CLAIMS

What is claimed is:

Claim 1: A composite electronic component, comprising:

a circuit board having a rectangular planar shape;

a plurality of packages that include acoustic wave filters respectively, located on a top surface of the circuit board;

a dummy package that is located on the top surface of the circuit board and between two packages among the plurality of packages and apart from a center part of the circuit board; and

a lid that is located above the plurality of packages and the dummy package,

wherein at least five of the plurality of packages and the dummy package are arranged in a longitudinal direction of the rectangular planar shape of the circuit board, and the plurality of packages and the dummy package are not arranged in a width direction of the rectangular planar shape.

Claim 2: The composite electronic component according to claim 1, wherein

a gap is formed between each of the two packages and the dummy package.

Claim 3: The composite electronic component according to claim 1, wherein a gap is formed between the plurality of the packages.

Claim 4: The composite electronic component according to claim 1, wherein the dummy package is a defective package.

Claim 5: The composite electronic component according to claim 1, wherein the dummy package is a non-defective functional element package of which an electrical function is disabled.

Claim 6: The composite electronic component according to claim 1, wherein the dummy package is a non-defective functional element package of which an electrical function is deactivated by a measure taken in the circuit board.

Claim 7: The composite electronic component according to claim 1, wherein the dummy package is a solid material made of an organic material such as a resin, an inorganic material such as ceramic, or a metal, or a solder body.

Claim 8: The composite electronic component according to claim 1, wherein

the dummy package does not include an acoustic wave filter.

Claim 9: The composite electronic component according to claim 1, wherein

at least one of the plurality of packages includes a duplexer including at least two of the acoustic wave filters.

Claim 10: The composite electronic component according to claim 1, wherein

the dummy package has a weight identical to a weight of each of the plurality of packages.

Claim 11: The composite electronic component according to claim 1, wherein

the dummy package has an outside dimension identical to an outside dimension of the each of the plurality of packages.

Claim 12: The composite electronic component according to claim 1, wherein

a resin is filled between each of the two packages and the dummy package.

Claim 13: The composite electronic component according to claim 1, wherein the dummy package is not a center package among the plurality of package and the dummy package.

Claim 14: A composite electronic component, comprising:

a circuit board having a rectangular planar shape;

a plurality of packages that include acoustic wave filters respectively, located on a top surface of the circuit board, the plurality of packages being arranged in a longitudinal direction of the rectangular planar shape of the circuit board and being not arranged in a width direction of the rectangular planar shape;

a dummy package that is located on the top surface of the circuit board; and

a lid that is located on the plurality of packages and the dummy package so as to hold the plurality of packages and the dummy package,

wherein the lid is connected to the circuit board via only the plurality of packages and the dummy package.

Claim 15: A composite electronic component comprising:

a circuit board having a rectangular planar shape;

a plurality of packages that include acoustic wave filters respectively, located on a top surface of the circuit board, the plurality of packages being arranged in a longitudinal direction of the rectangular planar shape of the circuit board and being not arranged in a width direction of the rectangular planar shape;

a dummy package that is located on the top surface of the circuit board; and

a lid that is located on the plurality of packages and the dummy package so as to hold the plurality of packages and the dummy package,

wherein the lid does not contact with the circuit board.

Claim 16: A composite electronic component comprising:

a circuit board having a rectangular planar shape;

a plurality of packages that include acoustic wave filters respectively, located on a top surface of the circuit board, the plurality of packages being arranged in a longitudinal direction of the rectangular planar shape of the circuit board and being not arranged in a width direction of the rectangular planar shape;

a dummy package that is located on the top surface of the circuit board; and

a lid that is located on the plurality of packages and the dummy package so as to hold the plurality of packages and the dummy package,

wherein the lid is not electrically connected to a ground potential.

CLAIMS

What is claimed is:

1. A composite electronic component comprising:

a circuit board;

a package that includes an acoustic wave filter and is located on a top surface of the circuit board;

a dummy package that is located on the top surface of the circuit board; and

a lid that is located above the package and the dummy package.

2. The composite electronic component according to claim 1, wherein

a gap is formed between the package and the dummy package.

3. The composite electronic component according to claim 1 or 2, wherein

a plurality of the packages are located on the top surface of the circuit board, and

a gap is formed between the plurality of the packages.

4. The composite electronic component according to any one of claims 1 through 3, wherein

the dummy package is a defective package.

5. The composite electronic component according to any one of claims 1 through

3, wherein

the dummy package is a non-defective functional element package of which an electrical function is disabled.

6. The composite electronic component according to any one of claims 1 through 3, wherein

the dummy package is a non-defective functional element package of which an electrical function is deactivated by a measure taken in the circuit board.

7. The composite electronic component according to any one of claims 1 through 3, wherein

the dummy package is a solid material made of an organic material such as a resin, an inorganic material such as ceramic, or a metal, or a solder body.

8. The composite electronic component according to any one of claims 1 through 3, wherein

the dummy package does not include an acoustic wave filter.

9. The composite electronic component according to any one of claims 1 through 8, wherein

the package includes a duplexer including a plurality of the acoustic wave filters.

10. The composite electronic component according to any one of claims 1 through

9, wherein

the dummy package has a weight identical to a weight of the package.

11. The composite electronic component according to any one of claims 1 through 10, wherein

the dummy package has an outside dimension identical to an outside dimension of the package.

12. The composite electronic component according to any one of claims 1 through 11, wherein

the dummy package is located between the two packages and apart from a center part of the circuit board.

13. The composite electronic component according to any one of claims 1 through 11, wherein

the dummy package is located at a center part of the circuit board.

14. The composite electronic component according to any one of claims 1 through 11, wherein

the dummy package is located in a peripheral portion of the circuit board and next to the package.

15. The composite electronic component according to any one of claims 1 through

14, wherein

a resin is filled between the package and the dummy package.