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"Quavis" is a strategic partner of
IATA CUSS Group

QuAVIS[®]
Qualified Aviation Solutions

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Quavis GmbH
www.quavis.aero

Airport Self Service Passenger Automation

Hybrid Check-in kiosk

(Boarding Pass+Bag Tag+Payment for overlimit bag)

Self Service Bag Drop (Retrofit & Full)

Mobile Port (Portable Check-in Device)

Future Q1 kiosk: Face Recognition + Enrollment + Check-in + Bag Tagging + Payment

Produced by: **emse**

Powered by: **quavis**



2026

Emse A.S. HQ : Balkan Cad, Depoyolu Sk. No: 5 Ümraniye- İstanbul - Türkiye

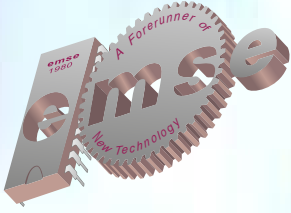
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emse a.ş.

Emse A.Ş. (Engineering Industries Co. Inc) had been established in 1980 by Muslu OĞUZ (Mechanical Eng, Middle East Trechnical University '78)

As a research and development company, Emse has been specialised in computer controlled industrial devices. Since last 10 years, main deal has been Self Service Passenger Automation Systems for Airports/Airlines.

Managerial headquarter is located at İstanbul, while production facilities and mechanical plant is at Ankara.

Quavis GmbH is the software development division of Emse A.Ş. while also responsible for international sales and maintenance services. With an engineering team of 16 senior specialists ,Quavis develops all software applications solely with its own human resources.



Main software business of Quavis is Self service Aviation Systems. As a strategic partner of IATA CUSS group, it is involved in CUSS 2.0 development group contributing to new standards of aviation.

But this task required Quavis to take place in international studies while also groving sales capacity is widening to continents.

To this end, Quavis GmbH is built as a new headquarter in Germany.

Quality, Security, Reliability, Honesty, Productivity...



**Total Quality
Management
Certificate**



**Environmental
Management
Certificate**



**Information Security
Management
Certificate**



**Production Capacity
Report by
Chamber of Industry**



**After sale Proficiency
approved by Turkish
Standards Institute**



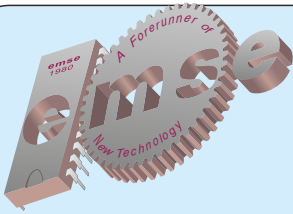
**CE declaration and
accredited Lab tests
for Check-in kiosk
and Self Bag Drop**



**Quavis is a strategic
partner of IATA
CUSS Group**



**Turkish-German
Chamber of Industry
and Commerce**



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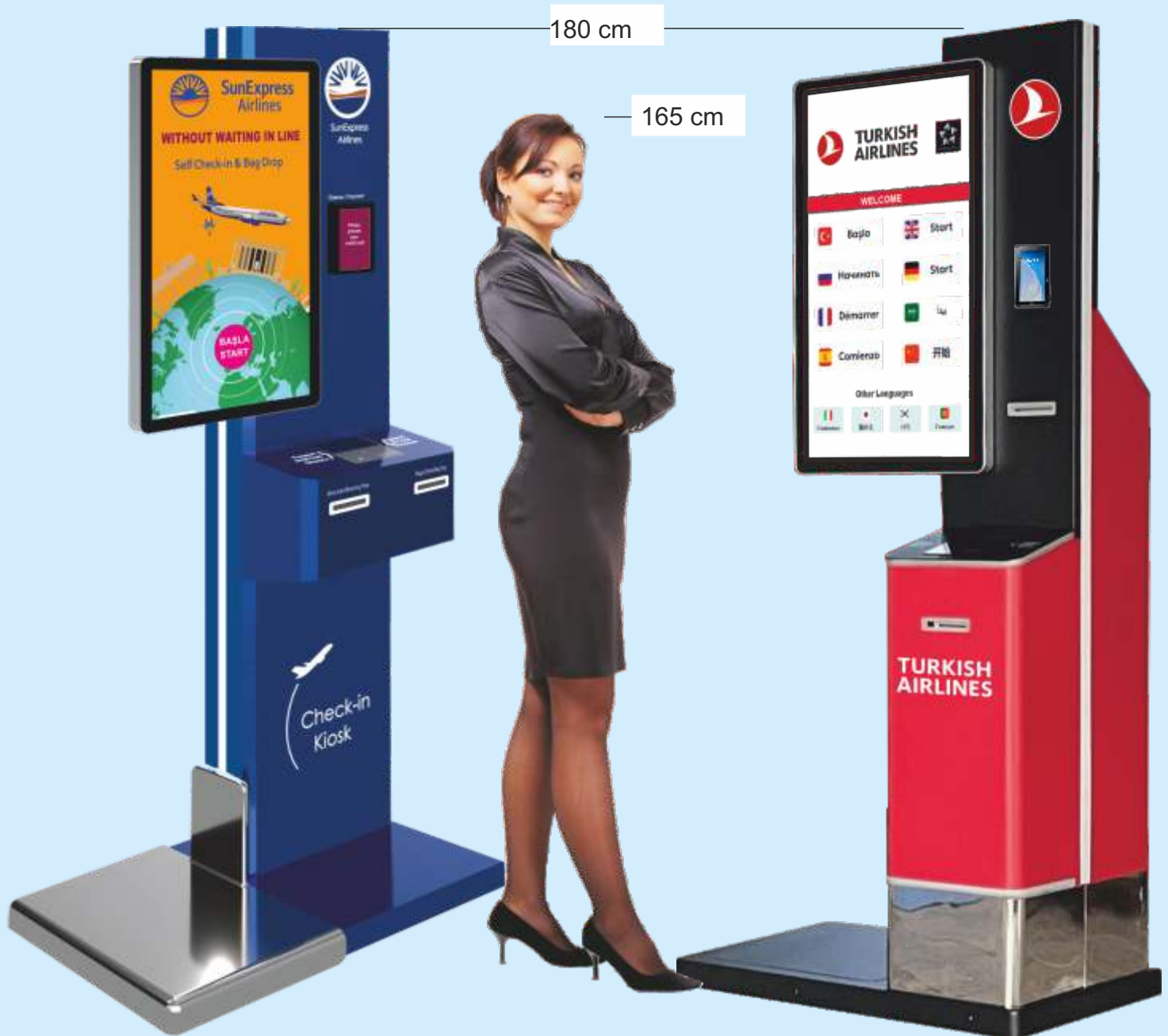
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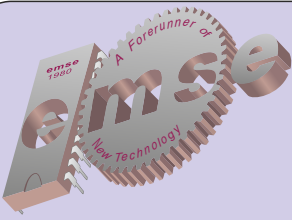
Custom Design 32" Hybrid Kiosks

Special designs that respect corporate identity



By courtesy of SunExpress Airlines

By courtesy of Turkish Airlines



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Custom Design 32" Hybrid Kiosks

With dedicated software while complying to CUSS terms



By courtesy of BahamasAir



By courtesy of Corendon Airlines

What is *Hybrid Kiosk* ? Why *Hybrid Kiosk* ?

Traditional Check-in kiosk has been in use since the beginning of 21st century.

It can issue boarding pass/bag tag upon presentation of passenger ID, PNR or similars...

But current trend is "paperless travel" and check-in is managed even "on-line".

The only practice which is not possible "on-line" is "to carry baggage to conveyors".

(It seems, a baggage may be too heavy to transfer on-line!...)

So, it is time for Hybrid kiosk: An integral device providing "all flight procedure" at a single station.

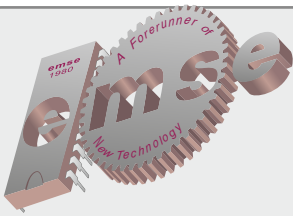
- * Of course it does issue boarding pass and bag tag(s).
- * Hybrid kiosk will also measure the weight of baggage,
- * If the weight exceeds ticket allowance, it invites you to pay extra fee via on-board POS module.
- * Also provides enrollment kiosk functionality with pioneering "AI supported Face Recognition function,
- * Moreover: provides ancillary Revenue options as paid-seat selection, pre-order meal payment etc.

Than just go to leave your bag(s) to Self Bag Drop stage (A complement of Total Self Service.)



By courtesy of Pegasus Airlines

By courtesy of FlyArystan/AirAstana



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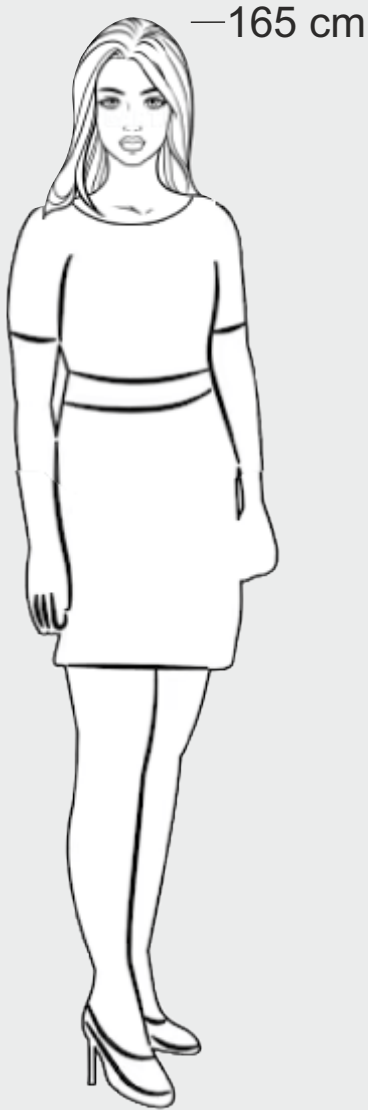
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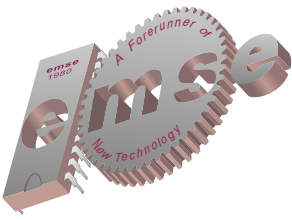
Royal Check-in Kiosk

*IATA CUSS Compatible Check-in Kiosk
for multi-airlines usage.*



- ➡ Ergonomic and aesthetic pleasing outer body,
- ➡ 19" LCD monitor with PCAP Touch screen,
- ➡ Outer Color choices as to corporate identity,
- ➡ Corrosion-resistant powder-coated metal body,
- ➡ Passport Reader, POS, Barcode Readers,
- ➡ Boarding Pass and Bag Tag Printers,
- ➡ Optional Weight Scale (with Wi-Fi connection),
- ➡ Optional body temperature (fever) sensor,
- ➡ Optional Face Recognition camera.

Height	: 148 cm
Footprint	: 60x42 cm ²
Weight	: 38 kg
Case material	: 1,5 mm thickness metal
Mains Power input	: 220 Vac
Monitor	: 19" TFT LCD
Touch Screen	: Projected Capacitive
Print Speed	: 20 cm/sn
Max. roll diameter	: 180 mm



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More Applications of 32" Hybrid Kiosks

Self Ordering Kiosk



By courtesy of BTA
(A subsidiary of TAV Airports)

Heliport Application



By courtesy of Turkish Petroleum Corp.
TP-OTC (Natural Gas Exploration Division)



FlyArystan/AirAstana- Almaty/Kazakhstan Hybrid Self Service Kiosks (By courtesy of FlyArystan)



Pegasus Airlines - SAW Airport / Istanbul Hybrid Self Service Kiosks (By courtesy of Pegasus Airlines)



ADB (Adnan Menderes) Airport- Izmir/Türkiye Hybrid Self Service Kiosks (By courtesy of Turkish Airlines)



IST (New Istanbul Grand Airport) Türkiye Hybrid Self Service Kiosks (By courtesy of Turkish Airlines)

Self Bag Drop:

An integral part of Passenger Automation

Self Service Passenger Automation had started with Check-in kiosks.
But the most time-consuming and troublesome step was to deliver luggages.
So, Self Service Bag Drop systems (SBD) have gained importance.

Depending upon operational or hardware choices SBD systems are built in different designs.

From Operational perspective “Two Step” or “One Step” applications are available.

TWO STEP OPERATION:

Some procedures as Identification and Boarding Pass etc. can be done in Kiosk: First Step,
Than just submitting the bags is left requiring to carry baggage to conveyor : Second Step.

ONE STEP OPERATION:

Some Bag Drop devices may be equipped with kiosk hardware also.
Then it is possible to realize all boarding procedures only in ONE Point: One Step

From Hardware point of view “Retrofit” and “Full” Bag Drop designs are possible.

Retrofit Bag Drop: Systems are constructed onto existing Counters and conveyors:

An example of Retrofit Application:

Two Self Bag Drop units are positioned as an ARCH format enabling to fit onto existing double-conveyor design. In this version since all Bag Drop assembly are located on conveyors, both manual boarding and SBD can continue in parallel.



Full Bag Drop: SBD covers the conveyors fully enabling more successful Bag Tag Reading:

Especially during new airport constructions, Full Bag Drop systems are built on conveyors as a full coverage.
It provides a more ergonomic and user friendly design also increasing Bag Tag Barcode reading success.



Ultra-wide monitoring on Retrofit Bag Drop...

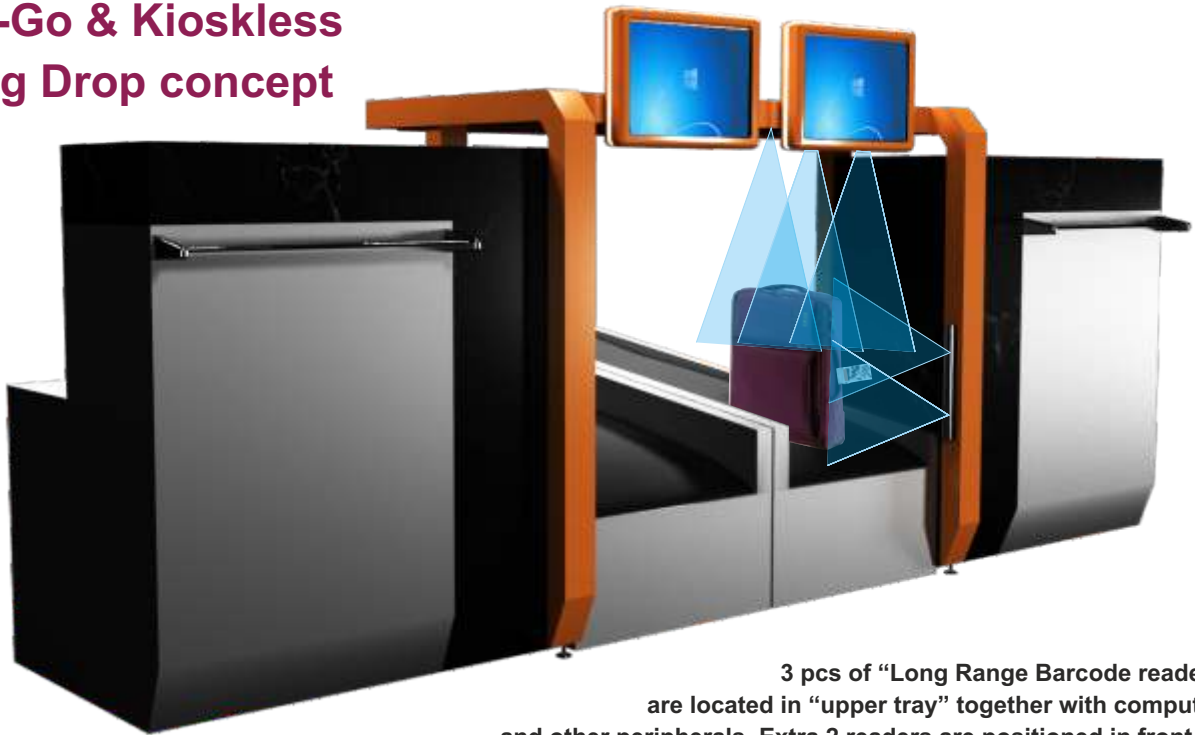


SunExpress AYT Airport - Antalya/Türkiye Hybrid Self Service Kiosks (By courtesy of SunExpress)



Turkish Airlines ADB Airport - Izmir/Türkiye One Step Retrofit Bag Drop (By courtesy of Turkish Airlines)

Drop-n-Go & Kioskless Self Bag Drop concept



3 pcs of “Long Range Barcode readers are located in “upper tray” together with computer and other peripherals. Extra 2 readers are positioned in front of conveyor belt to capture barcodes stuck in side view of baggage.

Emse-Quavis Self Service Bag Drop design has a revolutionary unique concept. Old designs were requiring a handy Barcode reader, not convenient for passengers at all. Also bulky kiosk devices in front of conveyor were further preventing to carry bags. Emse-Quavis Bag Drop integrals require absolutely no touch no manual barcode reader. As baggage is weighed and tagged in Hybrid kiosk, passengers just drop the bag and leaves... 5 pcs of long range automatic readers enables successful barcode reading from all views. Kiosk unit is also cancelled as all kiosk hardware is contained in “Arch-on-counter”

PS: Since conveyors are made in twin mode, each “Arch” contains two sets of Bag drop system.



CUSS 2.0 ready Common-Use Bag Drop for IGA (İstanbul Grand Airport operator)

For airport application, CUSS compatible systems fulfill “One -step” Bag dropping. All process (Passenger ID, Boarding pass and bag tag printing, weighing) are accomplished on Bag drop complex.



Airports are magnificent venues for country's promotion. Details matter. Bag Drop design is a glorious part of this view. Let them to comply.

Full Bag Drop enables more convenient Bag dropping act for passenger. Manual Boarding Desk can optionally be positioned also.



Cyber attack crisis at European airports.

December 2025

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
30	1	2	3	4	5
7	8	9	10	11	12
14	15	16	17	18	19
21	22	23	24	25	26

Black Friday



Are you ready for any Cyber attack,
or you will sacrifice again millions of passengers...



No Cyberattack nightmare or fear anymore

Cabin Bag Size portable Check-in Kiosk

“Mobile Port”

will rescue your airline and your passengers...

Off-line or 5G communication

Mobile Port

All in one Portable device for Check-in and boarding in the event of airport automation outage.

- Mobile check-in and bag tagging in a cabin size suitcase.
- Ergonomic, aesthetic but still a vandal proof outer case.
(Case made of plastic resin and reinforced with inner metal skeleton)
- Compact dimensions: 56 x 23x37 cm
(Smaller than cabin bag size).
- Thermal paper rolls are embedded in case housing (No external bracket or roll holders required)
- Power Supply: Mains + internal battery
(Full charge battery retains about 400 tag prints)
- Battery low indicator as LED display
- Ethernet port, Wifi and USB port output.
- Support for third party software development by our "kiosk management platform "KMS"

Optional peripherals:

- Credit Card reader and POS emulation.
- Weight Scale integration to check baggage weight.
- Carry trailer or wheels adapted to the case.



Standard hardware:

- Boarding Pass + Bag Tag printers.
- Passport Scanner (Optical, MRZ).
- Industrial PC unit: 15" LCD touch monitor,
- Wifi keyboard. (placed in embedded housing)
- Extra whip antenna Wifi module (802.11 a/b/g/n)

Mobile Port is at work in Phuket airport



Now is the time to shift to:

NEXT LEVEL Q1*

in Passenger Automation

Q1 is uniting all boarding to just one kiosk process:*

Face Recognition + Enrollment + Self Service Kiosk + Weigh Scale + Payment

The only remaining action is to simply dropping the baggage onto conveyor.
(Then go to nearest coffee shop to start an enjoyable flight...)

Q1 captures several face views via cameras on sides of monitor.
Than, AI supported Quavis Face ID software composes them
to generate a realistic orthogonal photo for face token.

***A game changing
new technology for
Face recognition algorithm:
AI supported face ID:***

For optimum Face Recognition,
camera should be positioned at an
orthogonal level to passenger face.
but monitor size doesn't allow it.
Than camera is made to move up-down.

- * Q1* uses 6 pcs of cameras:
3 at left + 3 at right side of monitor.
- * Q1 instantly captures profile photos
from 4 of 6 cameras depending on
height of passenger at best levels.
- * Artificial Intelligence supported
face recognition algorithm unites all 4
profile photos as a single photo as of
looking at an orthogonal angle
- * Final orthogonal face image provides
realistic face geometry for face token.



Rush Tagger

*An instant Baggage Delivery
for overlimit Cabin Bags
on Departure Gate*



- ➡ Windows'10 MiniPC,
- ➡ Heavy Duty Thermal printer,
- ➡ Barcode scanner (1D, 2D, PDF 417),
- ➡ Embedded Power Supply,
- ➡ Optional Wi-fi module (802.11 a/b/g/n) can communicate with
- ➡ IATA-DCS (Departure Control System) to arrange AEA compatible Bag tags,
- ➡ Optional Motorized Card reader (Magnetic, Chip, NFC),

Many passengers attempt to carry large and heavy suitcases to the cabin...
They either aim not to pay for overlimit (volume or weight) bill, or not to leave important goods.
Or some personal goods may not be allowed to cabin due to safety regulations.

If airline company tries to send such baggages to counter on last minute, boarding time may be delayed causing serious problems ahead, so they ignore.
But this ignorance costs a considerable income loss.

Rush Tagger is a fast means to print a standard Baggage Tag instantly.
All is to present the boarding pass of passenger towards the device.

Livegate® is a real-time interactive media for live customer support. It is composed of a

- Touch monitor, 32" LCD screen,
- A photo capture module to send document copies,
- Camera and mic. for audio-visual communication.
- A printer unit for document print-out or written guides,

Passengers can:

- Contact real-time from anywhere,
- Send copies of their causal documents,
- Receive printouts as ticket, maps, invitations etc.,
- Live talk to crew no need to press blind buttons.

Crew can:

- Visually detect clients, free of fraudulent intents,
- Can record process for reporting purposes.

Optional: Phone hook, Bill acceptor, POS device

Info kiosk: Intelligent airport guide:

Indoor navigation, live audiovisual contact
Boarding pass scan,
Camera, speaker mic,



Live gate specs:

Height	238 cm
Footprint	180 x 113 cm²
Weight	208 kg
Body Material	1,5 mm metal sheet+Aluminum
Camera & Mic	3 cameras + Active mic
Document Scan	A4 photo-capture
LED board	10x64 pix. moving text panel
Power Input	220 Vac
PC Monitor	19" TFT LCD
Touch Screen	PCAP Multi touch
Video Screen	32" LCD
Print Speed	20 ppm mono laser
Paper Size	A5/A4
Paper Tray capacity	150 sheets

Our proud list of esteemed authorities using daily Emse Self Service Passenger Automation Systems



Hybrid and Standard Check-in kiosks and Retrofit Bag Drop systems in all major airports of Türkiye including new Istanbul Airport



Hybrid Check-in kiosks and Retrofit Bag Drop systems in İst Sabiha Gökçen, İzmir, Antalya and Adana Airports



Standard Check-in kiosks and Retrofit Bag Drop systems in İst Sabiha Gökçen, İzmir, Antalya and Adana Airports



Hybrid Check-in kiosks in 18 airports and Bag drops in large airports of Kazakhstan including Almaty and Astana



Hybrid Check-in kiosks and Retrofit Bag Drop systems in İzmir Adnan Menderes and Antalya airports (Germany Düsseldorf airport in on production)



Hybrid Check-in kiosks and Retrofit Bag Drop systems in Antalya airport (Amsterdam and Brussels airport kiosks are in production)



Hybrid Check-in kiosks and Retrofit Bag drops in Nassau Airport



Mobile Port (Portable Check-in kiosk at Cabin Size bag) in various touristic destinations as Pukhet/Tailand)



CUSS compatible Retrofit Bag Drop Systems in new Istanbul airport



Information and Digital signage kiosks in İzmir and Bodrum airports and Almaty airport in Kazakhstan

**...with an experience of 40+ years
now we are present in 30+ countries**

**Reference projects are either Queue Management Systems
or Aviation Automation Systems**



Azerbaijan	Azer-Turk Bank - Baku
Bahrain	King Hamad's Royal Hospital - Manama
Bahamas Islands	BahamasAir Self Service Kiosks - Nassau
Cyprus	New Lefkosa Airport Self Service kiosks
Egypt	United Egyptian Bank - Cairo
Estonia	Estonian Tax and Customs Board - Sillamae
Ethiopia	Awash International Bank - Addis Ababa
France	General Consulate of Turkish Republic - Paris
Germany	Dusseldorf Airport SunExpress Self Service Kiosks
Iraq	Iraq Housing Fund
Jordan	Royal Jordanian Airlines - Amman
Kazakhstan	FlyArystan/Air Astana
Kuwait	Ministry of Health - Kuwait City
Latvia	LKB Latvia's Saving Bank - Riga
Lebanon	Credit Libanais Bank - Beirut
Libya	Almadar Telecom Company - Benghazi
Moldova	Mobias Bank - Kishinev
Morocco	Caisse Nationale de Securite Sociale - Rabat
Oman	Ministry of Power - Muscat
Palestine	Al Quds Bank - Jerussalem
Qatar	Primary Health Care Corporation - Doha
Russian Federation	Nordwind Airlines - Moscow
Saudi Arabia	Islamic University Hospital - Medina
Sudan	National Bank of Abu Dhabi - Khartum
Syria	International Bank Tr&Fn - Damascus
United Arab Emirates	Police Department - Abu Dhabi
Tunis	La poste Tunisienne - Tunisia
Türkiye	İstanbul New Airport - İstanbul