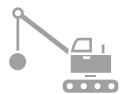# Inteligent Proximity Alert System

Based on Ultra−Wideband Technology

MGC

IPAS *Intelligent Proximity Alert System*

IPAS is designed to reduce the risk of collision between pedestrians and moving vehicles in your workplace. The system uses the cutting-edge RF technology to precisely measure the distance between vehicles and pedestrians and provides a highly reliable collision warning.

High Accuracy
UWB technology-based highly accurate distance measurement

Easy Installation
Out-of-the-box with no-registration and no-calibration

Bilateral Alarm
Acoustic or vibrated alarm for both a driver and a pedestrian

Easy Operation
Simple and customizable configuration and operation

Danger Area

Caution Area

※ IPAS can be installed on any moving vehicles and machinaries.

▶ Warehouses ▶ Factories ▶ Construction Sites ▶ Mining Sites ▶ Ports

IPAS Product

● Vehicle Tag (VT)

When PT enters Caution/Danger area of VT, Indicator sounds "Watch out" or "Danger" repeatedly.

Magnet Pad
(Detachable)

Indicator
(Distance Setting/Voice Alarm Device)

| Installation	VT : Exterior / IND : Interior	
Interaction	PT, ZT, VT	
Range	1 ~ 30m (Caution/Danger Area Proximity Settable)	
Alarm	Caution Range	Repeating "Watch Out" (Indicator)
	Danger Range	Repeating "Danger" (Indicator)

● Pedestrian Tag (PT)

When PT enters Caution/Danger area, PT makes vibration and beep alarm. The pedestrian tag is configurable and rechargeable.

| Installation	Attached on a helmet or an arm band	
Interaction	VT	
Alarm	Caution Range	"Beep-Beep-" sound, Vibration
	Danger Range	"Weeyo Weeyo", Vibration
	Low Battery	"Beebeep Beebeep" 5 times every 10 minutes.

● Crossway ZT

When multiple vehicles are entering into intersection area simultaneously, this product detects vehicles tags and makes voice alert and a spot beam to give a danger alarm to drivers.
(LED Spot : Red or Blue)

Remote Control
(Distance Setting)
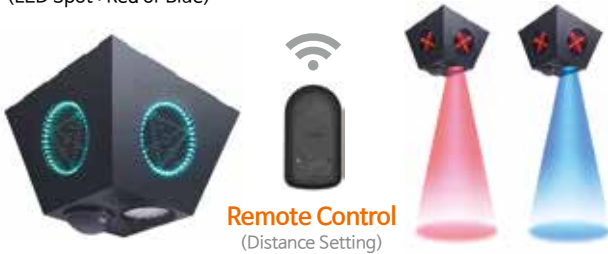
Installation	Attached on the ceiling of the intersection	
Interaction	VT	
Alarm	No Vehicle Approaching	○ Marked
	1 Vehicle Approaching	▽ Marked, LED Spot (Flashing), "A vehicle is approaching. Watch Out"
	+2 Vehicles Approaching	✕ Marked, LED Spot (Flashing), "Another vehicle is approaching. Watch Out"

● Flashlight ZT

Being installed in the blind area, this product signals sound alarm for anti-collision between adjacent vehicles and pedestrians.

Menu Button

Character LCD Display

Caution Distance

ON

10m
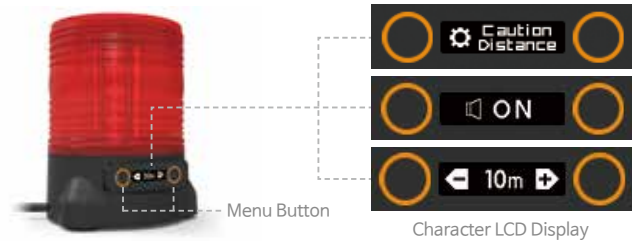
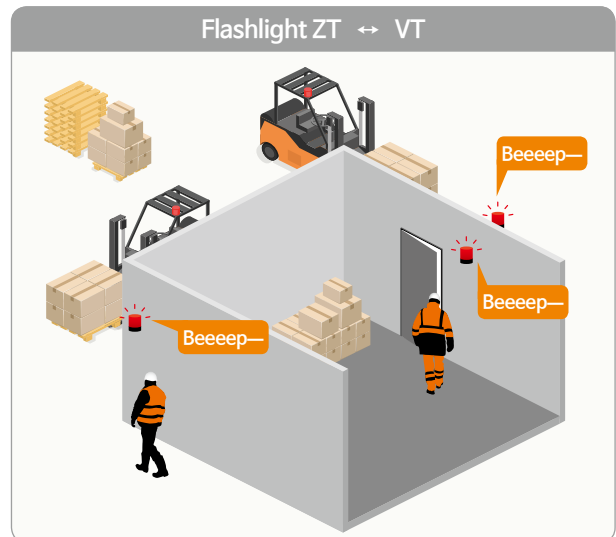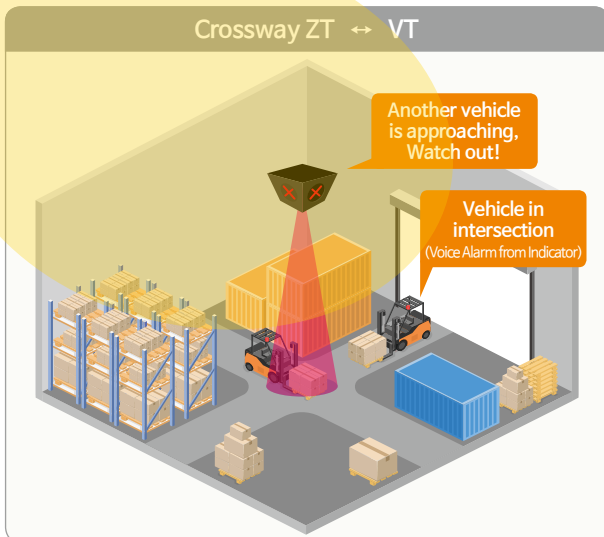| Installation	On the wall	
Interaction	VT	
Range	1 ~ 30m	
Alarm	Default	"Beeeep—", Flash
	Option Speaker	Repeating "Watch Out"

IPAS Toolkit (Setting Program)

IPAS Toolkit is a PC Program which allows setting and firmware update of IPAS products.

IPAS Update Tool
(Connected to PC)

Available Product for Setting	Vehicle Tag, Indicator, Pedestrian Tag, Crossway Zone Tag, Flashlight Zone Tag, External Output Device
Available Product for Firmware Update	Vehicle Tag, Indicator, Pedestrian Tag, Crossway Zone Tag, Remote Control, Flashlight Zone Tag, Dummy Light, External Output Device, Amp

Alarm Type

VT ↔ PT

Beep-Beep-

Weeyo Weeyo

Danger!

Watch Out

● Danger Area ● Caution Area

VT ↔ VT

Watch Out

Danger!

Watch Out

Danger!

● Danger Area ● Caution Area

Crossway ZT ↔ VT

Another vehicle is approaching, Watch out!

Vehicle in intersection
(Voice Alarm from Indicator)

Flashlight ZT ↔ VT

Beeeep—

Beeeep—

Beeeep—
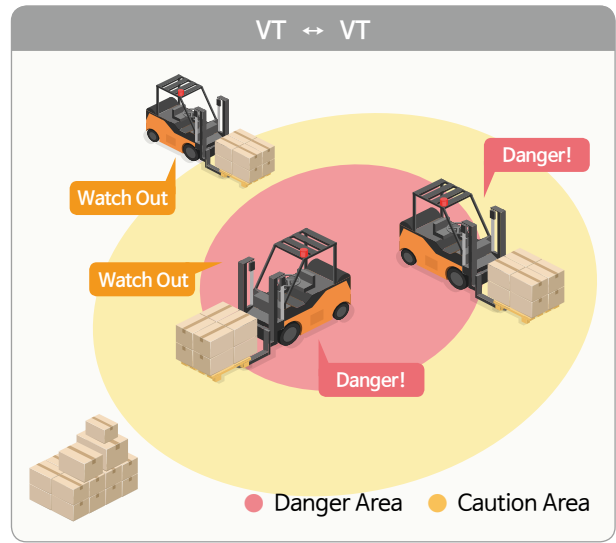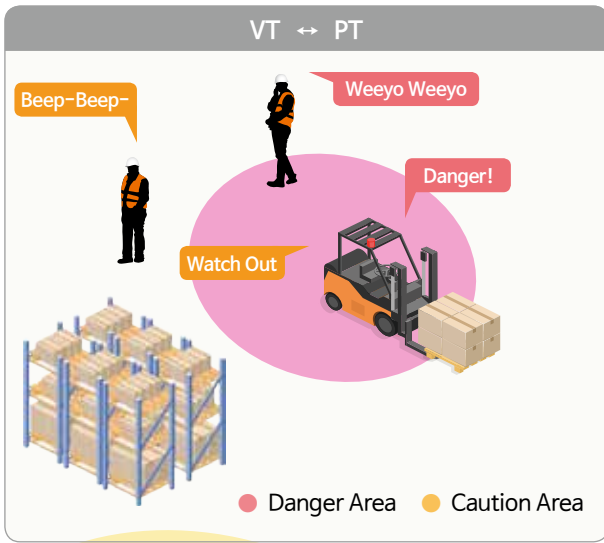
Application Case

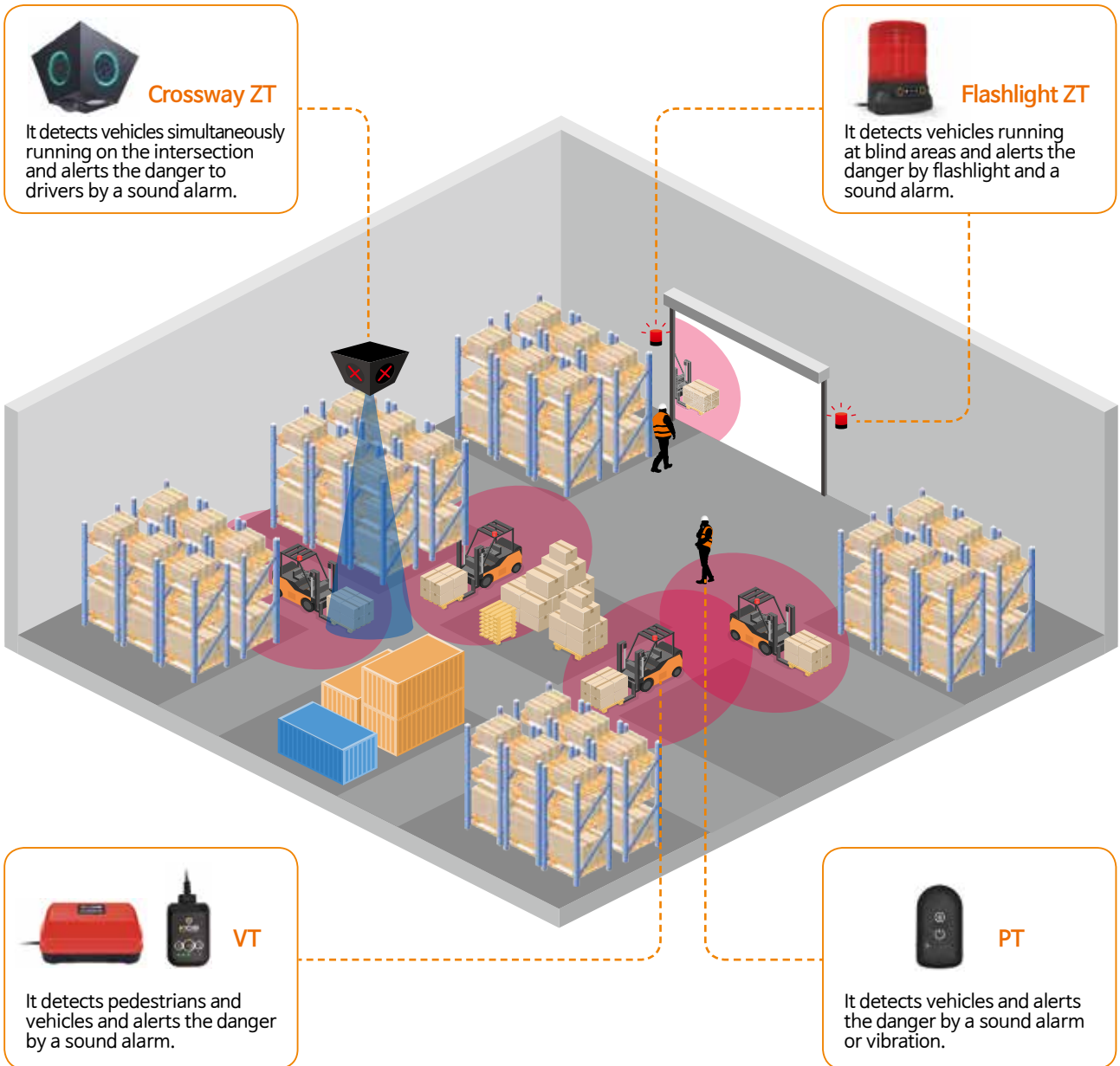
▶ Forklift Roof / VT

▶ Inside Cabin / Indicator

Blue LED Spot

▶ Helmet / PT

▶ Inside & Outside Office at Factory / Flashlight ZT

▶ Factory Indoor / Crossway ZT

Installation & Concept Map

Crossway ZT

It detects vehicles simultaneously running on the intersection and alerts the danger to drivers by a sound alarm.

Flashlight ZT

It detects vehicles running at blind areas and alerts the danger by flashlight and a sound alarm.

VT

It detects pedestrians and vehicles and alerts the danger by a sound alarm.

PT

It detects vehicles and alerts the danger by a sound alarm or vibration.

Key Map for Operation and Sensing

VT + Indicator

PT

VT + Indicator

Crossway ZT
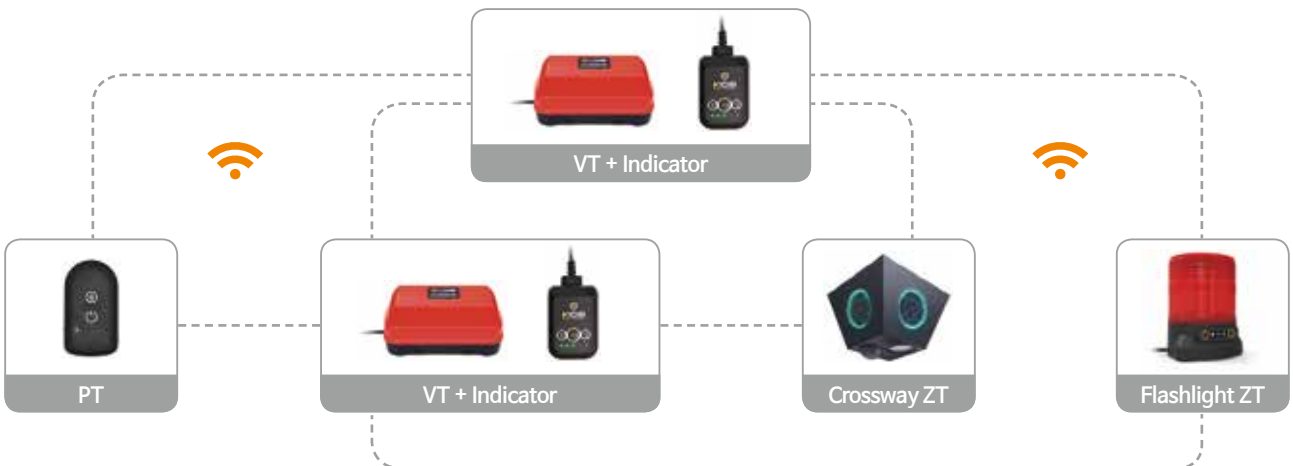
Flashlight ZT

Product Name	Vehigle Tag (VT)	Indicator	Pedestrian Tag (PT)	Crossway Zone Tag (ZT)	Flashlight Zone Tag (ZT)
Power	12/24VDC Input (9/32Vdc)	12/24VDC Input (9/32Vdc)	-	110/220VAC (90~264Vac)	110/220VAC (90~264Vac)
Current Consumption	300mA	500mA	-	-	500mA
Interface	CAN Bus 2.0	CAN Bus 2.0	-	-	CAN Bus 2.0
Sound Level / @	-	92dB / 0.1m	87dB / 0.1m	-	88dB / 1m
Battery	-	-	Li-Polymer 950mA	-	-
Operation Voltage	-	-	3.7V	-	-
Charge Inerface	-	-	Micro USB Type-B (5V/1A)	-	-
Charging Time	-	-	About 1h 30m	-	-
Charging Current	-	-	0.85mA	-	-
Operatoin Hour	-	-	6 days(8 hours/day)	-	-
Dimension	177.8×84.1×86mm	93×130.5×47.5mm	40×72×19.5mm	380×380×281.5mm	122.7×140.6×111.5mm
Weight	444g	207g	58.5g	5,500g	483.5g
Color	● Red / ● Amber	-	● Red / ● Amber	● Red LED Spot / ● Blue LED Spot	● Red / ● Amber
Mount Type	Magnet Mount Type, Cable Tie Connect Link	Screw Fix (or Adhesive Tape)	Helmet Clip(In-Box Item)	Fixture Bracket or Wire	Magnet Mount Type or Bracket Type
Proximity Measure Cycle	0.5sec	-	0.5sec	0.5sec	0.5sec
Operation Temp	-30 ~ 85℃	-30 ~ 85℃	-20 ~ 55℃	-30 ~ 85℃	-30 ~ 85℃
Storage Temp	-40 ~ 85℃	-40 ~ 85℃	-20 ~ 55℃	-40 ~ 85℃	-40 ~ 85℃
Enclosure	IP65	IP65	Waterproof	-	IP65

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