Radio Standard Specification
Low Power Communication Devices
C63.4-1992 and FCC Rules Part 15

1.0 General:

1.2, Exclusions to TV Broadcast Freq.	Complies

2.0 Related Documents:

Reference Documents for Application:	CFR 47, FCC Rules Part 15

3.0 Test Equipment:

Supply Voltage:	One 9 volt MN1604 alkaline or equivlaent 9 volt carbon zinc battery
Test Equipment List	See Section 6
Signal Detector:	Peak with 13.9 dB peak to average conversion.

4.0 Certification and Test Results:

Summary of Results per	See Page 1 of this Report

5.0 General Technical Requirements:

5.1 Testing Methods:	Peak Signal pulse width modulated A1D signal.
5.1 Reference Standard:	C63.4-1992 (FCC Procedure)
5.2 Modulation:	Pulse Width A1D, AM Modulation
5.3 Type of Antenna:	Integral to Transmitter Case - Tuned Loop
5.4 External Controls:	Push Buttons No user serviceable parts except for replacement of battery.
5.5 Accessories:	NONE
5.6 TX Bandwidth:	<0.010 % (See Section 8)
5.7 Equipment Labels:	See Section 2
5.8 Manual Disclaimer:	See attached draft copy of manual
5.9 Usage Restrictions:	Digital Pulse Code Only

6.0 Transmitter Characteristics and Tests:	
6.1 Momentary Operated Devices:	Complies
6.1(a) Types of Signals:	Manual Push to Transmit
6.1(a) Automatic Activation:	N/A
6.1(a) Five Second Max. upon release:	Complies
6.1(b) Field Strengths:	Table 1 310 MHz = 5833 uV/Mtr at 3 meters.
6.1(c) Bandwidth (20 dB down)	<0.010 % Complies
6.1(d) Frequency Stability	N/A per regulations +/- 1.0 MHz Maximum Error
6.1(e) Reduced Field Strength	N/A
6.2 Non-Momentary Operated Devices:	N/A
6.2.1 Frequency Bands:	Refer to Table 1
6.3 Restricted Bands:	Complies
6.5 Pulsed Operation:	Complies (13.9 dB Peak/Average) See Section 8
6.6 Wireline Conducted Emissions:	N/A
7.0 Receivers	N/A
8.0 Self Certification:	N/A
9.0 AC Wireline Conducted Emissions:	N/A
10.0 Terminated Measurement Method:	N/A
11.0 Radiated Measurement Method:	See Section 8
11.1 Measuring Distance:	Complies
11.2 Open Field Test Site:	Complies, C63.4-1992
11.3 Equipment Test Platform:	See Section 8
11.4 Measurement Method:	Complies, See Section 8
12.0 DC Power Consumption Methods:	N/A
13.0 Near Field Measurement for < 30 MHz:	N/A
14.0 Test Report Submission:	See Attached

FUNCTIONAL DESCRIPTION

1.0 DESCRIPTION

The MCT-1/H is a one channel, hand held transmitter operating as a low power communication device. The center frequency is tuned to 310 MHz. The data output is pulse width modulated. The transmitter case is black plastic, and has one button on the front.

The MCT-1/H are designed for use with HomeLink 310 MHz receivers.

Each MCT-1/H is programmed with a fixed digitial code. This fixed code enables other HomeLink transmitters to be learned into the homelink receiver.

2.0 FUNCTION

The MCT-1/H is activated by pressing the button. Until activation, microprocessor, U1, is in sleep mode. Upon activation, U1 wakes up and outputs signals to turn on the oscillator / transmitter, Q1. The frequency of oscillator Q1 is tuned by L2 in combination of C5. Data output at U1-5 modulates the base of transistor Q1 which transmits the pulse-modulated carrier via the antenna, E1.

SPECIFICATIONS

Product Identification:	MCT-1/H one channel transmitter (SNT00408).
Encoding Format:	HomeLink - Pulse Width Modulation
Encoding Technique:	Transmitters are pre-coded with a fixed transmitter ID.
Number of Channels:	One.
Timing:	Transmission stops after 30 seconds when button is held on.
RF Carrier Frequency:	310.0 MHz _ 1.0 MHz.
Power Requirements:	One 9 volt Duracell MN1604 or equivalent
Visual Indicator:	LED lights when button is pressed
Operating Temperature:	0_ C to +70_ C. Tested –30_ C to 70_ C.
Size:	2.3" x 1.3" x 0.5”
Current Consumption:	35 mA transmitting. <4 uA Standby.

All specification are nominal unless otherwise noted.

DURATION OF RF TRANSMISSIONS

MCT-1/H

REMOTE CONTROL TRANSMITTER

This transmitter is manually activated. It is used only for remote control of HomeLink receiver. As such it may be operated continuously by the user (FCC Rules 15.231(a)(4)). However, due to battery constraints and an accidental continuous activation causing interference to the system, the maximum manually activated transmission for a single press of a pushbutton is 30 seconds.

When the push button is released the transmitter ceases transmitting immediately. FCC Rules 15.231 (a)(1) allows no longer than 5 seconds upon the release of a manually activated transmitter.

Signed:

/s/

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