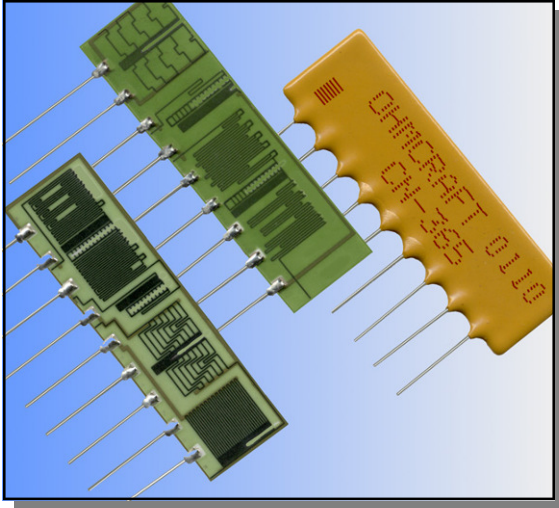


Ohmcraft's revolutionary fine film, thick film technology, called **FineFilm**, provides an entirely new level of performance and stability in custom leaded resistor networks.



- ◆ Ohmic Values to 2,000 Gigohms
- ◆ Voltage ratings to 100,000 Volts
- ◆ 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/V)
- ◆ Expedited delivery in weeks!

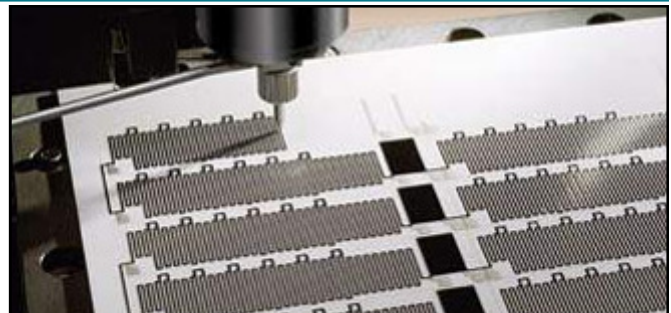
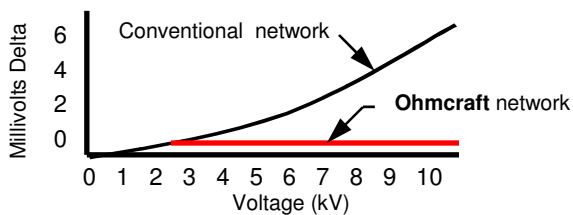
The usual hybrid technologies for manufacturing resistors depend upon composite materials that have limitations. Traditional thick-film methods severely limit performance characteristics and thin-film methods are limited in attainable ohmic values. The **FineFilm** method of manufacturing offers the 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 networks with outstanding tracking performance over a wide range of temperature, voltage and ohmic values.

Using the same methods, 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.

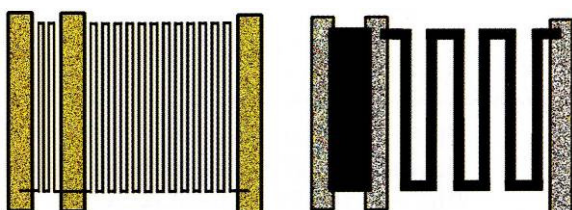
### Excellent VCR Tracking

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



Writing resistors using Micropen™ technology

### Network Design



Ohmcraft

Conventional

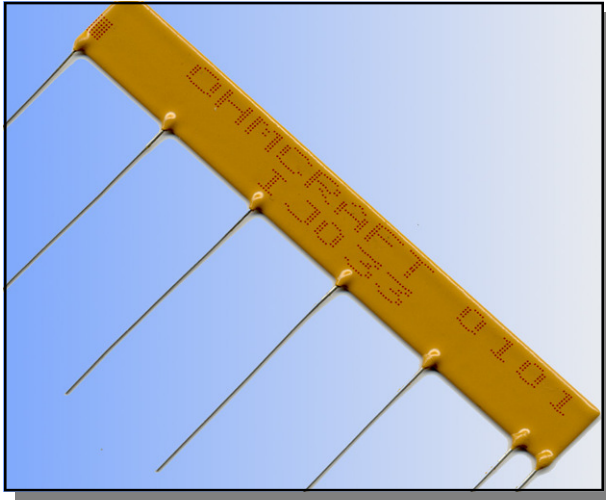
### Design Flexibility

The long serpentine pattern used in manufacturing **FineFilm** Custom Networks (CNs), coupled with the use of low ohms/square thick film inks, makes it possible to create virtually any divider ratio. For example, Ohmcraft produces 7 decade networks (20K to 20G ohm) with precision ratio tolerances. What are your needs?

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

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## CN Series—Custom Leaded Resistor Networks



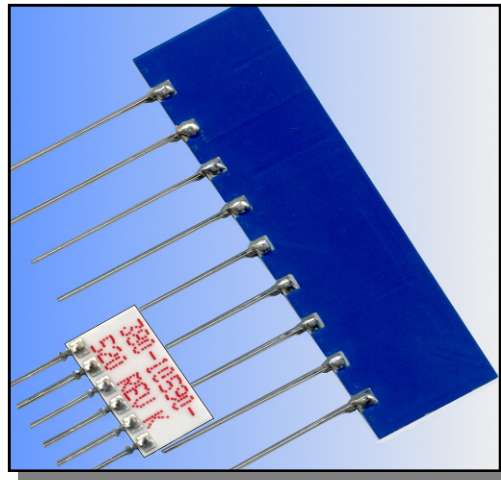
**Above:**  
40KV Frequency Compensated Reference Network

**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 and network that surpasses the parameters that are generally available in the industry. Do you need a resistor or network that has higher stability, lower VCRs, lower noise, and lower TCRs or higher voltage capability?

For further information, please contact us.  
[www.ohmcraft.com](http://www.ohmcraft.com)

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

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



**Above left:** 500 volt matched sets  
**Above right:** 7 decade 2500 volt instrumentation divider. 20K:200K:2M:20M:200M:2G:20G

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## 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 and 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/°C) VCR (ppm/V) and associated tracking requirements.
- Overall tolerance, and the tolerances for each individual component value.
- Type & length of the leads



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