Product

Communication & Navigation System

Communication systems and navigation systems
for naval ships and commercial vessels.

Communication systems
for naval vessels ;

ADICS-21
DICS-32
WIRAS-III

Navigation systems
for naval vessels ;

EM-LOG
DRT

Electronic systems
for commercial ships;

SSCLS
RCMS
STC
ECDIS

Thruster control systems for both inland navigation and on board all types of sea going vessels. ▶

- Deck-mounted azimuth propulsion units
- Well-mounted azimuth propulsion units
- Retractable azimuth thrusters
- 360 degree steerable Shallow Draught Thrusters
- Tunnel thrusters

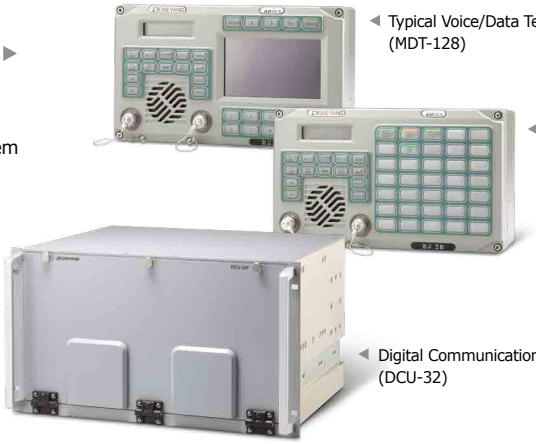
ADICS-21

Advanced Digital Integrated Communication System

ADICS-21 consists of an Internal Communication System, an External Communication System, an Announcing System, a Wireless Interior Communication System, and a Data Link System applied to any type of medium or large naval ship or submarine. The high speed optical network of ADICS-21 has high reliability and survivability as the ring structure including the dual redundancy routes, and serve gigabit Ethernet network.
As a tactical voice/audio network, the time-division multiplexing technology through 155Mbps(STM-1 standard) optical network provides a maximum of 2048 user channels simultaneously for voice or data transmission by using a non-blocking network switching technology.
In addition, ADICS-21 provides a high speed optical ethernet as an option, a variety of applicable data communications, and flexible interoperability for various demands of communication system and requirements of naval ships and submarines. More than 30 optical network systems have been delivered to naval ships and submarines.

ADICS-21 integrated communication system contains the following subsystems by customer selection.

- Internal Communication System
- Radio Communication System
- Public Address System
- Wireless Communication System
- Telephone System
- CCTV Network System
- Weather Information System
- Navigation Information System
- VoIP System
- Message Handling System
- Data Distribution Network
- Data Link Interfacing



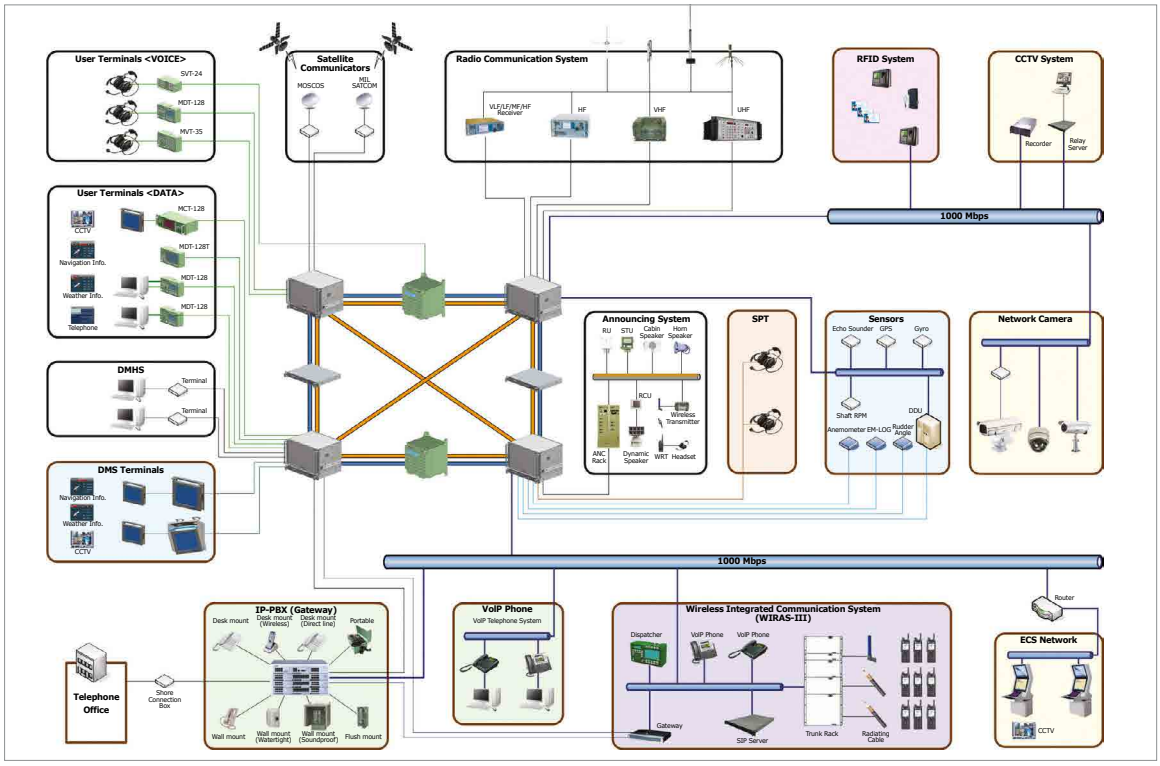
Typical Voice/Data Terminal (MDT-128)

Typical Voice Terminal (MVT-35)

Digital Communication Switching Unit (DCU-32)

System Introduction

ADICS-21 is a state-of-the-art digitalized Integrated Communication System (ICS) based on an optical communication network for newest naval ships or submarines in order to provide integrated communication environment involving naval tactical operations by using a variety of data and voice communications as below.



EM-LOG
Electro-Magnetic Speed Log

EM-LOG for the measurement of ship's speed.
This equipment indicates the speed of naval ships and voyage distance using the signal from a sensor reflected from ships to water surface.

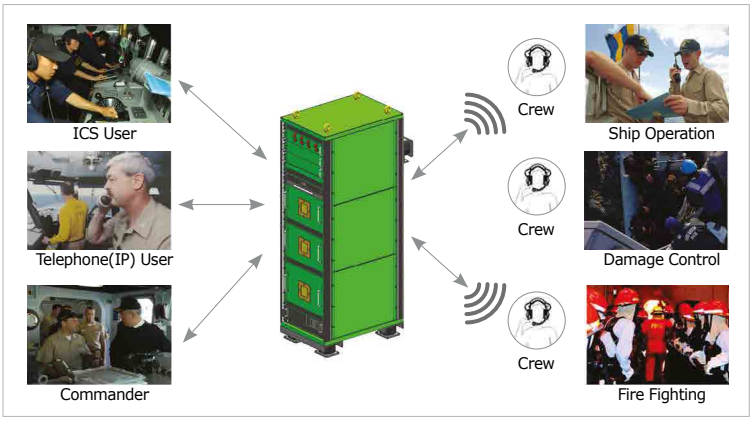
WIRAS-III
Wireless Interior Radio Communication System

WIRAS-III is based on the digital TETRA and VoIP technology. And the central management system is normally installed in 19" standard rack. It consists of 1 to 4 transceivers for 3 to 15 user channels and VoIP telephone channels.

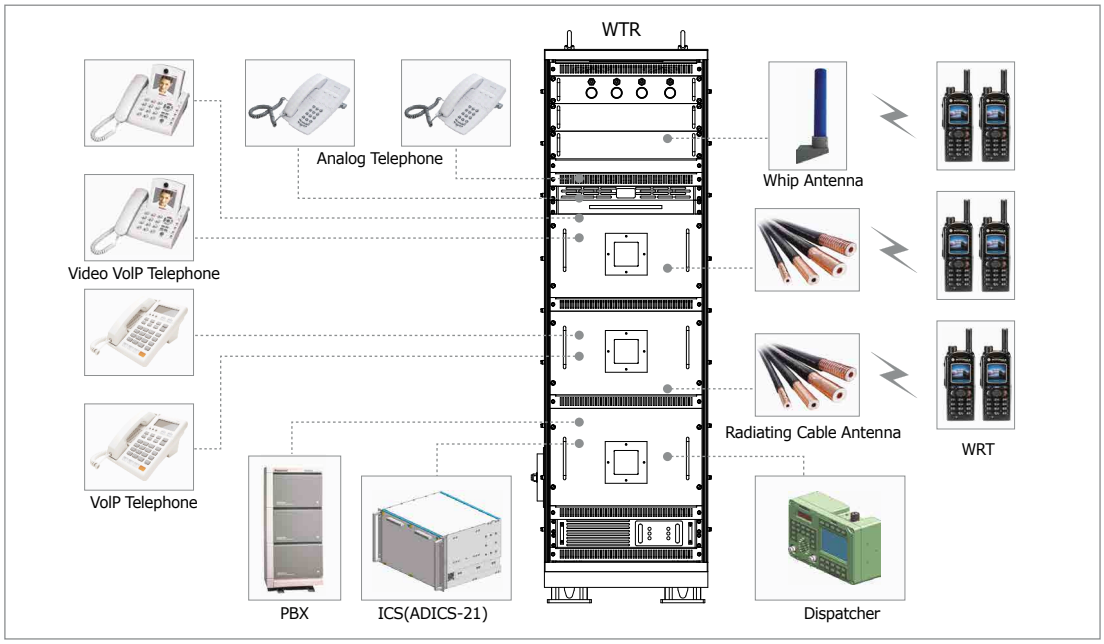
This system has various functions as follows ;
- Sending and receiving SMS
- Individual call and Group call
- Communicate with ICS
- Communicate with PBX through gateway
- VoIP communication through SIP protocol
- Seven user channels simultaneously
- 0.5 to 8 hours long time backup UPS (Option)

This system consists of the following devices ;
- Trunk Rack (WTR)
- Dispatcher (WDT)
- Radio Transceiver (WRT)
- Mobile Terminal (WMT)
- Network Manager (WNMS)
- VoIP Telephone (WTP)

WIRAS-III System Operation Example



Typical System Configuration of WIRAS-III



SSCLS
Ship Shore Communication Link System

1 | Perfect Compatibility

2 | Distributed Control System

Several independent function controllers are connected by CAN interfaced network.

- Overall system reliability is intact even when some components are faulty during operation.
- Modular design for facilitation in future system expansion.
- Applying functional redundancy.

3 | Easy User Interface

Easy to operate and to control system with intuitive touch LCDs.

- Provide three touch LCDs.
- If one touch LCD is faulty, user can use other LCDs as a replacement.
- Slave LCD can be used in separately main cabinet.

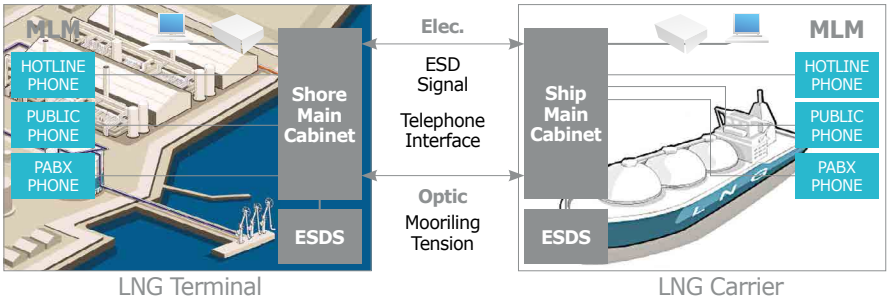
4 | Auto Wiring

Electrical pin connections are automatically selected by simple choosing of port/terminal name.

5 | Self-Diagnostics

Intrinsic self-diagnostic function for each component with controllers.

SSCLS System



LNG Terminal LNG Carrier