

Remote Antenna Switches for HAM RADIO



StackMatch "SM3-3kW-Wide Band"

Three Antenna Phasing Relay Unit, 3-port, 3 kW, 160-10 meters

For combining three directional antennas or splitting power to drive three power amplifiers

SKU: SM3-3kW-WB

- Three antenna ports in phase, default with no power to control console;
- Ability to switch any single or any two 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:

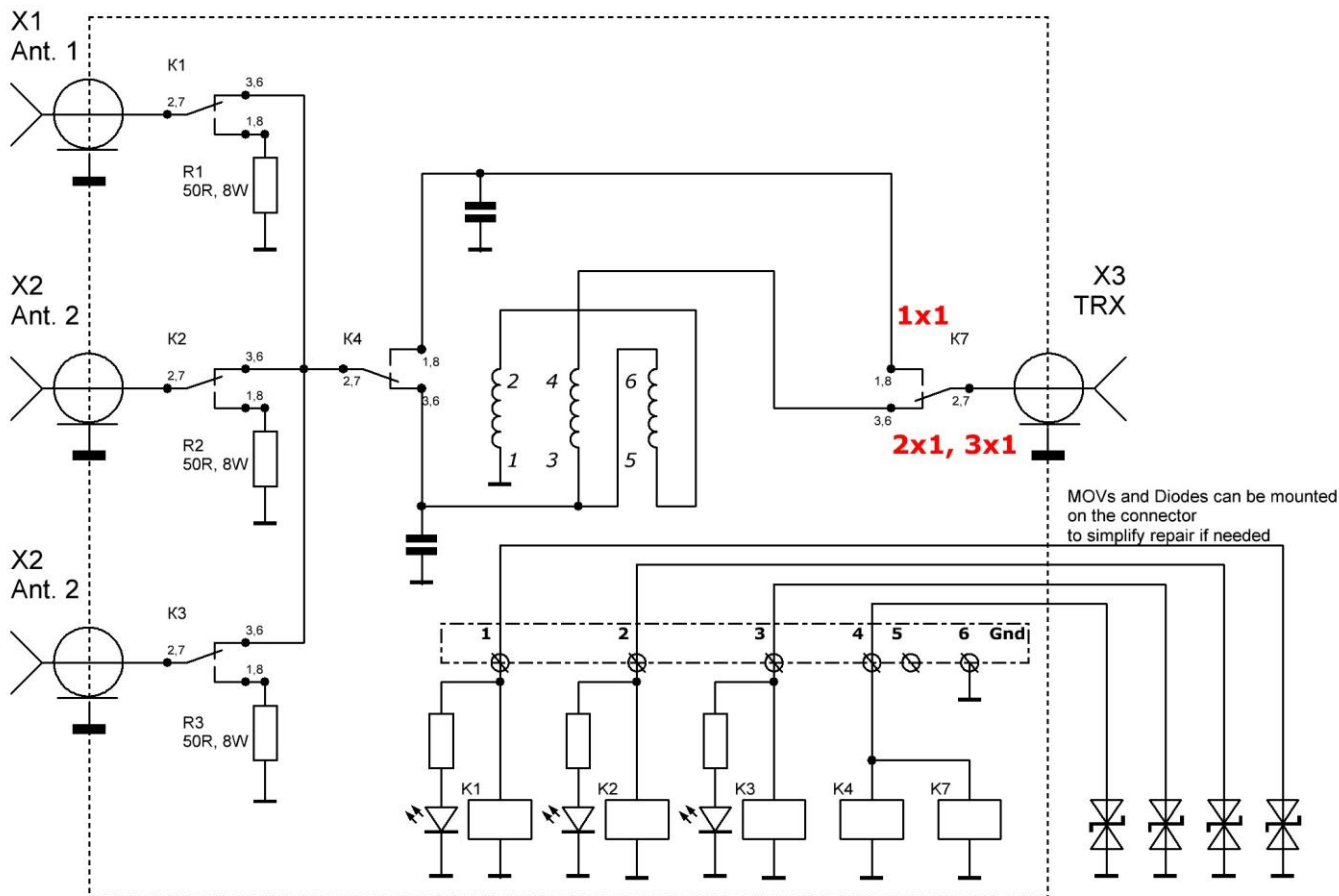
RF design:	Broadband ferrite transformer, 2.25:1 ratio
Antenna inputs:	Three
Power handling (1.8-30 MHz, antennas SWR <1.5:1)	3kW ICAS
RF Connectors	PTFE SO-239 (UHF) connectors, (other types on custom order)
Insertion loss 1.8 ÷ 30 MHz	< -0,06 dB
VSWR 3.5 ÷ 30 MHz, Single antenna	< 1,1:1
VSWR 3.5 ÷ 30 MHz, Two antennas	< 1,2:1
VSWR 3.5 ÷ 30 MHz, Three antennas	< 1,35:1
Control voltage	12VDC (24VDC on custom order)
MOV surge protection on control lines	
Control wire required	Five conductor
Size:	190 x 210 x 85 mm / 7,5" x 8,3" x 3,4"
Net weight:	≤1,0 kg / 2,2 lbs.



** Subject to change without notice*

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Schematic:



Truth table:

Control connector, pin #, : Relays: Matching selection							1 K1 <i>Ant.1</i>	2 K2 <i>Ant.2</i>	3 K3 <i>Ant.3</i>	4 K4, K7 <i>Two and Three High Stack</i>	6 Common
Antenna selection:		<i>Control console LEDs:</i>			<i>RF board LEDs:</i>						
	LED1	LED2	LED3	LED1	LED2	LED3					
A1	ON				ON	ON		+12VDC	+12VDC	+12VDC	
A2		ON		ON		ON	+12VDC		+12VDC	+12VDC	
A3			ON	ON	ON		+12VDC	+12VDC		+12VDC	
A2+A3		ON	ON	ON			+12VDC				
A1+A2	ON	ON				ON			+12VDC		
A1+A3	ON		ON		ON			+12VDC			
Three High Stack = A1+A2+A3	<i>no/on</i>	<i>no/on</i>	<i>no/on</i>	<i>no</i>	<i>no</i>	<i>no</i>					

PCB : SM3-3kW-WB-v2

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