

FTS 3020 – GSM-R Dispatcher Terminals

DICORA FAMILY



FREQUENTIS DISPATCHER TERMINALS – EFFICIENT TERMINALS TAILORED TO YOUR NEEDS

The DICORA family features high-end dispatcher terminals from the FTS 3020 Fixed Terminal System. They are desktop solutions built specifically for controller positions in the rail environment. Three different terminal types, DICORA C15, S15 and P15 cover the individual requirements of these positions in a variety of contexts, from local train stations through to large command and control centres.

In conjunction with the powerful FTS 3020 Central Switch and its broad range of IP, digital and legacy interfaces, the DICORA family represents unified dispatcher terminals for:

- GSM-R voice and messaging communication
- Voice communication with analogue train and shunting radio, public announcement systems and emergency and line-side devices
- Simplified train monitoring
- Simplified station management (control of lights, doors, escalators etc.)



FTS 3020 – GSM-R DISPATCHER TERMINALS DICORA FAMILY

COMPLIES WITH THE LATEST TECHNOLOGY STANDARDS

The DICORA family supports all common rail network technologies, including both circuit-switched and packet-based IP technology. It comes equipped with an ISDN and Ethernet interface and is fully compliant with the latest...

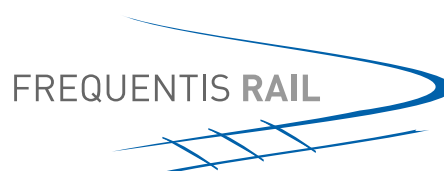
- EIRENE standards
- ISDN standards for Basic Rate Access and rail-relevant supplementary services
- VoIP and Quality of Service standards in a LAN/WAN

EASE OF USE

The DICORA terminals were designed and optimised in cooperation with rail controller experts to account for real working practices within an ergonomic human machine interface, as evidenced by such features as soft keys, touch panel navigation and standard/ rail-specific telephony functions. This focus on usability means the DICORA terminals support quick and easy access to a broad range of communication targets, each reached through context-sensitive selection or direct input: a mandatory approach in any safety-critical working environment. Over 4,500 terminals in operation throughout the world are testament to the value and success of this concept.

EMBEDDED INDUSTRIAL COMPUTER DESIGN

The DICORA family draws on highly-reliable embedded industrial computer components. This results in silent terminals with no moving parts and low power use. Combined with guaranteed long-term availability this concept has clear advantages over conventional PC design.



THE TERMINALS AT A GLANCE

The DICORA family

THE DICORA FAMILY CONSISTS OF THE DICORA C15, S15 AND P15 TERMINALS.

All three are based on the same hardware platform, but have different displays and navigation approaches. The audio module is physically separate and can be placed wherever the user wants, for left- or right-hand use. The same audio module is used for all three terminals.

The terminals are operated using a Windows® embedded platform, and can be maintained and upgraded remotely. Since the terminals all exploit the same hardware and software platforms, this helps with national approval processes and makes it much easier to maintain terminals distributed across a country.

AUDIO MODULE

It includes a handset (with PTT as an option), gooseneck microphone, headset interface, two loud-speakers for hands-free operation and monitoring of a second call, and a high-performance acoustic echo canceller for hands-free operation in command and control centres.

DICORA C15

DICORA C15 – FOR LOCAL TRAIN STATIONS AND SECONDARY LINES

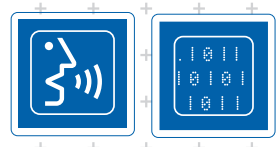
It's a robust terminal which combines classical keypad-oriented behaviour with easy-to-use soft key navigation. The terminal consists of a swivelling 5.7" full-colour display, soft keys and twenty pre-programmed direct access keys. Five of these keys are also coloured differently and can be used for high priority calls.

The soft keys positioned to the left and right of the display offer quick access to all relevant main and traffic-dependent functions. This concept provides controllers with decision-support guidance for every traffic situation, helping them make these decisions quickly. The application supports Unicode characters, so it can easily be adapted to work with local alphabets (both as input and on the display).



THE HIGHLIGHTS OF THE DICORA C15 FEATURE SET ARE:

- SMS communication with free text and text templates
- call wizards for composing functional numbers
- functional number decoding
- access to a global telephone book
- call monitoring of a second call
- integration of legacy infrastructure
- control of station equipment (elevator, doors, lights).



DICORA S15



DICORA S15 – FOR COMMAND AND CONTROL CENTRES

It's a compact terminal which uses touch-oriented navigation to manage high call volumes and address multiple areas of responsibility (roles) efficiently. The terminal consists of a swivelling 12.1" full-colour touch display with up to 374 pre-programmed direct access keys.

The user interface features a single screen with a direct overview of all logged-in roles and the incoming call queue status, dedicated direct access keys and one-click access to all menu functions. The colour scheme of the communication

targets depends on call type, providing visual differentiation in both the call queue and on the direct access keys.



DICORA P15



DICORA P15 – FOR COMMAND AND CONTROL CENTRES

The user interface is the same as the one in the DICORA S15. However, the component elements of the P15 terminal are physically separate. So, for example, you can have a larger touch screen, build the monitor directly into the controller's desk, or place the display in a monitor wall.

The DICORA S15/P15 are both offered with a choice of feature packages (Standard or Premium). These packages allow customers to select a feature set which fits their needs in terms of rollout plan, system size, functional requirements and, of course, budget.

The DICORA S15/P15 terminals can also be offered with an external GSM-R module, for use in remote areas lacking the appropriate VoIP or ISDN infrastructure. The feature set mirrors the capabilities of a General Purpose Handheld (GPH) in the GSM-R network.

THE HIGHLIGHTS OF THE DICORA S15/P15 FEATURE SETS ARE:

- Role management (serving multiple areas of responsibility)
- List view of trains and mobiles in the area of responsibility, including call and SMS functionality
- Predefined conferences with up to 30 members
- Pick-up queues
- Personal phone book and user configurable keys

FUNCTIONS & TECHNICAL DATA

PRODUCT

DICORA C15

DICORA S15/P15

STANDARD

PREMIUM

TECHNICAL DATA

Display (color VGA, LCD, adjustable mounting)	5.7"	S15: 12.1" with touch	P15: 15" external with touch
Keypad & Keys	Soft keys, keypad, 18 preprogrammed direct access keys + 2 on the audio module	372 virtual direct access keys and keypad in the graphical user interface + 2 direct access keys on the audio module	
Handset	●/○ with PTT	●/○ with PTT	●/○ with PTT
Headset Interface	●	●	●
Hands free operation	●	●	●
Gooseneck microphone	●	●	●
Ethernet interface	●	●	●
ISDN BRI interface	●	●	●
USB interfaces	2	S15: 2, P15: 3	
GSM-R 8W radio module (for exposed areas)	○	○	○
Power supply	110-240V AC or 36-60V DC, 30W	110-240V AC or 36-60V DC, S15: 30W, P15: 95W	
UPS with 4hrs back up time		110-240V AC	
Transmission media	VoIP, ISDN	VoIP, ISDN, Wireless	
Dimensions (W x H x D)	Display opened 476 x 249 x 299 mm	S15: Display opened 476 x 249 x 299 mm P15: Processing module: 312 x 249 x 299 mm Audio Module: 164 x 126 x 299 mm Monitor: 355 x 286 x 265 mm	
Operating temperature		5 to 40 ° C	
Relative humidity		5 to 85% (non condensing)	

GENERAL TERMINAL FUNCTIONS

Multilanguage HMI	●	●	●
GUI color profiles	1	3	3
Central storage of user individual settings	●	●	●
User identification - logon on the terminal	●	●	●
Voice coding G.711 (3,4 kHz)	●	●	●
Voice coding G.722 (7 kHz) (ISDN only)	●	●	●
Cleanse mode	-	●	●
Online help function	-	●	●

EIRENE FUNCTIONS

Functional numbering incl. CLIP	●	●	●
Explicit Call Transfer (ECT)	●	●	●
Voice Group Call and Broadcast Services (VGCS,VBS)	●	●	●
Call priority handling	●	●	●
Multilevel Precedence and Pre-emption (MLPP)	●	●	●
Railway Emergency calls (REC)	●	●	●
Call Forwarding Unconditional (CFU)	●	●	●
Fixed Role Assignment	●	●	●
SMS (free text up to 640 UCS2 encoded characters)	●	●	●
Driver Safety Device Alarm	●	●	●

PRODUCT

DICORA C15

DICORA S15/P15

STANDARD

PREMIUM

FTS 3020 ENHANCED EIRENE FUNCTIONS

Multi SMS	-	•	•
SMS text templates	•	•	•
SMS history	20	20/role	20/role
Functional number decoding	•	•	•
Call wizard for functional numbers	•	•	•
Ringtones dependent on priority	•	•	•
Role Management (System Option)			
Simultaneous roles	-	o 3	o 10
Role mode selection (exclusive, parallel, passive)	-	-	o
Free seating	-	o	o
Backup roles	-	o	o

COMFORT TELEPHONY FUNCTIONS

Calling line and name presentation (CLIP,CNIP)	•	•	•
Waiting queue (Length)	5	5	9
Hold queue (length)	1	2	2
Call monitoring (second call)	•	•	•
Call history (number of entries)	20	20/role	20/role
Conference (members)	3	10	30
Predefined conferences	•	•	•
Pick-up queue	-	-	•
Global telephone book	•	•	•
Personal telephone book	-	•	•
Direct access keys: pre-configured (per role)	18	72	288
Direct access keys: user configurable (per role)	-	-	48
Favourite direct access keys (individual user setting)	-	-	36

INTELLIGENT NETWORK SERVICE (SYSTEM OPTION)

SMS with functional number resolution	o	o	o
List view of trains and mobiles in the area of responsibility, including call and SMS functionality	-	-	o

INTEGRATION OF LEGACY SERVICES (SYSTEM OPTION)

Public address systems	o	o	o
Analog radio (UIC 751-3, PTT,SQU)	o	o	o
Trackside devices	o	o	o
Simplified station management (Remote control of doors, lights, elevators incl. status indication)	o	o	o

CERTIFICATION

Electrical safety	Low Voltage Directive 73/23/EWG, CE Marking Directive 93/68/EWG (IEC 60950-1:2001, EN 60950-1:2001)
EMC	EMC Directive 89/336/EWG, CE Marking Directive 93/68/EWG (EN 55022 Class B, EN 50121-4, EN 61000-6-3, -4, EN 55024, EN 61000-6-1, -2)
Telecom	R&TTE Directive 1999/5/EC (TBR 3)
Environmental	IEC 60721-3-3, IEC 60068-2-6, IEC 60068-2-1, -2, 14, 30, 78

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Photos: IMAGE INDUSTRIES