



ROGERS LABS, INC.

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January 25, 2022

Applicant: Trig Avionics Limited
Heriot Watt Research Park, Riccarton
Currie EH14 4AP United Kingdom

Equipment: FCC ID: VZI00882

FCC Rules: Parts 2 and 87 and Class II Permissive Change for PCB and Part Modification referred to as C2PCPX

The information provided below is in response to FCC request for Side-by-Side comparison of data. This information is submitted in support of the Class II Permissive Change for PCB and Part Modification referred to as (C2PCPX) pursuant to 47CFR part 2 paragraph 2.932, part 87, Notification 202109-001, and KDB 388624 D02 Pre-Approval Guidance List v16r12. The design required modifications due to component parts obsolescence.

Side by side Data Comparison of Antenna Port Conducted Harmonic emissions.

Antenna Port Conducted		Original	Current	Difference
Frequency (MHz)	Tx Power (dBm)	Harmonic Emission (dBm)	Harmonic Emission (dBm)	(dBm)
254	39.0	-30.7	-21.7	9.0
381	39.0	-28.1	-23.9	4.2
508	39.0	-26.8	-34.2	-7.4
635	39.0	-30.4	-33.5	-3.1

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Revision 1

Trig Avionics Limited
Model: TY91
Test: 211119
Test to: CFR47 Parts 2, 87 and RSS-141
File: VZI00882 Data Comparison

SN: 002
FCC ID: VZI00882
IC: 10614A-00882
Date: January 25, 2022
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Side by side Data Comparison of radiated emissions emanating from cabinet and wiring.

Original Design	Radiated Emission		Signal Level to reproduce		Level Below Carrier (LBC)	
	3 m Hor (dBμV)	3 m Vert (dBμV)	Horizontal dBm	Vertical dBm	Horizontal dBm	Vertical dBm
90.0	41.1	33.7	-54.1	-61.5	-93.1	-100.5
150.0	35.0	26.1	-60.2	-69.1	-99.2	-108.1
180.0	37.9	30.6	-57.3	-64.6	-96.3	-103.6
210.0	44.2	29.5	-51.0	-65.7	-90.0	-104.7
240.0	44.1	40.8	-51.1	-54.4	-90.1	-93.4
300.0	44.3	37.7	-50.9	-57.5	-89.9	-96.5
360.0	39.0	35.4	-56.2	-59.8	-95.2	-98.8

Current Design	Radiated Emission		Signal Level to reproduce		Level Below Carrier (LBC)	
	3 m Hor (dBμV)	3 m Vert (dBμV)	Horizontal dBm	Vertical dBm	Horizontal dBm	Vertical dBm
90.0	29.0	29.4	-66.2	-65.8	-105.2	-104.8
150.0	33.7	28.2	-61.5	-67.0	-100.5	-106.0
180.0	29.9	25.6	-65.3	-69.6	-104.3	-108.6
210.0	28.7	21.5	-66.5	-73.7	-105.5	-112.7
240.0	41.4	36.9	-53.8	-58.3	-92.8	-97.3
300.0	46.0	40.5	-49.2	-54.7	-88.2	-93.7
360.0	46.1	42.7	-49.1	-52.5	-88.1	-91.5

Differences	Horizontal (LBC)		Difference	Vertical (LBC)		Difference
	Original	Current		Original	Current	
Radiated emissions	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
Frequency (MHz)						
90.0	-93.1	-105.2	-12.1	-100.5	-104.8	-4.3
150.0	-99.2	-100.5	-1.3	-108.1	-106.0	2.1
180.0	-96.3	-104.3	-8.0	-103.6	-108.6	-5.0
210.0	-90.0	-105.5	-15.5	-104.7	-112.7	-8.0
240.0	-90.1	-92.8	-2.7	-93.4	-97.3	-3.9
300.0	-89.9	-88.2	1.7	-96.5	-93.7	2.8
360.0	-95.2	-88.1	7.1	-98.8	-91.5	7.3