

Willow Run (WR) Test Labs, Inc. 7117 Fieldcrest Drive Brighton, Michigan 48116 Phone: (734) 252-9785

e-mail: info@wrtest.com

Re: Certification for:	Ford Motor Company	WRTL Project Number:	20170612-PRJWAC010115
EU Type Designation:	KMHSG1P1		

## Test Report (Cover Sheet)

To whom it may concern,

The goal of	Ford Motor Company	is to demonstrate t	hat the Equipme	nt Under Test (	EUT) –	KMHSG1P1	- complie	s with the
essential red	quirements of the RED Dire	ective 2014/53/EU.	It has been dete	rmined that the	EUT is subject	ct to the reference	d rules and dir	rectives a
the date of	this testing. In conjunction	n with these rules	and directives,	the referenced	specifications	and procedures	are followed	herein to
demonstrate	compliance (in whole or in	part) of the EUT w	ith these regulat	ions.				

KMHSG1P1	has been evaluated and judged compliant with the following specifications, per testing completed on or before
June 12, 2017	

## EN 300 328 V2.1.1

EN 300 328 V.2.1.1					
TEST PARAMETER	COMPLIES	NOTES			
	EN 300 328: Technical Requirements, Frequency Hopping equipment				
4.3.1 Requirements for Frequency Hopping equipment	✓	See Below			
4.3.1.2 RF output power	<b></b>	4.6  dBm < 20  dBm			
4.3.1.3 Duty Cycle, Tx-sequence, Tx-gap	<b>✓</b>	Not Applicable: (Pout < 10 dBm EIRP)			
4.3.1.4 Accumulated Transmit Time, Freq. Occupation and Hopping Sequence		Confirmed			
4.3.1.5 Hopping Frequency Separation	<b>✓</b>	Confirmed			
4.3.1.6 Medium Utilization (MU) factor	<b>✓</b>	Not Applicable: (Pout < 10 dBm EIRP)			
4.3.1.7 Adaptivity (Adaptive Frequency Hopping)	✓	Not Applicable: (Pout < 10 dBm EIRP)			
4.3.1.8 Occupied Channel Bandwidth	<b>7</b>	Confirmed			
4.3.1.9 Transmitter unwanted emissions in the OOB domain	<b>✓</b>	>20 dB margin			
4.3.1.10 Transmitter unwanted emissions in the spurious domain	<b>7</b>	>20 dB margin			
4.3.1.11 Receiver spurious emissions	<b>7</b>	> 20 dB margin			
4.3.1.12 Receiver Blocking	<b>✓</b>	Meas. PER < 0.00% with Category 2 Stimuli			
4.3.1.13 Geo-location capability	<b>V</b>	Not Applicable: No Geo-location Capability			

Re: Certification for:	Ford Motor Company	WRTL Project Number:	20170612-PRJWAC010115
EU Type Designation:	KMHSG1P1		

## ETSI EN 301 489-1 v1.9.2 / ETSI EN 301 489-1 V2.1.1 / ETSI EN 301 489-3 V2.1.0

E151 E1 (301 40)-1 (1:):27 E151 E1	E151 EN 301 407-1 V1.7.27 E151 EN 301 407-1 V2.1.17 E151 EN 301 407-3 V2.1.0				
TEST PARAMETER	COMPLIES	NOTES			
EN 301 489: Emissions					
8.2 Enclosure port of ancillary equipment (30 MHz-6 GHz)	<b>△</b>	EN 55032B: Tested			
8.3 DC power input/output ports	<b>→</b>	EN 55032/CISPR25: Tested			
8.4 AC mains power input/output ports	<b>✓</b>	Not Applicable			
8.5 Harmonic current emissions (AC mains input port)	<b>✓</b>	Not Applicable			
8.6 Voltage fluctuations and flicker (AC mains input port)	<b>7</b>	Not Applicable			
8.7 Wired network ports	<b>✓</b>	Not Applicable			
EN 301	489: Immunity				
9.2 Radio frequency electromagnetic field (80 MHz to 6 000 MHz)	<b>7</b>	61000-4-3 3V/m, 80%: Tested			
9.3 Electrostatic discharge	7	61000-4-2: Tested			
9.4 Fast transients, common mode	✓	Not Applicable (< 3m)			
9.5 Radio frequency, common mode	<b>✓</b>	Not Applicable (< 3m)			
9.6 Transients and surges in the vehicular environment	<b>V</b>	ISO 7637-2: Tested			
9.7 Voltage dips and interruptions	<b>✓</b>	Not Applicable			
9.8 Surges	✓	Not Applicable			

## EN 62479: 2010, EN 62311: 2008

TEST PARAMETER	COMPLIES	NOTES			
EN 62479, EN 62311: Health and Safety					
EN 62479 / EN 62311	7	Conf. Below Action Level			

The test results contained in this document relate only to the item(s) tested. Any electrical or mechanical modification made to the test item after the test date shall invalidate the data presented in this report. Any electrical or mechanical modification made to the test item after this test date shall require reevaluation.

Joseph Brunett, Ph.D.,

NCE# EMC-002790-NE