

Version:  
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# **DIRECT**

## **Electronics Tech.**

### **(LTM 455/450 U/W)**

# **Communication Ceramic Filters**

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**▶ Product Introduction****Introduction (LTM 455/450 U/W)****Features :**

- LTM 455 EU Dimensions: (6.5 × 6.5 × 6.2 mm).
- LTM 455 EW Dimensions: (6.5 × 9.5 × 6.2 mm).
- Center Frequency: 455kHz (450kHz is also available).
- Input / Output Impedance: 1000Ω ~ 2000Ω.
- Insertion Loss (dB) max: 4db, 6db.
- Pass Band Ripple (dB) max: 2db.

Direct communication ceramic filter is Murata CFUM/WM 455/450 compatible. Direct ceramic filters for communication LTM 455/450 U/W series are miniaturized versions of the Murata CFU/CFWS lines.

These compact, highly selective characteristics are recommended for use in applications ranging from two-way radio to auxiliary filters in high class transceivers.

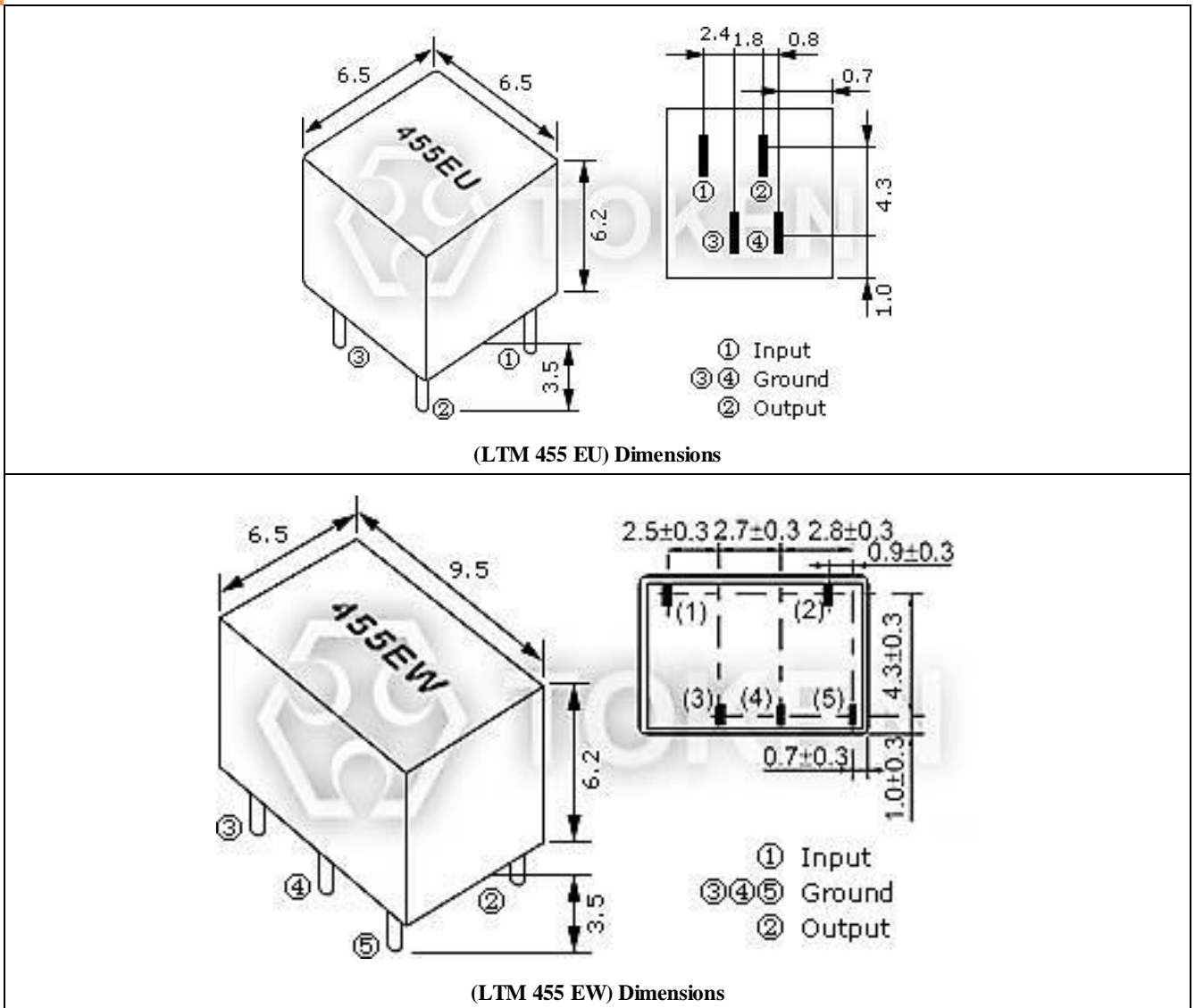
These ultra-miniature versions consume approximately 40% less volume while still offering the same high performance filter characteristics.

Contact us with your specific needs. For more information, please link to Direct official website "[Ceramic Filters](#)".



**► Dimensions**

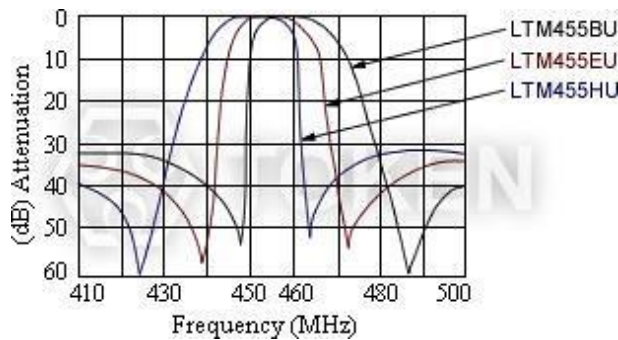
**Dimensions (Unit: mm) (LTM 455/450 U/W)**



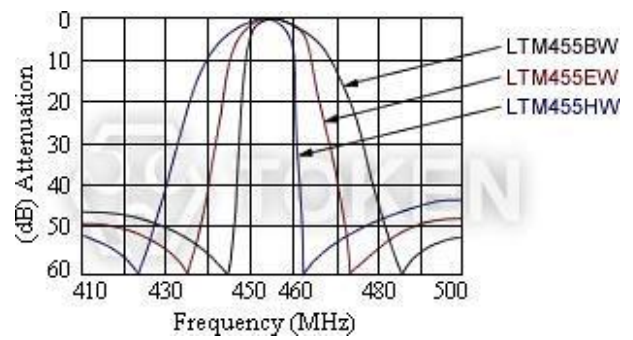
► **Technical Characteristics**

**Technical Characteristics (LTM 455/450 U/W)**

Part Number		Center Frequency (kHz)	Insertion Loss (dB) max	Pass Band Ripple (dB) max	6dB Band Width (kHz) min	40dB Band Width (kHz) max LTM455 U	50dB Band Width (kHz) max LTM455 W	Spurious Attenuation fo:±100kHz (dB) min		Input / Output Impedance (Ω)
								LTM455 U	LTM455 W	
LTM455AU	LTM455AW	455±2.0	4	2	±17.5	±40	±35	28	40	1000
LTM455BU	LTM455BW	455±2.0	4	2	±15	±30	±30	28	40	1500
LTM455CU	LTM455CW	455±2.0	4	2	±12.5	±24	±24	28	40	1500
LTM455DU	LTM455DW	455±1.5	4	2	±10	±20	±20	28	40	1500
LTM455EU	LTM455EW	455±1.5	6	2	±7.5	±15	±15	28	40	1500
LTM455FU	LTM455FW	455±1.5	6	2	±6	±12.5	±12.5	28	40	2000
LTM455GU	LTM455GW	455±1.5	6	2	±4.5	±10	±10	28	40	2000
LTM455HU	LTM455HW	455±1.0	6	2	±3	±9	±9	28	40	2000
LTM455IU	LTM455IW	455±1.0	6	2	±2	±7.5	±7.5	28	40	2000
LTM455HTU	LTM455HTW	455±1.0	6	2	±3	±9	±9	35	60	2000



(LTM 455 U) Characteristics



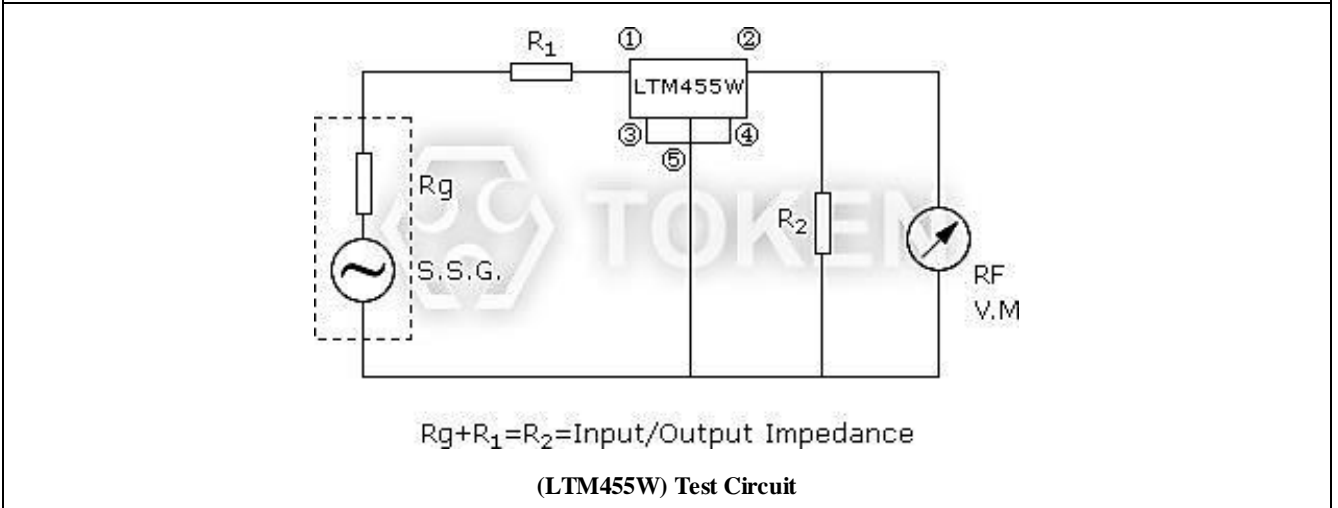
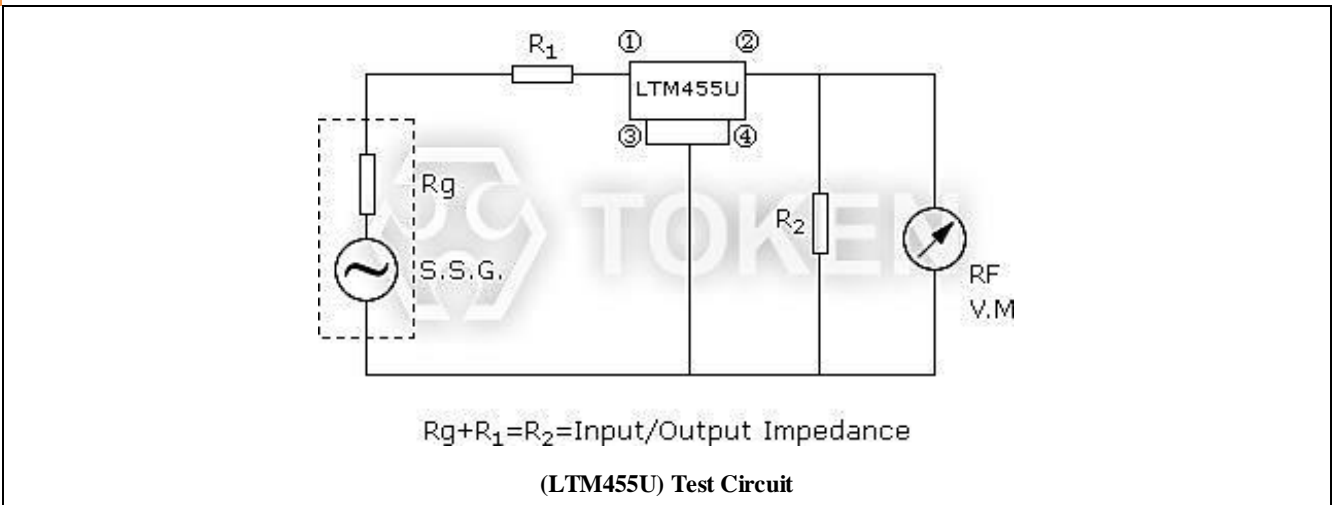
(LTM 455 W) Characteristics

● Center frequency 450kHz is also available.



▶ **Test Circuit**

**Test Circuit (LTM 455/450 U/W)**



▶ **Order Codes**

**Order Codes (LTM 455/450 U/W)**

LTM455BU	P
Part Number	Package

## ► General Information

### Introduction of Filters

For more than two decades, piezo technology has been instrumental in the proliferation of solid state electronics. A view of the future reveals that even greater expectations will be placed on piezoelectric material in the area of new applications and for more stringent performance criteria in modern products.

Direct sophisticated ceramics technology has greatly increased selectivity and wide-band characteristics, and has stabilized the characteristics of ceramic filters. The series covers a wide range of attenuation and bandwidths to allow selection of the most optimum filter characteristics for each application.

Direct filters are band pass filters consisting of one or more ceramic resonators connected in a ladder network configuration. Pass band characteristics are determined by the relative resonant and anti-resonant frequencies of the resonators. Both narrow and wide pass band configurations are manufactured by adjusting the resonator frequency characteristics.

The IC (Integrated Circuit) has found wide use in the field of commercial equipment, such as automotive radios, stereo systems, 2-way communications, TV sets, etc. Thus, new miniature integrated filters, with high performance, are extremely desirable for use in IF circuits.

Furthermore, radio wave disturbance due to rapid progress of data transmitting rate and remarkable sophistication of communication network have become significant traffic conflicts. Accordingly, the demand for filters with high selectivity and wide pass band width has boosted.

The IC application of the active elements will continue its progress, and there will be a growing demand for highly selective, non-adjustable, miniature and wide pass band width IF circuit.

### Advantage of Direct Piezoelectric Filters

Direct Electronics had been able to develop specialized piezo materials which when combined with an advance design have resulted in a complete line of practical, inexpensive piezo devices for entertainment and communications applications.

Direct reliably deliver high-quality components according to the each customer special needs with respect to performance, costs, and technology modifications.

For marketing discontinuations or sourcing activities concerning Piezoelectric Filter products, you are encouraged to contact our Sales Department so the request can be properly directed within Direct.

