

## SPECIFICATION

### 1. Scope

This specification covers the SONOPRO transducer for cleaning under the atmosphere of  $25\pm 3^{\circ}\text{C}$  40 ~ 70%RH.

### 2. Type

#### Trans-C6838(5)50

Trans-C	68	38 (5)	50
Transducer	Frequency	Ceramic dia.	Emitting dia.

### 3. Dimensions

As per the drawing : Height = 74mm/m Emitting Diameter = 50mm/m

### 4. Electronical Specification ( By Piece )

- a. Resonant Frequency  $F_r = 68\text{kHz} \pm 0.5\text{kHz}$
- b. Resonant Resistance  $Z_r < 20\Omega$
- c. Capacitance CAPA =  $4.84 \pm 20\%$  nF
- d. tgD ( % KHz )  $< 0.5$
- e.  $Q_m > 500$



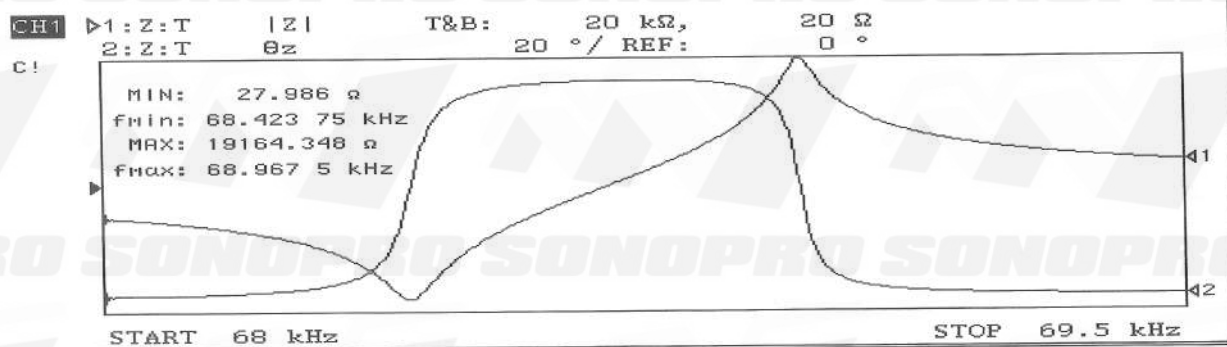
### 5. Mechanical Characteristics ( Periodical in Laboratory )

- a. Acoustic Power =  $4 \pm 0.5 \text{ Wcm}^{-2}$  -- By Ohmico Ultrasonic Power Meter UMP- DT-1AV
- b. Amplitude  $> 11\mu\text{m}$  -- Peak-to-peak in sinusoidal

### 6. Frequency category :

A : 67.50~67.79kHz	B : 67.80~68.04kHz
C : 68.05~68.29kHz	D : 68.30~68.50kHz

### 7. Impedance VS Frequency curve of Trans-C6838(5)50



$F_r$ (Hz)	=	68427.2583767
Z (Ohm)	=	28.0344181061
CO (nF)	=	3.87982551303
L1 (mH)	=	88.0964576035
R1 (Ohm)	=	28.0389957428
C1 (nF)	=	.061409791791
$Q_m$	=	1350.79956542