XC9801 Series Step-Up Charge Pump

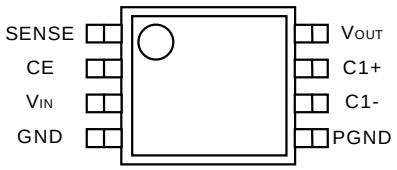
General Description

The XC9801 series are step-up charge pump ICs which provide stable, highly efficient, positive voltages with the only external components required being 2 capacitors. Output voltage is selectable in 01V steps within a 2.5V ~ 5.2V range and with output stabilised through the control of the charge pump's output impedance, ripple is minimal.
Control switches to PFM (pulse skip) during light loads without affecting output impedance or ripple so that the IC is protected against drops in efficiency.
As well as the ultra small MSOP-8 package, the small consumption current and high efficiencies of the series make the XC9801 suitable for use with all types of battery operated applications.

Features

Input Voltage Range: 1.8V ~ 5.5V
Output Voltage Range: 2.5V ~ 5.2V
Small Input Current: 80μA (no load)
Output Current: 80mA (3.6V → 5V step-up)
Oscillation Frequency: 300kHz
Stand-By Current (CE 'L'): 2.0μA (max)
Can be used as a Step-Up Doubler (sense = 0V)
MSOP-8A Package

Pin Configuration

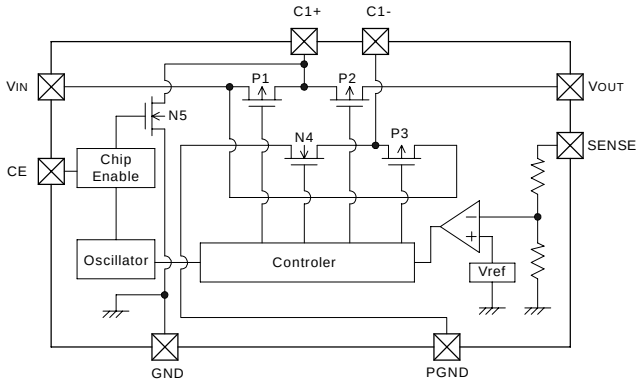


MSOP-8A
(TOP VIEW)

Pin Assignment

PIN NUMBER	PIN NAME	FUNCTION
1	SENSE	Output Voltage Monitor
2	CE	Chip Enable
3	VIN	Input (power supply)
4	GND	Ground
5	PGND	Power Ground
6	C1 -	External Capacitor -
7	C1 +	External Capacitor +
8	VOUT	Output

Block Diagram



Ordering Information

XC9801/02①②③④⑤⑥

DESIGNATOR	DESCRIPTION	
①	B	True Logic Level at CE Pin : Positive
② ③	25~52	Output Voltage (2.5V ~ 5.2V) 5.0V → ②=5, ③=0
④	3	Oscillator Frequency : 300kHz
⑤	K	Package : MSOP-8A (1reel = 1000pcs)
⑥	R	Embossed tape. Standard Feed
	L	Embossed tape. Reverse Feed