

BFLM System

Broadcast Frequency Locked Modulator



○ Features & Benefits

- Front Panel Accessible Level Controls for Easy Set-Up and Adjustments
- UL Listed with Three Year Product Warranty
- Two Product System Designed to Lock to a Local Off-Air Source to a Satellite Delivered Local Broadcast to Cure Flutter and Moire Patterns
- Consists of a BFLM-IF and a On Channel CAP with Option 21
- Rack Mountable - 1 EIA (1.75") Rack Space Each Unit - (2 Rack Spaces for System)

The BFLM is a product system that corrects and cures the unacceptable picture flutter and moiré patterns that manifest on viewer televisions when using local VHF broadcast channel assignments to deliver program content that is received via satellite or is originated locally. The BFLM accomplishes this correction via automatic frequency locking and tracking circuits which ensure that the output frequency is exactly & continuously the same as that of the local VHF broadcast carrier frequency.

The BFLM-IF is a professional quality Broadcast Frequency Locked IF Modulator. A professional grade saw filter is employed to provide true vestigial sideband selectivity with built-in FCC group delay pre-distortion. The unit accepts standard polarity (sync negative) video in the range of 0.7 to 2.8 V p-p. An integrated BTSC stereo encoder module is standard. The unit accepts a SAP audio input from a SAP generator.

The BFLM includes a "Stand By Carrier" feature that substitutes an alternate clean IF signal if the off-air broadcast station stops transmitting. The BFLM automatically detects the loss of the VHF broadcast signal input and activates the alternate IF signal. This will ensure that the signal from the satellite receiver is undisturbed and continues to be transmitted to the distribution system.

○ Specifications

IF

Frequency Output: 45.750 MHz
Aural/Visual Carrier Ratio: -9 to -20 dB
Visual Carrier Frequency: Locked via On Ch. CAP
Aural Carrier Frequency
Offset from Visual Carrier: +4.5 MHz
Tolerance: ± 50 Hz
Channel Selectivity:
Adjacent Aural and Below: -42, min dB
Adjacent Picture and Above: -45, min dB
Spurious Outputs: -60 dBc
C/N Ratio In Channel: 68 dB
Output Impedance: 75 Ohm
Aural Frequency: 41.25 MHz
Visual Frequency: 45.75 MHz
Composite IF Loop Output
Aural Carrier Level: +20 dBmV
Visual Carrier Level: +35 dBmV
Output/Input Impedance: 75 Ohm
Output Return Loss: 18 dB

Video

Input Level: 1.0 V p-p
Frequency Response
fv-0.5 MHz to fv+4.2 MHz: ± 0.5 dB
P-P Video to RMS Hum Ratio: 65 dB
Video Signal-to-Noise Ratio, Weighted: 64 dB
Differential Gain: 2.0 %
Differential Phase: 1.0 °
C/L Delay Inequality
Over Modulation Indicator: 87.5, ± 2.5 %
Input Impedance: 75 Ohm
Input Return Loss: 30 dB

Audio

Input Level: -10 to +10 dBm
Ext. 4.5 MHz Input Level: +40 dBmV
Frequency Response
Mono (30 Hz to 15 kHz): ± 0.5 dB
Stereo (50 Hz to 10 kHz): 1.5 dB
Pre-Emphasis-Mono: 75 μ s

Audio Signal-to-Noise

Mono @ 25 kHz Deviation: 64 dB
Stereo @ 50 kHz Deviation: 60 dB
Total Harmonic Distortion: 0.6 %
Over Modulation Indicator: 25 ± 2 kHz
Input Impedance: 600, balanced Ohm

Sub-Carrier Audio

Frequency: 4.5 MHz
Stability: ± 5 KHz

General

Power Requirements
Voltage: 117, ± 10 %
Frequency: 60 Hz
Power: 14 W
Fuse: 1/4 A
Temperature Range: 0 to +50 °C

Mechanical

Dimensions (WxHxD):
19.0 x 1.75 x 14.5 in.
(483 x 44 x 368) mm
Weight: 6 lbs. (2.73 kg)

Connectors (Rear Panel)

Video Input: "F" Type, Female
Audio Input
Standard - Mono: Barrier Strip
Optional - Stereo: Barrier Strip
4.5 MHz Input: "F" type, Female
Composite IF Output: "F" Type, Female

Controls (Front Panel)

Video Level: Control
Aural Carrier Level: Control
Audio Level Stereo/Mono: Control

Indicators (Front Panel)

Power ON: LED, Green
Video Over Modulation: LED, Red
Audio Over Modulation: LED, Red
BTSC Stereo: LED, Red

○ Ordering Information

Model	Stock No.	Description
BFLM-XX	5898	Broadcast Frequency Locked Modulator System Complete system of BFLM-IF and CAP-60-ON with Option 21
BFLM-IF	5898 IF	Broadcast Frequency Locked Modulators - IF IF Unit Portion only

xx - Specify channel when ordering (UHF Channel 02-13)

Order From:



Toll Free: 800-423-2594
www.multicominc.com
multicom@multicominc.com