

Application Note

Film caps for audio amps

Audio amplifier technology is used in thousands of different HiFi devices. To get the best sound out of it, especially components in the signal path has to offer highest quality – like chip type film capacitors for coupling and for direct current cutting of amplifiers and output filters.



Audio amps

Panasonic
INDUSTRY

PRODUCT

ECHU(X) series with stacked metallized PPS film as dielectric

ECPU(A) series with stacked metallized plastic film as dielectric

PURPOSE

Stacked metallized film chip type capacitors help reduce distortion and improve the sound quality. Along with its miniaturization and good humidity resistance the chip type film capacitors continuously contribute to optimize the design of amplifier circuits in smartphones and audio systems.

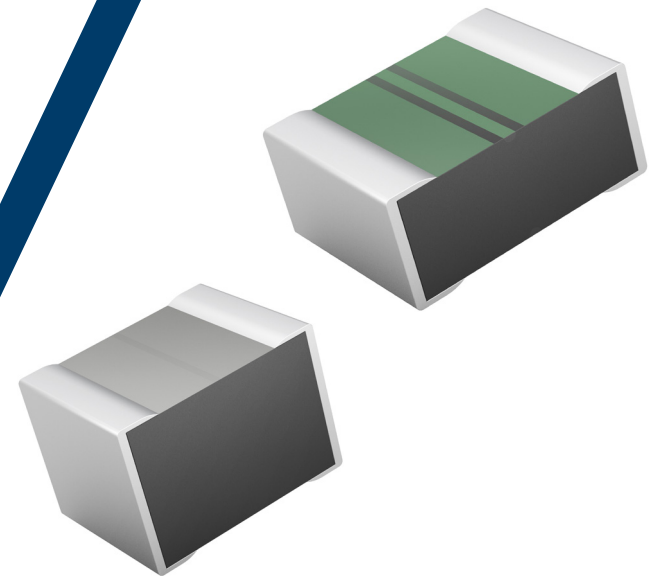
FEATURES

Low ESR

Small size

Large capacitance

High density surface mounting

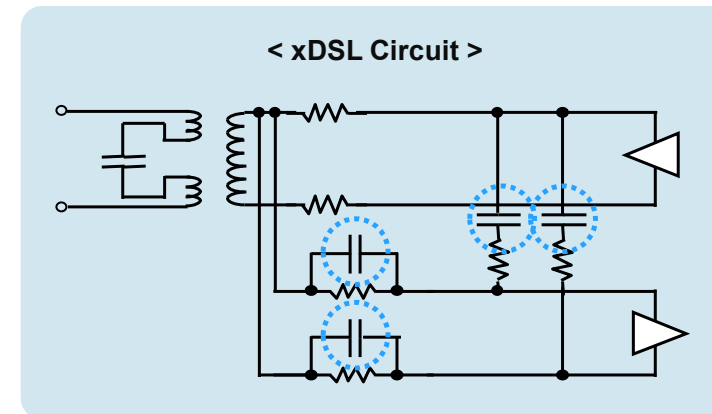
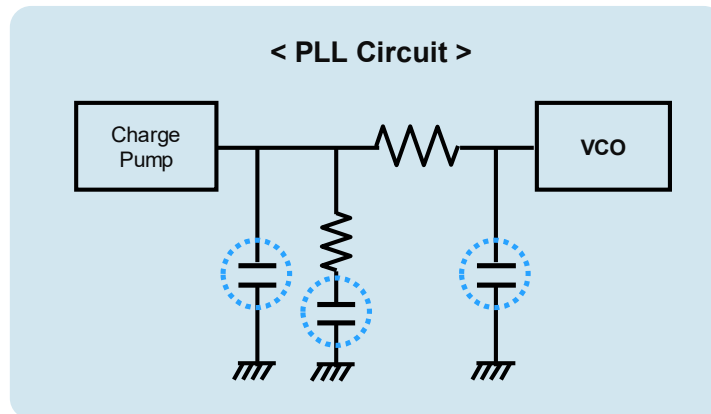


Audio amps

FACTS & FIGURES

Along with its miniaturization (down to 0603 case size), PPS film capacitor ECHU(X) series feature and a tight capacitance tolerance of $\pm 2\%$ & $\pm 5\%$. Both 16VDC and 50VDC rated voltages are available. For PLL (phase locked loop) circuit, ECHU(X) series realizes much

faster lock-up time compared with MLCC and tantalum capacitors; it has no piezoelectric effect as MLCC does. For filtering in xDSL circuit, ECHU(X) series ensures a very low ESR and stable capacitance against temperature, frequency and DC bias.



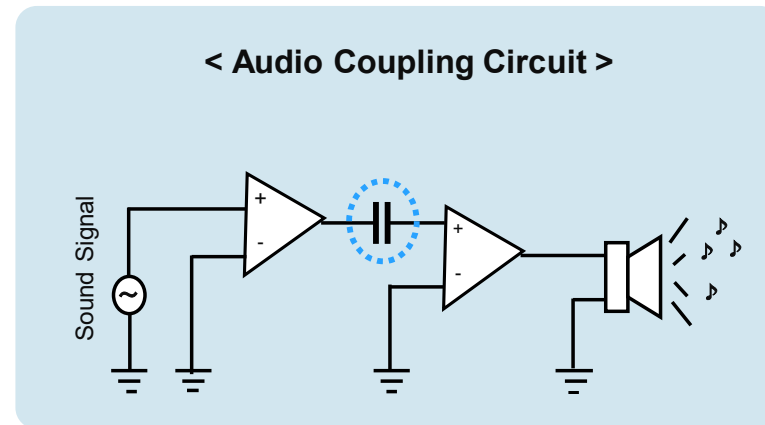
Application	Phase Compensation / Filtering
Voltage	16VDC, 50VDC
Product	ECHU(X)

Audio amps

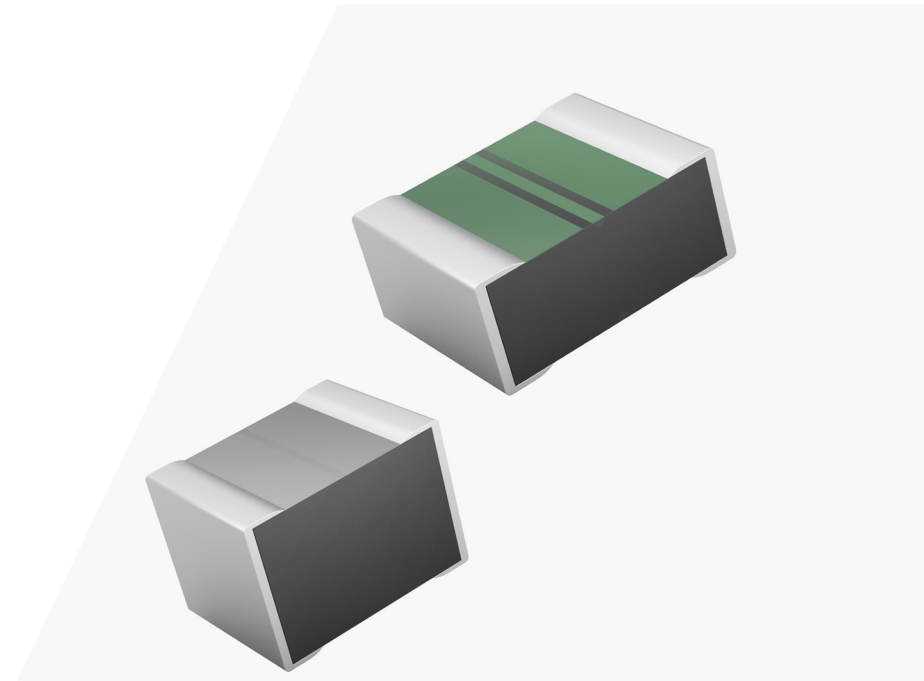
FACTS & FIGURES

For coupling in audio circuit, ECPUA series contribute with its ultra-low distortion performance compared with MLCC and tantalum capacitors. It has a capacitance range up to 1 μ F within small case size.

With its excellent electric characteristics Panasonic film chip type capacitors continuously contribute to optimize the design of your telecommunication and audio system.



Application	Coupling
Voltage	16VDC
Product	ECPU(A)



Application Note - How to solve various tasks with film capacitors for audio amplifiers

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Notes: Data and descriptions in this document are subject to change without notice.

Product renderings are for illustration purposes only and may differ from the real product appearance.