

# INTEGRATED COMMUNICATIONS SOLUTIONS FOR F125

## The German Navy F125 class frigates

The German Navy's F125 class frigates are primarily designed for low and medium intensity maritime stabilization operations, for which the German Navy adopted a dual-crew concept. The advanced technology of these frigates enables intensive use with up to two years of standing time in the operational area without a planned shipyard stay.

## KEY FACTS

- ▶ Displacement: 7200 t full load
- ▶ Length: 149.6 m
- ▶ Beam: 18.8 m
- ▶ Speed: 26+ knots (top speed)
- ▶ Draught: 5
- ▶ Crew: 120 (+ 70 embarked)

### LOS COMMUNICATIONS SYSTEM

### ANTENNA SYSTEMS

### R/CESM



"As a former ship engineering officer and naval training officer of the German Navy, I am very proud to see that Rohde & Schwarz has been selected by the German Navy for this very important national asset. The company is a solutions provider of systems for secure communications, radar interception and radio reconnaissance for the German armed forces and systems are already operational throughout the German fleet. In light of the ship's broad deployment capabilities, facing complex threat scenarios, our systems on board are proof that we continue to be a technology leader in the naval domain."

Maik Hirthe, Senior Director of Subdivision R&D Monitoring and ATC, Rohde & Schwarz Technology Systems

### SPECIFICALLY DESIGNED FOR WORLDWIDE DEPLOYMENT IN HIGH-INTENSITY SCENARIO

The German Navy's F125-class frigates are designed for low and medium intensity maritime stabilization operations, where they are supposed to provide sea-to-land tactical fire support, asymmetric threat control at sea and support of special operations forces. These four frigates were designed and constructed by ARGE F125, a joint-venture of thyssenkrupp Marine Systems and Lürssen.

### OVERVIEW

Under the ARGE F25 overall system responsibility Rohde & Schwarz is in charge for R/CESM, ELINT collection and analysis solutions, antenna systems and software defined radios. In naval applications, Rohde & Schwarz provides secure and fully-IP based system solutions for external communications (voice and data) across all security domains for all classes of ships working in a joint or combined environment. Rohde & Schwarz has provided more than 40 navies with state-of-the-art communications technology.

### EXTERNAL COMMUNICATIONS: ROHDE & SCHWARZ VHF / UHF RADIOS

Line of sight (LOS)-communications by Rohde & Schwarz consist of shipborne radios of the SOVERON software defined radio family. The SDR is designed for stationary civil and military secure voice and data communications. It features high modularity and offers military customers a wide range of interfaces such as LINK 11/22 support and associated EPM waveforms, in line with NATO standards.

### ADVANTAGES OF A MODERN SOLUTION

A powerful intercept and analysis systems detects, identifies and tracks complex and broadband radar emissions, as well as communications transmissions. The system combines the detection results of the different signals and thus provides a comprehensive picture of the situation, covering the entire electromagnetic spectrum of the environment with high sensitivity and a long detection range. It provides improved situational awareness resulting in an increased early warning capability, enabling the acquisition, analysis and evaluation of radar and communications signals at sea, opening a new dimension of information.

### ADVANCED ANTENNA SOLUTION

The antenna system from Rohde & Schwarz comprises antennas for communications and signal interception. With obstruction-free 360° view on top of the main mast, the set of antennas has the best possible coverage over the sea. The antennas allow VHF/UHF communications as well as interception of radar and communications signals, contributing to the crew's information superiority.

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