


Smart Key Specifications

Service Category Vehicle Interior

Section Theft Deterrent/Keyless Entry

Market USA

Lexus Supports
ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2011 – 2013	CT200H	
2013	ES300H	
2008 – 2013	ES350, IS F, IS250, IS350, LS460, LS600H	
2008 – 2011, 2013	GS350, GS450H	
2008 – 2011	GS460	
2010 – 2013	GX460, IS250C, IS350C, RX450H	
2010 – 2012	HS250H	
2009 – 2011, 2013	LX570	
2009 – 2013	RX350	

Introduction

Some customers may inquire about the frequency and power output of the Smart Key/Smart Entry systems used on various models. The Smart Key/Smart Entry systems conform to all applicable FCC rules. This bulletin details the applicable specifications for these systems.

CAUTION

Implanted pacemakers, cardiac defibrillators, or other electrical medical devices may be affected by radio waves emitted by the Smart Key/Smart Entry Antenna (in detection area). Customers with concerns about these systems and their effects on implanted electronic medical devices should consult their physician or the device manufacturer. This information is also included in the Owner's Manual for each applicable model.

If necessary, details on disabling the Smart Key/Smart Entry functions can be found in the appropriate vehicle Repair Manual. Refer to the Technical Information System (TIS) for additional details.

Smart Key Specifications

Warranty Information

OP CODE	DESCRIPTION	TIME	ONP	T1	T2
N/A	Not Applicable to Warranty	-	-	-	-

Smart Key Detection Area

Figure 1.

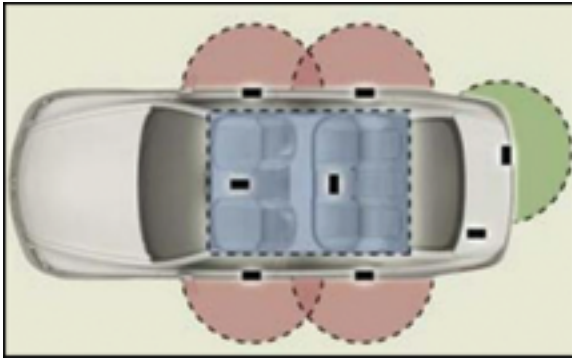
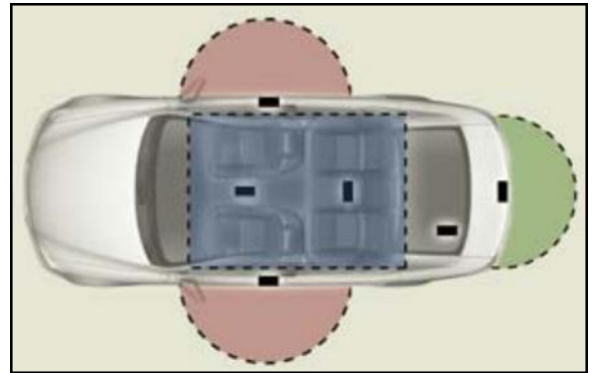


Figure 2.



Specifications: Smart Key Antenna (Communication from Vehicle to Key)

- Frequency: 134.2 kHz
- Power Output: 95dB $\mu\text{V}/\text{m}$ (at 3 meters away from the Smart Key Antenna)
- Smart Antenna RF Output Power:

SPECIFICATION				
LOCATION	FREQUENCY	OUTPUT POWER/ ELECTRIC FIELD INTENSITY	MODULATION METHOD	MOUNTING POINT IN VEHICLE
Inside Passenger Compartment	134.2 kHz	95dB $\mu\text{V}/\text{m}$ @3 m	AM	Differs in each vehicle; consult the relevant Repair Manual for each vehicle
Inside Trunk (ONLY in Vehicles with Trunk)				Inside Trunk
Outside Vehicle				<ul style="list-style-type: none"> • Inside Door Handle • Inside Rear Bumper

Smart Key Specifications

Specifications: Smart Key Antenna (Communication from Vehicle to Key) (Continued)

TRANSMIT TIMING			
LOCATION	VEHICLE PARKED	ENTERING OR EXITING VEHICLE	VEHICLE IS BEING DRIVEN
Inside Passenger Compartment	Does NOT Transmit	<ul style="list-style-type: none"> Operating door locks Operating engine switch/ depressing brake pedal Opening or closing doors With "IG-ON" or "ACC-ON", and in the P-range, closing a door when the key cannot be detected inside the vehicle (continues for 3 seconds until the key is detected or the power switch is turned OFF), A/T and HV vehicles ONLY "IG-OFF" after driving more than 20 minutes (Not in P-range) when shutting the door, if the key cannot be detected inside the vehicle (transmits for 3 seconds until the key is located), A/T and HV vehicles ONLY 	When key is NOT detected inside passenger compartment while car is being driven (transmits for 3 seconds)
Inside Trunk (ONLY in Vehicles with Trunk)		During the following operations: <ul style="list-style-type: none"> Door lock is operated/trunk switch is depressed Closing the trunk Opening or closing doors 	Does NOT Transmit
Outside Vehicle	<ul style="list-style-type: none"> When door is locked, transmits at 250 ms intervals (stops when door is unlocked) Does NOT transmit 	<ul style="list-style-type: none"> Operating door locks Trunk or back door open switch is depressed 	

Smart Key Specifications

Specifications: Smart Key Transmitter/Wireless Remote (Communication from Key to Vehicle)

MODEL	MODEL YEAR	FREQUENCY	OUTPUT POWER/ ELECTRIC FIELD INTENSITY	MODULATION METHOD
ES 350	2008 – 2012	312.15 MHz 314.35 MHz	81db μ V/m @3 m	AM
IS 250/350/IS-F	2008 – 2013			
GS 350/450h/460	2008 – 2011			
IS 250C/350C	2010 – 2013			
LS 460/600h	2008 – 2009			
LX 570	2009 – 2013			
CT 200h	2011 – 2013	312.15 MHz 314.35 MHz	75db μ V/m @3 m	FM
ES 350/300h	2013			
GS 350/450h				
GX 460	2010 – 2013			
HS 250h	2010 – 2012			
LS 460/600h	2010 – 2013			
RX 350	2009 – 2013			
RX 450h	2010 – 2013			