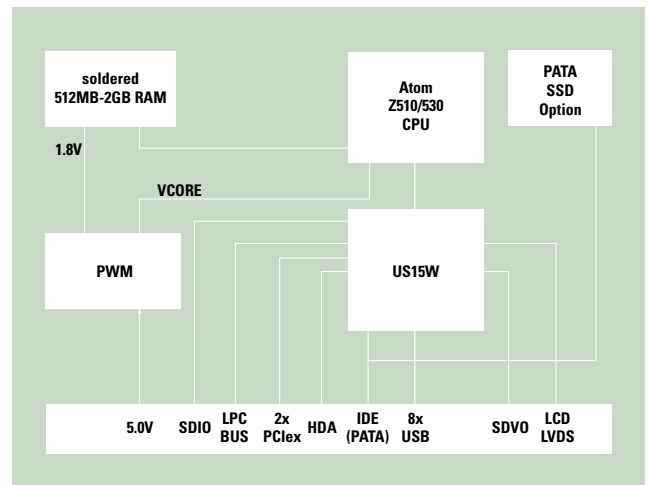Part no. 805840

Part no. 805842

SMA200

Description

The smartCore®Express SMA200, based on Intel's Atom processor with the US15W chipset, has all of the standard high speed PC interfaces. The soldered-on memory results in added robustness. For functional expansion, PCI Express and USB interfaces are available. If required, the other interfaces can be generated over LPC SuperIO (COM1/2, LPT, PS2) and PCI bridge. Typical power consumption of 2W allows a passive cooling application for a very large working temperature range. BSPs, EvaIOs and several development kits are available to help with the DesignIn.

Applications

_ Video entertainment in cars and airplanes

_ Information terminals with LiveVideo

_ Game systems with music output

_ Battery driven data capture

_ Ultra-mobile multimedia PC

Ordering information (Option/accessories)

Article	No.	Description
SMX-CON5	807139	Connector 220pin, h=5mm, 2 needed, packsize=90
SMX-CON8	807138	Connector 220pin, h=8mm, 2 needed, packsize=90
SMA200DK	805850	SMA200 DevelopmentKit without SMA200 and RAM, HD, CD, Doc's, Cables
SMA200-HS1	805840	Heatspreader norm. (40gr)
SMA200-HS2	805842	Heatspreader Junc. (70gr)

DIGITAL-LOGIC®
smart embedded computers

smartCore®
Express

PCIe

Atom™

1.6GHz

max.
2GB RAM

RoHS

Technical data

Type	SMA200-11G-xxGB	SMA200-16G-xxGB	SMA204-16G-xxGB
CPU	Atom Z510	Atom Z530	Atom Z530
ISA-BUS	-	-	-
PCI-BUS	-	-	-
PCI Express-BUS	2 lanes	2 lanes	2 lanes
2nd Level cache (kB)	512	512	512
Performance (GHz)	1.1GHz	1.6GHz	1.6GHz
DRAM min-max (MB)	soldered 0.5-2GB	soldered 0.5-2GB	soldered 0.5-2GB
Onboard Solid State Disk	-	-	4GByte PATA
Keyboard, mouse (PS/2)	-	-	-
Boot drive	HD, USB	HD, USB	HD, USB, SSD
Floppy interface	-	-	-
IDE interface P-ATA	1x	1x	1x
IDE interface S-ATA	-	-	-
COM1	ext. SIO	ext. SIO	ext. SIO
COM2	ext. SIO	ext. SIO	ext. SIO
COM3	ext. SIO	ext. SIO	ext. SIO
COM4	ext. SIO	ext. SIO	ext. SIO
LPT1	ext. SIO	ext. SIO	ext. SIO
USB (2.0)	8x	8x	8x
LAN Port 1	-	-	-
LAN Port 2	-	-	-
Audio (requires ext. codec)	HDA-7.1	HDA-7.1	HDA-7.1
Video controller	internal, max. 1024 x 1248	internal, max. 1024 x 1248	internal, max. 1024 x 1248
Video memory (MB)	128	128	128
LCD interface	LVDS, dual screen	LVDS, dual screen	LVDS, dual screen
DVI interface	SDVO to DVI*	SDVO to DVI*	SDVO to DVI*
CRT interface	SDVO to VGA**	SDVO to VGA**	SDVO to VGA**
Video input	-	-	-
Watchdog	yes	yes	yes
Power normal (typ.)	5V/2W	5V/3W	5V/3W
Power suspend (typ.)	5V/0.1W	5V/0.1W	5V/0.1W
Power management	yes	yes	yes
RTC battery onboard	external	external	external
Cooling type	passive	passive	passive
Operating temperature without heatspreader	0°C to +50°C	0°C to +50°C	0°C to +50°C
Operating temperature with heatspreader	-25°C to +70°C	-25°C to +70°C	-25°C to +70°C
Extended operating temperature (E48)	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Size (W x L x H in mm), standoff 5/8mm	65 x 58 x 11/14	65 x 58 x 11/14	65 x 58 x 11/14
Weight	30 g	30 g	30 g
MTBF	>300'000h	>300'000h	>200'000h
Special features 1	soldered RAM	soldered RAM	soldered RAM
Special features 2	-	-	soldered SSD
Special features 3	1x SD/MMC	1x SD/MMC	1x SD/MMC
Part no. (incl. 0.5GB RAM)	805800	-	-
Part no. (incl. 1.0GB RAM)	805801	805811	805821 *(not from stock)*
Part no. (incl. 2.0GB RAM) *(not from stock)*	805802	805812	-

* needs an external converter chip to DVI

** needs an external converter chip to VGA