

AS INCHEON AIRPORT GROWS, IED FITS RIGHT IN

A good indication of a region's economic power is its ability to handle international business. One visible measure of that power is the number of structures available to handle the amount of business the region receives, from convention and assembly halls, to hotels and transportation facilities. To accommodate increasing air travel demands for business arriving to and from Incheon, Korea, the Incheon International Airport was recently opened and now provides an international gateway to that city.

With the 27 million passengers expected to pass through its gates each year, clear communication of essential information – from flight announcements to pages – is paramount. And that's why IIA selected the Announcement Control System (ACS) from Innovative Electronic Designs, Inc. Already in use at 150 airports worldwide, the ACS is the preeminent sound system for getting information to an airport's customers.

THE FACILITY

Opened in March, 2001, Phase I of the IIA was built on Yongjong Island, 52 kilometers west of Seoul. Consisting of 61 major facilities Phase I includes a passenger terminal with a floor space of 496,000 square metres, two parallel runways, an control tower, an Integrated Operations Center, an administration building, a government offices building, a transportation center (with accommodation for 5000 vehicles), four cargo terminals, and an international business center. With Phase I, the IIA will be able to handle 1.7 million metric tonnes of cargo each year.

When all phases are complete by 2020, the airport will be able to handle 100 million passengers and 7 million metric tonnes of cargo annually.



THE SYSTEM

With over 20 years experience in designing and installing dedicated Automatic Paging Announcement Systems for Airports and over 150 Airport installations around the world, IED's experience in the field is unmatched by any other company.

A typical system consists of several of IED's unique components:

- Audio/page distribution, pre-recorded message storage, and message assembly are handled by IED's 500ACS Announcement Control System (ACS)[®]
- Equalization handled by IED's 8000 Series Totally Integrated Processing System (TIPS)[®]

- Power amplification is provided by IED’s 6000 Series Power Amplifier System, which provide as many as 16 amplifier channels in seven inches of rack space
- For hearing impaired passengers, messages may optionally be displayed on Customer Information Signs, which display word-for-word text of pre-recorded messages at the same time as the messages are played
- Noise levels are monitored by locally installed sensing microphones, then IED’s 540 Series Ambient Analysis System raises or lowers the volume of announcements automatically and in real time
- System supervision and diagnostics provided by IED’s 596 Series Monitor/Test System, which tests all points in the audio signal path, including microphone stations, page audio output, power amplifiers, and speaker circuits

IED’s ACS is an “off the shelf” solution with the capability to expand and customize to the meet the future phases of construction. The ACS for IIA contains:

- A very large 500ACS in the main building which links to another ACS in Transportation Centre.
- A fiber backbone links five IED microphone paging stations stations in AICC (Airport Information Control Center) to the main ACS.
- FAS (Flight Announcement System) in English, Korean, Chinese and Japanese
- The IED system is networked to the airport AODB database to transmit fault status and receive fire alarm messages and to receive commands to play FAS messages
- Interfaced to the FIDS system to keep flight data current

EQUIPMENT LIST

MAIN SYSTEM	TRANSPORTATION CENTER
IED 500ACS Automatic Control System with 112 Paging Station Inputs and 104 Zone Outputs	IED 500ACS Automatic Control System with: 32 Paging Station Inputs and 48 Zone Outputs
IED 540 Attenuator System with 96 Attenuator Channels and 62 Sensing Microphones	IED 540 Attenuator System with: 24 Attenuator Channels and 14 Sensing Microphones
IED 8000 Equaliser with 176 channels	44 Channels of IED 8000 Equalisers
IED 6000 Dual Channel 100W Power Amplifier with 513 Modules, equivalent to 1026 Channels	192 Modules of IED 6000 Dual Channel 100W Power Amplifier, equivalent to 384 Channels
26 IED 596 Monitor/Test Units, Equivalent to 1664 Monitor/Test Points	9 IED 596 Monitor/Test Units, equivalent to 578 Monitor/Test Points