

COFDM SHIP TO SHORE RECEIVING SYSTEMS

Navtech offers a wide range of systems to meet all requirements for receiving digital COFDM video transmissions from offshore marine video links. This covers portable equipment, mobile command vehicle systems and fixed site, long range installations. Equipment can be tailored and customised to suit a particular user's individual requirements.

Medium and Long Range

For reception of video images from ranges up to 100Km (airborne) 50Km (ship to shore), a fixed array of six sector antennas is used. Typically these have a gain of between 15 and 17 dB (depending on frequency band used). The antennas can be roof-top or mast mounted together with their individual frequency 'block down converters' (BDC's). These Sector Arrays do not require GPS tracking.

These BDCs convert the high frequency transmitted signals to lower frequency UHF signals that are then supplied, via simple co-axial cables, to the receiver. The receiver can thus be mounted in an equipment room several hundred meters from the antennas. Standard 19" rack-mount units or ruggedised portable systems are available.

The receiver utilises the latest **Maximal Ratio Diversity** combining technology for optimal COFDM performance whilst maintaining full DVB-T compliance.



6W MRC diversity COFDM receiver

3U 19" or desk-top mount

Integral display screen & Keypad for control and monitoring

Remote Control option



17dBi sector antenna in diversity array

Integrated down converters

UHF IF for low loss down feeds

Suitable for permanent outdoor installation



Short and Medium Range

For local reception of COFDM linked video images, the same high performance diversity reception technology that is utilised in the long range system is packaged into a simplified, small lightweight unit. Instead of six high gain sector antennas, two lower gain omni-directional antennas are used (although a high gain antenna can be attached for increased reception range). When operating in high multi-path environments (such as urban areas), particularly when the transmission source or receiver is mobile, the capabilities of diversity reception enable maximum performance and solid, reliable video reception. This 2-way diversity receiver is offered in a variety of packages to suit different applications.

Examples of typical configurations



'Grab and Go' series portable receivers

Battery, DC and Mains operation

Integrated 10.4" High brightness LCD monitor

Mag Mount antennas

'Mobile Command Post' receiver

2U 19" rack mounting

Internal or external down-converters

Multiple buffered video outputs and ASI

Mains or 12 - 36 V DC operation



Portable antennas

Diversity Omni antennas with flat panel directional

Magnetic roof top, tripod or fixed mount



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