ISBN: 978-1-948012-17-1

Ethics and Information Technology (ETIT)

DOI: <http://doi.org/10.26480/etit.02.2020.164.165>

REVIEW ARTICLE

STUDY OF INTEGRATION TECHNIQUE OF OPTICAL DRA ANTENNA FOR VARIOUS BAND

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ARTICLE DETAILS

Article History:

Received 18 February 2021

Accepted 11 March 2021

Available online 15 March 2021

ABSTRACT

The dielectric resonator antenna technologies are applicable to design various band level or various types of simulation with low return loss of antenna design. In this paper we have taken several aspect ion of antenna results which has been investigated. The Research Article Concentrated on optical DRA Antenna and performance simulation result is improved with some configurable improvement. The wireless communication system has mainly demanding requirements to improve return loss. Antenna made up of materials has able to improve its potential performance with high level enhancement. Although most of the optical antenna use 5 nm or less than 5 nm diameters because carbon nanotube become superior conductor at 5 nm diameters. Optical antenna is substitute of traditional antenna or generate model antenna. Which include light – matter interaction, absorption & emission of light which can control its special direction as well as control of its complex non analytic algorithms they behave like strong coupled light emitting devices like photovoltaic.

KEYWORDS

Antenna, Dielectric optical antenna, Antenna designer

1. INTRODUCTION

The RF Antenna has ubiquitous efficiency for Dielectric Resonator integration feeding Technique at micro or nano-scale (Mohan, 2015). The Performance of different types of optical DRA Antenna Suitability depends on Antenna Material used for made –up. The impedance value of Antenna material should not be mismatched between the two devices (Mohan, 2017; Mohan and Kumar, 2016). The ultra-wideband Antenna has ambient RF Power for multiple wireless system (Mohan and Kumar, 2019; Mohan, 2018). The DRA Antenna has unique way to enhance its efficiency for bio-sensing or light emitting devices and also to achieve performances (Mohan, 2019; Siddique et al., 2015). for different antenna types must satisfy other specific key Requirements which have Related to multiband circuit communication systems like, LTE, WIFI (80211) Basically all types of antenna system are matched its transmission approx 50-ohm.

The DRA Antenna technology needs low level of Energy losses with maximum high accurate performance (Hagtalab et al., 2016). The Communication system of any transmitting devices needs very high frequencies. The development of Antenna Technologies has aimed to increase data rate with large bandwidth, high gain. Small or tiny size integration for chip level Antenna communication as well as dielectric has greater application for ultra –sensitive biosensors has portable and wireless handheld devices at nanoscale transmission (Carruthers and Kannan, 2002; Nia et al., 2016). The main purpose of communication system to established digital community like e.g.-E-Banking, e- buying, e-ticketing, e-voting. In this part of society IOT players main role for development people of society at nano or micro level (Fath et al., 2010; Mohan, 2015). In addition to its use fullness for the IOT Artificial neural network Because its feeding technique DRA has unique model Expansion to express waveguide through low losses of conducting radiation element. Optical DRA antenna has widely used by Antenna designer due to its high-

level antenna gain with low losses of energy efficiency.

2. PROBE OF OPTICAL DRA

Figure 1: Probe of optical Dielectric Resonator Antenna

Figure 2: Proposed Optical DRA Model

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	International Conference on Contemporary Issues in Computing (ICIC-2020) - Virtual IETE Sector V, Salt Lake, Kolkata From 25th-26th July 2020	Website: www.intelcomp-design.com	DOI: 10.26480/etit.02.2020.164.165

Figure 3: (a) frequency at GHz

Figure 4: Frequency at THZ

3. DRA EFFECT ON RETURN LOSS OF PROPOSED ANTENNA

The concept of optical antenna has great importance in their Radio – frequency (R.F.) and microwave regime optical antenna providing high and advance level of technology for plasmonic devices. Such types of application can be used in dielectric optical devices. Optical antenna is good candidate for optical telecommunication and propagation as well as polarization can be obtained by circular polarized light. Dielectric optical antenna (CDOA) is compact in structure with less weight is also light which as to all as conformable to surface planar. The wireless communication Networks design is based on travelling wave principal (TWP). Although optical cylindrical antennas are strongly increasing their ability and efficiencies can be achieved with optimized antenna. Communication system uses half wavelength dipoles for can be manipulated at optical frequency. The devices and dielectric cylindrical optical antenna has been the interest of researchers from the past few decades due to design.

4. CONCLUSION

We have reviewed several aspects and applications of optical antennas. In particular focused on The Dielectric Antenna Transmit Optical Frequency at nm scale. In this research article we assumed theoretical and simulation aspect to design & control communication system for maxima level transmission efficiency. Optical radiation distribution of electromagnetic range of Antenna frequency. The simulation of Antenna design works well with Dielectric constant to tune resonance frequency can enable to control its configuration THz, nm scale. Dielectric resonators optical antenna (DROA) is not limited able to making integration technique they have great approach for waveguide feeding technique to making ground plane mechanism to highlight the practical or simulation result was very useful to use this type of antenna structures. In this research article we have demonstrated several variables have been proposed in this research article. Nanotube become superior conductor at 5 nm diameters. Optical

antenna is substitute of traditional antenna or generate model antenna. Which include light – matter interaction, absorption & emission of light which can control its special direction as well as control of its complex non analytic algorithms.

ACKNOWLEDGMENT

This Research Paper is an outcome of a fellowship sponsored by the Department of Science and Technology (DST), Govt. of India.

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