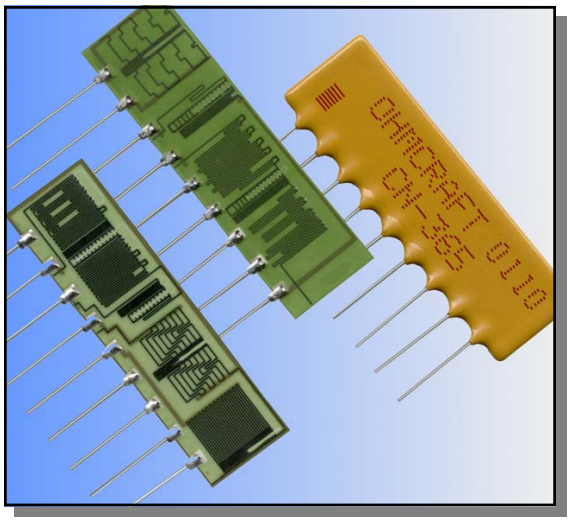
# CN Series
## Custom Leaded Resistor Networks

Ohmcraft's revolutionary fine film, thick film technology, called **FineFilm**, provides an entirely new level of performance and stability in custom leaded resistor networks.



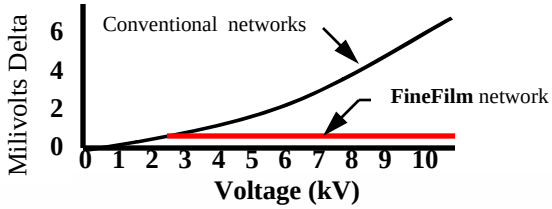
- **Ohmic Values to 2,000 Gigohms**
- **Tight Ratio Tolerances ( to 0.1% )**
- **Ultra High stability**
- **Very Low noise**
- **Low TCR ( to 10 ppm/°C )**
- **Low TCR Tracking ( to 5 ppm/°C )**
- **Low VCR ( to 0.05 ppm/Volt )**
- **Custom Configurations**

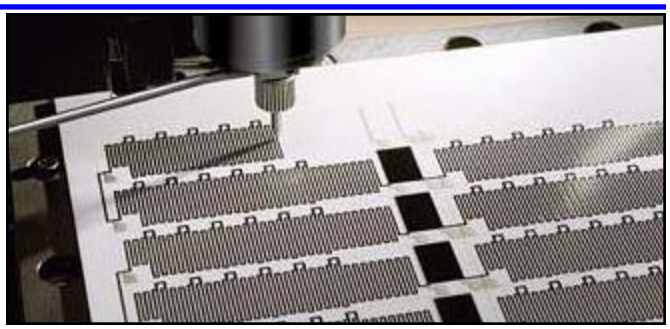
The usual hybrid technologies for manufacturing resistors depend upon composite materials that have limitations. Traditional thick-film methods severely limit performance characteristics and thin-film methods are limited in attainable ohmic values. The **FineFilm** method of manufacturing offers the best characteristics of both methods, plus adds many unique features. **FineFilm** resistors feature a longer, high-aspect ratio trace of lower resistivity film. The combination of long line, high-aspect ratio, and higher conductivity film, give **FineFilm** resistors unmatched design efficiency, versatility, linearity, stability and low noise. The **FineFilm** method allows control of process parameters to very tight tolerances. The result is dividers with outstanding tracking performance over a wide range of temperature, voltage and ohmic values.

Using the same method, a complete line of **FineFilm** surface mount and wire bondable chip resistors are manufactured. For information on those products, please refer to the appropriate data sheets.

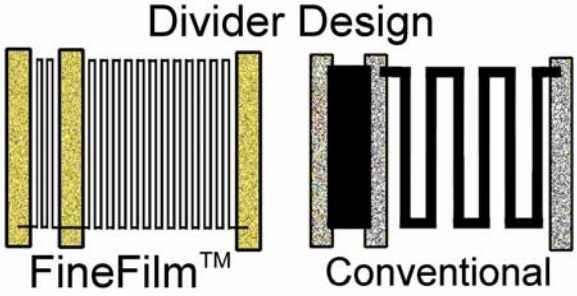
## Excellent VCR Tracking

The low resistivity composition **FineFilm** resistors is significantly better than conventional designs. They have a virtually flat VCR over a wide rang of values.



Writing resistors using MicroPen™ technology




## Design Flexibility

The long serpentine pattern used in manufacturing FineFilm High Voltage Dividers (HVDs), coupled with the use of low ohms/square thick film inks, makes it possible to create virtually any divider ratio. For example, Ohmcraft has produced 800 meg-ohm dividers with a 20,000:1 ratio. What are your needs?

Low noise, low TCR, low VCR, and many other features add up to the finest leaded divider in the market today.

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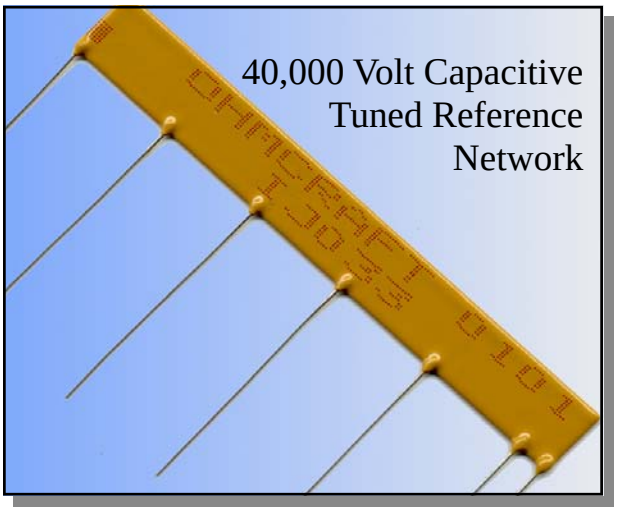
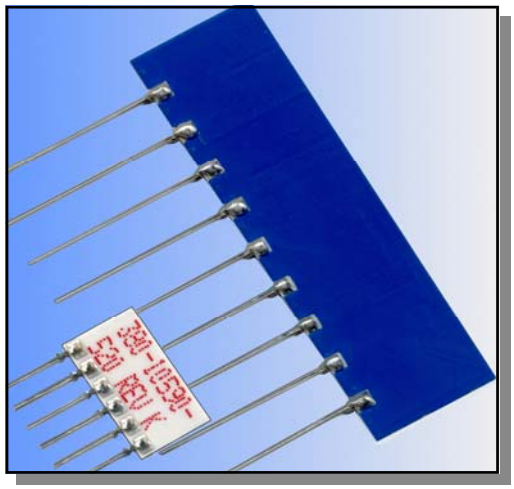



**Our unique CAD/CAM direct write system allows us to custom fabricate resistor networks:**

- **Immediate prototyping**
- **No special tooling**
- **Easy design changes**
- **Short or long runs**
- **High quality**

**FineFilm** technology is based on combining very high aspect ratios, and low film resistivities. This combination is unobtainable using standard methods of manufacturing. The outcome is a resistor that surpasses the parameters that are generally acceptable in the industry. A resistor that has higher stability, lower VCRs, lower noise, and lower TCRs.

For further information, please contact us.



## We would be glad to work with you on your custom network needs:

Because each network is different, there is no standard part number. Each network is assigned it's own number as it is received by the factory. To obtain a quote on a network, please contact us. Please include the following information:

- A schematic & physical diagram showing how all of the resistors interconnect.
- The value of each resistor.
- The desired TCR value (ppm/$^{o}$C)
- Overall tolerance, and the tolerances for each individual component value.
- Type & length of the leads
- Any other information necessary to the manufacture of the network.

OHMCRAFT

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