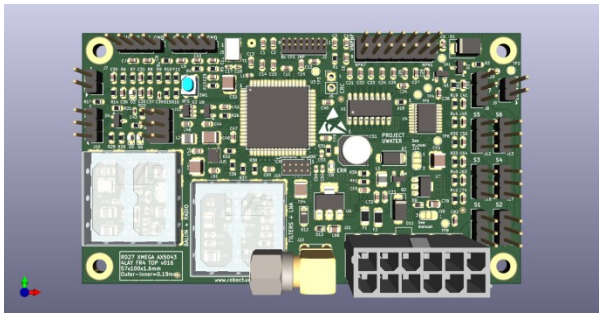
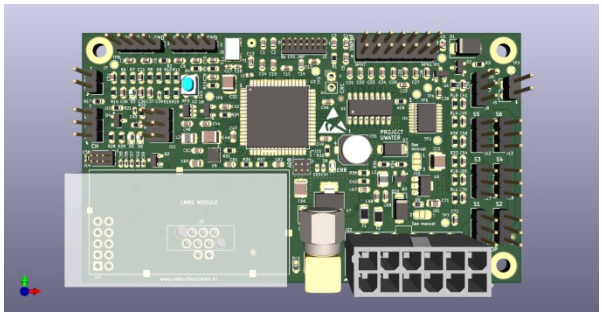
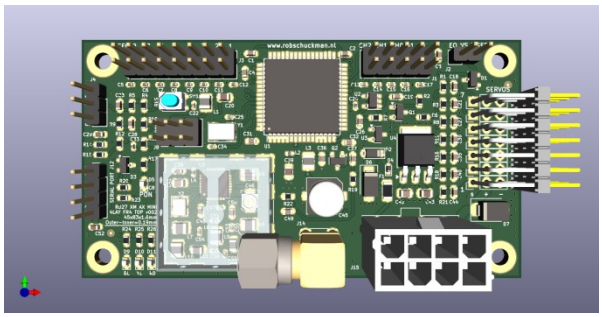
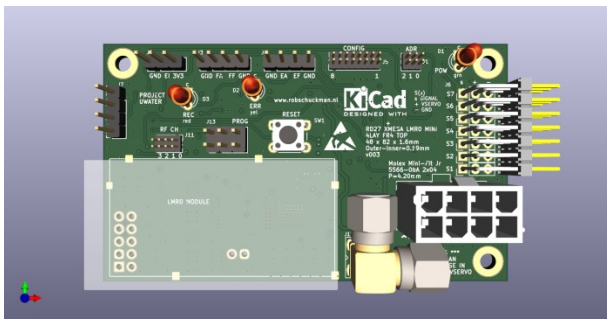
Receiver overview

<table>
<tr><td colspan="4">General receiver properties</td></tr>
<tr><td colspan="2">Shielded RF section
Seven servo channels
Does not support telemetry
Servo supply voltage not fused
Identical communication protocol
Active low error input (surfaces vessel)</td><td colspan="2">Low battery and RF signal loss safety feature
Simplex/one-way digital radio communication
Reverse polarity and over voltage protection VS[1]
4-layer PCB, 50Ω characteristic impedance RF tracks
27MC, 6ch, FSK, 2400bit/s, BW=10kHz, sensitivity: -120dB
VS: 6-12V re-chargeable battery (Cells: 3/6 lead acid, 2/3 Lithium, 6/7/8 NiMH)
Channels: 26.995, 27.045, 27.095, 27.145, 27.195, 27.255 MHz</td></tr>
<tr><td>ONSEMI
A5043
transceiver
IC

+
extensive[2]
RF front-end</td><td>  </td><td colspan="2" rowspan="2">Common properties
57x100mm
3D accelerator
Standard series
4x end-limit input[3]
7x digital output (ULN2003)
Small configuration jumpers
Supports serial configuration
Does not support auxiliary PCB
Supports multiple ballast systems
Buffered 3.3V or 5.0V servo pulses
Reversed polarity protection VNPN
Active low error output (NPN, 24V/300mA)[4]
Fused VNPN on digital outputs connector (3A slow blow)
Separate connections for VS, VNPN (ULN2003) and VSERVO</td></tr>
<tr><td>Radiometrix
LMR0
receiver
module</td><td>  </td></tr>
<tr><td>ONSEMI
AX5043
transceiver
IC

+
standard
RF front-end

See also note[5]</td><td>  </td><td>Individual properties
45x83mm
No end-limit inputs
Large configuration jumpers
Active low error output (NPN, 24V/300mA)</td><td rowspan="2">Common properties
Mini series
3.3V servo pulses
Supports piston tanks
No serial configuration
Supports auxiliary PCB[6]
No digital outputs (ULN2003)
Separate supply connections for VS & VSERVO</td></tr>
<tr><td>Radiometrix
LMR0
receiver
module</td><td>  </td><td>Individual properties
48x82mm
4x end-limit input
Small configuration jumpers
No error output</td></tr>
</table>

[1] Supply voltage for on board electronics (VNPN and/or VSERVO can/may equal VS)
[2] Amongst others includes a band pass filter and LNA (the latter to compensate for filter losses)
[3] Can for instance be used to stop piston tanks at their end position
[4] To launch for instance a buoy
[5] Hardware supports half-duplex digital radio communication (transmit power=3mW@50Ω)
[6] 25x60mm, 3.3V, connects to receiver via 4w flat cable, supports: 3D accelerometer, pressure sensor, 2x water sensor and 4x end-limit input