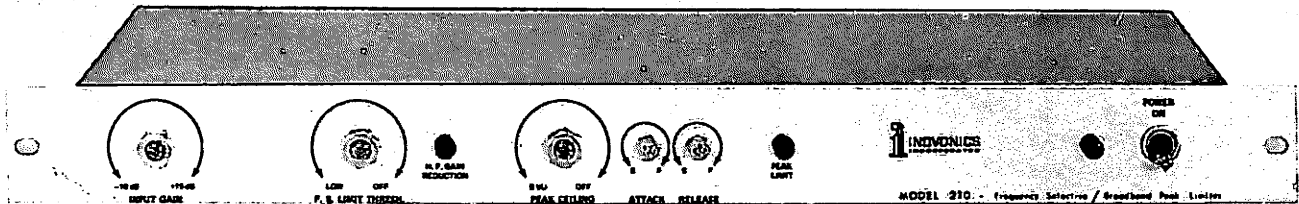




INOVONICS
INCORPORATED

MODEL 210

FREQUENCY SELECTIVE/BROADBAND PEAK
LIMITER



For use in Broadcast and Recording applications requiring independent control of both high frequency program energy and broadband program peaks.

FEATURES:

Fast Peak Limiter with variable control of Peak Ceiling, Attack and Release.

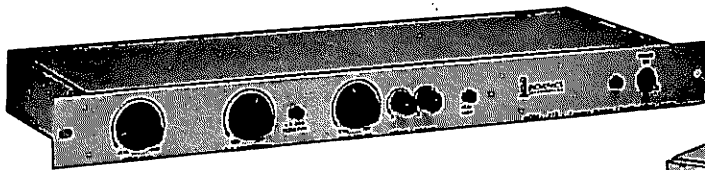
Separate Frequency Selective Limiter with plug-in inserts to complement a variety of high frequency overload characteristics.

Very Low Distortion, even at low frequencies, assured by unique ripple-cancelling circuits.

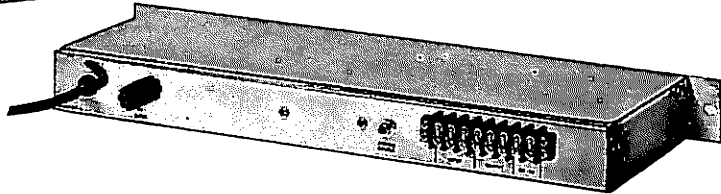
Instant Display of limiting action by peak-responding indicators. Optional remote-mounting meter may be located at console.

Innovative Electronics for Recording and Broadcasting

MODEL 210 SPECIFICATIONS



(KNOB OPTION SHOWN)



Frequency Response (1)

$\pm 0.5\text{dB}$ 20Hz — 20kHz

Signal-to-Noise Ratio

$> 75\text{dB}$, 20Hz — 20kHz referred to +4dBm line level

Distortion (2)

	50Hz-200Hz	200Hz-20kHz
Peak Limiter		
S (normal) Release:	$< 0.5\%$	$< 0.3\%$
F (fast) Release:	$< 0.8\%$	$< 0.4\%$
Freq. Selective Limiter:	—	$< 0.5\%$
Limiters OFF:	$< 0.15\%$, 20Hz—20kHz at +23dBm	

Limiter Timing (3)

Peak Limiter

ATTACK: continuously variable between a "normal" setting of $1\mu\text{s}/\text{dB}$ -limiting (F) and a "delayed" figure of $1\text{ms}/\text{dB}$ -limiting (S)

RELEASE: continuously variable between a "normal" setting of $30\text{ms}/\text{dB}$ -limiting (S) and $6\text{ms}/\text{dB}$ -limiting (F)

Frequency Selective Limiter

ATTACK: $< 1\mu\text{s}/\text{dB}$ -limiting (fixed)

RELEASE: 50ms (max) for any degree of reduction.

Stereo Coupling

Two or more units may be interconnected for ganged peak reduction.

Input

Sensitivity: Adjusts to accommodate input levels between -15 and $+10\text{VU}$.

Impedance: 100K, unbalanced (transformer optional)

Output

Line output feeds 600 ohm line or bridging input at +4 or +8dBm. Clipping level +24dBm.

Frequency Selective Limiting Characteristic

Plug-in inserts complement a wide range of high frequency overload characteristics.

Available from stock: $75\mu\text{s}$ (FM-TV Audio), TAPE (1 $\frac{1}{8}$ -3 $\frac{3}{4}$ ips formats), DE-ESS

Inserts custom-tailored to user specifications available on special order.

Panel Controls

POWER
INPUT GAIN
Peak Limiter
 PEAK CEILING
 ATTACK
 RELEASE
Frequency Selective Limiter
 F. S. LIMIT THRESH.

Panel Indicators

Peak-responding indicators display Peak Limiting and High Freq. Gain Reduction.

Power Requirement

105-130VAC (230V available), 50/60Hz, 10 watts

Size and Shipping Weight

1 $\frac{3}{4}$ " x 19" x 6 $\frac{1}{2}$ ", 9 lbs.

Accessories

Remote-mounting Gain Reduction Meter
Input isolation transformer

(1) Response below threshold of Frequency Selective Limiter.

(2) Total Harmonic Distortion at +4dBm line level with 15dB Peak Limiting or High Frequency Gain Reduction.

(3) Attack and Release are not linear time-per-dB-of-limiting characteristics. The specified figures represent Best Straight Line approximations of these characteristics over the greatest portion of their operating values.