

Version:
February 28, 2017

DIRECT

Electronics Tech.

(LT 455/450 U/W) Communication Ceramic Filters

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

- LT455 EU Dimensions: (7.0 × 8.0 × 8.0 mm).
- LT455 EW Dimensions: (7.0 × 11.0 × 8.0 mm).
- Center frequency: 450kHz, 455kHz.
- Pass Band Ripple (dB) max: 2 db.
- Insertion Loss (dB) max: 4 db, 6 db.
- Input / Output Impedance: 1000Ω ~ 2000Ω.

Direct Ceramic Filters Address the G.D.T. Characteristics for Communication (Murata CF, SF Compatible). Direct ceramic filters for communication LT 455/450 U/W series are 4-element and 6-element devices connected in ladder form. These highly selective filters are designed to address the G.D.T. characteristics required in digital communications.

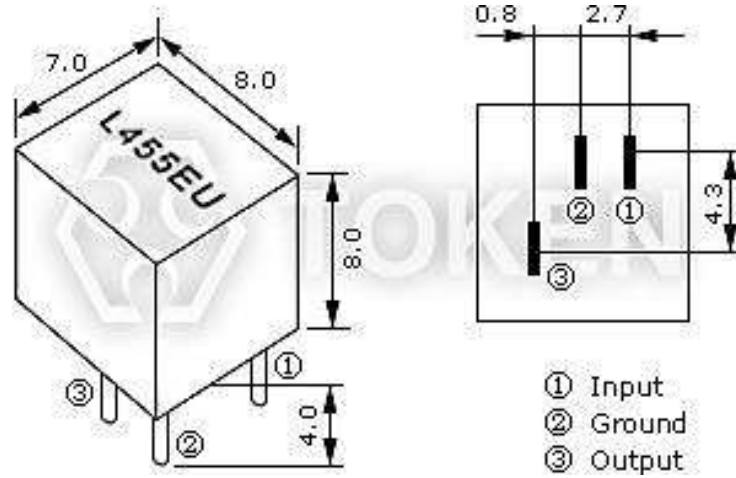
The excellent G.D.T. characteristics allow these filters to be utilized in areas such as the mobile cellular markets as well as a variety of stereo applications. (Also available in 450 kHz version.)

Custom parts are available on request. Direct will also produce devices outside these specifications to meet specific customer requirements, please contact our sales or link to Direct official website "[Ceramic Filters](#)" for more information.

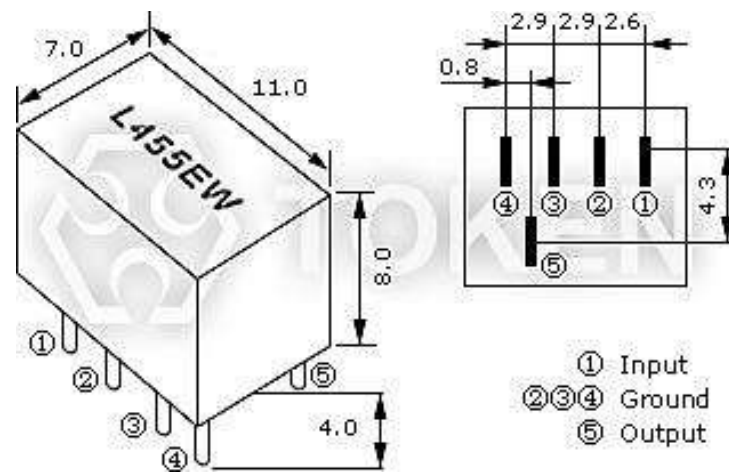


► **Dimensions**

Dimensions (Unit: mm) (LT 455/450 U/W)



(LT 455 EU) Dimensions

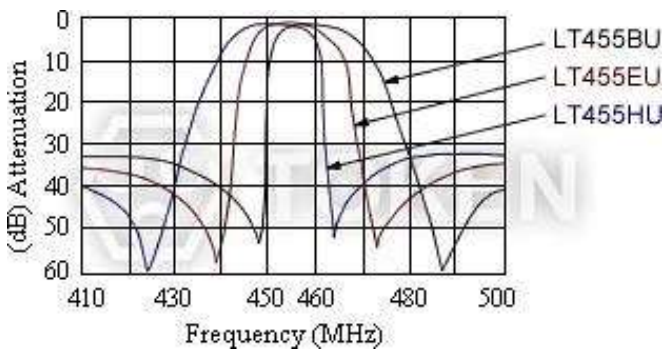


(LT 455 EW) Dimensions

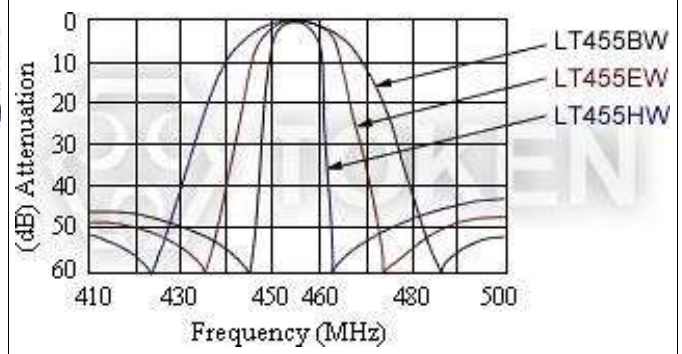
► **Technical Characteristics**

Technical Characteristics (LT 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 (LT455 U)	50dB Band Width (kHz) max (LT455 W)	Spurious Attenuation fo±100kHz (dB) min		Input / Output Impedance (Ω)
								(LT455 U)	(LT455 W)	
LT455AU	LT455AW	455±2.0	4	2	±17.5	±40	±35	28	40	1000
LT455BU	LT455BW	455±2.0	4	2	±15	±30	±30	28	40	1500
LT455CU	LT455CW	455±2.0	4	2	±12.5	±24	±24	28	40	1500
LT455DU	LT455DW	455±1.5	4	2	±10	±20	±20	28	40	1500
LT455EU	LT455EW	455±1.5	6	2	±7.5	±15	±15	28	40	1500
LT455FU	LT455FW	455±1.5	6	2	±6	±12.5	±12.5	28	40	2000
LT455GU	LT455GW	455±1.5	6	2	±4.5	±10	±10	28	40	2000
LT455HU	LT455HW	455±1.0	6	2	±3	±9	±9	28	40	2000
LT455IU	LT455IW	455±1.0	6	2	±2	±7.5	±7.5	28	40	2000
LT455HTU	LT455HTW	455±1.0	6	2	±3	±9	±9	35	60	2000



(LT 455 U) Characteristics



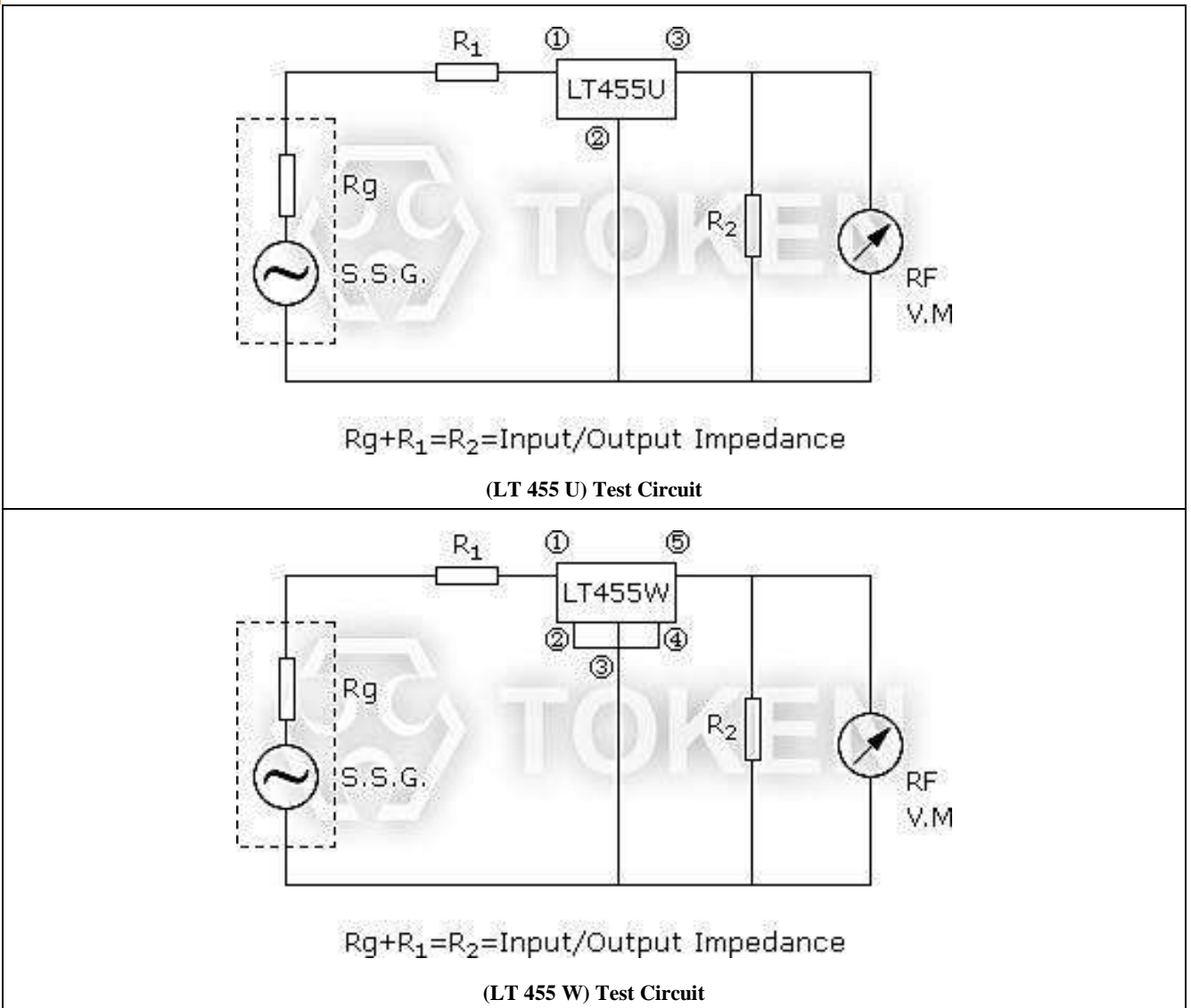
(LT 455 W) Characteristics

- Center frequency 450kHz is also available.



▶ **Test Circuit**

Test Circuit (LT 455/450 U/W)



▶ **Order Codes**

Order Codes (LT 455/450 U/W)

LT455BU	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.

