US 20230231310A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2023/0231310 A1**

ZHANG et al. (43) **Pub. Date: Jul. 20, 2023**

(54) **ANTENNA STRUCTURE**

(71) Applicant: **Wistron NeWeb Corp.**, Hsinchu (TW)

(72) Inventors: **Cheng-Rui ZHANG**, Hsinchu (TW); **Yu-Sheng FAN**, Hsinchu (TW)

(21) Appl. No.: **18/055,134**

(22) Filed: **Nov. 14, 2022**

(30) **Foreign Application Priority Data**

Jan. 20, 2022 (TW) 111102333

Publication Classification

(51) **Int. Cl.**

H01Q 9/04	(2006.01)
H01Q 1/52	(2006.01)
H01Q 1/48	(2006.01)
H01Q 5/307	(2006.01)

(52) **U.S. Cl.**

CPC ***H01Q 9/0421*** (2013.01); ***H01Q 1/52*** (2013.01); ***H01Q 1/48*** (2013.01); ***H01Q 9/045*** (2013.01); ***H01Q 5/307*** (2015.01)

(57) **ABSTRACT**

An antenna structure includes a ground element, a feeding radiation element, a shorting radiation element, a connection radiation element, a first radiation element, and a second radiation element. The feeding radiation element has a feeding point. The feeding radiation element is coupled through the shorting radiation element to the ground element. The connection radiation element is coupled between the first radiation element and the shorting radiation element. The second radiation element is coupled to the feeding radiation element. A coupling slot region is formed and substantially surrounded by the feeding radiation element, the shorting radiation element, the connection radiation element, the first radiation element, and the second radiation element.

100