

RF Exposure Exemption Report

SkyShips Automotive Ltd.
Model: G7 Infotainment Headunit

In accordance with FCC CFR 47 Part 1.1307



Prepared for: Skyships Automotive Ltd.
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FCC ID: 2BA3IG7A01233

Document 75965807-07 Issue: 02

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NAME	JOB TITLE	RESPONSIBLE FOR	ISSUE DATE
Matthew Russell	Chief Engineer, RF	Authorised Signatory	09 June 2026

Signatures in this approval box have checked this document in line with the requirements of TÜV SÜD document control rules.

FCC Accreditation
294497/UK2010 Octagon House, Fareham Test Laboratory

EXECUTIVE SUMMARY

The wireless devices described within this report are compliant with the exemption criteria related to human exposure to electromagnetic fields laid out in FCC CFR Title 47 Part 1.1307.



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1 Report Summary

1.1 Report Modification Record

Alterations and additions to this report will be issued to the holders of each copy in the form of a complete document.

Issue	Description of Change	Date of Issue
1	First Issue	04-Dec-2025
2	Updating of antenna gains	09-Jun-2026

Table 1

1.2 Introduction

Applicant	Skyships Automotive Ltd.
Manufacturer	Skyships Automotive Ltd.
Model Number(s)	G7 Infotainment Headunit
Hardware Version(s)	A1
Software Version(s)	7.1
Specification/Issue/Date	FCC 47 CFR Part 1.1307: 2024
Order Number	PO05683
Date	16-September-2025
Related Document(s)	• KDB 447498 D04 v01 • FCC 47 CFR Part 2.1091: 2024



1.3 Brief Summary of Results

The wireless devices described within this report are compliant with the exemption criteria related to human exposure to electromagnetic fields laid out in FCC CFR Title 47 Part 1.1307.

The calculations shown in this report were made in accordance with the procedures specified in the applied test specification(s).

1.4 Application Form

Equipment Description

Technical Description: <i>(Please provide a brief description of the intended use of the equipment)</i>	Automotive Infotainment Headunit - A vehicle infotainment controller containing FM receiver, GPS, and Bluetooth. The unit has no direct user interface and is controlled remotely from controls in the vehicle. It has three video outputs that drive remote displays.
Manufacturer:	Skyships Automotive Limited
Model:	G7 Infotainment Headunit
Part Number:	A-01233

If more than one frequency band is supported, please confirm which combinations of bands are capable of Simultaneous Transmit.	All transmitters can operate simultaneously, but WiFi will only operate on one band at a time (either the 2.4 GHz or 5GHz).
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Frequency Band 1: 2.4GHz (Bluetooth and WiFi)

Antenna Model:	Amphenol Airwave Wi-Fi Antenna	
Antenna length:	3.5	cm
Bottom frequency:	2400	MHz
Middle frequency:	2450	MHz
Top frequency:	2500	MHz

Maximum power (input to the antenna including a tolerance):	18	dBm
Antenna gain (or maximum gain allowed):	-0.1	dBi

Or

Field Strength Measurement:		dBμA/M
Measurement Distance:		cm

Separation distance from antenna to the user/bystander	20	cm
Transmitter Duty Cycle:	100	%



Frequency Band 2: 5GHz (WiFi)

Antenna Model:	Amphenol Airwave Wi-Fi Antenna		
Antenna length:	3.5	cm	
Bottom frequency:	5150	MHz	
Middle frequency:	5500	MHz	
Top frequency:	5850	MHz	
Maximum power (input to the antenna including a tolerance):	14		dBm
Antenna gain (or maximum gain allowed):	5.1		dBi

Or

Field Strength Measurement:		dBμA/M	
Measurement Distance:		cm	
Separation distance from antenna to the user/bystander	20	cm	
Transmitter Duty Cycle:	100	%	

Frequency Band 3: Modem Band 2 (2G, HSPA+ and LTE FDD)

Antenna Model:	Amphenol SAA LTE Antenna		
Antenna length:	10.2	cm	
Bottom frequency:	1850	MHz	
Middle frequency:	1900	MHz	
Top frequency:	1910	MHz	

Maximum power (input to the antenna including a tolerance):	29.24	dBm	
Antenna gain (or maximum gain allowed):	3.0	dBi	

Or

Field Strength Measurement:		dBμA/M	
Measurement Distance:		cm	

Separation distance from antenna to the user/bystander	20	cm	
Transmitter Duty Cycle:	12.5	%	



Frequency Band 4: Modem Band 4 (HSPA+ and LTE FDD)

Antenna Model:	Amphenol SAA LTE Antenna	
Antenna length:	10.2	cm
Bottom frequency:	1710	MHz
Middle frequency:	1700	MHz
Top frequency:	1755	MHz

Maximum power (input to the antenna including a tolerance):	23.14	dBm
Antenna gain (or maximum gain allowed):	3.0	dBi

Or

Field Strength Measurement:		dBμA/M
Measurement Distance:		cm

Separation distance from antenna to the user/bystander	20	cm
Transmitter Duty Cycle:	100	%

Frequency Band 5: Modem Band 5 (2G, HSPA+ and LTE FDD)

Antenna Model:	Amphenol SAA LTE Antenna	
Antenna length:	10.2	cm
Bottom frequency:	824	MHz
Middle frequency:	850	MHz
Top frequency:	849	MHz

Maximum power (input to the antenna including a tolerance):	32.06	dBm
Antenna gain (or maximum gain allowed):	3.0	dBi

Or

Field Strength Measurement:		dBμA/M
Measurement Distance:		cm

Separation distance from antenna to the user/bystander	20	cm
Transmitter Duty Cycle:	12.5	%



Frequency Band 6: Modem Band 7 (LTE FDD)

Antenna Model:	Amphenol SAA LTE Antenna	
Antenna length:	10.2	cm
Bottom frequency:	2500	MHz
Middle frequency:	2600	MHz
Top frequency:	2570	MHz

Maximum power (input to the antenna including a tolerance):	22.68	dBm
Antenna gain (or maximum gain allowed):	3.0	dBi

Or

Field Strength Measurement:		dBμA/M
Measurement Distance:		cm

Separation distance from antenna to the user/bystander	20	cm
Transmitter Duty Cycle:	100	%

Frequency Band 7: Modem Band 12 (LTE FDD)

Antenna Model:	Amphenol SAA LTE Antenna	
Antenna length:	10.2	cm
Bottom frequency:	699	MHz
Middle frequency:	700	MHz
Top frequency:	716	MHz

Maximum power (input to the antenna including a tolerance):	22.97	dBm
Antenna gain (or maximum gain allowed):	3.0	dBi

Or

Field Strength Measurement:		dBμA/M
Measurement Distance:		cm

Separation distance from antenna to the user/bystander	20	cm
Transmitter Duty Cycle:	100	%



Frequency Band 8:

Antenna Model:	Amphenol SAA LTE Antenna	
Antenna length:		cm
Bottom frequency:		MHz
Middle frequency:		MHz
Top frequency:		MHz

Maximum power (input to the antenna including a tolerance):		dBm
Antenna gain (or maximum gain allowed):		dBi

Or

Field Strength Measurement:		dB μ A/M
Measurement Distance:		cm

Separation distance from antenna to the user/bystander		cm
Transmitter Duty Cycle:		%

I hereby declare that the information supplied is correct and complete.

Name: Adam Dickison
Position held: Director
Date: 24/10/2025

1.5 Product Information

1.5.1 Technical Description

Automotive Infotainment Headunit - A vehicle infotainment controller containing FM receiver, GPS, and Bluetooth. The unit has no direct user interface and is controlled remotely from controls in the vehicle. It has three video outputs that drive remote displays.



1.5.2 Transmitter Description

The following radio access technologies and frequency bands are supported by the equipment under test.

Radio Access Technology	Frequency Band (MHz)	Minimum Frequency (MHz)	Output Power (dBm)	Duty Cycle (%)
2.4G WiFi	2412-2472	2412	18	100
5G Wifi	5180-5825	5180	14	100
Bluetooth	2402-2480	2402	11	100
PCS-1900	1850-1910	1850	29.24	12.5
GSM-850	824-849	824	32.06	12.5
HSPA+ Band 2	1850-1910	1850	23.14	100
HSPA+ Band 4	1710-1755	1710	23.14	100
HSPA+ Band 5	824-849	824	22.87	100
LTE FDD Band 2	1850-1910	1850	23.14	100
LTE FDD Band 4	1710-1755	1710	23.14	100
LTE FDD Band 5	824-849	824	22.87	100
LTE FDD Band 7	2500-2570	2500	22.68	100
LTE FDD Band 12	699-716	699	22.97	100

Table 2 - Transmitter Description - FCC

Note: Transmitter power includes upper bounds of uncertainty therefore maximum values are used.



1.5.3 Antenna Description

The following antennas are supported by the equipment under test.

Radio Access Technology	Antenna Model	Gain (dBi)	Antenna Length (cm)	Minimum Separation Distance (mm)
Bluetooth, WLAN	Amphenol Airwave Wi-Fi Antenna	-0.1 (2.4-2.4835 GHz) 5.1 (5.15-5.875 GHz)	3.5	200
2G, HSPA+, LTE FDD	Amphenol SAA LTE Antenna	0.3 (699-716 MHz) 2.3 (824-849 MHz) 4.6 (1710-1755 MHz) 3.6 (1850-1910 MHz) 2.9 (2500-2570 MHz)	10.2	200

Table 3 - Antenna Description

In the case of more than one type of antenna being supported by the equipment, the calculation is based on the maximum of the antenna gains. If other antennas can be used that have greater gains, the minimum separation distances will need to be recalculated.

Note: Antenna gain includes upper bounds of uncertainty therefore maximum values are used.

1.5.4 Equipment Configuration

Simultaneous transmission for the following configurations;

Combination 1 – Bluetooth, WLAN and 2G

Combination 2 – Bluetooth, WLAN and HSPA+

Combination 3 – Bluetooth, WLAN and LTE

Notes:

1.6 Test Location

TÜV SÜD conducted the following tests at our Octagon House Test Laboratory.

Test Name	Name of Engineer(s)	Accreditation
Exposure Assessment	Thomas Biddlecombe	UKAS

Table 4

Office Address:

TÜV SÜD
Octagon House
Concorde Way
Fareham
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United Kingdom



2 Assessment Details

2.1 Single RF Source Options for Determination of Exemption

Option	Reference	RF Exposure Test Exemptions for Single Source												
A (1-mW Test Exemption)	FCC 1.1307(b)(3)(i)(A)	The available maximum time averaged power is no more than 1 mW, regardless of separation distance.												
B (SAR-Based Exemption)	FCC 1.1307(b)(3)(i)(B)	The available maximum timeaveraged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold P_{th} (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by: $P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$ Where $x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right) \text{ and } f \text{ is in GHz;}$ and $ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases}$ <i>d</i> = the separation distance (cm);												
C (MPE-Based Exemption)	FCC 1.1307(b)(3)(i)(C)	Or using Table 1 and the minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates, the ERP (watts) is no more than the calculated value prescribed for that frequency. For the exemption in Table 1 to apply, R must be at least λ/2π, where λ is the free-space operating wavelength in meters. If the ERP of a single RF source is not easily obtained, then the available maximum time-averaged power may be used in lieu of ERP if the physical dimensions of the radiating structure(s) do not exceed the electrical length of λ/4 or if the antenna gain is less than that of a half-wave dipole (1.64 linear value). TABLE 1 TO § 1.1307(b)(3)(i)(C)—SINGLE RF SOURCES SUBJECT TO ROUTINE ENVIRONMENTAL EVALUATION <table><tr><th>RF Source frequency (MHz)</th><th>Threshold ERP (watts)</th></tr><tr><td>0.3–1.34</td><td>1,920 R².</td></tr><tr><td>1.34–30</td><td>3,450 R²/f².</td></tr><tr><td>30–300</td><td>3.83 R².</td></tr><tr><td>300–1,500</td><td>0.0128 R²f.</td></tr><tr><td>1,500–100,000</td><td>19.2R².</td></tr></table>	RF Source frequency (MHz)	Threshold ERP (watts)	0.3–1.34	1,920 R ² .	1.34–30	3,450 R ² /f ² .	30–300	3.83 R ² .	300–1,500	0.0128 R ² f.	1,500–100,000	19.2R ² .
RF Source frequency (MHz)	Threshold ERP (watts)													
0.3–1.34	1,920 R ² .													
1.34–30	3,450 R ² /f ² .													
30–300	3.83 R ² .													
300–1,500	0.0128 R ² f.													
1,500–100,000	19.2R ² .													

Table 5



2.2 Multiple RF Sources Options for Determination of Exemption

Option	Reference	
A 1-mW Test Exemption for Multiple Sources	FCC 1.1307(b)(3)(ii)(A)	The available maximum time averaged power of each source is no more than 1 mW and there is a separation distance of two centimeters between any portion of a radiating structure operating and the nearest portion of any other radiating structure in the same device, except if the sum of multiple sources is less than 1 mW during the time-averaging period, in which case they may be treated as a single source (separation is not required). This exemption may not be used in conjunction with other exemption criteria other than those in paragraph (b)(3)(i)(A) of this section. Medical implant devices may only use this exemption and that in paragraph (b)(3)(i)(A).
B Simultaneous Transmission with both SAR-based and MPE- Based Test Exemptions	FCC 1.1307(b)(3)(ii)(B)	In the case of fixed RF sources operating in the same time-averaging period, or of multiple mobile or portable RF sources within a device operating in the same time averaging period, if the sum of the fractional contributions to the applicable thresholds is less than or equal to 1 as indicated in the following equation. $\sum_{i=1}^a \frac{P_i}{P_{th,i}} + \sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^c \frac{Evaluated_k}{Exposure\ Limit_k} \leq 1$

Table 6



2.3 Individual Antenna Port Exposure Results

2.3.1 Single Source Calculation of Exposure at Specified Separation Distance FCC 1.1307(b)(3)(i)(B) 'Option B' (SAR Based Exemption)

RAT	Frequency (MHz)	Conducted Power Output mW	Duty Cycle %	Time Average Conducted Power Output mW	Antenna Gain Ratio	Maximum Power (EIRP) mW	Maximum Power (ERP) mW	Minimum Antenna to User Separation Distance (mm)	Pth (mW) 1.1307 (b)(3)(i)(B)	Greater of Max time averaged conducted power or ERP?	1.1307(b)(3)(i)(B) Exemption (Yes/No) (300 MHz to 6 GHz, 0.5 cm to 20 cm)
2.4 GHz WLAN	2472	63.10	100	63.10	0.98	61.66	37.60	70	414.6	63.10	Yes
5 GHz WLAN	5825	25.12	100	25.12	3.24	81.28	49.56	70	341.0	49.56	Yes
Bluetooth	2480	12.59	100	12.59	0.98	12.30	7.50	70	414.3	12.59	Yes
PCS-1900	1910	839.46	12.5	104.93	2.29	240.39	146.58	70	439.7	146.58	Yes
GSM-850	849	1606.94	12.5	200.87	1.70	341.12	208.00	70	388.1	208.00	Yes
HSPA+ B2	1910	206.06	100	206.06	2.29	472.06	287.84	70	439.7	287.84	Yes
HSPA+ B4	1755	206.06	100	206.06	2.88	594.29	362.37	70	448.2	362.37	Yes
HSPA+ B5	849	193.64	100	193.64	1.70	328.85	200.52	70	388.1	200.52	Yes
LTE FDD B2	1910	206.06	100	206.06	2.29	472.06	287.84	70	439.7	287.84	Yes
LTE FDD B4	1755	206.06	100	206.06	2.88	594.29	362.37	70	448.2	362.37	Yes
LTE FDD B5	849	193.64	100	193.64	1.70	328.85	200.52	70	388.1	200.52	Yes
LTE FDD B7	2570	185.35	100	185.35	1.95	361.41	220.37	70	410.9	220.37	Yes
LTE FDD B12	716	198.15	100	198.15	1.07	212.32	129.47	70	367.7	198.15	Yes

Table 7 - Transmitter Result

The calculations show that the individual transmitters comply with FCC 1.1307(b)(3)(i)(B) SAR-based exemption at a minimum distance of 70 mm.



2.4 Combined Antenna Port RF Exposure Results FCC 1.1307(b)(3)(ii)(B)

2.4.1 Combination 1 - Option B Summation

RAT	Frequency (MHz)	Conducted Power Output mW	Duty Cycle %	Time Average Conducted Power Output mW	Antenna Gain Ratio	Maximum Power (EIRP) mW	Maximum Power (ERP) mW	Test Separation Distance (mm)	ERP _j / ERP _{th,j} <or> P _i / P _{th}	Sum of the fractional contributions to the applicable thresholds is less than or equal to 1. Compliant? (Yes/No)
2.4 GHz WLAN	2472	63.10	100	63.10	0.98	61.66	37.60	70	0.15	
Bluetooth	2480	12.59	100	12.59	0.98	12.30	7.50	70	0.04	
GSM-850	849	1606.94	12.5	200.87	2.00	400.78	244.38	70	0.54	
Calculated RF exposure level at minimum compliance boundary of 0.070 m as a fraction of the limit									0.72	Yes

Table 8 - Transmitter Result

The calculations show that the multiple transmitters comply with FCC 1.1307(b)(3)(ii)(B) summation-based exemption.



2.4.2 Combination 2 - Option B Summation

RAT	Frequency (MHz)	Conducted Power Output mW	Duty Cycle %	Time Average Conducted Power Output mW	Antenna Gain Ratio	Maximum Power (EIRP) mW	Maximum Power (ERP) mW	Test Separation Distance (mm)	ERPj / ERPth,j <or> Pi / Pth	Sum of the fractional contributions to the applicable thresholds is less than or equal to 1. Compliant? (Yes/No)
2.4 GHz WLAN	2472	63.10	100	63.10	0.98	61.66	37.60	70	0.15	
Bluetooth	2480	12.59	100	12.59	0.98	12.30	7.50	70	0.04	
HSPA+ Band 4	1755	206.06	100	206.06	2.88	594.29	362.37	70	0.81	
Calculated RF exposure level at minimum compliance boundary of 0.070 m as a fraction of the limit									0.99	Yes

Table 9 - Transmitter Result

The calculations show that the multiple transmitters comply with FCC 1.1307(b)(3)(ii)(B) summation-based exemption

2.4.3 Combination 3 - Option B Summation

RAT	Frequency (MHz)	Conducted Power Output mW	Duty Cycle %	Time Average Conducted Power Output mW	Antenna Gain Ratio	Maximum Power (EIRP) mW	Maximum Power (ERP) mW	Test Separation Distance (mm)	ERPj / ERPth,j <or> Pi / Pth	Sum of the fractional contributions to the applicable thresholds is less than or equal to 1. Compliant? (Yes/No)
2.4 GHz WLAN	2472	63.10	100	63.10	0.98	61.66	37.60	70	0.15	
Bluetooth	2480	12.59	100	12.59	0.98	12.30	7.50	70	0.04	
LTE FDD Band 4	1755	206.06	100	206.06	2.88	594.29	362.37	70	0.81	
Calculated RF exposure level at minimum compliance boundary of 0.070 m as a fraction of the limit									0.99	Yes

Table 10 - Transmitter Result

The calculations show that the multiple transmitters comply with FCC 1.1307(b)(3)(ii)(B) summation-based exemption