

ZODIAC

RF-7231

In the RF-unit a preselection of the received RF-signal in the input circuit consisting of C1, L1, and C2, L2 is made.

In the following amplifier stage, the RF-signal is amplified by Q1 (a double-gate MOSFET) with a high input resistance and therefore only loads the input circuit slightly. The operating point is determined by R1, and R2 on gate 2 of Q1.

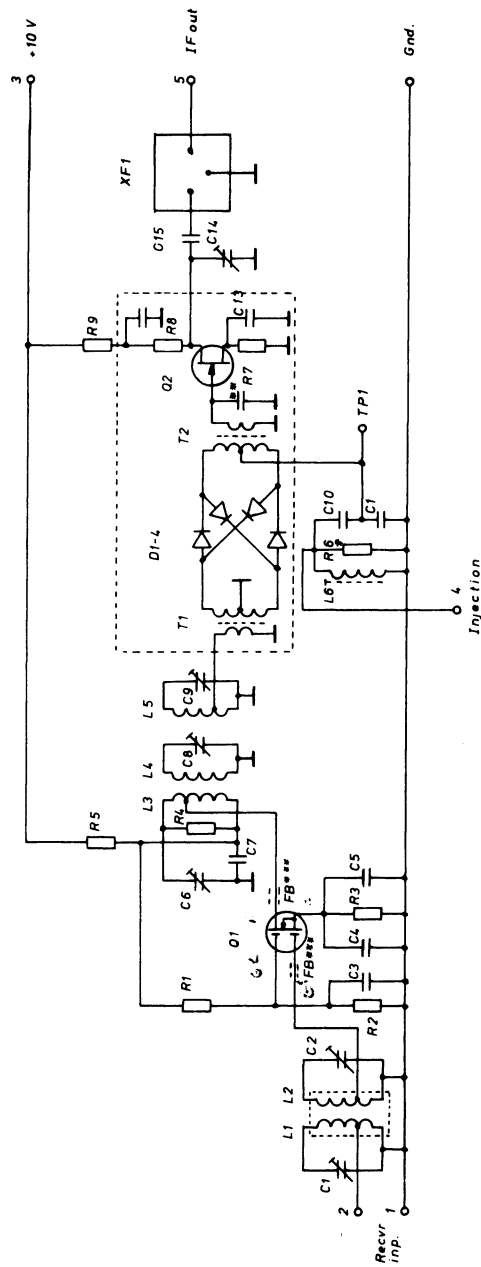
The amplified signal is further selected in the following circuits consisting of L3, L4, and L5 to be mixed with the oscillator frequency in the mixer.

The mixer is a balanced one with Schottky diodes (D1-D4).

The IF-signal is amplified by Q2 (FET) and is passed through a crystal filter (XF1) which determines the final selection to the IF-unit.

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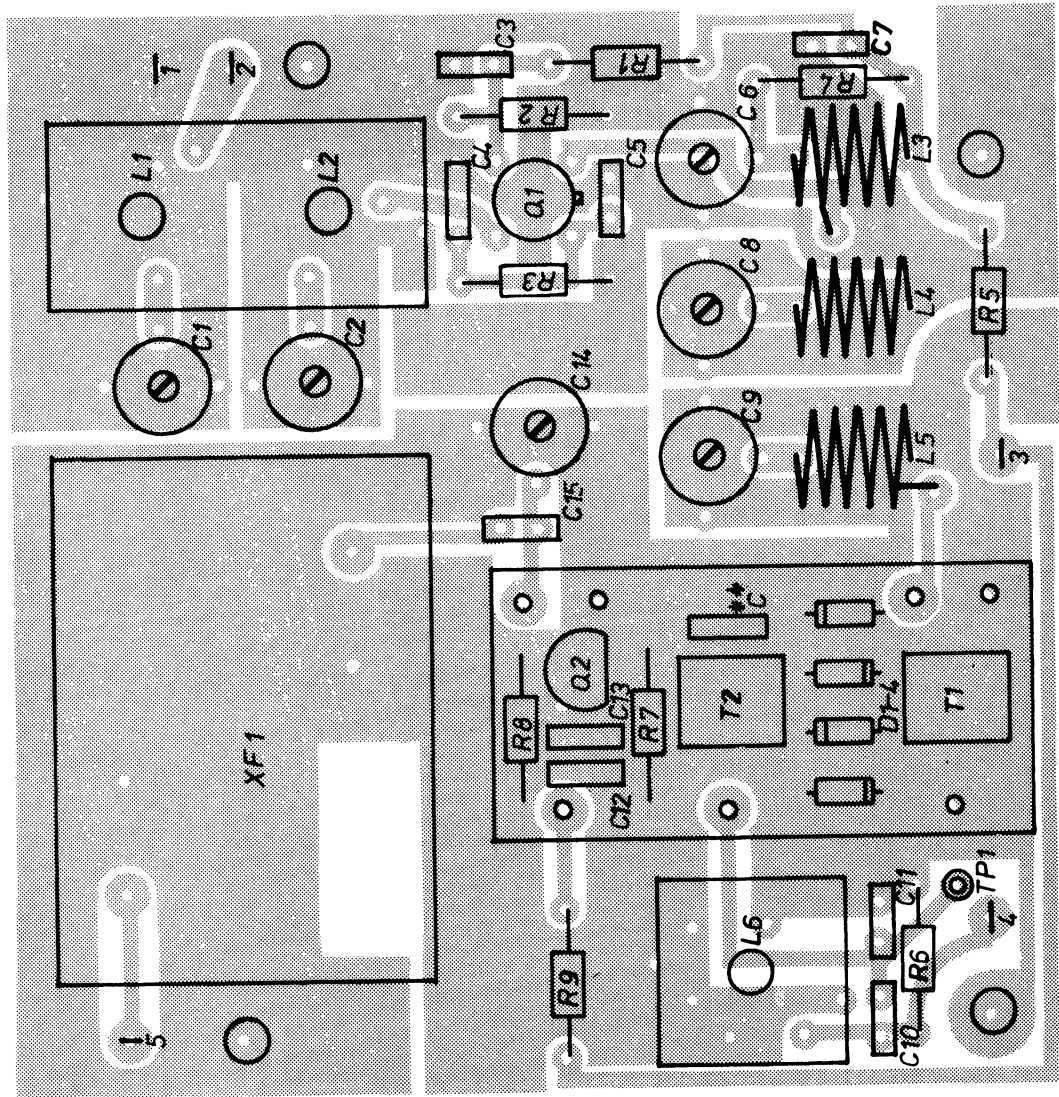


* selected value
 ** only used in 4-meter version
 *** not used in 4-meter version

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RF-unit	
RF-7231 (1/4)	
Dwg. no. 7231-2	

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RF-unit
RF-7231 (1/4)
Dwg. no. 7231-2

Component List

RF-unit - RF-7231

<u>Ckt. Symbol</u>	<u>Description</u>	<u>Value or type</u>
Q1	Transistor	3N2o4
Q2	-	TIS88A
D1	Diode	MBD 1o2 (HP 5o82 28o6)
D2	-	MBD 1o2
D3	-	MBD 1o2
D4	-	MBD 1o2
XF1	Crystal filter	ITT 445 LQU 9o1 BM
R1	Resistor	33K 1/8 W
R2	-	22K
R3	-	22o ohm
R4	-	1oK
R5	-	1oo ohm
R6	-	6,8K
R7	-	1K
R8	-	1K
R9	-	1oo ohm
C1	Trimmer	15 pf
C2	-	15 pf
C3	Capacitor	2,2nf-ceramic
C4	-	2,2nf-ceramic
C5	-	2,2nf-ceramic
C6	Trimmer	15 pf
C7	Capacitor	2,2nf-ceramic
C8	Trimmer	15 pf
C9	-	15 pf
C1o	Capacitor	1o pf-ceramic
C11	-	1oo 12o pf-ceramic
C12	-	2,2 nf-ceramic
C13	-	2,2 nf-ceramic
C14	Trimmer	27 pf
C15	Capacitor	2,2 nf-ceramic
T1	Transformer	
T2	-	

Component List

RF-unit - RF-7231/4

<u>Ckt. Symbol</u>	<u>Description</u>	<u>Value or type</u>
Q1	Transistor	40822
Q2	-	TIS 88A
D1	Diode	MBD 102
D2	-	MBD 102
D3	-	MBD 102
D4	-	MBD 102
XF1	Crystal filter	014 BD/901 BM-ITT BP 4130-Cathodeon
R1	Resistor	33K/1/8 W
R2	-	22K
R3	-	220 ohm
R4	-	6,8K
R5	-	100 ohm
R6	-	Selected
R7	-	1K
R8	-	1K
R9	-	100 ohm
C1	Trimmer	27 pf
C2	-	27 pf
C3	Capacitor	2,2 nf-ceramic
C4	-	2,2 nf-ceramic
C5	-	2,2 nf-ceramic
C6	Trimmer	27 pf
C7	Capaciter	2,2 nf-ceramic
C8	Trimmer	27 pf
C9	-	27 pf
C10	Capaciter	22 pf-ceramic
C11	-	150 pf-ceramic
C12	-	2,2 nf-ceramic
C13	-	2,2 nf-ceramic
C14	Trimmer	27 pf
C15	Capaciter	2,2 pf-ceramic