

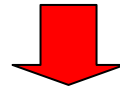
AUDIO PAPER



Future Technology Industry Limited

1. *AUDIO PAPER* Development Concepts

Paper media that can record and play “audio information”



Thin, light, flexible and low cost


Existing audio record/play devices

Tape recorder, IC recorder and audio message card

Thick, heavy, inflexible and expensive (electronic devices)



Toppan Forms' thin circuit manufacturing and assembly technology along with use of thin battery got materialized the Audio Paper.

Paper-like audio device  Innovative information Tool

2. What is the *AUDIO PAPER*?

(1) Record / Play *AUDIO PAPER* Functionality (for C2C applications)

Push “Record” button Speak Record for 20 Seconds

Push “Play” button Play recorded message

Message reproduction stops when “Play” button is pushed again.

*Record / Play **AUDIO PAPER** is Suitable for Delivering Personal “Voice Message”*

Proposed Applications:

Greeting Cards
(Birthday card, Christmas card, etc.)

Message Cards with Gifts/Parcels
(Gifts sent for all occasions)

Postcards from Trips



2. What is the **AUDIO PAPER**? (Cont'd)

(2) Play Only **AUDIO PAPER** Functionality (for B2C applications)

- * Record music/message in advance in memory devices such as MD Copy the recorded audio information onto Audio Paper (up to 20 seconds) at Toppan Forms
- * Push “Play” button Play Recorded Message
- * Message reproduction stops when “Play” button is pushed again. Equipped with a terminal for recording, which will be detached after recording.

*Play Only **AUDIO PAPER** is Suitable for Delivering Companies' “Audio Message” to Customers.*

Proposed Applications:

Direct Mail

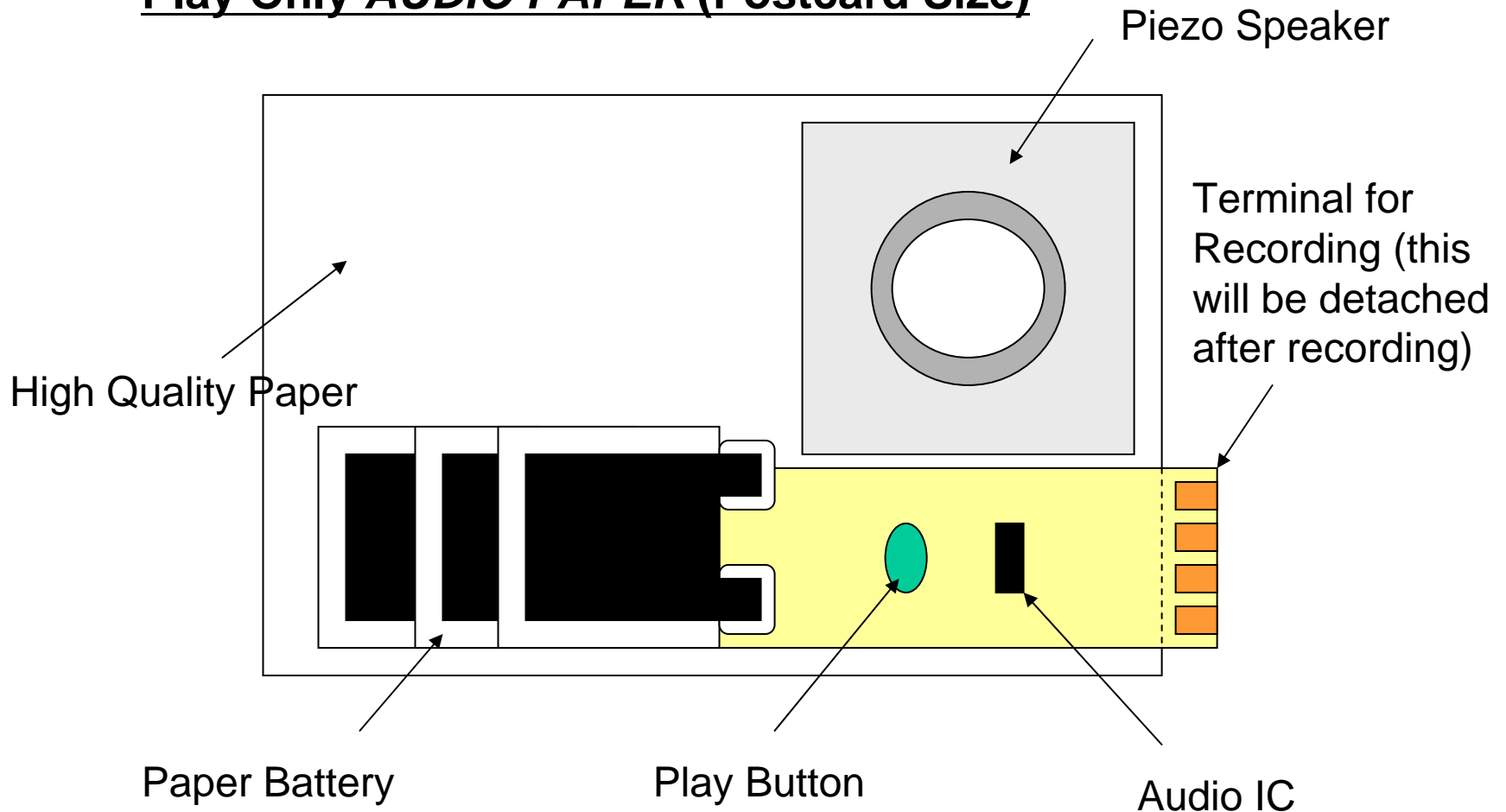
Promotional Tools for Music

Sales Promotional Tools



3. Structure of the *AUDIO PAPER*

Play Only *AUDIO PAPER* (Postcard Size)



4. Characteristics of the *AUDIO PAPER*

(1) Physical Description

- Thin (thickness: less than 1mm)
- Light (weight: less than 20g)
- Flexible

(2) Safety

Totally environmentally friendly product (no hazardous material is used). Paper Battery used for this product is fully disposable, and do not cause any fire or heat even in case of short-circuit.

(3) Recording Time (Duration)

20 seconds

(4) Number of Reproduction (Play) Times

- Record/Play Type: Approx. 30 times
- Record Only Type: Approx. 50 times

(5) High Durability

- Operational Environment : -20 to +60 degrees centigrade
- Surface Pressure: Durable up to 10Kg
- Static Electricity: Durable up to 10kV
- Water Resistant

5. Comparison with Existing Audio Products

	AUDIO PAPER		Message Card	Melody Card
Function	Record / Play	Play Only	Messages are recorded individually by end users.	Only pre-recorded music is available (end users have no option to select music)
	Messages are recorded individually by end users.	Music/messages to be recorded can be selected by end users.		
Duration	20 sec.		20 sec.	10 sec.
Thickness	0.75mm		4 mm	3 mm
Flexibility	High (can be folded and distorted)		None (totally inflexible)	Medium (some can be folded and distorted)
Safety	Excellent (no risk of causing fire or heat)		Good (lithium batteries are used)	Bad (lithium batteries are used)
Number of Reproduction Times	30 times	50 times	200 times	100 times
Novelty	High (there is no postcard type audio device in the market)		Middle	Low
Price	TBA	TBA	Approx. US\$10.0 (Ex-factory Japan)	Approx. US\$4.50 (Ex-factory Japan)