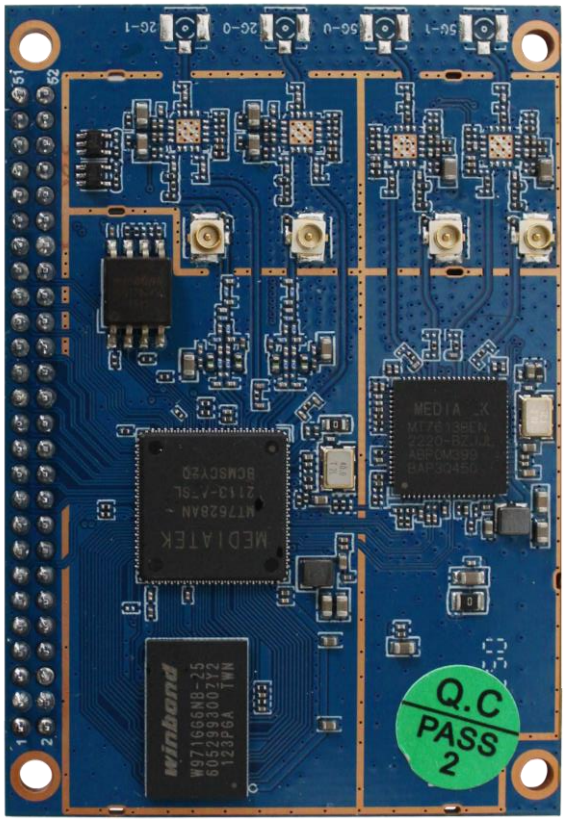
MovingComm
Ease Your Networking

ComIoT 15

High Performance 802.11ac WiFi5 Dual Band Router Core Module

Product Specifications



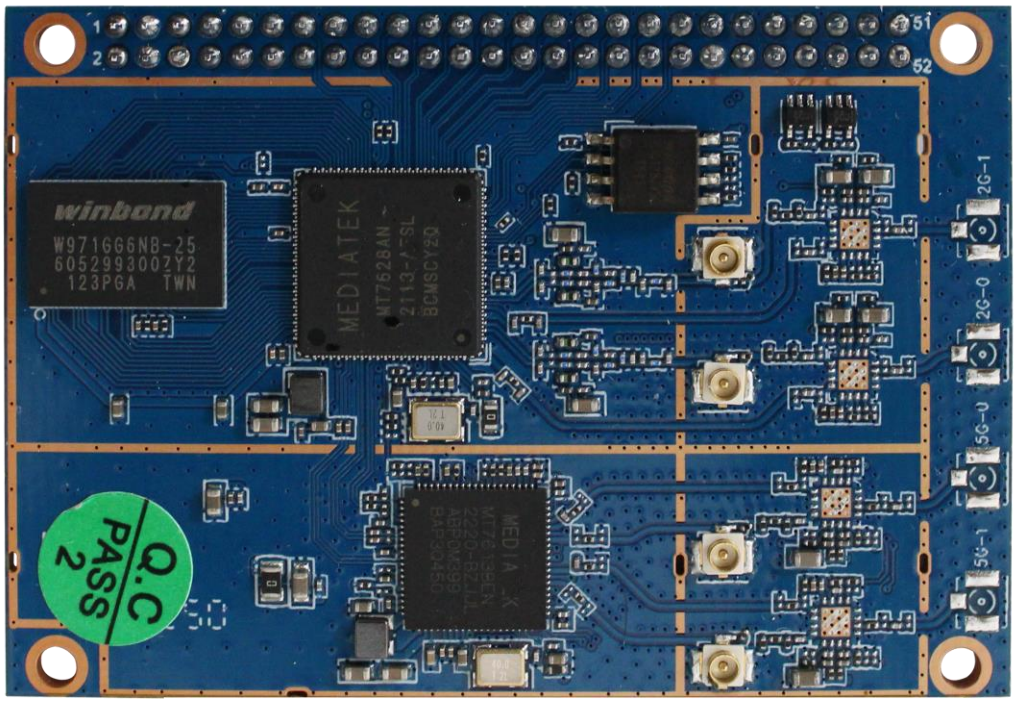
- Rich Interfaces with Dual Pin-header B2B Interface
- Adopt Cost-effective 32-bit Processor
- WIFI5 Dual Band Speed Rate Up to 1200Mbps
- Support Openwrt Development Solution
- Support 2 x Serial Interface (TTL)

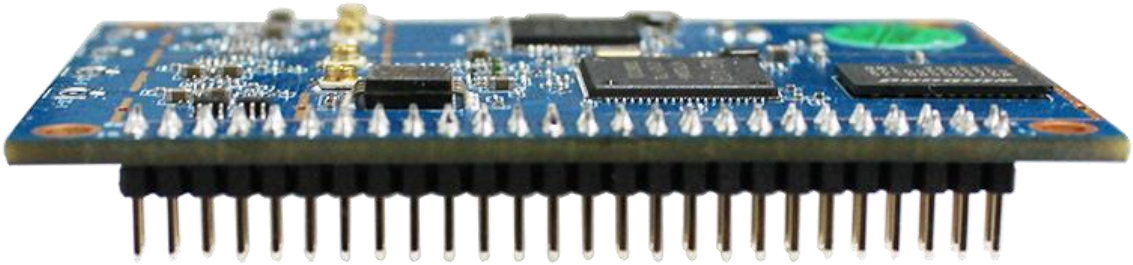
Product Description

In today's network world where everything is connected, the demand for data communication will only become stronger and stronger, especially in the field of intelligent industrial control. The ComIoT15H module is a new generation of wireless module launched by Shenzhen Movingcomm Technology Co., Ltd. for the industrial field. With the explosive growth of wireless and a variety of wired high-speed broadband access services, the device provides fast Internet access, and with security, stability, and intelligence, it enables thousands of devices to be easily connected to the Internet. The equipment informatization provides high-speed data transmission and high-speed communication.

It supports OpenWRT operating system, simple graphical interface, convenient and quick to use, provide development materials, make product development and embedded applications more convenient. Meet various embedded needs in the IoT industry chain, such as smart grid, smart transportation, smart home, finance, mobile POS terminals, supply chain automation, industrial automation, smart buildings, fire protection, public safety, environmental protection, meteorology, digitalization Medical, remote sensing survey, military, space exploration, agriculture, forestry, water affairs, coal mining, petrochemical and other fields.

Product Picture





Product Features

Industrial Grade Design

The Com IoT15H module uses an industrial-grade 32-bit MIPS processor with enterprise-level data communication processing capabilities, built-in 128MB system memory, 16MB Flash, Dual Band WIFI supports 2.4GHz 802.11n and 5.8GHz 802.11ac wireless protocols that providing a total bandwidth of up to 1200Mbps.

Stable and Reliable

The Com IoT15H module adopts a software watchdog design to ensure system stability and support long-hour operation. The uplink communication adopts a complete anti-drop mechanism to ensure that the data communication terminal is always active.

Rich interfaces

The ComIoT 15 module supports multiple interfaces. USB2.0 (Host) can be connected with an external extended USB module, 2 x serial interfaces can customize multi-channel serial port functions, dual-band WIFI can adapt to more scenarios, 5 x Ethernet interfaces can meet more networking occasions, and 16 x GPIO interfaces can meet richer scenarios of end-control applications.

Easy to use

The Com IoT15H module provides standard TTL serial, Ethernet, WIFI and USB interfaces, which can be directly connected to serial devices, Ethernet devices and WIFI devices. The WAN port supports PPPoE protocol and can be directly connected to a ADSL device. It supports the OpenWrt OS which is easy to use, flexible, supports multiple working modes, and is convenient for further product development.

Hardware Specifications

Main Chipset	MTK MT7628 + MT7613B	
Flash	SPI NOR Flash 16MB (Optional Max 64MB)	
Memory	128MB DDR2 RAM	
RF Frequency	2.4GHz 802.11n MIMO Max. Speed up to 300Mbps	
	5.8GHz 802.11ac MIMO Max. Speed up to 1200Mbps	
	IPEX (First Gen.) Antenna Connector	
Interface	WAN	1 x 10/100Mbps Ethernet Interface, MDI/X, Adaptive
	LAN	4 x 10/100Mbps Ethernet Interface, MDI/x, Adaptive
	Power Supply	3.3V Input
	GPIO	16 (Including network indicator light)
	Serial	2 x Serial Interface (Including Debug Function)
	Antenna	2 x 2.4GHz Standard IPEX (1st Gen) Antenna Connector, 50 ohm
		2 x 5.8GHz Standard IPEX (1st Gen) Antenna Connector, 50 ohm
Power Input	Typical	3.3V DC
	Power Consumption	Max. 3.6W
		Idle. 2W
Product Dimension	65mm x 45mm x 10mm	
Product Weight	11g	
Environments	Operation Temperature: -20°C to +70°C	
	Storage Temperature: -40°C to +85°C	
	Operation Humidity: 10% to 95% (non-condensing)	
	Storage Humidity: 5% to 95% (non-condensing)	
Certification	RoHS Compliance	
Firmware	OpenWRT	

2.4GHz WiFi Specifications

WIFI Standards	IEEE 802.11b/g/n	
Frequency	802.11b/g/n	2.412 ~ 2.4835GHz
WIFI Function	Channel	Ch1 to Ch13
	Bandwidth	20MHz / 40MHz
Tx Power	16+/-2dBm @ 802.11n	
Receive Sensitivity	-90+/-2dBm @ 802.11n HT20 MCS0	
Encryption	WEP/WPA/WPA2	

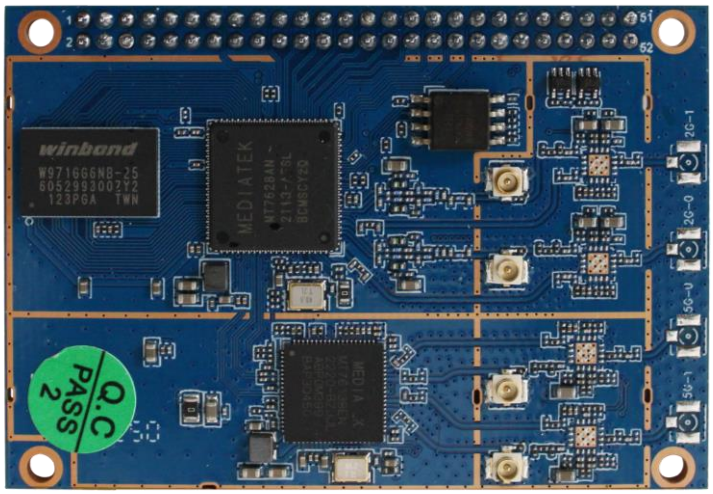
5.8GHz WiFi Specifications

WIFI Standards	IEEE 802.11a/n/ac	
Frequency	802.11a/n/ac	5.150 ~ 5.850 GHz
WIFI Function	Channel	Ch36 to Ch165
	Bandwidth	40MHz / 80MHz
Tx Power	16+/-2dBm @ 802.11n	
Receive Sensitivity	-90+/-2dBm @ 802.11n HT20 MCS0	
Encryption	WEP/WPA/WPA2	

Software Functions

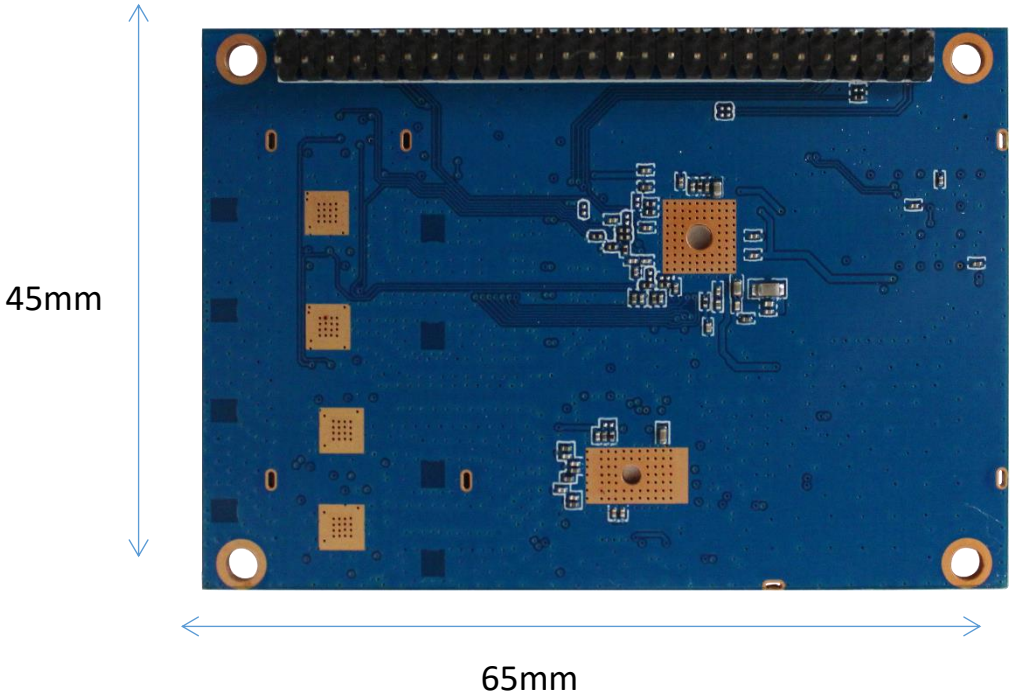
Main Functions	WAN	Support Static IP, DHCP, L2TP, PPTP, PPPoE
	WIFI	Support Client, AP, and other operation modes
		Support WPA/WPA2/WPA3 Encryption, MAC Filter Function
		Support EashMesh Function
	VPN	Support VPN Client, PPTP / L2TP
	Remote Management	SYSLOG / Telnet / SSH / HTTP / other function
		Support Local and Remote Access for Firmware Upgrade, Backup/Restore Configurations
	Support NTP	
	Support VLAN, MAC Address Clone	
	Support DHCP Server, DHCP Client, DHCP Binding to MAC Address, DDNS, Firewall, Port Forwarding, Network Flow Statistics, and other Function	
	Support TCP/IP, UDP, FTP (Optional), HTTP, and other network protocols	

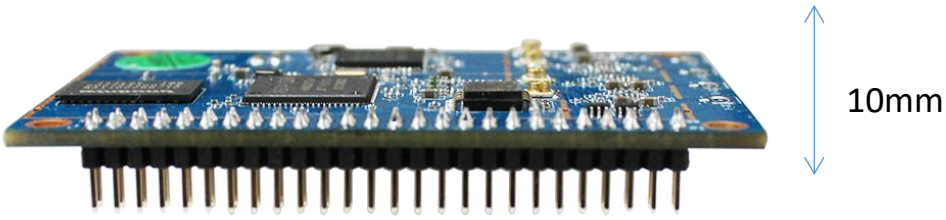
Pin Definition



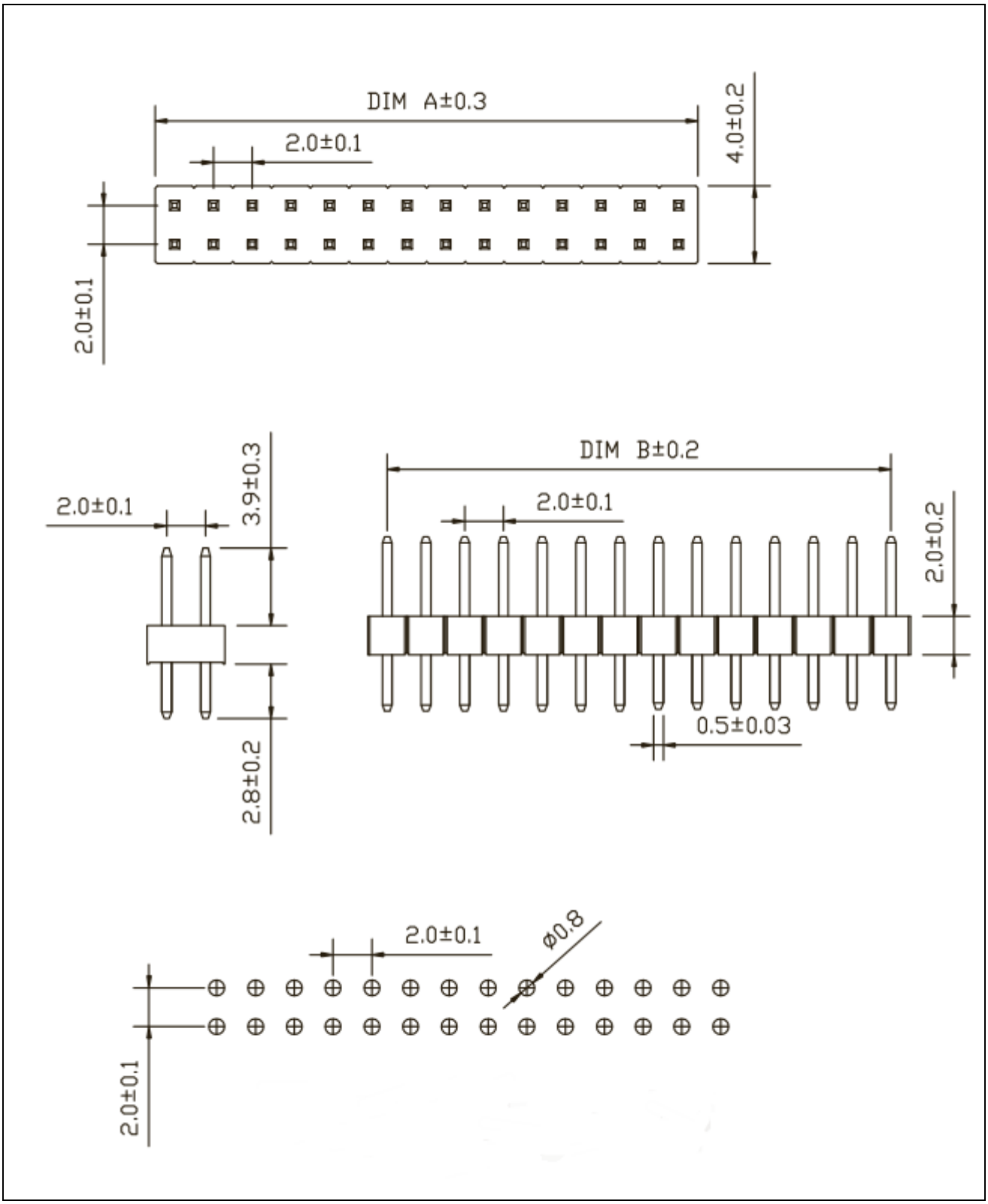
Pin	Name	Pin	Description
1	GPIO0 (I2S_DI)	2	GPIO1 (I2S_DO)
3	GND	4	GND
5	Vin 3.3V	6	Vin 3.3V
7	SPI_MOSI (GPIO8)	8	SPI_CS1 (GPIO6)
9	SPI_MISO (GPIO9)	10	SPI_CLK (GPIO7)
11	CPU_UART_TX1	12	CPU_UART_RX1
13	CPU_USB-	14	CPU_USB+
15	CPU_UART_TX0 (Debug)	16	CPU_UART_RX0 (Debug)
17	NC	18	NC
19	WAN_TX+ (P4)	20	WAN_TX- (P4)
21	WAN_RX+ (P4)	22	WAN_RX- (P4)
23	LAN1_TX+ (P3)	24	LAN1_TX- (P3)
25	LAN1_RX+ (P3)	26	LAN1_RX- (P3)
27	LAN2_TX+ (P2)	28	LAN2_TX- (P2)
29	LAN2_RX+ (P2)	30	LAN2_RX- (P2)
31	LAN3_TX+ (P1)	32	LAN3_TX- (P1)
33	LAN3_RX+ (P1)	34	LAN3_RX- (P1)
35	LAN4_TX+ (P0)	36	LAN4_TX- (P0)
37	LAN4_RX+ (P0)	38	LAN4_RX- (P0)
39	GND	40	GPIO3 (I2S_CLK)
41	GPIO2 (I2S_WS)	42	SYS LED (GPIO11)
43	2.4GHz LED (GPIO44)	44	5.8GHz LED
45	WAN LED (GPIO43)	46	LAN1 LED (GPIO42)
47	LAN2 LED (GPIO41)	48	LAN3 LED (GPIO40)
49	LAN4 LED (GPIO39)	50	CPU_RESET (GPIO38)
51	NC	52	NC

Product Dimensions



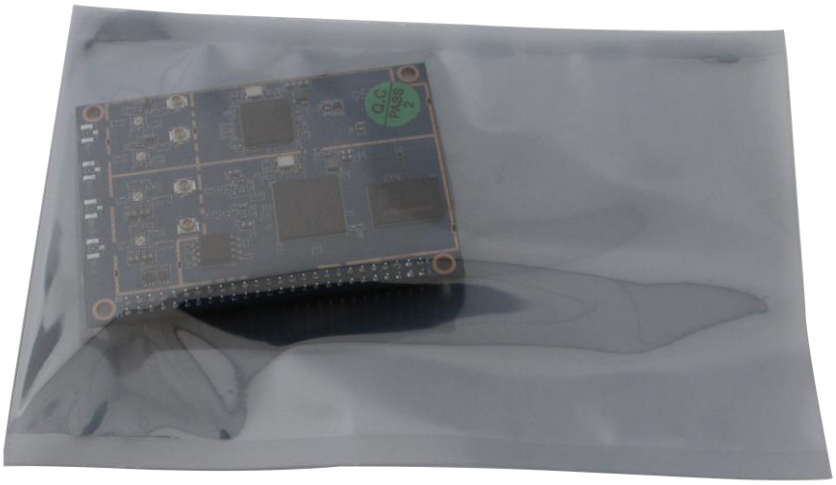


Double row pin header 2 x 26pin, 2.0mm pitch, 180 degrees, height 2.0mm, pin length 7.0mm, DIP ROHS



Product Packaging

The module is packed into an anti-static bag.



The honeycomb packing box can be customized in batch production according to the product, the reference picture is as follows:

Order Information

Model	Description
ComIoT 15	Dual Band Wireless Router Core Module

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