

# DSP806

806MHz Agile PLL SAW-Filtered Digital-Analog Channel Processor



- ▶ **125 Channel Input Range**  
54-806 MHz (CATV 2-125, TV 2-69)
- ▶ **125 Channel Output Range 54-806MHz**  
(CATV 2-125, TV 2-69)
- ▶ **ATSC (HDTV), QPSK, QAM, and NTSC compatibility for CATV and terrestrial broadcast applications provides maximum compatibility for all signal processing**
- ▶ **High 45dBmV output for optimum carrier-to-noise performance**
- ▶ **Microprocessor control enables digital push-button input and output channel selection for ease of installation, configuration, and servicing**
- ▶ **In-band carrier-to-noise ratio >65dB ensures superior picture quality**
- ▶ **SAW filtered for superior adjacent channel performance enables drop-in channel expansion**
- ▶ **Non-volatile memory for input and output channel recall in the event of power failure**
- ▶ **Front panel controls and test point enable easy setup and monitoring**
- ▶ **Double heterodyne conversion provides over 60dB spurious output and channel rejection for interference-free adjacent channel operation**
- ▶ **Broadcast-quality specifications for unparalleled data translation**
- ▶ **IF loop provides compatibility with CMTS, QAM modulators and IF scramblers**
- ▶ **IRC and HRC input and output offset available for frequency settings in systems using offset channels**
- ▶ **Auxiliary AC outlet for convenience**

# DSP806

806MHz Agile PLL SAW-Filtered Digital-Analog Channel Processor

The Pico Macom DSP806 is a frequency agile, microprocessor-controlled, professional re-broadcast grade double-heterodyne channel processor that converts one 6MHz Digital (ATSC, 8VSB, 64 QAM) or Analog (NTSC) channel to a different frequency without need to demodulate and re-modulate the signal. Front panel push-button controls enable simple input and output channel selection. The unit uses state-of-the-art high stability phase-locked-loop circuitry for optimum data handling and channel relocation. The **DSP806** provides a rear panel external IF loop allowing this unit to be used as a digital up-converter or down-converter in CMTS systems. The Surface Acoustic Wave (SAW) IF filtering provides highly selective frequency cut off at band edges for superior adjacent channel performance even in the most crowded systems. The **DSP806** unique broad input AGC design delivers consistently high quality picture even at extremely low input levels. The microprocessor's non-volatile memory preserves input and output channel identification guaranteeing proper reset when power is restored. The **DSP806** high frequency and extremely high accuracy phase-locked loop oscillators enable the unit to meet the frequency offset and stability requirements of FCC Docket 21006. Pico Macom backs up this product with its industry leading 5-year limited warranty.

# DSP806

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FRONT VIEW



REAR VIEW

## RF Input

<b>Input Frequency Range:</b>	54 - 806 MHz CATV Channels 2-125 UHF Channels 2-69
<b>AGC Range:</b>	-15 dBmV to +35 dBmV input
<b>Impedance:</b>	75 Ohms
<b>Noise Figure:</b>	8 dB
<b>Image Rejection:</b>	>80 dB

## RF Output

<b>Output Frequency Range:</b>	54 - 806 MHz CATV Channels 2-125 UHF Channels 2-69
<b>Output Level:</b>	45 dBmV, adjust range 15 dB
<b>Frequency Stability:</b>	±5 kHz
<b>Impedance:</b>	75 Ohms
<b>Flatness:</b>	±0.2 dB
<b>I.F. Frequency:</b>	44 MHz SAW, digital center

## General

<b>Power Input:</b>	105 to 130 VAC, 60 Hz, 15W
<b>Operating Temperature:</b>	-10°C to 50°C ambient
<b>Dimensions:</b>	19"(L) x 9"(D) x 1 <sup>3</sup> / <sub>4</sub> "(H)
<b>Weight:</b>	7.9 lbs.

## Ordering Information

**DSP806**