

## Product Summary Sheet

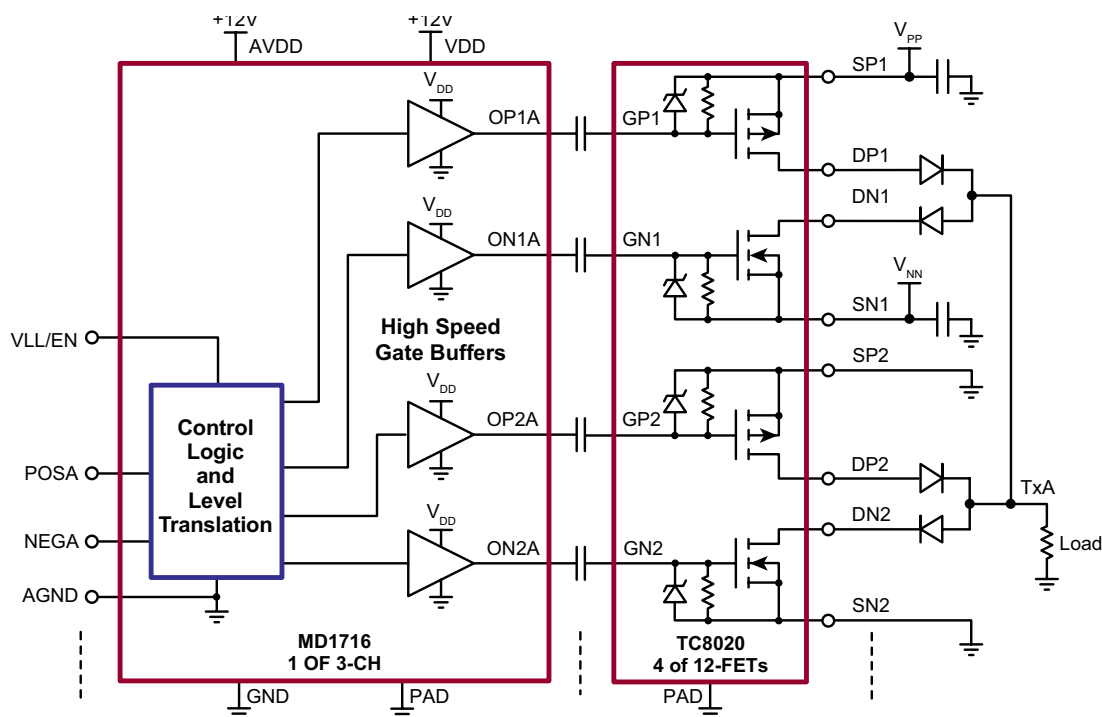
# Three Channel, Three Level, High Speed Ultrasound Driver IC

### Applications:

- ▶ Medical ultrasound imaging
- ▶ Piezoelectric transducer drivers
- ▶ Metal flaw detection
- ▶ Non-Destructive Testing (NDT)



40-Lead QFN (K6)



Typical Application Circuit

### Product Overview:

The Supertex MD1716, paired with the Supertex TC8020, forms a three channel, three level, high voltage, high speed, transmit pulser chip set. The chip set is designed for medical ultrasound imaging applications but can also be used for metal flaw detection, Non-Destructive Testing (NDT), and piezoelectric transducer drivers.

The MD1716 is a three channel logic controller circuit with 12 low impedance MOSFET gate drivers. There are three sets of control logic inputs, one each for channels A, B and C. Each channel consists of two pairs of MOSFET gate drivers. These drivers are designed to match the gate driving requirements of the Supertex TC8020.

The TC8020 is the high voltage output stage of the pulser. It consists of six pairs of MOSFETs. Each pair has both an N- and P-channel MOSFET. They are designed to have the same impedance and can provide typical peak currents of  $\pm 3.5$  amps.

Features:	Benefits:
Generates a three level waveform	PW, CW, and Color Doppler
Drives three ultrasound transducer channels	Saves PCB spacing
Matched delay times	Accurate beam focusing
$\pm 2.0$ A source and sink peak current	Minimizes rise and fall times for better imaging
Up to 20MHz output frequency	High resolution imaging
Two separate gate drive voltages	Low power consumption
1.8 to 3.3V CMOS logic interface	Flexible DSP logic interface



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### Ordering Information / Availability

Part Number	Package Option	Samples	Lead Time
MD1716K6-G	40-Lead QFN (Green)	Now	4-6 Weeks ARO

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



### Product Contact

For any questions regarding the MD1716, please contact your local area Supertex sales office, or contact the main office in the US at:

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