



Report No.: 1910-071EA

Revision: N/C

Radar Sensor Calibration Verification Certificate of Calibration

Model: RRS24F-ST3

Part Number / Serial Number:
590-113 / 64009
Ex. 590-XXX / 6XXXX

Description:
Radar Characteristics Validation
In compliance with:
RRS24F-ST3 Radar Sensor Calibration Verification Procedure Documentation (5030-0150)

Date of Issue: August 15, 2024

Owner of EUT: Verra Mobility
1150 N. Alma School Rd
Mesa, AZ 85201

Attention of: Engineering Department
Phone: (480) 443-7000

Test Facility	
Test Laboratory	Keystone Compliance, LLC
Address	131 North Columbus Innerbelt
City, State, Zip Code	New Castle, PA 16101
Email	questions@keystonecompliance.com
Web Site	www.keystonecompliance.com

Test Personnel	
Name	Alex Herrin
Title	EMC Test Engineer
Signature	

Radar Sensor Calibration Verification
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The frequency measurements performed and recorded within this report demonstrate that the JENOPTIK RR24F-ST3 radar has an accuracy of less than or equal to 0.62 mph in the range of 6.21 mph to 62.14 mph and an accuracy of 0.62 mph to 1.86 mph in the range of 62.14 mph to 186.41 mph. This is equal to or better than +/- 1 mph accuracy up to 100 mph, as specified by the manufacturer.

FSK Frequency Set 1					
Nominal Frequency (GHz)	Measured Frequency (GHz)	Amplitude (dBm)	Frequency Deviation (MHz)	Limit (MHz)	Results
$f_0 = 24.08$	24.078275	14.1898297	-1.72	+/- 48.2	PASS
$f_1 = 24.08725$	24.08575	14.6254444	-1.50	+/- 48.2	PASS
$f_2 = 24.089$	24.087375	15.7080754	-1.62	+/- 48.2	PASS
$f_3 = 24.09$	24.08835	15.965436	-1.65	+/- 48.2	PASS

FSK Frequency Set 2					
Nominal Frequency (GHz)	Measured Frequency (GHz)	Amplitude (dBm)	Frequency Deviation (MHz)	Limit (MHz)	Results
$f_0 = 24.12$	24.1189	13.5332461	-1.10	+/- 48.2	PASS
$f_1 = 24.12725$	24.12605	14.1348565	-1.20	+/- 48.2	PASS
$f_2 = 24.129$	24.127675	15.3324865	-1.33	+/- 48.2	PASS
$f_3 = 24.13$	24.12865	15.5948464	-1.35	+/- 48.2	PASS

FSK Frequency Set 3					
Nominal Frequency (GHz)	Measured Frequency (GHz)	Amplitude (dBm)	Frequency Deviation (MHz)	Limit (MHz)	Results
$f_0 = 24.16$	24.15855	14.9046386	-1.45	+/- 48.2	PASS
$f_1 = 24.16725$	24.1657	14.9532447	-1.55	+/- 48.2	PASS
$f_2 = 24.169$	24.16765	15.9578736	-1.35	+/- 48.2	PASS
$f_3 = 24.17$	24.168625	16.210233	-1.38	+/- 48.2	PASS