

Product Summary Sheet

HV738

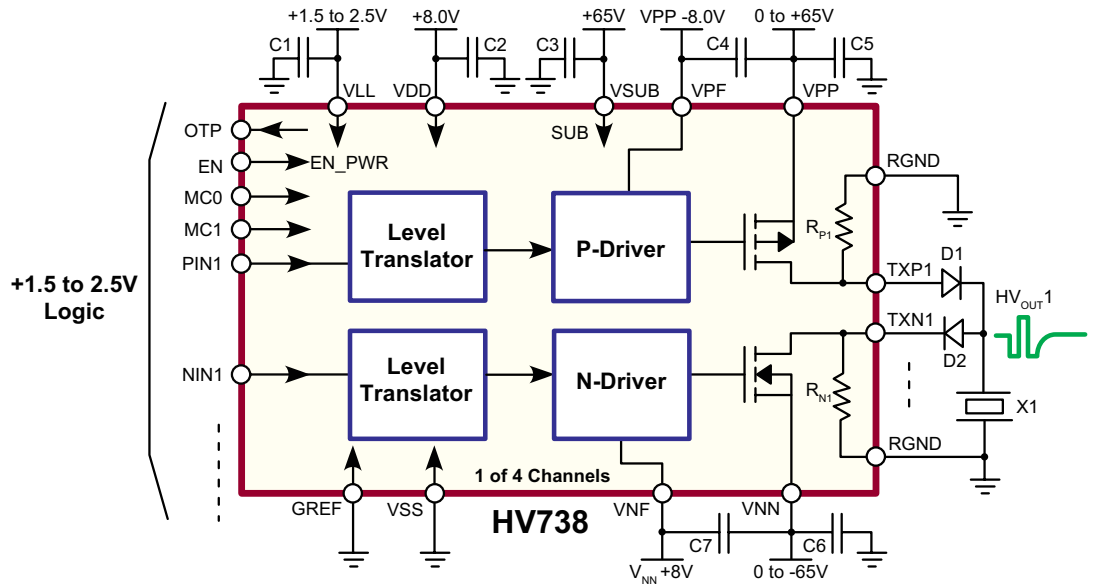
Quad High Speed $\pm 65V$ 750mA Ultrasound Pulser

Applications:

- ▶ Portable medical ultrasound imaging
- ▶ Piezoelectric transducer drivers
- ▶ NDT ultrasound transmission
- ▶ Pulse waveform generator



48-Lead QFN (K6)



Typical Application Circuit

Product Overview:

The Supertex HV738 is a four-channel, monolithic, high voltage, high speed pulse generator. It is designed for portable medical ultrasound applications. This high voltage and high speed integrated circuit can also be used for piezoelectric, capacitive or MEMS sensing in ultrasonic nondestructive detection and sonar ranger applications.

The HV738 consists of a controller logic interface circuit, level translators, MOSFET gate drivers and high current power P-channel and N-channel MOSFETs as the output stage for each channel.

The output stages of each channel are designed to provide peak output currents over $\pm 1.1A$ for pulsing, when in mode 4, with up to ± 65 volt swings. When in mode 1, all the output stages drop the peak current to $\pm 140mA$ for low-voltage CW mode operation to decrease the power consumption of the IC. The P and N type of power FETs gate drivers are supplied by two floating 8.0VDC power supplies referenced to V_{PP} and V_{NN} . This direct coupling topology of the gate drivers not only eliminates two high voltage capacitors per channel, but also makes the PCB layout easier.

Features:	Benefits:
0 to $\pm 65V$ output voltage	Better ultrasound image resolution
$\pm 750mA$ source and sink output current capability	Designed for battery-powered, hand-held ultrasound scanners
Up to 20 MHz operating frequency	Wider ultrasound probe selections
4-channels in 7x7mm QFN package	Small PCB space
4-mode control for PW and CW	Save power consumption at CW Doppler mode



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Supertex inc.

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Ordering Information / Availability

<u>Part Number</u>	<u>Package Option</u>	<u>Samples</u>	<u>Lead Time</u>
HV738K6-G	48-Lead QFN (Green)	Now	4-5 Weeks

-G indicates the part is RoHS compliant (Green).



Product Contact

For any questions regarding the HV738 please contact your local area Supertex sales office, or contact the main office in the US at:

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