

# ACTIVE TUNING ANTENNA SYSTEM

## ATAS-100

### Technical Supplement

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## Specifications

Frequency Range: 7/14/21/28/50/144/430 MHz Amateur Bands

Height (Approx.): 1.4 ~ 1.6 meters (4.59 ~ 5.24 feet)

Weight (Approx.): 930 g (2.05 lbs.)

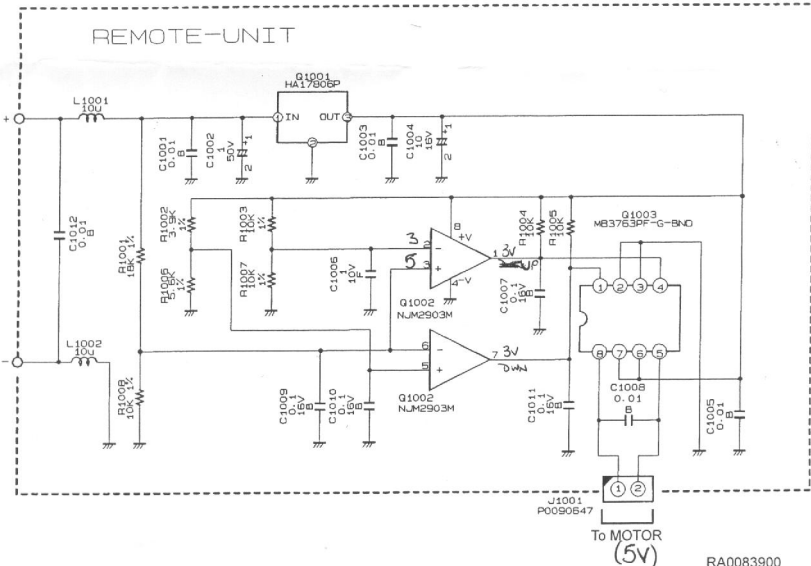
Input Impedance: 50 Ω

Max. Input Power: 120 Watts (SSB)

Matched SWR: Less than 2.0:1 (with proper counterpoise)

(Specifications subject to change without notice or obligation)

## Circuit Diagram



RA0084400  
ROT ASSY  
92cms

RA0083800  
ROT HOLDER

RA0081600  
DUST BUITS

RA0083900  
RUBBER RING

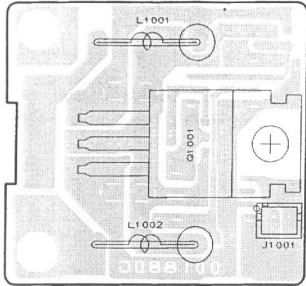
RA0081900  
OUTER TUBE

RA0083900  
RUBBER RING

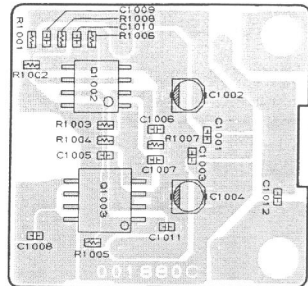


← RA0095200 LABEL (Power Gain)

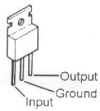
# Parts Layout



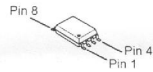
Component side



Chip side



HA17806P  
(Q1001)



NJM2903M  
(Q1002)  
MB3763PF-G-BND-TF  
(Q1003)

# Parts List

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	YAESU P/N	VERS.	LOT.
*** REMOTE-UNIT ***								
	PCB with Components					S8100649		
	Printed Circuit Board					FR002420A		
J 1001	CONNECTOR				B 2B-ZR	P0090647		
C 1001	CHIP.CAP.	0.01uF	50	B	GRM39B103M50PT	K22174823		
C 1002	AL.ELECTRO.CAP.	1uF	10V		ECEV1HS010SR	K48170001		
C 1003	CHIP.CAP.	0.01uF	50	B	GRM39B103M50PT	K22174823		
C 1004	AL.ELECTRO.CAP.	10uF			ECEV1CS100SR	K48120001		
C 1005	CHIP.CAP.	0.01uF	50	B	GRM39B103M50PT	K22174823		
C 1006	CHIP.CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		
C 1007	CHIP.CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		
C 1008	CHIP.CAP.	0.01uF	50	B	GRM39B103M50PT	K22174823		
C 1012	CHIP.CAP.	0.01uF	50	B	GRM39B103M50PT	K22174823		
C 1009	CHIP.CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		
C 1010	CHIP.CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		
C 1011	CHIP.CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		
L 1001	M.RFC.	10uH			LAL04NA100K	L1190138		
L 1002	M.RFC.	10uH			LAL04NA100K	L1190138		
Q 1001	IC				HA17806P	G1090937		
Q 1002	IC				NJM2903M T2	G1091073		
Q 1003	IC				MB3763PF-G-BND-TF	G1091224		
R 1001	CHIP RES.	18kohm	1/16W	1%	RMC1/16 183FTP	J24183183		
R 1002	CHIP RES.	3.9kohm	1/16W	1%	RMC1/16 392FTP	J24183392		
R 1003	CHIP RES.	10kohm	1/16W	1%	RMC1/16 103FTP	J24183103		
R 1004	CHIP RES.	10kohm	1/16W	5%	RMC1/16 103JATP	J24185103		
R 1005	CHIP RES.	10kohm	1/16W	5%	RMC1/16 103JATP	J24185103		
R 1006	CHIP RES.	5.6kohm	1/16W	1%	RMC1/16 562FTP	J24183562		
R 1007	CHIP RES.	10kohm	1/16W	1%	RMC1/16 103FTP	J24183103		
R 1008	CHIP RES.	10kohm	1/16W	1%	RMC1/16 103FTP	J24183103		

# Mechanical Details (Exploded Views & Mechanical Parts)

Screw KIT (YAESU P/N: S8001571)			
No.	YAESU P/N	Description	Qty.
1	U00104002	PAN HEAD SCREW M2X4NI	2
2	U00105002	PAN HEAD SCREW M2X5NI	2
3	U02204001	PAN HEAD SCREW SM2.6X4	2
4	U20305002	BINDING HEAD SCREW M3X5NI	1
5	U20306002	BINDING HEAD SCREW M3X6NI	2
6	U20408002	BINDING HEAD SCREW M4X8NI	6
7	U31305001	OVAL HEAD SCREW M3X5	3
8	U60300302	HEX NUT N3NI	1
9	U71003001	SPRING LOCK WASHER SW3	3
10	U76008002	WASHER AW8	1
11	U81055020	E RING ETW-6	1
12	U91304001	HEX SOCKET SET SCREW M3X4	1
13	U91306001	HEX SOCKET SET SCREW M3X6	1
14	U91406001	HEX SOCKET SET SCREW M4X6	1
15	U9900085	NYLON WASHER WN6	6

Description	YAESU P/N
LENCH F/SCREW	S8001569
LABEL (Power Gain)	RA0095200

