

NIDEC MOBILITY
KOREA CORPORATION

NMOK-360W

WIRELESS POWER CHARGING SYSTEM
H/W Version : 1.00

1. Constitution of the Unit Assy-Wireless Charging (WPC) for vehicle

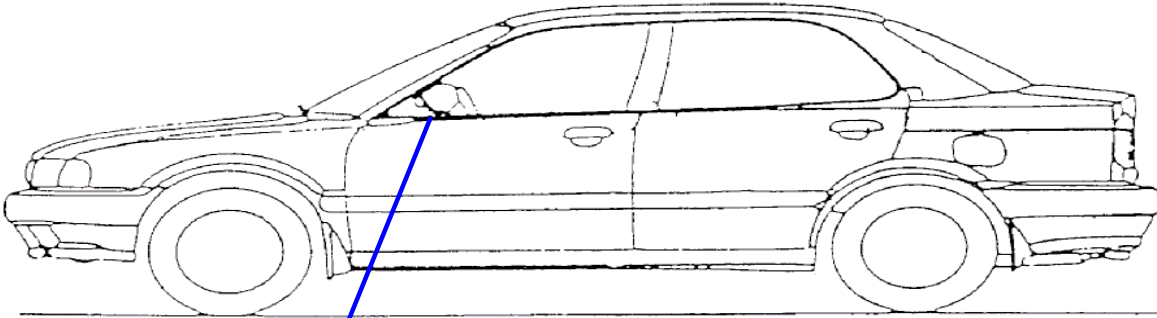
Wireless Charger Unit, it's possible to charge the receiver based upon WPC(Wireless Power Consortium) Standard. (max. 10W supported)

WPC detects the receiver based upon the WPC standard being put on the surface of charge, and begins to charge it.

WPC detects conditions of the receiver and controls the transmission electric power by the state of the battery of it.

When the receiver is removed,WPC will suspend the transmission electric power.

When the receiver is full charge. WPC will suspend the transmission electric power.



4. Specification

4.1 CONTROL PART

4.1.1 CPU

Type	CYT2B93CAS
Manufacturer	INFINEON
ROM	2112 KB
RAM	256 KB
EEPROM	128 KB
Clock frequency	64 MHz
Package	LQFP 64 PIN

4.1.2 Others

Dimension	112mm(H) x 101mm(W) x 44mm(T)
Weigh	about 225 g
Battery	Car Battery (DC 13.5 V)
Operating Voltage, Curren	DC 12.0 V, 2.0 A
Transmission Frequency	WPC : 127.7 $\pm$ 1 KHz
Operation Temperature	-30 $^{\circ}$ C ~ 75 $^{\circ}$ C
Support Standard	WPC Ver 1.3.3

4.1.2 Antenna (Coil)

Type	1 Coil Assembly (WPC MP-A13)
Dimension	89 mm * 89 mm * 14.5 mm

5.Features

5.1 Charging Function

WPC possesses the charge function of 3 coils type based upon WPC Ver 1.3.3

It supports power output of 5W and 10W, and controls the resonance voltage according to the request from the receiver.

It doesn't change the frequency of the resonance voltage.

It determines whether an object is placed on the charging surface by monitoring the variation in the resonance voltage and detects the receiver.

5.2 Foreign Objection Detection

WPC monitors the power loss from the resonance voltage and current inside it.

WPC judges that there is a foreign object when power loss is beyond the constant value.

FCC Warning Statement

FCC Part 15.19

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.

FCC Part 15.21

Any changes or modifications (including the antennas) to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment.

IC Warning Statement

This device complies with Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes : (1) L'appareil ne doit pas produire de brouillage, et (2) L'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

FCC/IC Radiation Exposure Statement

This equipment complies with the FCC/IC RF radiation exposure limits set for an uncontrolled environment.

This device and its antenna must not be co-located or operated in conjunction with any other antenna or transmitter.

In accordance with ISED regulations, the evaluation was conducted in contact (0 mm) conditions; however, for FCC, the assessment was carried out at distances of 82 mm and 17 mm, respectively, considering the actual installation environment of the EUT in the vehicle.

Cet équipement est conforme aux limites d'exposition aux radiations RF de la FCC/IC établies pour un environnement non contrôlé.

Cet appareil et son antenne ne doivent pas être installés ou utilisés conjointement avec une autre antenne ou un autre émetteur.

Conformément aux réglementations ISED, l'évaluation a été effectuée dans des conditions de contact (0 mm) ; cependant, pour la FCC, l'évaluation a été réalisée à des distances de 82 mm et 17 mm respectivement, en tenant compte de l'environnement réel d'installation de l'EUT dans le véhicule.