

受験番号 : 34IPE005

問 1 .

[0005]

In this case, the continuous-type apparatus always supplies ink, and thus is resistant to nozzle clogging and can stably operate for a long time. The continuous-type apparatus also has the advantages of getting less dirt on the printing head and generating less ink waste. However, the continuous-type apparatus requires an ink circulation system, which tends to cause upsizing of the apparatus. In contrast, the DOD-type apparatus has a feature that it is capable of printing higher-definition graphics than the continuous-type apparatus. In addition, the DOD-type apparatus is configured to discharge ink onto each individual tablet. Accordingly, the DOD-type apparatus requires no large-scale ink circulation system and is relatively small in size itself.

[0006]

However, the DOD-type apparatus is configured to detect a flow of tablets and activate the print head, which takes time for data processing between the detection and the ink jetting. Thus, if the tablets are continuously flown without cease, the controller may become busy so that the data processing may not be performed in time. If the data processing is not performed in time, the head will not be activated even though the presence of tablets is detected. Accordingly, the tablets are flown without being subjected to the printing process, which problematically results in the non-printed products.

[0007]

In addition, in the DOD-type ink-jet printing apparatus, if ink is jetted from the lower side toward the upper side, the printing accuracy may be lowered under the influence of gravity. Thus, the DOD-type apparatus generally performs ink-jet printing only on the upper side of the tablet. That is, it is hard to perform printing on the both sides of the tablet by the DOD-type ink-jet printing apparatus. For this reason, the DOD-type apparatus is mostly employed as a single-side printing apparatus in spite of its advantage of apparatus downsizing.

問 2 .

[0017]

In accordance with the above embodiment, the loop antenna 10 illustrated in Fig. 1 includes the first and second line conductors 14 and 16 with a line width of 1.4 mm formed on the dielectric substrate 12 with a dielectric constant of 4.4. The first and

second line conductors 14 and 16 have a length ( $L_0 = 58.4$  mm) determined in relation to the frequency band (1.8 GHz) for linearly polarized wave, of the first frequency band (1.57 GHz) and the second frequency band (1.8 GHz), and are arranged on the dielectric substrate 12 so as to extend in parallel to each other with a predetermined distance (line spacing = 0.4 mm) therebetween, and are electrically connected to each other at both ends. The loop antenna 10 also includes the power feeding part 28 that is formed by cutting the first line conductor 14 at the position 22 at the length ( $L_1 = 26.9$  mm) determined in relation to the first frequency band from the upper end portion 30 and providing the power feeding points 24 and 26 at the both ends of the cut portion. The loop antenna 10 further includes the first detour line conductor 18 with a line width of 1.4 mm and a line spacing of 0.4 mm that is arranged so as to extend with a length ( $L_4 = 8.2$  mm) with which to cause a phase delay of  $\pi/4$  laterally outside the first line conductor 14, which is formed by cutting another portion of the first line conductor 14 in the vicinity of the power feeding part 28 ( $L_5 = 1.4$  mm) and bridging the both ends of the cut portion, and includes the second detour line conductor 20 with a line width of 1.4 mm and a line spacing of 0.4 mm that is arranged so as to extend with a length ( $L_4 = 8.2$  mm) with which to cause a phase delay of  $\pi/4$  laterally outside the second line conductor 16, which is formed by cutting the second line conductor 16 in the vicinity of the power feeding part 28 ( $L_5 = 1.4$  mm) and bridging the both cut portions.

問 3 .

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

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

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

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

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

the reply acquisition unit acquires, as the reply to the question received by the question reception unit, the answer and/or the explanation to the question received by the question reception unit, the question similar to the question received by the question reception unit and the answer and/or the explanation thereto, and/or the general explanation to 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 and/or the explanation to the question received by the question reception unit and the answer and/or the explanation to 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 and/or the explanation to the question received by the question reception unit and the answer and/or the explanation to 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 repliers and acquires replies from the unspecified large number of repliers.