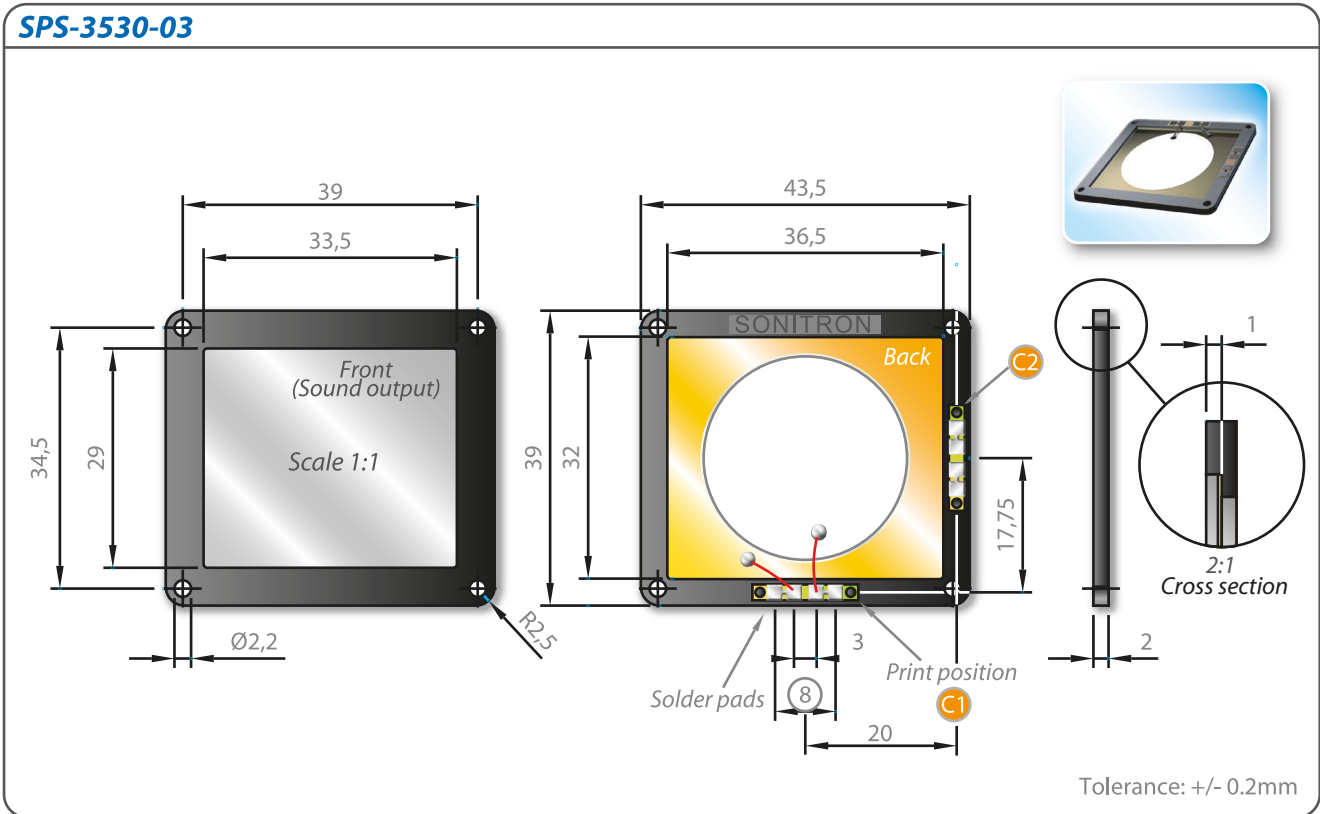


**DIMENSIONS** (all dimensions are in mm)



**Recommended Piezo Audio Amplifiers** (see page 104, 105, 106)

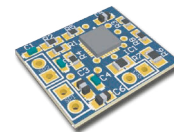
**Integrated Circuits**

**Maxim**  
MAX9788

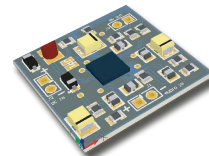
**National semiconductor**  
LM4960

**Texas Instruments**  
TPA2100P1

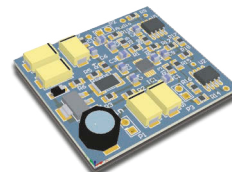
**Sonitron production models**



PAA-MAX-9788-01

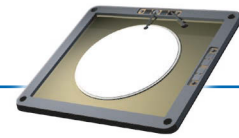


PAA-LM4960SQ-02



PAA-StepUpBTL-01

## SPS-4640-03



The electronics industry still is a very demanding industry which requires more and more flat and small components. Therefore Sonitron developed this new flat piezoceramic speaker. With a thickness of only 2 mm and dimensions of 43.6x50 mm this small multifunctional speaker/microphone is ideal for use in portable electronic devices (PDA, GPS, MP3,...), notebooks and consumer products.

## SPECIFICATIONS

Frequency Range :	400 Hz - 20 kHz
Max SPL @ 1 m, 60 Vpp: (average @ 4-point)	83 dB
Distortion (%THD): (80dB @ 5 cm, average @ 4-point)	≤1.5%
Sensitivity: (SPL @ 10cm for 1Vrms, average @ 4-point : 800Hz, 1kHz, 1.5kHz, 2kHz)	72 dB
Capacitance (+/- 20%):	225 nF
Impedance @ 1kHz (+/-20%):	680 ohm
Operating Voltage:	5-60 Vpp
Weight:	2.8g
Operating Temperature:	-20°C to 60°C
Storage Temperature:	-40°C to 60°C
Case material:	PBT
Standard color:	Black

speaker mounted in closed box of 40 x 15 x 5cm

## FREQUENCY RESPONSE

