

# User Guidance for DiLink 3.0F

Product name: DiLink, BYD Di3.0F

Model Name: DiLink 3.0F, MTCF03

Manufacturer: BYD Auto Industry Company Limited

## 1. Basic Specification

Chipset: Qualcomm SM6125

Operating system: Android 10

Supply: 12V rated voltage, 9V-16V input supply.

Operating Temperature: -30°to 70°Celsius

## 2. Function

Image Center

- Camera
- Photo album
- Driving recorder
- Panoramic image

Multimedia Center

- Music player
- Video player
- Karaoke

System control

- Air conditioning control

- volume control

#### Connection

- BT 5.0
- WIFI 2.4G/5G 802.11a/g/b/n/ac
- 2G/3G/4G

#### GNSS

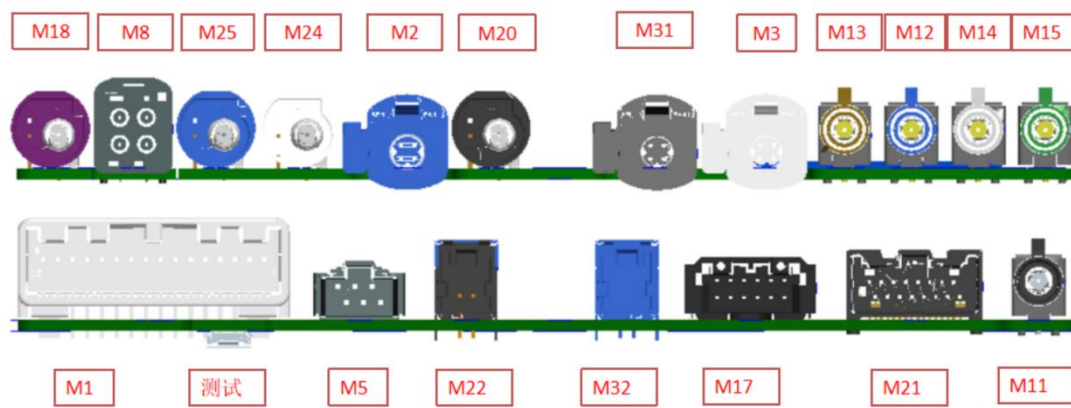
- GPS
- GLNASS
- GALILEO

#### Others

- Intelligent voice
- Tire pressure monitoring
- Bluetooth phone
- IVI Internet of vehicle
- Application Market

### 3. Connector

The following table shows the headunit connectors with signal information and description



M1 Main Connector/Power

M21 Void

M2 LCD

M22 Void

M3 USB Assembly

M24 In-vehicle Camera

M5 Microphone

M25 Driving Recorder

M8 Panoramic Camera

M31 SIM

M11 FM Antenna

M32 DAB

M12 GNSS Antenna

Text USB(Debug)

M13 BT/Wi-Fi Antenna

M14 GSM/WCDMA/LTE  
Antenna

M15 GSM/WCDMA/LTE  
Antenna

M17 AUX&A2B

M18 DMS Camera

M20 Instrumentation  
Interface

## 4. Interface connection

The DiLink3.0F host is the on-board terminal of the export vehicle, The vehicle start host automatically starts to work.

M1 is the power line interface of the DiLink3.0f host;

M2 is connected with the pad of the locomotive and is the interface of the pad power line;

M3 is connected with USB assembly through USB harness;

M5 is connected with the microphone in the front compartment of the vehicle through the microphone harness in the front compartment of the vehicle;

M8 is a camera interface;

M11 is connected to the shark fin of the vehicle;

M12 is connected to the shark fin of the vehicle;

M13 is connected to the built-in antenna box;

M14/15 are 4G auxiliary and 4G main lines respectively, which are connected to the built-in antenna box;

M17 is connected to the power amplifier box;

M18 is the vehicle DMS camera;

M20 is connected to the vehicle instrument panel;

M21 is the microphone interface in the rear compartment of the vehicle, which is connected to the microphone in the rear compartment through the microphone harness;

M22 is the interface of vehicle karaoke system, which is not applicable overseas

at present, and it is a reserved interface;

M24 is a camera interface, which is generally not applicable;

M25 is a camera interface, which is generally not applicable;

M31 is connected with SIM assembly through SIM harness;

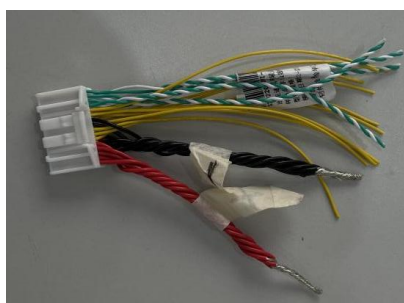
M32 is connected with DAB through DAB harness and finally connected to vehicle shark fin;

Text USB interface is an interface for testing, which is not applicable to the actual vehicle.

For the RF part of the host, connect M1, M11, M12, M13, M14, M15 and M32 interfaces for testing, as shown in the following figure.



M1 interface host power line, the harness can be modified according to requirements, in which red and black lines are mainly used, red is connected to the positive pole, black is connected to the negative pole, and other lines are can lines, which do not need to be connected.



## 5. General Information

### Temperature ranges

| Component | $T_{uL}$ | $T_{uB}$ | $T_{oB}$ | $T_{oL}$ | $T_R$ |
|-----------|----------|----------|----------|----------|-------|
| Head unit | -40°C    | -30°C    | +70°C    | +85°C    | +23°C |

|          |                                                                                                   |
|----------|---------------------------------------------------------------------------------------------------|
| $T_{oL}$ | Maximum storage temperature                                                                       |
| $T_R$    | Room temperature                                                                                  |
| $T_{uL}$ | Minimum storage temperature                                                                       |
| $T_{oB}$ | Maximum operating temperature for components with overload protection/low-temperature protection  |
| $T_{uB}$ | Minimum operating temperature for components with overload protection/over-temperature protection |

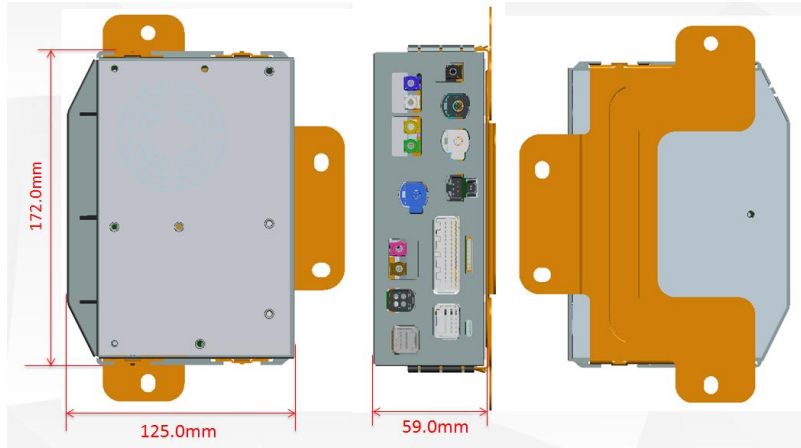
### Voltage ranges

| Component | $U_{Bmin}$ | $U_{B,max}$ | $U_B$ | Spec                                              |
|-----------|------------|-------------|-------|---------------------------------------------------|
| Head unit | +9.0V      | +16V        | +12V  | For functions that must retain their performance. |

|            |                               |
|------------|-------------------------------|
| $U_{Bmin}$ | Lower operating voltage limit |
| $U_B$      | Nominal Operating voltage     |
| $U_{Bmax}$ | Upper operating voltage limit |

## 6. Installation

Space size requirements

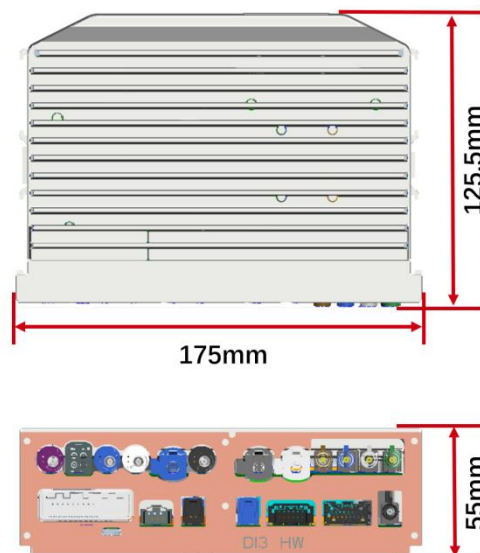


## 7. Pictures head unit

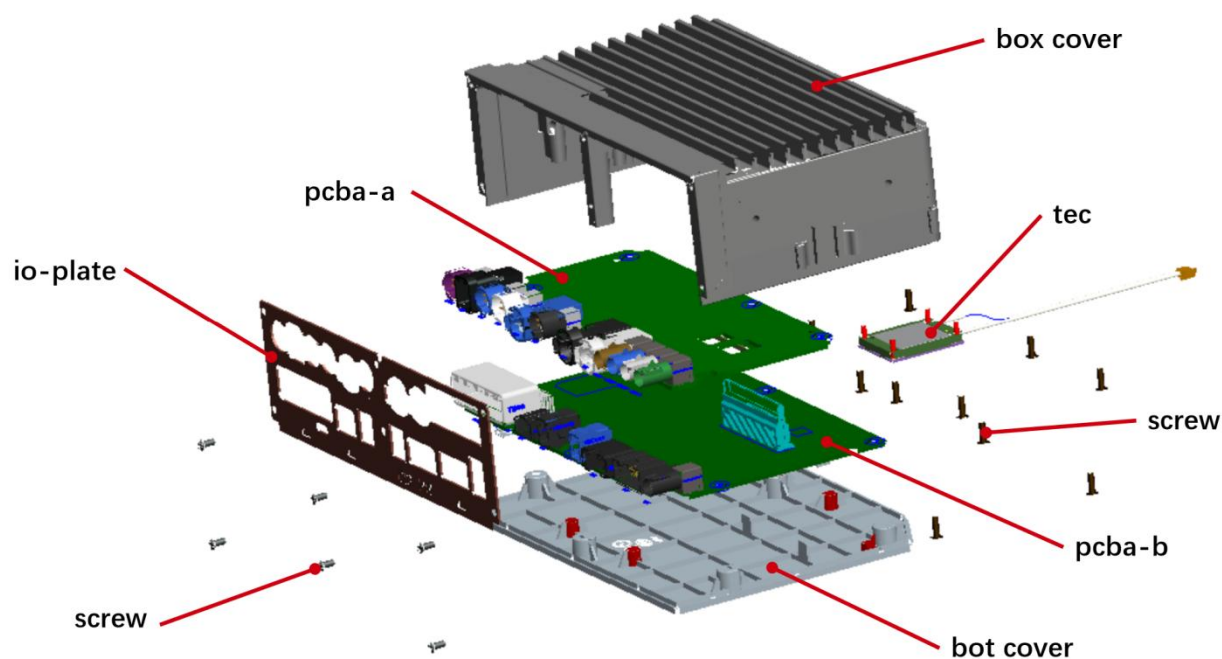
The following picture shows the explosions view of the headunit.

### Dimension

Package size:



## Explosion View



## 8. Regulation information:

Hereby, BYD Auto Industry Company Limited declare that the radio equipment type DiLink has the following operating frequency range.

| Operating Frequency Range         | The maximum RF Output Power       |
|-----------------------------------|-----------------------------------|
| FDD-LTE Band<br>2/4/5/7/12(17)/13 | FDD-LTE Band 2: 23.0 dBm±2dB      |
|                                   | FDD-LTE Band 4: 23.0 dBm±2dB      |
|                                   | FDD-LTE Band 5: 23.0 dBm±2dB      |
|                                   | FDD-LTE Band 7: 23.0 dBm±2dB      |
|                                   | FDD-LTE Band 12(17): 23.0 dBm±2dB |

|                                                                 |                                                                      |
|-----------------------------------------------------------------|----------------------------------------------------------------------|
|                                                                 | FDD-LTE Band 13: 23.0 dBm±2dB                                        |
| TDD-LTE Band<br>38/41                                           | TDD-LTE Band 38: 23.7 dBm±2dB<br>TDD-LTE Band 41: 23.0 dBm±2dB       |
| WCDMA Band 2/4/5                                                | Band 2: 23.0 dBm±2dB<br>Band 4: 23.0 dBm±2dB<br>Band 5: 23.0 dBm±2dB |
| GSM 850/1900 MHz                                                | GSM 850: 32.5dBm±3dB<br>GSM 1900: 29.3 dBm±3dB                       |
| Bluetooth 2402 - 2480 MHz                                       | 7 dBm±3dB                                                            |
| WiFi 2412 - 2462 MHz                                            | 15 dBm±3dB                                                           |
| 5.170 GHz ~ 5.250GHz<br>5.250 GHz ~ 5.350GHz<br>5470MHz-5725MHz | 14dBm±3dB<br>14dBm±3dB<br>14 dBm±3dB                                 |
| 5725MHz-5835MHz                                                 | 14 dBm±3dB                                                           |
| GPS 1575.42 MHz±1.023 MHz                                       | /                                                                    |
| FM 87.5MHz-108MHz                                               | /                                                                    |
| AM 522KHz-1620KHz                                               | /                                                                    |
| DAB 174MHz-240MHz                                               | /                                                                    |

For FCC&IC, 5.2G is used for indoors only.

## **FCC Statement**

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.

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 important announcement

## **Radiation Exposure Statement**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.