

Re-broadcast quality performance

Integrated BTSC Stereo (optional)

60 dBmV minimum adjustable output for optimum carrier-to-noise performance

Preemphasis defeat switch provides easy stereo conversion

Precision SAW filter for superior adjacent channel performance enables drop-in channel expansion

Front panel controls and test point enable ease setup and monitoring

Digital display provides quick channels identification and easy modulation adjustment

Carrier-to-noise ratio >65 dB ensures superior picture quality

Composite and separate audio and video IF loops allow compatibility with encoders, ghost cancellers, and video override applications

MPX stereo loop provides encoded stereo input and compatibility with Emergency Alert equipment

IRC and HRC input and output offset available for frequency setting in systems using offset channels



The **MACOM F860** is a professional re-broadcast grade microprocessor controlled phase-locked loop synthesized single channel audio-video modulator available with an optional BTSC stereo encoder. The **F860** provides 60 dBmV minimum output while accommodating HRC and IRC offset frequencies. The optional BTSC encoder enables delivery of high fidelity stereo without the cost of a stand-alone stereo encoder. This cost-effective modulator was designed for use in heavily loaded systems requiring high stability and superior picture and stereo sound quality. Its phase-locked loop frequency control and superior SAW filtering enhance stability, minimize adjacent channel interference and assure accurate and spurious free output. Superior out-of-band carrier-to-noise performance is achieved through band-pass filtering at the output amplifier. The modulator is shipped with all internal adjustments preset. FCC Docket 21006 offsets are standard. The **MACOM** line is backed by an industry leading 5-year limited warranty.

F860

Product Specifications



Front Panel



Rear Panel

RF Output

Frequency Range:	54-456 MHz
Level:	60 dBmV min
Level Adjustment:	20 dB
Impedance:	75 ohms
Frequency Stability:	±3 kHz
Audio/Video Ratio:	-10 to -20 dB Adjustable
Output Return Loss:	-18 dB
In Band Spurious:	-62 dB
Out of Band Spurious:	-65 dB
C/N (In-Band):	>62 dBc
C/N (Out-of-Band):	>65 dBc

IF Output

Video Level:	38 dBmV
Audio Level:	22 dBmV
Composite Level:	35 dBmV
Video Stability:	±3 kHz
Audio Stability:	±2 kHz
Impedance:	75 ohms

4.5 MHz Input

Level:	37 dBmV
Impedance:	75 ohms

Video Input

Level:	0.7 – 1.0 V p-p
Frequency Response:	±1.0 dB max
Impedance:	75 ohms
Differential Gain:	<2% typ
Differential Phase:	<1° typ
Chrom / Lumin Delay:	±8 ns
Hum and Noise:	-60 dB

Audio Input

Level – Mono:	0.5 V p-p – 1 V p-p
Level – Left Audio:	0.5 V p-p – 1 V p-p
Level – Right Audio:	0.5 V p-p – 1 V p-p
Frequency Response:	±1.5 dB max
Impedance:	600 ohms
Preemphasis:	75 µs switchable

MPX/BTSC Stereo

Level:	2.2 V p-p
Impedance:	500 ohms
Frequency Response:	1 dB, 50 Hz – 14 kHz
Total Harmonic Distortion:	<0.3%
S/N:	75 dB
Separation:	35 dB, 50 Hz – 12 kHz

General

Power Input:	90-260 VAC, 28 W
Operating Temperature:	-10°C to 50°C
Dimensions:	19"(L) x 12"(D) x 1.75"(H)
Weight:	7.8 lbs.
Connectors:	RF & Video "F" type
Audio:	600 ohms terminal strip

Ordering Information

F860-Channel	Fixed Modulator
F860S-Channel	Fixed Stereo Modulator

Related Products

D860	Agile A/V Stereo Demodulator
EAS-12B	Emergency Override System
C860	Bi-Directional Combiner
L860	Bi-Directional Launch Amplifier
A860	Agile Modulator
DSP806	HDTV Agile Channel Processor