

### 3.4 Field Strength Calculation

#### (a) Field Strength:

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$\text{RESULT} = \text{READING} + \text{CORR. FACTOR}$$

where CORR. FACTOR = Antenna FACTOR + Cable FACTOR

Assume a receiver reading of 62.4 dB  $\mu$  V is obtained. The Antenna Factor of 14.1 and a Cable Factor of 3.4 is added. The total of field strength is 79.9 dB  $\mu$  V/m.

$$\text{RESULT} = 62.4 + 14.1 + 3.4 = 79.9 \text{ dB } \mu \text{ V/m}$$

$$\text{Level in } \mu \text{ V/m} = \text{Common Antilogarithm}[(79.9 \text{ dB } \mu \text{ V/m})/20] = 9885.5 \text{ } \mu \text{ V/m}$$

#### (b) Duty Factor:

$$20 \log \frac{883.3(\mu s) \times 4 + 583.3(\mu s) \times 9 + 283.3(\mu s) \times 17}{100(ms)} = -17.3 \text{ dB}$$

The plotted graph of Duty Factor please see page 31 ~ 35.

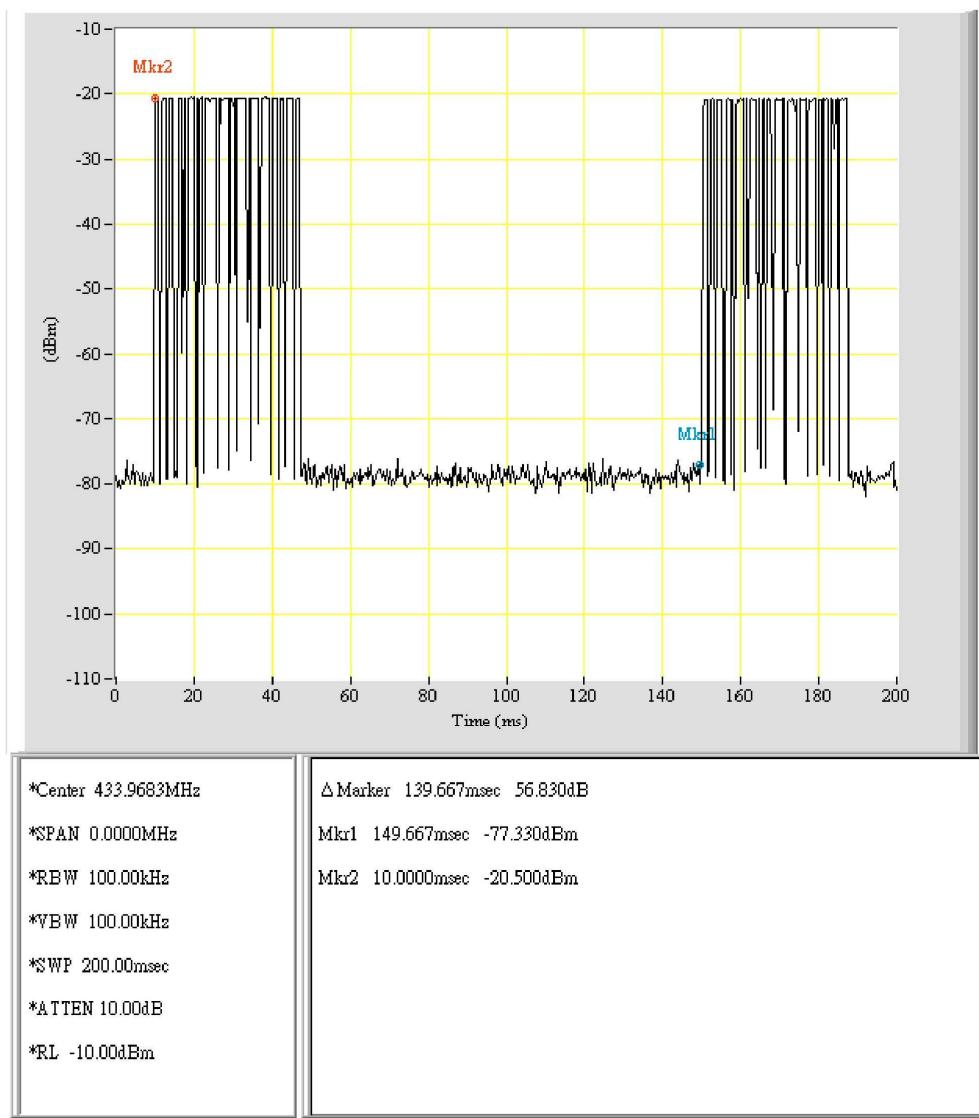
### 3.5 Radiated Test Equipment

The following instrument are used for radiated emissions measurement :

Equipment	Manufacturer	Model No.	Serial No.	Calibrated until
EMI Test Receiver	HP	8546A	13054404-001	Sep. 06, 2005
BiconiLog Antenna	Schwarzbeck	VULB 9160	13057310-001	Oct. 26, 2005
Horn Antenna	EMCO	3115	9107-3729	Jun. 11, 2005

Note: The standards used to perform this calibration are traceable to NML/ROC, NIST/USA and NPL.

## Plotted graph 1 of Duty Factor



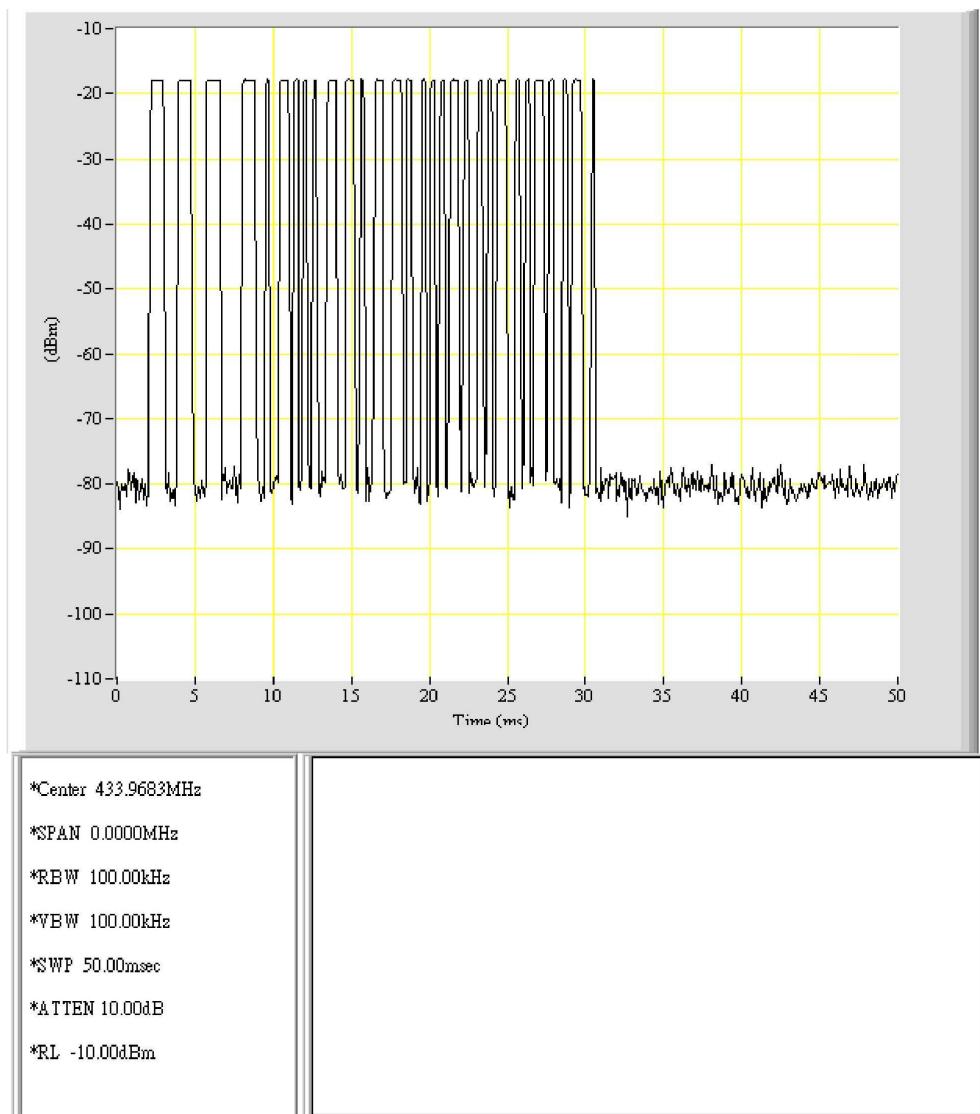
EUT: REMOTE\_Tx

Purpose: Duty\_Cycle

Condition: 1

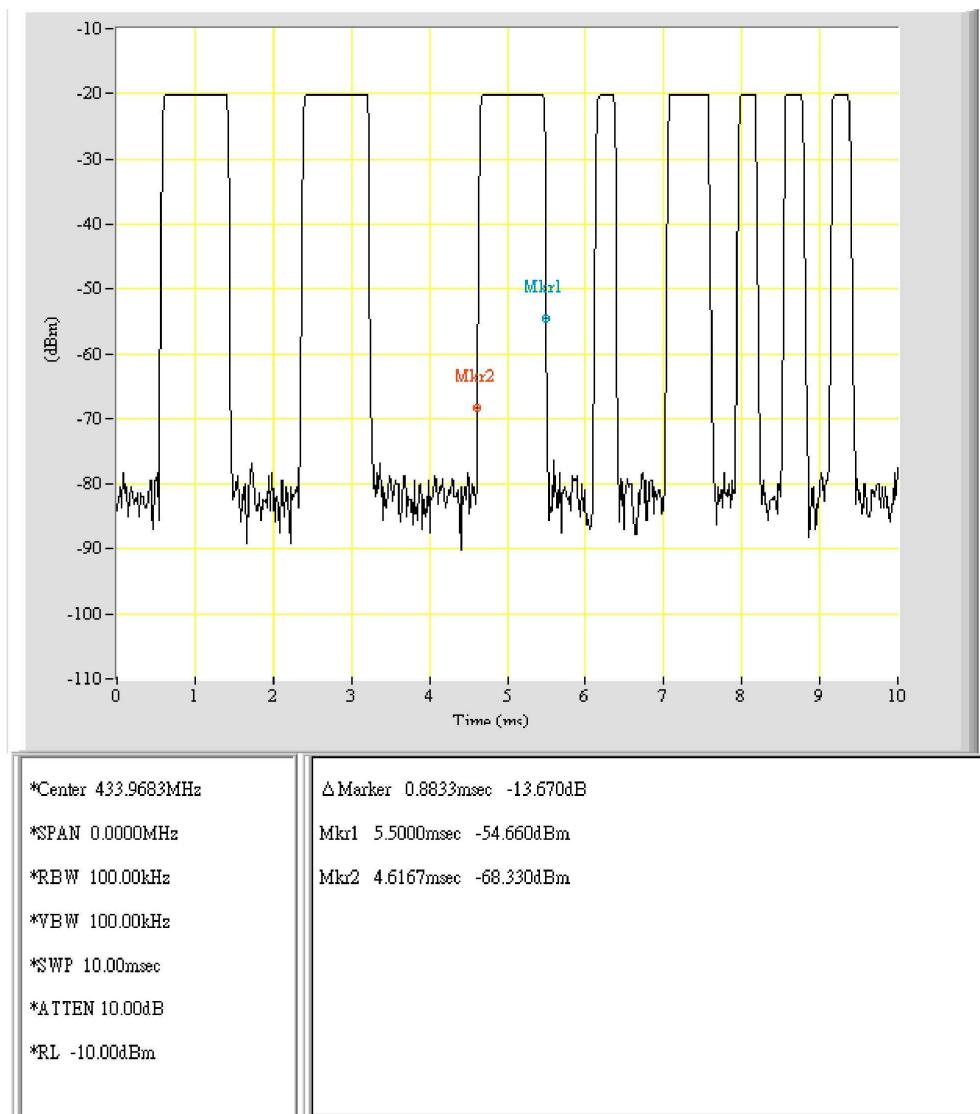
Note:

## Plotted graph 2 of Duty Factor



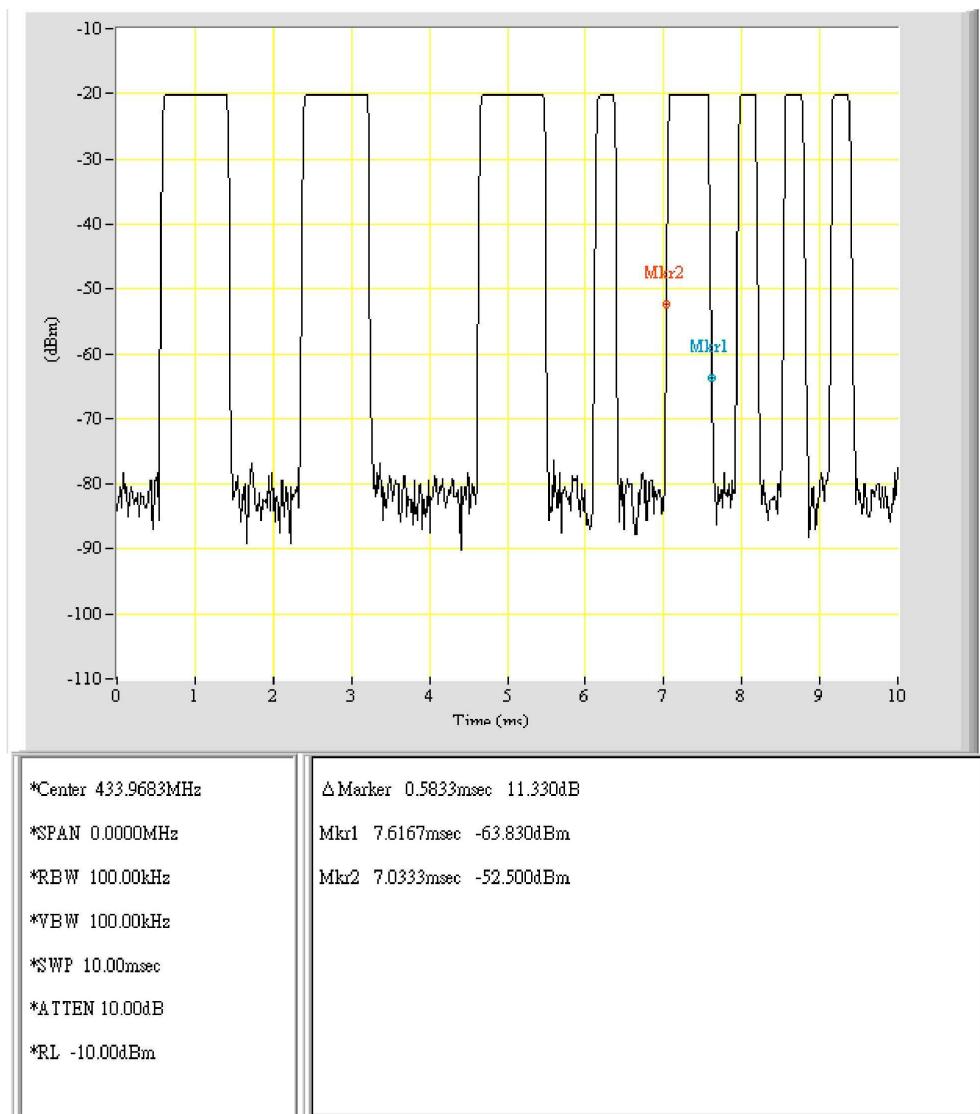
EUT: REMOTE\_Tx  
Purpose: Duty\_Cycle  
Condition: 2  
Note:

## Plotted graph 3 of Duty Factor



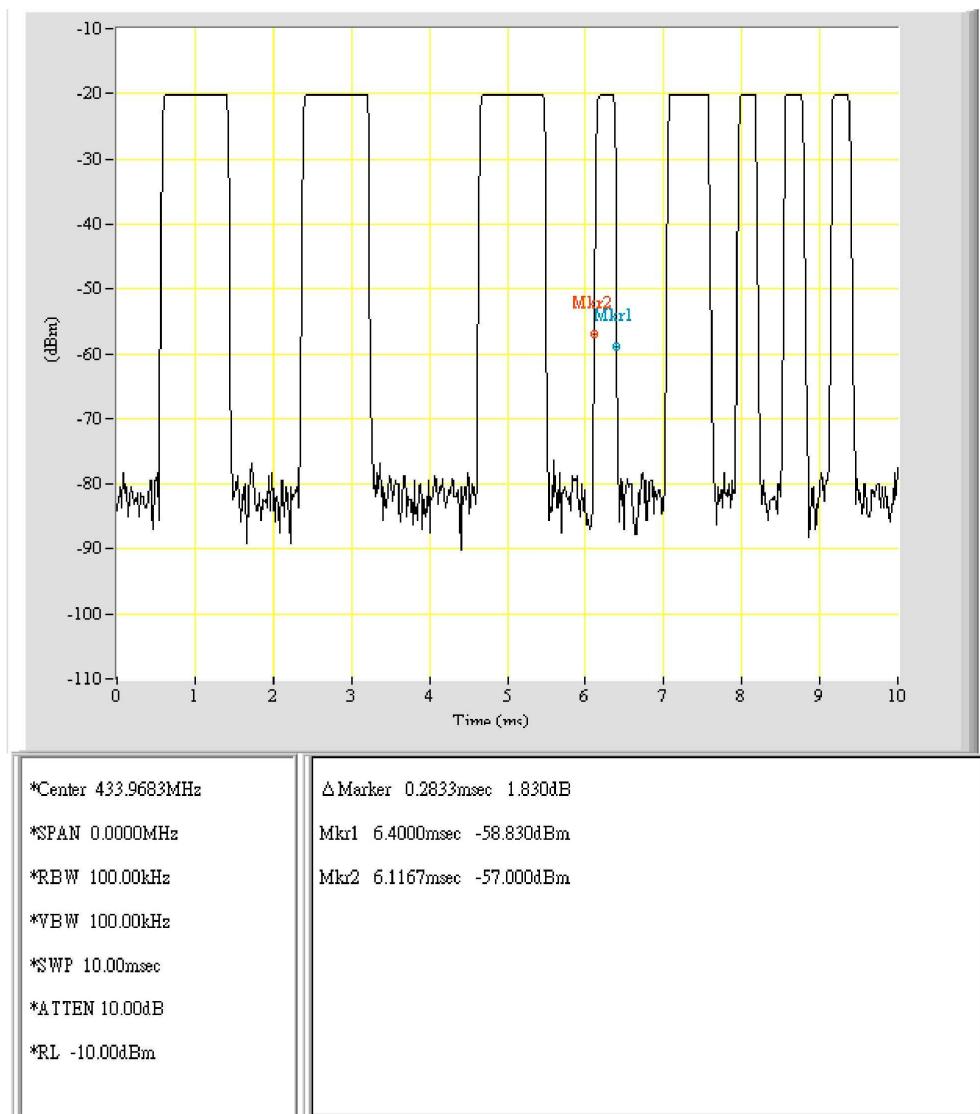
EUT: REMOTE\_Tx  
Purpose: Duty\_Cycle  
Condition: 3  
Note:

## Plotted graph 4 of Duty Factor



EUT: REMOTE\_Tx  
Purpose: Duty\_Cycle  
Condition: 4  
Note:

## Plotted graph 5 of Duty Factor



EUT: REMOTE\_Tx

Purpose: Duty\_Cycle

Condition: 5

Note:

### 3.6 Measuring Instrument Setup

Measuring instrument setup in measured frequency band when specified detector function is used :

Frequency Band (MHz)	Instrument	Function	Resolution bandwidth	Video Bandwidth
30 to 1000	EMI Test Receiver	Peak	120 kHz	300 kHz
1000 to 5000	EMI Test Receiver	Peak	1 MHz	1 MHz

## 4. BANDWIDTH OF EMISSION

### 4.1 Applicable Standard Plot Graphic of Bandwidth

Per FCC rule §15.231(c), the permitted emission bandwidth is no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900 MHz.

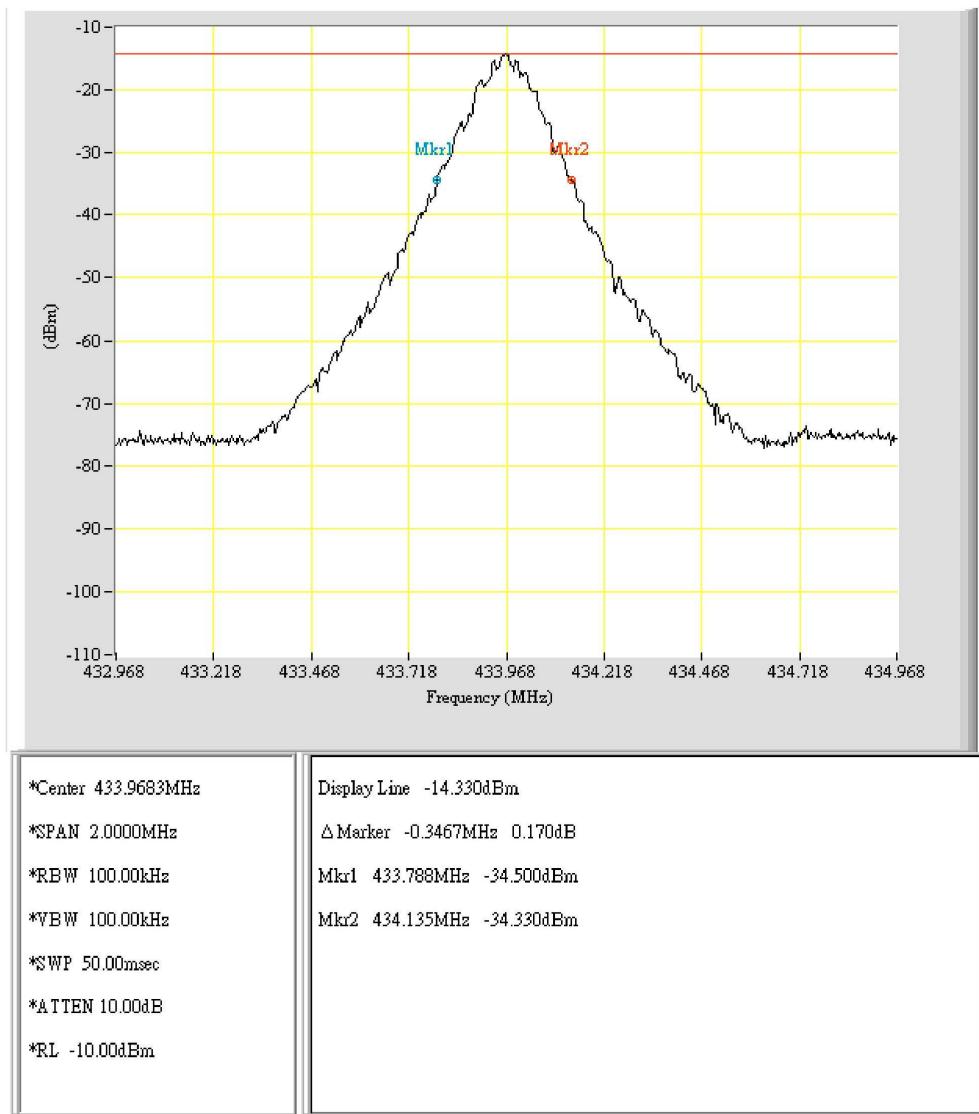
### 4.2 Test Equipment

Equipment	Manufacturer	Model No.	Next Cal. Date
Test Receiver	Agilent	8564EC	Sep. 16,2005

### 4.3 Test Result

Test Date : Aug. 30, 2004   Temperature : 25°C      Humidity : 57%

Center Frequency	433.968 MHz
FCC Limit	433.968 MHz $\times 0.25\% = 1084.920$ kHz
Bandwidth of Emission	346.7 kHz
Chart	P38
Result	PASS



EUT: REMOTE\_Tx  
Purpose: 20dB\_BW  
Condition: Tx  
Note:

## 5. CONDUCTED EMISSION MEASUREMENT

This EUT is excused from investigation of conducted emission, for it is powered by battery only. According to §15.207 (d), measurements to demonstrate compliance with the conducted limits are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines.

## 6. LIMIT OF TRANSMISSION TIME

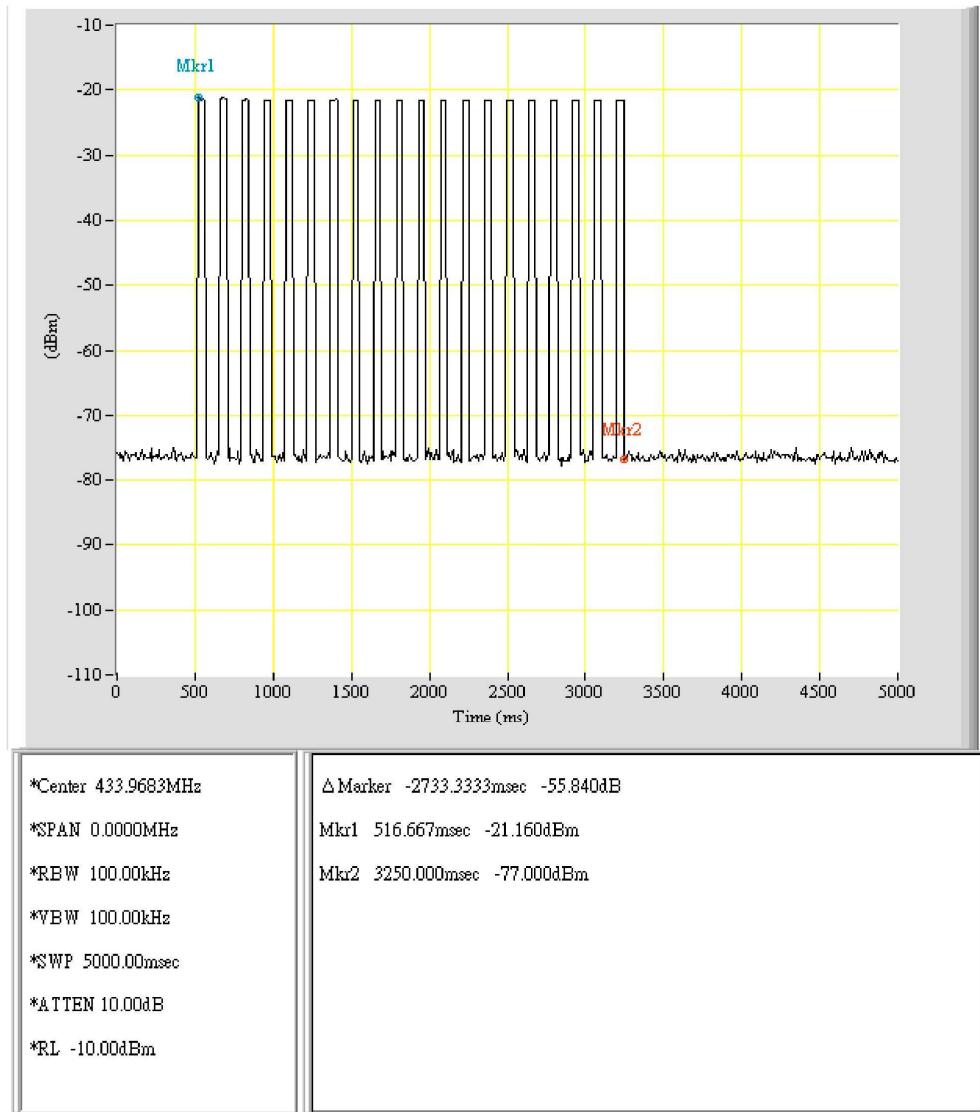
### 6.1 Applicable Standard

According to 15.231(a)(1), a manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.

### 6.2 Active Time

This transmitter is operated by manual and active time is less than 2.7 second after being released.

*Note : Please refer to page 41 for chart*



EUT: REMOTE\_Tx

Purpose: Active\_Time

Condition: Tx

Note: