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INDUSTRIAL PRODUCT DATASHEET

LinkIt Smart 7688,supports OpenWRT,IoT Application for Smart Home,32MB flash and 128MB DDR2 RAM

The LinkIt Smart 7688 is an OpenWrt-based IoT board with 580 MHz MIPS CPU, 32MB flash, 128MB DDR2 RAM, 1T1R Wi-Fi 802.11 b/g/n, and rich peripherals for smart home and IoT applications.

SKU	UPDATED	PRICE
102110018	2026-10-23 03:08:02	$22.00(Excl. VAT)



Overview



The LinkIt Smart 7688 is a high-integration MPU board featuring a 580 MHz MIPS CPU, 32MB flash, 128MB DDR2 RAM, and support for OpenWrt/Linux with C, C++, Python, PHP. It integrates 1T1R Wi-Fi 802.11 b/g/n, USB host mode, and rich peripherals including GPIO, I2C, I2S, SPI, UART, PWM, and Ethernet, targeting wearables, IoT devices, Wi-Fi security web cams, real-time camera monitors, and smart home applications.

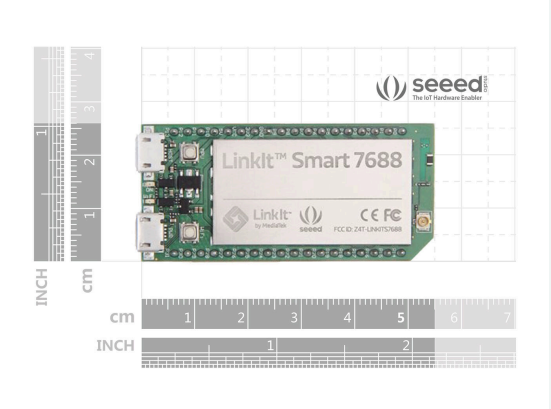
Key Features

- **High-integration MPU:** Support 580 MHz MIPS CPU and 32MB flash and 128MB DDR2 RAM
- **Support OpenWrt:** Run on Linux platform, freely choose C, C++, Python, PHP and other programming languages
- **1T1R Wi-Fi 802.11 b/g/n:** Integrate WiFi wireless transmission function of (Single Input Single Output)1T1R 802.11b /g/n
- **Rich peripheral interfaces available:** Pin-out for GPIO, I2C, I2S, SPI, UART, PWM and Ethernet Port
- **USB Host Mode:** USB host capability that enables it to connect to various USB devices

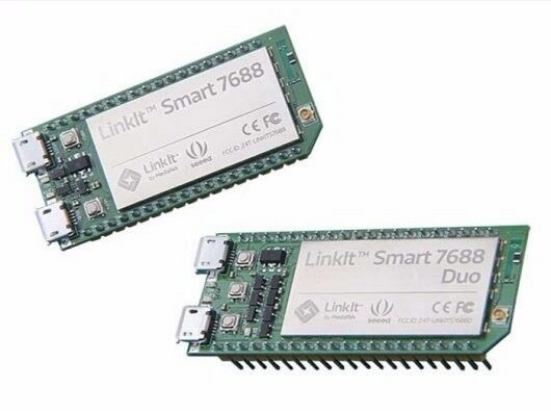
Product Gallery













Specification

MPU	Chipset	MT7688AN
	Core	MIPS24KEc
	Clock speed	580MHz
	Working voltage	3.3V
PCB Size	Dimensions	55.7 x 26 mm
Memory	Flash	32MB
	RAM	128MB DDR2
	USB Power	5V (USB micro-B)
	VCC	3.3V (Pin Breakout)
GPIO	Pin Count	22 (MT7688AN)
PWM	Pin Count	4 (MT7688AN)
	Max. Resolution	7 bits (customizable)
	Maximum Frequency @Resolution	100kHz@1-bit 50kHz@2-bit 25kHz@3-bit 12.5kHz@4-bit 6.25kHz@5-bit 3.125kHz@6-bit 1.5625kHz@7-bit (Standard mode)
	Maximum Frequency @Resolution	40MHz@1-bit 20MHz@2-bit 10MHz@3-bit 5MHz@4-bit 2.5MHz@5-bit 1.25Mhz@6-bit 625kHz@7-bit (Fast mode)
External Interrupts	Pin Count	22 (MT7688AN)
SPI	Set count	1 (MT7688AN)
	Pin numbers	P22, P23, P24 (Shared with on-board flash), P25
	Max. Speed	25 MHz
SPI Slave	Set count	1 (MT7688AN)
	Pin numbers	P28, P29, P30, P31
	Max. Speed	25 MHz
I2S	Set count	1 (MT7688AN)
	Pin numbers	P10, P11, P12, P13
I2C	Set count	1
	Pin numbers	P20, P21
	Speed	120K/400K
UART Lite	Set count	3 (MT7688AN)
	Pin numbers	P8, P9, P16, P17, P18, P19
	Max. Speed	0.5Mbps
USB Host	Set count	1 (MT7688AN)
	Pin numbers	P6, P7
	Connector type	Micro-AB
Communication	Wi-Fi	1T1R 802.11 b/g/n (2.4G)
	Ethernet	1-port 10/100 FE PHY
	Pin numbers	P2, P3, P4, P5
User Storage	SD Card	Micro SD/SDXC

Size	Dimensions	56mm x26mm x18mm
	Weight	G.W 13g
	Battery	Exclude

Applications

- **Wearables and Internet of Things (IoT) devices**
- **Wi-Fi security web cam**
- **Real-time camera monitor**
- **Smart home**

Part List

MT7628N-A WIFI module	×1

Compliance & Logistics

HSCODE	8543909000
USHSCODE	8543903500
UPC	841454117292
EUHSCODE	8543709099
COO	CHINA

Resource Links

- https://www.seeedstudio.com/LinkIt-Smart-7688.html
- Manual
- LinkIt_Smart_7688
- LinkIt_Smart_7688 PCB
- LinkIt_Smart_7688 Schematic
- OpenWrt
- MediaTek LinkIt? Smart 7688 Resources
- Firmware_upgrade_Instruction
- Certificates
- Mediatek

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