

Class 1 Permissive Change Measurements	
Report Date	April 30, 2021
Manufacturer Name	Genie
Manufacturer Address	2501 S State Hwy 121 Ste 200 Lewisville, TX 75067
Model No.	U2
Test Dates	April 30, 2021
Specifications	FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Section 15.231(b) Innovation, Science, and Economic Development Canada, RSS-210 Innovation, Science, and Economic Development Canada, RSS-GEN
Test Facility	Elite Electronic Engineering, Inc. 1516 Centre Circle, Downers Grove, IL 60515
Tested by	Javier Cardenas
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## 1. Introduction

### 1.1. Scope of Tests

This document presents the limited spurious emissions measurements that were performed on the Genie Universal 2 Button Transmitter (hereinafter referred to as the Equipment Under Test (EUT)). The EUT was manufactured and submitted for testing by Genie located in Lewisville, TX.

### 1.2. Purpose

The measurements were performed to determine if the EUT meets the Class I Permissive Change requirements of the FCC "Code of Federal Regulations" Title 47, Part 15, Subpart C, Sections 15.231(b). The following modifications have been made to the original equipment:

- A change of resistor supplier

The measurements were also performed to determine if the EUT meets the Class I Permissive Change requirements of the Industry Canada Radio Standards Specification RSS-Gen and Industry Canada Radio Standards Specification RSS-210 for Transmitters. The following modifications have been made to the original equipment:

- A change of resistor supplier

Testing was performed in accordance with ANSI C63.10-2013.

### 1.3. Identification of the EUT

The EUTs **was/were** identified as follows:

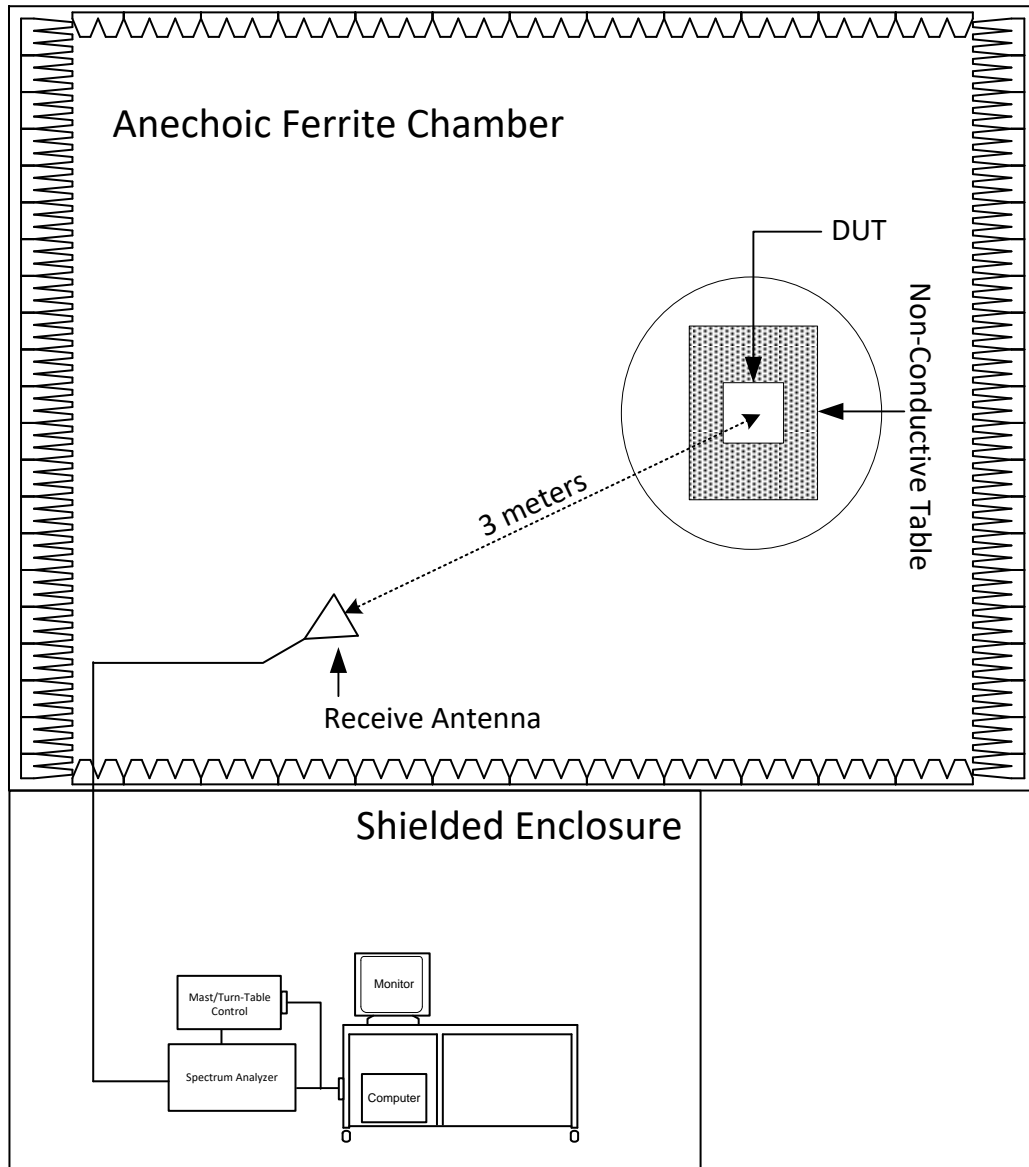
EUT Identification	
Product Description	Universal 2 Button Transmitter
Model/Part No.	U2
Serial No.	NA
Band of Operation	303 – 433.92MHz

The EUT listed above was used throughout the test series.

## 2. Photographs of EUT



### 3. Block Diagram of Test Setup



Radiated Measurements Test Setup

## 4. Equipment List

Eq ID	Equipment Description	Manufacturer	Model No.	Serial No.	Frequency Range	Cal Date	Due Date
CDZ4	LAB WORKSTATION	ELITE	LWS-10		WINDOWS 10	CNR	
NTA3	BILOG ANTENNA	TESEQ	6112D	32853	25-1000MHz	10/20/2020	10/20/2021
RBG2	EMI ANALYZER	ROHDE & SCHWARZ	ESW44	101591	2HZ-44GHZ	3/11/2021	3/11/2022
WKA1	SOFTWARE, UNIVERSAL RCV EMI	ELITE	UNIV_RCV_EMI	1	---	I/O	

N/A: Not Applicable

I/O: Initial Only

CNR: Calibration Not Required

NOTE 1: For the purpose of this test, the equipment was calibrated over the specified frequency range, pulse rate, or modulation prior to the test or monitored by a calibrated instrument.

## 5. Spurious Radiated Emissions

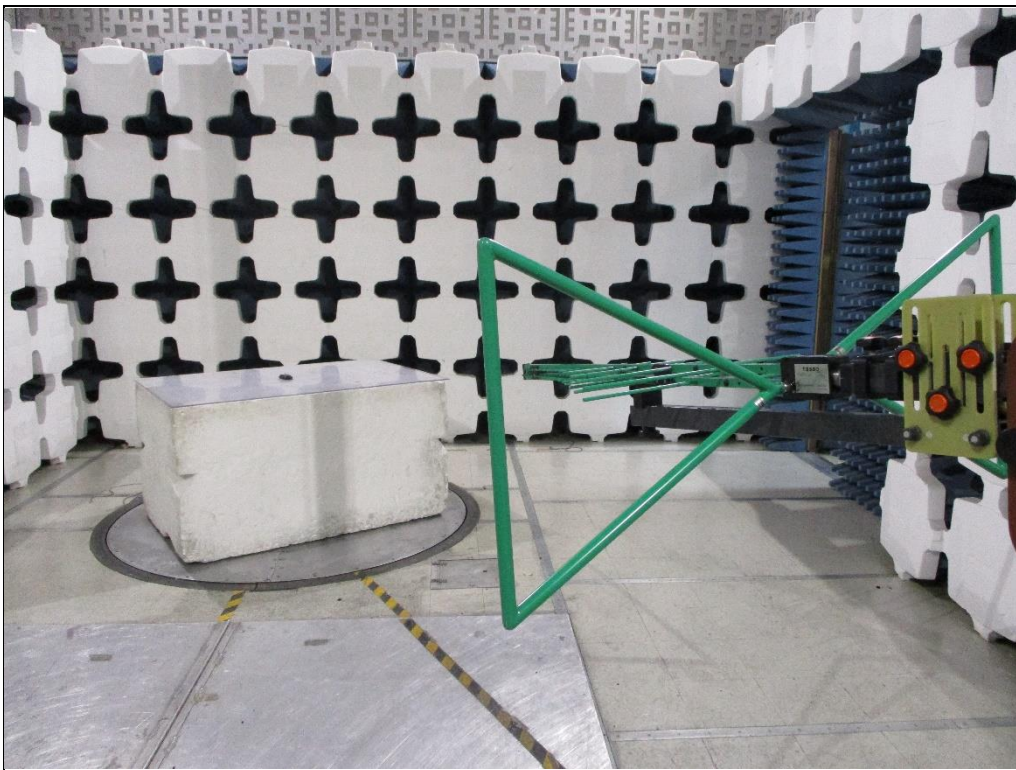
Test Information	
Manufacturer	Genie
Product	Universal 2 Button Transmitter
Model	U2
Serial No	NA
Mode	Continuous Tx
Test Date	April 30, 2021

Test Setup Details	
Setup Format	Tabletop
Height of Support	NA
Type of Test Site	Semi-Anechoic Chamber
Test site used	Room 21
Notes	None

Requirements		
The EUT must comply with the requirements of FCC "Code of Federal Regulations Title 47", Part 15, Subpart C, Section 15.205 et seq. as well as the requirements of the RSS-GEN specification Section 8.10.		
Carrier Frequency (MHz)	Field Strength of Carrier ( $\mu\text{V/m}$ )	Field Strength of Spurious Emissions ( $\mu\text{V/m}$ )
40.66-40.70	2250	225
70-130	1250	125
130-174	1250 to 3750*	125 to 375*
174-260	3750	375
260-470	3750 to 12500*	375 to 1250*
Above 470	12500	1250

\*Linear interpolations



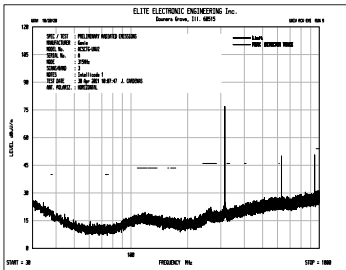


Test Setup for Spurious Radiated Emissions, 30-1000MHz – Antenna Polarization  
Horizontal

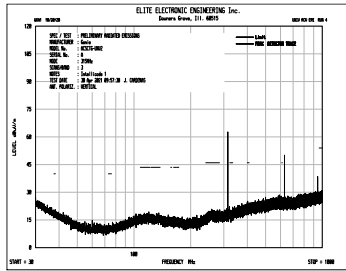


Test Setup for Spurious Radiated Emissions, 30-1000MHz – Antenna Polarization  
Vertical

Test Details	
Manufacturer	Genie
Model	U2
S/N	NA
Mode	Continuous Tx
Carrier Frequency	315MHz
Requirements	Field Strength of Carrier Limit = 6041.67 $\mu$ V/m
Notes	Intellicode 1







Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	CBL Fac (dB)	Ant Fac (dB/m)	Pre Amp (dB)	Duty Cycle (dB)	Total (dBuV/m)	Total (uV/m)	Limit (uV/m)	Margin (dB)
315.000	H	65.97		1.66	19.32	0.00	-13.22	73.74	4862.37	6041.67	-1.89
315.000	V	51.45		1.66	19.32	0.00	-13.22	59.22	913.79	6041.67	-16.41
630.000	H	35.00		2.41	25.05	0.00	-13.22	49.24	289.71	604.17	-6.38
630.000	V	28.65		2.41	25.05	0.00	-13.22	42.89	139.47	604.17	-12.73
945.000	H	28.03		2.96	26.97	0.00	-13.22	44.74	172.66	604.17	-10.88
945.000	V	24.48		2.96	26.97	0.00	-13.22	41.19	114.73	604.17	-14.43