



### Optional Features

- Transmit steering
- Leakage current detection and system shut down
- Forward power monitoring
- Reflected power monitoring

## Transducer Power Output Series

### Single- and Multi-Channel Control Systems

Designed as a one-stop solution for your ultrasound instrumentation setup, the new Transducer Power Output (TPO) series from Sonic Concepts, Inc. offers ultra-sound researchers and developers with a user-friendly, portable and high-power system for “plug-and-play” with single- or multiple-element transducers.

The TPO series includes a touch-sensitive display, easy-to-use menu system to drive one to 16 RF channels within a compact housing.

Each RF drive amplifier allows continuous or pulsed power over any specific frequency range up to 30 MHz.

The system is equipped with multi-channel algorithms used to steer the acoustic focus and/or to dither the acoustic field.

### Hardware Features

- Touch-sensitive front display panel
- Compact RF shielded enclosure
- On/Off power switch
- Power input jack and supply provided (100-240 VAC, 47-63 Hz)
- 1 to 16 channels, high- or low-power (per user requirements)
- Output connectors BNC(f) (unless otherwise required)
- Start/Stop output switch
- USB input port for software control
- Internal trigger with sync output connector BNC(f)
- External trigger 0-5V gated

### Built-In Parameters

- Power up to 75 Watts/channel
- Center frequency with +/- 40% bandwidth within a 10 kHz to 30 MHz range
- Variable pulse repetition rate
- Variable pulse duration
- Treatment time
- Frequency, phase & power modulation for focal dithering
- Internal temperature monitoring
- Protection circuitry: Output open/short & over temperature detections to prevent inadvertent damage

Company	Product Line	Multi-Waveform Generator	RF Amplifier	Receive Acquisition	No. of Waveform Generator	No. of Amplifiers	Frequency Range	Power (Watts)
Sonic Concepts	TPO - Research	√	√		1 - 128	1 - 128	0.100 - 20 MHz	1,280 at 128 Ch
Sonic Concepts	TPO - Medical	√	√		1 - 128	1 - 128	0.100 - 20 MHz	1,280 at 128 Ch
Verasonics	Vantage	√	√	√	64 - 2,048	64 - 2,048	0.500 - 5 MHz	1,280 at 128 Ch

Model No.	Description	Power per Channel (Watts)	No. of Channels	Total Power (Watts)	Frequency Range (MHz)	Volume (c.m)
TPO-102	Single Channel High Power	200	1	200	0.1-2.5 or 2.5-10.0	35 x 35 x 19
TPO-103	2 Channel Dual Frequency	100	2	200	0.1-2.5 or 2.5-10.0	35 x 35 x 19
TPO-105	4 Channel High Power Steer and/or Blur	50	4	200	0.1-2.5 or 2.5-10.0	35 x 35 x 19
TPO-106	4 Channel High Power Steer and/or Blur	10	4	40	0.1-10.0	16 x 16 x 7.5
TPO-300	8 Channel High Power Steer and/or Blur	20 or 50	8	160 or 400	0.1-2.5 or 2.5-10.0	Customize
TPO-301	16 Channel High Power Steer and/or Blur	20 or 40	16	320 or 640	0.1-2.5 or 2.5-10.0	Customize
TPO-302	32 Channel High Power Steer and/or Blur	20 or 40	32	640 or 1280	0.1-2.5 or 2.5-10.0	Customize
TPO-303	64 Channel High Power Steer and/or Blur	10 or 20	64	640 or 1280	0.1-2.5 or 2.5-10.0	Customize
TPO-304	128 Channel High Power Steer and/or Blur	10	128	1280	0.1-2.5 or 2.5-10.0	Customize