

## Features:

- Tunes from 137 to 174 MHz in 2.5 KHz steps
- Eliminates Adjacent Channel Interference
- Highly Selective Crystal Pre-Selector
- Field Programmable Using a PC GUI
- Controllable thru USB, LAN, or LCD
- Failsafe bypass mode for loss of power
- Low Noise Figure



**Applications:** Defense, Land Mobile/Public Safety, SCADA as well as commercial two-way radio systems. Solving Narrow Band FCC Mandate interference issues, P25, DMR, NXDN and Tetra standards

## Description:

The Ultra-Q active band pass filter can eliminate out of band interfering signals with ultra-fine band adjustments and bandwidths as narrow as 12.5 kHz. Complete local control via a GUI is standard.

## Electrical Specifications:

Tuning Frequency Range	137 to 174 MHz		
Tuning Step Size	2.5 kHz (Ultra-Fine tunes in approx. 10Hz Steps)		
Input RF power	-5 dBm (Maximum usable)		
Bypass mode	Unit will enter bypass mode if power exceeds -5 dBm at input		
Max input power no damage	+20 dBm		
Noise Figure @ Pin < -20 dBm	7 dB typical		
Noise Figure @ Pin > -20 to -5 dBm	17 dB		
RF Gain	+0 to 10 dB		
I/O VSWR	1.5:1 nominal		
I/O Connectors	Type N Female		
Power Requirement	120VAC (48V DC available on request)		
Control Interface	USB, RJ-45 LAN, LCD Display		
Size	19" Rack Mount, (19" x 11" x 3.5")		
<b>Filter Description</b>			
Filter Channel Spacing Options	12.5	25.0	kHz
Min 3 dB Bandwidth	+/-3.75	+/- 7.5	kHz
Max 45 dB Stop Band	+/- 8.75	+/-17.5	kHz
Max 65 dB Stop Band	+/-12.5	+/-25	kHz
Group Delay (1 dB BW)	20	10.0	uSec

## Options and Model Numbers

**Part Number SW-300-WXYZ**

W specifies power supply options

W= 0 120V power adapter

W= 1 48V DC-DC converter

X Specifies USB or LAN control option

X=0 Front Panel Display and USB Control on rear panel

X=1 Front Panel Display and LAN RJ-45 Control on rear panel

X=2 Front panel Display and LAN and USB on rear panel

\*Note that 2 is the standard version

Y specifies filter Band Width

Y= 0 12.5 KHz Narrow Band channel spacing

Y= 1 25.0 KHz Wide Band channel spacing

Z specifies the Frequency Band

Z= 1 137-174 MHz VHF-L

Z= 2 380-512 MHz UHF-L

Z= 3 799-933 MHz UHF-H

Z= 4 210-250 MHz VHF-H

Other bands may be added so please check with factory.

Example Number SW-300-0231 120 Volt supply, LAN and USB, Wide Band 25 KHz, and VHF-L Frequency band