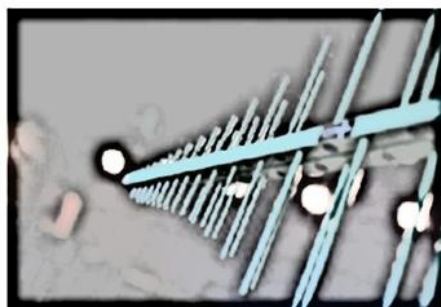


**Trusted  
Testing LAB**



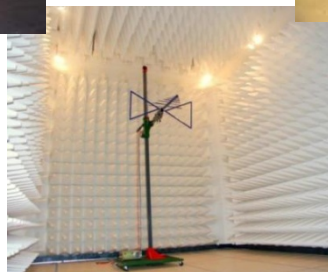
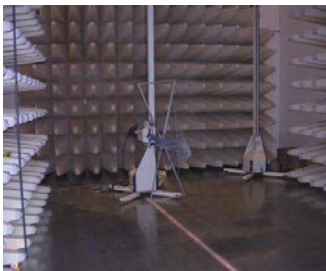
**MOVON**  
MOVON CORPORATION



# Company Profile



- 1998. 10. Establish CETECOM Korea
- 2004. 04. Establish Yongin EMC lab
- 2004. 06. recognized FCC Part 15,18
- 2004. 12. recognized ISO17025
- 2005. 01. Changed company name (MOVON Corporation)
- 2005. 11. Start Automotive EMC Test Service
- 2006. 01. approved GM DAEWOO
- 2006. 01. approved SSANGYONG motor
- 2006. 02 approved Renault Samsung motor
- 2006. 11. recognized A2LA
- 2007. 06. recognized BQTF
- 2007. 06. recognized VCA
- 2007. 07. recognized AEMCLRP-Korea first
- 2007. 07. approved GM-Korea first
- 2008. 08. approved Chrysler/FIAT -Korea first
- 2009. 10. approved Fisker -Korea first
- 2010. 04. recognized IC
- 2010. 06. recognized JAPAN MIC
- 2011. 04. recognized Ford -Korea first



# Contact Info



## Head Quarter

5Fl., Hyunjuk Bldg., 140-28,  
Samsung-Dong, Gangnam-  
Gu, Seoul, Korea 135-090  
TEL)82 2 2050 4600  
FAX)82 2 539 9666  
www.movon.co.kr

## Yongin lab

194-1 Geumeo-ri, Pogok-  
eup, Cheoin-gu, Yongin-  
si, Gyeonggi-do, KOREA  
TEL)82 31 338 8837  
FAX)82 31 338 8847  
www.movonlab.co.kr



### 오시는법

명확역에서 안양역 방향으로 약 700m, 세양청마루 맞은편, One a day(원어데이) 물류센터로 들어오십시오.  
입구는 물류센터 건물 뒷편에 있습니다



## Anyang lab

537-1, Anyang-dong,  
Manan-gu, Anyang-si,  
Gyeonggi-do, Korea  
TEL)82 70 4163 9400  
www.movonlab.co.kr

## For details contact

Danny Kim, 金石峰  
danny.kim@movon.co.kr  
Cellular: 82 10 3247 3166

# Automotive service



## CONTACT

Test. Debugging. Seminar

Danny.Kim, [danny.kim@movon.co.kr](mailto:danny.kim@movon.co.kr), +82 10 3247 3166

MOVON laboratory is capable of performing the latest test methods to GM, Ford, Chrysler and other car maker.

### Automotive EMC capability.

Radiated Emission - ALSE  
Conducted Emission - ALSE  
Conducted Transient Emission  
Radiated Immunity - ALSE  
Bulk Current Injection - Substitution, Closed loop  
TEM Cell, Strip line  
Magnetic Field Immunity  
Conducted Transient Immunity  
Electrostatic Discharge  
Electrical Test (Jump start, Reverse voltage, . . . )etc.

### Support Equipment

GMLAN/CAN/LIN fiber optic converter  
Analog fiber optic converter  
Audio fiber optic converter  
Oscilloscope  
Multimeter  
Soldering tool

### Domestic Automotive EMC Testing

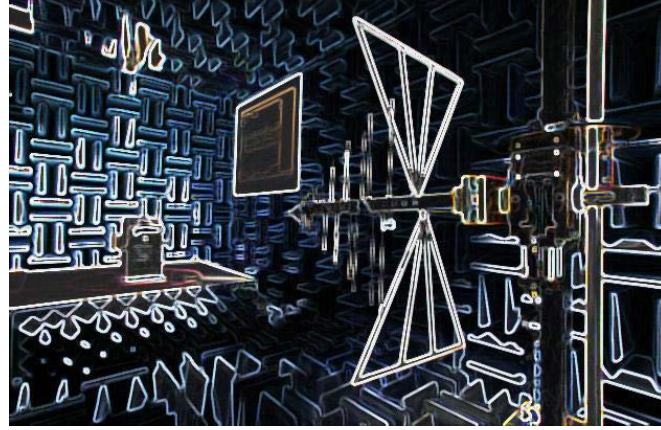
Hyundai-KIA : ES96200-00, ES95400-10, ES96202-00  
GM Korea : GMW3097, GMW3172, EDS,  
Ssangyong : SES E 922  
Renault Samsung : SES501-02  
Tata Daewoo : DST-D026

### International Automotive EMC Testing

GM Global : GMW3097, GMW3172  
FORD : ES-XW7T-1A278-AC, CS-2009  
Chrysler : DC-10615, DC-11224, CS11809/11979  
Renault, Nissan, Peugeot : 36-00-808/--K, 28401NDS02, B217110, . . .  
Volkswagen : TL965, TL82066, TL82166  
Volvo : STD515-0003



# EMC testing service



## CONTACT

Test, Debugging, Seminar

Roony.Ahn, [roony.ahn@movon.co.kr](mailto:roony.ahn@movon.co.kr), +82 10 6291 3153

Through its worldwide network of Laboratories, **Movon** helps its customers to certify electrical and electronic products according to international standards. Movon offer testing and certification services to allow these products access to multiple markets: CE and GS for European market, IC and FCC for the North American market, and TELEC/JATE mark for the Japanese market.

**Korea Certification(KC)**  
**USA FCC**  
**CE Marking test and certification**  
**Japan VCCI**  
**CANADA IC**  
**Russia GOST**  
**Australia C-TICK**  
**CHINA CCC, TAIWAN BSMI**

### Lab approval

be scheduled for Korea certification(KC)  
FCC,VCCI,IC, KOLAS,GOST etc.

### EMC Testing Lab capability

#### Korea standard

KN 13, KN20, KN 22, KN24, KN 60, KN61000-4-2, KN61000-4-3, KN61000-4-4, KN61000-4-5, KN61000- 4-6, KN61000-4-8, KN61000-4-11

#### International standard

CISPR, EN, IEC, FCC Part 15/18, VCCI Regulation etc..

# Telecommunication service



## CONTACT

Test. Debugging. Seminar

Roony.Ahn, [roony.ahn@movon.co.kr](mailto:roony.ahn@movon.co.kr), +82 10 6291 3153

**Movon** is the most complete Wireless Certification & Testing Laboratory in the world. With the largest coverage in different technologies (GSM/GPRS/EDGE, WCDMA, HSPA, LTE, WiMAX™, Bluetooth®, Wi-Fi®, RFID and NFC) and a portfolio that ranges from conformance, regulatory and interoperability testing to worldwide compliance services, Movon Test Laboratory offers a real one-stop-shop approach for the certification of telecommunications devices.

### RF Testing Lab Capability

CE(R&TTE Directive 1999/5/EC), FCC, Teleg, SRRC global certification service

ANSI TIA/EIA-98-D(mobile), TIA/EIA-603-A

FCC Part 15 Bluetooth, wireless LAN(802.11b/g/a), Zigbee

Part 22 CDMA, GSM850, GSM900

Part 24 CDMA1900, GSM1800, GSM1900

Part 95 GMRS

EN 300 086 LMR

EN 300 220

EN 300 440 remote controller

EN 300 328 Bluetooth, wireless LAN(802.11b/g/a), Zigbee 2,4 GHz ISM band

EN 300 330 RFID reader(tag) 9 kHz ~ 30 MHz

EN 300 422 wireless microphone 25 MHz ~ 3 GHz

Etc..

### Global RF test/certification service

Korea certification(KC)

FCC,CE(R&TTE), Japan-MIC,IC, KOLAS,GOST,

C-Tick,CCC,BSMI

We're covering RF certification of above 190 country.



AUTHORIZED  
TEST  
LABORATORY

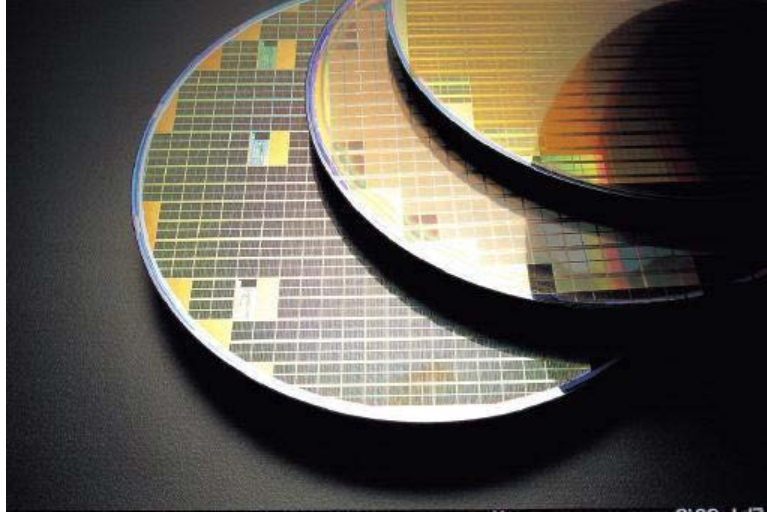
# Reliability test service



## CONTACT

Test. Debugging. Seminar

Roony.Ahn, [roony.ahn@movon.co.kr](mailto:roony.ahn@movon.co.kr), +82 10 6291 3153



Reliability testing is materials and parts developed in the early stages of product development totally made to ensure the quality, performance and safety, taking into account the geographical characteristics, climatic environmental tests and safety tests, noise impulse test, separated by bodies such as you can do the test.

Reliability test lab for automotive, repeaters, IT, defense, shipbuilding, train, and the authenticity of every product testing, analysis, Regulatory and Consulting Services Division by providing the highest quality products to providing services that develop.

Electrical	Mechanical
Jump Start	Low Temperature Wakeup
Reverse Polarity	Highly Accelerated Life Test (HALT)
Over Voltage	Vibration With Thermal Cycling
State Change Waveform Characterization	Random Vibration
Ground Path Inductance Sensitivity	Thermal Cycle
Parasitic Current	Mechanical Shock
Power Supply Interruptions	Crush For Housing
Battery Voltage Dropout	Connector Installation Abuse
Sinusoidal Superimposed Voltage	High Temperature Degradation
Pulse Superimposed Voltage	Thermal Shock Air-To-Air (TS)
Short Circuit	Power Temperature Cycle (PTC)
Ground Interconnect Short to Battery	Thermal Shock/Water Splash
Open Circuit	Humid Heat Cyclic (HHC)
Ground Offset	Humid Heat Constant (HHCO)
Power Offset	Salt Mist
Discrete Digital Input Threshold Voltage	Salt Spray
Over Load	Dust
Isolation Resistance	Water
Crank Pulse Capability and Durability	Seal
	Water Freeze

# BQTF test service



## CONTACT

Test. Debugging. Seminar

Roony.Ahn, [roony.ahn@movon.co.kr](mailto:roony.ahn@movon.co.kr), +82 10 6291 3153

Certification system as a system of products, Bluetooth compatibility, Bluetooth SIG (Special Interest Group) program created by the suitability and compatibility testing with technology, Bluetooth technology, its logo to products that use the procedure to attach the appropriate certification will be ongoing.

These techniques for authenticating an authorized testing laboratory approved by the Bluetooth SIG for testing should be performed in BQTF. CETECOM MOVON subsidiary company of the Bluetooth SIG, as certified by the accredited laboratory BQE (Bluetooth Qualification Expert) holds itself to a customer faster than Bluetooth technology can provide support and certification services.

## BQTF Testing Lab service

- 1) Produce Test Plan
- 2) RF test
- 3) Protocol and Profile test
- 4) Profile Interoperability test
- 5) write test report
- 6) Listing service

## BQTF Testing Lab Capability

Test Category & Coverage  
 -RF conformance  
 Bluetooth Core Spec V1.2  
 Bluetooth Core Spec V2.0  
 Bluetooth Core Spec V2.0 + EDR  
 Bluetooth Core Spec V2.1  
 Bluetooth Core Spec V2.1 + EDR  
 Bluetooth Core Spec V3.0 + HS  
 -Interoperability Testing  
 A2DP,AVRCP,GAVDP,HSP,HFP15  
 BIP,BPP,FTP,OPP,CTP,DUN,PAN  
 PBAP,SAP,IOPT,MP,MD,HID,HDP  
 etc.

## Test Cases ( RF )

Transmitter  
 Output power  
 Power density  
 Power Control  
 TX Output Spectrum  
 - Frequency range  
 - 20 dB BW  
 - Adjacent channel power  
 Modulation Characteristics  
 Initial Carrier Frequency Tolerance  
 Carrier Frequency Drift  
 EDR Relative Transmit Power  
 EDR Carrier Freq & Mod accuracy Power  
 Differential Phase Encoding  
 In-band Spurious emissions

## Receiver

Sensitivity - Single slot packets  
 Sensitivity - Multi slot packets  
 C/I Performance  
 Blocking performance  
 Inter-modulation Performance  
 Maximum Input Level  
 EDR Sensitivity  
 EDR BDR floor Sensitivity  
 EDR C/I performance  
 EDR Maximum Input level

# Worldwide compliance service



**Movon** offers worldwide compliance services handling approvals in over 190 countries, covering all type of telecommunications devices (GSM/GPRS/EDGE, WCDMA, HSPA, LTE™, WiMAX™, Bluetooth®, Wi-Fi®, RFID, NFC, DECT, SRD and PSTN). This is possible thanks to Movon worldwide prestigious, presence and long relationships developed with in-country partners, such as local test laboratories, approval bodies, authorities and local engineers among others, which help to speed up the certification process.



KC



FCC (Federal Communications Commission)



CE



IC (Industry Canada)



CCC (China Compulsory Certification)



BSMI (Beureu of Standards, Metrology and Inspection)



VCCI (Voluntary Control Council for Interference by Information Technology Equipment)



GOST-R (GOSTSTANDART)



SASO(Saudi Arabian Standards Organization)



PSE MARK



UL (Underwriters Laboratory)



C-Tick(A-Tick)



Agencia Nacional de Telecomunicacoes (ANATEL)



TELEC (Telecom Engineering Center )

## CONTACT

Test. Debugging. Seminar

Issac Jin, [issac.jin@movon.co.kr](mailto:issac.jin@movon.co.kr), +82 10 2745 3876