1. Operational description

The purpose of Remote Control Locator function is that user is able to find the location remote control unit. Therefore, product in this case Television Receiver with Video Tape Recorder is installed transmitter and its remote controller is installed receiver.

When user power on the product, product emit signal within 5 seconds and remote controller receive the signal then beep so that user can find location of remote controller easily.

2. The transmitter specification is as follows.

   A: Signal format
     1. Signal is output comply with following format.
       a. 1 (one) code consists of 5 words as SYNC code, COMMAND code, ADDRESS code, UPPER CRC, LOWER CRC and each word consists of 8 bit.
       b. Content of each word.
         • SYNC code consists of all "1".
         • COMMAND code consists of start bit "0", 6 bits of data and stop bit "1". Normally this code is output "02", but output "05" when user change ADDRESS code.
         • ADDRESS code consists of start bit "0", 6 bits of data and stop bit "1". This code can be changed "00" to "09" by user.
         • UPPER CRC consists of start bit "0", 6 bits of data and stop bit "1". 6 bits of data is upper 6 bit of 12 bit data by obtained calculation of COMMAND code and ADDRESS code.
         • LOWER CRC consists of start bit "0", 6 bits of data and stop bit "1". 6 bits of data is lower 6 bit of 12 bit data by obtained calculation of COMMAND code and ADDRESS code.
         • CRC means error check code for reduce transmitting error.
         • Start bit means first bit of the word and stop bit means end bit of the word.

         Example: <u>0</u>000010<u>1</u>
                 start bit   stop bit

  B. Signal table

    Incase of COMMAND code "02" (except start and stop bit)

COMMAND code	ADDRESS code	UPPER CRC	LOWER CRC
02	00	2D	1F
	01	05	0A
	02	05	36
	03	2D	23
	04	04	0E
	05	2C	1B
	06	2C	27
	07	04	32
	08	07	3E
	09	2F	2B

Incase of COMMAND code "05" (except start and stop bit)

| COMMAND code	ADDRESS code	UPPER CRC	LOWER CRC
05	00	0B	26
	01	23	33
	02	23	0F
	03	0B	1A
	04	22	37
	05	0A	22
	06	0A	1E
	07	22	0B
	08	21	07
	09	09	12

C. Signal wave form

The output level is that "1" is "L" (low) and "0" is "H" (high).

For example, following wave form indicates output code FF 02 05 2C 1B.

```
 F    F    0    2     0    5     1    C     1    B
1111 1111 000 00101  000 01011  010 11001  001 10111
```

Plus width
1 bit = 417µsec.
1 word = 3.336 msec.
1 code = 16.68 msec.
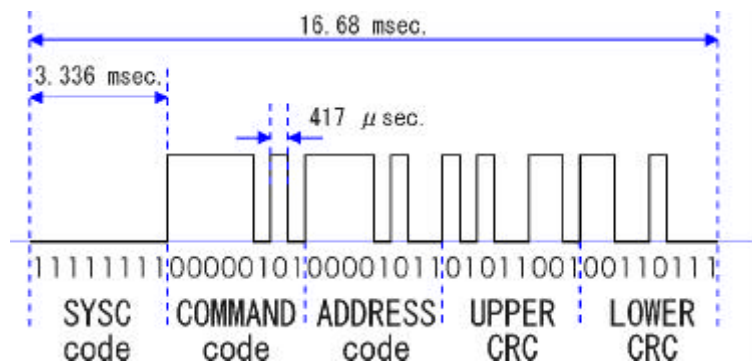
D. Carrier frequency

390 MHz

E. Modulation

Amplitude modulation

F. Emitting duration

max. 4.9 second