

Remote Antenna Switches for HAM RADIO



StackMatch "SM4-3kW-Mono Band"

StackMatch "SM4-QRO-Mono Band"

Four Antenna Phasing Relay Unit, Mono Band, 3-port, 3 kW, 160-10 meters

For combining four directional antennas or splitting power to drive four power amplifiers with optimal features.

SKU: SM4-3kW-Band
SKU: SM4-QRO-Band

- Four antenna ports in phase, default, with no power to control console;
- Ability to switch any single or any three antennas out of the array;
- Multiplexer technology ready © - unselected ports terminated to 8W, 50 ohm resistor;
- Laser markings of ports and control connections, lasts forever;
- LED indication of unused antenna;
- Phoenix pluggable terminal block (6 pins, 5.08mm pitch);
- Feedlines to each antenna from the relay unit must be the same cable of the same length and match the antenna impedance;
- LowBandSystem`s control console suggested:
 - control consoles [CC-SM4B](#) series;
 - control consoles [CC-UCC8B](#) series;

Features:

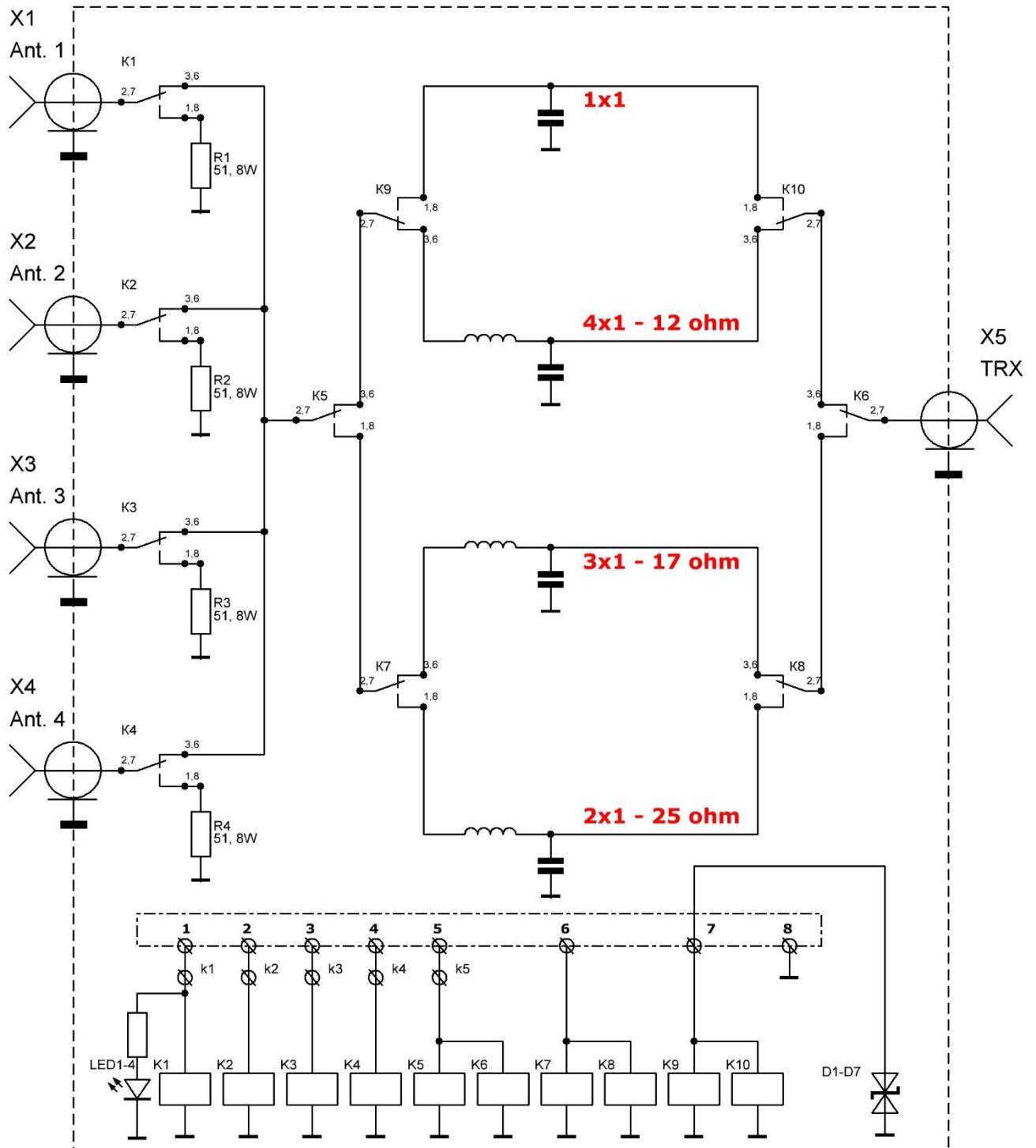
RF design:	MonoBand LC matching
Antenna inputs:	Four
Power handling (1.8-30 MHz, antennas SWR <1.5:1)	3kW ICAS
RF Connectors	PTFE SO-239 (UHF) connectors, (other types on custom order)
Insertion loss	≤ -0,06 dB
VSWR on any band, Single antenna	≤ 1,1:1
VSWR on any band, Two antennas	≤ 1,1:1
VSWR on any band, Three antennas	≤ 1,1:1
VSWR on any band, Four antennas	≤ 1,1:1
Control voltage	12VDC (24VDC on custom order)
MOV surge protection on control lines	
Control wire required	Six conductor
Size:	276 x 195 x 85 mm / 11" x 7.7" x 3,4"
Net weight:	≤1,5 kg / 2,2 lbs.



** Subject to change without notice*

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Schematic of 3kW version:



MOVs and diodes can be mounted on
the connector to simplify repair if needed.



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Truth table:

Control connector, pin #, : Relays: Matching selection		1 K1 Ant.1	2 K2 Ant.2	3 K3 Ant.3	4 K4 Ant.4	5 K5, K6 Four High Stack	6 K7, K8 Three High Stack	7 K9, K10 Two High Stack	8 Common
Antenna selection:	Control console LEDs:								
	LED1 LED2 LED3 LED4								
	A1	ON							
	A2		ON						
	A3			ON					
	A4				ON				
	A1+A2	ON	ON						
	A1+A3	ON		ON					
	A1+A4	ON			ON				
	A2+A3		ON	ON					
	A2+A4		ON		ON				
	A3+A4			ON	ON				
	A1+A2+A3	ON	ON						
	A1+A2+A4	ON	ON		ON				
	A1+A3+A4	ON		ON					
	A2+A3+A4		ON	ON					
Four High Stack = A1+A2+A3+A4		no/on	no/on	no/on	no/on				
PCB : SM4-3kW-B-v2									

It is very important to ensure 12VDC at the Stack Match terminals, counting voltage loses in a control line!