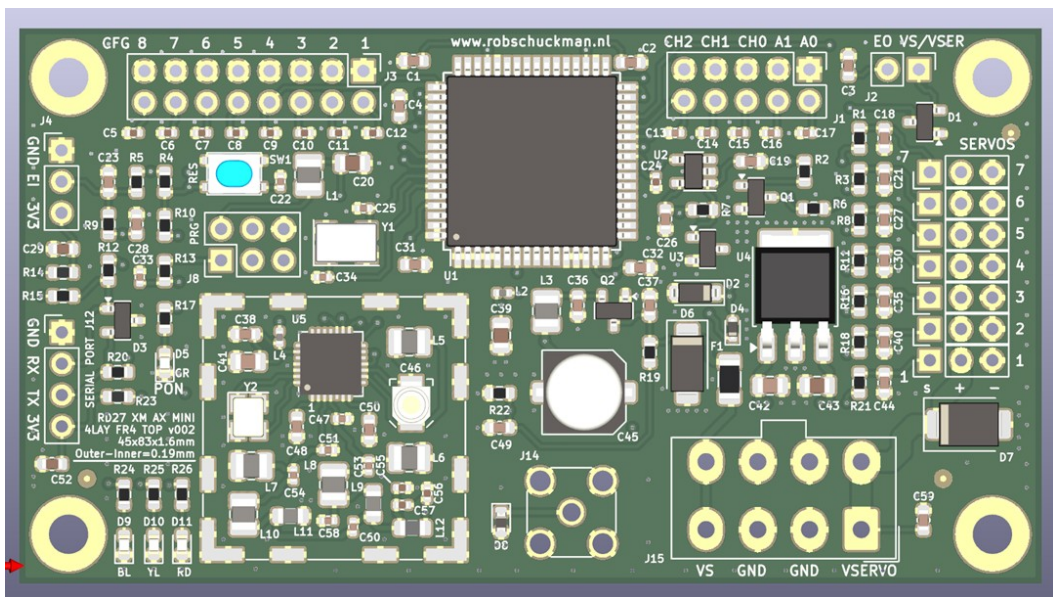


Flyer 27MHz mini receiver for simplex remote control of a model submarine

Supports piston tanks only, without digital outputs (no ULN2003)

Based on the AX5043 transceiver IC

4x electrical isolated mounting hole that can be connected to GND via solder jumper on back.	CFG 8-1 = Configuration 1=Enable reverse thrust 2 =X-rudder ¹ (uses also free 2) 3=Low battery guard VS 4=Low battery guard VS 5=Low battery guard VS 6=Empty tanks direct on non-fatal error 7=Two propellers ² (uses also free 2) 8=Invert reverse thrust	CH2-CH1-CH0 RF channel (0-5). Must match transmitter. 000=CH0=26.995MHz 001=CH1=27.045MHz 010=CH2=27.095 MHz 011=CH3=27.145 MHz 100=CH4=27.195 MHz 101=CH5=27.255 MHz	A1-A0 Protocol address (0-3). Must match transmitter. 00=ADR0 01=ADR1 10=ADR2 11=ADR3	EO ³ = 6-24V/0.3A error output (buoy release) Activates after EI being active for 20s	Software ID: rd27_mini_xm_ax
EI = Error input (active low). Response time=2s 3V3 (max 10mA)					7x 1-2ms servo pulse (3V3). Low pass output filter (220 Ohm/ 1nF). 7=aftPiston 6= Propeller 5=fwdPiston 4=Free 2 ⁴ 3=Free 1 2=Dive rudder 1=Left/right
Rx & Tx used for auxiliary ⁵ PCB Automatically detects presence of auxiliary PCB.	LEDs GRN = Power on indicator BLUE = Auto ranging successful YEL = Errors RED = Data receive	Configuration (CFG 543) 000= Low battery guard VS off 001=5.75V (6.00V, 3 cells, Lead acid) 010=6.90V (7.20V, 6 cells, NiMH/NiCD) 011=6.60V (7.40V, 2 cells, Lithium/LiPo) 100=8.05V (8.40V, 7 cells, NiMH/NiCD) 101=9.20V (9.60V, 8 cells, NiMH/NiCD) 110=9.90V (11.1V, 3 cells, Lithium/LiPo) 111=10.5V (12.0V, 6 cells, Lead acid)	Supply voltages: VS: 6-12V (0.5A fuse, slow blow, low battery guard applicable) VSERVO: 6-24V (max 8A, non-fused)		
Outer PCB dimension: 45x83mm, Mounting holes: 4x3.2mm, centre=37x75mm, 4mm from edge of PCB. Non-fatal error ⁶ : causes propeller and piston tanks to halt until the cause is resolved. After 20s piston tanks start emptying. Stops when the cause is resolved. Fatal errors ⁷ : causes the vessel to surface after which further diving is prohibited (reset required). Direction rudder (L/R) and propeller remain controllable Error input (EI): Supports open collector/NPN and normally open switches (active low). Signals can be paralleled. No auxiliary PCB but using piston tanks, use two end-limit switches with a diode over NC contact in series with motor wiring to stop piston at both end position.					

¹ Cannot be used together with two propellers.

² Cannot be used together with X-rudder.

³ Activates after EI or water detector (aux. PCB) is uninterrupted active for 20s

⁴ Is used with two propellers or X-rudder.

⁵ Note the auxiliary PCB can also generate errors.

⁶ Non-fatal errors: RF signal loss and max depth (auxiliary PCB)

⁷ Fatal errors: low battery, error input (EI) and water leakage (auxiliary PCB)