



DDC864

Digital Signal Downconverter

The R.L. Drake DDC864A is a low noise downconverter designed for translating digital ATSC, 8VSB signals from their off-air channel to a 44 MHz IF output. The output of the DDC864A can be connected to a DUC series upconverter to place the digital signal on a new output channel.

When the DDC864A is used with the DUC864, "on channel" conversions, (the same input channel on the DCC and output channel on the DUC) are acceptable.

The DDC864A provides low noise figure and low phase noise as well as a flat passband to minimize signal deterioration.

The DDC864A is optimized for use with ATSC 8VSB modulation in a 6 MHz wide channel assignment. The passband is designed for optimized operation with 8VSB signals in an adjacent channel environment. For translation of QAM signals, the Drake model DQT1000 is preferred for this task.



**DDC864A Digital
Signal Downconverter**

Specifications

RF Input	
Frequency Range:	54 to 806 MHz; Off-AIR channels 2 to 69
Input Level Range:	-25 dBmV to +30 dBmV
Impedance:	75 Ohms, return loss of 8 db
Noise Figure:	10 dB, maximum
Image Rejection:	>75 dB
Output	
IF Frequency:	44 MHz
Level:	+30 dBmV, ± 1 dB
Impedance:	75 Ohms, return loss of dB
Frequency Stability:	± 30 PPM
Channel Bandwidth:	6 MHz SAW filtered
SSB Phase Noise:	-88 dBc @ 10 KHz offset
Amplitude Flatness (6 MHz Channel):	± 1 dB over 4 MHz
General	
DC Power Input:	+12 V $\pm 5\%$ @ 150 mA; +5 V $\pm 5\%$ at 150 mA
Operating Temperature:	0°C to +50°C, ambient
Size:	1" W x 3.5" H x 9.25" D. (2.5 cm) W x (8.9 cm) H x (23.5 cm) D
Weight:	11 oz. (0.31 Kg)