP-G1	Tube

Detailed information please refer to the relevant datasheet.

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