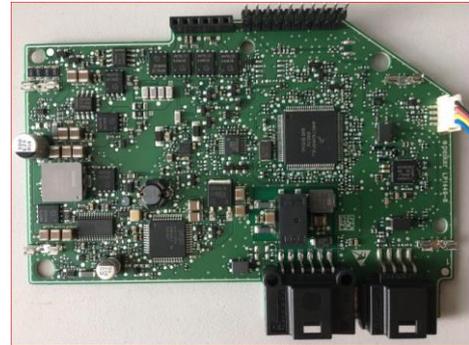


WMI 2-15W-W205 Wireless Mobile Interface2-15W



Derivate

- Model WMI2-15W-W205-M1

Technologies

- Wireless charging equal to Qi Standard
- Connecting to device via NFC
- Proximity sensor description
 - The device is detected by a ping algorithm via NFC

Air Interfaces

- Wireless Charging Qi1.0
- Wireless Charging Qi1.1
- Wireless Charging Qi1.2
- NFC
- Passive GSM coupling antenna (for passive communication only)
Diagram is shown on page 3

Frequencies

- Wireless / B-Value according Qi Standard 1.0; 125kHz / 4.17 dBμA/m @10m
 - Downlink (from cell-phone/test receiver to WMI): receiver uses load modulation of 125 kHz with 2 kHz to send information to the WMI.
 - Uplink (from WMI to cell phone/test receiver) The WMI is using frequency modulation of the 125 kHz to send information to the receiver.
- NFC / EIRP / $f=13,56\text{Mz/}$
 - Int. ant.: -21.15 dBμA/m @10m
 - Ext. ant.: -15.247 dBμA/m @10m

Internal NFC antenna

- PCB antenna
 - $R = 4.0 \text{ Ohm}$
 - $jZ = 58 \text{ Ohm}$
 - $L = 0.68\mu\text{H}$
 - Diagram is shown next side

MQS 4 pin-connector for

- ext. NFC Antenna

Data Rates

- CAN:
 - 250kbaud
- NFC:
 - Modulated 115kbaud
 - Modulated 230kbaud
 - Modulated 440kbaud

Interfaces, customizable

- CAN
- SPI (internal)

Power level

- Charging mode
 - Max power consumption will be approx 30 Watts
 - The device charge the mobile device with a power of 15 Watts
 - The transfer system includes **3 coils**. This includes charging systems that have three coils and clients that are able to detect and allow coupling only between individual pairs of coils
 - **Only one coil is active**
- Ping mode
 - Max power consumption 0,25 W

Application

- Only vehicular environment
 - The system is installed only in vehicles

Brand

Valeo

Model Name

WMI2-15W-W205
WMI2-15W-W205-M1

Power

- Nominal voltage: 12V
- Max. current consumption: 1,82 A; nom. 2,0A
- Operating Voltage Range: 8V – 16V

Environmental

- Operating temperature range: -40°C to +85°C
- Charging mode: -20°C to +60°C

Dimensions

- length x width x height
- 160mm x 95mm x 30mm

Weight

- 270g

Software

- Powerful application processor from NXP may contain and run complete application software and CAN-software

WMI 2-15W-W205 Wireless Mobile Interface2-15W



Product description

Charging: After putting the mobile on the WMI surface, the WMI will start up exchanging some CAN commands from the car. After initial start the WMI tries to detect if an object was placed on the surface. When the device detection was successful, the system switch to Qi-detection-mode. If the Qi-detection-mode has found a mobile (acc. Qi-standard) then charging process will start. The WMI was designed following the Qi standard to charge mobiles prepared for Qi-charging. Because the WMI2 does not fulfill the whole Qi-standard, therefore no Qi Logo is placed on the WMI and no Qi-certification has been processed. If you remove the mobile during charging from the WMI, charging process is stopped immediately.

The Wireless Mobile Interface (WMI) enables the user to wirelessly charge a mobile device (ME) supporting the device in WLC equal standard.

Additional key features of WMI include: Support of NFC telematics functions including NFC vCards

Diagram of internal NFC antenna, relevant measurements in blue

