



Report No.: 1910-071EA

Revision: N/C

Radar Sensor Calibration Verification Certificate of Calibration

Model: RRS24F-ST3

Part Number / Serial Number:
590-113 / 65071
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	15.6018297	-1.72	+/- 48.2	PASS
$f_1 = 24.08725$	24.085425	16.0974444	-1.83	+/- 48.2	PASS
$f_2 = 24.089$	24.087375	17.5080754	-1.62	+/- 48.2	PASS
$f_3 = 24.09$	24.08835	17.374436	-1.65	+/- 48.2	PASS

FSK Frequency Set 2					
Nominal Frequency (GHz)	Measured Frequency (GHz)	Amplitude (dBm)	Frequency Deviation (MHz)	Limit (MHz)	Results
$f_0 = 24.12$	24.118575	14.8962461	-1.43	+/- 48.2	PASS
$f_1 = 24.12725$	24.12605	15.1158565	-1.20	+/- 48.2	PASS
$f_2 = 24.129$	24.127675	16.4924865	-1.33	+/- 48.2	PASS
$f_3 = 24.13$	24.12865	16.7238464	-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	16.1996386	-1.45	+/- 48.2	PASS
$f_1 = 24.16725$	24.1657	16.3532447	-1.55	+/- 48.2	PASS
$f_2 = 24.169$	24.16765	17.5698736	-1.35	+/- 48.2	PASS
$f_3 = 24.17$	24.168625	17.676233	-1.38	+/- 48.2	PASS