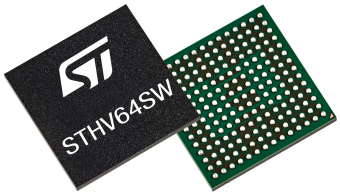
64-channel (±100 V / -200 to 0 V / 0 to 200 V), low harmonic distortion, high voltage analog independent switches



Features

- 200 V peak-to-peak input and output signal
- Three different operating ranges:
  - From -100 V to +100 V
  - From 0 V to 200 V
  - From -200 V to 0 V
- Very fast input slew rate (40 V/ns without load)
- Only +3.3 V low voltage supply
- Rail-to-rail input signal
- Low on-resistance
- Very low cross-talk between channels
- Low parasitic capacitance
- 42 kΩ bleed resistor on the outputs
- Thermal and undervoltage protection
- Latch-up free
- Control through serial interface
- 20 MHz data shift clock frequency
- Cascadable serial register with latches

Applications

- Medical ultrasound imaging
- NDT ultrasound transmission
- Piezoelectric transducer drivers
- Industrial

Product status link
STHV64SW

Product summary	
Order code	STHV64SW
Package	BGA-196
Packing	Tray

Description

The STHV64SW is an integrated circuit which features 64 independent switches. It is designed for medical ultrasound applications, but can also be used for driving piezoelectric, capacitive or MEMS transducers, and in industrial application such as generic high voltage switches.

The STHV64SW comprises a shift register for serial communication, self-biased high voltage MOSFET gate drivers, high power N-channel MOSFETs, bleed resistance for each switch, thermal sensor and undervoltage lockout. Moreover, the STHV64SW includes self-biasing and thermal shutdown blocks. The switches are capable of providing up to ±3 A peak output current.

Table 1. **Document revision history**

Date	Version	Changes
01-Mar-2019	1	Initial version