# **ZINi Voice Solution**



#### Voice Solution Introduction

### **Smart Mobile System**

## 1 Technology



- · Combine ZIN distribution solution with voice recognition solution from AMI global company.
- Promptly use without voice tuning for each worker.
- · Apply the right optimization technology to distribution working environment.
  - Have noise removal technology to reduce noise in working environment.

# **2** Operation



- · Use Voice/TTS to proceed work order and checking easily.
  - Guide information and order by using voice recognition (Voice)/Voice guidance (TTS) technology.
  - Check and proceed work based on voice (no order sheet required).
- · Enhance work convenience by hands-free working environment.
- Support real-time wireless communication technology such as operating equipment and Wi-Fi.
- Allow both hands to work easily without cable of each equipment.

# **3** Economic



- · Use general equipment, not distribution-specialized one.
- Minimize implementation cost from using general product in the market rather than high-price distribution equipment.
- Reduce large-scale implementation cost for voice server.
  - Apply voice engine to each mobile device instead of server implementation.

# Voice Solution Principle

Mobile device is connected to noise-cancelling microphone headset and work via bluetooth to transmit signal over distance up to 20 meters.







### Voice Solution Application Efficacy

Voice Solution is a wearable system that combines the latest voice recognition (Voice) and voice guidance (TTS) technology, which available for both iOS and Android operating system. This solution enhances hands-free and eyes-free work environment and can be replaced paper picking to improve work efficiency.

#### **Picking**

- · Over 20% Increase in productivity
- **99.95**% Accuracy
- · 50% Decrease in worker traning time.



#### Loading

- · 31% Decrease in workforce.
- · Lessen required space due to work speed improvement.

### Replenishment

- · 16% Decrease in forklift worker.
- $\cdot$  52% Increase in replenishment rate.
- · 37% Decrease in support worker.
- 67% Decrease in training time.
- · Save \$30K per device per year

#### Warehousing

- Double checking by supervisor is not required to complete incoming goods receipt process.
- · Establish labor standard data.

## Voice Solution Efficiency

# **ZINi Voice Solution 29% Better**

According to picking test of 7 items between ZINi Voice Solution and Scanner (PDA), the result shows that ZINi Voice Solution is about 29% better in terms of time efficiency.

	Number of Picks	Time
ZINi Voice Solution	7	1:31
PDA & Scanner	7	2:08

Description	Paper picking	Pick to Label	PDA & SCANNER	Voice	Pick to light
Productivity (Picks/Hour)	High	High	Average	High	Very High
Hands-Free	Low	Low	Low	Very High	High
Eyes-Free	Low	Low	Low	Very High	High
Location Check	Text	Text	Text	Voice	Light
Picking Check	None	None	Button	Voice	Button
Accuracy	Low	Fair	Low	Low	Very High
Training Time	High	High	Fair	Very High	Very High
Expansion Cost (worker increase)	Low	Low	High	High	Low