

PRESS RELEASE**XC6501 Series
Output Capacitorless, Low Power Consumption, High Speed LDO Regulator**

TOREX SEMICONDUCTOR LTD. (Tokyo, Japan: President, Tomoyuki Fujisaka) announces the release of the XC6501 which is a Low Power Consumption, High Speed LDO Regulator that offers stable output voltage even without a load capacitor !

The XC6501 series is a 6V high speed, low noise CMOS LDO regulator that can provide stable output voltages within a range of 1.2V ~ 5.0V (0.1V increments) even without a load capacitor (C_L) ! This is possible because phase compensation is carried out internally unlike other LDOs where it is done externally. The series consists of a reference voltage source, driver transistor, error amplifier, current limit circuit, and phase compensation circuit.

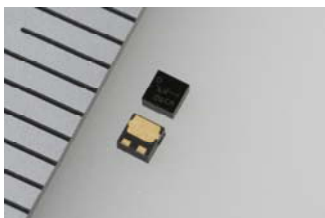
The CE function enables the circuit to be put into stand-by mode by inputting a low level signal to the CE pin thereby reducing current consumption from an already low $13 \mu A$ (in operation) to less than $0.1 \mu A$. In the stand-by mode, if a C_L cap is used, such as the 1005 type of small capacitor, the electric charge stored at C_L can be discharged via the internal auto discharge switch and as a result, the V_{OUT} pin quickly returns to the V_{SS} level.

The current limit fold-back circuit operates as a short circuit protection and a current limiter function for the output pin.

Available in TOREX's specific ultra small USP-3 or USP-4 packages for space saving. Other packages can be selected from SSOT-24 and SOT-25.

【XC6501 Series Features】

- Stable operation even without an output capacitor
- Space saving & cost saving achievable
- Low power consumption and fast load transient response
- Standby current less than $0.1 \mu A$
- Package selectable from USP-3, USP-4, SSOT-24 and SOT-25



▲USP-3(1.2 x 1.2 x 0.6mm)

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