

Common mode filters/Chokes

For power line

ACM series



ACM4520 type



FEATURES

- Chip common mode filter for large current applications.
- For each series, there is excellent common mode impedance and noise suppression in a compact case.
- Low profile and small size makes it optimal for surface mounting.
- Operating temperature range: -40 to +85°C

APPLICATION

- Power line noise countermeasure for electronic equipment (DVCs, DVD cams, DSCs, etc.).

PART NUMBER CONSTRUCTION

ACM	4520	-	231	-	2P	-	T	000
Series name	L×W×H dimensions 4.7×4.5×2.0 mm		Impedance (Ω) at 100MHz		Number of lines		Packaging style	Internal code

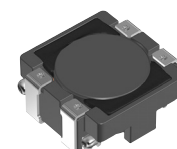
CHARACTERISTICS SPECIFICATION TABLE

Common mode impedance		DC resistance	Rated current		Insulation resistance	Rated voltage	Part No.
[100MHz] (Ω)min.	(Ω)typ.	[1 line] (Ω)max.	60 °C (A)max.	85 °C (A)max.	(MΩ)min.	(V)max.	
180	230	0.05	3.0	2.6	10	50	ACM4520-231-2P-T000
300	420	0.055	2.8	2.4	10	50	ACM4520-421-2P-T000
650	900	0.06	2.3	2.0	10	50	ACM4520-901-2P-T000
1000	1400	0.08	1.7	1.5	10	50	ACM4520-142-2P-T000

Measurement equipment

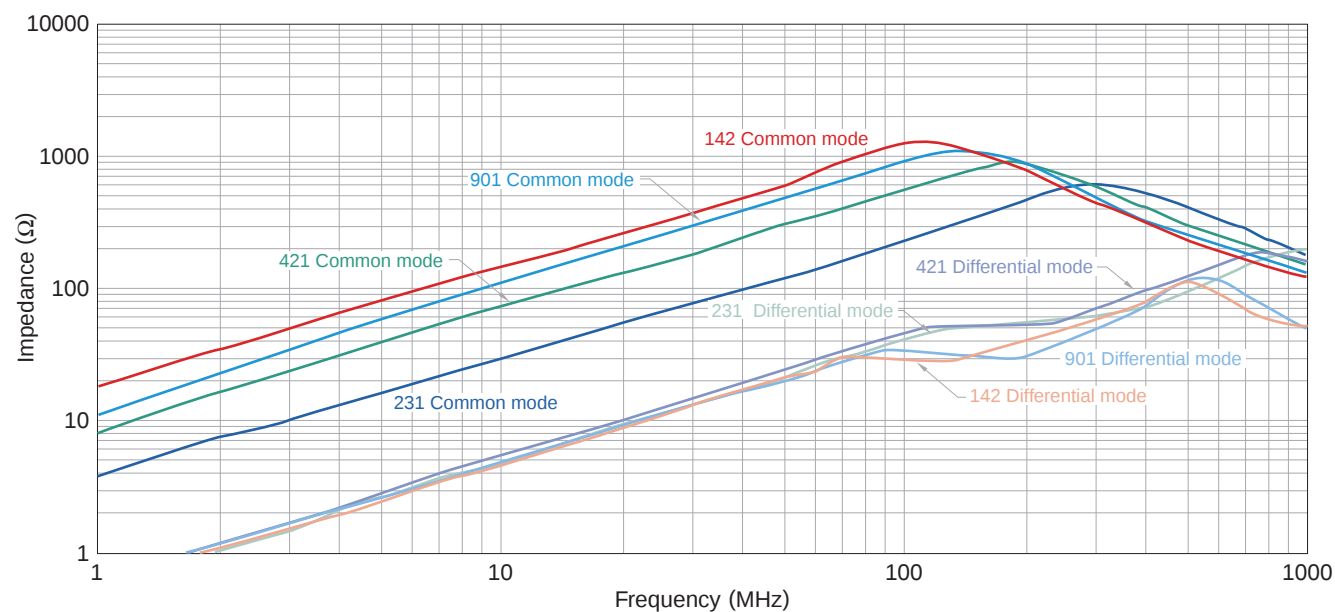
Measurement item	Product No. *	Manufacturer
Common mode impedance	4991A	Keysight Technologies
DC resistance	4338A	Keysight Technologies
Insulation resistance	4339A	Keysight Technologies

* Equivalent measurement equipment may be used.



ACM4520 type

IMPEDANCE VS. FREQUENCY CHARACTERISTICS



Measurement equipment

Product No. *	Manufacturer
4991A	Keysight Technologies

* Equivalent measurement equipment may be used.

■ SHAPE & DIMENSIONS



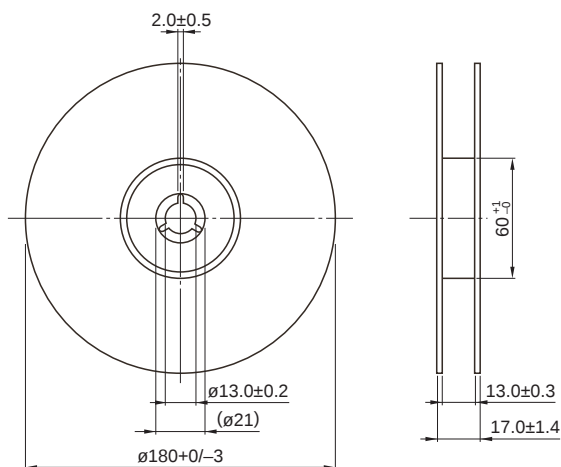
Figure 1: Dimensions of the test specimen. The diagram shows a rectangular specimen with a total width of 12.5 mm and a total height of 2.0 mm. The width is divided into three sections: 1.25 mm on the left, 3.5 mm in the center, and 1.25 mm on the right. The height is divided into three sections: 0.95 mm at the top, 1.05 mm in the middle, and 0.95 mm at the bottom. The specimen is shown in two orientations: horizontal and vertical.

• No polarity

The graph illustrates the temperature profile of a soldering process. The y-axis represents Temperature and the x-axis represents Time. The process is divided into three main phases: Preheating, Soldering, and Natural cooling. The Preheating phase starts at 150°C and lasts for 60 to 120 seconds, reaching 180°C. The Soldering phase starts at 180°C and lasts for 10 to 30 seconds, reaching a peak temperature of 245°C. A 5-second dwell time is indicated at the peak. The Natural cooling phase starts at 230°C and returns to 150°C.

Phase	Start Temperature (°C)	End Temperature (°C)	Duration (s)
Preheating	150	180	60 to 120
Soldering	180	245 (Peak)	10 to 30
Natural cooling	245 (Peak)	150	-

REEL DIMENSIONS

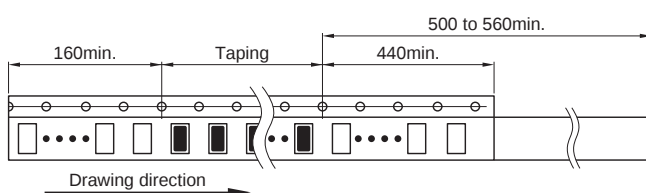


Dimensions in mm

Technical drawing of a mechanical part, showing a side view and a cross-sectional view. The side view (top) shows a long, thin component with a central section of width 8.0 ± 0.1 . The cross-sectional view (bottom) shows a U-shaped profile with a width of 0.3 ± 0.1 and a height of K . The side view includes several dimensions: 1.55 ± 0.1 , 2.0 ± 0.05 , 4.0 ± 0.1 , 1.75 ± 0.1 , and 5.5 ± 0.1 . The cross-sectional view shows a central cavity of width A and a total width of B . The side view also shows a "Sprocket hole" and a "Cavity".

Dimensions in mm

Type	A	B	K
ACM4520	(4.75)	(5.05)	(2.05)



Dimensions in mm

Package quantity	800 pcs/reel
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Operating temperature range	Storage temperature range *	Individual weight
-40 to +85 °C	-40 to +85 °C	0.144 g

* The storage temperature range is for after the assembly.

REMINDERS FOR USING THESE PRODUCTS

Before using these products, be sure to request the delivery specifications.

SAFETY REMINDERS

Please pay sufficient attention to the warnings for safe designing when using this products

REMINDERS

- The storage period is within 12 months. Be sure to follow the storage conditions (temperature: 5 to 40°C, humidity: 10 to 75% RH or less).
If the storage period elapses, the soldering of the terminal electrodes may deteriorate.
- Do not use or store in locations where there are conditions such as gas corrosion (salt, acid, alkali, etc.).
- Soldering corrections after mounting should be within the range of the conditions determined in the specifications.
If overheated, a short circuit, performance deterioration, or lifespan shortening may occur.
- When embedding a printed circuit board where a chip is mounted to a set, be sure that residual stress is not given to the chip due to the overall distortion of the printed circuit board and partial distortion such as at screw tightening portions.
- Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.
- Carefully lay out the coil for the circuit board design of the non-magnetic shield type.
A malfunction may occur due to magnetic interference.
- Use a wrist band to discharge static electricity in your body through the grounding wire.
- Do not expose the products to magnets or magnetic fields.
- Do not use for a purpose outside of the contents regulated in the delivery specifications.
- The products listed on this catalog are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition.
The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property.
If you intend to use the products in the applications listed below or if you have special requirements exceeding the range or conditions set forth in the each catalog, please contact us.

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|---|--|
| (1) Aerospace/aviation equipment | (7) Transportation control equipment |
| (2) Transportation equipment (cars, electric trains, ships, etc.) | (8) Public information-processing equipment |
| (3) Medical equipment | (9) Military equipment |
| (4) Power-generation control equipment | (10) Electric heating apparatus, burning equipment |
| (5) Atomic energy-related equipment | (11) Disaster prevention/crime prevention equipment |
| (6) Seabed equipment | (12) Safety equipment |
| | (13) Other applications that are not considered general-purpose applications |

When designing your equipment even for general-purpose applications, you are kindly requested to take into consideration securing protection circuit/device or providing backup circuits in your equipment.