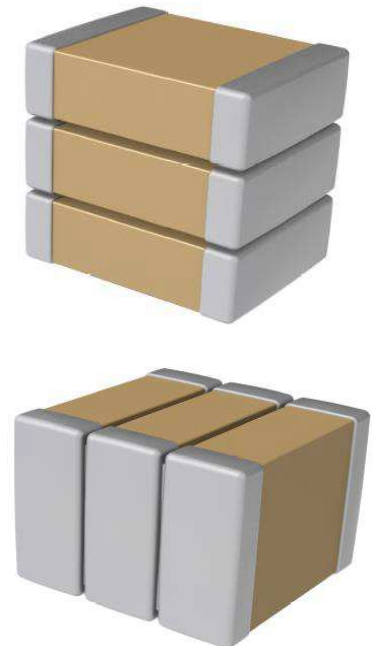


# KONNEKT



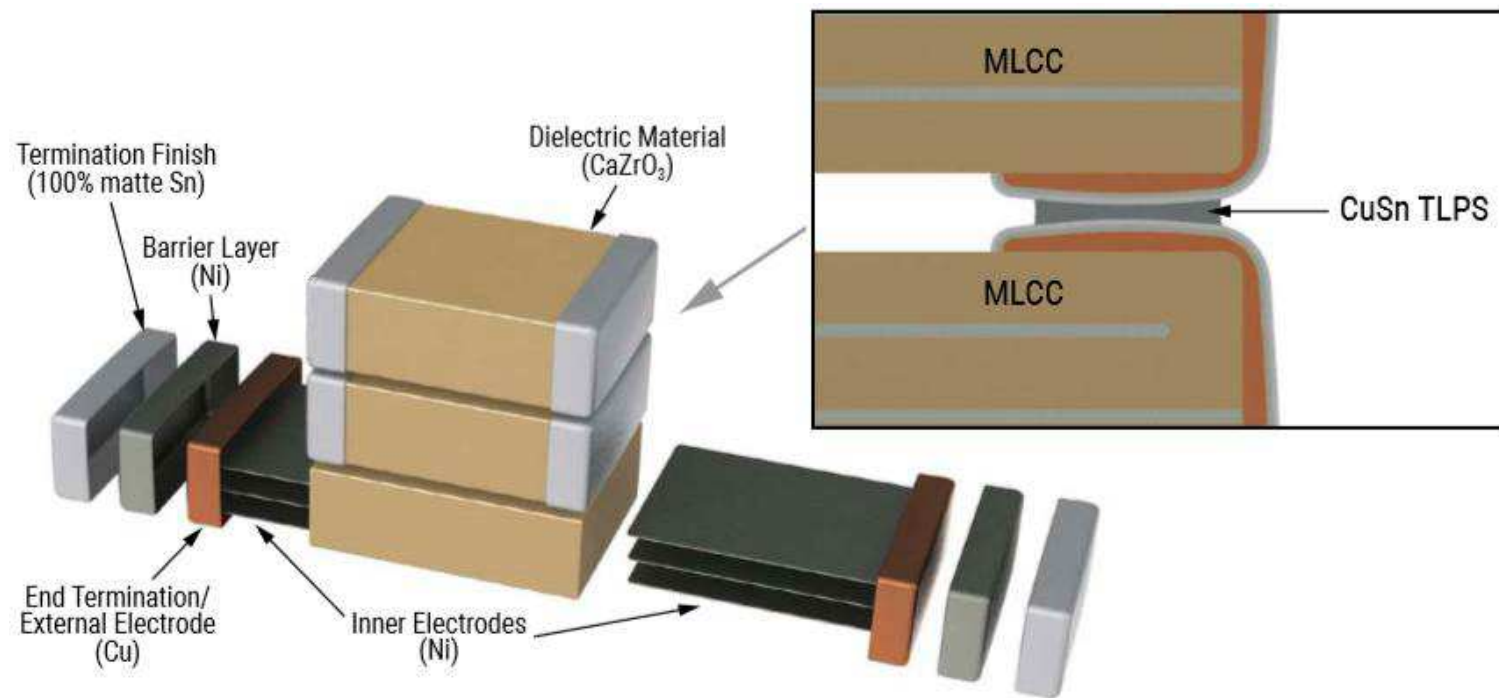
- Designed for high-efficiency and high-density power applications
- Innovative Transient Liquid Phase Sintering (TLPS) material creates a leadless multi-chip solution
- Benefits:
  - Extremely high-power density and ripple current capability
  - Extremely low equivalent series resistance (ESR)
  - Extremely low equivalent series inductance (ESL)
  - Operating temperature range of  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
  - No capacitance shift with voltage
  - Surface mountable using standard MLCC reflow profiles
  - Low losses



# KONNEKT



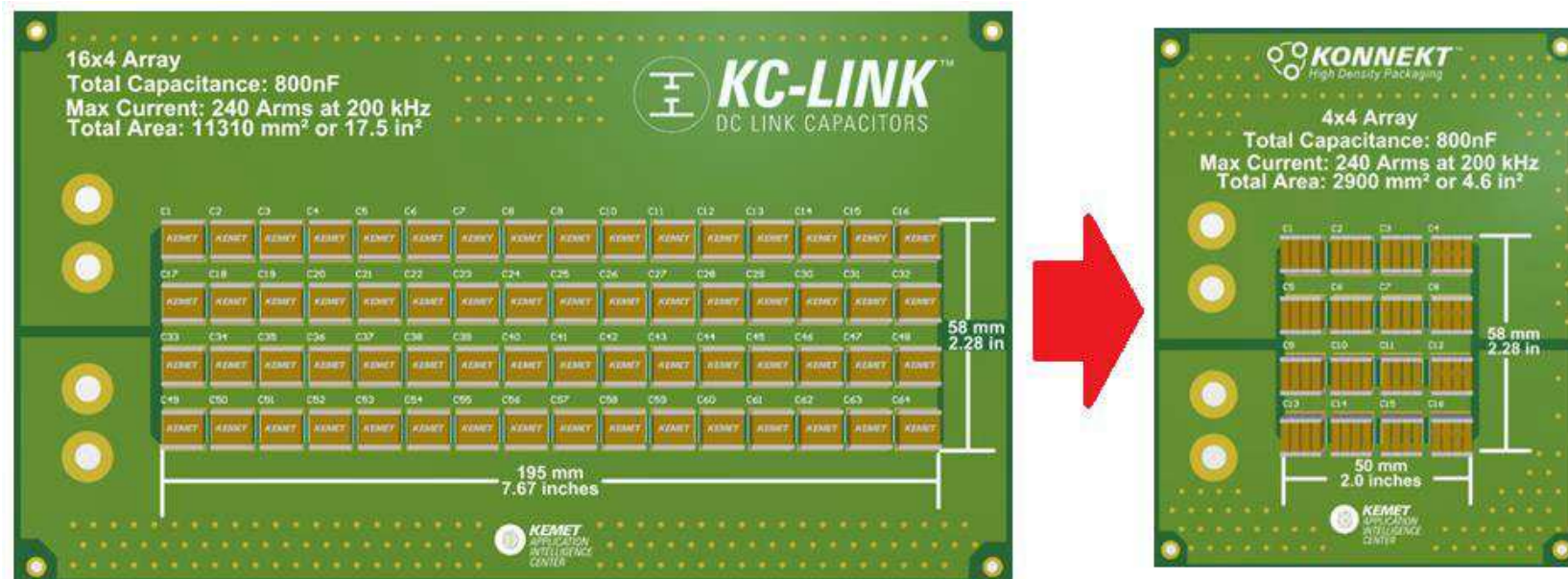
## ○ Construction



# KONNEKT



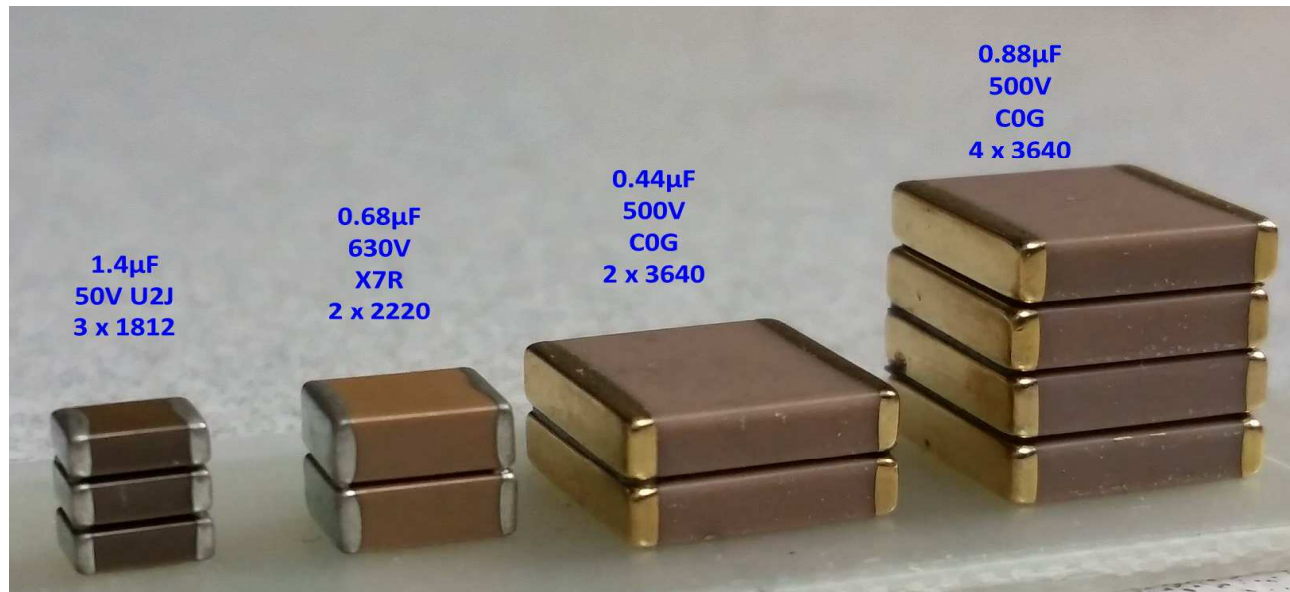
- Board Space Benefit



# KONNEKT



## ○ Product Overview



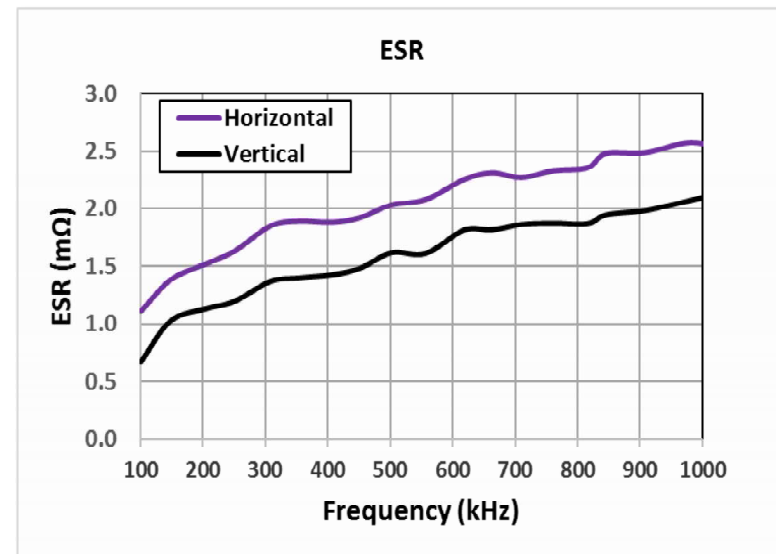
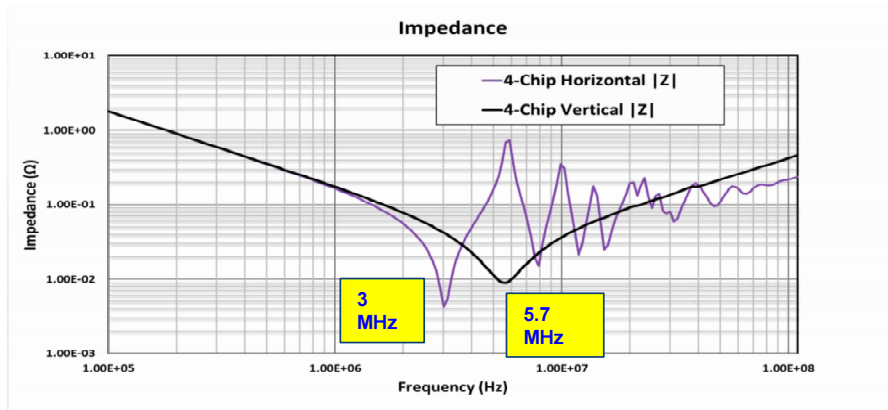
# KONNEKT



- Typical Performance

Part Type	Mounting Configuration	Typical ESR at 25°C, 100 kHz	Typical ESL at 25°C	Typical Ripple Current ( $A_{rms}$ ) <sup>1</sup>		
				100 kHz	200 kHz	300 kHz
1812 940 nF	Standard	1.15 mΩ	1.1 nH	12.0	12.0	11.5
	Low Loss	0.77 mΩ	0.45 nH	18.0	18.0	16.0
1812 1.4 uF	Standard	1.3 mΩ	1.6 nH	11.0	10.0	10.0
	Low Loss	0.35 mΩ	0.4 nH	20.0	34.0	31.0

- Vertical vs. Horizontal orientation: ESR and Impedance

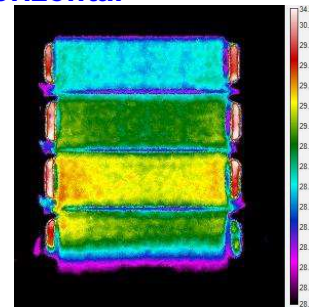


# KONNEKT



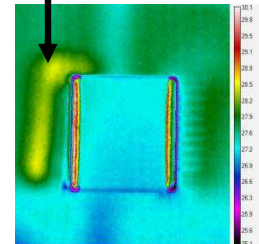
- Vertical vs. Horizontal orientation: Ripple Current Heating

## Horizontal

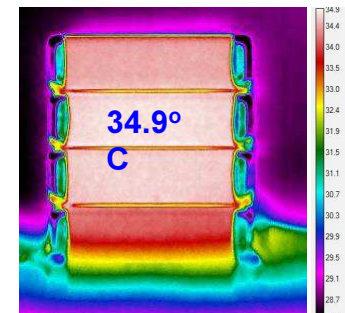


Side View

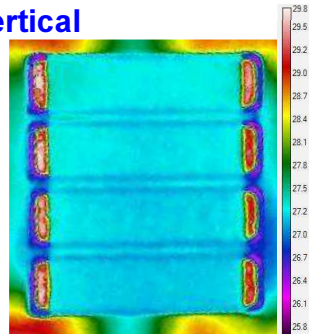
Heat dissipation into Cu board.



Top View

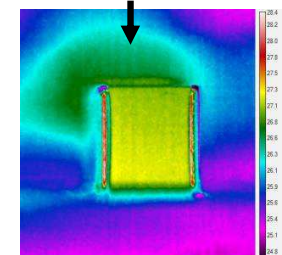


## Vertical



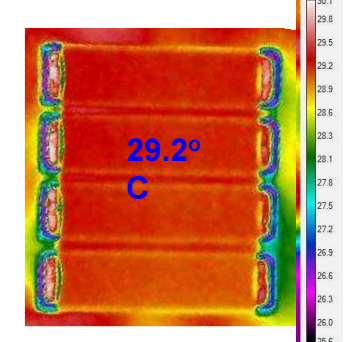
Top View

Heat dissipation in Air above.



Side View

STEADY STATE



12A<sub>RMS</sub> @ 140kHz WARMING UP

