



The AP Series are professional quality, agile heterodyne processors equipped with the Emergency Alert System (EAS) feature, which can also be used as an alternate IF input. These units convert any channel in the 50 to 806 MHz (7 to 43 MHz with Option 17) frequency range to any channel in the 50 to 550/750 MHz (7 to 550/750 MHz with Option 04) frequency range.

The AP Series is ideal for moving an off-air channel (VHF or UHF) or any single channel source to any unused channel (broadcast or CATV, including HRC and IRC assignments) in the system. Agile channel selection permits on-the-fly channel changes and reduces the need for large inventories of channelized products. Channel selection is accomplished with the use of simple to use front panel accessible dip switches. These processors have wide range of standard and optional features that make them very suitable for advanced CATV systems. Four models are available with different output level and frequency ranges and a variety of options.

All models feature rock solid, synthesized frequency control, with a tuning increment of 250 kHz. True vestigial sideband SAW filtering guarantees superior broadcast picture quality. Two SAW filters are used to ensure proper adjacent channel rejection. Delayed AGC circuitry automatically compensates for input signal variations. These processors have an external IF loop, which allows interfacing with video all-call and signal scrambling systems. The AP Series utilizes a standby carrier oscillator to provide a blank picture when the input level drops below usable level. This prevents a snowy picture from being delivered to the distribution network in the event of signal degradation or complete loss of picture. The EAS/ALT IF feature allows the customer to choose between manual and automatic selection of EAS/ALT IF input signal.

These processors provide extremely clean output signals with distortion products (-60 dB or better). An exceptionally low broadband noise floor (-76 dBc or better) makes the AP Series ideal for large, multiple channel headends without the need for additional filtering.

#### ○ **Features & Benefits**

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- EAS/ALT IF Ready Via Manual or Automatic Mode
- Superior Broadband Noise Performance (-76 dB)
- Front Panel Accessible Level Controls for Easy Set-Up and Adjustments
- Rack Mountable - 1 EIA (1.75") Rack Space

# Heterodyne Processors

AP Series

## ○ Specifications

RF	IF	Controls (Front Panel)
Input Frequency Range Standard: 54-88 & 108-806 MHz Option 17 - Sub-band Input: 7-49 MHz	Aural Frequency: 41.25 MHz Visual Frequency: 45.75 MHz	Frequency Selection Input: DIP Switches Output: DIP Switches
Input Channels: SUB, VHF, UHF, CATV (STD,HRC)	Composite IF Loop Output Aural Carrier Level: +13 dBmV Visual Carrier Level: +28 dBmV	Frequency Response Adjust: Controls
Output Frequency Range AP-40-550 & AP-60-550: 50-550 MHz AP-40-750 & AP-60-750: 50-750 MHz	Output/Input Impedance: 75 Ohm	Aural Carrier Level: Control
Option 04: AP-40-550 & AP-60-550: 7-550 MHz	Output Return Loss: 12 dB	Frequency Fine Tune: Control
Output Channels: SUB, CATV (STD,HRC,IRC)	Input Return Loss: 12 dB	FCC Offset Selection Option 12: ABOC: DIP Switches
Tuning Increment: 250 kHz	EAS/ALT IF Input Level: 28 dBmV @ 45.75 MHz	RF Output Level: Control
FCC Offset: 0, +12.5, or +25 kHz	EAS/ALT IF Switch Isolation: >60 dB	<b>Controls (Top Cover &amp; Rear Panel)</b>
Input Level Range: -18 to +30 dBmV	<b>General</b>	Standby Oscillator Threshold Adjust: Control
AGC Stiffness: 1.0 dB	Power Requirements	Sub-band Input Channels Option 17: Slide Switch
Output Level - Min	Voltage: 117, ±10% VAC	EAS/ALT IF: 3 Position, Terminal Strip
AP-40-550 & AP-40-750: +40 dBmV	Frequency: 60 Hz	<b>Indicators (Front Panel)</b>
AP-60-550 & AP-60-750: +60 dBmV	Power - AP-40-450 & AP-40-550: 20 W	Power ON: LED, Green
Output Level Adjust: 10 dB	Power - AP-60-450 & AP-60-550: 24W	EAS/ALT IF: LED, Green
Noise Figure	Fuse: 3/8 A	
VHF: 8 dB	Temperature Range: 0 to +50 °C	
UHF: 10 dB	<b>Mechanical</b>	
Aural/Visual Carrier Ratio: 0 to -10 dB	Dimensions (WxHxD)	
Visual Carrier Frequency Tolerance	19.0 x 1.75 x 14.25 in.	
Standard Channels: ±10 kHz	483 x 44 x 362 mm	
FCC Aeronautical Channels: ±3 kHz	Weight	
Channel Selectivity:	9 lbs. (4.09 kg)	
Adjacent Aural and Below: -65 dB	<b>Connectors (Rear Panel)</b>	
Adjacent Picture and Above: -65 dB	RF Input	
Spurious Outputs: -60 dBc	Standard - VHF/UHF: "F" Type, Female	
Intermod Distortion: -64 dB	Option 17: Sub-band Input: "F" Type, Female	
Broadband Noise: -76 dBc	IF Output: "F" Type, Female	
Image Rejection: 65 dB	IF Input: "F" Type, Female	
Bandpass Flatness fv to fv+4.5 MHz: ±1.0 dB	RF Output: "F" Type, Female	
Input/Output Impedance: 75 Ohm	Serial Data Input & Output Option 20: Serial	
Input Return Loss: 12 dB	Input: RJ-12, Female	
Output Return Loss: 14 dB	EAS/ALT IF: "F" Type, Female	

Refer to product instruction manual for additional specification measurements and notes.

## ○ Ordering Information

Model	Stock No.	Description
AP-40-550B	59802	Agile Heterodyne Processor with EAS +40 dBmV, 54-88/108-806 MHz Input, 50-550 MHz Output
AP-40-750B	59803	Agile Heterodyne Processor with EAS +40 dBmV, 54-88/108-806 MHz Input, 50-750 MHz Output
AP-60-550B	59817	Agile Heterodyne Processor with EAS +60 dBmV, 54-88/108-806 MHz Input, 50-550 MHz Output
AP-60-750B	59818	Agile Heterodyne Processor with EAS +60 dBmV, 54-88/108-806 MHz Input, 50-750 MHz Output
Accessories		
Model	Stock No.	Description
AP-OPT 04	59804	AP Series Option: Sub-Band Output
AP-OPT 12	59122	AP Series Option: Automatic Broadcast Offset Correction
AP-OPT 14	59144	AP Series Option: On Channel-lock
AP-OPT 17	59177	AP Series Option: Sub-Band Input, 7-49 MHz