



HCP2550A Heterodyne Channel Processor

The Drake HCP2550A is a high quality, frequency agile channel processor capable of converting any VHF, UHF, or CATV input signal to any standard output channel between 54 through 550 MHz. Input and output frequency, including output frequency offset, are easily set with front panel push wheel switches. A/V ratio and output controls are also provided along with IF loop-through connections to offer exceptional flexibility.

- Synthesized input tuning of Off-Air TV channels 2 through 69, standard CATV channels 2 through 125, and IRC, HRC channels 1 through 125. All set by a front panel push wheel switch.
- Synthesized RF output on CATV channels 2 through 78 and 95 through 99, set by a front panel push wheel switch.
- Selectable pre-amp and AFC provides stable reception of weak or out-of-tolerance signals
- Switch selection of plus, minus or no offset of output frequency
- Dual SAW filter IF allows adjacent channel operation in a crowded CATV environment
- Selectable and adjustable threshold level allows internal carrier substitution for below threshold input signal levels
- IF loop-thru connections for scrambling encoders or IF stereo processors
- High output power adjustable to +60 dBmV
- Available with "T" Channel upconverter option for reception of channels T7 - T14.
- Emergency Alert System (EAS) ready with alternate composite IF inputs.
- Made with pride in the U.S.A.

Specifications

Input Section	
Frequency Range:	54 through 806 MHz Off-air TV channels 2 through 69, Standard CATV channels 2 through 125, IRC and HRC channels 1 through 125 (Channels T7 - T14 with "T" channel upconverter option)
Input Impedance:	75 Ohms, greater than 10 dB return loss
RF Input Level:	-20 dBmV to +25 dBmV (pre-amp on) -10 dBmV to +35 dBmV (pre-amp off)
Adjacent Channel Rejection	Greater than 60 dB
Noise Figure:	Less than 10 dB (pre-amp on)
Tuner Image Rejection:	Greater than 75 dB

In-channel C/N:	60 dB for input levels of +15 dBmV or greater (pre-amp on) 60 dB for input levels of +25 dBmV or greater (pre-amp off)
AFC Range	± 75 kHz minimum
Pilot Threshold	Typical adjustment range: -20 dBmV to +5 dBmV (pre-amp on) -10 dBmV to +15 dBmV (pre-amp off)
Composite IF Loop:	
Output Level (V carrier):	+28 dBmV ± 2 dB
Spurious Outputs:	-60 dBc minimum
Input Level (V carrier):	+28 dBmV nominal, +30 dBmV maximum
IF Input/Output Impedance:	75 Ohms, greater than 15 dB return loss
Isolation:	Greater than 60 dB
Output Section:	
Frequency Range:	82 channels, 54 through 550 MHz; Channels 2 through 78 and 95 through 99
Output Level:	+60 dBmV (typically adjustable from +50 to +60 dBmV)
Output Impedance:	75 Ohms, greater than 12 dB return loss
Video Frequency Response:	20 Hz to 4.2 MHz, ± 1.5 dB maximum
L-C Delay:	± 50 nanoseconds
Frequency Stability:	± 5 PPM of output frequency (AFC on) ± 5 PPM of frequency difference between input and output signals (AFC off).
FCC Offset:	Automatic (plus, minus, or none is selectable.)
A/V Ratio Adjustment:	+5 to -12 dB typical, relative to input A/V ratio
Spurious Outputs:	-60 dBc
Broadband Noise:	-80 dBc (measured in a 4MHz noise bandwidth at greater than ±12 MHz offset from carrier at output level of +60 dBmV)
EAS Input:	

Input Level:	+28 dBmV nominal
Input Impedance:	75 Ohms, greater than 15 dB return loss
Auto Switching Level:	Greater than +20 dBmV, nominal
Isolation between Composite and EAS Inputs:	Greater than 60 dB
General:	
Power Requirements:	115 VAC (\pm 10%), 60 Hz, 30 watts
Operating Temperature:	0° to +50° Celsius (32° to 122° Fahrenheit), ambient
Dimensions:	1.75 inches (44 mm) Height x 19 inches (481 mm) Width x 14.3 inches (363 mm) Depth
Weight:	10.0 lbs. (4.6 kg.)

Specifications, price, and availability are subject to change without notice or obligation.