CLAIMS:

1. An ophthalmic lens assembly comprising:

a lens configured for placement in at least one of the inside and proximate to a surface of an eye, the lens including an optic zone configurable for at least one of vision correction and vision enhancement, and one or more electronic components for enabling the vision correction and vision enhancement; and

at least one antenna arrangement operatively associated with the one or more electronic components for providing at least one of one or two way communication with the one or more electronic components and power transfer wherein the at least one antenna arrangement comprises:

a) one or more single-turn loop antennas wherein the one or more single-turn loop antennas each comprises a conductive

(i) wire coil; and

(ii) trace on a circuit board;

or

b) one or more multi-turn loop antennas; or

c) one or more spiral antennas.

2. The ophthalmic lens assembly according to Claim 1, wherein the lens comprises:

a) a contact lens; or

b) a spectacle lens; or

c) an intraocular lens.

3. The ophthalmic lens assembly according to Claim 1, wherein the one or more single-turn loop antennas each comprises a conductive trace either:

a) directly on the lens; or

b) on a substrate incorporated into a stacked die configuration.

4. The ophthalmic lens assembly according to Claim 1, wherein the one or more

multi-turn loop antennas each comprise:

a) a conductive wire coil; or
b) a conductive trace on a circuit board; or
c) a conductive trace directly on the lens or
d) a conductive trace on a substrate incorporated into a stacked die configuration.

5. The ophthalmic lens assembly according to Claim 1, wherein the one or more spiral antennas each comprise:

a) a conductive wire coil; or
b) a conductive trace on a circuit board; or
c) a conductive trace directly on the lens; or
d) a conductive trace on a substrate incorporated into a stacked die configuration.

6. The ophthalmic lens assembly according to Claim 1, wherein the at least one antenna arrangement comprises one or more tap points.

7. The ophthalmic lens assembly according to Claim 1, wherein the at least one antenna arrangement comprises a fractal design.

8. The ophthalmic lens assembly according to Claim 1, further comprising an insulating layer configured to protect the at least one antenna arrangement.

CLAIMS:

1. An ophthalmic lens assembly comprising:

a lens configured for placement in at least one of the inside and proximate to a surface of an eye, the lens including an optic zone configurable for at least one of vision correction and vision enhancement, and one or more electronic components for enabling the vision correction and vision enhancement; and

at least one antenna arrangement operatively associated with the one or more electronic components for providing at least one of one or two way communication with the one or more electronic components and power transfer wherein the at least one antenna arrangement comprises one or more single-turn loop antennas, wherein the one or more single-turn loop antennas each comprises a conductive

(i) wire coil; and
(ii) trace on a circuit board;

wherein the one or more single-turn loop antennas each comprises a conductive trace on a substrate incorporated into a stacked die configuration.

2. The ophthalmic lens assembly according to Claim 1, wherein the lens comprises:

a) a contact lens; or
b) a spectacle lens; or
c) an intraocular lens.

3. The ophthalmic lens assembly according to Claim 1, wherein the at least one antenna arrangement comprises one or more tap points.

4. The ophthalmic lens assembly according to Claim 1, wherein the at least one antenna arrangement comprises a fractal design.

5. The ophthalmic lens assembly according to Claim 1, further comprising an insulating layer configured to protect the at least one antenna arrangement.

6. An ophthalmic lens assembly comprising:

a lens configured for placement in at least one of the inside and proximate to a surface of an eye, the lens including an optic zone configurable for at least one of vision correction and vision enhancement, and one or more electronic components for enabling the vision correction and vision enhancement; and

at least one antenna arrangement operatively associated with the one or more electronic components for providing at least one of one or two way communication with the one or more electronic components and power transfer wherein the at least one antenna arrangement comprises one or more multi-turn loop antennas,

wherein the one or more multi-turn loop antennas each comprise a conductive trace on a substrate incorporated into a stacked die configuration.

7. The ophthalmic lens assembly according to Claim 6, wherein the lens comprises:

a) a contact lens; or
b) a spectacle lens; or
c) an intraocular lens.

8. The ophthalmic lens assembly according to Claim 6, wherein the at least one antenna arrangement comprises one or more tap points.

9. The ophthalmic lens assembly according to Claim 6, wherein the at least one antenna arrangement comprises a fractal design.

10. The ophthalmic lens assembly according to Claim 6, further

comprising an insulating layer configured to protect the at least one antenna arrangement.

11. An ophthalmic lens assembly comprising:

a lens configured for placement in at least one of the inside and proximate to a surface of an eye, the lens including an optic zone configurable for at least one of vision correction and vision enhancement, and one or more electronic components for enabling the vision correction and vision enhancement; and

at least one antenna arrangement operatively associated with the one or more electronic components for providing at least one of one or two way communication with the one or more electronic components and power transfer wherein the at least one antenna arrangement comprises one or more spiral antennas, wherein the one or more spiral antennas each comprise a conductive trace on a substrate incorporated into a stacked die configuration.

12. The ophthalmic lens assembly according to Claim 11, wherein the lens comprises:

a) a contact lens; or
b) a spectacle lens; or
c) an intraocular lens.

13. The ophthalmic lens assembly according to Claim 11, wherein the at least one antenna arrangement comprises one or more tap points.

14. The ophthalmic lens assembly according to Claim 11, wherein the at least one antenna arrangement comprises a fractal design.

15. The ophthalmic lens assembly according to Claim 11, further comprising an insulating layer configured to protect the at least one antenna arrangement.