

# VHF Base Station Transceiver

The Danphone VHF Base Station Transceiver type DCB 9140 IP is specifically designed to operate in the marine VHF band. The latest features include built-in Voice over IP and DSC modem controlled via LAN.

## KEY FEATURES

- GMDSS compliant
- Voice over IP
- Remote-control over IP
- Built-in DSC modem option
- Choice of single or dual receivers
- Specifically designed and manufactured for 24/7 operation
- Fully scalable from small ports to large national coastal radio systems
- Proven and tested for operation under harsh environments
- The transceiver connects with LAN, antenna and power supply
- In addition to VoIP and remote-control over IP, the DCB9140 transceiver allows for local control via optional display and headset



# SPECIFICATIONS

## CONNECTIONS

**LAN**

**RS422**

**13.2V<sub>DC</sub>**

**Auxiliary connector**

**TX antenna**

**RX antenna**

## LED INDICATORS

**Green: power and health**

**Red: TX**

**Green: Sq. RX2**

**Green: Sq. RX1**



GENERAL	TRANSMITTER	RECEIVER	REMOTE SETTINGS
<b>Frequency range</b> 156-163 MHz (Up to 174 MHz upon request)	<b>RF output power</b> 2-75 Watt adjustable	<b>RX sensitivity</b> Typically, better than -119 dBm / 12 dB SINAD before duplexer. Better than -117 dBm / 20 dB SINAD before duplexer.	<b>Channels</b> All international marine channels Including ITU Radio Regulations Appendix 18
<b>Operating modes</b> Duplex, Semi-Duplex, Simplex	<b>Spurious emission</b> < -85 dB Relative Carrier	<b>Spurious response</b> Better than 80 dB	<b>Transmitter power level</b> 1-75 Watt
<b>Duty cycle</b> 100%	<b>Adjacent channel power</b> Better than 80 dB	<b>Intermodulation rejection</b> Better than 85 dB	<b>Squelch reference</b> Customer defined levels
<b>Duplex spacing</b> 4.6 MHz	<b>Modulation</b> +6 dB / Octave	<b>Adjacent channel selectivity</b> Better than 80 dB	<b>RX audio balance</b> 245 mV ± 6 dB
<b>Number of channels</b> 55 International marine channels	<b>Deviation</b> 3 kHz nom, 5 kHz max	<b>Blocking</b> Better than 95 dBµV (emf)	REMOTE READINGS
<b>Channel spacing</b> 12.5 and 25 kHz	<b>Distortion</b> Better than 3%	<b>Co-channel rejection</b> better than 10 dB	<b>Supply power level</b> 0-18V ±0.1V
<b>Frequency stability</b> 0.5 ppm	<b>Hum and noise</b> Better than 40 dB	<b>Hum and noise</b> Better than -40 dB	<b>Transmitter power level</b> 2-75 Watt
<b>Supply voltage</b> 13.2V <sub>DC</sub> min, 16V <sub>DC</sub> max < 15A Over voltage protection max 32V <sub>DC</sub>	<b>Intermodulation</b> Better than 40 dB at 30 dB attenuation between transmitters	<b>Distortion</b> Better than 3%	<b>Reflected power level</b> 1-20 Watt
<b>Current consumption</b> Transmission < 15A (75 Watt) Standby < 0.5A	<b>TX antenna connection</b> 50 Ω	<b>RX antenna connection</b> 50 Ω	<b>Temperature level</b> -30 to +80°C, ±5°C tolerance
<b>Duplexer</b> Optional	INTERFACE	DIMENSIONS	<b>RSSI</b> 0-40 dBµV
<b>MTBF</b> > 50,000 hours	<b>LAN interface</b> For audio and remote control IPV4 (upgradeable to IPV6 via software)	<b>Dimensions</b> 127 x 215 x 260 mm	<b>Transmitter shutdown</b> For SWR >3
<b>Operating temperature</b> -20 to +55°C. humidity up to 95% non-condensing	<b>RS 422 interface</b> For local control and operation, display, external alarm signaling, etc. (optional)	<b>Weight of the transceiver</b> 4.1 kg	<b>Over Temperature Protection</b> Derate output power 0-100% @ T-case 70-90°C
<b>Compliance</b> EN 301 929 V2.1.1 VHF RoHS-2011/65/EU	<b>VoIP</b> Danphone multicast protocol G.711 & G.723.1 EURO CAE ED 137/C	<b>Rack mount design</b> Two transceivers can be mounted side-by-side in a 19" 3HU Sub rack	
	<b>SNMP</b> For control and monitoring	<b>Power supply</b> 13.2 - 16V <sub>DC</sub> < 15A	