CLAIMS

1. - A horn (12) for elementary antennas for telecommunications, in particular satellite telecommunications, wherein the horn (12) includes:

- a first emitting - receiving portion (22) adapted to emit and receive an electromagnetic wave at a first frequency (f1), and

- a second emitting - receiving portion (24) adapted to emit and receive an electromagnetic wave at a second frequency (f2), the second emitting - receiving portion (24) being distinct and separate from the first emitting - receiving portion (22) and the ratio between the second frequency (f2) and the first frequency (f1) being greater than 1.2,

wherein the joining of the first emitting - receiving portion (22) and the second emitting - receiving portion (24) forms the horn (12).

2. - A horn according to claim 1, wherein the waves at the first frequency (f1) and the second frequency (f2) are included in the Ka band of the electromagnetic spectrum.

3. - A horn according to claim 1 or 2, wherein the horn (12) has a cylindrical shaped form.

4. - A horn according to any one of claims 1 to 3, wherein the ratio between the second frequency (f2) and the first frequency (f1) is greater than 1.5.

5. - A horn according to any one of claims 1 to 4, wherein the first emitting - receiving portion (22) and the second emitting - receiving portion (24) have a cylindrical shape.

6. - A horn according to claim 5, wherein the first emitting - receiving portion (22) and the second emitting - receiving portion (24) have a basis (22B, 24B) sharing the same shape.

7. - A horn according to claim 5 or 6, wherein the shapes of the basis (22B, 24B) the first emitting - receiving portion (22) and the second emitting - receiving portion (24) are chosen among a disk and a rectangle.

8. - An elementary antenna (11) comprising at least one horn (12) according to any one of claims 1 to 7.

9. - An elementary antenna according to claim 8 comprising dielectric elements (16).

10. - An elementary antenna according to any one of claim 8 or 9, comprising a polariser (14) arranged in a manner so as to polarise the waves that the first emitting - receiving portion (22) and the second emitting - receiving portion (24) are adapted to emit.

11. - An elementary antenna according to claim 10, wherein the polariser (14) comprises of two parts arranged in a manner so as to circularly polarise in a first direction the electromagnetic waves that the first emitting - receiving portion (22) is adapted to emit and to circularly polarise the electromagnetic waves that the second emitting - receiving portion (24) is adapted to emit in a direction opposite to the first direction.

12. - An antenna structure (10) comprising at least one elementary antenna (10) according to any one of claims 8 to 11.

13. - A platform, in particular an aerial platform, comprising at least one elementary antenna (11) according to any one of claims 8 to 11 or an antenna structure (10) according to claim 12.

14. - A method for telecommunication, in particular via satellite, between two stations, the method including the use of at least one elementary antenna (11) according to any one of claims 8 to 11 or an antenna structure (10) according to claim 12.