



**FCC Test External and Internal Photographs for
47CFR15, Subpart B for Unintentional Radiators, per Section 101
Equipment authorization of unintentional radiators,
and
47CFR15, Subpart C per Section 209
General Limits for Operation of Intentional Radiators**

On

Volvo MMS Sensor

[MMS Sensor Front: FCC ID: LQN2960, Model No: 902960]

[MMS Sensor Rear: FCC ID: LQN2961, Model No: 902961]

[MMS Sensor Front Warranty: FCC ID: LQN2960, Model No: 902962]

Part No(s):

MMS Sensor Front Volvo Part No: 30797734

MMS Sensor Rear Volvo Part No: 30797735

MMS Sensor Front Warranty Volvo Part No: 30797800

Report No.

20070402-02-Fc15

Judgement

Complies as Tested

Provided for evaluation by

Connaught Electronics, LTD

IDA Industrial Estate

Dunmore Road, Tuam

Co. Galway, Ireland

Tests and Report by

ITC Engineering Services, Inc.

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Lab Code: 200172-0

ISO 17025 Accredited Compliance Laboratory

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PART 1 General

Test Information

Product:	Volvo MMS Sensor	
Model Number(s):	902960, 902961 & 902962	
Manufacturer's Name	Connaught Electronics, LTD	
Manufacturer's Address	IDA Industrial Estate Dunmore Road, Tuam Co. Galway, Ireland	
Contact	Tel: + 011 353 (93) 25128 Mr. Patrick Denny	
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Test Number	20070402-02	
Report Number	20070402-02-Fc15	
Test Date(s) & Issue Date	April 9 – April 13, 2007	June 4, 2007
Test Engineer(s)	Femi Ojo	
Documentation	Femi Ojo	
Test Results	☒ Complies as Tested	☐ Fail
Total Number of Pages	8	

The electromagnetic interference and RF tests, which this report describes, were performed by an independent engineering consultancy firm, ITC Engineering Services, Inc. (ITC), in accordance with the requirements specified in the FCC rules, 47CFR Part 15, Subparts B and C. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical characteristics. Any modifications specified in this report for compliance must be implemented in all production units for compliance to be maintained.

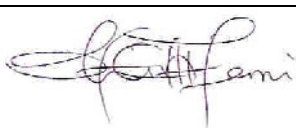
Tests Performed:

Emissions Requirements:

- OPEN FIELD RADIATED EMISSIONS in accordance with the FCC PART 15 Sub-Part B.

RF Requirements:

- FIELD STRENGTH OF FUNDAMENTAL in accordance with the FCC 47 CFR 15.209.
- HARMONIC EMISSIONS in accordance with the FCC 47 CFR 15.209.
- SPURIOUS EMISSIONS in accordance with the FCC 47 CFR 15.209.

Report generated by	Report reviewed by
	
Femi Ojo,	Michael Gbadebo, P.E, Chief Engineer.
Compliance Engineer	(California License # 11303)

Declaration/Disclaimer

ITC Engineering Services, Inc. (ITC) reports apply only to the specific samples tested under stated test conditions. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. ITC Engineering Services, Inc. shall have no liability for any deductions, inferences or generalizations drawn by the client or others from ITC Engineering Services, Inc. issued reports.

This report is the confidential property of the client. As a mutual protection to our clients, the public and ourselves, extracts from the test report shall not be reproduced except in full with our written approval. The applicant/manufacturer shall not use this report to claim product endorsement by NIST, NVLAP or any US Government agency.

ITC Engineering Services, Inc. (ITC) is:

Accepted by the Federal Communications Commission (FCC) for FCC Methods, CISPR Methods and AUSTEL Technical Standards (Ref: NVLAP Lab Code 200172-0)

Approved by the Industry Canada for Telecom Testing

Certified by Rockford Engineering Services GmbH for EMC Testing according to the European EMC Directive 89/336/EEC per EN45001

Certified by Reg. TP for EMC Testing according to the European EMC Directive 89/336/EEC per EN45001 for RES GmbH (DAR-Registration number: TTI-P-G 159/98-00)

Certified by the Voluntary Control Council for Interference by Information Technology Equipment (VCCI) for EMC testing, in accordance with the Regulations for Voluntary Control Measures, Article 8, Registration Numbers - Site 1: C-1582 and R-1497.

PART 1 General (Cont)

Test Methodology

The electromagnetic interference and RF tests, which this report describes, were performed by an independent engineering consultancy firm, ITC Engineering Services, Inc. (ITC), in accordance with the FCC test procedure ANSI C63.4-2003

Test Facility

The open area test site, the conducted measurement facility, the semi anechoic chamber and the test equipment used to collect the emissions and RF data is located in Sunol, California, and is fully described in site attenuation report. The approved site attenuation description is on file at the Federal Communications Commission.

Table 1 Radio Device Measurement Information

Product Type	Volvo MMS Sensor	
Model Number(s)	902960, 902961 & 902962	
Applicant / Manufacturer Address	Connaught Electronics, Ltd. IDA Industrial Estate, Dunmore Road, Tuam, Co. Galway, Ireland	
Contact	Mr. Patrick Denny Tel: +011 353 93 25128	dennypatrick@cel.ie Fax: +011 353 93 25133
Total Number of Pages including Appendices	30 Pages	
Test Report File No.	20070402-02-Fc15	

Table 2 Measurement Uncertainty

150kHz to 30MHz:		
Combined standard uncertainty uc(y)	± 1.68 dB	Normal
Expanded uncertainty U	± 3.36 dB	Normal (k = 2)
30MHz to 1GHz:		
Combined standard uncertainty uc(y)	± 3.24 dB	Normal
Expanded uncertainty U	± 6.48 dB	Normal (k = 2)
1GHz to 18GHz:		
Combined standard uncertainty uc(y)	± 2.48 dB	Normal
Expanded uncertainty U	± 4.96 dB	Normal (k = 2)
Above 18GHz:		
Radiated emission up to 26 GHz	± 3 dB	
Radiated emission up to 40 GHz	± 3 dB	
Radiated emission up to 75 GHz	± 3 dB	

PART 2 EXTENAL AND INTERNAL PHOTOGRAPHS

EUT Photographs



Figure 1: EUT Front Unit (CEL Number 902960)



Figure 2: EUT Rear Unit (CEL Number 902961)

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Product: Volvo MMS Sensor
Model Number(s): 902960, 902961 & 902962
FCC ID(s): LQN2960 & LQN2961



Figure 3: EUT Front Warranty Unit (CEL Number 902962)



Figure 4: EUTs Front View (902960 902961 & 902962)



Figure 5: EUT Internal View 1

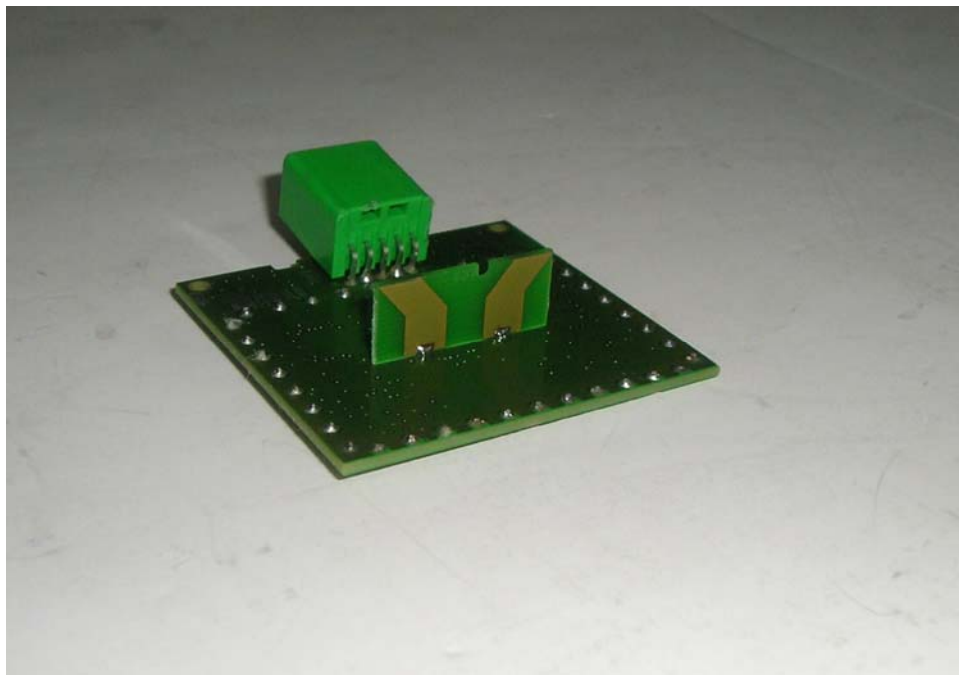


Figure 6: EUT Internal View 2