

# Railway Solutions



# We supply sound, not equipment.

## That's our corporate philosophy.

Founded 1934 in the Japanese city of Kobe, we can draw upon more than 80 years of experience in researching, developing and selling commercial and professional audio and security equipment.

You will find our systems in thousands of different places, such as schools, concert halls, shopping malls, skyscrapers, airports and sport stadiums. They are not only there to serve the security and surveillance but also for perfect transmission of concerts and music.

Our pride is that we can use this knowledge to create acoustic sound fields for millions of people to make their lives safer and more pleasant.

Since its founding, TOA has pursued its business based upon a solid Management Philosophy, which are the "Three Confidences". These important basic foundations will carry us into an even brighter and prosperous future.

## Best sound provided with every product.

In every company within the TOA group we utilize the technical expertise and know-how that we have accumulated throughout the years in every aspect of production, from product planning and development right through to sales and management.

We are constantly improving our technological capabilities in areas such as acoustics, graphics and networks, and developing innovative products in order to provide customers with the ultimate in good sound and peace of mind to help make their lives more comfortable.

## Our three confidences

Total confidence  
of our customers in the  
use of all products.

Total confidence  
of our associates in all  
business transactions.

Total confidence of  
our employees in  
all their effort.



# TOA Solutions for Infrastructure **Railway**

The history of TOA's efforts to open up markets in the railway sector dates all the way back to the early 1940s, just over a decade after the company's founding, when our company installed PA systems in a number of Japanese railway stations. In 1972, we began developing, manufacturing, and selling our own automatic announcement systems designed especially for use in railway stations.

Today, we provide a variety of solutions that help to improve passenger service and increase the efficiency of railway station operations, including announcement systems, display equipment, and security cameras for both stations and railway cars. TOA systems have been installed in more than 1,500 railway stations within Japan alone, and in more than 4,500 railway cars worldwide.



## On-Board Project References



Delhi Metro (RS3)  
India



Bangalore Metro  
India

Washington Metro	USA
NYCT(R188)	USA
MBTA bi-level coach (Commuter) (1700/700, 1800/800 Series)	USA
DMRC (Delhi Metro Rail Corporation) Line #5, #6, #7 & #8	India
Singapore MRT (SMRT)	Singapore
Athens Metro	Greece
Cairo Metro	Egypt
Turkish State Railways	Turkey

## Railway Project References



Palm Jumeirah Monorail  
UAE



Taiwan High Speed  
Rail Stations  
Taiwan

London Waterloo and Victoria Stations	UK
Lyon Part Dieu Station	France
Tramway Dijon	France
Warsaw East/West Stations	Poland
Metrail Stations	South Africa
High-speed railway Station	China
Santiago Metro	Chile
KTMB Double Rail Track	Malaysia



TOA creates a completely reliable infrastructure environment, with clear announcements at the ideal volume in railway stations and cars, and displays that provide accurate information. We provide a range of solutions to ensure that passengers reach their destinations with peace of mind, in comfort, without fail.





## Operations Control Center



PIS Server



Intercom



Server & PC



Wireless



WAN/LAN

► Automatic announcements in association with the Passenger Information System (PIS)

► Uplink/ downlink of audio/ video signals

PA System



## On-Board System

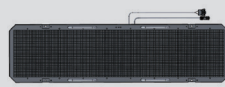
»»»» Go to next Page



PA



CCTV



PIS



Wireless



APC

PA.....Public Address System  
PIS.....Passenger Information System  
APC...Automatic Passenger Counter

# On-Board System

TOA has more than 30 years of experience in developing and installing PA system on board.

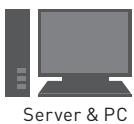
We have achieved the integration system of PA and PIS (LED system) since 2002 and the system of LCD video and CCTV solutions recently. Based on our knowhow and experience, TOA develops high quality, sophisticated and often custom-made products to meet the requirements of these specialized customers on each area such as Japan, the USA, India, Southeast Asian countries and so on.

In addition to Public Address, PIS and CCTV, the system integrated with wireless PA, the APC (Automatic Passenger Counter) system or the wireless LAN can be configured. Furthermore, the analogue-digital converter proprietary developed facilitates the integration with old or existing on-board system. TOA continues to provide reliable systems and enhanced service like the full ethernet system shown as follows.

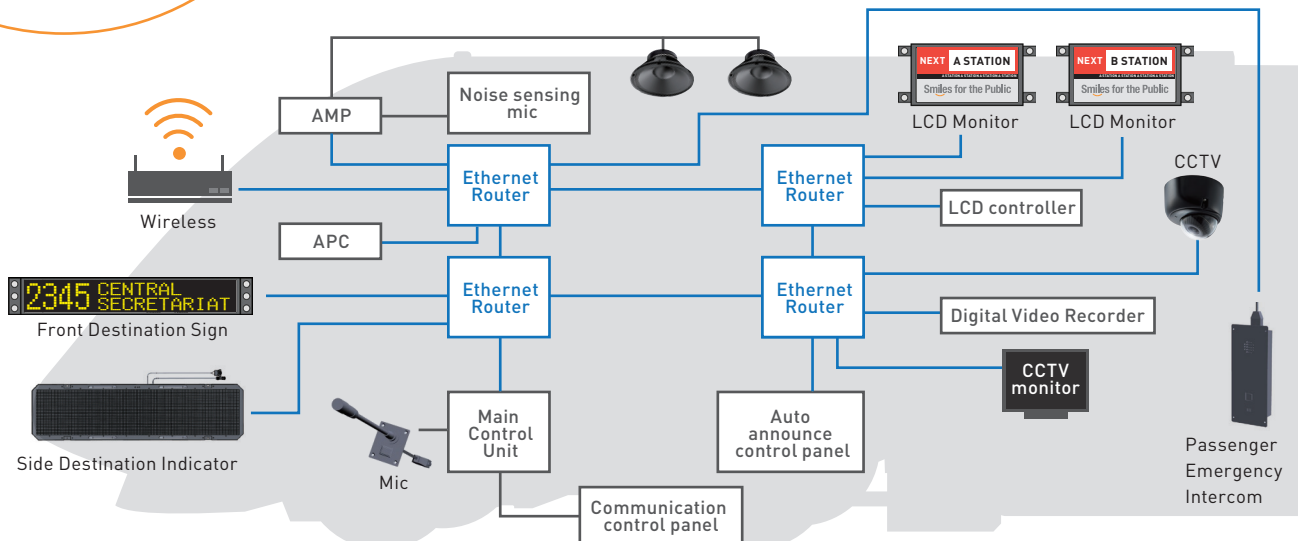


## System Example 1 Full Ethernet System

### Operations Control Center



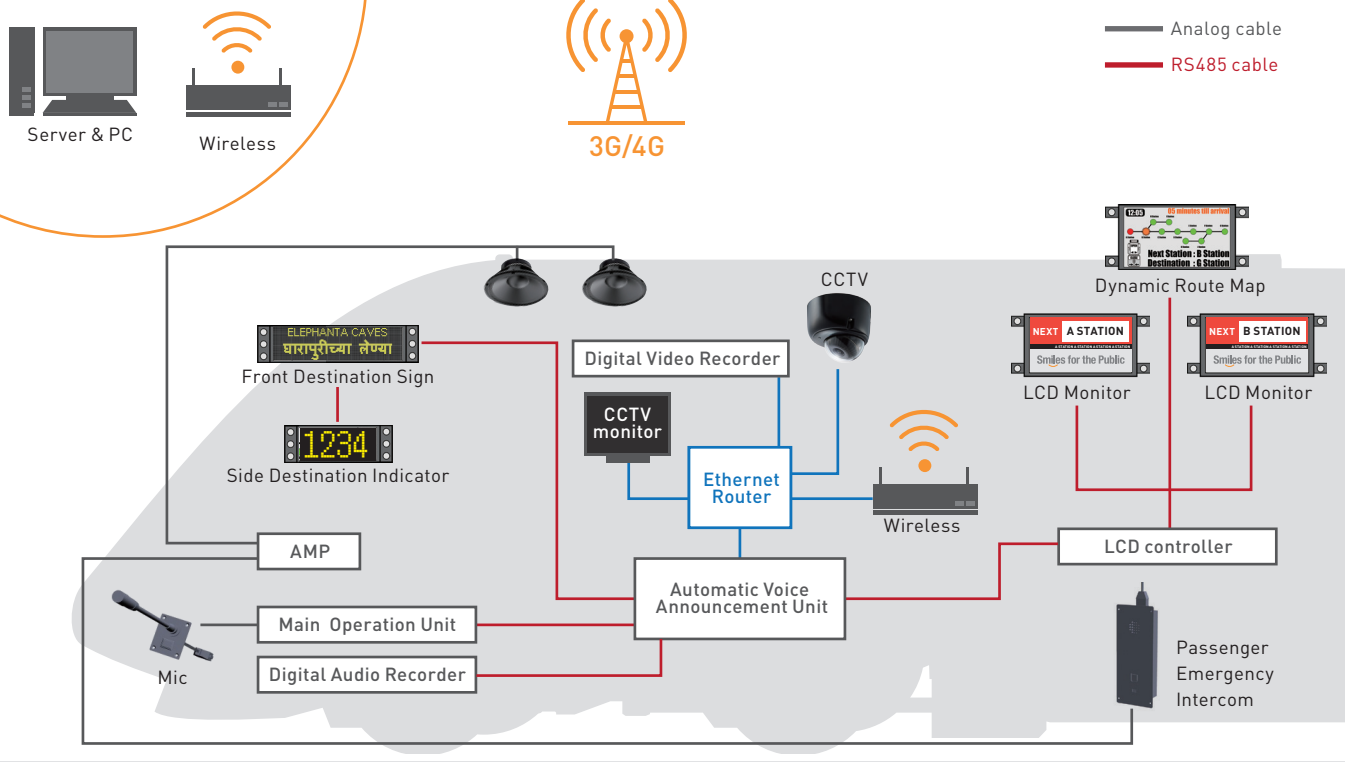
— Ethernet cable  
— Analog cable



## System Example 2

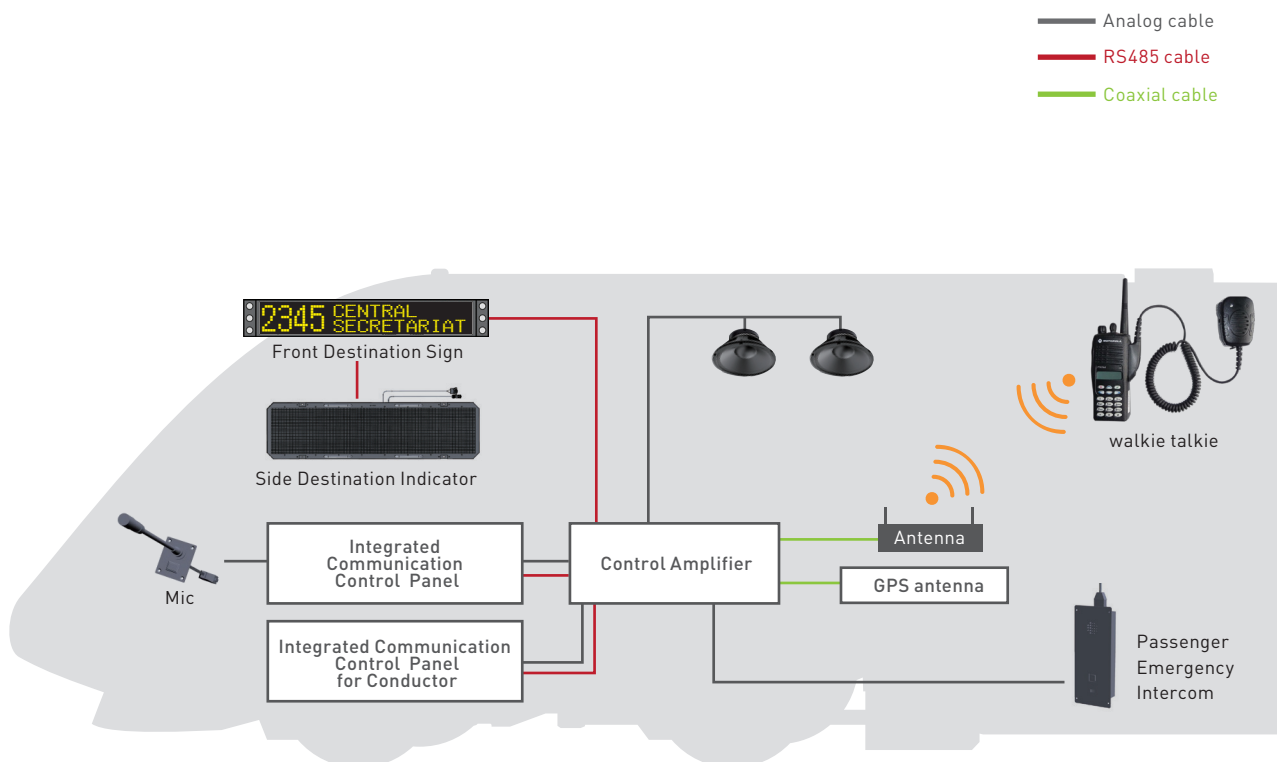
## Combination System (Ether + Analog)

### Operations Control Center



## System Example 3

## Analog System





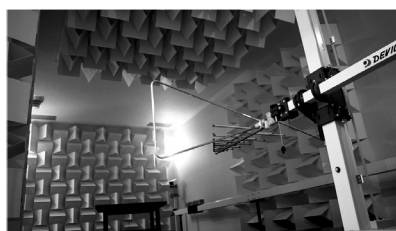
# High value of Japanese technology in both Hardware and Software

## Quality control on the Factory Floor

TOA uses its very own factories both within Japan and overseas. Numerous engineers from Japan are sent to our overseas production plants to ensure that the state-of-the-art equipment adheres to the same stringent quality control system used in our Japanese production facilities. Furthermore, twice a year members from our Quality Control Division visit overseas production facilities to carry out inspections and make sure that quality standards are being maintained.

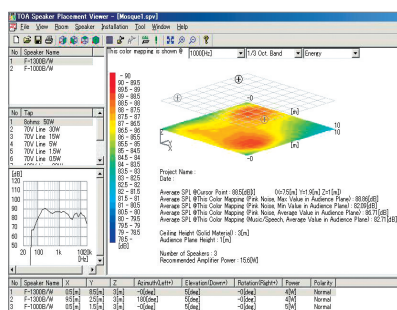
## Compliance with Laws and Regulations

TOA is constantly carrying out tests to ensure that products comply with various regulations and standards around the world: safety regulations including UL, CE, CCC, RoHS, WEEE, EN 54, SASO, and REACH; the standards for each country; and ISO 9001. We do this so that consumers have complete peace of mind when using our quality products.



## State-of-the-Art Equipment

In order to satisfy the legal requirements and conditions of each country, products must pass a large number of stringent tests. By installing various kinds of testing facilities, such as anechoic/echoic chambers and EMC test chambers, and by carrying out in-house testing, TOA has been able to improve its development efficiency.



## TOA Speaker Placement Viewer: Software for Acoustic Simulation

At TOA, we are constantly trying to improve our services and share information with our customers. TOA Speaker Placement Viewer provides an easy way to calculate how many speakers are needed in a room. The software allows virtual placement of TOA Line Array, as well as all TOA Public Address and ProSound speakers.



TOA Corporation  
www.toa.jp

Specifications are subject to change without notice.  
(1608) 833-61-100-33-00