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(71)Name of Applicant :

1)Dr. Puneet Khanna

Address of Applicant :Associate Professor, Department of Electronics and Communication Engineering, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244001 -----

2)Dr. Amar Sharma

3)Mr. Sanjeev Kumar Singh

4)Mr. Ravindra Pratap Singh

5)Ms. Swati Singh

6)Mr. Shankar Singh Yadav

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

1)Dr. Puneet Khanna

Address of Applicant :Associate Professor, Department of Electronics and Communication Engineering, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244001 -----

2)Dr. Amar Sharma

Address of Applicant :Assistant Professor, Department of Electronics and Communication Engineering, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244001 -----

3)Mr. Sanjeev Kumar Singh

Address of Applicant :Assistant Professor, Department of Electronics and Communication Engineering, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244001 -----

4)Mr. Ravindra Pratap Singh

Address of Applicant :Assistant Professor, Department of Electronics and Communication Engineering, B.T. Kumaon Institute of Technology, Dwarahat, Almora, Uttarakhand, Pin Code: 263653 -----

5)Ms. Swati Singh

Address of Applicant :Assistant Professor, Department of Electronics and Communication Engineering, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244001 -----

6)Mr. Shankar Singh Yadav

Address of Applicant :Assistant Professor, Department of Physics, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244001 -----

(57) Abstract :

The present invention relates to a wideband polygon ring microstrip antenna (100) with a structure-shaped ground. The wideband polygon ring microstrip antenna (100) with structure-shaped ground comprises a hexagonal ring shape microstrip antenna (100). The hexagonal ring shape microstrip antenna (100) has a rectangular notch at the right and left-hand sides of the outer hexagonal structure of dimensions $Lp3 \times Wp3$; and a ground plane. The width of the hexagonal ring shape microstrip antenna (100) line is $Wp1 = 5.0$ mm. The width of the hexagonal ring shape microstrip antenna (100) is taken to achieve a 500 characteristic impedance. The width of the hexagonal ring shape microstrip antenna (100) is fabricated and printed on a commercially available FR-4 substrate having thickness $h = 1.6$ mm. The present invention provides a wideband polygon ring microstrip antenna (100) with structure-shaped ground that can avoid the use of two or multiple antenna (100) to transmit video, voice, and data simultaneously.

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