

## PMU - POWER MANAGEMENT UNIT

### Features

- Wide input voltage range, from 2.0V to 5.5V
- Advanced Power Controller with Power-On-Reset
- 3 High power (600mA), low ripple DCDCs
- 1 Fast response LDO with up to 400mA output current
- Soft start and over current protection in all regulators
- SIM card supply switch with over current protection
- Nano power Real Time Clock (RTC)
- 8 wake configurable debounced interrupts
- Reset, Power On and Go to Low Power pins
- Low battery monitoring control
- Ultra Low Power (ULP) mode support

### Applications

- Wireless power devices
- Wireless communications
- IoT

### Applications Diagram

### General Description

*SGCPMU\_01\_TSMC\_CLN40ULP* is a PMU designed to support ultra-low power mode and low battery monitoring. It includes an *Advanced Power Controller (SGC21412)*, that delivers monitoring and POR functions, 3 fast response, high output current *DCDC (SGC67060)* and 1 fast response *LDO (SGC77400)*. The *DCDCs* use advanced control techniques to achieve soft start and superb transient response and the *LDO* offers high stability with robust regulation, maintaining ultra-low quiescent ECO modes, making it ideal for IoT solutions. The PMU is also supported by an *RTC (SGC22300)*, designed to guarantee ultra-low power consumption, offering 8 wake inputs that can be used to wake the system. Finally, the PMU offers a general purpose *SIM card supply switch (SGCSIMSW)* and an *ADC signal conditioner/divider (SGCADCSW)*.

### Quick Reference

SYMBOL	DESCRIPTION	MIN	TYP	MAX	UNIT
$V_I$	Analog Sup.	2.0	-	5.5	V
$V_{DD}$	Digital Sup.	0.55	-	1.21	V
$V_{REF}$	Ref. Voltage	-	0.5	-	V
DCDC $V_O$	DCDC $V_{OUT}$	0.6	-	3.775	V
LDO $V_O$	LDO $V_{OUT}$	0.7	-	2.1	V