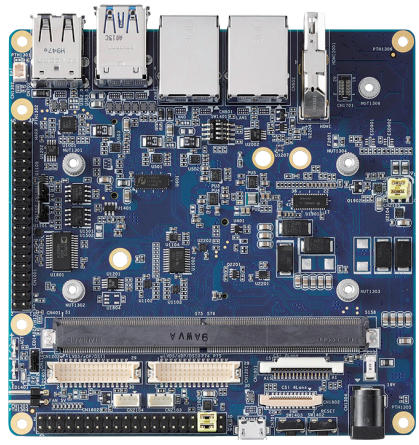
I-Pi SMARC Plus/I-Pi SMARC Plus X

SMARC 2.1 Carrier Board with M.2 Extension

Features

- SMARC revision 2.1 compliant
- Dual LVDS, DSI, HDMI and eDP (BOM option) graphic output interfaces
- M.2 E-Key and M.2 B-Key expansion slots
- Dual GbE ports and USB 2.0 / USB 3.0 interfaces
- Interchangeable audio codec interface
- 40-pin MRAA compliant signal header
- Rugged operating temperature (option): -40°C to +85°C
- 10 year product availability

Note: Pi SMARC Plus X uses a different I²C address for the GPIO expander and is unique to x86-based modules.



Specifications

Video

HDMI
1x HDMI 1.4b / 2.0b

eDP
1x eDP 1.3 (bom option)

MIPI-DSI
1x MIPI-DSI 4 lanes

Cameras
1x MIPI-CSI dual lane interface
1x MIPI-CSI quad lane interface

Audio

Audio Codec
Interchangeable audio codec connector with I2S and HDA signals

Dual Ethernet

Primary LAN
1x 10/100/1000 RJ45 connector

Secondary LAN
1x 10/100/1000 RJ45 connector

Expansion Busses

PCIe
PCIe over M.2 connector

USB
2x USB 3.0, 2x USB 2.0, 1x USB 2.0 OTG connectors

UART
4x UART interfaces SER2 (TX/X/CTS/RTS) and SER0, SER1, SER3 (TX/RX)

CAN
2x CAN 2 interface pin headers

SPI
2x SPI pin headers

I²S
1x I²S interface to audio interface

I²C
2x I²C interface on pin header

GPIO
17x GPIO with interrupt on pin header

Storage

SDIO
1x SDIO (4-bit) compatible with SD/SDIO standard, up to version 3.0

Mechanical and Environmental

Form Factor
SGET SMARC Specifications 2.1

Dimensions
110 mm x 110 mm

Operating Temperature
Standard: 0°C to +60°C
Rugged: -40°C to +85°C (optional)

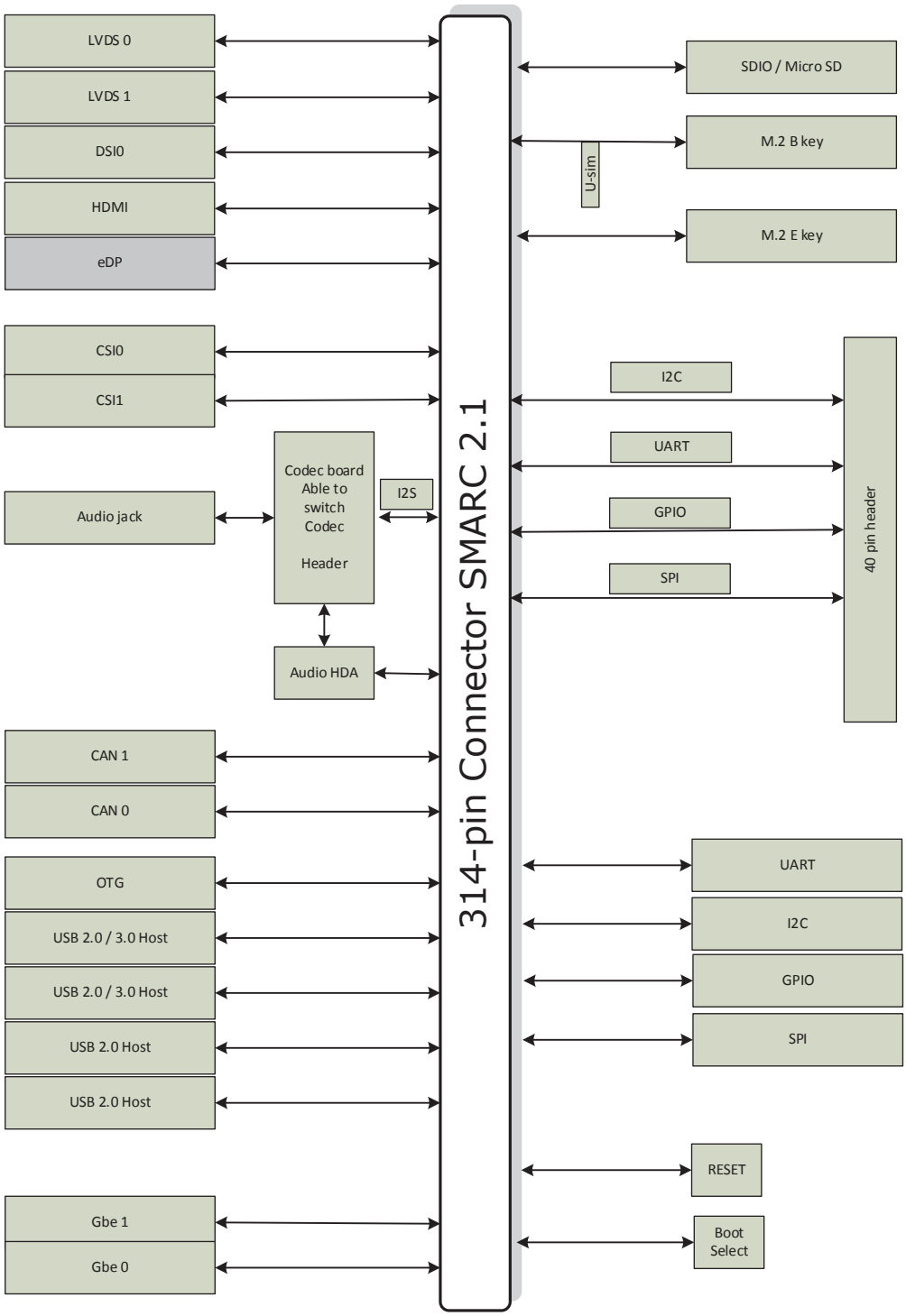
Humidity
5-90% RH operating, non-condensing
5-95% RH storage (and operating with conformal coating)

Shock and Vibration
IEC 60068-2-64 and IEC-60068-2-27, MIL-STD-202 F, Method 213B, Table 213-I, Condition A and Method 214A, Table 214-I, Condition D

HALT
Thermal Stress, Vibration Stress, Thermal Shock and Combined Test

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Functional Diagram



I-Pi SMARC Plus

Ordering Information

- **91-77A07-0020**
  I-Pi SMARC plus carrier for performance level SMARC 2.1 and later ARM modules (no audio add-on card)
- **91-77A07-5010**
  I-Pi SMARC plus X carrier for performance level SMARC 2.1 and later X86 modules (no audio add-on card)
- **91-77A07-3010**
  I-I-Pi SMARC plus carrier for performance level SMARC 2.1 and later ARM modules with TI TLV320 I2S audio add-on card
- **91-77A07-4010**
  I-Pi's SMARC Plus X carrier for performance level SMARC 2.1 and later x86 modules with a Realtek ALC888 audio add-on card

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