

Balun transformers Wound SMD ATB series









ATB2012 type



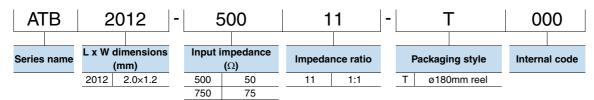
FEATURES

- The ATB2012 case size is L2.0×W1.2.
- O The case size is smaller than conventional Baluns.
- O Low insertion loss and good balance parameters.

APPLICATION

- OTV and mobile device tuners (DVB-T/H, ISDB-T, etc.)
- OSTB / tuner power divider
- NFC (Near field communication)

PART NUMBER CONSTRUCTION



CHARACTERISTICS SPECIFICATION TABLE

Frequency	UB/B	Insertion	loss (dB)	DC	Rated	Rated	Insulation	
range	Impedance	turn	may	resistance	current	voltage	resistance	Part No.
(MHz)	(Ω)	typ.	max.	(Ω)max.	(mA)	(V)	(M Ω)min.	
40 to 860	50/50	1.0	2.5	1.0	200	20	10	ATB2012-50011-T000
50 to 1200	75/75	0.8	1.2	0.7	280	20	10	ATB2012-75011-T000

Measurement equipment

Measurement item	Product No.	Manufacturer
DC resistance	4338A	Keysight Technologies
Insulation resistance	4339A	Keysight Technologies
Insertion loss	E5071B	Keysight Technologies
Return loss	E5071B	Keysight Technologies
Amplitude imbalance	E5071B	Keysight Technologies
Phase balance	E5071B	Keysight Technologies

^{*} Equivalent measurement equipment may be used.



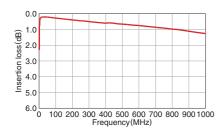


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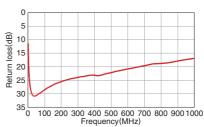
FREQUENCY CHARACTERISTICS

ATB2012-50011-T000

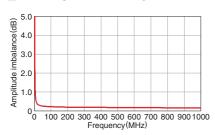
□INSERTION LOSS



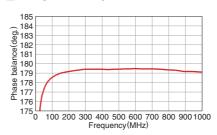
RETURN LOSS



■ AMPLITUDE IMBALANCE

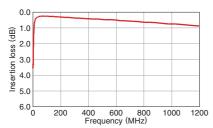


☐ PHASE BALANCE

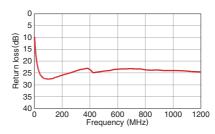


ATB2012-75011-T000

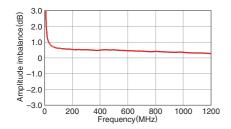
□ INSERTION LOSS



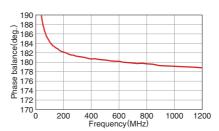
☐ RETURN LOSS



☐ AMPLITUDE IMBALANCE



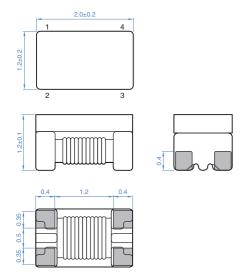
☐ PHASE BALANCE





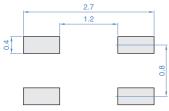
ATB2012 type

SHAPE & DIMENSIONS



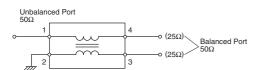
Dimensions in mm

■ RECOMMENDED LAND PATTERN

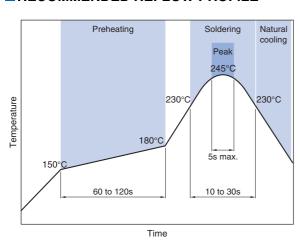


Dimensions in mm

CIRCUIT DIAGRAM

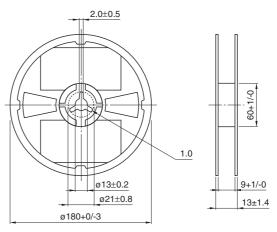


■ RECOMMENDED REFLOW PROFILE



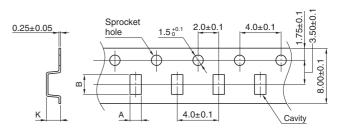
■ PACKAGING STYLE

REEL DIMENSIONS



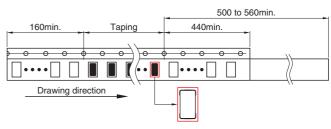
Dimensions in mm

TAPE DIMENSIONS



Dimensions in mm

Type	Α	В	K
ΔTR2012	1 4+0 1	2.3+0.1	1 4+0 1



Dimensions in mm

□PACKAGE QUANTITY

D 1 1111		
Package quantity 2000 pcs/reel	Package quantity	2000 pcs/reel

TEMPERATURE RANGE, INDIVIDUAL WEIGHT

Operating temperature range	Storage temperature range*	Individual weight
–40 to +85°C	−40 to +85°C	12 mg

^{*} 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 6 months. Be sure to follow the storage conditions (temperature: 5 to 40°C, humidity: 10 to 75% RH less). If the storage period elapses, the soldering of the terminal electrodes may deteriorate.	or
Do not use or store in locations where there are conditions such as gas corrosion (salt, acid, alkali, etc.).	
Before soldering, be sure to preheat components. The preheating temperature should be set so that the temperature difference between the solder temperature and chip temperature does not exceed 150°C.	ıre
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 the overall distortion of the printed circuit board and partial distortion such as at screw tightening portions.	to
Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set therm design.	nal
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 socie	ip- al-

- (1) Aerospace/aviation equipment
- $\hbox{(2) Transportation equipment (cars, electric trains, ships, etc.)}\\$
- (3) Medical equipment

person or property.

(4) Power-generation control equipment

set forth in the each catalog, please contact us.

- (5) Atomic energy-related equipment
- (6) Seabed equipment
- (7) Transportation control equipment

- (8) Public information-processing equipment
- (9) Military equipment
- (10) Electric heating apparatus, burning equipment
- (11) Disaster prevention/crime prevention 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.

If you intend to use the products in the applications listed below or if you have special requirements exceeding the range or conditions