Frequency Stability Test results for 260-E255040 5 Ghz radio module

The Frequency Stability results meet the requirement of the limit as specified against: FCC Part 15.407(g) as shown in this report. The maximum drift is such that all intended emissions will remain with the allocated bands.

Definition
The Frequency stability is the accuracy of the transmitted signal under extreme operating conditions.

Test Parameters	
Test Location:	Element Labs Pendle Place Skemersdale West Lancashire WN8 9PN UK
Date Test Performed	December 2, 2015
Test Chamber:	Radio Lab
Test Standard and Clause:	ANSI C63.10-2013, Clause 6.8
EUT Channels / Frequencies Measured:	5240 MHz
Deviations From Standard:	None
Temperature Extreme Environment Test Range:	N/A
Voltage Extreme Environment Test Range:	N/A
Environmental Conditions (Normal Environment)	
Temperature: 20 °C	+15 ºC to +35 ºC (as declared)
Humidity: 43 % RH	20 % RH to 75 % RH (as declared)
Supply: 110 V ac	110 V ac ±15 % (as declared)

Type of Equipment	***Maker/Supplier***	***Model Number***	***Element Number***	***Calibration Due Date***
Spectrum Analyser	R&S	FSU26	UH405	11/05/2016
Multimeter	Agilent	34405a	REF976	03/06/2016
Temperature indicator	Fluke	52 Series II	L426	30/05/2016
Temperature chamber	ETC		U522	Use L426
Variac	Farnell		U34	Use REF976

Test Limit
Ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified.

Power Supply Variation
Tests at extreme supply voltages are made if required by the procedures specified in the test standard, and results of this testing are detailed in this report.

In the case the EUT is designed for operation from a lead-acid battery power source, the extreme test voltages are evaluated between 90% and 130% of the nominal battery voltage declared by the manufacturer.

For float charge applications using gel-cell type batteries, extreme test voltages are evaluated between 85% and 115% of the nominal battery voltage declared.
For all battery operated equipment, worst case intentional and spurious emissions are re-checked employing a new (fully charged) battery.

Thermal Variation
Tests at extreme temperatures are made if required by the procedures specified in the test standard, and results of this testing are detailed in this report.

Tests are performed at the upper and lower extremes as required and typically at 10˚ steps between. Before any temperature measurements are made, the equipment is allowed to reach a thermal balance in the test chamber.

Test Results

Power Supply Variation Frequency Stability Vs Voltage variation			
Operating Frequency - 5240 MHz			
Volts	Temp oC	Fc (MHz)	Drift (PPM)
100%	20	5239.945	-10.496
115%	20	5239.938	-11.928
85%	20	5239.747	-48.378
Thermal Variation Frequency Stability Vs Temperature variation			
Operating Frequency - 5240 MHz			
Volts	**Temp oC**	**Fc (MHz)**	**Drift (PPM)**
100%	-30	5240.000	0.000
100%	-20	5240.040	7.646
100%	-10	5239.990	-1.908
100%	0	5239.958	-8.111
100%	10	5239.960	-7.646
100%	20	5239.945	-10.496
100%	30	5239.898	-19.561
100%	40	5239.898	-19.561
100%	50	5239.923	-14.790