

KENTA

The specialist of Radio Frequency Communication systems

KVHF-4013-50

50W VHF Transceiver
for GMDSS Coast Station
Full IP – ED 137B compatible

The **KVHF-4013-50** transceiver works in the maritime VHF frequency range from 156MHz to 162MHz and can deliver up to 50W of RF signal into a 50Ω load in transmission mode.

The **KVHF-4013-50** transceiver uses up-to-date technologies and has **native IP capabilities** with the following features:

- Control through a high level **WEB** server (both for settings and monitoring),
- High level Monitoring through **SNMP** (MIB supplied) as standard feature,
- Data input both for voice and DSC fully compliant with the ED137-B standard (VoIP with SIP),
- LCD for local settings & monitoring,
- 3.5mm Jack connector as interface for standard voice accessories (microphones, PTT etc.) for local use

The **KVHF-4013-50** transceiver is especially designed to be installed into a maritime coast station fulfilling the GMDSS requirements.

The **KVHF-4013-50** fulfills the requirements according to **EN 301 929-1** ETSI Standard for stationary sea radio units and guarantees a reliable operation, even in long time stress operation.

The **KVHF-4013-50** transceiver is fully integrated inside a 19" - 2U rack with single phase 230VAC – 50Hz for easy installation on site. In addition an isolated DC input for 24VDC/48VDC is possible as an option .

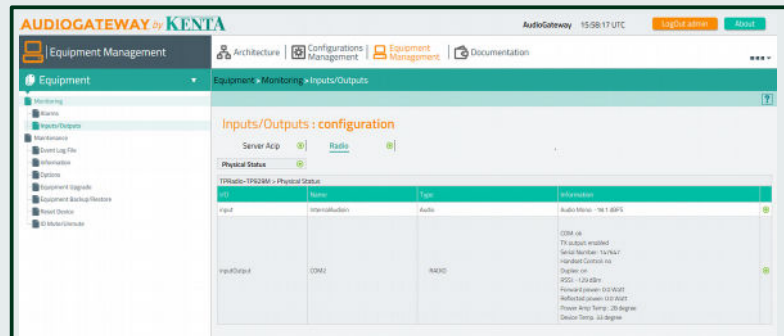
The **KVHF-4013-50** transceiver can be used both for voice and DSC applications (built-in VoIP encoders / decoders as standard, built-in DSC encoder / decoders as an option) and is semi and full-duplex capable.



KVHF-4013-50

General Specifications

| | |
|-------------------------------|--|
| Dimensions: | 19" – 2U rack |
| Weight: | 15kg |
| Operating temperature: | 0°C to +50°C |
| Power supply: | 230VAC - 50Hz +/-5% Optional : 24/48 VDC |
| Frequency Range: | 156MHz – 162MHz |
| Number of Channel : | User configurable with channel table |
| Channel Spacing : | 12,5/25kHz |
| Frequency Stability : | better than +/-2ppm |
| Operation modes: | Simplex/Semi-duplex/Full duplex External relay in option for use on a single antenna External module (KDUP-4091) for full duplex operation on a single antenna |
| IP Data Input: | Ethernet (10/100/1000 BaseT RJ45) VoIP with SIP (ED137B compliant) |
| Control / Monitoring: | Ethernet (10/100/1000 BaseT RJ45) Web Application included (HTTP) SNMP Agent included LCD display for local settings & monitoring |
| Compliances: | CE approved according to the European EMC Directive 2004/108/EC RTT&E- EMC – European Directives 1999/5/EC EN 301 929-1 ETSI Standard |



WEB based control & monitoring software example
VHF Transceiver monitoring page

Analog Audio Connector:

Line in out on 600 Ohm balanced RJ45 connector, squelch and PTT

RF Connectors:

TX out on female N Connector
RX in on female N Connector

Handset Connectors (on front panel):

2 x Jack 3.5mm for microphone and headphones
2 contacts connector for PTT

www.kenta.fr

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F29500 Ergué-Gabéric - France

Main Ordering Information:

~KVHF-4013-50

50W VHF Transceiver

KVHF-4013-50 Product Datasheet
Specifications subject to change without prior notice
Document with no contractual value

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Front Panel View



KVHF-4013-50

TX Specifications

| | |
|--------------------------------------|--|
| Output Power: | 1-50W, by steps fo 1 dB |
| Power consumption : | 165 W on AC, 205 W on DC Standby:25W |
| Output impedance: | 50Ω |
| Adj. channel power: | <-80dB for 25kHz channels |
| Conducted/Radiated emissions: | Tx ON <-36dBm for f<1GHz Tx ON <-30dBm for 1GHz<f<4GHz Tx OFF <-57dBm for f<1GHz Tx OFF <-47dBm for 1GHz<f<4GHz |
| Max. Deviation : | ± 2,5kHz for 25kHz channels ± 5kHz for 25kHz channels |
| Max distortion at 60 % : | < 5 % @ 1kHz |
| Residual Modulation: | <40dB |
| AF response: | 300 – 3000Hz +6dB/octave pre-emphasis |

Options

- External coaxial relay for simplex or semi-duplex operation on a single antenna (to be specified at order)
- External duplexer unit (KDUP-4091 product from KENTA) for simplex or full duplex operation on a single antenna (to be specified at order)
- DC inputs 24VDC or 48VDC (to be specified at order)
- DSC encoder / decoder (software licence)

RX Specifications

| | |
|--|--------------------------------------|
| Sensitivity at 20dB SINAD : | better than -113dBm |
| Input impedance : | 50Ω |
| Spurious response: | >80dB |
| Adj. Channel selectivity: | >80dB for 25kHz channels |
| Blocking : | >-10dBm |
| Max distortion at 60 % : | < 2 % @ 1kHz |
| Max input level for Nominal operation : | >-13dBm |
| AF response: | 300 – 3000Hz +6dB/octave de-emphasis |

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