# Precision Resistors

ChipNet

- 3 - 16 Pin Single In-Line Network
- SMD - Chip assembled
- Special circuit layouts upon request
- Resetable fuses possible

ChipPac

- 4 - 16 Pin SIP isolated resistors
- Combinations with other components
- Up to 8 individual resistive elements
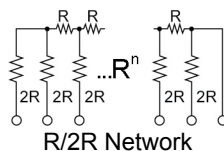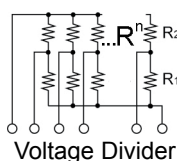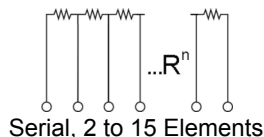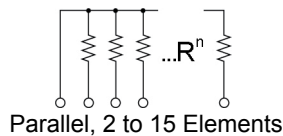- Power dissipation up to 0.5 Watts (max.)

Mechanical Data	
Material	NiCr/ RuO$_2$
Substrate Material	Alumina
Body	Epoxy - coated
Terminals	Copper
Plating	Tin
Storage Temperature Range	-20°C to +125°C
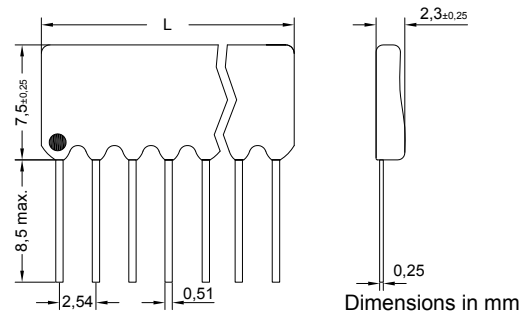
Dimensions in mm

Number of Pins	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Length L in mm (±0,5)	7,6	10,2	12,7	15,0	17,7	20,3	22,8	25,4	27,9	30,4	33,0	35,5	38,1	40,6

Standard Circuits

...R^n

MonoPAC, 2 to 8 Elements

...R^n

Parallel, 2 to 15 Elements

...R^n

Serial, 2 to 15 Elements

...R^n R_2

R_1

Voltage Divider

...R^n

R/2R Network
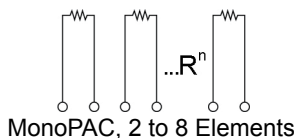
| Specification		
Standard Resistance Range		1Ω - 1GOhm
Temperature Coefficient	Tracking	from 5ppm (depends on values)
Temperature Coefficient	Absolute	down to ±5ppm to 250ppm
Resistance Tolerance	Ratio	down to 0,1% (depends on values)
Resistance Tolerance	Absolute	±0,1% to 30%
Operating Voltage (max.)		100V
Power Dissipation (max.)		0,5 Watts per element
Operating Temperature Range		0 - 70°C
Insulation Resistance		10.000 MOhm

MEGATRON ChipNet and ChipPac offer the absolute freedom to the engineer to design a network using any resistor values. ChipNet can be designed using a wide range of resistor values in combination with any type of chip components. The engineer also has the choice of using chips manufactured with any technology like thick film, thin film or foil. MEGATRON´s ChipNet and ChipPac are truly hybrids with the possibility of combining the passive chips also with active parts like IC's.

Please use for your inquiries and application our form on the next page and send us your contact details per email or ask our well trained technical staff!
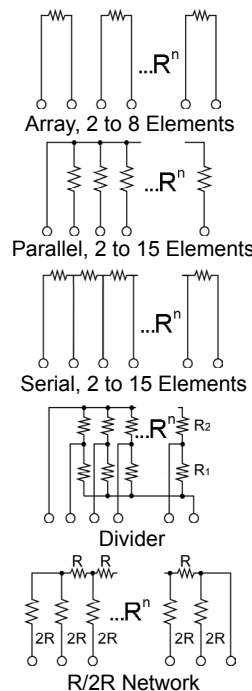
Precision Resistors
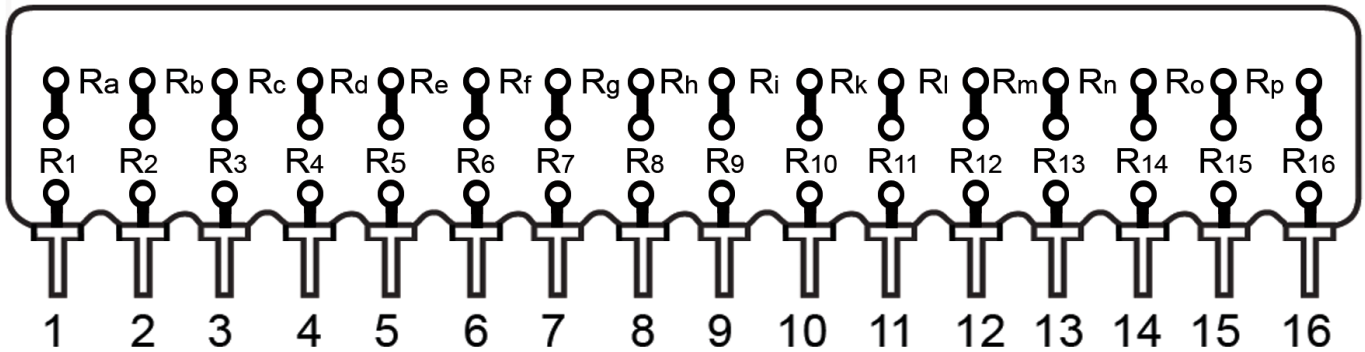
Configuration

- Choice of the typical circuit
- Definition of the number of necessary connections
- Predefinition of the tolerance, absolutely and matching tolerance („-Pac" resistor elements can be paired if requested to measured sets for a tolerance and TCR performance)
- Definition of the TCR, absolute and tracking
- Definition of the separate resistance values (with „-PAC" and „chip" variants different tolerances and temperature coefficients between single resistors are realizable)

Circuit	Number of Pins	TCR absolute	TCR tracking	Tolerance absolute	Tolerance Ratio

	Function o--o/o o	Value (Ω)	Remark (e.g. 5ppm, 0,01%)
R_1			
R_2			
R_3			
R_4			
R_5			
R_6			
R_7			
R_8			
R_9			
R_{10}			
R_{11}			
R_{12}			
R_{13}			
R_{14}			
R_{15}			
R_{16}			

Array, 2 to 8 Elements

Parallel, 2 to 15 Elements

Serial, 2 to 15 Elements

Divider

R/2R Network

	Function o--o/o o	Value (Ω)	Remark (e.g. 5ppm, 0,01%)
R_a			
R_b			
R_c			
R_d			
R_e			
R_f			
R_g			
R_h			
R_i			
R_k			
R_l			
R_m			
R_n			
R_o			
R_p			

$R_1...R_{16}$, $R_a...R_p$ = Position
o--o = closed by element or contact
o   o = not connected

Example for an array: R_1= o--o; R_a=10kΩ; R_2= o--o; R_b= o   o;...
Example Parallel: R_1= o--o; R_a=o--o; R_2= 10kΩ; R_b= o--o;...
Divider: R_1= 1kΩ; R_a=o--o; R_2= o--o; R_b= o--o; R_3= 1kΩ;...

With the receipt of this configuration data sheet we immediately create for you a cost offer about prices, least order amounts or if necessary initial costs as well as delivery times.

MEGATRON Elektronik GmbH & Co. KG ▪ Hermann-Oberth-Strasse 7 ▪ 85640 Putzbrunn / Munich
Tel.: +49 89 46094-0 ▪ Fax: +49 89 46094-201 ▪ www.megatron.de ▪ info@megatron.de

Date: 4 / 2018
Page: 2 of 2

Specifications are subject to change without notice