VIVOTEK
A Delta Group Company

IE8221-F / IE8231-F
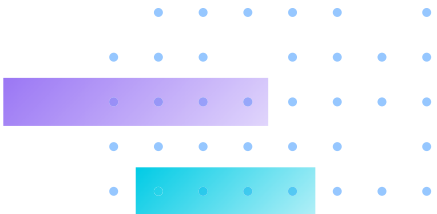## VAST Face Facial Recognition Workstation

Key Features

- Live Notifications and Alerts
- Persons of Interest (POI) Management
- Comprehensive Reports
- Support up to 2 Cameras (IE8221-F) or 8 Cameras (IE8231-F)

Overview

IE8221-F and IE8231-F are both advanced AI-based Facial Recognition (FR) workstations. Facial profiles captured from IP cameras are used for identification, even under complex environments with changing ambient lighting. Both models are applicable for use in access control and attendance management, supporting up to 2 cameras (IE8221-F) or 8 cameras (IE8231-F). A FR license is required for each camera, and an optional Wiegand box is needed for door access.

System Architecture

AO-20W
Wiegand Box

IE8231-F
FR Workstation

Front Door

AO-20W
Wiegand Box

AO-20W
Wiegand Box

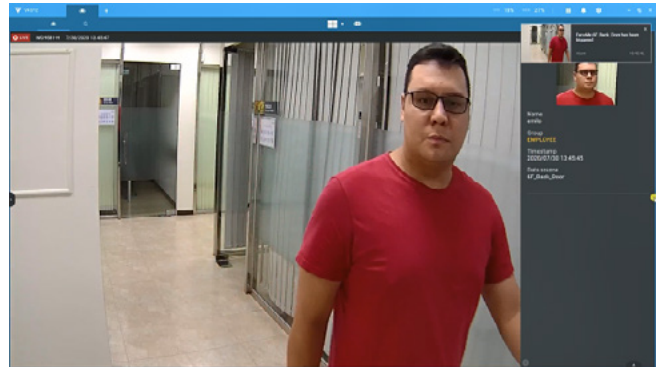**AO-20W**
Wiegand Box
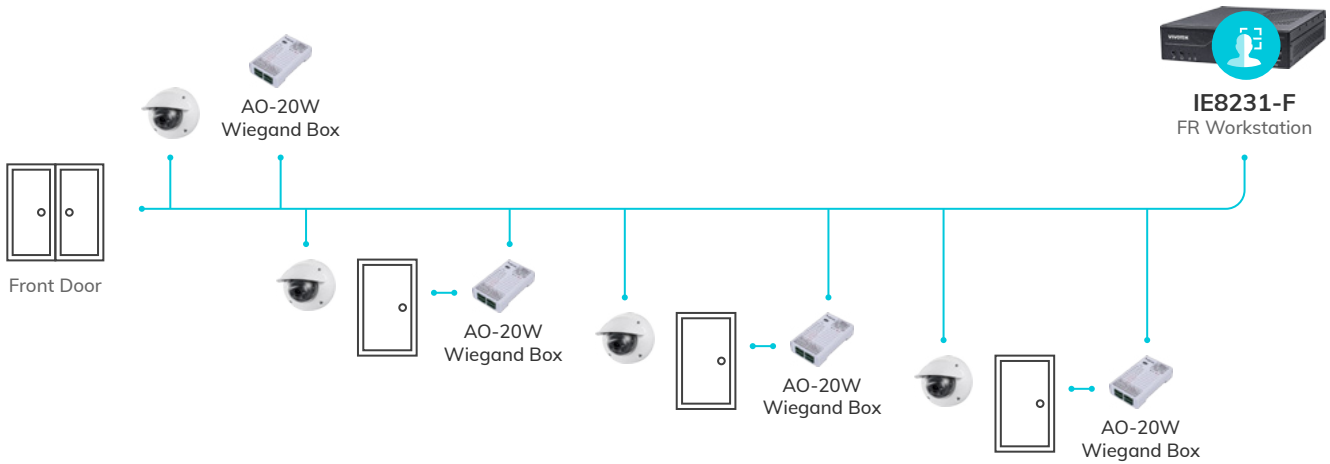
Key Features

Live Notifications and Alerts

Real-time Notification on VIVOTEK VAST 2 whenever a POI has been identified.



Persons of Interest (POI) Management

Users can assign each person into one or more groups for easier identification (i.e., VIP, blocklist, staff, visitor) and auto-delete POI profiles based on a pre-defined date.

Comprehensive Reports

VAST Face Facial Recognition Workstation IE8221-F / IE8231-F provides detailed reports for recognized and unrecognized faces. Employee clock-in reports can be automated with exception-based filters: No-Show, Late Arrival, and Early Leave. IE8221-F/IE8231-F can also store system-triggered action logs. This enables users to use different search filters to sort through events seamlessly for quick investigations, then export the results to Excel as needed.
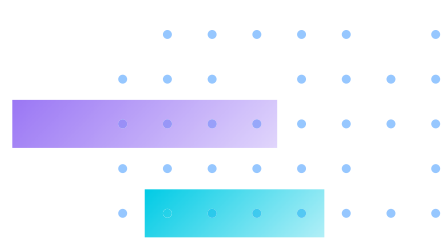
Technical Specifications

VAST Face Facial Recognition Workstation - IE8221-F

Model	IE8221-F
Hardware	Intel CPU: i5-10400, Memory: DDR4-2666 16GB RAM, HDD: 2.5" 500GB SSD
OS	Linux
Maximum Number of Faces in Database	20,000
Network	10/100Mb/1Gb Network
Maximum number of devices connecting	(Build-in 1CH) Up to: 2
Power Input	100-240V AC
Power Consumption	Max. 90W
Dimensions	190 x 165 x 43 mm (LWH)
Weight	Weight: 1.3 kg net and 2.1 kg gross
Saftity Certifications	CE, FCC

VAST Face Facial Recognition Workstation - IE8231-F

Model	IE8231-F
Hardware	Intel CPU: i7-10700, Memory: DDR4-2666 32GB RAM, HDD: 2.5" 500GB SSD
OS	Linux
Maximum Number of Faces in Database	20,000
Network	10/100Mb/1Gb Network
Maximum number of devices connecting	(Build-in 1CH) Up to: 8
Power Input	100-240V AC
Power Consumption	Max. 90W
Dimensions	190 x 165 x 43 mm (LWH)
Weight	Weight: 1.3 kg net and 2.1 kg gross
Saftity Certifications	CE, FCC

System

Architecture	Three Tier Server-client system: · Web Server · Application Server · Database Server
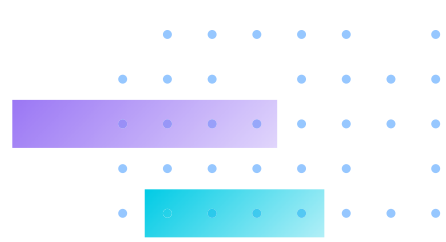
Technical Specifications

Supported OS	Ubuntu Server 20.04
Supported Protocols	HTTP & HTTPS
Supported Hypervisors	VMWare, Hyper-V, Virtual Box
Container Type	Docker
Database type	MongoDB
System security	· Single device login
	· Renewable session token
	· Hardened HTTPS

Management Interface

Interface	Using Web client
Supported Browsers	· Google Chrome
	· Mozilla Firefox
Languages	· English
	· Traditional Chinese

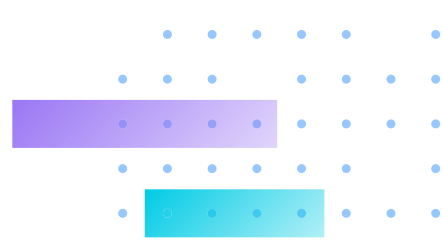## Supported Image Sources

Supported IP cameras	· Any H.264 ONVIF IP Camera
	· Any H.264 RTSP IP Camera
Supported face recognition tablets	· Tigerwong
	· Smarfid 5''
	· Smarfid 8''
Supported still image formats	JPEG, PNG, BMP, Base64

Video Sources Configuration

Region of Interest (ROI)	Setup ROI area for face capture
Face Capture Parameters	· Minimum capture face size
	· Frame capture interval
	· Side face filter
	· Biggest face only filter
Face Verification Parameters	· Minimum face recognition threshold
	· Merge recognized faces interval

Environmental Adaptability

Camera Installation Height	· 3.0 meters max. camera height
	· Mounting position within 10 degrees inclination

Technical Specifications

Supported Image Modes	Color & Monochrome
Robust Against	· Large expressions
	· Beard and hairstyles
	· Eyeglasses
	· Caps and scarfs
	· Irregular lighting
	· Partial face occlusion

Supported Devices & Integrations

I/O Relay	· Moxa E1214
	· Advantech ADAM 60XX
	· VIVOTEK AO-20W I/O Device
IP-to-Wiegand Converter	· Doorcard DCT-4TW26
	· VIVOTEK AO-20W Wiegand Box
HTTP Notifications	Send customized GET/POST HTTP messages
Others	· Use VAST Face RESTful API

Persons of Interest Management (POI)

POI Management	· Enroll person using Web client.
	· Manage face profiles database through Web Portal
POI Authentication	· Using Face as a credential
	· Using Card Number
POI Groups	· Default groups: VIP, Blacklist, Staff
	· User defined person groups
POI Batch Enrollment	Supports bulk enrollment using Excel & .JPEG files
Enrollment Photo	· Min. face size = 200 x 200 pixel
Requirements	· 1MB Max. photo size (.JPG or .PNG)
POI Profile Information	· Name, ID #, card #, job position, email, phone, POI group(s), and expiration date

POI Reports

Investigation Reports	Generate face recognition reports and filter events by:
	· Location
	· Time period
	· Person's name
	· POI Group
	· POI type (enrolled or stranger)
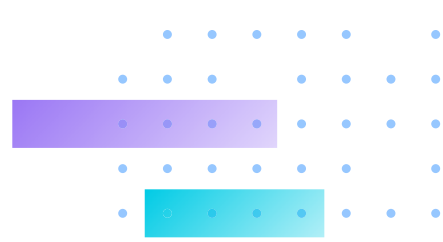
Technical Specifications

Attendance Reports	Generate staff clocking reports and filter events by:
	· Clock-in time
	· Clock-out time
	· Stay length
	· Late Arrival
	· Early Leave
Actions Reports	Generate a report for which pre-defined actions were triggered in response to an event.
Export Data	Export results to Excel file

Trigger Rules and System Actions

Rule Engine	Rule based engine to trigger single or multiple system actions based on:
	· Event Location
	· Schedule
	· Detection time period
	· Specific POI profile
	· POI face group affiliation
	· Person type (enrolled or stranger)
	· POI is (not) a member of a group
Supported System Actions	· Trigger I/O Relay
	· Trigger IP-to-Wiegand converter
	· Send HTTP GET/POST command
	· WebSocket notification

System Users Management

System Users	Register user accounts using Name, E-Mail address & Phone number
System User Groups	· System Administrator
	· Administrator
	· VAST Face CMS

System Inter-compatibility

Supported Products	· VIVOTEK VAST2 VMS/ CMS
	· VIVOTEK VAST Face CMS
	· VIVOTEK VAST FaceVisitor

Face Recognition Verticals
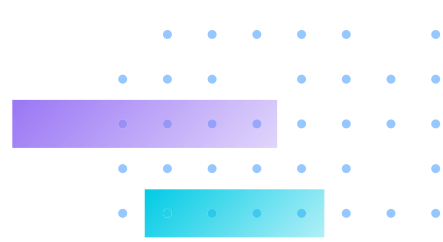
Technical Specifications

Possible Applications	· Identify potential troublemakers (shoplifters, criminals or any other barred individuals)
	· Detect VIP members upon arrival to deliver a tailored experience
	· Provide physical entry to commercial buildings, residences, and other rooms
	· Contactless staff clock in system
	· Verify visitor's identity

Dimensions

165 mm

43 mm

190 mm