

Overview



Smart Bimmer Enet Wifi was specially developed and designed to operate the Ethernet OBD2 diagnostic and coding features via wired J2534 port and wireless via an embedded module based on the universal serial interface network standard, built-in TCP / IP protocol stack, enabling the user serial port, Ethernet, wireless network (wifi) interface between the conversions. the traditional serial devices do not demand to change any configuration, data can be transmitted through the Internet

network. Provide a quick solution for the user's serial devices to transfer data via Ethernet

Features

- 2.4GHz 802.11b/g/n, compatible
- Support IEEE 802.3、IEEE 802.3u
- WiFi Client/AP/Router Mode
- Support wps/wds
- The range of baudrate: 1200~500000bps
- Support transparent transmission mode
- Support multiple security authentication mechanisms:
 - WEP64/WEP128/ TKIP/ AES
 - WEP/WPA-PSK/WPA2-PSK
- Support wireless roam
- Support multiple network protocols:
 - PPPOE/TCP/UDP/DDDNS /DHCP/DNS/HTTP/Firewre
- Support AT+ instruction set
- Support two config methods: Serial/WEB
- Device Dimensions 87*47*26mm

Applications

Ethernet OBDII WiFi Diagnose

Specifications

The parameters are defined here.

Typical DC Characteristics		Notes
Only wifi current	140mA	Wifi to serial,AP mode or Client mode
One rj45 current	120mA	Serial to RJ45.
Two rj45 current	135mA	One is Wan another is LAN
WiFi and two rj45	160mA	Default Mode/Factory Mode
Centre frequency accuracy	+/-25ppm	Additional +/-15ppm allowance
Typical RF Characteristics		Notes
Receive sensitivity	-70dBm	Use Iqview to adjust
Maximum Transmit power	18dBm/15dBm/13.5dBm	802.11b/g/n
RF Port impedance – IPEX connector	50 ohm	2.4 - 2.5GHz
VSWR (max)	2:1	2.4 - 2.5GHz
Centre frequency accuracy	+/-25ppm	Additional +/-15ppm allowance
Peripherals		Notes
UART	2pins	1200-500kbps
RJ45(WAN)	4pins	Support pppoe
RJ45(LAN)	4pins	Support dhcp
3.3V Out	1pins	Support at most 300mA/3.3V
1.8V Out	1pins	Support at most 300mA/1.8V

Wi-Fi Module Pin Assignment

Pin No	Signal Type	Description
1	VCC5V	Supply Voltage, 5V+/-10%
2	GND	Analogue Ground
3	WIFILED	WLAN Activity LED
4	VO3.3	3.3V Output (Suuport Atmost 300mA)
5	LINK1	10/100 PHY Port #1 activity LED
6	N/A	Reserved
7	N/A	Reserved
8	GPIO0	General GPIO Reserved
9	GPIO1	General GPIO Reserved
10	ES/RST	Exit transparent transmission mode/Restore factory value
11	TXOP1	10/100 PHY Port #1 TXP
12	TXON1	10/100 PHY Port #1 TXN
13	RXIP2	10/100 PHY Port #2 TXP
14	RXIN2	10/100 PHY Port #2 TXN
15	RXIN1	10/100 PHY Port #1 RXN
16	RXIP1	10/100 PHY Port #1 RXP
17	TXON2	10/100 PHY Port #2 OXN
18	TXOP2	10/100 PHY Port #2 OXP
19	GPIO2	General GPIO Reserved
20	UART_RX	UART RXD.
21	UART_TX	UART TXD.
22	GPIO3	General GPIO Reserved
23	LINK2	10/100 PHY Port #2 activity LED
24	GPIO4	General GPIO Reserved
25	WPS/RST	WiFi Protected Setup /Restore factory value
26	GPIO5	General GPIO Reserved
27	VO1.8	1.8V Output (Suuport Atmost 300mA)
28	VCC5V	Supply Voltage, 5V+/-10%

Electrical Characteristics

Parameter	Min	Max
Module supply voltage VCC	3.9V	5.5V
Module Voltage Output VO3.3	3.1V	3.5
Module Voltage Output VO1.8	1.65V	1.9
GPIO Voltage	3.1V	3.5V
Storage temperature	-40°C	95°C

Operation Guidelines to work with car OBDII

Step 1: Ignition ON, plug the MHD OBDII wifi flasher to the OBD2 diagnostic port

Step 2: Search the Wifi ISID started with MHD_XXXX from laptop wifi and access with the password which sated at the back side of the module.



Step 3: Successfully connected and operated as user demanded via OBD2 diagnostic port.

Step 4: Administration panel setup for administrators only.

The screenshot displays the web interface of the MHD TUNING WIRELESS-N ROUTER IEEE 802.11N. The left sidebar contains a navigation menu with the following items: HLK-RM04, Serial2Net Settings, Advance Settings, Serial2Net UART 2 Settings, Administration (expanded), Management, Settings Management, Upload Firmware, Status (selected), Station List, and Link Status. The main content area is titled 'Access Point Status' and includes the text 'Let's take a look at the status of HLK-RM04 Platform.' Below this, there are three tables: System Info, Internet Configurations, and Local Network.

System Info	
SDK Version	V2.1(Aug 30 2016)
System Up Time	9 mins. 12 secs
Operation Mode	AP Client Mode

Internet Configurations	
Connected Type	DHCP
WAN IP Address	10.6.45.2
Subnet Mask	255.255.248.0
Default Gateway	10.6.40.1
Primary Domain Name Server	120.196.105.24
Secondary Domain Name Server	211.136.192.6
MAC Address	40:D6:3C:0E:21:B1

Local Network	
Local IP Address	192.168.16.254
Local Netmask	255.255.255.0
MAC Address	40:D6:3C:0E:21:B0

Appendix Disclaimers

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NB Warning:

Manufacturer's Name: Autosvs Technology Co., Ltd.

Sample Description: Smart Bimmer Enet Wifi

Trade Mark: /

Model number: Smart Bimmer Enet Wifi

Operating Temperature: -10° C to 40° C

Wireless specification:

2.4G WIFI: Max power 15.90dbm in frequency band 2412-2472MHz

This product is a fixed location. To comply with RF exposure requirements, a minimum separation distance of 20cm must be maintained between the user's body and the device, including the antenna. The device complies with RF specifications when the device used at 20cm from your body. Use only the supplied or an approved antenna.

This device in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. All essential radio test suites have been carried out.

FCC Warning:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance

could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum distance between 20cm the radiator your body: Use only the supplied antenna.

FCC ID: 2AXH4-BFEW