Analog, Mixed Signal and Power Management

Freescale's Leading-Edge PMIC Solution

Designed for the Intel® Atom™ Z6xx mobile platform

Applications

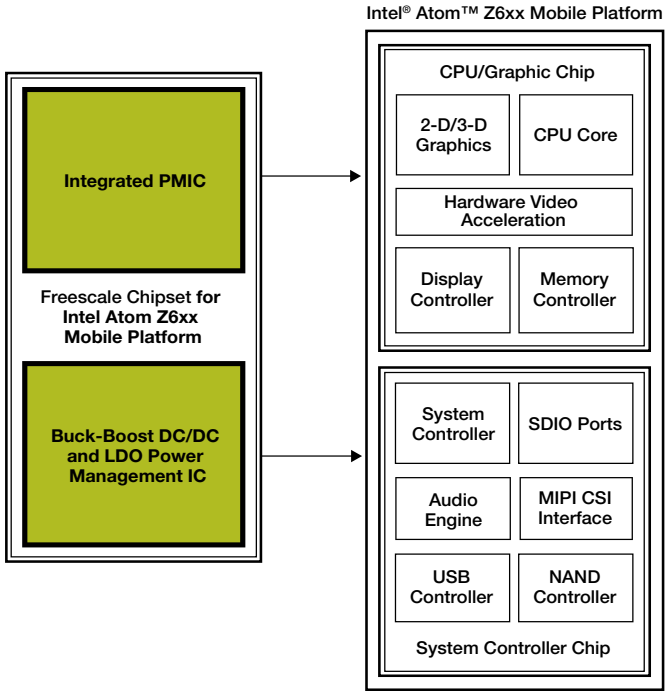
- Netbooks
- Mobile Internet devices
- Tablets
- Smartphones
- Embedded

Innovation and Flexibility

Freescale announces an optimized power management integrated circuit (PMIC) solution for the Intel® Atom™ Z6xx mobile platform, previously referred to as Moorestown, that utilizes our SmartMOS 10 (130 nm) mixed-signal technology. This two component chipset includes a primary PMIC and a 3.3V rail. Both chips, in tandem, offer highly integrated audio/voice capabilities, voltage regulation, battery management, LED driver, touch-screen and communication power controls.

Freescale PMIC chipset solution will enable system manufacturers to deliver more features, better performance and longer battery life, all in a smaller form factor for the next generation of mobile products.

Freescale Provides Next-Generation Power Management for Mobile Internet



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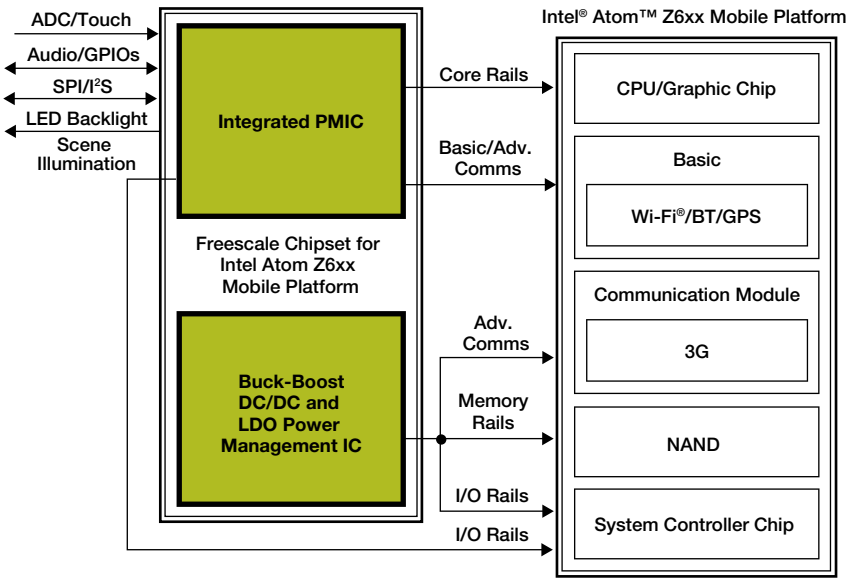
Features

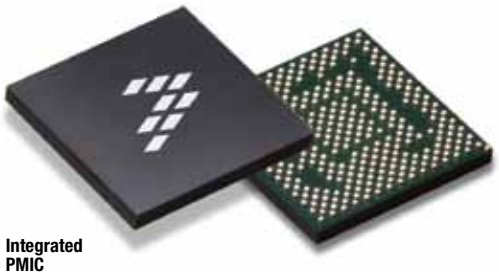
- Power management chipset with optimized system design
- Optimum partitioning defined with the two chip solution
- 9x DC/DC
  - 90% peak efficiency
  - 4 MHz switching
  - 2x VID control
- 17x LDO, 3x power switches
  - Low noise (<40 uVrms)
  - Vibrator driver
- Intelligent charger (wall/USB)
  - 2.8V to 4.4V (Li-ion/Li-polymer)
  - Switching CV/CC charger
  - Coulomb counter
  - Power path management
  - Charge status monitoring
- USB OTG: 5V boost
- 8x GPIOs with interrupt + 8x GPOs
- SPI (25 MHz)
- Advanced audio path
  - 16-bit voice CODEC (>85 dB SNR)
  - 24-bit audio DAC (100 dB SNR, <0.1% THD)
  - Microphone support (handset/headset digital)
  - Class A line-out amplifier
  - Class AB earpiece amplifier
  - Class AB headset amplifier
  - 500 mW into 8 ohm class-D loudspeaker amplifier
  - Headset detection
  - PCM/I²S (voice and audio)
- 22-channel, 10-bit ADC
  - Touch screen
  - Battery vitals
  - Voltage monitoring
- Backlight and LED support with RGB control
- Real-time clock

Contact Freescale Sales or Distribution for samples and ordering.
To request more information, visit freescale.com/pmicintel.

Freescale Power Management and Audio Chipset for Intel® Atom™ Z6xx Mobile Platform



Orderable Part Numbers		
Part Number	**Temperature Range (T_A)**	**Package**
SC900841JVK/R2	-40°C to +85°C	338-pin MAPBGA
SCCSP900842/R2	-40°C to +85°C	36-pin WLCSP
Development Tools		
Description		
KITINTMIDPMMEVBE	Evaluation board is available upon request	
Documentation		
Document Number	**Title**	
SC900841	Data Sheet	
SCCSP900842	Data Sheet	
SG1002	Analog and power management device comparison selector guide	
SG187	Automotive device comparison selector guide	



Integrated PMIC
338-pin MAPBGA
11 mm x 11 mm
98ASA10841D

Buck-Boost Power Management IC
36-pin WLCSP
3 mm x 3 mm
98ASA00004D

Learn More: For more information about Freescale products, please visit **freescale.com/pmicintel**.

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