

# Ultrasonic Transducer Specification

1. Part Number: JTY5-W20-17M1Y1-L1

Spec. No.: BTWM-003 ( Material No: BTWM0031)

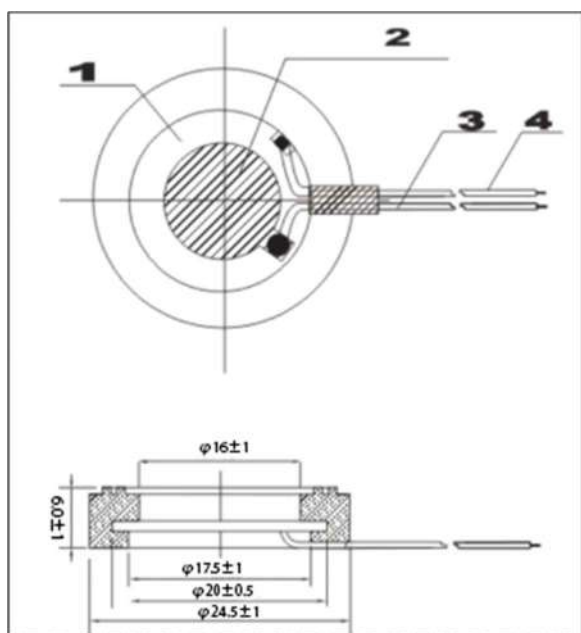
JTY5	换能片产品陶瓷料序列号 Ceramic Powder series of Ultrasonic Transducer
W	玻璃釉雾化片 Glass glaze
20	雾化片直径为 20mm The atomizing transducer's Diameter
17	谐振频率为 1.7MHz Thickness Resonant Frequency
M1	翻边电极 Flag Electrode type
Y1	亮白釉 The Glass Glaze material type
L1	焊线 Soldering type

## 2. Electronic Performance:

序号 No.	项目 Item	单位 Unit	标准 Standard	测试条件 Test condition
1	谐振频率 Fr (Thickness Resonant Frequency)	MHz	1.7±0.05	E5100 网络分析仪 E5100 Network Analyzer
2	谐振阻抗 Zr (Resonant impedance)	Ω	Max: 2	E5100 网络分析仪 E5100 Network Analyzer
3	机电耦合系数 Kt (Electrical-mechanical coupling coefficient)	/	Min:40%	E5100 (Fs3/Fs1)
4	自由电容 (1kHz 条件下) (Free capacitance at 1Khz)	pF	1800±20%	ZC2618B 型电容分选仪/1KHz ZC2618B Capacitor sorter At 1KHz
5	介电损耗 (Dielectric loss)	/	Max:2%	ZC2618B 型电容分选仪/1KHz ZC2618B Capacitor sorter At 1KHz
6	工作电压 (Working voltage )	Vp-p	85~105	-----
7	配件 (Mountings)	/	红黑焊线/白胶圈 Red-Black Wire White Rubber Ring	总长 90mm, 一头剥线沾锡 4~5mm The wire total length: 90mm, one end is stripped and tinned of 4-5mm
8	焊线拉力(Soldering Pulling force)	N	Min: 20	沿引线方向不超过 30 度方向测定 拉力,不低于 20N The pulling force, no more than 30° along the direction of the soldering wire , it is not less than 20N.

Remarks: The ceramic powder formula C5  
Electrode material: Ag  
Electrode protective material: Glass Glaze of Y1

### 3.外形尺寸 (Appearance and dimensions Unit: mm)



JTY5-W20-17M1Y1-L1		
No.	Qty	描述
1	1	雾化片非电极区 Non Electrode Area
2	1	雾化片电极区 Electrode Area
3	1	UL1007 AWG24 红色电子线 UL1007 AWG24 Red Color Wire
4	1	UL1007 AWG24 黑色电子线 UL1007 AWG24 Black Color Wire

### 4 说明和注意事项 (Notes)

- 1) 水温要求 (Water Temperature) : 20~50°C
- 2) 水质要求 (Water Quality) : 饮用水 (Drinking Water)
- 3) 水位要求 (Water Level) : 25~45mm
- 4) 寿命固定水质、水温、水位的条件下, 以标准功率驱动, 累积工作 3000 小时雾量衰减 $\leq 25\%$

Life time: Working at the standard power with the water quality, temperature and level confirmed, the lift time is 3000hours, after then, the reduction of the amount of atomization will not be more than 25%.

- 5) 外观: 釉面区每平方厘米内大于 0.20mm 的黑点不超过 3 个; 平面无较大缺瓷, 周边允许  $\phi 2$  以内的碎瓷; 卷边银胶不能附着在釉面上超过 2 距离; 电极无较大划痕;

Appearance: The blackspot which diameter is more than 0.2mm on the Glass Glaze surface of per square centimeter is not more than 3pcs; there is no big short of ceramic on the silver surface, It allows a little break in 2mm diameter; The conductive silver adhesive of flagged electrode can't exceed the glass glaze surface (referred to the drawing ); Electrode surface has no big scratch.

### 版本记录 (Revision History Record)

Revision No.	Date	Page	Description
V0	2015-05-01	/	New Spec
V1	2019-09-01	/	Updated the ceramic material to C5.