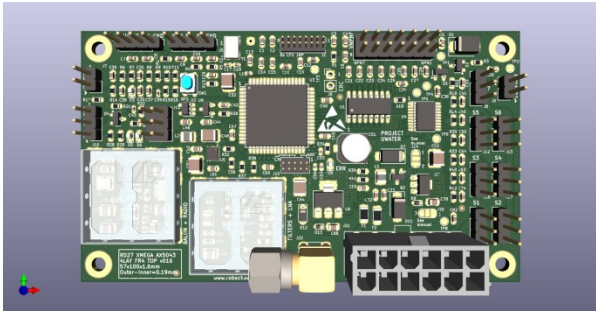

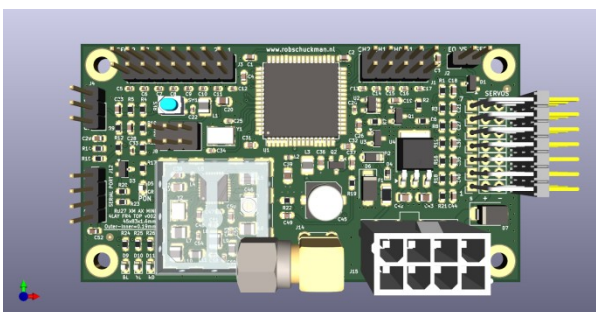
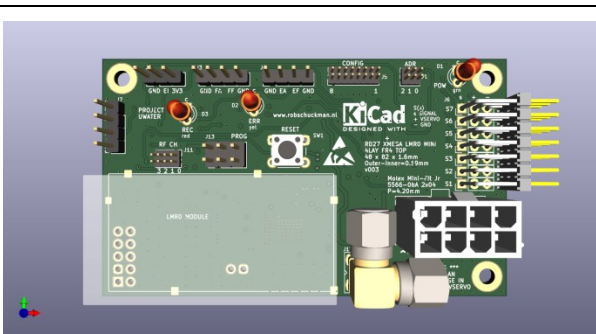


## Receiver overview

General receiver properties			
<ul style="list-style-type: none"> <li>Shielded RF section</li> <li>Seven servo channels</li> <li>Does not support telemetry</li> <li>Same communication protocol</li> <li>Adjustable low battery threshold VS</li> <li>Active low error input (surfaces vessel)</li> <li>Low battery and RF signal loss safety feature</li> </ul>		<ul style="list-style-type: none"> <li>4-layer PCB, 50Ω characteristic impedance RF tracks</li> <li>Servo supply voltage (VSERVO) not protected by a fuse</li> <li>Simplex/one-way digital radio communication with CRC</li> <li>27MHz, 6CH, FSK, 2400bit/s, BW=10kHz, sensitivity: -120dB</li> <li>Channels: 26.995, 27.045, 27.095, 27.145, 27.195, 27.255 MHz</li> <li>VS<sup>1</sup>, on-board fuse, reverse polarity- and over voltage protection</li> <li>VS: 6-12V re-chargeable battery (cells: 3/6 lead acid, 2/3 Lithium, 6/7/8 NiMH)</li> </ul>	
<p>ONSEMI A5043 transceiver IC</p> <p>+ extensive<sup>2</sup> RF front-end</p>		<p>Standard series (bigger, more functionality)</p> <p>Common properties</p> <ul style="list-style-type: none"> <li>57x100mm</li> <li>3D accelerator</li> <li>4x end-limit input<sup>3</sup></li> <li>Small configuration jumpers</li> <li>Supports serial configuration</li> <li>Does not support auxiliary PCB</li> <li>Buffered 3.3V or 5.0V servo pulses</li> <li>Reversed polarity protection VNPN</li> <li>Active low error output (NPN, 24V/300mA)<sup>4</sup></li> <li>7x digital output (NPN) with a common fuse</li> <li>Separate supply connections for VS, VNPN (ULN2003) and VSERVO.</li> <li>Supports multiple ballast systems (determined by software)</li> </ul>	
<p>Radiometrix LMRO receiver module</p>			
<p>ONSEMI AX5043 transceiver IC</p> <p>+ standard RF front-end</p>		<p>Individual properties</p> <ul style="list-style-type: none"> <li>45x83mm</li> <li>No end-limit inputs</li> <li>Large configuration jumpers</li> <li>Active low error output without fuse (NPN, 24V/300mA)</li> <li>Hardware supports half-duplex communication (telemetry)<sup>5</sup></li> </ul>	<p>Mini-series (smaller, less functionality)</p> <p>Common properties</p> <ul style="list-style-type: none"> <li>3.3V servo pulses</li> <li>Supports piston tanks</li> <li>No serial configuration</li> <li>Supports auxiliary PCB<sup>6</sup></li> <li>No digital outputs (ULN2003)</li> <li>Separate supply connections for VS &amp; VSERVO.</li> </ul>
<p>Radiometrix LMRO receiver module</p>		<p>Individual properties</p> <ul style="list-style-type: none"> <li>48x82mm</li> <li>4x end-limit input</li> <li>Small configuration jumpers</li> <li>No error output</li> </ul>	

<sup>1</sup> Supply voltage for on board electronics

<sup>2</sup> Amongst others includes a band pass filter and LNA (the latter to compensate for filter losses)

<sup>3</sup> Can for instance be used to stop piston tanks at their end position

<sup>4</sup> To launch for instance a buoy (not protected by fuse)

<sup>5</sup> Transmit power = 3mW@50Ω

<sup>6</sup> 25x60mm, 3.3V, connects to receiver via 4w flat cable, supports: 3D accelerometer, pressure sensor, 2x water sensor and 4x end-limit input