



## SPS-2220-03



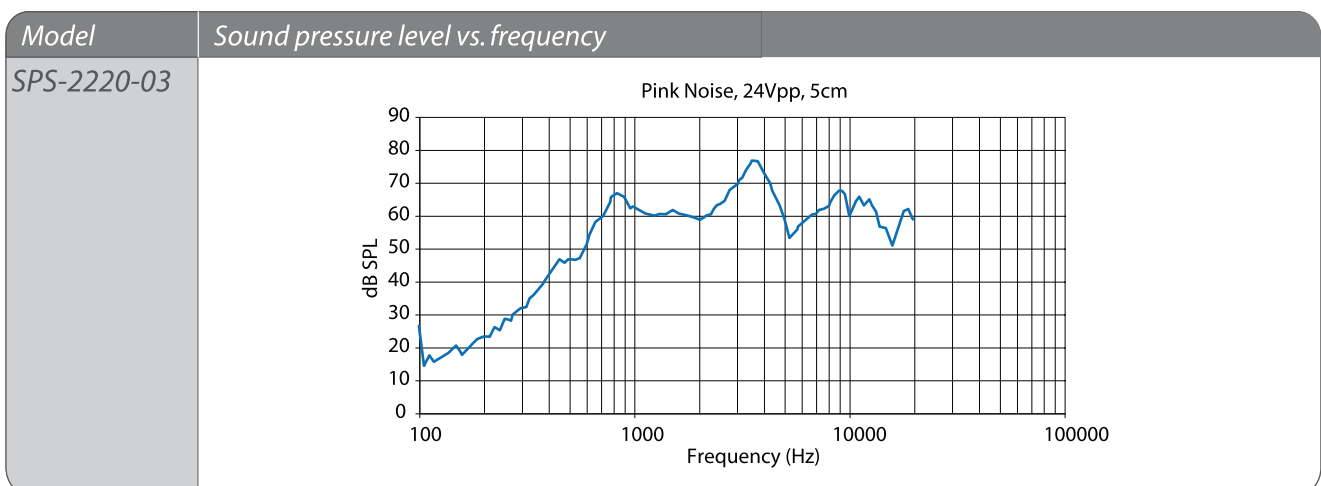
Sonitron's latest slim line profile speaker, the SPS-2220-03, is the result of ten years intensive research and development work. With a thickness of only 1 mm and dimensions of 20x22 mm, this small multifunctional speaker/microphone is ideal for use in GPS, MP3, camera's, mobile phones,... It is distortion free and has excellent sound reproduction. Considering its extremely good voice clarity it definitely is the new speaker generation for the mobile phone industry.

### SPECIFICATIONS

Frequency Range :	700 Hz-20 kHz
Max SPL @ 10 cm, 24Vpp: (average at 4-point)	85 dB
Distortion (%THD): (80dB @ 5 cm, average @ 4-point)	≤1%
Sensitivity: (SPL @ 10cm for 1Vrms, average at 4-point : 800Hz, 1kHz, 1.5kHz, 2kHz)	63 dB
Capacitance (+/- 20%):	70 nF
Impedance @ 1kHz (+/-20%):	2.16 kohm
Operating Voltage:	1Vpp-24Vpp
Weight:	0.4g
Operating Temperature:	-20°C to 60°C
Storage Temperature:	-40°C to 60°C
Case material:	PC
Standard color:	Black

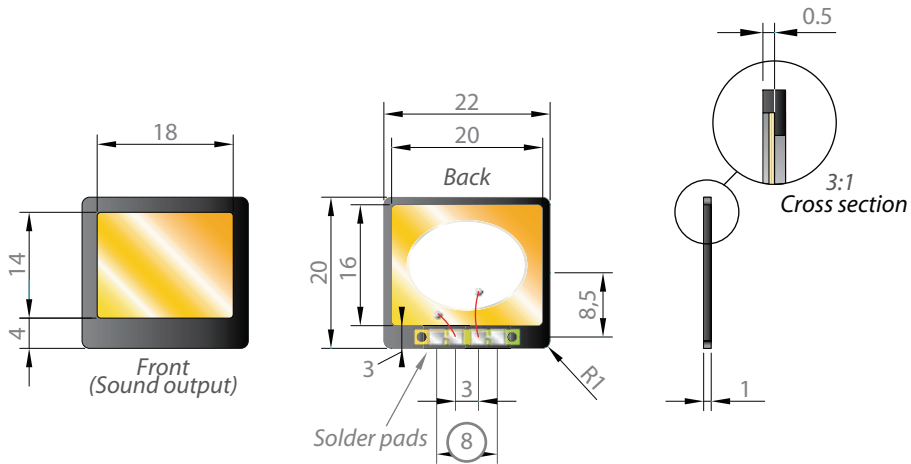
speaker mounted on plexi plate of 5 x 5cm in closed box of 40 x 15 x 5cm

### FREQUENCY RESPONSE



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

**SPS-2220-03**



Tolerance: +/- 0.2mm mm

**Recommended Piezo Audio Amplifiers**

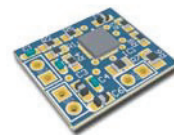
**Integrated Circuits**

**Maxim**  
MAX9788

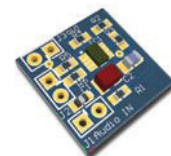
**Texas Instruments**  
TPA2100P1

**Linear technology**  
LT3469

**Sonitron production models**



PAA-MAX-9788-01



PAA-LT3469-01

## PRODUCT CODIFICATION

<p>SPS</p> <p>↓</p> <p>Sonitron Polymer/metal Speaker</p>	<p>2220-03 3530-03 4640-03 6555-03 8770-03</p>	<p>C1 or C2</p> <p>↓</p> <p>C1: Position of solder pads C2: Position of solder pads</p>	
---	--	---	--

## LIST OF AVAILABLE PRODUCT TYPES

SPS-2220-03	SPS-3530-03-C1 SPS-3530-03-C2	SPS-4640-03-C1 SPS-4640-03-C2	SPS-6555-03-C1 SPS-6555-03-C2	SPS-8770-03-C1 SPS-8770-03-C2
-------------	----------------------------------	----------------------------------	----------------------------------	----------------------------------

## PACKAGING

The SPS-2220-03/3530-03/4640-03/6555-03/8770-03 are packed in trays (245 L x 245 W) and sold in boxes with dimensions of 250 L x 250 W x 125 H.

Number	SPS-2220-03	SPS-3530-03	SPS-4640-03	SPS-6555-03	SPS-8770-03
per tray	81	25	16	9	6
per box	(81x70) 5670	(25x40) 1000	(16x40) 640	(9x40) 360	(6x40) 240

Dimensions of the tray and position of the SPS-speakers 2022-03/3035-03/4640-03/8770-03/SPS-27-01 are illustrated below:

SPS-2220-03	A=1.5 mm B=26 mm C=26 mm
SPS-3530-03	A=3 mm B=47.5 mm C=47.5 mm
SPS-4640-03	A=3 mm B=60 mm C=60 mm
SPS-6555-03	A= 3mm B=68.5mm C=75.5mm
SPS-8770-03	A=3 mm B=78 mm C=120 mm

