### FELCOM 16

1. **Frequency**
   - TX: 1626.5 - 1646.5 MHz
   - RX: 1530.0 - 1545.0 MHz

2. **Channel Interval**
   - 5 kHz

3. **Modulation**
   - BPSK 600/1200 symbols/s

4. **Minimum G/T**
   - TX: 1626.5 - 1646.5 MHz
   - RX: 1530.0 - 1545.0 MHz

5. **EIRP**
   - +1.3 dBi or more (angle of elevation 5°)

6. **Software for PC**

**ANTENNA UNIT**
- Daisy Loop Antenna
- Omni-directional
- 0 dBi or more (angle of elevation: 90°)
- +1.3 dBi or more (angle of elevation: 5°)
- Within 6 dBi (5° to 90°)

**INTERFACE**
- Serial Interface Device: D-sub9, RS-232C
- Navigational Equipment: D-sub5, IEC 61162
- SSAS Alert Unit: D-sub15 (through the junction box)

**POWER SUPPLY**
- 12-24 VDC, 60 W (TX), 10 W (RX)

**ENVIRONMENT**
- Ambient Temperature
  - Antenna Unit: IPX6
  - Communication Unit: -15°C to +55°C
  - Waterproof (IEC 60529)
- Vibration EMC according to IEC 60945

**EQUIPMENT LIST**

#### 1. Frequency
- TX: 1626.5 - 1646.5 MHz
- RX: 1530.0 - 1545.0 MHz

#### 2. Channel Interval
- 5 kHz

#### 3. Modulation
- BPSK 600/1200 symbols/s

#### 4. Minimum G/T
- TX: 1626.5 - 1646.5 MHz
- RX: 1530.0 - 1545.0 MHz

#### 5. EIRP
- +1.3 dBi or more (angle of elevation 5°)

#### 6. Software for PC

#### EQUIPMENT LIST

**Antenna Unit**
- IC-115 with 30 m Cable
- IC-116 with 30 m Cable
- IC-216
- IC-307
- ic-315
- Software for PC
- Cable 15/50/100 m

**Terminal Unit**
- IC-216

**Communication Unit**
- IC-307
- IC-315

**Alarm Unit**
- IC-306

**SSAS Alert Unit**
- IC-307

**Installation Materials and Spare Parts**

*Required for EGC, IMO Res. A.664 (16)/4 to operate on ship's mains.*

### FELCOM 12

- Terminal Unit IC-215
- Communication Unit IC-216
- Junction Box IC-315
- Alarm Unit IC-306
- SSAS Alert Unit IC-307

**Antenna Unit IC-115/IC-116**
- 1.4 kg
- 3.1 lb

**Terminal Unit IC-215**
- 4.5 kg
- 9.9 lb

**Communication Unit IC-216**
- 1.2 kg
- 2.7 lb

**Junction Box IC-315**
- 0.7 kg
- 1.5 lb

**Alarm Unit IC-306**
- 0.35 kg
- 0.8 lb

**SSAS Alert Unit IC-307**
- 0.35 kg
- 0.8 lb

**Equipment Subject to Change Without Notice**

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**SPECIFICATIONS OF FELCOM 15/12**

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For Safety at Sea . . .

The FELCOM 12/15/16 with SSAS facility are Ship Security Alert Systems (SSAS) based on Inmarsat C or mini-C mobile earth station. The standard performance of these FELCOM series meets the requirement of IMO MSC.136(76) and MSC.147(77).

The system is intended for transmitting a security alert when the ship is under attack by pirates, terrorists, etc. It notifies the preset flag administration on land that the ship is under threat, without generating any audio/visual alarms to prevent others onboard from sensing that a security alert is transmitted. Its multi-addressed transmission function enables the transmission of the reports to the ship owner as well as to the flag administration.

The information transmitted includes ship’s current position and identification. Ship’s position, obtained by using the built-in GPS receiver, is sent at regular intervals so that the flag administration and the ship owner are kept informed of the position of the ship. An optional backup battery is available to drive the system up to five days for continual data transmission. Furthermore, its polling function enables the tracking of a ship even after the ship loses communication due to the disturbances caused by pirates.

Both FELCOM 15/16 with SSAS facility can be easily installed in the bridge thanks to their compact size. FELCOM 15 consists of compact terminal unit with 10.4" color LCD and optional GPS receiver with small antenna unit. FELCOM 16 consists of a small antenna unit and the communication unit. Both systems provide a stand-alone SSAS solution. The existing FELCOM 12 can be easily upgraded to the SSAS simply by adding the SSAS Alert Buttons, the interface and the dedicated software.

To generate an alarm is simple; just flip up the protection cover and press the alert button.

System Configuration of Ship Security Alert System

FELCOM 15 with SSAS facility

For Carriage requirements and installation schedule by SOLAS Chapter XI (for international voyage)