CLAIMS

What is claimed is:

1. An electronic module for use with a card, comprising:

at least one integrated circuit chip;

a contact plate configured with the at least one integrated circuit chip;

a plurality of electronic components connected to the at least one integrated circuit chip; and

at least one electronic display connected to the plurality of electronics components and/or the at least one integrated circuit chip;

wherein the electronic module is configured with the card, and at least a portion of the contact plate and at least a portion of the at least one electronic display are visible on a first surface of the card;

wherein a first portion of the electronic module is embedded into the first surface of the card from the front of the first surface, and a second portion of the electronic module is embedded into the first surface of the card separately from the first portion and from the front of the first surface, and the portions are connected directly to one another to form a value-add smart card.

2. The electronic module of claim 1 wherein the first surface of the card is the front of the card or the back of the card.

3. The electronic module of claim 1 further comprising at least one antenna configured with the integrated circuit chip.

4. The electronic module of claim 1 further comprising electrical connectors configured to connect with other electrical components within the card.

5. The electronic module of claim 1 wherein the packaged electronic module is connected to one or more card antennas within the card.

6. The electronic module of claim 1 wherein the packaged electronic module is connected to an embedded battery within the card.

7. The electronic module of claim 1, wherein the electronic display or the contact plate of a packaged electronic module is replaced by at least one value-add component selected from the group: a fingerprint sensor, LEDs, an electronic button and a mechanical button.

8. An electronic module for use with a card, comprising:

at least one integrated circuit chip;

a plurality of electronic components connected to the at least one integrated circuit chip; and

at least one electronic display connected to the plurality of electronics components and/or the at least one integrated circuit chip;

wherein a first portion of the electronic module is embedded into a first surface of the card from the front of the first surface, and a second portion of the electronic module is embedded into the first surface of the card separately from the first portion and from the front of the first surface, and the portions are connected directly to one another to form a value-add smart card.

9. The electronic module of claim 8 further comprising a contact plate configured with the at least one integrated circuit chip.

10. The electronic module of claim 9 wherein the contact plate is embedded into the first surface of the card from the front of the first surface.

11. The electronic module of claim 8 wherein the first surface of the card is the front of the card or the back of the card.

12. The electronic module of claim 8 further comprising at least one antenna configured with the integrated circuit chip.

13. The electronic module of claim 8 further comprising electrical connectors configured to connect with other electrical components within the card.

14. A method of assembling an electronic module within a card, the method comprising:

(A) providing a card;

(B) creating an open area in a first surface of the card;

(C) embedding a first portion of the electronic module into a first portion of the open area; and

(D) embedding a second portion of the electronic module into a second portion of the open area;

wherein the first portion of the electronic module and the second portion of the electronic module are connected together directly to one another by the embedding of the first portion of the electronic module and the second portion of the electronic module into the open area.

15. The method of claim 14 wherein the first portion of the electronic module includes a contact plate and the second portion of the electronic module includes an electronic display.

16. The method of claim 14 wherein the first surface is the front of the card or the back of the card.

17. The method of claim 14 wherein the first portion of the electronic module and/or the second portion of the electronic module includes an antenna.