



# Liquid Crystal Display (LCD) Panels

Electronic Components  
**KEMET**  
CHARGED®

## Why Choose KEMET

KEMET Corporation is a leading global supplier of electronic components. We offer our customers the broadest selection of capacitor technologies in the industry, along with an expanding range of electromechanical devices, electromagnetic compatibility solutions and supercapacitors. Our vision is to be the preferred supplier of electronic component solutions for customers demanding the highest standards of quality, delivery and service.

## Trends

- Increasing screen sizes
- Low power
- Weight reduction
- Thinner

## Circuit Conditions

- Temperature < 70°C
- T-CON Board Voltage
  - 12 – 15 VDC
  - 30 – 35 VDC
- Component height limitations:
  - ≤ 1.5 mm
  - ≤ 2.0 mm
- Input/output and USB voltage of 3.3 – 5 VDC

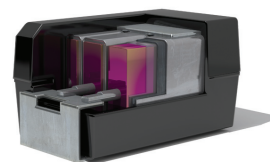
## Capacitor Requirements

- High capacitance
- Low profile
- High voltage > 16 V
- Long life

For more information, samples and engineering kits, please visit us at [www.kemet.com](http://www.kemet.com) or call 1.877.myKEMET.

## Applications

- EMI filters
- Output capacitors
- DC/DC converters
- Decoupling
- Portable electronics
- Telecommunications

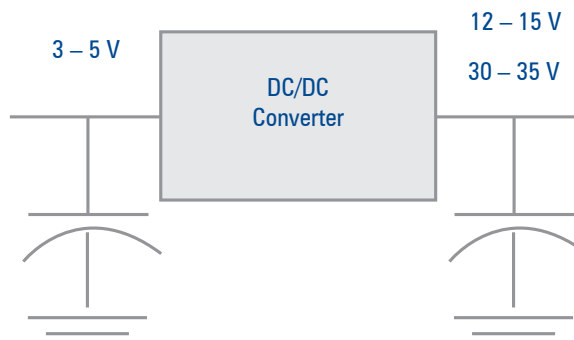


Polymer Capacitors

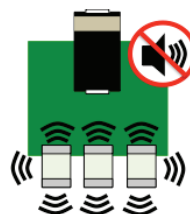
## Overview

The transition to ultra-high definition displays such as 2K and 4K place more demands on LCD driver circuits. With increasing voltage and decreasing panel thicknesses demands, traditional components are no longer sufficient.

Backlights are generally modulated in the audible frequency range, which can result in noise from X5R and X7R ceramic capacitors. In circuits where piezoelectric noise isn't acceptable, polymer capacitors offer quiet operation and long life in very slim packages. When 35 – 50 V rated components are needed with low profiles, polymer capacitors can be utilized in place of traditional V-chip aluminum surface mount capacitors.



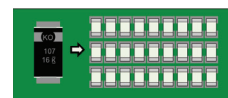
## Feature Highlights



No Piezo Noise



Low Profile



High Capacitance

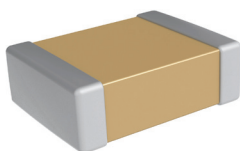


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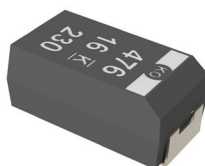
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## KEMET Products

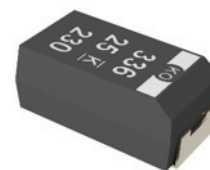
Product Family	KEMET Series	Voltage	Capacitance	Form Factor
Filtering & Decoupling				
Multilayer Ceramic	X7R	6.3 – 250 V	10 pF – 47 $\mu$ F	Surface Mount
Low ESR Polymer	T520, T521	Up to 63 V	Up to 330 $\mu$ F	Surface Mount



X7R



T520



T521

## Frequently Selected Part Numbers

Application Voltage	Series	Part Number	Capacitance ( $\mu$ F)	Voltage (VDC)	ESR (m $\Omega$ )	Case Size
3 – 5 V	T520	T520B107M006ATE040	100	6.3	40	3528-20
12 – 14 V	T521	T521W476M016ATE045	47	16	45	7343-15
12 – 14 V	T521	T521V476M016ATE070	47	16	70	7343-20
12 – 14 V	T521	T521V107M016ATE050	100	16	50	7343-20
12 – 14 V	T521	T521D157M016ATE050	150	16	50	7343-30
14 – 18 V	T521	T521W476M020ATE050	47	20	50	7343-15
15 – 20 V	T521	T521V336M025ATE060	33	25	60	7343-20
30 – 40 V	T521	T521V106M050ATE090	10	50	90	7343-20

