[0033] Although the foregoing embodiments have been described in some detail for purposes of clarity of understanding, the invention is not limited to the details provided. There are many alternative ways of implementing the invention. The disclosed embodiments are illustrative and not restrictive.

~~[0034] WHAT IS CLAIMED IS:~~

CLAIMS

1. A system for verifying an item in a package, comprising:

a package producer, wherein the package producer produces a package with a label, wherein the package includes an item each with one or more selected tag identifiers that are placed in a location on the item; and

a verifier, wherein the verifier verifies the item using 1) the one or more selected tag identifiers as detected using a spectral measurement, and 2) the label as read using a label reader.

2. A system as in claim 1, wherein the verifier verifies the item also using a location or a shape of the one or more selected tag identifiers on the item.

3. A system as in claim 1, wherein the spectral measurement measures a number of reflectance peaks.

4. A system as in claim 1, wherein the spectral measurement measures an amplitude of a reflectance peak.

5. A system as in claim 1, wherein the spectral measurement measures a phase of a reflectance peak.

6. A system as in claim 1, wherein the spectral measurement enables the decoding of a number.

7. A system as in claim 1, wherein the one or more selected tag identifiers comprise silica.

8. A system for verifying an item in a package, comprising:

a package producer, wherein the package producer produces a package with a label, wherein the package includes an item each with one or more selected tag identifiers that are placed in a location on the item; and

a verifier, wherein the verifier verifies the item using 1) the location or shape of the one or more selected tag identifiers on the item, and 2) the label as read using a label reader.

9. A system as in claim 8, wherein the verifier verifies the item also using the one or more selected tag identifiers as detected using a spectral measurement,

10. A system as in claim 8, wherein the verifier verifies the item using the shape of the one or more selected tag identifiers.

11. A system as in claim 8, wherein the one or more selected tag identifiers are laid out in a pattern.

12. A system as in claim 8, wherein the one or more selected tag identifiers are laid out in a bar code.

13. A system as in claim 8, wherein the one or more selected tag identifiers comprise silica.

14. A package, comprising:

one or more items;

one or more selected tag identifiers, wherein each item of the one or more items has an associated subset of identifiers of the one or more selected tag identifiers, wherein the subset of identifiers are placed in a location on one of the one or more items; and

a package, wherein the one or more items are placed in the package; and

a label, wherein the package includes the label, wherein 1) the label and 2) the location or shape of the one or more selected tag identifiers on the one or more items or the one or more selected tag identifiers as detected using a spectral measurement are used to verify the one or more items.

15. A package as in claim 14, wherein the subset of identifiers are laid out in a pattern.

16. A package as in claim 14, wherein the subset of identifiers are laid out in a bar code.

17. A package as in claim 14, wherein the subset of identifiers are laid out in a shape.

18. A package as in claim 14, wherein the one or more selected tag identifiers comprise silica.

19. A system for verifying a type of item in a package, comprising:

a package producer, wherein the package producer produces a package with a label, wherein the package includes an item of the type each with an associated one or more selected tag identifiers that are placed in a location on the item; and

a verifier, wherein the verifier verifies the item using 1) the associated one or more selected tag identifiers as detected using a spectral measurement, and 2) the label as read using a label reader.

20. A system as in claim 19, wherein the verifiers verifies the item also using a location or a shape of the one or more selected tag identifiers on the item,

21. A system as in claim 19, wherein the spectral measurement measures a number of reflectance peaks.

22. A system as in claim 19, wherein the spectral measurement measures an amplitude of reflectance peaks.

23. A system as in claim 19, wherein the spectral measurement measures a phase of reflectance peaks.

24. A system as in claim 19, wherein the spectral measurement enables the decoding of a number.

25. A system as in claim 19, wherein the one or more selected tag identifiers comprise silica.

26. A system for verifying a type of item in a package, comprising:

a package producer, wherein the package producer produces a package with a label, wherein the package includes an item of the type each with an associated one or more selected tag identifiers that are placed in a location on the item; and

a verifier, wherein the verifier verifies the item using 1) location or shape of the one or more selected tag identifiers on the item, and 2) the label as read using a label reader.

27. A system as in claim 26, wherein the verifier verifies the item also using the associated one or more selected tag identifiers as detected using a spectral measurement.

28. A system as in claim 26, wherein the associated one or more selected tag identifiers are placed in a pattern.

29. A system as in claim 26, wherein the associated one or more selected tag identifiers are placed in a bar code.

30. A system as in claim 26, wherein the associated one or more selected tag identifiers form a shape.

31. A system as in claim 26, wherein the associated one or more selected tag identifiers comprise silica.

32. A package, comprising:

an item of a type;

one or more selected tag identifiers, wherein the item has an associated subset of identifiers of the one or more selected tag identifiers, wherein the associated subset of identifiers are placed in a location on the item; and

a package, wherein the item is placed in the package; and

a label, wherein the package includes the label, wherein 1) the label and 2) the location or a shape of the one or more selected tag identifiers on the item of the type or the one or more selected tag identifiers as detected using a spectral measurement are used to verify the item of the type.

33. A package as in claim 32, wherein the associated subset of identifiers is placed in a pattern.

34. A package as in claim 32, wherein the associated subset of identifiers is placed in a bar code.

35. A package as in claim 32, wherein the associated subset of identifiers form a shape.

36. A package as in claim 32, wherein the one or more selected tag identifiers comprise silica.

What is claimed is:

1. A system for verifying an item in a package, comprising:

a package producer, wherein the package producer produces a package with a label, wherein the package includes an item each with one or more selected tag identifiers that are placed in a location on the item, and wherein the one or more selected tag identifiers comprise silica; and

a verifier, wherein the verifier verifies the item using 1) the one or more selected tag identifiers as detected using a spectral measurement, wherein the spectral measurement comprises a measurement of an optical signature of the one or more selected tag identifiers, and 2) the label as read using a label reader.

2. A system as in claim 1, wherein the verifier verifies the item also using a location or a shape of the one or more selected tag identifiers on the item.

3. A system as in claim 1, wherein the spectral measurement measures a number of reflectance peaks.

4. A system as in claim 1, wherein the spectral measurement measures an amplitude of a reflectance peak.

5. A system as in claim 1, wherein the spectral measurement measures a phase of a reflectance peak.

6. A system as in claim 1, wherein the spectral measurement enables the decoding of a number.

7. A system for verifying an item in a package, comprising:

a package producer, wherein the package producer produces a package with a label, wherein the package includes an item each with one or more selected tag identifiers that are placed in a location on the item, and wherein the one or more selected tag identifiers comprise silica; and

a verifier, wherein the verifier verifies the item using 1) the location or shape of the one or more selected tag identifiers on the item, wherein the one or more selected tag identifiers each have an optical signature, and 2) the label as read using a label reader.

8. A system as in claim 7, wherein the verifier verifies the item also using the one or more selected tag identifiers as detected using a spectral measurement.

9. A system as in claim 7, wherein the verifier verifies the item using the shape of the one or more selected tag identifiers.

10. A system as in claim 7, wherein the one or more selected tag identifiers are laid out in a pattern.

11. A system as in claim 7, wherein the one or more selected tag identifiers are laid out in a bar code.

12. A system for verifying a type of item in a package, comprising:

a package producer, wherein the package producer produces a package with a label, wherein the package includes an item of the type each with an associated one or more selected tag identifiers that are placed in a location on the item and wherein the one or more selected tag identifiers comprise silica; and

a verifier, wherein the verifier verifies the item using 1) the associated one or more selected tag identifiers as detected using a spectral measurement, wherein the spectral measurement comprises a measurement of an optical signature of the one or more selected tag identifiers, and 2) the label as read using a label reader.

13. A system as in claim 12, wherein the verifiers verifies the item also using a location or a shape of the one or more selected tag identifiers on the item.

14. A system as in claim 12, wherein the spectral measurement measures a number of reflectance peaks.

15. A system as in claim 12, wherein the spectral measurement measures an amplitude of reflectance peaks.

16. A system as in claim 12, wherein the spectral measurement measures a phase of reflectance peaks.

17. A system as in claim 12, wherein the spectral measurement enables the decoding of a number.

18. A system for verifying a type of item in a package, comprising:

a package producer, wherein the package producer produces a package with a label, wherein the package includes an item of the type each with an associated one or more selected tag identifiers that are placed in a location on the item, and wherein the one or more selected tag identifiers comprise silica; and

a verifier, wherein the verifier verifies the item using 1) location or shape of the one or more selected tag identifiers on the item, wherein the one or more selected tag identifiers each have an optical signature, and 2) the label as read using a label reader.

19. A system as in claim 18, wherein the verifier verifies the item also using the associated one or more selected tag identifiers as detected using a spectral measurement.

20. A system as in claim 18, wherein the associated one or more selected tag identifiers are placed in a pattern.

21. A system as in claim 18, wherein the associated one or more selected tag identifiers are placed in a bar code.

22. A system as in claim 18, wherein the associated one or more selected tag identifiers form a shape.