

Rogers Labs, a division of The Compatibility Center LLC

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FCC / ISED

RF Exposure Evaluation Report

Model: SmartPass Lane Beacon

FCC ID: FIHSPLBPT15V1

IC: 1584A-SPLBRSS247

2402-2480 MHz

Transcore

Amtech Technology Center
8600 Jefferson Street, NE
Albuquerque, NM 87113

Test Report Number: 260415B

Test Date: April 15, 2026 – May 27, 2026

Authorized Signatory: 

Patrick Powell

Rogers Labs, a division of The Compatibility Center LLC

FCC Designation Number: US5305

FCC Registration Number: 315994

ISED Company Number: 32275

ISED CAB Identifier: US0096

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Revisions

Revision 1 Issued July 22, 2026 – Initial Release

Revision 2 Issued August 14, 2026 – Corrected IC ID# and showed exemption from routine evaluation.

Executive Summary

The purpose of this report is to evaluate the EUT's transmitters for exemption from routine SAR testing. This product is a fixed location device and is thereby treated as a mobile device with and is used in Public / Uncontrolled environments.

Regulatory Requirements:

FCC:

47CFR 1.1307

Per 47CFR §1.1310 and §2.091 RF Exposure is calculated.

This fixed location device is treated as a mobile device so MPE is required to evaluate it for exemption from routine SAR testing.

Industry Canada:

RSS-102 Issue 6

This is a mobile device so MPE is required to evaluate it for exemption from routine SAR testing.

Applicant:

Name of Applicant: Transcore
 Amtech Technology Center
 8600 Jefferson Street, NE
 Albuquerque, NM 87113

EUT details:

Names and IDs:

HVIN: SPLBV1
 PMN/Model: SmartPass Lane Beacon
 FCC ID: FIHSPLBPT15V1
 Industry Canada: 1584A-SPLBRSS247
 Operating Frequency Range: 2402-2480 MHz

Equipment Operational Modes:

Mode #	Standard
1A	BT BLE (GMSK)
2A	BT BLE (GMSK)
3A	BT BLE (GMSK)

Equipment & Accessory List

HVIN: SPLBV1

PMN: SmartPass Lane Beacon

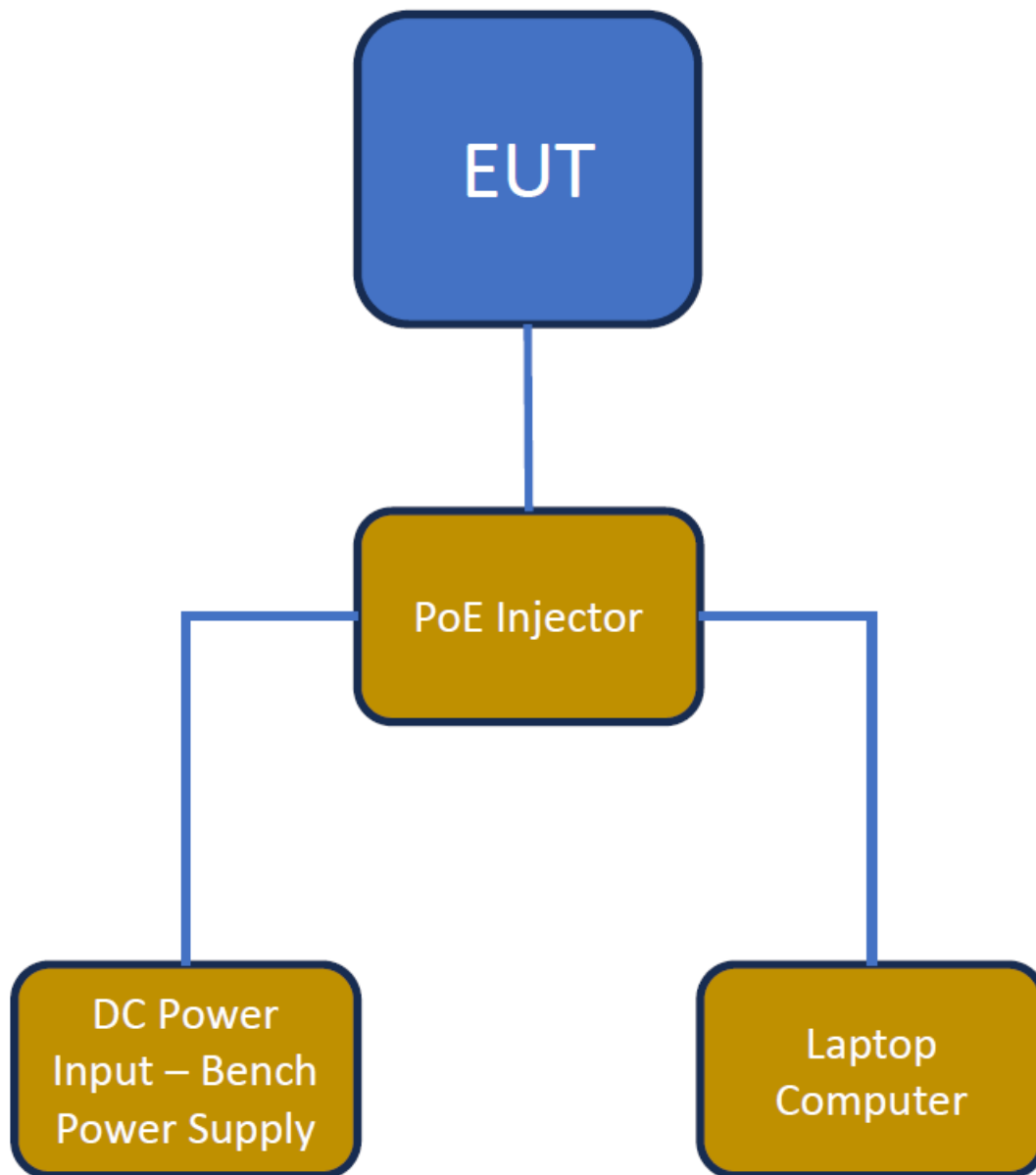
Transcore
 Amtech Technology Center
 8600 Jefferson Street, NE
 Albuquerque, NM 87113

Equipment Under Test	Model ~ P/N	S/N
Radiated & Antenna Port EUT	SmartPass Lane Beacon	051205-02
Support Equipment		
Power Over Ethernet Injector	HMS07021	224002673D
Ethernet cable 1	N/A	N/A
Ethernet cable 2	N/A	N/A
Ethernet cable 3	N/A	N/A

Test results in this report relate only to the items tested. Worst-case configuration data recorded in this report.

Software (FVIN): FccCwModTest_1.04b;
 Antenna: 2.4GHz 3x4 Rotman Lens Patch Array
 5.44 dBi max gain for beam 1
 7.38 dBi max gain for beam 2
 5.62 dBi max gain for beam 3.

Equipment Configuration



Equipment Function

The EUT is purpose-built to operate as a core component within a fully integrated tolling environment. It works in conjunction with both the SmartPass Signal Beacon and the SmartPass mobile application to reliably determine a vehicle's lane of travel as it moves through the toll zone.

The transmitter documented in this report provides operation in the 2400-2483.5 MHz band. The transmitter is a Bluetooth Low Energy beacon advertising over three Bluetooth channels, 37 (2402 MHz), 38 (2426 MHz) and 39 (2480 MHz). As vehicles enter the toll area, the Lane Beacon continuously broadcasts advertising data across all lanes. The SmartPass mobile application interprets this data to identify lane position and direction of travel, then generates transaction records for backend processing.

The unit operates from externally supplied power over ethernet (POE). There are no provision for alternative power source. The design utilizes internal fixed antenna and offers no provision for antenna replacement or modification. Operation of the design utilizes standardized Bluetooth Low Energy advertising protocol, modulation and packet structure. The test sample was modified from production equipment for testing purposes. The modification involved a special firmware load to allow full control of the EUT's radio behavior. Two different test samples **Radiated** and **Antenna Port EUT** were provided for testing radiated and antenna port conducted emissions, respectively. The **Antenna Port EUT** sample was modified by replacing the internal antenna with a 50-ohm antenna port connector and attenuator for testing purposes. Test results in this report relate only to the products described in this report.

Test Site Locations

Conducted EMI AC line conducted emissions testing performed in a shielded screen room located at Rogers Labs, a division of The Compatibility Center LLC, 7915 Nieman Rd., Lenexa, KS.

Antenna port Antenna port conducted emissions testing was performed in a shielded screen room located at Rogers Labs, a division of The Compatibility Center LLC, 7915 Nieman Rd., Lenexa, KS.

Radiated EMI The radiated emissions tests were performed at the 3 meters Semi-Anechoic Chamber (SAC) located at Rogers Labs, a division of The Compatibility Center LLC, 7915 Nieman Rd., Lenexa, KS.

Registered Site information: FCC Site: US5305, ISED: 32275, CAB Identifier: US0096

NVLAP Accreditation Lab code 200087-0

Environmental Conditions

Ambient Temperature 24.0° C

Relative Humidity 45%

Atmospheric Pressure 1008.8 mb

Test Results

Test Data: Chip 1, BLE

				dBd + 2.17 = dBi	Antenna Gain (dBi)	5.4		
					dBi to dBd	2.2		
Tx Frequency (MHz)	2402	Peak Power (Watts)	0.00083		Antenna Gain (dBd)	3.27		
		Peak Power (mW)	0.8		Antenna Gain (numeric)	3.5		
Cable Loss (dB)	0.0	(dBm)	-0.8		Antenna minus cable (dBi)	5.44		
		Duty Cycle (%)	100.0%					
		Adjusted Power (mW)	0.8					
		Adjusted Power (dBm)	-0.8					
		Calculated ERP (mw)	1.766	EIRP = Po(dBm) + Gain (dB)				
		Calculated EIRP (mw)	2.911		Radiated (EIRP) dBm	4.640		
				ERP = EIRP - 2.17 dB				
					Radiated (ERP) dBm	2.470		
Power density (S) EIRP ----- = mW/cm² 4 π r² r (cm) EIRP (mW)		FCC radio frequency radiation exposure limits per 1.1310						
		Frequency (MHz)	Occupational Limit W/m	Public Limit W/m ²				
		300-1,500	0.30	0.150				
		1,500-100,000	50	10				
		2402.0	50	10				
IC radio frequency radiation exposure limits per RSS-102, Issue 6 Field Reference Level FRL Limit (W/m ²)								
Frequency (MHz)	Uncontrolled		Frequency (MHz)	Controlled				
10-20	2.0	2.0	10-20	10.0	10.0			
20-48	8.944/f ^{0.5}	0.2	20-48	44.72/f ^{0.5}	0.9			
48-300	1.291	1.291	48-100	6.455	6.455			
300-6,000	0.02619*f ^{0.6834}	5.4	100-6,000	0.6455*f ^{0.5}	31.6			
6,000-15,000	5.0	10.0	6,000-15,000	50.0	50.0			
15,000-150,000	10	10.0	15,000-150,000	50.0	50.0			
150,000-300,000	6.67*(10 ⁻³)*f	0.2	150,000-300,000	3.33*(10 ⁻³)*f	0.8			
f = Transmit Frequency (MHz)		f (MHz) =		FCC	ISED			
P _T = Power Input to Antenna (mW)		P _T (mW) =		2402.0	2402.0			
Duty cycle (percentage of operation)		% =		0.8	0.8			
P _A = Adjusted Power due to Duty cycle or Cable Loss (mW)		P _A (mW) =		100.0%	100.0%			
G _N = Numeric Gain of the Antenna		GN (numeric) =		0.83	0.83			
S ₂₀ = Power Density of device at 20cm (mW/m ²)		S ₂₀ =(P _A G _N)/(4πR ₂₀ ²)		3.50	3.50			
S ₂₀ = Power Density of device at 20cm (W/m ²)		S ₂₀ (mW/m ²) =		0.00	0.00			
S _L = Power Density Limit (W/m ²)		S ₂₀ (W/m ²) =		0.01	0.01			
R _C = Minimum distance to the Radiating Element for Compliance (cm)		S _L (W/m ²) =		10.00	5.35			
S _C = Power Density of the device at the Compliance Distance R _C (W/m ²)		R _C =√((P _A G _N)/(4πS _L))		10.00	5.35			
R ₂₀ = 20cm		S _C =(P _A G _N)/(4πR _C ²)		0.5	0.7			
		R ₂₀ =		10.00	5.35			
				20	20			
Summary: Standalone MPE Calculations and Summary								
Radio	Tx Duty Cycle (%)	Tx Frequency (MHz)	Power Total (mW)	Gain (numeric)	S _L (W/m ²)	S ₂₀ (W/m ²)	R _C (cm)	S _C (W/m ²)
Chip 1 BT (FCC)	100.0%	2402.0	0.8	3.50	10.0	0.01	0.5	10.0
Chip 1 BT (ISED)	100.0%	2402.0	0.8	3.50	5.4	0.01	0.7	5.4

Test Data: Chip 2, BLE

					Antenna Gain (dBi)	7.4																
					dBi to dBd	2.2																
Tx Frequency (MHz)	2426	Peak Power (Watts)	0.00093		Antenna Gain (dBd)	5.21																
		Peak Power (mW)	0.9		Antenna Gain (numeric)	5.5																
Cable Loss (dB)	0.0	(dBm)	-0.3		Antenna minus cable (dBi)	7.38																
		Duty Cycle (%)	100.0%																			
		Adjusted Power (mW)	0.9																			
		Adjusted Power (dBm)	-0.3																			
		Calculated ERP (mw)	3.076		EIRP = Po(dBm) + Gain (dB)																	
		Calculated EIRP (mw)	5.070		Radiated (EIRP) dBm	7.050																
					ERP = EIRP - 2.17 dB																	
					Radiated (ERP) dBm	4.880																
Power density (S) EIRP ----- = mW/cm^2 4 π r^2 r (cm) EIRP (mW) <table><tr><th colspan="3">FCC radio frequency radiation exposure limits per 1.1310</th></tr><tr><th>Frequency (MHz)</th><th>Occupational Limit W/m</th><th>Public Limit W/m^2</th></tr><tr><td>300-1,500</td><td>f/30</td><td>f/150</td></tr><tr><td>1,500-100,000</td><td>50</td><td>10</td></tr><tr><td>2426.0</td><td>50</td><td>10</td></tr></table>								FCC radio frequency radiation exposure limits per 1.1310			Frequency (MHz)	Occupational Limit W/m	Public Limit W/m^2	300-1,500	f/30	f/150	1,500-100,000	50	10	2426.0	50	10
FCC radio frequency radiation exposure limits per 1.1310																						
Frequency (MHz)	Occupational Limit W/m	Public Limit W/m^2																				
300-1,500	f/30	f/150																				
1,500-100,000	50	10																				
2426.0	50	10																				
IC radio frequency radiation exposure limits per RSS-102, Issue 6 Field Reference Level FRL Limit (W/m^2)																						
Frequency (MHz)	Uncontrolled		Frequency (MHz)	Controlled																		
10-20	2.0	2.0	10-20	10.0	10.0																	
20-48	8.944/f^0.5	0.2	20-48	44.72/f^0.5	0.9																	
48-300	1.291	1.291	48-100	6.455	6.455																	
300-6,000	0.02619*f^0.6834	5.4	100-6,000	0.6455*f^0.5	31.8																	
6,000-15,000	5.0	10.0	6,000-15,000	50.0	50.0																	
15,000-150,000	10	10.0	15,000-150,000	50.0	50.0																	
150,000-300,000	6.67*(10^-5)*f	0.2	150,000-300,000	3.33*(10^-5)*f	0.8																	
f = Transmit Frequency (MHz)			f (MHz) =	FCC	ISD																	
P _T = Power Input to Antenna (mW)			P _T (mW) =	2426.0	2426.0 MHz																	
Duty cycle (percentage of operation)			% =	0.9	0.9 mW																	
P _A = Adjusted Power due to Duty cycle or Cable Loss (mW)			P _A (mW) =	100.0%	100.0% %																	
G _N = Numeric Gain of the Antenna			G _N (numeric) =	0.93	0.93 mW																	
S ₂₀ = Power Density of device at 20cm (mW/m^2)		S ₂₀ =(P _A G _N)/(4πR ₂₀)	S ₂₀ (mW/m^2) =	5.47	5.47 numeric																	
S ₂₀ = Power Density of device at 20cm (W/m^2)		S ₂₀ =(P _A G _N)/(4πR ₂₀)	S ₂₀ (W/m^2) =	0.00	0.00 mW/m^2																	
S _L = Power Density Limit (W/m^2)			S _L (W/m^2) =	0.01	0.01 W/m^2																	
R _C = Minimum distance to the Radiating Element for Compliance (cm)		R _C =√(P _A G _N /4πs _L)	R _C (cm) =	10.00	5.39 W/m^2																	
S _C = Power Density of the device at the Compliance Distance R _C (W/m^2)		S _C =(P _A G _N)/(4πR _C)^2	S _C (W/m^2) =	0.6	0.9 cm																	
R ₂₀ = 20cm			R ₂₀ =	10.00	5.39 W/m^2																	
				20	20 cm																	
Summary: Standalone MPE Calculations and Summary																						
Radio	Tx Duty Cycle (%)	Tx Frequency (MHz)	Power Total (mW)	Gain (numeric)	S _L (W/m^2)	S ₂₀ (W/m^2)	R _C (cm)	S _C (W/m^2)														
Chip 2 BT (FCC)	100.0%	2426.0	0.9	5.47	10.0	0.01	0.6	10.0														
Chip 2 BT (ISD)	100.0%	2426.0	0.9	5.47	5.4	0.01	0.9	5.4														

Test Data: Chip 3, BLE

				Antenna Gain (dBi)	5.6																																																																			
				dBi to dBd	2.2																																																																			
Tx Frequency (MHz)	2402	Peak Power (Watts)	0.00098	Antenna Gain (dBd)	3.45																																																																			
		Peak Power (mW)	1.0	Antenna Gain (numeric)	3.6																																																																			
Cable Loss (dB)	0.0	(dBm)	-0.1	Antenna minus cable (dBi)	5.62																																																																			
		Duty Cycle (%)	100.0%																																																																					
		Adjusted Power (mW)	1.0																																																																					
		Adjusted Power (dBm)	-0.1																																																																					
		Calculated ERP (mw)	2.168	EIRP = Po(dBm) + Gain (dB)																																																																				
		Calculated EIRP (mw)	3.573	Radiated (EIRP) dBm	5.530																																																																			
				ERP = EIRP - 2.17 dB																																																																				
				Radiated (ERP) dBm	3.360																																																																			
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<table><tr><td>f = Transmit Frequency (MHz)</td><td></td><td>f (MHz) =</td><td>2402.0</td><td>ISED</td><td>2402.0 MHz</td></tr><tr><td>P_T = Power Input to Antenna (mW)</td><td></td><td>P_T (mW) =</td><td>1.0</td><td></td><td>1.0 mW</td></tr><tr><td>Duty cycle (percentage of operation)</td><td></td><td>% =</td><td>100.0%</td><td></td><td>100.0% %</td></tr><tr><td>P_A = Adjusted Power due to Duty cycle or Cable Loss (mW)</td><td></td><td>P_A (mW) =</td><td>0.98</td><td></td><td>0.98 mW</td></tr><tr><td>G_N = Numeric Gain of the Antenna</td><td></td><td>GN (numeric) =</td><td>3.65</td><td></td><td>3.65 numeric</td></tr><tr><td>S₂₀ = Power Density of device at 20cm (mW/m²)</td><td>S₂₀=(P_AG_N)/(4πR₂₀²)</td><td>S₂₀ (mW/m²) =</td><td>0.00</td><td></td><td>0.00 mW/m²</td></tr><tr><td>S₂₀ = Power Density of device at 20cm (W/m²)</td><td>S₂₀=(P_AG_N)/(4πR₂₀²)</td><td>S₂₀ (W/m²) =</td><td>0.01</td><td></td><td>0.01 W/m²</td></tr><tr><td>S_L = Power Density Limit (W/m²)</td><td></td><td>S_L (W/m²)=</td><td>10.00</td><td></td><td>5.35 W/m²</td></tr><tr><td>R_C = Minimum distance to the Radiating Element for Compliance R_C=√(P_AG_N/4πS_L)</td><td></td><td>R_C (cm) =</td><td>0.5</td><td></td><td>0.7 cm</td></tr><tr><td>S_C = Power Density of the device at the Compliance Distance R S_C=(P_AG_N)/(4πR_C²)</td><td></td><td>S_C (W/m²) =</td><td>10.00</td><td></td><td>5.35 W/m²</td></tr><tr><td>R₂₀ = 20cm</td><td></td><td>R20=</td><td>20</td><td></td><td>20 cm</td></tr></table>							f = Transmit Frequency (MHz)		f (MHz) =	2402.0	ISED	2402.0 MHz	P _T = Power Input to Antenna (mW)		P _T (mW) =	1.0		1.0 mW	Duty cycle (percentage of operation)		% =	100.0%		100.0% %	P _A = Adjusted Power due to Duty cycle or Cable Loss (mW)		P _A (mW) =	0.98		0.98 mW	G _N = Numeric Gain of the Antenna		GN (numeric) =	3.65		3.65 numeric	S ₂₀ = Power Density of device at 20cm (mW/m ²)	S ₂₀ =(P _A G _N)/(4πR ₂₀ ²)	S ₂₀ (mW/m ²) =	0.00		0.00 mW/m ²	S ₂₀ = Power Density of device at 20cm (W/m ²)	S ₂₀ =(P _A G _N)/(4πR ₂₀ ²)	S ₂₀ (W/m ²) =	0.01		0.01 W/m ²	S _L = Power Density Limit (W/m ²)		S _L (W/m ²)=	10.00		5.35 W/m ²	R _C = Minimum distance to the Radiating Element for Compliance R _C =√(P _A G _N /4πS _L)		R _C (cm) =	0.5		0.7 cm	S _C = Power Density of the device at the Compliance Distance R S _C =(P _A G _N)/(4πR _C ²)		S _C (W/m ²) =	10.00		5.35 W/m ²	R ₂₀ = 20cm		R20=	20		20 cm
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Radio	k	Duty Cycle (%)	Tx Frequency (MHz)	Power Total (mW)	Gain (numeric)	S _L (W/m ²)	S ₂₀ (W/m ²)	R _C (cm)	S _C (W/m ²)																																																															
Chip 3 BT (FCC)		100.0%	2402.0	1.0	3.65	10.0	0.01	0.5	10.0																																																															
Chip 3 BT (ISED)		100.0%	2402.0	1.0	3.65	5.4	0.01	0.7	5.4																																																															

Summary and Simultaneous Chip 1, 2 and 3 MPE Calculation

MPE Calculations and Summary									
Radio	Tx Duty Cycle (%)	Tx Frequency (MHz)	Power Total (mW)	Gain (numeric)	Source-based, Time-avg. EIRP (W)	S_L (W/m ²)	S_{20} (W/m ²)	R_c (cm)	S_c (W/m ²)
Chip 1 BT (FCC)	100.0%	2402.0	0.8	3.5	0.0029	10.0	0.006	0.5	10.0
Chip 2 BT (FCC)	100.0%	2426.0	0.9	5.5	0.0051	10.0	0.010	0.6	10.0
Chip 3 BT (FCC)	100.0%	2402.0	1.0	3.6	0.0036	10.0	0.007	0.5	10.0
	Tx Duty Cycle (%)	Tx Frequency (MHz)	Power Total (mW)	Gain (numeric)	Source-based, Time-avg. EIRP (W)	S_L (W/m ²)	S_{20} (W/m ²)	R_c (cm)	S_c (W/m ²)
Chip 1 BT (ISED)	100.0%	2402.0	0.8	3.5	0.0029	5.4	0.006	0.7	5.4
Chip 2 BT (ISED)	100.0%	2426.0	0.9	5.5	0.0051	5.4	0.010	0.9	5.4
Chip 3 BT (ISED)	100.0%	2402.0	1.0	3.6	0.0036	5.4	0.007	0.7	5.4

FCC Simultaneous MPE Calculation (Worst Case)				ISED Simultaneous MPE Calculation (Worst Case)			
	Chip 1 BT (FCC)	Chip 2 BT (FCC)	Chip 3 BT (FCC)		Chip 1 BT (ISED)	Chip 2 BT (ISED)	Chip 3 BT (ISED)
Tx Frequency (MHz)	2402.0	2426.000	2402.0	Tx Frequency (MHz)	2402.0	2426.0	2402.0
S_{20} (W/m ²)	0.006	0.010	0.007	Source-based, Time-avg. EIRP	0.0029	0.0051	0.0071
S_L (W/m ²)	10.000	10.000	10.000	RSS-102 6.6 exemption threshold	2.68	2.69	2.68
Power Ratio (S_{20} / S_L)	0.0006	0.0010	0.0007	Exemption Ratio (EIRP/Pexempt)	0.0011	0.0019	0.0027
Sum of Power Ratios at compliance distance			0.0023	Sum of Simultaneous Exemption Ratios			0.0056
Requirement = Σ of MPE Ratio ≤ 1			COMPLIES	Requirement = Σ of MPE Ratio ≤ 1			EXEMPT

Conclusion

The EUT incorporates three Bluetooth transmitters capable of simultaneous operation. RF exposure compliance was evaluated using the maximum source-based, time-averaged transmitter power, maximum antenna gain, and a minimum separation distance of 20 cm from the user and/or bystander. A 100% transmit duty cycle was used for each transmitter, representing a conservative simultaneous-transmission condition.

For **FCC**, the RF exposure contribution of each transmitter was evaluated in accordance with 47 CFR §§1.1307(b), 1.1310, and 2.1091. The individual normalized exposure ratios for the three simultaneously operating Bluetooth transmitters were summed and found to be less than the applicable criterion of 1.0. Therefore, simultaneous operation of the three Bluetooth transmitters satisfies the applicable FCC RF exposure requirements at the specified minimum separation distance of 20 cm.

For **ISED**, RF exposure was evaluated in accordance with RSS-102 Issue 6. The source-based, time-averaged maximum EIRP of each transmitter, including maximum antenna gain, was compared with the applicable FRL routine-evaluation exemption threshold specified in RSS-102 Section 6.6. The individual exemption ratios were summed for the simultaneous-transmission configuration, resulting in a total exemption ratio less than 1.0. Therefore, the EUT qualifies for exemption from routine FRL evaluation under RSS-102 Section 6.6. Compliance with the ISED RF exposure requirements is documented using the RSS-102 Annex B declaration.

Based on the evaluations described above, the EUT complies with the applicable FCC general-population/uncontrolled RF exposure requirements and qualifies for exemption from routine FRL evaluation under ISED RSS-102 for simultaneous operation of the three Bluetooth transmitters at a minimum separation distance of 20 cm.

Annex

- Annex A Measurement Uncertainty Calculations
- Annex B Test Equipment
- Annex C Laboratory Certificate of Accreditation

Rogers Labs, a division of The Compatibility Center LLC

7915 Nieman Road FCC ID: FIHSPLBPT15V1 HVIN: SPLBV1

Lenexa, KS 66214 Test: 260415B IC: 1584A-SPLBRSS247

Phone/Fax: (913) 660-0666 Test to: 47CFR 1.1307, RSS-102 Issue 6

Revision 2 File: Transcore SmartPass Lane Beacon RFExp FCC-IC 260415B r2

Transcore

PMN: SmartPass Lane Beacon

SN's: 051205-02

Date: August 17, 2026

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Annex A Measurement Uncertainty Calculations

The measurement uncertainty was calculated for all measurements listed in this test report according To CISPR 16–4. Result of measurement uncertainty calculations are recorded below. Component and process variability of production devices similar to those tested may result in additional deviations. The manufacturer has the sole responsibility of continued compliance.

Measurement	Expanded Measurement Uncertainty $U_{(lab)}$
3 Meter Horizontal 0.009-1000 MHz Measurements	4.16
3 Meter Vertical 0.009-1000 MHz Measurements	4.33
3 Meter Measurements 1-18 GHz	5.46
3 Meter Measurements 18-40 GHz	5.16
10 Meter Horizontal Measurements 0.009-1000 MHz	4.15
10 Meter Vertical Measurements 0.009-1000 MHz	4.32
AC Line Conducted	1.75
Antenna Port Conducted power	1.17
Frequency Stability	1.00E-11
Temperature	1.6°C
Humidity	3%

Annex B Test Equipment

Equipment	Manufacturer	Model (SN)	Band	Cal Date(m/d/y)	Due
☒ LISN	FCC	FCC-LISN-50-25-10(1PA) (160611)	.15-30MHz	3/20/2026	3/20/2027
☐ Cable	Huber & Suhner Inc.	Sucoflex102ea(L10M)(303073)	9kHz-40 GHz	9/9/2025	9/9/2026
☒ Cable	Huber & Suhner Inc.	Sucoflex102ea(1.5M)(303069)	9kHz-40 GHz	9/9/2025	9/9/2026
☒ Cable	Belden	RG-58 (L1-CAT3-11509)	9kHz-30 MHz	9/9/2025	9/9/2026
☒ Antenna	Com Power	AL-130 (121055)	.001-30 MHz	9/2/2025	9/2/2026
☐ Antenna:	EMCO	6509	.001-30 MHz	9/16/2024	9/16/2026
☒ Antenna	ARA	BCD-235-B (169)	20-350MHz	9/2/2025	9/2/2026
☒ Antenna	Sunol	JB-6 (A100709)	30-1000 MHz	9/2/2025	9/2/2026
☐ Antenna	ETS-Lindgren	3147 (40582)	200-1000MHz	9/16/2024	9/16/2026
☒ Antenna	ETS-Lindgren	3117 (200389)	1-18 GHz	3/17/2025	3/17/2027
☒ Antenna	Com Power	AH-118 (10110)	1-18 GHz	9/16/2024	9/16/2026
☒ Antenna	Com Power	AH-1840 (101046)	18-40 GHz	3/17/2025	3/17/2027
☒ Analyzer	Rohde & Schwarz	ESU40 (100108)	20Hz-40GHz	7/9/2025	7/9/2026
☒ Analyzer	Rohde & Schwarz	ESW44 (101534)	20Hz-44GHz	1/20/2026	1/20/2027
☐ Analyzer	Rohde & Schwarz	FS-Z60, 90, 140, and 220	40GHz-220GHz	12/22/2017	12/22/2027
☐ Amplifier	Com-Power	PA-010 (171003)	100Hz-30MHz	9/9/2025	9/9/2026
☐ Amplifier	Com-Power	CPPA-102 (01254)	1-1000 MHz	9/9/2025	9/9/2026
☒ Amplifier	Com-Power	PAM-118A (551014)	0.5-18 GHz	9/9/2025	9/9/2026
☒ Amplifier	Com-Power	PAM-840A (461328)	18-40 GHz	9/9/2025	9/9/2026
☒ Pwr Sensor	Rohde & Schwarz	NRP33T	0.05-33 GHz	9/9/2025	9/9/2026
☒ Generator	Rohde & Schwarz	SMBV100A6 (260771)	20Hz-6 GHz	3/20/2026	3/20/2027
☐ RF Filter	Micro-Tronics	BRC50722 (009).9G notch	30-18000 MHz	3/20/2026	3/20/2027
☐ RF Filter	Micro-Tronics	HPM50117 (063) 3G HPF	30-18000 MHz	3/20/2026	3/20/2027
☒ RF Filter	Micro-Tronics	BRM50702 (172) 2G notch	30-18000 MHz	3/20/2026	3/20/2027
☒ RF Filter	Micro-Tronics	BRC50703 (G102) 5G notch	30-18000 MHz	3/20/2026	3/20/2027
☒ RF Filter	Micro-Tronics	BRC50705 (024) 5G notch	30-18000 MHz	3/20/2026	3/20/2027
☐ Attenuator	Fairview	SA6NFN100W-40 (1625)	30-18000 MHz	3/20/2026	3/20/2027
☒ Attenuator	Mini-Circuits	VAT-3W2+ (1445)	30-6000 MHz	3/20/2026	3/20/2027
☒ Attenuator	Mini-Circuits	VAT-3W2+ (1735)	30-6000 MHz	3/20/2026	3/20/2027
☒ Attenuator	Mini-Circuits	VAT-6W2+ (1438)	30-6000 MHz	3/20/2026	3/20/2027
☒ Weather station	Davis	6152 (A70927D44N)		1/23/2026	1/23/2027

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Lenexa, KS 66214 Test: 260415B IC: 1584A-SPLBRSS247 SN's: 051205-02

Phone/Fax: (913) 660-0666 Test to: 47CFR 1.1307, RSS-102 Issue 6

Date: August 17, 2026

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<u>Equipment</u>	<u>Manufacturer</u>	<u>Model (SN)</u>	<u>Band</u>	<u>Cal Date(m/d/y)</u>	<u>Due</u>
☒ Frequency Counter: Leader		LDC-825 (8060153)		3/20/2026	3/20/2027
☐ ISN	Com-Power	Model ISN T-8 (600111)		3/20/2026	3/20/2027
☒ LISN:	Com-Power	Model LI-220A		9/16/2024	9/16/2026
☐ LISN:	Com-Power	Model LI-550C		9/16/2024	9/16/2026
☒ Cable	Huber & Suhner Inc.	Sucoflex102ea(1.5M)(303072)	9kHz-40 GHz	9/9/2025	9/9/2026
☒ Cable	Huber & Suhner Inc.	Sucoflex102ea(L1M)(281183)	9kHz-40 GHz	9/9/2025	9/9/2026
☒ Cable	Huber & Suhner Inc.	Sucoflex102ea(4M)(281184)	9kHz-40 GHz	9/9/2025	9/9/2026
☒ Cable	Huber & Suhner Inc.	Sucoflex102ea(L10M)(317546)	9kHz-40 GHz	9/9/2025	9/9/2026
☒ Cable	Time Microwave	4M-750HF290-750 (L4M)	9kHz-24 GHz	9/9/2025	9/9/2026
☒ Cable	Mini-Circuits	KBL-2M-LOW+ (23090329)	9kHz-40 GHz	3/20/2026	3/20/2027
☒ Analyzer	HP	8562A (3051A05950)	9kHz-125GHz	3/20/2026	3/20/2027
☐ Antenna:	Solar	9229-1 & 9230-1		2/5/2026	2/5/2028
☐ CDN:	Com-Power	Model CDN M325E		9/16/2024	9/16/2026
☐ EMC Transient Generator HVT	TR 3000			2/5/2026	2/5/2027
☐ AC Power Source (Ametech, California Instruments)				2/5/2026	2/5/2027
☒ Field Intensity Meter: EFM-018				2/5/2026	2/5/2027
☒ ESD Simulator: MZ-15				3/20/2026	3/20/2027
☐ Injection Clamp Luthi Model EM101				not required	
☐ R.F. Power Amp ACS 230-50W				not required	
☐ R.F. Power Amp EIN Model: A301				not required	
☐ R.F. Power Amp A.R. Model: 10W 1010M7				not required	
☐ R.F. Power Amp A.R. Model: 50U1000				not required	
☒ Temperature Chamber				not required	
☒ Shielded Room				not required	

Annex C Laboratory Certificate of Accreditation

United States Department of Commerce
National Institute of Standards and Technology

NVLAP[®] ILAC-MRA

Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 200087-0

Rogers Labs, a division of The Compatibility Center LLC
Lenexa, KS

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:

Electromagnetic Compatibility & Telecommunications

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communiqué on ISO/IEC 17025).*

2025-03-11 through 2026-03-31
Effective Dates

DEPARTMENT OF COMMERCE
UNITED STATES OF AMERICA

[Signature]
For the National Voluntary Laboratory Accreditation Program

United States Department of Commerce
National Institute of Standards and Technology

NVLAP[®] ILAC-MRA

Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 200087-0

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2026-03-17 through 2027-03-31
Effective Dates

DEPARTMENT OF COMMERCE
UNITED STATES OF AMERICA

[Signature]
For the National Voluntary Laboratory Accreditation Program

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