

ZODIAC

Transmitter-multiplier-unit XT-7237

The transmitter-multiplier-unit consists of a crystal controlled oscillator and modulator- and multiplier-stages.

The oscillator signal is by transistor Q1 led from the crystal controlled oscillator through the amplifier stage with transistor Q2 to the modulator stage. Here the oscillator signal is phasemodulated with the AF-signal from the microphone amplifier.

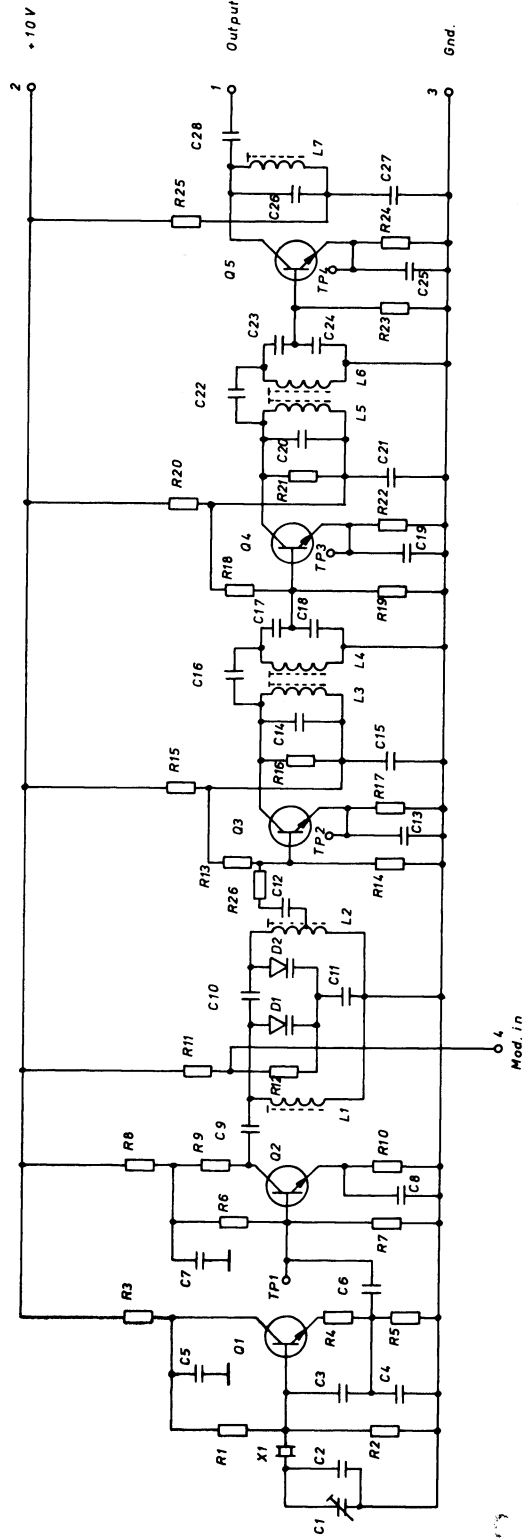
The modulated signal is amplified in transistor Q3, and the frequency is multiplied in the following circuit which is tuned to resonance at the 2nd harmonic of the oscillator frequency.

A further amplification is made by the transistors Q4 and Q5 while the frequency is multiplied in the following circuits which are tuned to the 2nd harmonic of the preceding stage.

The output-signal from the transmitter-multiplier-unit is led to the driver-unit.

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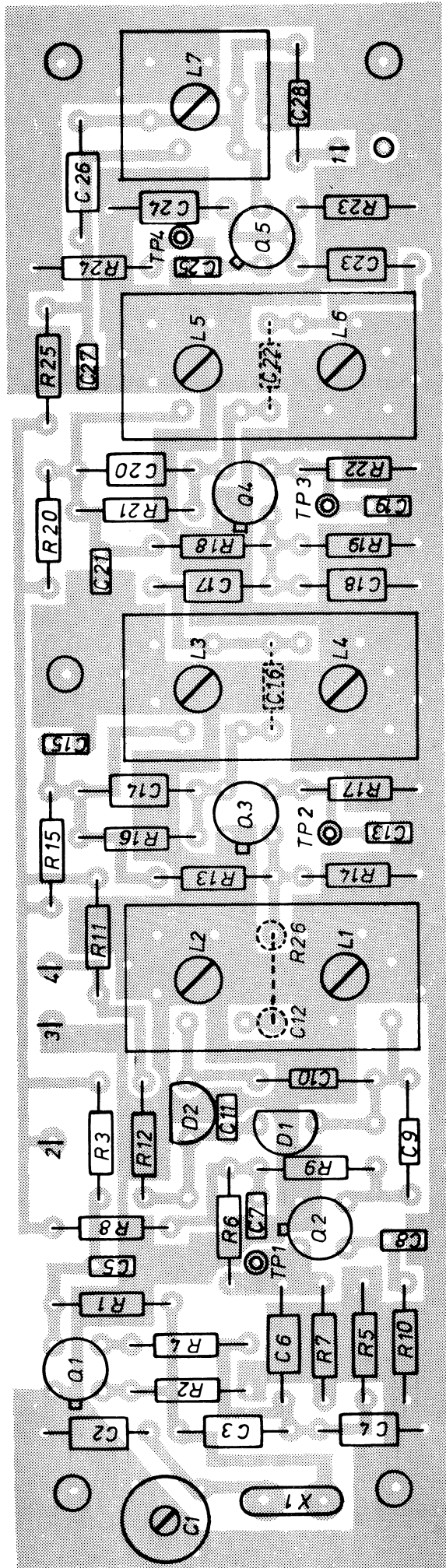


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Transmitter Multiplier
 XT-7237 (/L)
 Dwg. no. 7237-2

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Transmitter Multiplier
 XT-7237 (/4)
 Dwg. no. 7237-2

Component List

Transmitter Multiplier - XT-7237

<u>Ckt. Symbol</u>	<u>Description</u>	<u>Value or type</u>
Q1	Transistor	BF 185
Q2	-	BF 185
Q3	-	BF 185
Q4	-	BF 185
Q5	-	BSX 20
D1	VV C-diode	MV 2115
D2	-	MV 2115
R1	Resistor	22 K/1/8 W
R2	-	10 K
R3	-	330 ohm
R4	-	10 -
R5	-	2,2K
R6	-	33K
R7	-	10K
R8	-	330 ohm
R9	-	4,7K
R10	-	2,2K
R11	-	100K
R12	-	2,2K
R13	-	10K
R14	-	2,2K
R15	-	100 ohm
R16	-	10K
R17	-	270 ohm
R18	-	8,2K 4,7 K
R19	-	680 ohm
R20	-	47 -
R21	-	5,6K
R22	-	150 ohm
R23	-	680 -
R24	-	100 -
R25	-	47 -
R26	-	220 -
C1	Trimmer	27 pf
C2	Capacitor	33 pf-styroflex
C3	-	220 pf-styroflex
C4	-	120 pf-styroflex

Component List

Transmitter Multiplier - XT-7237

<u>Ckt. Symbol</u>	<u>Description</u>	<u>Value or type</u>
C5	Capacitor	4,7 nf-ceramic
C6	-	47 pf-styroflex
C7	-	4,7 nf-ceramic
C8	-	4,7 nf-ceramic
C9	-	10 pf-styroflex
C10	-	3,3 pf-styroflex
C11	-	4,7 nf-ceramic
C12	-	470 pf-ceramic
C13	-	4,7 nf-ceramic
C14	-	56 pf-styroflex
C15	-	4,7 nf-ceramic
C16	-	1,8 pf-ceramic
C17	-	82 pf-styroflex
C18	-	220 pf-styroflex
C19	-	2,2 nf-ceramic
C20	-	39 pf-styroflex
C21	-	4,7 nf-ceramic
C22	-	1,5 pf-ceramic
C23	-	56 pf-styroflex
C24	-	150 pf-styroflex
C25	-	2,2 nf-ceramic
C26	-	18 pf-styroflex
C27	-	4,7 nf-ceramic
C28	-	1 pf- ceramic
L1-2	Coil	
L3-4	-	
L5-6	-	
L5	-	

Transmitter Multiplier - XT - 7237/4

<u>Ckt. Symbol</u>	<u>Description</u>	<u>Value or Type</u>
Q1	Transistor	BF 495
Q2	-	BF 495
Q3	-	BF 495
Q4	-	BF 495
Q5	-	BSX 20
D1	VVC-diode	MV 2115
D2	-	MV 2115
R1	Resistor	22 K 1/8 W
R2	-	10 K -
R3	-	330 Ohm -
R4	-	10 Ohm -
R5	-	2,2 K -
R6	-	33 K -
R7	-	10 K -
R8	-	330 Ohm -
R9	-	4,7 K -
R10	-	2,2 K -
R11	-	100 K -
R12	-	2,2 K -
R13	-	10 K -
R14	-	2,2 K -
R15	-	100 Ohm -
R16	-	10 K -
R17	-	270 Ohm -
R18	-	4,7 K -
R19	-	680 Ohm -
R20	-	47 Ohm -
R21	-	5,6 K -
R22	-	150 Ohm -
R23	-	680 Ohm -
R24	-	100 Ohm -
R25	-	47 Ohm -
R26	-	220 Ohm -

Transmitter Multiplier - XT - 7237/4

<u>Ckt. Symbol</u>	<u>Description</u>	<u>Value or Type</u>
C1	Trimmer	27 pf
C2	Capacitor	33 pf - styroflex
C3	-	220 pf - styroflex
C4	-	120 pf - styroflex
C5	-	4,7 nf - ceramic
C6	-	120 pf - styroflex
C7	-	4,7 nf - ceramic
C8	-	4,7 nf - ceramic
C9	-	10 pf - styroflex or ceramic
C10	-	3,3 pf - styroflex or ceramic
C11	-	4,7 nf - ceramic
C12	-	470 pf - ceramic
C13	-	4,7 nf - ceramic
C14	-	100 pf - styroflex
C15	-	4,7 nf - ceramic
C16	-	3,3 pf - ceramic
C17	-	150 pf - styroflex
C18	-	470 pf - styroflex
C19	-	2,2 nf - ceramic
C20	-	68 pf - styroflex
C21	-	4,7 nf - ceramic
C22	-	2,7 pf - ceramic
C23	-	100 pf - styroflex
C24	-	330 pf - styroflex
C25	-	2,2 nf - ceramic
C26	-	33 pf - styroflex
C27	-	4,7 nf - ceramic
C28	-	1,8 pf - ceramic