

# **INTERTEK TESTING SERVICES**

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## **EXHIBIT 1**

### **GENERAL DESCRIPTION**

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### 1.0 **General Description**

#### 1.1 Product Description

The equipment under test (EUT) is a transmitter of a wireless door chime system operating at 303 MHz. There is only one button on the EUT, also the operator may set the sound by changing the pin configuration of both the transmitter and the receiver. The EUT is powered by one 12V battery. Once the button is depressed, it transmits continuously.

The following page lists the technical description of the EUT.

#### 1.2 Related Submittal(s) Grants

This is a single application for certification of a transmitter. The FCC ID of the receiver associated with this transmitter is NS3661R and which has been filed at the same time as this application.

## S661 DOOR CHIME CIRCUIT DESCRIPTION

### 1. S661 RECEIVER UNIT

#### 1>. Supper-regeneration Receiver Circuit.

This part consists of Q1, T1, C1~C5, R2, R3, L1, D1 and D2. It is also a RF amplifier to receive the modulated radio frequency signal. T1, C3 and C4 are a tuner. C1, C5 and R3 are a signal feedback circuit. D1, D2 and R2 provide a stable bias voltage to Q1. D1 and D2 are a clamper .

#### 2>. Signal Demodulation and Amplification Circuit.

L2 and C7 are used for demodulating RF signal .The encoded data signal is amplified by Q2. Q2, R7, R8, R9, C9, C10 and C12 are a amplifier .

#### 3>. Decoder Circuit.

The M1D-BL is a decoder IC to detect receiving data. If the data is correct ,P12 of U2 will generate a tone signal, otherwise, Pin12 of U2 no tone output .

#### 4>. Audio Amplifier.

Q5, Q6 and R15 are a power amplifier.

#### 5>. Power supply.

This part consists of C6, C8, R4 and L3

### 2. S661 TRANSMITTER UNIT

#### 1>. Encoder Circuit

The M1E is a encoder IC to generate an encoded data signal. This encoded data is sent into Q21 for modulating RF signal.

#### 2>. RF Transmitter Circuit.

This circuit is composed of Q21, R22-R25, C22-C24, LED2, C26-C28, L21 and ANT, It transmits the RF signal. The LED2 is a transmitter indicator

#### 3>. Power Supply

R21, D2 and C21 are a voltage regulate circuit, It can provide the stable voltage to encoder IC.