日本信号株式会社 AFC事业部





http://www.signal.co.jp/ http://www.signal.co.jp/products/afc.html(AFC事业部)





为满足高度自动化的需求, 提供可信赖的高性能服务。

As Automation Needs Become More Sophisticated, Nippon Signal Stands for Reliable, High-Performance Solutions.













车站在不断发展,而致力于完善站务自 动化系统、设施的,正是日本信号的 AFC(Automatic Fare Collection Systems)事业。IC卡的出现,让等待检票、 补票的人流更加快速顺畅地通过成为现实。 日本信号利用这一最新的IC卡系统,将 以街区化存在的车站新概念带入人们的 视野。多年的业绩不但积累了丰富的经验, 也拥有了完备的技术,在着眼于AFC明 日之需求的同时,也推动着站务设备的 自动化和高速化不断前进。

Railway stations are steadily evolving. Nippon Signal's AFC business supplies equipment and systems to promote automation of station operations.

The development of IC cards has transformed passenger gate and fare collection operations, helping to make passenger flows smoother and faster.

The company's AFC business was among the first to take advantage of the latest IC card systems. Using proven technologies whose reliability has been confirmed by long years of experience in delivering AFC systems, we are keeping ahead of the times with regard to future AFC needs. We do this by actively developing innovative systems that will promote the automation and accelerate the speed of a wide variety of station operations, keeping in mind that the latest concepts in station design seek to boost the value of stations by transforming them into centers of community life.

Nippon Signal has also developed AFC systems for airport use. We have already achieved good results with our boarding pass printer and automatic check-in machines.

Supply Records



Nippon Signal has supplied various AFC systems to many railway companies since 1972.



提供整个系统的业绩 Supply Records of system integration with equipments

Japan

东日本旅客铁道株式会社 西日本旅客铁道株式会社 东京地下铁株式会社 东京都交通局 东武铁道株式会社 京成电铁株式会社 札幌市交通局 仙台市交通局 福冈市交通局 东京轻轨株式会社 株式会社Yurikamome 横滨高速铁道株式会社

East Japan Railway Company West Japan Railway Company Tokyo Metro Co., Ltd.

Bureau of Transportation, Tokyo Metropolitan Government

Tobu Railway Co.,Ltd Keisei Electric Railway Co., Ltd.

Sapporo City Transportation Bureau Sendai City Transportation Bureau

Fukuoka City Transportation Bureau.

Tokyo Monorail CO.,LTD

Tokyo Waterfront New Transit Yurikamome CO., LTD Yokohama Minatomirai Railway Company

Beijing METRO Line 13



China

Japan



Overseas 北京地铁13号线

北京地铁13号线 Beijing METRO Line 13

大连LRT Dailen LRT

上海浦东国际机场 Shanghai Pudong International Airport.

北海道地区 Hokkaido Area 札幌市交通局

Sapporo City Transportation Bureau

东北地区 Tohoku Area

仙台市交通局 其他民营铁路公司4家

Sendai City Transportation Bureau Other 4 private railway companies.

东京地区 Tokyo Area 东日本旅客铁道株式会社 东京地下铁株式会社 东京都交通局 横滨市交通局 其他民营铁路公司25家

East Japan Railway Company Tokyo Metro Co., Ltd.

Bureau of Transportation, Tokyo Metropolitan Government Transportation Bureau, City of Yokohama Other 25 private railway companies.

大阪地区 Osaka Area 西日本旅客铁道株式会社 大阪市交通局 神户市交通局 其他民营铁路公司9家

West Japan Railway Company Osaka Municipal Transportation Bureau Kobe city Transportation Bureau Other 9 private railway companies.

名古屋地区 Nagoya Area 名古屋市交通局 名古屋铁道株式会社 Transportation Bureau City of Nagoya Nagoya Railroad Co.,Ltd.

九州地区 Kyusyu Area 九州旅客铁道株式会社 福冈市交通局 其他民营铁路公司1家

Kyushu Railway Company Fukuoka City Transportation Bureau. Other 1 private railway companies.

日本国内市场份额 Our market share of AFC in Japan

日本的AFC市场有5家公司构成。其中日本信号占到 了35%以上的份额,是市场的领头军。

5 AFC companies including us exist in Japanese market. We have more than 35% market share as a leader company of AFC in Japan.

日本信号 NIPPON SIGNAL 其他 **OTHERS**

(台:unit)

2004年5月现在(As of May, 2004)

自动检票机

Automatic Gate(AG)



自动售票机

Ticket Vending Machine(TVM)



自动补票机

Fare Adjustment Machine(FAM)



定期票发行机

Commuter pass Vending Machine(CVM)



AFC System Configuration

AFC系统构成图



络

Network

车站值班室内 Machines at station office

Machines in Station

本部 Head Office

IC服务器



中心计算机系统 Center Computer System(CC)



收入服务器 Revenue Server



车站A Station A

CGX-7i 简易非接触 IC卡专用自动检票机 AG only for IC card



GX-7i非接触IC 卡专用自动检票机 GX-7i AG



GX-7非接触IC卡 + 磁票自动检票机 GX-7 AG for both



KX-7 检票机监视盘



路由器 Router



值班员多媒打印发行机



操作终端





GX-7i-S 自动SJ 检票机(非接触IC 卡专用)



自动IC卡充值机 IC Card Add Value Machine(AVM)





集线器 Hub



打印机



SX-7自动售票机 SX-7 Ticket Vending Machine(TVM)



MX-7自动定期 票发行机

MX-7 Commuter Pass Vending Machine ---

AX-7 自动补票机 AX-7 Fare Adjustmen



站务设备远程 监视装置

Remote Monitoring System at a station

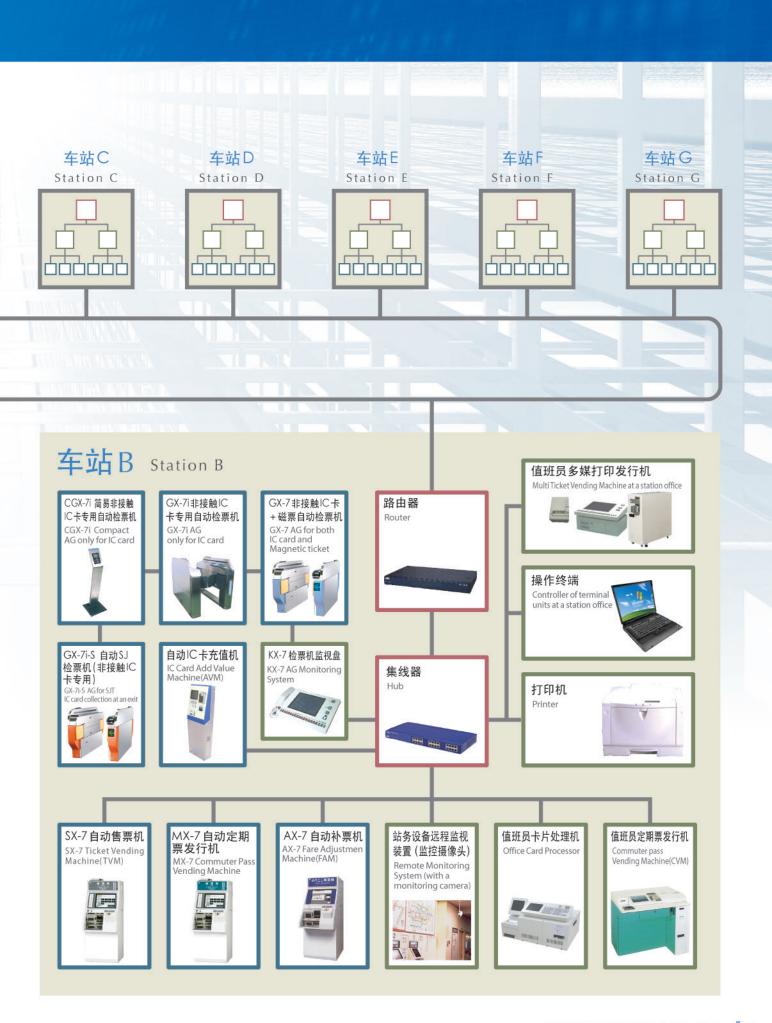


值班员卡片处理机 Office Card Processor



值班员定期票发行机 Commuter pass





AFC GX-7i-S 自动SJ检票机(非接触IC卡专用) <可应对单程票IC卡> GX-7i-S AG for SJT IC card collection at an exit (SJT means Single Journey Ticket.)



可实现短时间内的 客流通过

arge number of passengers can be passed through

- 可应对ISO14443TypeA·TypeB·TypeC ISO14443TypeA, TypeB and TypeC to be applicable.
- 可回收单程票IC卡 SJT(Single Journey Ticket) IC card to be collectable.
- 高质量的数据保存能力(内存) Advanced storage of data (memory) to be guaranteed.
- 可回收3800张以上的IC卡 (950张/盒X4盒) More than 3,800 pieces SJT IC cards to be collectable.







使用方法 Handling Manual



ICSJT出站时 IN the case of IC SJT



持其他IC票出站时 In the case of other IC tickets

AFC GX-7i 非接触IC卡专用自动检票机

GX-7i AG only for IC

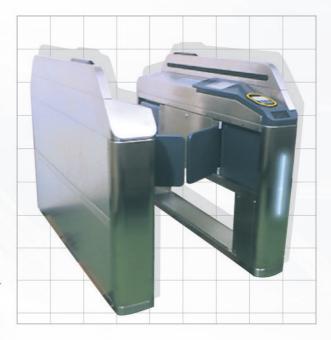
IC卡车票系统的优势是无需维护,并已实现高速处理和小型化。

GX-7i is developed under the concept of high speed processing, size down and maintenance-free, that are the feature of IC ticket system.

- 可实现短时间内的大客流通过 Large number of passengers can be passed through the AG in a short time.
- 采用高性能CPU、实时OS High-performance CPU and real-time OS to be adopted.
- 可应对POSTPAY(后付款)/ 自动充值等新系统

New revenue systems such as post pay and automatic charge to be adopted.

- 可应对移动车票(手机、PDA等) Mobile ticket system to be adopted (I.E. a mobile phone, PDA terminal, etc.).
- 高质量的数据保存能力(内存) Advanced storage of data (memory) to be guaranteed.
- ●配有电池,可应对IC处理中的停电现象 Battery for IC processing at a power failure to be equipped.



利用声光引导乘客顺利通过

Light and audio guidance help a passenger to pass AG smoothly

●引导显示灯 Guide light

IC处理正常时灯亮, 引导乘客通过 In case IC ticket is fair, guide light shall be switched on and then help a passenger. To pass AG smoothly.

■异常显示灯 (红色LED) Warning light (Red LED)

用视觉冲击力很强的大型显示灯来 快速提示IC处理未完成 In case a passenger has not completed IC card processing, warning light shall be switched on.

●门模块 Door unit

可任意调整门的闭合速度和门的负荷 Operation speed of door and it's pressure shall be adjustble at the discretion of a user.

●通道照明 Passage light

用荧光灯照亮通道下方 Passage is brightly lit up with a fluorescent light.



●向导显示部 Guide display

1.处理内容早显示。2.内置员工操作盘 The details of processing shall be displayed quickly.

●IC天线部 IC card attestation part

端部柔软设计,可弯曲 Design of IC card attestation shall be modified at the discretion of a user.

●禁止进入显示灯 (红色LED)

"NO ENTER" warning display (Red LED)

在禁止进入状态时,用大大的 『×』表示禁止进入 In the case of "NO ENTER", big "x" mark sign shall show a passenger "NO ENTER" status.

●进入显示灯 (蓝色LED) "ENTER" display (Blue LED)

用大型高亮度的LED显示, 表明此为IC专用通道 Large-size and high luminosity LED display show a passenger the passage only for IC card holder clearly.

Products

AF(CGX-7i 简易非接触IC卡专用自动检票机

CGX-7i Compact AG only for IC card



可使用IC卡的省空间小型检票机。有立式和台式两种。

Space-saving type Compact AG. Both a stand type and a unit type shall be available

- 可实现短时间内的大客流通过 Large number of passengers can be passed through the AG in a short time.
- 采用5.5英寸彩色LCD, 充分重视向导作用 Intelligible display of 5.5 inch color LCD to be equipped.
- LED使判定结果一目了然 LED shows a passenger result of IC card attestation clearly.
- 车票判定功能 Ticket attestation function.

Products

GX-7 非接触IC卡+磁票自动检票机

GX-7 AG for both IC card and Magnetic ticket

GX-7作为新一代检票机,不但可以同时处理多张票,更可应 对新的客流形态,并具有小型化,高速化,安全性和可扩展性。

GX-7 AG which was developed as the next generation machine was also developed as space-saving/

High speed processing and security/expansion of system as well as multiticket processing at the same time with taking passenger flow in future into consideration.

- ●可实现短时间内的大客流通过 Large number of passengers can be passed through the AG in a short time.
- 可用于磁票、IC卡的多用途检票机 Both magnetic tickets and IC card tickets are usable.
- 流线型设计表现出众 Streamlined soft design.
- 最大可达3张票同时投入, 一起返回 Max 3 tickets shall be inserted into slot at the same time and returned at the same time.
- 零部件寿命长,维护成本低 Decrease of operation cost shall be materialized by long-life units and parts.

- 向导显示用彩色图示表示 Guide display is on the colour graphic screen.
- 投票口和取票口文字鲜明易懂 Pictogram on both insert slot and. ticket pick-up shall be adopted.
- 通道显示器采用170° 视野的LED LED passage display with 170 degree angle is adopted.
- 轻巧的车票回收箱减轻操作负担 Easy handling by light stacker of IC card.





简单易懂的引导显示灯 Guide light shall be recognized easily.

Products

KX-7 检票机监视盘

KX-7 AG Monitoring system



显示检票机的各种数据。Various data from AG shall be indicated.

- 数据的统计、显示 Numerical data of AG operation shall be totalled and indicated.
- 检票机运行模式控制 Control of AG operation mode.
- 通过数据显示 Indication of passenger data from AG.
- 各个检票口其他设备监视情况的显示 Other AFC equipments status such as TVM, FAM, etc., shall be indicated.

AFC

GX-7 自动售票机/MX-7 自动定期票发行机

SX-7 Ticket Vending Machine(TVM)/ MX-7 Commuter pass Vending Machine(CVM)

SX-7作为新一代售票机,采用大型彩 色LCD触摸屏,不但可以销售普通车票, 还可销售企画票(大型票)。

SX-7 was developed as a next generation TVM. A large size color LCD touch panel to be equiped.

SX-7 shall be able to issue various kinds of tickets such as a commuter pass and a ticket for specified purpose.

- ◆ 大型彩色LCD 触摸屏操作简单 Easy handling with a large size color LCD touch panel.
- 可处理IC卡 Processing of IC card to be applicable.
- 真正的节能设计,省电达40%(公司数据) Energy-saving design shall be materialized about 40% power saving.(A comparison of our products)
- 拥有各种划时代的,具有先进功能的组件 Various components with an epoch-making and advanced function.
- 接客一面可以配备CCD摄像头 CCD camera at side of service to a passenger to be applicable.
- 大量部件耐用,寿命长,使维护成本大幅降低 Reduction of operation cost shall be materialized by long-life units and parts.
- 可按车站五十音图顺序检索运费,方便快捷 A search of passenger fare by the initial letter of station name to enable to check it easily.
- 配有英文说明,外国乘客也可方便使用 Guidance in English for foreigners is available.
- 屏幕显示, 语音提示, 罗马字运费检索 Indication-Audio guidance, A passenger fare list in alphabets.
- 坐轮椅者用指尖轻触即可,人性化的设计使用更方便 Open space at leg part gives conveniences for those who are using the wheelchair.



拥有大型彩色LCD触 摸屏。售票机的运行 状况一目了然。

Large size color LCD to be adopted show the situation of TVM easily.



拥有大型彩色LCD触摸屏。 大按钮简洁易用。触摸 屏表面采用强化玻璃。

A large size color LCD to be adopted, which shows a big button on the screen clearly. A tempered glass to be adopted for the screen.



配有触点盲文。在操作位置上有盲文引导。

Braille guidance to be adopted and regarding to touch navigation the location of touch point shall be advised by Braille guidance.



各投票口、取票口用 黄线标注,清晰明了

Each insert slot and ticket pick-up is recognized clearly by yellow lines.





AFC AX-7 自动补票机

AX-7 Fare Adjustment Machine(FAM)

日本信号以"安全,信赖和环境"为 口号, 开发出了符合新时代的补票机。

Nippon Signal developed the new generation of Fare Adjustment Machine(FAM) based on the concept of "Safety, Reliance, and Environment" as the watchword.

彻底的运费质量管理 The thoroughgoing quality control of fare judgement

使用公司自行研制的『车票验证工具』确保费用判定的正确性 Reliance of fare judgement is secured by self-developed "ticket verification tool."

补票判断逻辑

校验结果

The comparison of the results of test by 2 logics





卡片发行、处理模块 (IC)

Card issuing / Card processing unit

理各种卡片

IC卡处理部集约 IC card processing part is inte-化,小型化,可处 grated in compact body. Various kinds of cards to be acceptable.



磁票发行模块

Printer unit of magnetic tickets.



印黑白两色

横切票卷纸并列 The roll of ticket paper is in-装填。定期票可 stalled side by side. Commuter pass shall be printed two colors (red or black color).



纸币模块

Bill validating unit



硬币处理模块



Coin judgement unit.





采用实时OS Real-time OS to be adopted.

盲文引导、数字键、声音识别 Touch Navigation/Ten-key input/Voice recognition.

采用多媒体OS(控制部同时使用两个OS)

Multimedia OS to be adopted. (Two OS shall be installed for a control part at the same time.)

故障率低,消耗品的使用寿命长

Low failure rate, Expendable parts with long life.

节能设计,材质环保

Energy-saving design with recycled materials.



AFC 自动IC卡充值机

Add Value Machine(AVM)

开发出了适应环境的, 简洁实用, 并且安全性很高的充值机。

AVM of Nippon Signal is materialized high level of security as well as slim and simple design.

●安 全 Security

防止现金的被盗、丢失的设计

To take prevention of cash burglary and mischief into consideration.

● 省空间 Space-saving

外形尺寸在可能的范围内最小化,We Designed AVM As small as possible, 在有限的空间内也可自由应对 that be able to install narrow space.



对环境的考虑 We are considering the environments

●节省资源 Resources-saving 机箱等部件构造简单化, 使产品重量减轻

The weight of product shall be decreased by a simplification of the structure including the body.

●再利用化 Recycle

内部采用部件模块化构造,易分解

Sectional units to be adopted. So that it is easy to take the body apart and cleaned and repaired.

●节能 Energy-saving

配有反射型传感器, 节能设计。一定时间内无人使用, LCD画面自动转到待机状态。 A reflecting sensor to be adopted. In case a passenger did not use in specified time, LCD screen shall be changed to WAITING mode with taking energy-saving into consideration.

机身 The body

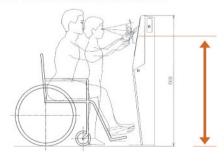


纸币插入口的位置 909mm (我公司标准售票机920~940mm)

The location of bank note slot shall be 909mm from the floor. (normal height of our TVM is 920~940mm.

轮椅、儿童使用

To take the use of wheelchair and for small children into consideration.



金额选择键位置 1020mm (我公司标准售票机触摸屏中心位置1190mm)

The button of amount selection are located 1020mm from the floor

Products

AFC 值班员卡片处理机

Office Card Processor



● 对IC卡。磁卡的各种处理

Various processing's for both IC cards and magnetic cards

Products

AFC值班员定期票发行机

Office Commuter pass Vending Machine(CVM)

定期票的发行媒介可由磁票改为IC卡。

The change of ticket media shall be applicable, namely it can change a magnetic commuter pass to a IC commuter pass.



- IC 定期票的新发行和继续发行 New issue and extension of IC commuter pass.
- 磁票定期票的新发行和定期发行 New issue and extension of magnetic commuter pass.
- 退票, 再发行 Refundment, Re-issue
- 黑名单的登录 Registration of black lists.

Products

AFC 站务设备远程监视系统

Remote Monitoring System

远程系统由各站务设备和系统监视盘构成。通过系统监视盘 可以远程监视和控制各站务设备的状态及本检票口和其他检 票口共两个票口。系统监视盘采用15英寸触摸屏显示器,简 单易操作。并且配置灵活,使用通用计算机也同样可以实现 系统的高性能,

Remote Monitoring System consists of equipments at each station and system monitor. The user of remote monitoring system can check the status of various equipments at each station including the station which remote monitoring panel is located. The screen of remote monitoring system is adopted 15 inch touch panel display for the purpose of easy handling. A normal personal computer is adopted for the purpose of materializing high level of function and flexibility.



●自动检票机监视盘上可以显示 ITV画面,更降低成本,节省空间。

The ITV screen on remote monitoring panel is adopted for the purpose of materializing cost competitiveness and space-saving.

- 远程监视控制功能可用于数据统计仪 Data collecting machine has remote monitoring function too.
- 可实现远程补票 To materialize fare adjustment by remote control.
- 站务设备上可安装对讲机,

To put internet function on station equipments make more convenient for a passenger.



对讲机



监视摄像头(售票机) Monitoring Camera(TVM)



有人通道开闭机 The passage to be operated



监视器图像 Monitor display images



图像画面(自动补票机) (Fare adjustment machine (FAM))



远程监视口 Remote monitoring corner



AFC中心计算机系统

Center Computer System(CC)

可实现收入管理、运用管理、运费数据生成、公司间清算等 所有功能。

All functions, such as revenue management system, operation management system, system of fare list data, and system of fare adjustment between companies, are available.



各个单元及其概要 The server for each functions and its` outline.



收入管理服务器

Revenue management server

站务设备数据及各种手工输入数据

的归集输出,保存 Data of station equipments and various kinds of data by hand-input shall be calculated and reported and accumulated.

将统计数据数据库化 Data base by information of accumulated data.

可以输出和以前年度的对照表 year and this year.



运用管理服务器

Operation management server

在运用管理上各种必要参数的设定 Set-up of various parameters to be quired for operation.

站务终端设备参数修改 The change of parameter for AFC equipments and terminals at station.



维修管理服务器

Maintenance management server

站务设备的运转状态 (数据库化) Operation status of AFC equipments station (database)

所有数据的统计、输出 Calculation and output of report for all



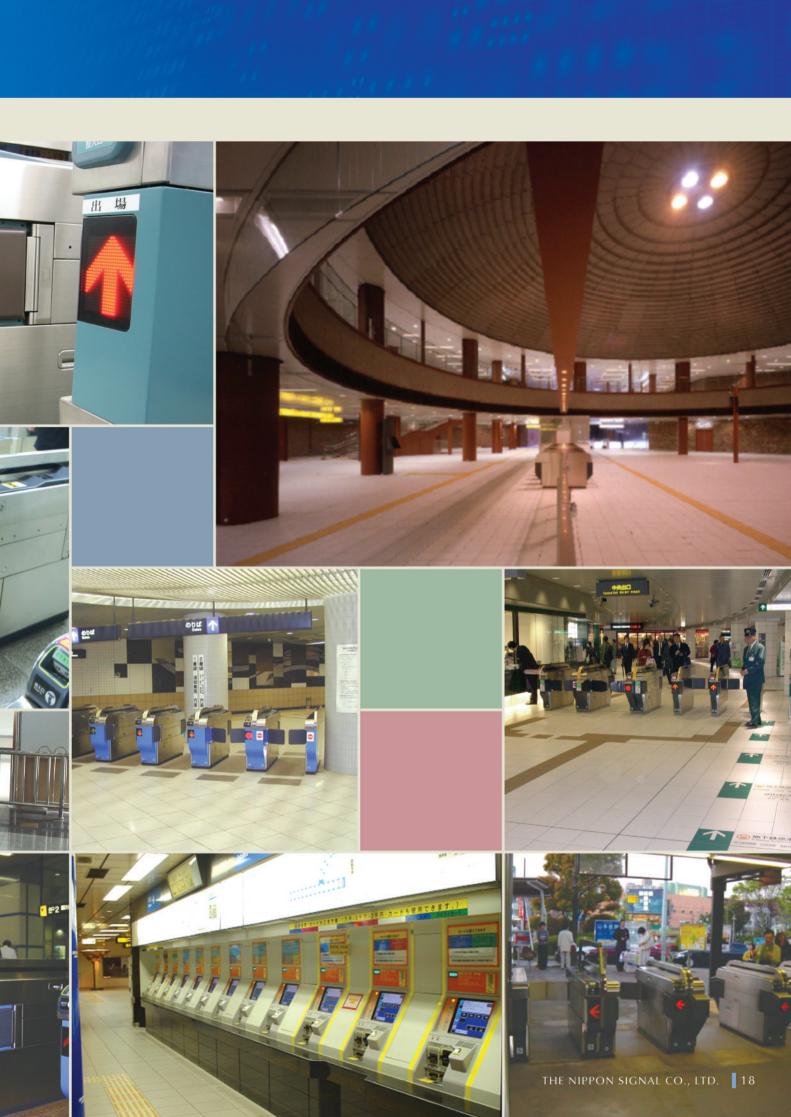
IC卡管理服务器

Revenue management server

IC卡车票数据的统计、输出 card tickets data.

Installation Examples





Electrical Components

核心模块 Core Unit

有关磁卡读写 Reader and Writer for IC card



IC卡读写发行机 Re-issuing machine of IC card with Re-Write function.

装有发卡箱时: 可以由发卡箱自动供 卡、发行/也可从前面的插卡口插入卡 片手动发行

In case of machine with a hopper, it shall be available automatic supply of IC card and issue. The card that a passenger insert to the slot is also able to issue after re-

用途:各种会员卡、预约卡、积分卡系统 /自行车停车场、汽车停车场系统、各种 交通工具的定期票、入场券发行更新机/ 各种进退场管理系统的发行更新机

(Use)/Various membership card, reservation card, point system card/parking system for both cars and bicycles, commuter pass for various kinds of traffic systems, issuing machines and extension machines of an admission ticket/issuing machines and extension machines of various kinds of security gate

- 无发卡箱 (without a hopper) 125(W)×150(H)×321(D)mm / 有发卡箱 (with a hopper) 140(W)×247(H)×480(D)mm
- ●卡片外形 (Card size): 54.0×85.6mm,厚度 (Thickness)0.5 0.8mm ●可使用卡种 (IC card to be usable): 各种有非接触读写模块的卡 It can be equipped various kinds of Reader Writer module ●发卡箱容量 (The size of a hopper): 约200张 (about 200 pieces)
- ●印刷方式 (A method of printer): RYCO 热敏逐行打印 Line dot thermal printer of RYCO method
- ●外部接口(Interface): RS232C
- ●显影改写的印刷方式,色彩更鲜明 Color re-write method, clear printing
- ●单一磁头即可同时完成消字和打印,缩短改写时间Re-write time is in a short time, because single thermal head can erase and print at the same time.



简易IC卡读写器 Simple IC Reader/Writer

- ●外形 (Size): 200(W) × 70(H) × 285(D)mm
- ●可使用卡种(IC card to be usable): 各种非接触卡 Various kinds of IC contact-less card
- ●可搭配读写模块 Reader/Writer module shall be able to add ●外部接口(Interface): RS485/RS232C

- ●適用输入输出板(Normal port for input and output): 4bit 输入 (input)/4bit 输出 (output)
 LCD: 5.5 英寸彩色 LCD, 320 × 240 像素, 256 色, 透过型 5.5 inch color LCD 320 X 240 dot, 256 color, penetration type
 其他 (Others): 內置显示灯,蜂鸣器 lamp and buzzer are built-in
- ●电源 (Power supply): DC12V,6W



桌面式读写器 (DTR-NO1) Reader/Writer for desk top (DTR-NO1)

- ●外形 (Size): 69(W) × 25(H) × 97(D)mm
- ●可使用卡种(IC card to be usable): **IS018000-3mode2**标准型非接触IC标签 IC contact-less card based on IS018000-3 model 2
- ●外部接口(Interface): USB

自动制票机 Component of TVM



硬币处理模块 Coin judgement unit



卡片发行、处理模块 Card issuing / Card processing unit



磁票发行模块 Magnetic ticket issue unit

目动检票机组件 Component of AG.



门模块 Door unit

- ●外形 (Size): 360(W) × 275(H) × 135(D)mm
- ●动作速度(Speed of operation): 0.3 秒 (角度、速度可调) 0.3 seconds (Door speed and pressure shall be adjustable.)
- ●门材质(Door material): 发泡聚乙烯。深灰色,(塑料外壳颜色可变) Foaming polyethylene, dark grey colour
- ●输入电源(Powersupply): AC100V,50/60Hz DC5V, 24V



控制装置 Control board



车票传送部 Ticket handling unit

The component for IC tokens



IC币回收模块(检票机用) Token collection unit for AG

- ●外形 (Size): 377(W) × 260(H) × 119(D)mm
- ●功能(Function): IC币从投币口投入后, 进行识别判断, 然后退出或回收
 - $Upon \ a \ receipt \ of \ IC \ token \ from \ the \ slot, it \ shall \ make \ judgement \ and \ then \ receive \ of \ return \ if \ required.$
- ●可使用IC币(IC token to be usable): 厚度3mmX直径30mm的圆形(标准)
 - rith 3mm[thickness] x 30mm [diameter] (Standard Type)



IC币发币模块 Token issue unit for TVM

- ●外形 (Size): 270(W) × 600(D) × 900(H)mm
- ●功能(Function):当IC币从发币箱发出时,写入信息
 - Issuance of IC token one by one from a hopper and at the same time fare data shall be written.
- ●可使用IC币 (IC token to be usable): 厚度3mmX直径30mm的圆形(标准)
 - Circular type with 3mm[thickness] x 30mm [diameter] (Standard Type)
- ●IC币类型(IC token type): 各种带有非接触读写模块的IC币 various kinds of contact-less R/W module to be able to install.
- ●发币箱容量(Hopper capacity): 约2000枚 About 2000 coins

登机牌读卡器 Boarding Pass Reader(BPR)



为保证航班的准点, BPR (Boarding Pass Reader) 担负着短时间内处理大量乘客登机的重要任务。为此, 该设备要求可靠性高而故障率低。我公司集结了10 多年研发的专有技术,并结合铁路领域的最新技科 技和经验,最大限度地满足设备的要求

quired. Nippon Signal have experienced and cultivated know-how for quality assurance of BPR more than 10 years Nippon Signal also do the best effort at making the excellent BPR machine with our advanced technology which we have obtained on

Network

Other products 其他产品

全新的事业 Visionary Business Center



二次元型

RFID

桌面型读写器

小型读写模块 Small Reader/Writer module



手持型读写器



盘式读写器



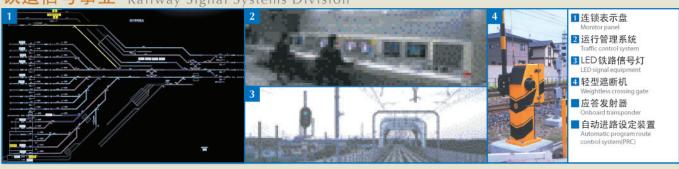
隧道型读写器

高速输出读写模块 High output Reader/Writer module

信息系统事业 Information Systems Division



铁道信号事业 Railway Signal Systems Division



交通信息系统事业 Traffic Information Systems Division



- ■总部: 东京都丰岛区东池袋3-1-1(阳光60) Head Office: Sunshine 60, 1-1, Higashi-Ikebukuro, 3-chome, Toshima-ku, Tokyo 170-6047, Japan TEL: 03-5954-4600 FAX: 03-5954-4610
- ■大阪支店 大阪市北区小松原丁2-4(大阪富国生命大厦) Osaka Branch: 2-4, Komatsubara-cho, Kita-ku, Osaka, Osaka 530-0018, Japan TEL: 06-6312-3851 FAX: 06-6312-8597
- ■北京代表处 中国北京海淀区首体南路6号北京新世纪日航饭店写字楼757室 TEL: 86-10-6836-2510 FAX: 86-6836-2196
- ■北海道支店 札幌市中央区北二条西3-1(太阳生命大厦) TEL: 011-271-4161 FAX: 011-221-1705
- ■东北支店 仙台市青叶区中央1-3-1(AER大厦) TEL: 022-261-8371 FAX: 022-225-4627
- ■北关东支店 崎玉市浦和区仲丁4-2-20(三井住友海上浦和大厦) TEL: 048-861-3400 FAX: 048-861-3828
- ■中部支店 名古屋市中村区名站 1-1-4(JR セントラルタワーズ) TEL: 052-561-2851 FAX: 052-561-2879
- ■九州支店福冈市中央区大名2-4-30(西铁赤坂大厦) TEL: 092-771-6175 FAX: 092-714-6127
- ■久喜事业所 久喜市大字江面字大谷 1836-1 TEL: 0480-28-3000 FAX: 0480-28-3800
- ■宇都宫事业所 宇都宫市平出工业团地 11-2 TEL: 028-660-3000 FAX: 028-660-3033
- ■上尾工厂 上尾市平塚字大砂2113 TEL: 048-777-3100 FAX: 048-776-0190
- ■盛岗营业所■秋田营业所■枥木营业所■群马营业所■千叶营业所
- ■神奈川营业所■新泻营业所■金泽营业所■山梨营业所■长野营业所
- ■静冈营业所■三重营业所■京都营业所■冈山营业所■广岛营业所
- ■山口营业所■四国营业所■台北营业所



本部 Head Office



久喜事业所 Kuki Plant



宇都宫事业所 Utsunomiya Plant

相关公司

日信电设(株)/日信工业(株)/日信电子服务(株)Nisshin Electronics Service Co.,Ltd./ 札幌日信电子(株) Sapporo Nisshin Electronics Co., Ltd./枥木日信(株)/日信兴产(株)/福冈日信电子(株)/ 日信软件工程(株) Nisshin Software Engineering CO.,Ltd./三重日信电子(株)/山形日信电子(株)/ 日信特器(株)/朝日电器(株)/日信技术服务(株)/日信TM服务(株)/日信租赁(株)/ IPOSNET (株) / 电路技术(株) CIRCUIT TECNOLOGY Inc./横滨技术工程服务(株)

2004年12月1日现在 (As of December 1, 2004)



ISO9001認証



ISO14001認証 久喜事业所 Kuki Plant 宇都宫事业所 Utsunomiya Plant

设计、规格发生变动恕不另行通知。 Designs and its' specifications shall change without a notice.