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(54) **RADIO FREQUENCY IDENTIFICATION SYSTEM FOR TRACKING AND MANAGING MATERIALS IN A MANUFACTURING PROCESS**

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(71) Applicant: **A-1 PACKAGING SOLUTIONS INC.**,  
St. Charles, IL (US)

(72) Inventors: **Kenneth F. Schoening**, St. Charles, IL (US); **William J. Greaves**, Indianhead Park, IL (US)

(57) **ABSTRACT**

A process management system uses a radio frequency identification (RFID) detection system in the form of, for example, a phased array antenna based RFID detection system to track and manage material storage and flow in a manufacturing process or plant. The process management system operates in conjunction with the various machines that implement manufacturing stages or steps of the manufacturing process to assure that the correct materials and processing procedures are used at or on the various production machines of the process to produce a particular product as defined by a job number or job order. The process management system is thereby able to increase the efficiencies of the plant and to increase the quality of the plant production by reducing or eliminating waste, manufacturing errors and shipping errors in the production facility.

(73) Assignee: **A-1 Packaging Solutions Inc.**, St. Charles, IL (US)

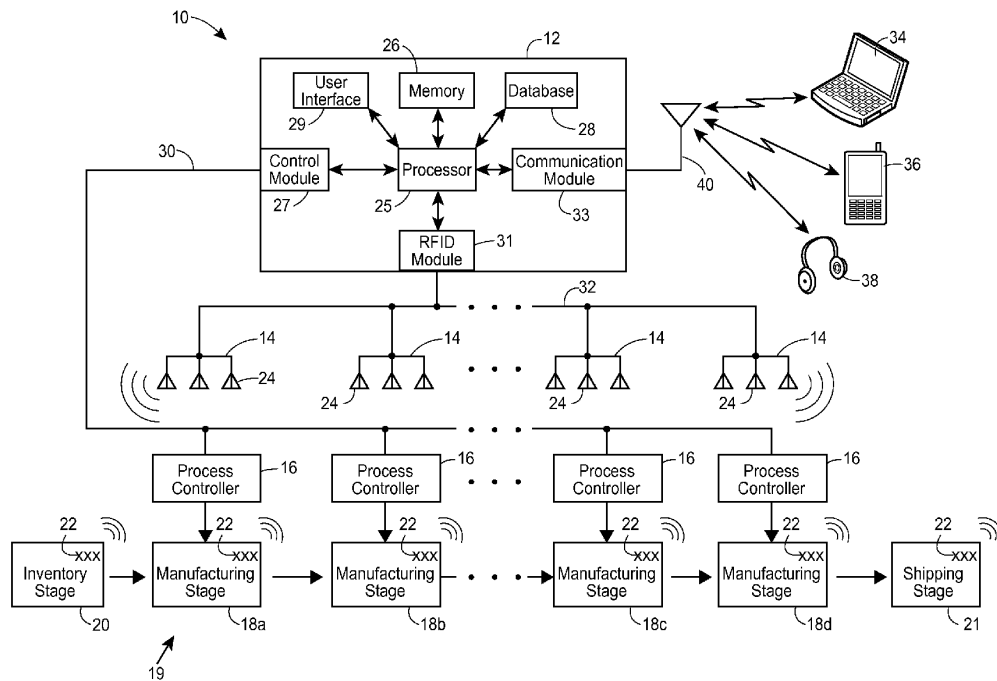
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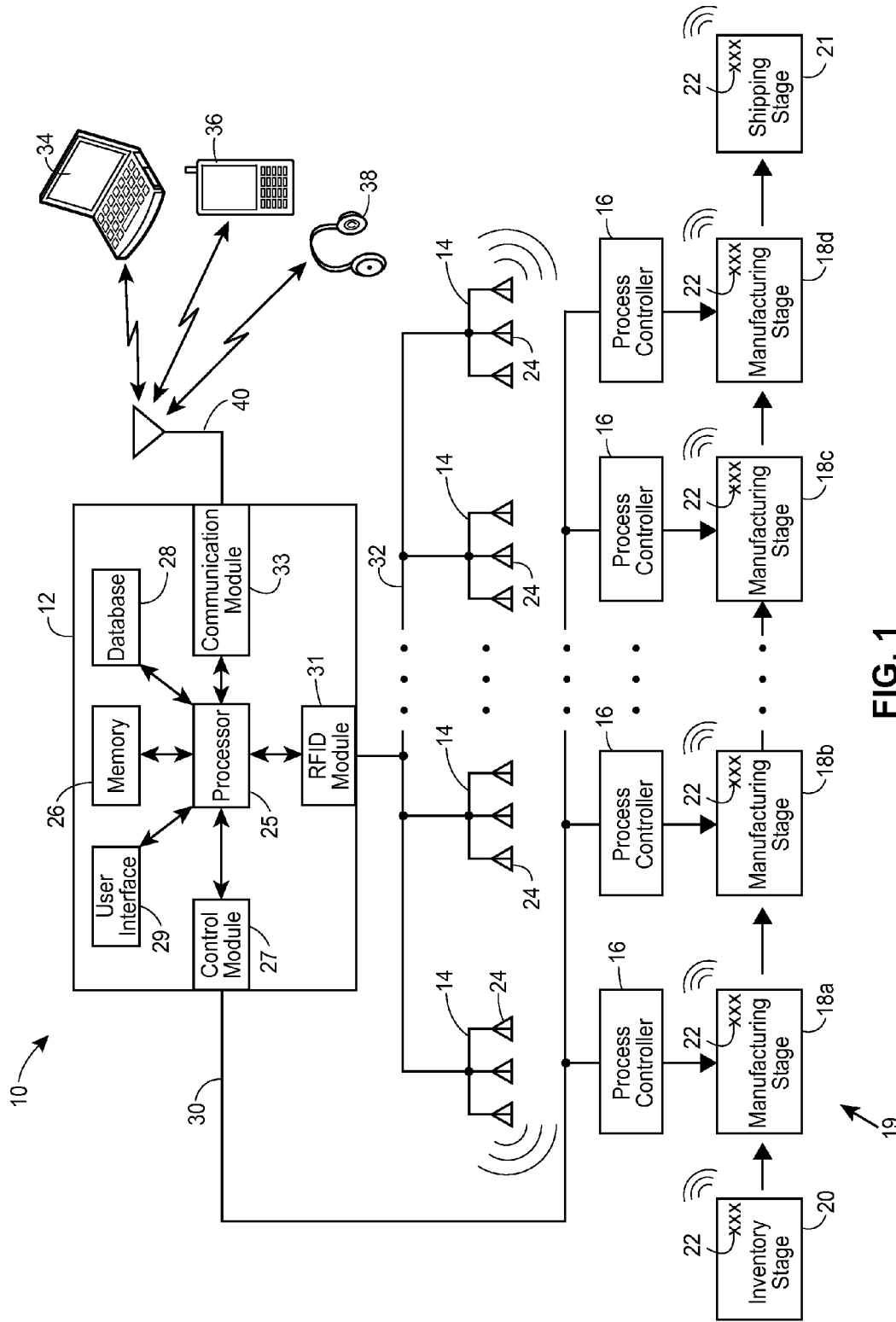


FIG. 1

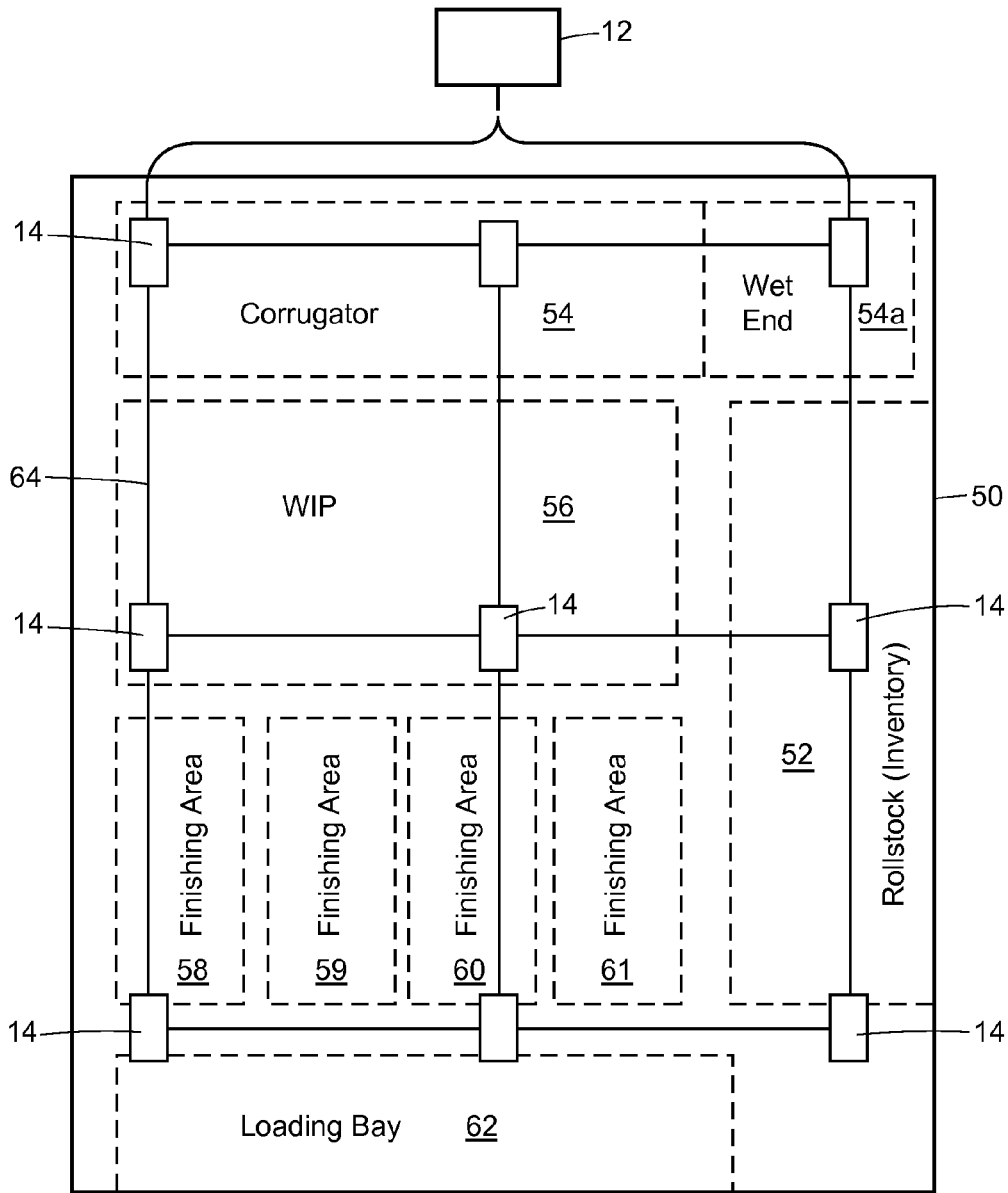


FIG. 2

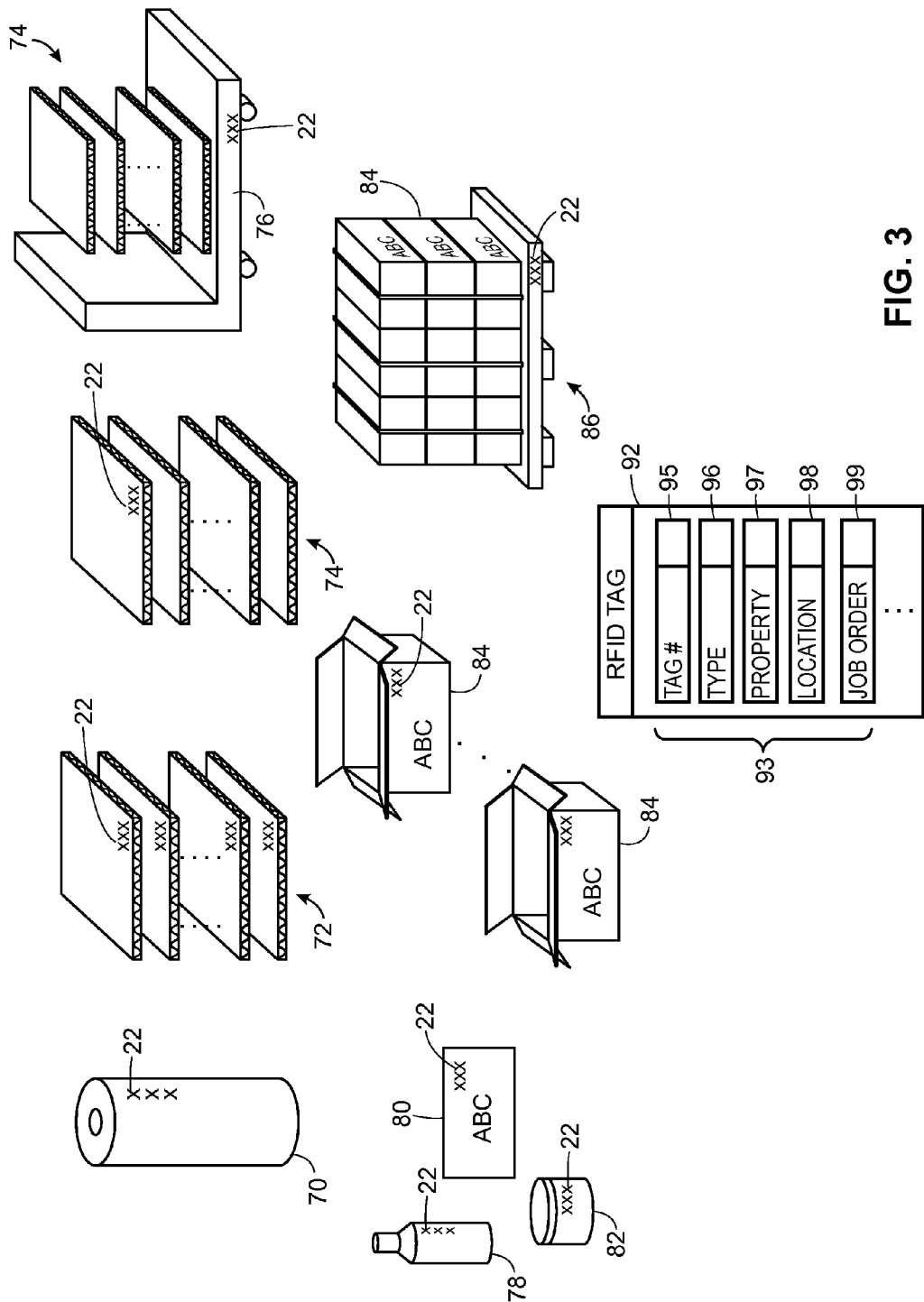


FIG. 3

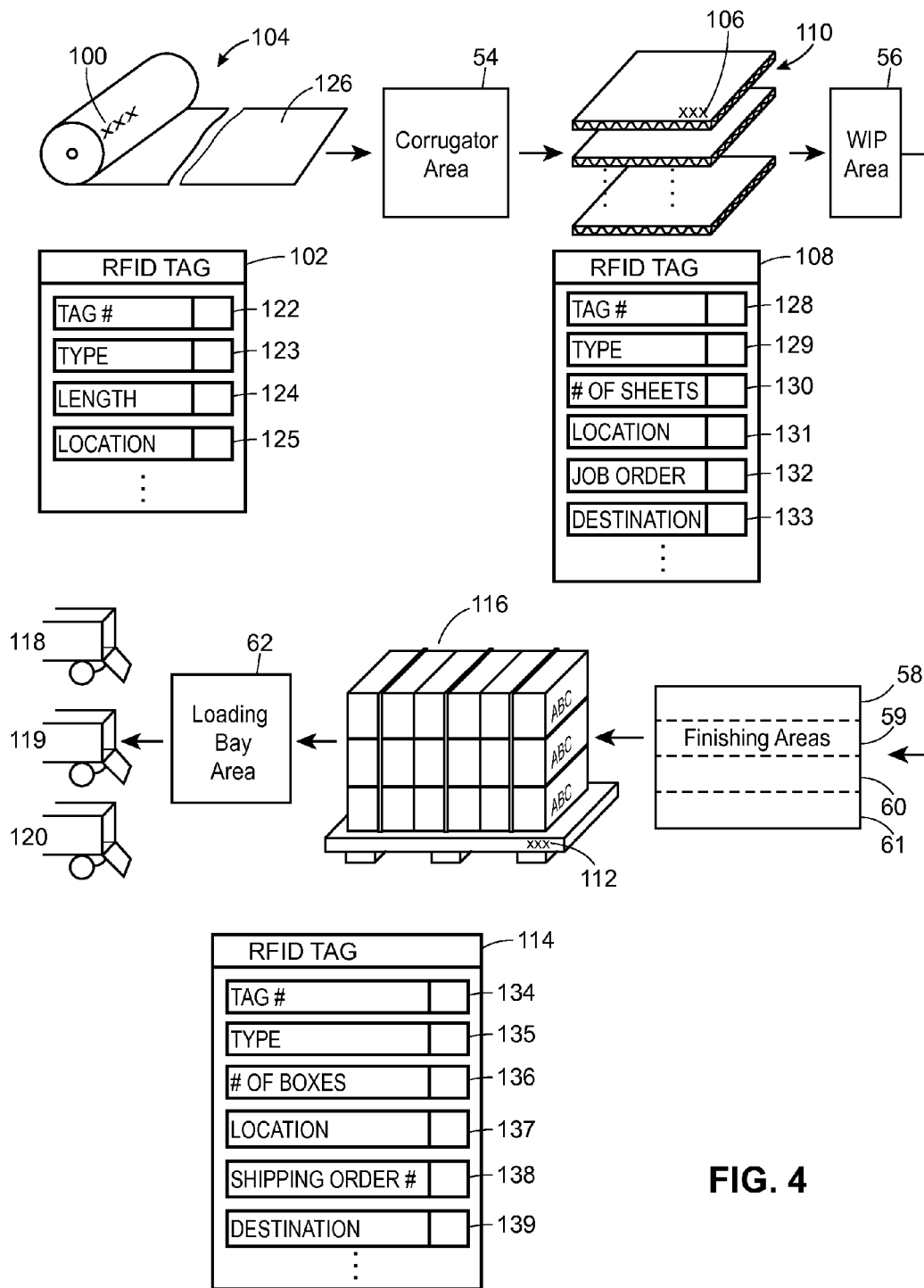


FIG. 4

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