

★★★ <第34回知的財産翻訳検定試験【第18回和文英訳】> ★★★
《1級課題 -電気・電子工学-》

【問1】

[0005]

In this respect, since the continuous-type device constantly supplies ink, it is advantageous in that nozzle clogging is unlikely to occur, stable operation is possible over a long period of time, contamination of a print head is reduced, and ink wastage is small. However, the device tends to be large in size since it requires a system for circulating ink. On the other hand, the DOD-type device is characterized in that it can print figures with higher definition than the continuous-type device and is configured to eject ink for each tablet. Accordingly, it does not need a bulky ink circulation system, and is relatively small in size.

[0006]

However, since the DOD-type device is configured to detect the flow of tablets and then activate the print head, it needs time for performing data processing between the detection and ink ejection. If tablets flow continuously without interruption, the controller may enter a busy state, and data processing may not be finished in time. If the data processing is not finished in time, the head is not activated even if the presence of tablets is detected, and the tablets flow away without being subjected to the printing process, resulting in unprinted products. This is the problem with the DOD-type device.

[0007]

In addition, in the DOD-type inkjet device, if ink is ejected from the lower side to the upper side, the printing accuracy may be lower due to the influence of gravity. Accordingly, the DOD-type device usually performs printing on the upper surface of the tablets. That is, with the DOD-type device, it is rather difficult to perform printing processing on both sides of the tablets, and despite the advantage of being able to be small in size, the DOD-type device has been exclusively employed as a single-sided printing device.

【問 2】

[0017]

In accordance with the above embodiment, the loop antenna 10 in FIG. 1 has the first and second line conductors 14, 16 which each have a length ($L_0 = 58.4$ mm) determined in relation to the frequency band (1.8 GHz) of the linearly polarized wave among the first frequency band (1.57 GHz) and the second frequency band (1.8 GHz), and which are formed on the dielectric substrate 12 having a dielectric constant of 4.4. In addition, the first and second line conductors 14, 16 have a line width of 1.4 mm and are arranged on the dielectric substrate 12 so as to extend parallel to each other at a predetermined distance (line gap = 0.4 mm) away from each other, both ends thereof being electrically connected with each other. Furthermore, the loop antenna 10 has the feeding part 28 composed of feeding points 24, 26 that are formed at both ends of a cut part, which is obtained by cutting the first line conductor 14 at a position 22 away from the upper side end part 30 of the first line conductor 14 by a length ($L_1 = 26.9$ mm) that is determined in relation to the first frequency band.

In addition, the loop antenna 10 comprises the first detouring line conductor 18 that has a line gap of 0.4 mm and a line width of 1.4 mm. The first detouring line conductor 18 is obtained by cutting another portion of the first line conductor 14 in the vicinity ($L_5 = 1.4$ mm) of the feeding part 28 and bridge-connecting both ends of the cut part, and is arranged to extend to such a length ($L_4 = 8.2$ mm) as to generate a $\pi/4$ phase delay in the laterally outer direction of the first line conductor 14. The loop antenna 10 also comprises the second detouring line conductor 20 that has a line gap of 0.4 mm and a line width of 1.4 mm. The second detouring line conductor 20 is obtained by cutting another portion of the second line conductor 16 in the vicinity ($L_5 = 1.4$ mm) of the feeding part 28 and bridge-connecting both ends of the cut part, and is arranged to extend to such a length ($L_4 = 8.2$ mm) as to generate a $\pi/4$ phase delay in the laterally outer direction of the second line conductor 16.

【問 3】

2. The learning support system according to claim 1, wherein

the question-matching memory unit stores, as the reply content, an answer to and/or an explanation of the question content, and

the reply acquisition unit acquires, as the reply to the question received by the question reception unit, an answer to and/or an explanation of the question received by the question reception unit, and/or a question similar to the question received by the question reception unit and an answer thereto and/or an explanation thereof.

3. The learning support system according to claim 2, wherein

the question-matching memory unit further stores a general explanation, and

the reply acquisition unit acquires, as the reply to the question received by the question reception unit, the answer to and/or the explanation of the question received by the question reception unit, the question similar to the question received by the question reception unit and the answer thereto and/or the explanation thereof, and/or the general explanation of the question received by the question reception unit.

5. The learning support system according to claim 2, wherein the accuracy of the search result is lower in a case where none of the answer to and/or the explanation of the question received by the question reception unit and the answer to and/or the explanation of the question similar to the question received by the question reception unit are searched than in a case where at least one of the answer to and/or the explanation of the question received by the question reception unit and the answer to and/or the explanation of the question similar to the question received by the question reception unit is searched.

7. The learning support system according to any one of claims 1 to 6, wherein the reply acquisition unit suggests the question received by the question reception unit to an unspecified large number of respondents and acquires replies from the unspecified large number of respondents.