## 6.7. MODULATION LIMITING @ FCC 2.1047(B) & 90.210

#### 6.7.1. Limits @ FCC 2.1047(b) and 90.210

Recommended frequency deviation characteristics are given below:

- 2.5 kHz for 12.5 kHz Channel Spacing
- 5 kHz for 25 kHz Channel Spacing System

#### 6.7.2. Method of Measurements

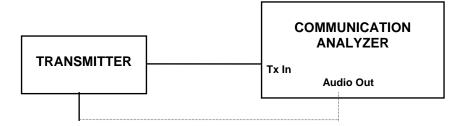
**For Audio Transmitter:-** The carrier frequency deviation was measured with the tone input signal level varied from 0 Vp to audio input rating level plus 16 dB at frequencies 0.1, 0.5, 1.0, 3.0 and 5.0 kHz. The maximum deviation was recorded at each test condition.

For Data Transmitter with Maximum Frequency Deviation set by Factory:- The EUT was set at maximum frequency deviation, and its peak frequency deviation was then measured using EUT's internal random data source.

### 6.7.3. Test Equipment List

| Test Instruments | Manufacturer | Model No. | Serial No. | Frequency Range                   |
|------------------|--------------|-----------|------------|-----------------------------------|
| Communication    | Rohde &      | SMF02     | 879988/057 | 400 kHz - 1000 MHz including AF & |
| Analyzer         | Schawrz      |           |            | RF Signal Generators, SINAD,      |
|                  |              |           |            | DISTORTION, DEVIATION meters      |
|                  |              |           |            | and etc                           |

#### 6.7.4. Test Arrangement



#### 6.7.5. Test Data

# 6.7.5.1. Data Modulation Limiting: FM modulation with random data and Modulation Limiter set at a Maximum Frequency Deviation (Factory Setting).

| Data Baud Rate | Peak Deviation (kHz) | Maximum Limit (kHz) |
|----------------|----------------------|---------------------|
| 8000           | 2.0                  | 2.5                 |