

Application for Certification

Model Year: 2024
Manufacturer Name: BMW

Test Group: RBMXV00.0G2X
Test Group Description: electric, BEV

Vehicle Class: EPA CARB
LDV PC

Applicable Standards: EPA CARB
FTP Standard: Tier 3 - Bin 0 ZEV
SFTP Standard: not applicable not applicable

Carlines Covered: i4 M50 Gran Coupe (19" Wheels), i4 M50 Gran Coupe (20" Wheels),
i4 xDrive40 Gran Coupe (18" Wheels), i4 xDrive40 Gran Coupe (19"
Wheels), i5 M60 xDrive Sedan (19" Wheels), i5 M60 xDrive Sedan (20"
Wheels), i5 M60 xDrive Sedan (21" Wheels), i7 xDrive60 Sedan (19"
Wheels), i7 xDrive60 Sedan (20" Wheels), i7 xDrive60 Sedan (21"
Wheels)

Test EDV:

VID	CFG	FTP depl.	HWY depl.
CL77226	00	RBMX10080433	RBMX10080434
CM55048	00	RBMX10080588	RBMX10080589
FK96493	00	NBMX10070938	NBMX10070939
FN45615	00	RBMX10080561	RBMX10080562

Test 5-Cycle Adjustment Factor:

VID	CFG	FTP	HWY	US06	SC03	Cold CO
CL77226	00	RBMX10080443	RBMX10080450	RBMX10080452	RBMX10080453	RBMX10080456
CM55048	00	RBMX10080590	RBMX10080591	RBMX10080592	RBMX10080593	RBMX10080594
FK96493	00	NBMX10070940	NBMX10070941	NBMX10070942	NBMX10070944	NBMX10070955
FN45615	00	RBMX10080563	RBMX10080564	RBMX10080565	RBMX10080566	RBMX10080567

For questions, Contact: Carlheinz Bayer, 201 / 571 - 5193

Table of Contents

Section Contents

1	Correspondence and Communications
2	Durability Group Description
3	Evaporative/Refueling Family Description
4	Durability Procedure Description
5	Test Group Description
6	Test Vehicle Description
7	Test Results
8	Statements
9	OBD System Description
10	Description of Alternate-fueled Vehicles
11	AECD descriptions
12	Descriptions of vehicles covered by certificate and test parameters
13	Projected Sales
14	Request for Certification
15	Other Information
16	Confidential information / Catalyst Loading Information
17	Attachment

1. Correspondence and Communications

- 1.1. Authorized Persons Refer to Common Section
- 1.2. Certificate Information Refer to Common Section
- 1.3. Primary certification contact:

Name: Carlheinz Bayer
Phone Number: 201 / 571 - 5193
Fax Number: 201 / 571 - 5479
E-Mail-Address: Carlheinz.Bayer@bmwna.com

2. Durability Group Description

2.1. not applicable

3. Evaporative / Refueling Family Description

not applicable

4. Durability Procedure Description

not applicable

5. Test Group Description

5.1.	Test Group Name	RBMXV00.0G2X	
5.2.	Electric vehicle system description		
5.2.1.	Electric Motor Capacity	Refer to Section 16, Confidential Information	
5.2.2.	Electric Motor Voltage	Refer to Section 16, Confidential Information	
5.2.3.	Electric Motor Type	Refer to Section 16, Confidential Information	
5.2.4.	Electric Motor Weight	Refer to Section 16, Confidential Information	
5.2.5.	Battery Capacity	Refer to Section 16, Confidential Information	
5.2.6.	Battery Voltage	Refer to Section 16, Confidential Information	
5.2.7.	Battery Type	Refer to Section 16, Confidential Information	
5.3.	Vehicle class	EPA	CARB
		LDV	PC
5.4.	Emission standards class	Tier 3 - Bin 0	ZEV
5.5.	Participation in NLEV	not applicable	
5.6.	Applicable emission standards	Refer to Summary Sheet enclosed in Section 7 of this application.	

6. Test Vehicle Description

6.1. Test Vehicle Description

VID	CFG	Carline	Model	Trans Type	Road Load CFG
CL77226	00	414	i5 M60 xDrive Sedan (21" Wheels)	A-1	44
CL77226	01	413	i5 M60 xDrive Sedan (20" Wheels)	A-1	43
CL77226	02	413	i5 M60 xDrive Sedan (20" Wheels)	A-1	42
CL77226	03	412	i5 M60 xDrive Sedan (19" Wheels)	A-1	41
CM55048	00	389	i7 xDrive60 Sedan (20" Wheels)	A-1	55
CM55048	01	390	i7 xDrive60 Sedan (19" Wheels)	A-1	54
CM55048	02	389	i7 xDrive60 Sedan (20" Wheels)	A-1	53
CM55048	03	388	i7 xDrive60 Sedan (21" Wheels)	A-1	52
CM55048	04	390	i7 xDrive60 Sedan (19" Wheels)	A-1	51
FK96493	00	367	i4 M50 Gran Coupe (20" Wheels)	A-1	33
FK96493	01	366	i4 M50 Gran Coupe (19" Wheels)	A-1	31
FK96493	02	366	i4 M50 Gran Coupe (19" Wheels)	A-1	32
FN45615	00	416	i4 xDrive40 Gran Coupe (19" Wheels)	A-1	33
FN45615	01	416	i4 xDrive40 Gran Coupe (19" Wheels)	A-1	32
FN45615	02	415	i4 xDrive40 Gran Coupe (18" Wheels)	A-1	31

For a description of the selected drive modes refer to Section 16.4

Test parameter are described in the EV-CIS vehicle information

Road Load Configuration Description

X_	means number of tire groups used for this model
31	Road Load configuration
32	Road Load configuration
33	Road Load configuration
41	Road Load configuration
42	Road Load configuration
43	Road Load configuration
44	Road Load configuration
51	Road Load configuration
52	Road Load configuration
53	Road Load configuration
54	Road Load configuration
55	Road Load configuration

For complete vehicle description, refer to Certification Summary Information Report Sheet, enclosed in Section 7 of this application.

Selection of vehicles carried out according to 40 CFR §86.1828-01(a).

7. Test results (Cover page)

Certification Summary Information Report submitted to EV-CIS

see attachment:
CSI-RBMXV00.0G2X

8. Statements**8.1 Emission Testing Waiver Statements**

Electric vehicle emission compliance statement

According to 40 CFR §86.1829-15 (f) we state as the manufacturer, consistent with good engineering judgment, that all vehicles included in this application comply with the applicable testing requirements of 40 CFR part 86, subpart S.

8.2 Compliance Statements

not applicable

9. OBD System Description

not applicable

10. Description of Alternate-fueled Vehicles

not applicable

11. Auxiliary Emission Control Devices (AECD) descriptions

Confidential Information: Please refer to uploaded AECD document in EV-CIS and eFile

12. Description of vehicles and test parameters covered by certificate

12.1. Vehicle Parameters

12.1.1. Vehicle Information

Model Name	Carline	Trans	Vehicle Class	VCW [lbs]	ETW [lbs]	GVW [lbs]
i4 M50 Gran Coupe (19" Wheels)	366	A (A)	LDV / PC	5018	5250	6030
i4 M50 Gran Coupe (20" Wheels)	367	A (A)	LDV / PC	5018	5250	6030
i4 xDrive40 Gran Coupe (18" Wheels)	415	A (A)	LDV / PC	4696	5250	6030
i4 xDrive40 Gran Coupe (19" Wheels)	416	A (A)	LDV / PC	4696	5250	6030
i5 M60 xDrive Sedan (19" Wheels)	412	A (A)	LDV / PC	5247	5500	6404
i5 M60 xDrive Sedan (20" Wheels)	413	A (A)	LDV / PC	5247	5500	6404
i5 M60 xDrive Sedan (21" Wheels)	414	A (A)	LDV / PC	5247	5500	6404
i7 xDrive60 Sedan (19" Wheels)	390	A (A)	LDV / PC	5975	6500	7165
i7 xDrive60 Sedan (20" Wheels)	389	A (A)	LDV / PC	5975	6500	7165
i7 xDrive60 Sedan (21" Wheels)	388	A (A)	LDV / PC	5975	6500	7165

12.1.2. Drive Train Information

Model Name	Carline	Trans	Gear	Engine Code	Axle ratio		E-engine power (peak) [kW/hp]			Electric Motor max. Torque [Nm]	
					front	rear	front	rear	Sys	front	rear
i4 M50 Gran Coupe (19" Wheels)	366	A (A)	1	XE2A02N0G26X	8.77	9.37	190 / 255	230 / 308	400 / 536	365	430
i4 M50 Gran Coupe (20" Wheels)	367	A (A)	1	XE2A02N0G26X	8.77	9.37	190 / 255	230 / 308	400 / 536	365	430
i4 xDrive40 Gran Coupe (18" Wheels)	415	A (A)	1	XE2A02N0G26X	8.77	9.37	190 / 255	230 / 308	295 / 396	365	430
i4 xDrive40 Gran Coupe (19" Wheels)	416	A (A)	1	XE2A02N0G26X	8.77	9.37	190 / 255	230 / 308	295 / 396	365	430
i5 M60 xDrive Sedan (19" Wheels)	412	A (A)	1	XE2A02N0G60X	8.77	9.37	192 / 257	250 / 335	442 / 593	365	430
i5 M60 xDrive Sedan (20" Wheels)	413	A (A)	1	XE2A02N0G60X	8.77	9.37	192 / 257	250 / 335	442 / 593	365	430
i5 M60 xDrive Sedan (21" Wheels)	414	A (A)	1	XE2A02N0G60X	8.77	9.37	192 / 257	250 / 335	442 / 593	365	430
i7 xDrive60 Sedan (19" Wheels)	390	A (A)	1	XE2A02N0G70X	8.77	9.37	190 / 255	230 / 308	400 / 536	365	380
i7 xDrive60 Sedan (20" Wheels)	389	A (A)	1	XE2A02N0G70X	8.77	9.37	190 / 255	230 / 308	400 / 536	365	380
i7 xDrive60 Sedan (21" Wheels)	388	A (A)	1	XE2A02N0G70X	8.77	9.37	190 / 255	230 / 308	400 / 536	365	380

12.1.3. Tire Information

Modell	Carline	Trans	Road Load CFG	Tire Front	Tire Rear
i4 M50 Gran Coupe (19" Wheels)	366	A	31	245/40 R19 98Y STD	255/40 R19 100Y STD
			32	245/40 R19 98H M+S STD	255/40 R19 100H M+S STD
i4 M50 Gran Coupe (20" Wheels)	367	A	33	255/35 R20 97Y STD	285/30 R20 99Y STD
i7 xDrive60 Sedan (21" Wheels)	388	A	52	255/40 R21 102Y STD	285/35 R21 105Y STD
i7 xDrive60 Sedan (20" Wheels)	389	A	53	255/45 R20 105Y STD	285/40 R20 108Y STD
			55	255/45 R20 105H M+S STD	285/40 R20 108H M+S STD
i7 xDrive60 Sedan (19" Wheels)	390	A	51	245/50 R19 105Y STD	245/50 R19 105Y STD
			54	245/50 R19 105H M+S STD	245/50 R19 105H M+S STD
i5 M60 xDrive Sedan	412	A	41	245/45 R19 102Y	275/40 R19 105Y

(19" Wheels)					
i5 M60 xDrive Sedan (20" Wheels)	413	A	42	245/40 R20 99Y STD	275/35 R20 102Y STD
			43	245/40 R20 99H M+S	275/35 R20 102H M+S
i5 M60 xDrive Sedan (21" Wheels)	414	A	44	255/35 R21 101Y STD	285/30 R21 103Y STD
i4 xDrive40 Gran Coupe (18" Wheels)	415	A	31	225/50 R18 99W	225/50 R18 99W
i4 xDrive40 Gran Coupe (19" Wheels)	416	A	32	245/40 R19 98Y STD	255/40 R19 100Y STD
			33	245/40 R19 98H M+S STD	255/40 R19 100H M+S STD

M+S indicates an all season tire and not a dedicated winter tire

RSC indicates a tire with run flat capability

STD indicates a tire without run flat capability

12.1.4. Sales area

CA, FA

12.2. Test Parameters

12.2.1. Engine Starting Procedures

Refer to Common Section

12.2.2. Shift Schedules

not applicable

12.2.3. Dynamometer loading information

12.2.3.1. Sort of dynamometer

all wheel roll

12.2.3.2. Electric Dynamometer Coefficients and Tires

Modell	Carline	Trans	Road Load CFG	N/V	A [lbf]	B [lbf/mph]	C [lbf/mph ²]	TRLHP	a [lbf]	b [lbf/mph]	c [lbf/mph ²]	Grill Shutter
i4 M50 Gran Coupe (19" Wheels)	366	A	31	120	42.8	0.119	0.01635	12.0	2.4	0.139	0.01435	Yes
i4 M50 Gran Coupe (19" Wheels)	366	A	32	120	47.0	0.131	0.01639	12.6	11.4	0.006	0.01557	Yes
i4 M50 Gran Coupe (20" Wheels)	367	A	33	120	59.5	0.167	0.01844	15.2	23.8	0.037	0.01777	Yes
i4 xDrive40 Gran Coupe (18" Wheels)	415	A	31	120.6	35.5	0.092	0.01559	10.5	1.0	0.033	0.01490	Yes
i4 xDrive40 Gran Coupe (19" Wheels)	416	A	32	120.6	39.9	0.104	0.01598	11.3	4.0	0.021	0.01598	Yes
i4 xDrive40 Gran Coupe (19" Wheels)	416	A	33	120.6	44.0	0.116	0.01609	12.0	10.3	0.075	0.01483	Yes
i5 M60 xDrive Sedan (19" Wheels)	412	A	41	117.2	40.1	0.156	0.01651	11.9	3.9	-0.011	0.01598	Yes
i5 M60 xDrive Sedan (20" Wheels)	413	A	42	117.2	38.9	0.153	0.01866	12.4	2.8	0.046	0.01831	Yes
i5 M60 xDrive Sedan (20" Wheels)	413	A	43	117.2	42.2	0.162	0.01815	12.8	5.8	-0.046	0.01806	Yes
i5 M60 xDrive Sedan (21" Wheels)	414	A	44	117.2	44.9	0.171	0.01818	13.2	8.2	-0.060	0.01831	Yes
i7 xDrive60 Sedan (19" Wheels)	390	A	51	113	39.7	0.196	0.01678	12.2	not applicable	not applicable	not applicable	Yes
i7 xDrive60 Sedan (19" Wheels)	390	A	54	113	42.4	0.204	0.01710	12.7	-1.3	0.146	0.01569	Yes
i7 xDrive60 Sedan (20" Wheels)	389	A	53	113	42.6	0.202	0.01752	12.9	1.5	0.010	0.01733	Yes
i7 xDrive60 Sedan (20" Wheels)	389	A	55	113	46.6	0.213	0.01738	13.4	7.7	-0.110	0.01885	Yes
i7 xDrive60 Sedan (21" Wheels)	388	A	52	113	41.1	0.198	0.01766	12.7	-0.3	-0.009	0.01767	Yes

highest NV ratio of all axes

Road Load Configuration Description

X_ means number of tire groups used for this model
 31 Road Load configuration
 32 Road Load configuration

33	Road Load configuration
41	Road Load configuration
42	Road Load configuration
43	Road Load configuration
44	Road Load configuration
51	Road Load configuration
52	Road Load configuration
53	Road Load configuration
54	Road Load configuration
55	Road Load configuration

13. Projected Sales

Refer to Common Section for Model Year 2024

14. Request for certification

We herewith apply for the Federal Certificate of conformity and the ARB Executive Order for the Test Group RBMXV00.0G2X.

The mentioned Test Group complies with all applicable regulations contained in 40 Code of Federal Regulations Part 86 and the California Code of Regulations.



Hockgeiger Elmar

15. Other Information

- 15.1. Label according to 40 CFR § 86.1807-01 and according to California Motor Vehicle Emission Control Specifications.
Refer to Section 17, Attachment

Carline	Model Name	VECI Label
366	i4 M50 Gran Coupe (19" Wheels)	see attachment: 03VE-XE2E-04
367	i4 M50 Gran Coupe (20" Wheels)	
388	i7 xDrive60 Sedan (21" Wheels)	
389	i7 xDrive60 Sedan (20" Wheels)	
390	i7 xDrive60 Sedan (19" Wheels)	
412	i5 M60 xDrive Sedan (19" Wheels)	
413	i5 M60 xDrive Sedan (20" Wheels)	
414	i5 M60 xDrive Sedan (21" Wheels)	
415	i4 xDrive40 Gran Coupe (18" Wheels)	
416	i4 xDrive40 Gran Coupe (19" Wheels)	

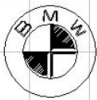
- 15.2. 5-Cycle Adjustment Factor Calculation according to SAE J1634, Appendix B, Option 2
Refer to Section 17, Attachment

Carline	Model Name	5-Cycle Adjustment Factor
366	i4 M50 Gran Coupe (19" Wheels)	see attachment: 03AJ-0G2X-01
367	i4 M50 Gran Coupe (20" Wheels)	
388	i7 xDrive60 Sedan (21" Wheels)	see attachment: 03AJ-0G2X-04
389	i7 xDrive60 Sedan (20" Wheels)	
390	i7 xDrive60 Sedan (19" Wheels)	
412	i5 M60 xDrive Sedan (19" Wheels)	see attachment: 03AJ-0G2X-03
413	i5 M60 xDrive Sedan (20" Wheels)	
414	i5 M60 xDrive Sedan (21" Wheels)	
415	i4 xDrive40 Gran Coupe (18" Wheels)	see attachment: 03AJ-0G2X-02
416	i4 xDrive40 Gran Coupe (19" Wheels)	

17. Attachment

- | | | |
|------|--|--|
| 17.1 | VECI Label | see attachment: 03VE-XE2E-04 |
| 17.2 | Certification Summary Information Report | see attachment:
CSI-RBMXV00.0G2X |
| 17.3 | 5-Cycle Calculation | see attachment: 03AJ-0G2X-01
see attachment: 03AJ-0G2X-02
see attachment: 03AJ-0G2X-03
see attachment: 03AJ-0G2X-04 |

DRAFT - Inverted Representation

		Bayerische Motoren Werke AG									
		VEHICLE EMISSION CONTROL INFORMATION									
Conforms to regulations:		MY 2024									
U.S. EPA: Tier 3 - Bin 0 LDV		Fuel: electricity Li+									
California: LEV III - ZEV PC		Fuel: electricity Li+									
No adjustments needed.		No adjustments needed.									
Group: RBMXV00.0G2X						8 867 217					

Original representation

Base: Black
Characters: Silver

Certification Summary Information Report

Manufacturer	BMW	Manufacturer Code	BMX
Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--
Certificate Number	--	CARB Executive Order #	--
Certificate Issue Date	--	Certificate Revision Date	--
Certificate Effective Date	--	Conditional Certificate	--
CSI Revision #	--	CSI Submission/Revision Date	05/15/2023 09:39:26 AM
Model Year	2024		

Test Group Information

CSI Type	Update for Correction	Running Change Reference Number	--
GHG Exempt Status	Not Exempt		

Drive Sources and Fuel(s)

Drive Source #1: Electric Motor

Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator
Electricity	--	--

Hybrid Indicator	No		
Multiple Fuel Storage	--	Rechargeable Energy Storage System Indicator	Yes
Multiple Fuel Combustion	--	Off-board Charge Capable Indicator	Yes
Fuel Cell Indicator	No	EPA Vehicle Class	LDV
Federal Clean Fuel Vehicle	Yes	Federal Clean Fuel Vehicle Standard	ZEV
Federal Clean Fuel Vehicle ILEV	No	California Partial Zero Emissions Vehicle Indicator	--
Durability Group Name	RBMXEEVNNBEV	Durability Group Equivalency Factor	1
Reduced Fee Test Group	No	Certification Region Code(s)	FA, CA
Complies with HD GHG 2b/3 regulations?	No		
Introduction into Commerce Date	--	CAP2000 Conditional Certificate?	N/A
Independent Commercial Importer?	--	Alternative Fuel Converter Certificate?	--
SFTP Federal Composite Compliance Identifier	Not Applicable	SFTP Tier 2 Composite CO Option	No
SFTP LEV-III Composite Compliance Indicator	No		
OBD Compliance Type	CARB	OBD Demonstration Vehicle Test Group	RBMXV00.0G2X
Test Group OBD Compliance Level	Full - no deficiencies	Number of Test Group OBD Deficiencies	0
OBD Deficiencies Comments	--		
Mfr Test Group Comments	--		
Mfr Exhaust / Evap Standards Comments	--		

Certification Summary Information Report

Test Group		RBMXV00.0G2X		Evaporative/Refueling Family		--	
Models Covered by this Certificate							
Carline Manufacturer	Division	Carline	Certification Region Code(s)	Drive System	Trans - Type	- # of Gears	Trans - Lockup
BMW	1 - BMW	366 - i4 M50 Gran Coupe (19" Wheels)	California + CAA Section 177 states	4-Wheel Drive	Automatic	1	No
BMW	1 - BMW	389 - i7 xDrive60 Sedan (20" Wheels)	California + CAA Section 177 states	4-Wheel Drive	Automatic	1	No
BMW	1 - BMW	416 - i4 xDrive40 Gran Coupe (19" Wheels)	California + CAA Section 177 states	4-Wheel Drive	Automatic	1	No
BMW	1 - BMW	413 - i5 M60 xDrive Sedan (20" Wheels)	California + CAA Section 177 states	4-Wheel Drive	Automatic	1	No
BMW	1 - BMW	413 - i5 M60 xDrive Sedan (20" Wheels)	Federal	4-Wheel Drive	Automatic	1	No
BMW	1 - BMW	416 - i4 xDrive40 Gran Coupe (19" Wheels)	Federal	4-Wheel Drive	Automatic	1	No
BMW	1 - BMW	390 - i7 xDrive60 Sedan (19" Wheels)	California + CAA Section 177 states	4-Wheel Drive	Automatic	1	No
BMW	1 - BMW	367 - i4 M50 Gran Coupe (20" Wheels)	Federal	4-Wheel Drive	Automatic	1	No
BMW	1 - BMW	414 - i5 M60 xDrive Sedan (21" Wheels)	Federal	4-Wheel Drive	Automatic	1	No
BMW	1 - BMW	415 - i4 xDrive40 Gran Coupe (18" Wheels)	Federal	4-Wheel Drive	Automatic	1	No
BMW	1 - BMW	412 - i5 M60 xDrive Sedan (19" Wheels)	Federal	4-Wheel Drive	Automatic	1	No
BMW	1 - BMW	415 - i4 xDrive40 Gran Coupe (18" Wheels)	California + CAA Section 177 states	4-Wheel Drive	Automatic	1	No
BMW	1 - BMW	414 - i5 M60 xDrive Sedan (21" Wheels)	California + CAA Section 177 states	4-Wheel Drive	Automatic	1	No
BMW	1 - BMW	412 - i5 M60 xDrive Sedan (19" Wheels)	California + CAA Section 177 states	4-Wheel Drive	Automatic	1	No
BMW	1 - BMW	389 - i7 xDrive60 Sedan (20" Wheels)	Federal	4-Wheel Drive	Automatic	1	No
BMW	1 - BMW	367 - i4 M50 Gran Coupe (20" Wheels)	California + CAA Section 177 states	4-Wheel Drive	Automatic	1	No
BMW	1 - BMW	390 - i7 xDrive60 Sedan (19" Wheels)	Federal	4-Wheel Drive	Automatic	1	No
BMW	1 - BMW	388 - i7 xDrive60 Sedan (21" Wheels)	Federal	4-Wheel Drive	Automatic	1	No
BMW	1 - BMW	366 - i4 M50 Gran Coupe (19" Wheels)	Federal	4-Wheel Drive	Automatic	1	No
BMW	1 - BMW	388 - i7 xDrive60 Sedan (21" Wheels)	California + CAA Section 177 states	4-Wheel Drive	Automatic	1	No

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--							
Engine Description										
Hybrid Type	--	Hybrid Description	--							
Engine Type	--	Mfr Engine Description	--							
Engine Block Arrangement	--	Mfr Engine Block Arrangement Description	--							
Camless Valvetrain Indicator	--	Oil Viscosity/Classification	--							
Number of Cylinders/Rotors	--	Mechanically Variable Compression Ratio Indicator	--							
After Treatment Device(s) (ATD)										
Mfr After Treatment Device (ATD) Comments	--									
Direct Ozone Reduction (DOR) Device	--									
Mfr Emission Control Device Comments	--									
Official Test Numbers										
Test Group Fuel	FTP	US06	SC03	Cold CO	Highway	EPA City Litmus Value	EPA City Litmus Threshold	EPA Highway Litmus Value	EPA Highway Litmus Threshold	CREE Weighting Factor
Electricity	--	--	--	--	--	--	--	--	--	--
Official Charge Depleting Test Numbers										
Test Group Fuel	UDDS	Highway								
Electricity	RBMX10080561	RBMX10080562								
Electricity	NBMX10070938	NBMX10070939								
Electricity	RBMX10080588	RBMX10080589								
Electricity	RBMX10080433	RBMX10080434								

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--
Hybrid Electric Vehicle And Fuel Cell Information			
Rechargeable Energy Storage System	Battery(s)	Rechargeable Energy Storage System, if Other	--
Battery Type	Lithium Ion	Number of Battery Packs	9
Total Voltage of Battery Packs	376	Battery Energy Capacity	280.8
Battery Specific Energy	154	Battery Charger Type	On-Board
Number of Capacitors	--	Capacitor Rating (In Farads)	--
Mfr Capacitor Comments	--		
Hydraulic System Description	--		
Regenerative Braking Type	Electrical Regen Brake		
Regenerative Braking Source	Both	Driver Controlled Regenerative Braking	Yes
Mfr Regenerative Braking Description	--		
Drive Motor(s)/Generator(s)	2		
Motor/Generator Type 1	EESM	Rated Motor/Generator Power	190
Motor/Generator Type 2	EESM	Rated Motor/Generator Power	230
Mfr Fuel Cell Description	--		
Fuel Cell On-Board H2 Storage Capacity (kg)	--	Usable H2 Fill Capacity (kg)	--
Mfr Hybrid Electric/ Electric Vehicle Comments	i4 M50 Gran Coupe: Number of Battery Packs 7, Battery Energy Capacity 210,6 Ah, Total Voltage of Battery Pack(s) 398,5 V, Battery Specific Energy 149 Wh/kg, Motor/Generator Type 1: EESM 190 kW, Motor/Generator Type 2: EESM 230 kW; i4 xDrive40 Gran Coupe: Number of Battery Packs 7, Battery Energy Capacity 210,6 Ah, Total Voltage of Battery Pack(s) 398,5 V, Battery Specific Energy 149 Wh/kg, Motor/Generator Type 1: EESM 190 kW, Motor/Generator Type 2: EESM 230 kW; i5 M60 xDrive Sedan: Number of Battery Packs 7, Battery Energy Capacity 210,6 Ah, Total Voltage of Battery Pack(s) 398,5 V, Battery Specific Energy 149 Wh/kg, Motor/Generator Type 1: EESM 192 kW, Motor/Generator Type 2: EESM 250 kW; i7 xDrive60 Sedan: Number of Battery Packs 9, Battery Energy Capacity 280,8 Ah, Total Voltage of Battery Pack(s) 376,4 V, Battery Specific Energy 154 Wh/kg, Motor/Generator Type 1: EESM 190 kW, Motor/Generator Type 2: EESM 230 kW; Motor/Generator Type: externally excited synchronous machine (EESM)		

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--					
Emission Data Vehicle Information								
Vehicle ID / Configuration	CL77226 / 0	Manufacturer Vehicle Configuration Number	0					
Original Test Group Name	RBMXV00.0G2X	Original Evaporative/Refueling Family	--					
Original Test Vehicle Model Year	2024							
Vehicle Model								
Represented Test Vehicle Make	BMW	Represented Test Vehicle Model	i5 M60 xDrive Sedan (21" Wheels)					
Leak Family Details								
Leak Family Identifier	--	Leak Family Name	--					
Drive Sources and Fuel System Details								
	<table border="1"> <thead> <tr> <th>Drive Source and Fuel#</th> <th>Drive Source</th> <th>Fuel</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Electric Motor</td> <td>Electricity</td> </tr> </tbody> </table>	Drive Source and Fuel#	Drive Source	Fuel	1	Electric Motor	Electricity	
Drive Source and Fuel#	Drive Source	Fuel						
1	Electric Motor	Electricity						
Hybrid Indicator	No							
Multiple Fuel Storage	--	Multiple Fuel Combustion	--					
Fuel Cell Indicator	No	Rechargeable Energy Storage System Indicator	Yes					
Rechargeable Energy Storage System	Battery(s)	Rechargeable Energy Storage System, if 'Other'	--					
Off-board charge Capable Indicator	Yes							
Odometer Correction -- Initial	0	Odometer Correction Factor	1					
Odometer Correction Sign	+ = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles							
Odometer Correction Units	Miles							
Engine Code	XE2A02N0G60X	Rated Horsepower	590					
Displacement (liters)	0.001							
Air Aspiration Method	Naturally Aspirated	Air Aspiration Method, if 'Other'						
Number of Air Aspiration Devices	--	Air Aspiration Device Configuration	--					
Charge Air Cooler Type	--	Drive Mode While Testing	All Wheel Drive					
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)					
Curb Weight (lbs)	5247	Equivalent Test Weight (pounds)	5500					
GVWR (lbs)	6404	N/V Ratio	117.2					
Axle Ratio	1							
Transmission Type	Automatic	# of Transmission Gears	1					
Transmission Lockup	No	Creep Gear	No					

Certification Summary Information Report

Test Group		RBMXV00.0G2X			Evaporative/Refueling Family		--	
Dynamometer Coefficients:								
Target Coefficients				Set Coefficients			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients	
Coefficient Category	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)		
City/Highway/Evap	44.9	0.171	0.01818	8.2	-0.06	0.01831	13.2	
Cold CO	49.9	0.191	0.0202	5	0.038	0.0202	N/A	
US06	44.9	0.171	0.01818	8.2	-0.06	0.01831	N/A	
Emission Control Device Comments		--						
Manufacturer Test Vehicle Comments		vi_CL77226_00_i5 M60 xDrive Sedan (21" Wheels)_A_ETW-5500_RG44_default mode_D; Axle Ratio front: 8.774, Axle Ratio rear: 9.374						

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--
Test #	RBMX10080443	Test Procedure	2 - CVS 75 and later (w/o can. load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	03/14/2023	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	Mfr. Assigned
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4120	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	99.99	--
DT-EER (Drive Trace Energy Economy Rating)	99.99	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	99.99	--
MFR FE (Manufacturer Fuel Economy)	99.99	99.99
NOX (Nitrogen Oxide)	0	--
NMOG (Non-methane organic gases)	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	0	0

Manufacturer Test Comments

03_FTP4Bag_CL77226_00_i5 M60 xDrive Sedan (21 Wheels)_A_ETW-5500_RG44_default mode_D. DC mi/kWh @ 50% SoC Bag 1: 3.57295; Bag 2: 3.93607; Bag 3: 3,71631; Bag 4: 4.00407; DC energy consumption Phase 1 = 279.9 Wh/mi; Phase 2 = 254.1 Wh/mi; Phase 3 = 269.1 Wh/mi; Phase 4 = 249,7 Wh/mi

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--
Test #	RBMX10080450	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	03/14/2023	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	Mfr. Assigned
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4120	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	99.99	--
DT-EER (Drive Trace Energy Economy Rating)	99.99	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	99.99	--
MFR FE (Manufacturer Fuel Economy)	99.99	99.99
NOX (Nitrogen Oxide)	0	--
NMOG (Non-methane organic gases)	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	0	0

Manufacturer Test Comments

04_HWFET_CL77226_00_i5 M60 xDrive Sedan (21 Wheels)_A_ETW-5500_RG44_default mode_D. DC mi/kWh @ 50% SoC 3.96081; DC energy consumption = 252.5 Wh/mi

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--
Test #	RBMX10080452	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	03/14/2023	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	Mfr. Assigned
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4120	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	99.99	--
DT-EER (Drive Trace Energy Economy Rating)	99.99	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	99.99	--
MFR FE (Manufacturer Fuel Economy)	99.99	99.99
NOX (Nitrogen Oxide)	0	--
NMOG (Non-methane organic gases)	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	0	--

Manufacturer Test Comments

05_US06_CL77226_00_i5 M60 xDrive Sedan (21 Wheels)_A_ETW-5500_RG44_default mode_D. DC mi/kWh @ 50% SoC US06 City: 2.69075; US06 HWY: 3.15794; DC energy consumption Phase 1 (Highway) = 316.7 Wh/mi; Phase 2 (City) = 371.6 Wh/mi

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--
Test #	RBMX10080453	Test Procedure	95 - SC03
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	03/20/2023	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	Mfr. Assigned
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4967	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	99.99	--
DT-EER (Drive Trace Energy Economy Rating)	99.99	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	99.99	--
MFR FE (Manufacturer Fuel Economy)	99.99	99.99
NOX (Nitrogen Oxide)	0	--
NMOG (Non-methane organic gases)	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	0	--

Manufacturer Test Comments

06_SC03_CL77226_00_i5 M60 xDrive Sedan (21 Wheels)_A_ETW-5500_RG44_default mode_D. DC mi/kWh @ 50% SoC 2.35681; DC energy consumption = 424.3 Wh/mi

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--																								
Test #	RBMX10080433	Test Procedure	81 - Charge Depleting UDDS																								
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity																								
Test Date	03/14/2023	Fuel	Electricity																								
Fuel Batch ID	--	Fuel Calibration Number	--																								
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Assigned																								
Verify Test Lab ID	EETZ Emissions Lab																										
E10 Evaporative Test Measurement Method	--																										
Test Start Odometer Reading	4120	Odometer Units	K																								
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--																								
State of Charge Delta	Yes																										
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes																								
PHEV/EV Charge Depleting Test Information																											
Recharge Event Voltage	230	Recharge Event Energy (kiloWatt-hours)	95.942																								
Charge Depleting Range (Calculated miles)	339.23	Charge Depleting Range (Actual miles)	339.23																								
All Electric Range Unadjusted (miles)	--	Derived 5-Cycle Coefficient Model Year	--																								
Equivalent All Electric Range (miles)	339.23																										
Number of Charge Depleting Bags/Phases Conducted	1	Transition Bag/Phase Number	--																								
Charge Depleting Bag/Phase																											
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Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result																									
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4	Drive Trace Inertia Work Ratio Rating	99.99																									
5	Manufacturer Fuel Economy	119.17																									
6	System End State of Charge Watt-hours	84.541																									
7	System Start State of Charge Watt-hours	0																									
Manufacturer Test Comments	01_FTP Depleting_CL77226_00_i5 M60 xDrive Sedan (21" Wheels)_A_ETW-5500_RG44_default mode_D. End SOC is 84541 Wh (system error limited to 4 digits) for full discharge. BEV - Multi Cycle testing was used according to SAE J1634 (2017-07); Calculated UDDS values; MFR FE is in units of MPGe (unadjusted, unrounded); Result is also 28.28 kWh/100 mi (unadjusted, unrounded). DC energy consumption UDDS1 = 265.8 Wh/mi; UDDS2 = 255.7 Wh/mi; UDDS3 = 243.3 Wh/mi; UDDS4 = 247.5 Wh/mi; UDDS weighted = 249.2 Wh/mi; UDDS1 DC discharge energy = 1969.9 Wh; MCT UBE energy = 84541 Wh.																										

Certification Summary Information Report

Test Group		RBMXV00.0G2X				Evaporative/Refueling Family				--		
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	120,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	--	1	0	--	--
CA	120,000 miles	California ZEV	CREE	0	--	--	--	--	1	0	--	--

Certification Summary Information Report

Test Group	RBMXV00.0G2X		Evaporative/Refueling Family	--																								
Test #	RBMX10080434		Test Procedure	84 - Charge Depleting Highway																								
Exhaust Test # for this Evap Test	--		Test Fuel Type	62 - Electricity																								
Test Date	03/14/2023		Fuel	Electricity																								
Fuel Batch ID	--		Fuel Calibration Number	--																								
Vehicle Class	LDV/Passenger Car		DF Type	Mfr. Assigned																								
Verify Test Lab ID	EETZ Emissions Lab																											
E10 Evaporative Test Measurement Method	--																											
Test Start Odometer Reading	4120		Odometer Units	K																								
4WD Test Dyno	Yes		Diesel Adjustment Factor Usage	--																								
State of Charge Delta	Yes																											
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)		Road Speed Fan Usage	Yes																								
PHEV/EV Charge Depleting Test Information																												
Recharge Event Voltage	230		Recharge Event Energy (kiloWatt-hours)	95.942																								
Charge Depleting Range (Calculated miles)	344.34		Charge Depleting Range (Actual miles)	344.34																								
All Electric Range Unadjusted (miles)	--		Derived 5-Cycle Coefficient Model Year	--																								
Equivalent All Electric Range (miles)	344.34																											
Number of Charge Depleting Bags/Phases Conducted	1		Transition Bag/Phase Number	--																								
Charge Depleting Bag/Phase																												
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Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result																										
1	Carbon-Related Exhaust Emissions	0																										
2	Drive Trace Absolute Speed Change Rating	99.99																										
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5	Manufacturer Fuel Economy	120.97																										
6	System End State of Charge Watt-hours	84.541																										
7	System Start State of Charge Watt-hours	0																										
Manufacturer Test Comments																												
02_HWFET Depleting_CL77226_00_i5 M60 xDrive Sedan (21 Wheels)_A_ETW-5500_RG44_default mode_D End SOC is 84541 Wh (system error limited to 4 digits) for full discharge. BEV - Multi Cycle testing was used according to SAE J1634 (2017-07); Calculated HWY values; MFR FE is in units of MPGe (unadjusted, unrounded); Result is also 27.86 kWh/100 mi (unadjusted, unrounded) DC energy consumption HWFE1 = 249.4 Wh/mi; HWFE2 = 241.7 Wh/mi; HWFE average = 245.6 Wh/mi																												
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail																
Fed	120,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	--	1	0	--	--																
CA	120,000 miles	California ZEV	CREE	0	--	--	--	--	1	0	--	--																

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--																																							
Test #	RBMX10080456	Test Procedure	86 - Charge Depleting 20 Degree F FTP																																							
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity																																							
Test Date	04/13/2023	Fuel	N/A																																							
Fuel Batch ID	--	Fuel Calibration Number	--																																							
Vehicle Class	N/A	DF Type	Mfr. Assigned																																							
Verify Test Lab ID	EETZ Emissions Lab																																									
E10 Evaporative Test Measurement Method	--																																									
Test Start Odometer Reading	6214	Odometer Units	K																																							
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--																																							
State of Charge Delta	Yes																																									
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes																																							
PHEV/EV Charge Depleting Test Information																																										
Recharge Event Voltage	230	Recharge Event Energy (kiloWatt-hours)	99.999																																							
Charge Depleting Range (Calculated miles)	224.6	Charge Depleting Range (Actual miles)	224.6																																							
All Electric Range Unadjusted (miles)	--	Derived 5-Cycle Coefficient Model Year	--																																							
Equivalent All Electric Range (miles)	224.6																																									
Number of Charge Depleting Bags/Phases Conducted	1	Transition Bag/Phase Number	--																																							
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Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result																																								
1	Carbon Monoxide	0																																								
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Manufacturer Test Comments																																										
07_FTPCOLD_CL77226_00_i5 M60 xDrive Sedan (21 Wheels)_A_ETW-5500_RG44_default mode_D. End SOC is 77891 Wh (system error limited to 4 digits) for full discharge. Recharge Energy not needed for DC 5-cycle calculation. DC mi/kWh Bag 1: 1.72656; Bag 3: 2.69565; Avg.: 2.88355 (of 32 FTP72 cycles); DC energy consumption Phase 1 = 579.2 Wh/mi; Phase 3 = 371.0 Wh/mi; Total charge depleting energy consumption = 346.8 Wh/mi																																										

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--						
Emission Data Vehicle Information									
Vehicle ID / Configuration	CM55048 / 0	Manufacturer Vehicle Configuration Number	0						
Original Test Group Name	RBMXV00.0G2X	Original Evaporative/Refueling Family	--						
Original Test Vehicle Model Year	2024								
Vehicle Model									
Represented Test Vehicle Make	BMW	Represented Test Vehicle Model	i7 xDrive60 Sedan (20" Wheels)						
Leak Family Details									
Leak Family Identifier	--	Leak Family Name	--						
Drive Sources and Fuel System Details									
	<table border="1"> <thead> <tr> <th>Drive Source and Fuel#</th><th>Drive Source</th><th>Fuel</th></tr> </thead> <tbody> <tr> <td>1</td><td>Electric Motor</td><td>Electricity</td></tr> </tbody> </table>	Drive Source and Fuel#	Drive Source	Fuel	1	Electric Motor	Electricity		
Drive Source and Fuel#	Drive Source	Fuel							
1	Electric Motor	Electricity							
Hybrid Indicator	No								
Multiple Fuel Storage	--	Multiple Fuel Combustion	--						
Fuel Cell Indicator	No	Rechargeable Energy Storage System Indicator	Yes						
Rechargeable Energy Storage System	Battery(s)	Rechargeable Energy Storage System, if 'Other'	--						
Off-board charge Capable Indicator	Yes								
Odometer Correction -- Initial	0	Odometer Correction Factor	1						
Odometer Correction Sign	+ = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles								
Odometer Correction Units	Miles								
Engine Code	XE2A02N0G70X	Rated Horsepower	536						
Displacement (liters)	0.001								
Air Aspiration Method	Naturally Aspirated	Air Aspiration Method, if 'Other'							
Number of Air Aspiration Devices	--	Air Aspiration Device Configuration	--						
Charge Air Cooler Type	--	Drive Mode While Testing	All Wheel Drive						
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)						
Curb Weight (lbs)	5975	Equivalent Test Weight (pounds)	6500						
GVWR (lbs)	7165	N/V Ratio	113						
Axle Ratio	1								
Transmission Type	Automatic	# of Transmission Gears	1						
Transmission Lockup	No	Creep Gear	No						

Certification Summary Information Report

Test Group	RBMXV00.0G2X			Evaporative/Refueling Family			--
Dynamometer Coefficients:							
Target Coefficients				Set Coefficients			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
Coefficient Category	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	
City/Highway/Evap	46.6	0.213	0.01738	7.7	-0.11	0.01885	13.4
Cold CO	51.8	0.237	0.01931	-67.8	0.392	0.03024	N/A
US06	46.6	0.213	0.01738	7.7	-0.11	0.01885	N/A
Emission Control Device Comments	--						
Manufacturer Test Vehicle Comments	vi_CM55048_00_i7 xDrive60 Sedan (20" Wheels)_A_ETW-6500_RG55_default mode_D; Axle Ratio front: 8.774, Axle Ratio rear: 9.374						

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--
Test #	RBMX10080590	Test Procedure	2 - CVS 75 and later (w/o can. load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	04/04/2023	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	Mfr. Assigned
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4547	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	99.99	--
DT-EER (Drive Trace Energy Economy Rating)	99.99	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	99.99	--
MFR FE (Manufacturer Fuel Economy)	99.99	99.99
NOX (Nitrogen Oxide)	0	--
NMOG (Non-methane organic gases)	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	0	0

Manufacturer Test Comments

03_FTP4Bag_CM55048_00_i7 xDrive60 Sedan (20" Wheels)_A_ETW-6500_RG55_default mode_D. DC mi/kWh @ 50% SoC Bag 1: 3.46658; Bag 2: 3.63819; Bag 3: 3.58089; Bag 4: 3.73368; DC energy consumption Phase 1 = 288.5 Wh/mi; Phase 2 = 274.9 Wh/mi; Phase 3 = 279.3 Wh/mi; Phase 4 = 267.8 Wh/mi

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--
Test #	RBMX10080591	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	04/04/2023	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	Mfr. Assigned
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4547	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	99.99	--
DT-EER (Drive Trace Energy Economy Rating)	99.99	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	99.99	--
MFR FE (Manufacturer Fuel Economy)	99.99	99.99
NOX (Nitrogen Oxide)	0	--
NMOG (Non-methane organic gases)	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	0	0

Manufacturer Test Comments

04_HWFET_CM55048_00_i7 xDrive60 Sedan (20" Wheels)_A_ETW-6500_RG55_default mode_D. DC mi/kWh @ 50% SoC 3.95090; DC energy consumption = 253.1 Wh/mi

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--
Test #	RBMX10080592	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	04/04/2023	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	Mfr. Assigned
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4547	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	99.99	--
DT-EER (Drive Trace Energy Economy Rating)	99.99	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	99.99	--
MFR FE (Manufacturer Fuel Economy)	99.99	99.99
NOX (Nitrogen Oxide)	0	--
NMOG (Non-methane organic gases)	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	0	--

Manufacturer Test Comments

05_US06_CM55048_00_i7 xDrive60 Sedan (20" Wheels)_A_ETW-6500_RG55_default mode_D. DC mi/kWh @ 50% SoC US06 City: 2.44329; US06 HWY: 3.10877; DC energy consumption Phase 1 (Highway) = 321.7 Wh/mi; Phase 2 (City) = 409.3 Wh/mi

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--
Test #	RBMX10080593	Test Procedure	95 - SC03
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	03/27/2023	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	Mfr. Assigned
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4034	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	99.99	--
DT-EER (Drive Trace Energy Economy Rating)	99.99	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	99.99	--
MFR FE (Manufacturer Fuel Economy)	99.99	99.99
NOX (Nitrogen Oxide)	0	--
NMOG (Non-methane organic gases)	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	0	--

Manufacturer Test Comments

06_SC03_CM55048_00_i7 xDrive60 Sedan (20" Wheels)_A_ETW-6500_RG55_default mode_D. DC mi/kWh @ 50% SoC 2.35503; DC energy consumption = 424.6 Wh/mi

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--																								
Test #	RBMX10080588	Test Procedure	81 - Charge Depleting UDDS																								
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity																								
Test Date	04/05/2023	Fuel	Electricity																								
Fuel Batch ID	--	Fuel Calibration Number	--																								
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Assigned																								
Verify Test Lab ID	EETZ Emissions Lab																										
E10 Evaporative Test Measurement Method	--																										
Test Start Odometer Reading	4613	Odometer Units	K																								
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--																								
State of Charge Delta	Yes																										
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes																								
PHEV/EV Charge Depleting Test Information																											
Recharge Event Voltage	230	Recharge Event Energy (kiloWatt-hours)	120.748																								
Charge Depleting Range (Calculated miles)	409.57	Charge Depleting Range (Actual miles)	409.57																								
All Electric Range Unadjusted (miles)	--	Derived 5-Cycle Coefficient Model Year	--																								
Equivalent All Electric Range (miles)	409.57																										
Number of Charge Depleting Bags/Phases Conducted	1	Transition Bag/Phase Number	--																								
Charge Depleting Bag/Phase																											
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6	System End State of Charge Watt-hours	106.545																									
7	System Start State of Charge Watt-hours	0																									
Manufacturer Test Comments	01_FTP Depleting_CM55048_00_i7 xDrive60 Sedan (20" Wheels)_A_ETW-6500_RG55_default mode_D. End SOC is 106545 Wh (system error limited to 4 digits) for full discharge. BEV - Multi Cycle testing was used according to SAE J1634 (2017-07); Calculated UDDS values; MFR FE is in units of MPGe (unadjusted, unrounded); Result is also 29.48 kWh/100 mi (unadjusted, unrounded). DC energy consumption UDDS1 = 279.5 Wh/mi; UDDS2 = 266.3 Wh/mi; UDDS3 = 254.9 Wh/mi; UDDS4 = 258.1 Wh/mi; UDDS weighted = 260.1 Wh/mi; UDDS1 DC discharge energy = 2072.9 Wh; MCT UBE energy = 106545 Wh																										

Certification Summary Information Report

Test Group		RBMXV00.0G2X				Evaporative/Refueling Family				--		
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	120,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	--	1	0	--	--
CA	120,000 miles	California ZEV	CREE	0	--	--	--	--	1	0	--	--

Certification Summary Information Report

Test Group		RBMXV00.0G2X		Evaporative/Refueling Family		--																									
Test #		RBMX10080589		Test Procedure		84 - Charge Depleting Highway																									
Exhaust Test # for this Evap Test		--		Test Fuel Type		62 - Electricity																									
Test Date		04/05/2023		Fuel		Electricity																									
Fuel Batch ID		--		Fuel Calibration Number		--																									
Vehicle Class		LDV/Passenger Car		DF Type		Mfr. Assigned																									
Verify Test Lab ID		EETZ Emissions Lab																													
E10 Evaporative Test Measurement Method		--																													
Test Start Odometer Reading		4613		Odometer Units		K																									
4WD Test Dyno		Yes		Diesel Adjustment Factor Usage		--																									
State of Charge Delta		Yes																													
Drive Cycle Speed Tolerance Criteria		Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)		Road Speed Fan Usage		Yes																									
PHEV/EV Charge Depleting Test Information																															
Recharge Event Voltage		230		Recharge Event Energy (kiloWatt-hours)		120.748																									
Charge Depleting Range (Calculated miles)		434.99		Charge Depleting Range (Actual miles)		434.99																									
All Electric Range Unadjusted (miles)		--		Derived 5-Cycle Coefficient Model Year		--																									
Equivalent All Electric Range (miles)		434.99																													
Number of Charge Depleting Bags/Phases Conducted		1		Transition Bag/Phase Number		--																									
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6	System End State of Charge Watt-hours	106.545																													
7	System Start State of Charge Watt-hours	0																													
Manufacturer Test Comments																															
02_HWFET Depleting_CM55048_00_i7 xDrive60 Sedan (20" Wheels)_A_ETW-6500_RG55_default mode_D. End SOC is 106545 Wh (system error limited to 4 digits) for full discharge. BEV - Multi Cycle testing was used according to SAE J1634 (2017-07); Calculated HWY values; MFR FE is in units of MPGe (unadjusted, unrounded); Result is also 27.76 kWh/100 mi (unadjusted, unrounded). DC energy consumption HWFE1 = 250.2 Wh/mi; HWFE2 = 239.7 Wh/mi; HWFE average = 245.0 Wh/mi																															
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Fed	120,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	--	1	0	--	--																			
CA	120,000 miles	California ZEV	CREE	0	--	--	--	--	1	0	--	--																			

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--																																							
Test #	RBMX10080594	Test Procedure	86 - Charge Depleting 20 Degree F FTP																																							
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity																																							
Test Date	03/31/2023	Fuel	N/A																																							
Fuel Batch ID	--	Fuel Calibration Number	--																																							
Vehicle Class	N/A	DF Type	Mfr. Assigned																																							
Verify Test Lab ID	EETZ Emissions Lab																																									
E10 Evaporative Test Measurement Method	--																																									
Test Start Odometer Reading	4094	Odometer Units	K																																							
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--																																							
State of Charge Delta	Yes																																									
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes																																							
PHEV/EV Charge Depleting Test Information																																										
Recharge Event Voltage	230	Recharge Event Energy (kiloWatt-hours)	99.999																																							
Charge Depleting Range (Calculated miles)	223.36	Charge Depleting Range (Actual miles)	223.36																																							
All Electric Range Unadjusted (miles)	--	Derived 5-Cycle Coefficient Model Year	--																																							
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11	System End State of Charge Watt-hours	95.578																																								
12	System Start State of Charge Watt-hours	0																																								
Manufacturer Test Comments	07_FTPCOLD_CM55048_00_i7 xDrive60 Sedan (20" Wheels)_A_ETW-6500_RG55_default mode_D. End SOC is 95578 Wh (system error limited to 4 digits) for full discharge. Recharge Energy not needed for DC 5-cycle calculation. DC mi/kWh Bag 1: 1.83420; Bag 3: 2.59929; Avg.: 2.81490 (of 32 FTP72 cycles); DC energy consumption Phase 1 = 545.2 Wh/mi; Phase 3 = 384.7 Wh/mi; Total charge depleting energy consumption = 355,3 Wh/mi																																									

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--					
Emission Data Vehicle Information								
Vehicle ID / Configuration	FK96493 / 0	Manufacturer Vehicle Configuration Number	0					
Original Test Group Name	NBMXV00.0G2X	Original Evaporative/Refueling Family	--					
Original Test Vehicle Model Year	2022							
Vehicle Model								
Represented Test Vehicle Make	BMW	Represented Test Vehicle Model	i4 M50 Gran Coupe (20" Wheels)					
Leak Family Details								
Leak Family Identifier	--	Leak Family Name	--					
Drive Sources and Fuel System Details								
	<table border="1"> <thead> <tr> <th>Drive Source and Fuel#</th> <th>Drive Source</th> <th>Fuel</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Electric Motor</td> <td>Electricity</td> </tr> </tbody> </table>	Drive Source and Fuel#	Drive Source	Fuel	1	Electric Motor	Electricity	
Drive Source and Fuel#	Drive Source	Fuel						
1	Electric Motor	Electricity						
Hybrid Indicator	No							
Multiple Fuel Storage	--	Multiple Fuel Combustion	--					
Fuel Cell Indicator	No	Rechargeable Energy Storage System Indicator	Yes					
Rechargeable Energy Storage System	Battery(s)	Rechargeable Energy Storage System, if 'Other'	--					
Off-board charge Capable Indicator	Yes							
Odometer Correction -- Initial	0	Odometer Correction Factor	1					
Odometer Correction Sign	+ = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles							
Odometer Correction Units	Miles							
Engine Code	XE2A02N0G26X	Rated Horsepower	536					
Displacement (liters)	0.001							
Air Aspiration Method	Naturally Aspirated	Air Aspiration Method, if 'Other'						
Number of Air Aspiration Devices	--	Air Aspiration Device Configuration	--					
Charge Air Cooler Type	--	Drive Mode While Testing	All Wheel Drive					
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)					
Curb Weight (lbs)	5018	Equivalent Test Weight (pounds)	5250					
GVWR (lbs)	6030	N/V Ratio	119.7					
Axle Ratio	9.34							
Transmission Type	Automatic	# of Transmission Gears	1					
Transmission Lockup	No	Creep Gear	No					

Certification Summary Information Report

Test Group		RBMXV00.0G2X			Evaporative/Refueling Family		--
Dynamometer Coefficients:							
Target Coefficients				Set Coefficients			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
Coefficient Category	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	
City/Highway/Evap	59.5	0.167	0.01844	23.8	0.037	0.01777	
Cold CO	66.1	0.185	0.02049	14.6	-0.173	0.02139	
US06	59.5	0.167	0.01844	23.8	0.037	0.01777	
Emission Control Device Comments		--					
Manufacturer Test Vehicle Comments		vi_FK96493_00_i4 M50 Gran Coupe (20" Wheels)_-_ETW-5250_default mode_D					

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--
Test #	NBMX10070940	Test Procedure	31 - Federal fuel 3-day exhaust
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	07/06/2021	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	Mfr. Assigned
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4293	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	99.99	--
DT-EER (Drive Trace Energy Economy Rating)	99.99	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	99.99	--
MFR FE (Manufacturer Fuel Economy)	99.99	99.99
NOX (Nitrogen Oxide)	0	--
NMOG (Non-methane organic gases)	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	0	0

Manufacturer Test Comments

03_FTP4Bag_FK96493_00_i4 M50 Gran Coupe (20 Wheels)_-_ETW-5250_default mode_D. DC mi/kWh @ 50% SoC Bag 1: 3.28; Bag 2: 3.58; Bag 3: 3.37; Bag 4: 3.62

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--
Test #	NBMX10070941	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	07/06/2021	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	Mfr. Assigned
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4293	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
DT-ASCR (Drive Trace Absolute Speed Change Rating)	99.99	--
DT-EER (Drive Trace Energy Economy Rating)	99.99	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	99.99	--
MFR FE (Manufacturer Fuel Economy)	99.99	99.99
NOX (Nitrogen Oxide)	0	--
NMOG (Non-methane organic gases)	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	0	0

Manufacturer Test Comments

04_HWFET_FK96493_00_i4 M50 Gran Coupe (20 Wheels)_- _ETW-5250_default mode_D. DC mi/kWh @ 50% SoC 3.55

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--
Test #	NBMX10070942	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	07/06/2021	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	Mfr. Assigned
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4293	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	99.99	--
DT-EER (Drive Trace Energy Economy Rating)	99.99	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	99.99	--
MFR FE (Manufacturer Fuel Economy)	99.99	99.99
NOX (Nitrogen Oxide)	0	--
NMOG (Non-methane organic gases)	0	--

Manufacturer Test Comments 05_US06_FK96493_00_i4 M50 Gran Coupe (20 Wheels)_-_ETW-5250_default mode_D. DC mi/kWh @ 50% SoC US06 City: 2.37; US06 HWY: 2.82

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--
Test #	NBMX10070944	Test Procedure	95 - SC03
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	07/19/2021	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	Mfr. Assigned
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	5332	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	99.99	--
DT-EER (Drive Trace Energy Economy Rating)	99.99	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	99.99	--
MFR FE (Manufacturer Fuel Economy)	99.99	99.99
NOX (Nitrogen Oxide)	0	--
NMOG (Non-methane organic gases)	0	--

Manufacturer Test Comments

06_SC03_FK96493_00_i4 M50 Gran Coupe (20 Wheels)_-ETW-5250_default mode_D. DC mi/kWh @ 50% SoC 2.54

Certification Summary Information Report

Test Group	RBMXV00.0G2X		Evaporative/Refueling Family	--																								
Test #	NBMX10070938		Test Procedure	81 - Charge Depleting UDDS																								
Exhaust Test # for this Evap Test	--		Test Fuel Type	62 - Electricity																								
Test Date	07/16/2021		Fuel	Electricity																								
Fuel Batch ID	--		Fuel Calibration Number	--																								
Vehicle Class	LDV/Passenger Car		DF Type	Mfr. Assigned																								
Verify Test Lab ID	EETZ Emissions Lab																											
E10 Evaporative Test Measurement Method	--																											
Test Start Odometer Reading	4899		Odometer Units	K																								
4WD Test Dyno	Yes		Diesel Adjustment Factor Usage	--																								
State of Charge Delta	Yes																											
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)		Road Speed Fan Usage	Yes																								
PHEV/EV Charge Depleting Test Information																												
Recharge Event Voltage	230		Recharge Event Energy (kiloWatt-hours)	95.89																								
Charge Depleting Range (Calculated miles)	302.33		Charge Depleting Range (Actual miles)	302.33																								
All Electric Range Unadjusted (miles)	--		Derived 5-Cycle Coefficient Model Year	--																								
Equivalent All Electric Range (miles)	302.33																											
Number of Charge Depleting Bags/Phases Conducted	1		Transition Bag/Phase Number	--																								
Charge Depleting Bag/Phase																												
<table border="1"> <thead> <tr> <th>Charge Depleting Bag/Phase #</th> <th>Test Result/Emission Name</th> <th>Unrounded Test Result</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Carbon-Related Exhaust Emissions</td> <td>0</td> </tr> <tr> <td>2</td> <td>Drive Trace Absolute Speed Change Rating</td> <td>99.99</td> </tr> <tr> <td>3</td> <td>Drive Trace Energy Economy Rating</td> <td>99.99</td> </tr> <tr> <td>4</td> <td>Drive Trace Inertia Work Ratio Rating</td> <td>99.99</td> </tr> <tr> <td>5</td> <td>Manufacturer Fuel Economy</td> <td>106.27</td> </tr> <tr> <td>6</td> <td>System End State of Charge Watt-hours</td> <td>86.082</td> </tr> <tr> <td>7</td> <td>System Start State of Charge Watt-hours</td> <td>0</td> </tr> </tbody> </table>					Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	1	Carbon-Related Exhaust Emissions	0	2	Drive Trace Absolute Speed Change Rating	99.99	3	Drive Trace Energy Economy Rating	99.99	4	Drive Trace Inertia Work Ratio Rating	99.99	5	Manufacturer Fuel Economy	106.27	6	System End State of Charge Watt-hours	86.082	7	System Start State of Charge Watt-hours	0
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result																										
1	Carbon-Related Exhaust Emissions	0																										
2	Drive Trace Absolute Speed Change Rating	99.99																										
3	Drive Trace Energy Economy Rating	99.99																										
4	Drive Trace Inertia Work Ratio Rating	99.99																										
5	Manufacturer Fuel Economy	106.27																										
6	System End State of Charge Watt-hours	86.082																										
7	System Start State of Charge Watt-hours	0																										
Manufacturer Test Comments																												
01_FTP Depleting_FK96493_00_i4 M50 Gran Coupe (20 Wheels)_- _ETW-5250_default mode_D. End SOC is 86082 Wh (system error limited to 4 digits) for full discharge. BEV - Multi Cycle testing was used according to SAE J1634 (2017-07); Calculated UDDS values; MFR FE is in units of MPGe (unadjusted, unrounded); Result is also 31.717 kWh/100 mi (unadjusted, unrounded)																												
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail																
Fed	120,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	--	1	0	--	--																
CA	120,000 miles	California ZEV	CREE	0	--	--	--	--	1	0	--	--																

Certification Summary Information Report

Test Group	RBMXV00.0G2X		Evaporative/Refueling Family	--																								
Test #	NBMX10070939		Test Procedure	84 - Charge Depleting Highway																								
Exhaust Test # for this Evap Test	--		Test Fuel Type	62 - Electricity																								
Test Date	07/16/2021		Fuel	Electricity																								
Fuel Batch ID	--		Fuel Calibration Number	--																								
Vehicle Class	LDV/Passenger Car		DF Type	Mfr. Assigned																								
Verify Test Lab ID	EETZ Emissions Lab																											
E10 Evaporative Test Measurement Method	--																											
Test Start Odometer Reading	4899		Odometer Units	K																								
4WD Test Dyno	Yes		Diesel Adjustment Factor Usage	--																								
State of Charge Delta	Yes																											
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)		Road Speed Fan Usage	Yes																								
PHEV/EV Charge Depleting Test Information																												
Recharge Event Voltage	230		Recharge Event Energy (kiloWatt-hours)	95.89																								
Charge Depleting Range (Calculated miles)	306.38		Charge Depleting Range (Actual miles)	306.38																								
All Electric Range Unadjusted (miles)	--		Derived 5-Cycle Coefficient Model Year	--																								
Equivalent All Electric Range (miles)	306.38																											
Number of Charge Depleting Bags/Phases Conducted	1		Transition Bag/Phase Number	--																								
Charge Depleting Bag/Phase																												
<table border="1"> <thead> <tr> <th>Charge Depleting Bag/Phase #</th> <th>Test Result/Emission Name</th> <th>Unrounded Test Result</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Carbon-Related Exhaust Emissions</td> <td>0</td> </tr> <tr> <td>2</td> <td>Drive Trace Absolute Speed Change Rating</td> <td>99.99</td> </tr> <tr> <td>3</td> <td>Drive Trace Energy Economy Rating</td> <td>99.99</td> </tr> <tr> <td>4</td> <td>Drive Trace Inertia Work Ratio Rating</td> <td>99.99</td> </tr> <tr> <td>5</td> <td>Manufacturer Fuel Economy</td> <td>107.69</td> </tr> <tr> <td>6</td> <td>System End State of Charge Watt-hours</td> <td>86.082</td> </tr> <tr> <td>7</td> <td>System Start State of Charge Watt-hours</td> <td>0</td> </tr> </tbody> </table>					Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	1	Carbon-Related Exhaust Emissions	0	2	Drive Trace Absolute Speed Change Rating	99.99	3	Drive Trace Energy Economy Rating	99.99	4	Drive Trace Inertia Work Ratio Rating	99.99	5	Manufacturer Fuel Economy	107.69	6	System End State of Charge Watt-hours	86.082	7	System Start State of Charge Watt-hours	0
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result																										
1	Carbon-Related Exhaust Emissions	0																										
2	Drive Trace Absolute Speed Change Rating	99.99																										
3	Drive Trace Energy Economy Rating	99.99																										
4	Drive Trace Inertia Work Ratio Rating	99.99																										
5	Manufacturer Fuel Economy	107.69																										
6	System End State of Charge Watt-hours	86.082																										
7	System Start State of Charge Watt-hours	0																										
Manufacturer Test Comments																												
02_HWFET Depleting_FK96493_00_i4 M50 Gran Coupe (20 Wheels)_-_ETW-5250_default mode_D. End SOC is 86082 Wh (system error limited to 4 digits) for full discharge. BEV - Multi Cycle testing was used according to SAE J1634 (2017-07); Calculated HWY values; MFR FE is in units of MPGe (unadjusted, unrounded); Result is also 31.298 kWh/100 mi (unadjusted, unrounded)																												
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail																
Fed	120,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	--	1	0	--	--																
CA	120,000 miles	California ZEV	CREE	0	--	--	--	--	1	0	--	--																

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--
Test #	NBMX10070955	Test Procedure	86 - Charge Depleting 20 Degree F FTP
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	07/02/2021	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	Mfr. Assigned
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4019	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes
PHEV/EV Charge Depleting Test Information			
Recharge Event Voltage	230	Recharge Event Energy (kiloWatt-hours)	99.999
Charge Depleting Range (Calculated miles)	133.74	Charge Depleting Range (Actual miles)	133.74
All Electric Range Unadjusted (miles)	--	Derived 5-Cycle Coefficient Model Year	--
Equivalent All Electric Range (miles)	133.74		
Number of Charge Depleting Bags/Phases Conducted	1	Transition Bag/Phase Number	--
Charge Depleting Bag/Phase			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
1	Carbon Monoxide	0	
2	Carbon dioxide	0	
3	Carbon-Related Exhaust Emissions	0	
4	Drive Trace Absolute Speed Change Rating	99.99	
5	Drive Trace Energy Economy Rating	99.99	
6	Drive Trace Inertia Work Ratio Rating	99.99	
7	Manufacturer Fuel Economy	99.99	
8	Nitrous Oxide	0	
9	Non-methane organic gases	0	
10	Particulate Matter	0	
11	System End State of Charge Watt-hours	57.954	
12	System Start State of Charge Watt-hours	0	
Manufacturer Test Comments	07_FTPCOLD_FK96493_00_i4 M50 Gran Coupe (20 Wheels) - ETW-5250_Sport mode_D. End SOC is 57954 Wh (system error limited to 4 digits) for full discharge. Recharge Energy not needed for DC 5-cycle calculation. DC mi/kWh Bag 1: 1.54; Bag 3: 1.96; Avg.: 2.33 (of 18 FTP 72 cycles)		

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--						
Emission Data Vehicle Information									
Vehicle ID / Configuration	FN45615 / 0	Manufacturer Vehicle Configuration Number	0						
Original Test Group Name	RBMXV00.0G2X	Original Evaporative/Refueling Family	--						
Original Test Vehicle Model Year	2024								
Vehicle Model									
Represented Test Vehicle Make	BMW	Represented Test Vehicle Model	i4 xDrive40 Gran Coupe (19" Wheels)						
Leak Family Details									
Leak Family Identifier	--	Leak Family Name	--						
Drive Sources and Fuel System Details									
	<table border="1"> <tr> <th>Drive Source and Fuel#</th><th>Drive Source</th><th>Fuel</th></tr> <tr> <td>1</td><td>Electric Motor</td><td>Electricity</td></tr> </table>	Drive Source and Fuel#	Drive Source	Fuel	1	Electric Motor	Electricity		
Drive Source and Fuel#	Drive Source	Fuel							
1	Electric Motor	Electricity							
Hybrid Indicator	No								
Multiple Fuel Storage	--	Multiple Fuel Combustion	--						
Fuel Cell Indicator	No	Rechargeable Energy Storage System Indicator	Yes						
Rechargeable Energy Storage System	Battery(s)	Rechargeable Energy Storage System, if 'Other'	--						
Off-board charge Capable Indicator	Yes								
Odometer Correction -- Initial	0	Odometer Correction Factor	1						
Odometer Correction Sign	+ = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles								
Odometer Correction Units	Miles								
Engine Code	XE2A02N0G26X	Rated Horsepower	396						
Displacement (liters)	0.001								
Air Aspiration Method	Naturally Aspirated	Air Aspiration Method, if 'Other'							
Number of Air Aspiration Devices	--	Air Aspiration Device Configuration	--						
Charge Air Cooler Type	--	Drive Mode While Testing	All Wheel Drive						
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)						
Curb Weight (lbs)	4969	Equivalent Test Weight (pounds)	5250						
GVWR (lbs)	6030	N/V Ratio	120.6						
Axle Ratio	1								
Transmission Type	Automatic	# of Transmission Gears	1						
Transmission Lockup	No	Creep Gear	No						

Certification Summary Information Report

Test Group		RBMXV00.0G2X			Evaporative/Refueling Family		--
Dynamometer Coefficients:							
Target Coefficients				Set Coefficients			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
Coefficient Category	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	
City/Highway/Evap	44	0.116	0.01609	10.3	0.075	0.01483	
Cold CO	49.9	0.191	0.0202	-16	-0.052	0.01893	
US06	44	0.116	0.01609	10.3	0.075	0.01483	N/A
Emission Control Device Comments		--					
Manufacturer Test Vehicle Comments		vi_FN45615_00_i4 xDrive40 Gran Coupe (19" Wheels)_A_ETW-5250_RG33_default mode_D; Axle Ratio front: 8.774, Axle Ratio rear: 9.374					

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--
Test #	RBMX10080563	Test Procedure	2 - CVS 75 and later (w/o can. load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	04/25/2023	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	Mfr. Assigned
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	10078	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	99.99	--
DT-EER (Drive Trace Energy Economy Rating)	99.99	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	99.99	--
MFR FE (Manufacturer Fuel Economy)	99.99	99.99
NOX (Nitrogen Oxide)	0	--
NMOG (Non-methane organic gases)	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	0	0

Manufacturer Test Comments

03_FTP4Bag_FN45615_00_i4 xDrive40 Gran Coupe (19" Wheels)_A_ETW-5250_RG33_default mode_D. DC mi/kWh @ 50% SoC Bag 1: 3.98835; Bag 2: 4.31954; Bag 3: 4.12606; Bag 4: 4.36972; DC energy consumption Phase 1 = 250.7 Wh/mi; Phase 2 = 231.5 Wh/mi; Phase 3 = 242.4 Wh/mi; Phase 4 = 228.8 Wh/mi

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--
Test #	RBMX10080564	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	04/25/2023	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	Mfr. Assigned
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	10078	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	99.99	--
DT-EER (Drive Trace Energy Economy Rating)	99.99	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	99.99	--
MFR FE (Manufacturer Fuel Economy)	99.99	99.99
NOX (Nitrogen Oxide)	0	--
NMOG (Non-methane organic gases)	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	0	0

Manufacturer Test Comments

04_HWFET_FN45615_00_i4 xDrive40 Gran Coupe (19" Wheels)_A_ETW-5250_RG33_default mode_D. DC mi/kWh @ 50% SoC 4.45086; DC energy consumption = 224.7 Wh/mi

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--
Test #	RBMX10080565	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	04/25/2023	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	Mfr. Assigned
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	10078	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	99.99	--
DT-EER (Drive Trace Energy Economy Rating)	99.99	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	99.99	--
MFR FE (Manufacturer Fuel Economy)	99.99	99.99
NOX (Nitrogen Oxide)	0	--
NMOG (Non-methane organic gases)	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	0	--

Manufacturer Test Comments

05_US06_FN45615_00_i4 xDrive40 Gran Coupe (19" Wheels)_A_ETW-5250_RG33_default mode_D. DC mi/kWh @ 50% SoC US06 City: 2.86499; US06 HWY: 3.53136; DC energy consumption Phase 1 (Highway) = 283.2 Wh/mi; Phase 2 (City) = 349.0 Wh/mi

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--
Test #	RBMX10080566	Test Procedure	95 - SC03
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	04/24/2023	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	Mfr. Assigned
Verify Test Lab ID	EETZ Emissions Lab		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	10048	Odometer Units	K
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (miles per gallon)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	99.99	--
DT-EER (Drive Trace Energy Economy Rating)	99.99	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	99.99	--
MFR FE (Manufacturer Fuel Economy)	99.99	99.99
NOX (Nitrogen Oxide)	0	--
NMOG (Non-methane organic gases)	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	0	--

Manufacturer Test Comments

06_SC03_FN45615_00_i4 xDrive40 Gran Coupe (19" Wheels)_A_ETW-5250_RG33_default mode_D. DC mi/kWh @ 50% SoC 3.03456; DC energy consumption = 329.5 Wh/mi

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--																								
Test #	RBMX10080561	Test Procedure	81 - Charge Depleting UDDS																								
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity																								
Test Date	04/27/2023	Fuel	Electricity																								
Fuel Batch ID	--	Fuel Calibration Number	--																								
Vehicle Class	LDV/Passenger Car	DF Type	Mfr. Assigned																								
Verify Test Lab ID	EETZ Emissions Lab																										
E10 Evaporative Test Measurement Method	--																										
Test Start Odometer Reading	10144	Odometer Units	K																								
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--																								
State of Charge Delta	Yes																										
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes																								
PHEV/EV Charge Depleting Test Information																											
Recharge Event Voltage	230	Recharge Event Energy (kiloWatt-hours)	94.946																								
Charge Depleting Range (Calculated miles)	369.92	Charge Depleting Range (Actual miles)	369.92																								
All Electric Range Unadjusted (miles)	--	Derived 5-Cycle Coefficient Model Year	--																								
Equivalent All Electric Range (miles)	369.92																										
Number of Charge Depleting Bags/Phases Conducted	1	Transition Bag/Phase Number	--																								
Charge Depleting Bag/Phase																											
	<table border="1"> <thead> <tr> <th>Charge Depleting Bag/Phase #</th> <th>Test Result/Emission Name</th> <th>Unrounded Test Result</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Carbon-Related Exhaust Emissions</td> <td>0</td> </tr> <tr> <td>2</td> <td>Drive Trace Absolute Speed Change Rating</td> <td>99.99</td> </tr> <tr> <td>3</td> <td>Drive Trace Energy Economy Rating</td> <td>99.99</td> </tr> <tr> <td>4</td> <td>Drive Trace Inertia Work Ratio Rating</td> <td>99.99</td> </tr> <tr> <td>5</td> <td>Manufacturer Fuel Economy</td> <td>131.32</td> </tr> <tr> <td>6</td> <td>System End State of Charge Watt-hours</td> <td>84.23</td> </tr> <tr> <td>7</td> <td>System Start State of Charge Watt-hours</td> <td>0</td> </tr> </tbody> </table>	Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	1	Carbon-Related Exhaust Emissions	0	2	Drive Trace Absolute Speed Change Rating	99.99	3	Drive Trace Energy Economy Rating	99.99	4	Drive Trace Inertia Work Ratio Rating	99.99	5	Manufacturer Fuel Economy	131.32	6	System End State of Charge Watt-hours	84.23	7	System Start State of Charge Watt-hours	0		
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result																									
1	Carbon-Related Exhaust Emissions	0																									
2	Drive Trace Absolute Speed Change Rating	99.99																									
3	Drive Trace Energy Economy Rating	99.99																									
4	Drive Trace Inertia Work Ratio Rating	99.99																									
5	Manufacturer Fuel Economy	131.32																									
6	System End State of Charge Watt-hours	84.23																									
7	System Start State of Charge Watt-hours	0																									
Manufacturer Test Comments	01_FTP Depleting_FN45615_00_i4 xDrive40 Gran Coupe (19" Wheels)_A_ETW-5250_RG33_default mode_D. End SOC is 84230 Wh (system error limited to 4 digits) for full discharge. BEV - Multi Cycle testing was used according to SAE J1634 (2017-07); Calculated UDDS values; MFR FE is in units of MPGe (unadjusted, unrounded); Result is also 25.67 kWh/100 mi (unadjusted, unrounded). DC energy consumption UDDS1 = 242.8 Wh/mi; UDDS2 = 233.5 Wh/mi; UDDS3 = 223.2 Wh/mi; UDDS4 = 225.4 Wh/mi; UDDS weighted = 227.7 Wh/mi; UDDS1 DC discharge energy = 1803.0 Wh; MCT UBE energy = 84230 Wh.																										

Certification Summary Information Report

Test Group		RBMXV00.0G2X				Evaporative/Refueling Family				--		
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	120,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	--	1	0	--	--
CA	120,000 miles	California ZEV	CREE	0	--	--	--	--	1	0	--	--

Certification Summary Information Report

Test Group	RBMXV00.0G2X		Evaporative/Refueling Family	--								
Test #	RBMX10080562		Test Procedure	84 - Charge Depleting Highway								
Exhaust Test # for this Evap Test	--		Test Fuel Type	62 - Electricity								
Test Date	04/27/2023		Fuel	Electricity								
Fuel Batch ID	--		Fuel Calibration Number	--								
Vehicle Class	LDV/Passenger Car		DF Type	Mfr. Assigned								
Verify Test Lab ID	EETZ Emissions Lab											
E10 Evaporative Test Measurement Method	--											
Test Start Odometer Reading	10144		Odometer Units	K								
4WD Test Dyno	Yes		Diesel Adjustment Factor Usage	--								
State of Charge Delta	Yes											
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)		Road Speed Fan Usage	Yes								
PHEV/EV Charge Depleting Test Information												
Recharge Event Voltage	230		Recharge Event Energy (kiloWatt-hours)	94.946								
Charge Depleting Range (Calculated miles)	377.71		Charge Depleting Range (Actual miles)	377.71								
All Electric Range Unadjusted (miles)	--		Derived 5-Cycle Coefficient Model Year	--								
Equivalent All Electric Range (miles)	377.71											
Number of Charge Depleting Bags/Phases Conducted	1		Transition Bag/Phase Number	--								
Charge Depleting Bag/Phase												
	Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result									
	1	Carbon-Related Exhaust Emissions	0									
	2	Drive Trace Absolute Speed Change Rating	99.99									
	3	Drive Trace Energy Economy Rating	99.99									
	4	Drive Trace Inertia Work Ratio Rating	99.99									
	5	Manufacturer Fuel Economy	134.08									
	6	System End State of Charge Watt-hours	84.23									
	7	System Start State of Charge Watt-hours	0									
Manufacturer Test Comments												
02_HWFET Depleting_FN45615_00_i4 xDrive40 Gran Coupe (19" Wheels)_A_ETW-5250_RG33_default mode_D. End SOC is 84230 Wh (system error limited to 4 digits) for full discharge. BEV - Multi Cycle testing was used according to SAE J1634 (2017-07); Calculated HWY values; MFR FE is in units of MPGe (unadjusted, unrounded); Result is also 25.14 kWh/100 mi (unadjusted, unrounded). DC energy consumption HWFE1 = 227.5 Wh/mi; HWFE2 = 218.5 Wh/mi; HWFE average = 223.0 Wh/mi.												
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	120,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	--	1	0	--	--
CA	120,000 miles	California ZEV	CREE	0	--	--	--	--	1	0	--	--

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--																																							
Test #	RBMX10080567	Test Procedure	86 - Charge Depleting 20 Degree F FTP																																							
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity																																							
Test Date	03/16/2023	Fuel	N/A																																							
Fuel Batch ID	--	Fuel Calibration Number	--																																							
Vehicle Class	N/A	DF Type	Mfr. Assigned																																							
Verify Test Lab ID	EETZ Emissions Lab																																									
E10 Evaporative Test Measurement Method	--																																									
Test Start Odometer Reading	8005	Odometer Units	K																																							
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--																																							
State of Charge Delta	Yes																																									
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes																																							
PHEV/EV Charge Depleting Test Information																																										
Recharge Event Voltage	230	Recharge Event Energy (kiloWatt-hours)	99.999																																							
Charge Depleting Range (Calculated miles)	148.82	Charge Depleting Range (Actual miles)	148.82																																							
All Electric Range Unadjusted (miles)	--	Derived 5-Cycle Coefficient Model Year	--																																							
Equivalent All Electric Range (miles)	148.82																																									
Number of Charge Depleting Bags/Phases Conducted	1	Transition Bag/Phase Number	--																																							
Charge Depleting Bag/Phase																																										
<table border="1"> <thead> <tr> <th>Charge Depleting Bag/Phase #</th> <th>Test Result/Emission Name</th> <th>Unrounded Test Result</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Carbon Monoxide</td> <td>0</td> </tr> <tr> <td>2</td> <td>Carbon dioxide</td> <td>0</td> </tr> <tr> <td>3</td> <td>Carbon-Related Exhaust Emissions</td> <td>0</td> </tr> <tr> <td>4</td> <td>Drive Trace Absolute Speed Change Rating</td> <td>99.99</td> </tr> <tr> <td>5</td> <td>Drive Trace Energy Economy Rating</td> <td>99.99</td> </tr> <tr> <td>6</td> <td>Drive Trace Inertia Work Ratio Rating</td> <td>99.99</td> </tr> <tr> <td>7</td> <td>Manufacturer Fuel Economy</td> <td>99.99</td> </tr> <tr> <td>8</td> <td>Nitrous Oxide</td> <td>0</td> </tr> <tr> <td>9</td> <td>Non-methane organic gases</td> <td>0</td> </tr> <tr> <td>10</td> <td>Particulate Matter</td> <td>0</td> </tr> <tr> <td>11</td> <td>System End State of Charge Watt-hours</td> <td>49.487</td> </tr> <tr> <td>12</td> <td>System Start State of Charge Watt-hours</td> <td>0</td> </tr> </tbody> </table>				Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	1	Carbon Monoxide	0	2	Carbon dioxide	0	3	Carbon-Related Exhaust Emissions	0	4	Drive Trace Absolute Speed Change Rating	99.99	5	Drive Trace Energy Economy Rating	99.99	6	Drive Trace Inertia Work Ratio Rating	99.99	7	Manufacturer Fuel Economy	99.99	8	Nitrous Oxide	0	9	Non-methane organic gases	0	10	Particulate Matter	0	11	System End State of Charge Watt-hours	49.487	12	System Start State of Charge Watt-hours	0
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result																																								
1	Carbon Monoxide	0																																								
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10	Particulate Matter	0																																								
11	System End State of Charge Watt-hours	49.487																																								
12	System Start State of Charge Watt-hours	0																																								
Manufacturer Test Comments	07_FTPCOLD_FN45615_00_i4 xDrive40 Gran Coupe (19" Wheels)_A_ETW-5250_RG33_default mode_D. End SOC is 49487 Wh (system error limited to 4 digits) for full discharge. Recharge Energy not needed for DC 5-cycle calculation. DC mi/kWh Bag 1: 1.85043; Bag 3: 2.38410; Avg.: 3.00720 (of 32 FTP72 cycles); DC energy consumption Phase 1 = 540.4 Wh/mi; Phase 3 = 419.4 Wh/mi; Total charge depleting energy consumption = 332.5 Wh/mi																																									

Certification Summary Information Report

Test Group	RBMXV00.0G2X	Evaporative/Refueling Family	--
Fuel Properties			

Certification Summary Information Report

Test Group		RBMXV00.0G2X			Evaporative/Refueling Family			--	
Consolidated List of Standards									
Exhaust Standards									
Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			Standard Level			Federal Tier 3 Bin 0	
Fuel		Electricity			Test Procedure			Charge Depleting UDDS	
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
120,000 miles	CREE	--	--	--	--	--	1	--	0
150,000 miles	CO	--	--	--	--	--	1	--	0
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			Standard Level			California ZEV	
Fuel		Electricity			Test Procedure			Charge Depleting UDDS	
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
120,000 miles	CREE	--	--	--	--	--	1	--	0
150,000 miles	CO	--	--	--	--	--	1	--	0
Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			Standard Level			Federal Tier 3 Bin 0	
Fuel		Electricity			Test Procedure			Charge Depleting Highway	
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
120,000 miles	CREE	--	--	--	--	--	1	--	0
150,000 miles	CO	--	--	--	--	--	1	--	0
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			Standard Level			California ZEV	
Fuel		Electricity			Test Procedure			Federal fuel 2-day exhaust (w/can load)	
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	--	--	1	--	0

Certification Summary Information Report

Test Group		RBMXV00.0G2X			Evaporative/Refueling Family			--	
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			Standard Level			California ZEV	
Fuel		Electricity			Test Procedure			Charge Depleting Highway	
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
120,000 miles	CREE	--	--	--	--	--	1	--	0
150,000 miles	CO	--	--	--	--	--	1	--	0
Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		LDV/Passenger Car			Standard Level			Federal Tier 3 Bin 0	
Fuel		Electricity			Test Procedure			Federal fuel 2-day exhaust (w/can load)	
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	--	--	1	--	0

Certification Summary Information Report

Test Group		RBMXV00.0G2X	Evaporative/Refueling Family		--
Glossary					
Useful Life					
4	4,000 miles		120	120,000 miles	
50	50,000 miles		150	150,000 miles	
100	100,000 miles				
Emission Name					
HC-TOTAL	Total Hydrocarbon		METHANOL	CH3OH - Methanol	
CO	Carbon Monoxide		N2O	Nitrous Oxide	
CO2	Carbon dioxide		SPITBACK	Spitback Hydrocarbon in grams	
CREE	Carbon-Related Exhaust Emissions		AMP-HRS	Integrated Amp-hours	
OPT-CREE	Optional Carbon-Related Exhaust Emissions		START-SOC	System Start State of Charge Watt-hours	
NOX	Nitrogen Oxide		END-SOC	System End State of Charge Watt-hours	
PM	Particulate Matter		ACT-DISTANCE	Actual Distance Driven (miles)	
PM-COMP	SFTP Composite Particulate Matter		AS-VOLT	Average System Voltage	
HC-NM	Non-methane Hydrocarbon		CO2 BAG 1	Bag 1 Carbon Dioxide	
OMHCE	Organic material Hydrocarbon Equivalent		CO2 BAG 2	Bag 2 Carbon Dioxide	
OMNMHCE	Organic material non-methane HC equivalent		CO2 BAG 3	Bag 3 Carbon Dioxide	
NMOG	Non-methane organic gases		CO2 BAG 4	Bag 4 Carbon Dioxide	
HCHO	Formaldehyde		NMOG+NOX	Non-methane organic gases plus Nitrogen Oxides	
H3C2HO	Acetaldehyde		NMOG+NOX-COMP	SFTP Composite Non-methane Organic Gases + Nitrogen Oxides	
HC-NM+NOX	SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03		DT-IWRR	Drive Trace Inertia Work Ratio Rating	
HC-NM+NOX-COMP	SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides		DT-ASCR	Drive Trace Absolute Speed Change Rating	
CO-COMP	SFTP Composite Carbon Monoxide		DT-EER	Drive Trace Energy Economy Rating	
ETHANOL	C2H5OH - Ethanol		COMB-CREE	Combined Carbon-Related Exhaust Emissions	
FE BAG 1	Bag 1 Fuel Economy		COMB-OPT-CREE	Combined Optional Carbon-Related Exhaust Emissions	
FE BAG 2	Bag 2 Fuel Economy		HC-TOTAL-EQUIV	Total Hydrocarbon equivalent - Evap only	
FE BAG 3	Bag 3 Fuel Economy		METHANE-COMB	Combined CH4 for HD 2b/3 vehicles only	
FE BAG 4	Bag 4 Fuel Economy		N2O-COMB	Combined Nitrous Oxide for HD 2b/3 vehicles only	
MFR FE	Manufacturer Fuel Economy		LEAK-DIA	Effective Leak Diameter (inches)	
HC	Hydrocarbon for Running Loss and ORVR		LEAK-GAS CAP	Gas Cap Leakage (cc/min)	
METHANE	CH4 - Methane		CO2-COMB	Combined Carbon Dioxide for HD 2b/3 Vehicles Only	
Certification Region					
CA	California + CAA Section 177 states		FA	Federal	
Exhaust Emission Standard Level					
B1	Federal Tier 2 Bin 1		L3ULEV340	California LEV-III ULEV340	
B2	Federal Tier 2 Bin 2		L3ULEV250	California LEV-III ULEV250	
B3	Federal Tier 2 Bin 3		L3ULEV200	California LEV-III ULEV200	
B4	Federal Tier 2 Bin 4		L3SULEV170	California LEV-III SULEV170	
B5	Federal Tier 2 Bin 5		L3SULEV150	California LEV-III SULEV150	

Certification Summary Information Report

Test Group		RBMXV00.0G2X	Evaporative/Refueling Family		--
B6	Federal Tier 2 Bin 6		L3LEV630	California LEV-III LEV630	
B7	Federal Tier 2 Bin 7		L3ULEV570	California LEV-III ULEV570	
B8	Federal Tier 2 Bin 8		L3ULEV400	California LEV-III ULEV400	
B9	Federal Tier 2 Bin 9		L3ULEV270	California LEV-III ULEV270	
B10	Federal Tier 2 Bin 10		L3SULEV230	California LEV-III SULEV230	
B11	Federal Tier 2 Bin 11		L3SULEV200	California LEV-III SULEV200	
HDV1	HDV1 (Federal HD chassis Class 2b GVW 8501-10000)		T3B160	Federal Tier 3 Bin 160	
HDV2	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)		T3B125	Federal Tier 3 Bin 125	
L2	California LEV-II LEV		T3B110	Federal Tier 3 Transitional Bin 110	
L2OP	California LEV-II LEV Optional		T3B85	Federal Tier 3 Transitional Bin 85	
U2	California LEV-II ULEV		T3SULEV30	Federal Tier 3 Transitional LEV-II SULEV30 Carryover	
S2	California LEV-II SULEV		T3B70	Federal Tier 3 Bin 70	
ZEV	California ZEV		T3B50	Federal Tier 3 Bin 50	
OT	Other		T3B30	Federal Tier 3 Bin 30	
T1	Federal Tier 1		T3B20	Federal Tier 3 Bin 20	
PZEV	California PZEV		T3B0	Federal Tier 3 Bin 0	
L2LEV160	California LEV-II LEV160		HDV2B395	Federal Tier 3 HD Class 2b Transitional Bin 395	
L2ULEV125	California LEV-II ULEV125		HDV2B340	Federal Tier 3 HD Class 2b Transitional Bin 340	
L2SULEV30	California LEV-II SULEV30		HDV2B250	Federal Tier 3 HD Class 2b Bin 250	
L2LEV395	California LEV-II LEV395		HDV2B200	Federal Tier 3 HD Class 2b Bin 200	
L2ULEV340	California LEV-II ULEV340		HDV2B170	Federal Tier 3 HD Class 2b Bin 170	
L2LEV630	California LEV-II LEV630		HDV2B150	Federal Tier 3 HD Class 2b Bin 150	
L2ULEV570	California LEV-II ULEV570		HDV2B0	Federal Tier 3 HD Class 2b Bin 0	
L3LEV160	California LEV-III LEV160		HDV3B630	Federal Tier 3 HD Class 3 Transitional Bin 630	
L3ULEV125	California LEV-III ULEV125		HDV3B570	Federal Tier 3 HD Class 3 Transitional Bin 570	
L3ULEV70	California LEV-III ULEV70		HDV3B400	Federal Tier 3 HD Class 3 Bin 400	
L3ULEV50	California LEV-III ULEV50		HDV3B270	Federal Tier 3 HD Class 3 Bin 270	
L3SULEV30	California LEV-III SULEV30		HDV3B230	Federal Tier 3 HD Class 3 Bin 230	
L3SULEV20	California LEV-III SULEV20		HDV3B200	Federal Tier 3 HD Class 3 Bin 200	
L3LEV395	California LEV-III LEV395		HDV3B0	Federal Tier 3 HD Class 3 Bin 0	
Transmission Type Code					
AMS	Automated Manual- Selectable (e.g. Automated Manual with paddles)	M	Manual		
A	Automatic	OT	Other		
AM	Automated Manual	SA	Semi-Automatic		
CVT	Continuously Variable	SCV	Selectable Continuously Variable (e.g. CVT with paddles)		
Drive System Code					
4	4-Wheel Drive	P	Part-time 4-Wheel Drive		
F	2-Wheel Drive, Front	A	All Wheel Drive		
R	2-Wheel Drive, Rear				

Certification Summary Information Report

Test Group		RBMXV00.0G2X		Evaporative/Refueling Family		--	
Additional Terms and Acronyms							
AFC	Alternative Fuel Converter			ICI	Independent Commercial Importer		
CSI	Certificate Summary Information			ORVR	Onboard Refueling Vapor Recovery		
DF	Deterioration Factor			SIL	Shift Indicator Light		
Evap	Evaporation, Evaporative			Trans	Transmission		

according to SAE J1634, Appendix B, Option 2

Vehicle ID / Configuration:	FK96493 / 00
Represented Model:	i4 M50 Gran Coupe (20 Wheels)

5-Cycle Test Results and DC Fuel Economy Calculation

Test	EPA Test No.	Sequence	Phase	mi/kWh _{DC}
FTP 75°F Midpoint Charge Test	NBMX10070940	UDSS 1	Bag 1 FTP	3,28226
			Bag 2 FTP	3,58412
		UDSS 2	Bag 3 FTP	3,37030
			Bag 4 FTP	3,61782
FTP 20°F Full Charge Test	NBMX10070955	UDSS 1	Bag 1 Cold FTP	1,53544
			Bag 2 Cold FTP	--
		UDSS 2	Bag 3 Cold FTP	1,96139
			Avg. FTP 20°F	2,32645
HFEDS Midpoint Charge Test	NBMX10070941	-	Bag 1	3,55280
SC03 Midpoint Charge Test	NBMX10070944	-	Bag 1	2,54294
US06 Midpoint Charge Test	NBMX10070942	US06 City	City Bag	2,37487
		US06 Highway	Highway Bag	2,82432

City DC Fuel Economy Calculation		mi/kWh _{DC}
City Fuel Economy	City FE	2,61801
	Start FC	0,01159
	Start Fuel FTP	0,02865
	Start Fuel 20F	0,50918
	Running FC	0,33982

Highway DC Fuel Economy Calculation		mi/kWh _{DC}
Highway Fuel Economy	Highway FE	2,64998
	Start FC	0,00079
	Start Fuel FTP	0,02865
	Start Fuel 20F	0,50918
	Running FC	0,34638

Combined 5-Cycle DC Fuel Economy Calculation		mi/kWh _{DC}
Combined 5-Cycle Fuel Economy		2,63230

2-Cycle DC Fuel Economy Test Results and Fuel Economy Calculation

Combined 2-Cycle DC Test Results			
Test	EPA Test No.		mi/kWh _{DC}
Multi Cycle Test	NBMX10070938	City FE	3,51214
	NBMX10070939	Highway FE	3,55920

Combined 2-Cycle DC Fuel Economy Calculation		mi/kWh _{DC}
Combined 2-Cycle Fuel Economy		3,53316

Adjustment Factor Calculation

Adjustment Factor Calculation		-
Adjustment Factor		0,74503

according to SAE J1634, Appendix B, Option 2

Vehicle ID / Configuration:	FN45615 / 00
Represented Model:	i4 xDrive40 Gran Coupe (19" Wheels)

5-Cycle Test Results and DC Fuel Economy Calculation

Test	EPA Test No.	Sequence	Phase	mi/kWh _{DC}	Wh/mi _{DC}
FTP 75°F Midpoint Charge Test	RBMX10080563	UDSS 1	Bag 1 FTP	3,98835	250,7
			Bag 2 FTP	4,31954	231,5
		UDSS 2	Bag 3 FTP	4,12606	242,4
			Bag 4 FTP	4,36972	228,8
FTP 20°F Full Charge Test	RBMX10080567	UDSS 1	Bag 1 Cold FTP	1,85043	540,4
			Bag 2 Cold FTP	-	-
		UDSS 2	Bag 3 Cold FTP	2,38410	419,4
			Avg. FTP 20°F	3,00720	-
HFEDS Midpoint Charge Test	RBMX10080564	-	Bag 1	4,45086	224,7
SC03 Midpoint Charge Test	RBMX10080566	-	Bag 1	3,03456	329,5
US06 Midpoint Charge Test	RBMX10080565	US06 City	City Bag	2,86499	349,0
		US06 Highway	Highway Bag	3,53136	283,2

City DC Fuel Economy Calculation		mi/kWh _{DC}
City Fuel Economy	City FE	3,20151
	Start FC	0,01026
	Start Fuel FTP	0,03012
	Start Fuel 20F	0,43549
	Running FC	0,27711

Highway DC Fuel Economy Calculation		mi/kWh _{DC}
Highway Fuel Economy	Highway FE	3,30850
	Start FC	0,00070
	Start Fuel FTP	0,03012
	Start Fuel 20F	0,43549
	Running FC	0,27737

Combined 5-Cycle DC Fuel Economy Calculation		mi/kWh _{DC}
Combined 5-Cycle Fuel Economy		3,24878

2-Cycle DC Fuel Economy Test Results and Fuel Economy Calculation

Combined 2-Cycle DC Test Results			
Test	EPA Test No.		mi/kWh _{DC}
Multi Cycle Test	RBMX10080561	City FE	4,39178
	RBMX10080562	Highway FE	4,48429

Combined 2-Cycle DC Fuel Economy Calculation		mi/kWh _{DC}
Combined 2-Cycle Fuel Economy		4,43293

Adjustment Factor Calculation

Adjustment Factor Calculation		-
Adjustment Factor		0,73287

BEV 5-Cycle Adjustment Factor Calculation

according to SAE J1634, Appendix B, Option 2

Vehicle ID / Configuration:	CL77226 / 00
Represented Model:	i5 M60 xDrive Sedan (21" Wheels)

5-Cycle Test Results and DC Fuel Economy Calculation

Test	EPA Test No.	Sequence	Phase	mi/kWh _{DC}	Wh/mi _{DC}
FTP 75°F Midpoint Charge Test	RBMX10080443	UDSS 1	Bag 1 FTP	3,57295	279,9
			Bag 2 FTP	3,93607	254,1
		UDSS 2	Bag 3 FTP	3,71631	269,1
			Bag 4 FTP	4,00407	249,7
FTP 20°F Full Charge Test	RBMX10080456	UDSS 1	Bag 1 Cold FTP	1,72656	579,2
			Bag 2 Cold FTP	-	-
		UDSS 2	Bag 3 Cold FTP	2,69565	371,0
			Avg. FTP 20°F	2,88355	-
HFEDS Midpoint Charge Test	RBMX10080450	-	Bag 1	3,96081	252,5
SC03 Midpoint Charge Test	RBMX10080453	-	Bag 1	2,35681	424,3
US06 Midpoint Charge Test	RBMX10080452	US06 City	City Bag	2,69075	371,6
		US06 Highway	Highway Bag	3,15794	316,7

City DC Fuel Economy Calculation			mi/kWh _{DC}
City Fuel Economy	City FE		2,81804
	Start FC		0,01686
	Start Fuel FTP		0,03887
	Start Fuel 20F		0,74958
	Running FC		0,30961

Highway DC Fuel Economy Calculation			mi/kWh _{DC}
Highway Fuel Economy	Highway FE		2,92497
	Start FC		0,00115
	Start Fuel FTP		0,03887
	Start Fuel 20F		0,74958
	Running FC		0,31338

Combined 5-Cycle DC Fuel Economy Calculation			mi/kWh _{DC}
Combined 5-Cycle Fuel Economy			2,86517

2-Cycle DC Fuel Economy Test Results and Fuel Economy Calculation

Combined 2-Cycle DC Test Results			
Test	EPA Test No.		mi/kWh _{DC}
Multi Cycle Test	RBMX10080433	City FE	4,01262
	RBMX10080434	Highway FE	4,07305

Combined 2-Cycle DC Fuel Economy Calculation			mi/kWh _{DC}
Combined 2-Cycle Fuel Economy			4,03959

Adjustment Factor Calculation

Adjustment Factor Calculation			-
Adjustment Factor			0,70927

according to SAE J1634, Appendix B, Option 2

Vehicle ID / Configuration:	CM55048 / 00
Represented Model:	i7 x Drive60 Sedan (20" Wheels)

5-Cycle Test Results and DC Fuel Economy Calculation

Test	EPA Test No.	Sequence	Phase	mi/kWh _{DC}	Wh/mi _{DC}
FTP 75°F Midpoint Charge Test	RBMX10080590	UDSS 1	Bag 1 FTP	3,46658	288,5
			Bag 2 FTP	3,63819	274,9
		UDSS 2	Bag 3 FTP	3,58089	279,3
			Bag 4 FTP	3,73368	267,8
FTP 20°F Full Charge Test	RBMX10080594	UDSS 1	Bag 1 Cold FTP	1,83420	545,2
			Bag 2 Cold FTP	-	-
		UDSS 2	Bag 3 Cold FTP	2,59929	384,7
			Avg. Cold FTP	2,81490	-
HFEDS Midpoint Charge Test	RBMX10080591	-	Bag 1	3,95090	253,1
SC03 Midpoint Charge Test	RBMX10080593	-	Bag 1	2,35503	424,6
US06 Midpoint Charge Test	RBMX10080592	US06 City	City Bag	2,44329	409,3
		US06 Highway	Highway Bag	3,10877	321,7

City DC Fuel Economy Calculation			mi/kWh _{DC}
City Fuel Economy	City FE		2,72747
	Start FC		0,01319
	Start Fuel FTP		0,03315
	Start Fuel 20F		0,57772
	Running FC		0,32412

Highway DC Fuel Economy Calculation			mi/kWh _{DC}
Highway Fuel Economy	Highway FE		2,89582
	Start FC		0,00090
	Start Fuel FTP		0,03315
	Start Fuel 20F		0,57772
	Running FC		0,31680

Combined 5-Cycle DC Fuel Economy Calculation			mi/kWh _{DC}
Combined 5-Cycle Fuel Economy			2,80074

2-Cycle DC Fuel Economy Test Results and Fuel Economy Calculation

Combined 2-Cycle DC Test Results			
Test	EPA Test No.		mi/kWh _{DC}
Multi Cycle Test	RBMX10080588	City FE	3,84409
	RBMX10080589	Highway FE	4,08266

Combined 2-Cycle DC Fuel Economy Calculation			mi/kWh _{DC}
Combined 2-Cycle Fuel Economy			3,94790

Adjustment Factor Calculation

Adjustment Factor Calculation			-
Adjustment Factor			0,70943