

## COFDM SHIP TO SHORE VIDEO LINK SYSTEM

Navtech's digital COFDM link system is composed of several core components, specifically designed for demanding marine applications. All equipment is proven and meets accepted specifications for marine use. The system provides the latest available technology for robust and secure digital transmission of full resolution, full frame rate video pictures from sea borne platforms. The system is in use by both security and broadcast operators. A wide range of compatible shore-side receiver systems are available to meet any operational requirements for short, medium or long range reception.

### Integrated Antenna and PA Module for low-loss Mast Head mounting



### COFDM Transmitter



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## Integrated COFDM Transmitter

A 19" rack panel mounted transmitter with integrated power conditioning and control panel for setting the transmitter parameters. The transmitter integrates video interfaces, M-PEG encoding, COFDM modulation and linear power amplification. The unit meets RTCA/DO160 standards for EMC and mechanical robustness

- **Inputs** Analogue video ( PAL / NTSC ) - option for 2 inputs  
Digital video (ASI or SDI) – optional  
Audio  
GPS Data
- **Outputs:** RF: up to 200mW output - Optional selectable Hi / Lo power  
2.0 – 2.5 GHz or 3.3 – 3.6 GHz (**other frequencies as required**)  
Video monitor (analogue composite)
- **Encoding:** M-PEG-2 4:2:0 MP@ML 1.5 to 15 Mbit/s  
Optional MPEG-2 4:2:2 P@ML 1.5 to 20 Mbit/
- **Modulation:** Coded Orthogonal Frequency Division Multiplexing ( COFDM )  
6, 7 or 8 MHz bandwidth, QPSK or 16QAM modulation  
Selectable Guard Interval and FEC  
Fully DVB-T compliant  
Secure, user-selectable AES 128 bit digital encryption
- **Power:** Voltage requirement : 18 – 30 V DC ( 28V typical) or 220vac  
Power consumption: 160W @ +39dBm TX output

## Control panel features

- Channel selection
- Power on / off
- Selectable Encryption

## Available Options

- Selectable video source
- Selectable transmit power

**Physical**                      Dimensions 2U 19" rack mounted panel case  
Weight 1kg

**Environmental**            Operating temperature: -20 to +50 deg C



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## Transmit Antenna and integrated PA

A variety of Omni directional antennas are available to suit different installation and performance requirements. Mounting is directly to the ships mast head antenna bridge or other suitable location. The integrated PA ensures that the transmit power is delivered to the antenna without loss in the feeder cable.

Low power RF is fed directly from the transmitter located below decks and amplified for transmission by the mast head PA.

A typical specification for use on ship borne applications (as shown in photograph) is:

- Gain: 6 to 8dBi
- Polarisation: Linear or circular
- Weight : Typical 1.2Kg
- Size: 220 x 100 x 125 mm
- Connector : RF (N-type) & power
- Power : 8W nominal RF
- Temperature : -20 to +50 deg °C

**NOTE: Navtech Systems Limited has a policy of continuous product development. The data provided above should therefore be used for guidance purposes only.**



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