

# 194F

## TV SOUND MULTIPLEX MODULATOR (KOREA SYSTEM)

Video & audio signal generator/Multiple-signal generator



### General

This unit is TV sound multiplex modulator that sends out only sound intermediate carrier of sound multiplex equipment of Korea system. By combining this 194F with 107A TV transmitter, they can be used as Korea system sound multiplex TV transmitting equipment for receiver test in TV production factory.

### Features

- Sound multiplex modulation part and sound IF modulation part are united, and unique high-frequency matrix circuit is employed, so that there is no change of stereo separation. Also unit has superior signal to noise ratio characteristic in performance.
- Operations on panel are able to control all remotely, and GP-IB control is possible instead of standard remote control by request (option).

### Composition

<b>Main Unit</b>	..... 1
Dimensions	425(W)×99(H)×380(D) mm (Excluding projections)
Weight	Approx. 15 kg
<b>Accessories</b>	
Power Cable (Including 3pin→2pin converter)	..... 1
Rack Mount Adapter	..... 1set
Instruction Manual and Test Result Sheet	..... 1
Remote Terminal Plug	..... 1 (Except at the time of GP-IB)
<b>Power Source</b>	
Input Voltage Allowable Range	: AC100, AC120V, AC220V, AC240V by switching (50Hz/60Hz)
Power Consumption	: Approx. 50VA
<b>Operating Environment</b>	
Temperature	: + 5 °C ~ +40°C
Humidity	: 45% ~ 85%RH (No dew generation)

### Rating

- **TV System**  
CCIR M system
- **Output Frequency**  
1st Sound Carrier S<sub>1</sub> 41.25MHz or 34.40MHz  
2nd Sound Carrier S<sub>2</sub> 41.0257873MHz or 34.175787MHz
- **Sound Signal Input Level**  
Working by  
CH 1 (M<sub>1</sub> or L) 0dBm  
CH 2 (M<sub>2</sub> or R) 0dBm
- **Sound Signal Input Impedance**  
Both CH 1 and CH 2 600Ω Balanced
- **Oscillator for Internal Modulation**  
Modulation by 1 wave among 100Hz, 400Hz, 1kHz, 3kHz, 7.5kHz and 10kHz can be made for both CH 1 and CH 2.
- **Output Level**  
Conforming to 192F
- **Output Impedance**  
50Ω Unbalanced
- **Modulation System**  
Varicap modulation APC system
- **Modulation Degree**  
S<sub>1</sub>..... ±25kHz  
S<sub>2</sub>..... ±25kHz  
Pilot signal ±2.5kHz (At the time of monaural output)
- **Pilot Identification Signal**  
Carrier Frequency 55.069kHz (3.5f<sub>H</sub>)  
At Stereo 149.9Hz (f<sub>H</sub>/105) 50% AM modulation  
At Dual Sound 276.0Hz (f<sub>H</sub>/57) 50% AM modulation  
At Monaural No modulation

### • Pre-emphasis

75 μs

### • Modulation Mode Switching

Switching to stereo, dual sound, monaural and remote.  
At remote mode, switching can be made by remote contact.

### Performance

#### • Sound Frequency Response

Within ±0.5dB against standard pre-emphasis characteristic (50Hz~15kHz)

#### • Distortion Ratio

Less than 0.25% in 30Hz~15kHz

#### • Signal to Noise Ratio

At Dual Sound More than 65dB  
At Stereo More than 60dB

#### • Frequency Stability

Within ±5×10<sup>-5</sup>

#### • Spurious

For level of S<sub>1</sub>  
Harmonics -50dB  
Inter-modulation -60dB  
Others -60dB

#### • Cross-talk

At Dual Sound Less than -60dB  
At Stereo (Separation) Less than -40dB  
(Up to 5kHz)