

# 深圳市维拓精电科技有限公司

## WTL International Limited

### APPROVAL SHEET

DESCRIPTION :	ZTB 7.0*9.0mm Ceramic Resonator			
NOMINAL FREQ.:	455.000KHz			
WTL P/N:	WTL6R55035CG			
VERSION:	1			
DATE:	2019.08.02			
Customer	Customer P/N			
IBS ELECTRONIC GROUP	/			
Customer Signature	WTL			
	Approved by: <i>Kavin Liu</i>			
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<b>REVISION HISTORY</b>				
Revised Page	Revision Content	Date	Ref. No.	Reviser

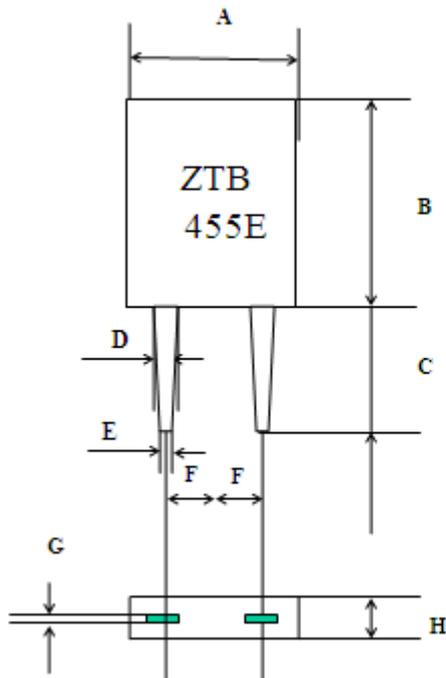


### 1. SCOPE

This specification is applied to the ceramics resonator used for communication.

### 2. MODEL NAME : WTL6R55035CG

### 3. DIMENSIONS

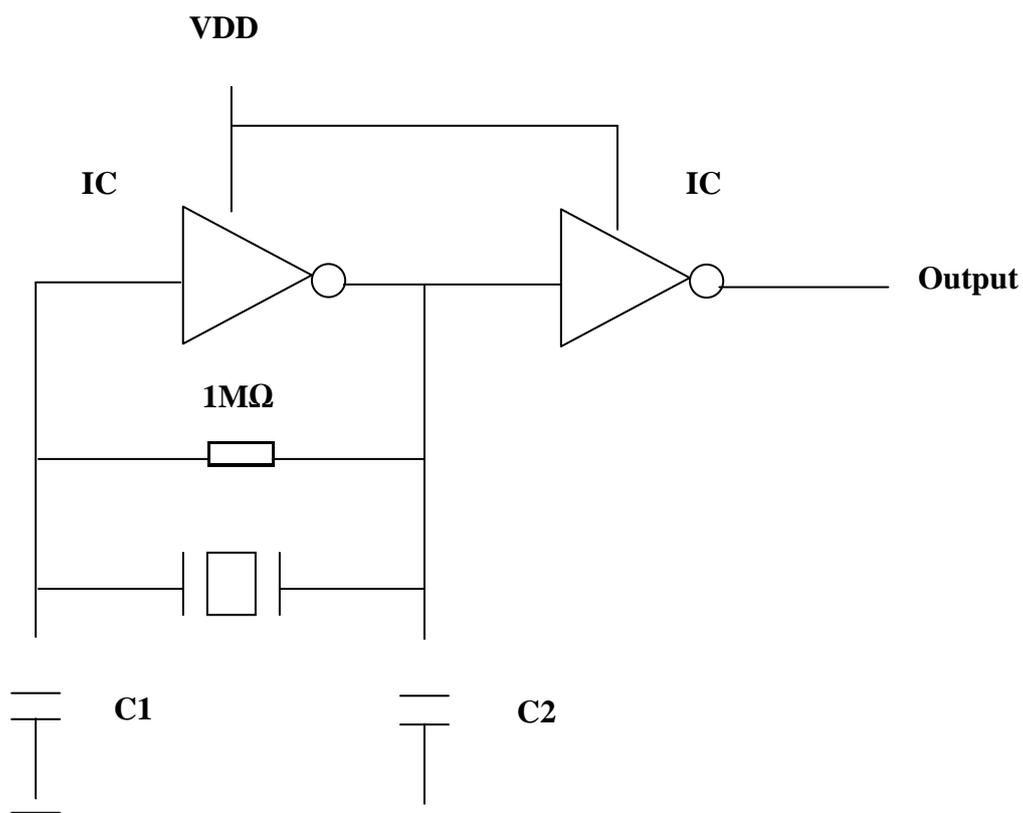


UNIT : MM

A	$7.0 \pm 0.3$
B	$9.0 \pm 0.3$
C	$6.0 \pm 0.5$
D	$0.9 \pm 0.1$
E	$0.7 \pm 0.1$
F	$2.5 \pm 0.2$
G	$0.15 \pm 0.03$
H	$3.0 \pm 0.3$

#### 4. TEST CIRCUIT

Parts shall be measured under a condition (Temp.:3~35°C. Hum.:45~85%) unless any necessity to measure under a standard condition (Temp.:20 ± 2°C. Humi.:65 ± 5%) is occurred.



**C1=C2=100PF**

**IC= CD4069UBE**

**VDD=+3V**

## 5. ELECTRICAL CHARACTERISTICS

Item	Requirements
5-1 Center Frequency (fo)	455KHZ
5-2 Frequency Accuracy	$F_c \pm 2\text{KHZ}$
5-3 Resonator Impedance	20 $\Omega$ max
5-4 Operating Temperature Range	-20 TO +80 °C
5-5 Storage Temperature Range	-30 TO +85 °C
5-6 Withstanding Voltage	DC 100 V
5-7 Temperature Coefficient Of Center Frequency (-20~+80°C)	$\pm 0.3\%$ max
5-8 Insulation Impedance	100 M $\Omega$ min
5-9 Shunt capacity	300P $\pm 20\%$

## 6. PHYSICAL AND ENVIRONMENTAL CHARACTERISTICS

	Test Item	Condition of Test	Requirements
6-1	Lead Strength  Lead Strength Lead Bending	Applied to vertical weight 1Kg along with the direction of lead without any shock for 5-10sec.  Filter lead shall be subjected to withstand against 90° bending its stem.This operation shall be done toward both direction.	No mechanical damage and the measured values shall meet Item 5.
6-2	Solderability	Dip the terminals of the filter no closer than 1.5mm into a soldering bath(230+5°C) for 5+1 sec . (refer to MIL-STD-202E-208C)	The solder shall be for coat at least 95% of the terminal surface
6-3	Vibration	Filter shall be measured after being applied vibration as below Vibration Freq: 10-55HZ Amplitude : 1.5 mm Directions : 3 axial directions Time : 1 hour/each direction	No visible damage and the measured value shall meet table 1
6-4	Random Drop	Filter shall be measured after 3 times random dropping from the height of 60 c m.concrete floor.	
6-5	Resistance to Soldering Heat	Filter immersing the terminals up to 1.5 mm to filter' s body in soldering bath (350 +10°C) for 3 sec., filter shall be measure after being placed in natural condition for 1 hour.	The measured value shall meet table 1.
6-6	Humidity	After being placed in a chamber (Humi :90-95% RH Temp.:40 + 2°C) for 100 hours filter shall be measured after placed in natural condition for 1 hour	
6-7	Life Test (High temperature)	After being placed in a chamber 85+2°C for 100 hours ,filter shall be measured after being placed in natural condition for 1 hour.	The measured value shall meet Table 1.
6-8	Life Test (Low temperature)	Placed in a chamber (Temp:-55+ 2°C) for 100 hours,filter shall be measured placed in natural condition for 1 hour .	
6-9	Thermal Shock	After temperature cycling of -55°C(30 minutes ) to +85°C ( 30 minutes ) was performed 5 times with a transfer time15 min filter shall be measured after being placed in natural condition for 1 hour.	

## 7. PHYSICAL AND ENVIRONMENTAL CHARACTERISTICS.

Item	Limit Value
※ F c	$\pm 2\text{KHZ}$

※ **Note: The limits in the above table are referenced to the initial measurements.**

## 8. NOTICE

- 8.1 . Do not use this product with bend. The component may be damaged if excess Mechanical stress is applied to it mounted on the printed circuit board.
  
- 8.2. This specification limits the quality of the component as a single Unit Please make sure that the component is evaluated and confirmed the drawing When it is mounted to your product.



## 9.WTL PART NUMBER SYSTEM :

For example: WTL9U23111CH

[Instructions: for project management, WTL will trace back the part number to developer wherever it goes]

WTL - 9U - 23111 - CH

WTL: Brand

9U : Package Code , please see Table 1

23111: Serial number , flow code , without any rules

CH: WTL Developer Code, For example : VH,CH,PZ,RZ,ML