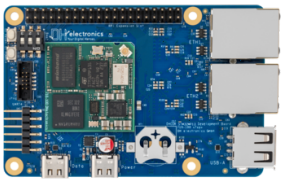
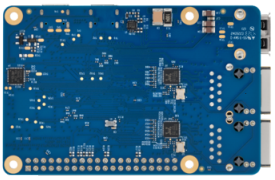
DHSBC STM32MP13





Reference design for secure industrial IoT devices based on STM32MP13x

- Single Board Computer based on the solderable DHCOR STM32MP13
- Compatible with accessories from the Raspberry Pi© community
- Highlights: Bluetooth / WiFi, Dual GB Ethernet, Secure Boot, OP-TEE support
- Trusted Platform Module 2.0 available on request
- Mainline Linux support and active software maintenance
- Industrial product design with CE certification
- Guaranteed long-term availability of 10+ years

Technical Data

Board type	Single Board Computer
CPU details	STM32MP135F 1x ARM® Cortex-A7 up to 1 GHz
CPU vendor	STM
CPU type	Cortex-A7
Co-processor available	✕

DH electronics GmbH
Am Anger 8
83346 Bergen
Deutschland

Telefon: +49 8662 4882-0
E-Mail: info@dh-electronics.com
Web: www.dh-electronics.com

DHSBC STM32MP13

Number of cores	1
GPU available	✕
PMIC	STPMIC1D
Security	Crypto Engine, Secure Boot | 3072-bit fuses including 96-bit unique ID, up to 1280 bits available for user and 256-bit HUK to protect AES 256 keys | Hardware acceleration: AES 128, 192, 256 DES/TDES | AES 128, 256 with DPA protection | PKA ECC/RSA with DPA protection | AES 128 on-the-fly DRAM encryption and decryption | HASH (SHA-1, SHA-224, SHA-256, SHA-384, SHA-512, SHA-3), HMAC | 1 x true random number generator (6 triple oscillators) | 1 x CRC calculation unit
DDR3L DRAM	512 MB
eMMC flash	4 GB
SPI NOR flash	4 MB
EEPROM	4 kB
Additional RTC	Temp. compensated RTC RV-3032-C7
Bluetooth available	✓
Bluetooth version	Bluetooth® v5.2
WiFi available	✓
WiFi version	Single band 802.11b/g/n
Ethernet	2x 1 Gbit/s
USB	USB host: 1x USB 2.0 high-speed USB device: 1x USB 2.0 Type-C high-speed
UART (serial console)	1x TTL
TPM (Trusted Platform Module)	TPM 2.0 device ST33TPHF2XSPI

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DHSBC STM32MP13

Battery socket	CR1216, CR1220, CR1225
Buttons	1x power, 1x reset
Boot mode	3 bit boot mode switch
Debug interface	JTAG
BSP	Linux Yocto (Debian on request)
Power supply	5 VDC, USB Type-C power supply port
Operating temperature	-25 to 70 °C
Storage temperature	-25 to 70 °C
Dimensions	85 x 56 x 18 mm

Raspberry Pi 40-pin Expansion

I2C	1x
UART	2x
SPI	1x
I2S/SAI	1x
PWM	2x
CAN	2x
GPIO	up to 28x

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