# 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 authenti-cation 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 cuurent | 135mA | One is Wan anther 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 onnector | 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 | Suuport atmost 300mA/3.3V |
| 1.8V Out | 1pins | Suuport atmost 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 | -40ºC | 95ºC |

# 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.

# 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