

# ZODIAC

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XR-7234

The receiver-oscillator-unit consists of a crystal controlled oscillator and multiplier stages where the oscillator frequency is multiplied. By 80 MHz-receivers there is multiplied 4 or 6 times, by 160 MHz-receivers there is multiplied 12 times.

The oscillatorsignal is led from the crystal controlled oscillator with the transistor Q1 to transistor Q2 and is amplified.

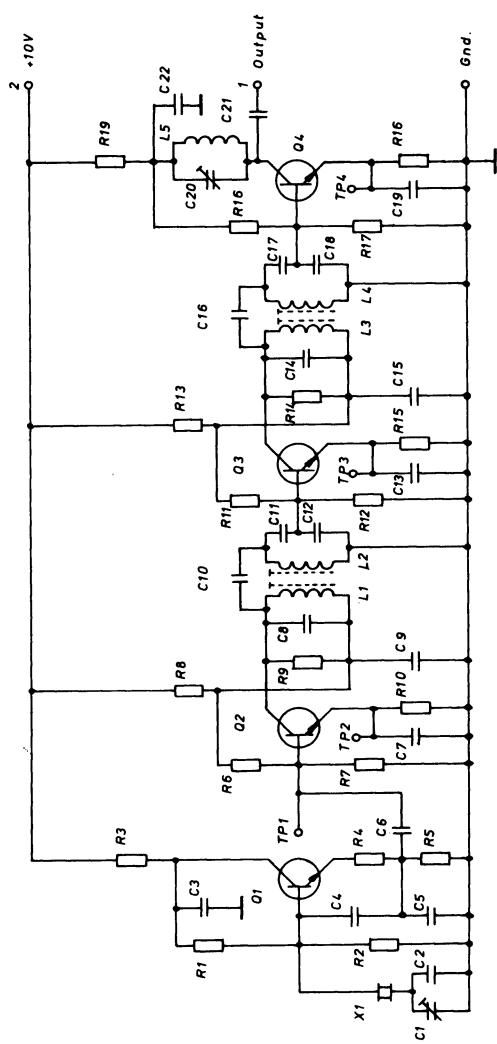
The first filter, consisting of L1 and L2 is tuned to respectively the 2nd or the 3rd harmonic of the oscillator frequency dependent on the 80 MHz or the 160 MHz version.

After an amplification in transistor Q3 the signal reaches the next filter consisting of L3 and L4 (omitted in the 80 MHz version) which is tuned to the 2nd harmonic of the multiplied frequency. Transistor Q4 is amplifying the signal further and is multiplying the frequency as the collector circuit is tuned to resonance at the 2nd harmonic of the multiplied frequency in the stage ahead of this.

The oscillator signal is led from the receiver-oscillator-unit to the mixing stage in the RF-unit.

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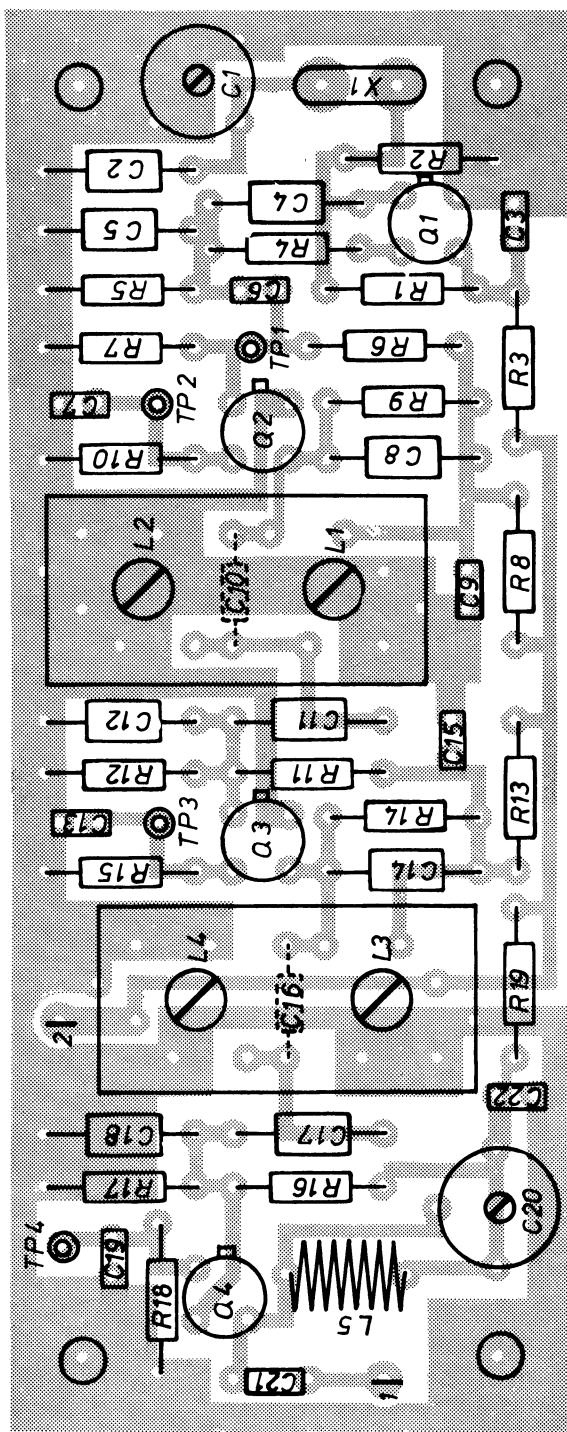


**ZODIAC-COMMUNICATIONS**

Receiver Osc./Multiplier  
XR-7234  
Dwg.no.7234-2

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Receiver Osc./Multiplier  
XR - 7234  
Dwg. no. 7234-2

## Component List

## Receiver Osc. Multiplier - XR-7234

Ckt. Symbol	Description	Value or type
Q1	Transistor	BF 185
Q2	-	BF 185
Q3	-	BF 185
Q4	-	BSX 2o ( 2N2369A)
R1	Resistor	22K/1/8 W
R2	-	1oK
R3	-	27o ohm
R4	-	1o -
R5	-	1,5K
R6	-	1oK
R7	-	2,2K
R8	-	27o ohm
R9	-	1oK
R10	-	47o ohm
R11	-	1oK
R12	-	1K
R13	-	27o ohm
R14	-	1oK
R15	-	47o ohm
R16	-	1oK
R17	-	1K
R18	-	22o ohm
R19	-	27o -
C1	Trimmer	27 pf
C2	Capacitor	33 pf-styroflex
C3	-	4,7 nf-ceramic
C4	-	22o pf-styroflex
C5	-	12o pf-styroflex
C6	-	2,2 nf-ceramic
C7	-	4,7 nf-ceramic
C8	-	51 pf-styroflex
C9	-	4,7 nf-ceramic
C10	-	1 pf-ceramic
C11	-	68 pf-styroflex
C12	-	200 pf-styroflex
C13	-	2,2 nf-ceramic
C14	-	22 pf-styroflex

Component List

Receiver Osc. Multiplier - XR-7234

Ckt. Symbol	Description	Value or type
C15	Capacitor	4,7 nf-ceramic
C16	-	0,5 pf-ceramic
C17	-	33 pf-styroflex
C18	-	68 pf-styroflex
C19	-	2,2 nf-ceramic
C20	Trimmer	15 pf
C21	Capacitor	0,5 pf-ceramic
C22	-	4,7 nf-ceramic
L1-2	Coil	
L3-4	-	
L5	-	

Receiver Osc. / Multiplier - XR - 7234/4

<u>Ckt. Symbol</u>	<u>Description</u>	<u>Value or Type</u>
Q1	Transistor	BF 495
Q2	-	BF 495
Q4	-	BSX 20
R1	Resistor	22 K 1/8 W
R2	-	10 K -
R3	-	270 Ohm -
R4	-	10 Ohm -
R5	-	1,5 K -
R6	-	10 K -
R7	-	2,2 K -
R8	-	270 Ohm -
R9	-	10 K -
R10	-	470 Ohm -
R16	-	10 K -
R17	-	1 K -
R18	-	220 Ohm -
R19	-	270 Ohm -
R20	-	220 Ohm -
C1	Trimmer	27 pf
C2	Capacitor	33 pf - styroflex
C3	-	4,7 nf - ceramic
C4	-	220 pf - styroflex
C5	-	120 pf - styroflex
C6	-	2,2 nf - ceramic
C7	-	4,7 nf - ceramic
C8	-	51 pf - styroflex
C9	-	4,7 nf - ceramic
C10	-	1,5 pf - ceramic
C11	-	68 pf - styroflex
C12	-	200 pf - styroflex
C19	-	2,2 nf - ceramic
C20	Trimmer	27 pf
C21	Capacitor	1 pf - ceramic
C22	-	4,7 nf - ceramic