



# Radiotelephone Type RT18

**Ideal means  
for mobile and fixed services  
of manifold nature**



Outstanding features:

- small dimensions**
- careful and robust design**
- utmost reliability**
- very low power consumption**
- transistorized circuits**
- low or high transmitting power**
- versatility**

3046 E - XII. 2 (8. 64)

# Technical Data

Modulation characteristic: FM  
Method of operation: simplex or duplex

General		RT 1808	RT 1816	RT 1846
Frequency range		68 ... 88 Mc/s	156 ... 174 Mc/s	450 ... 470 Mc/s
Other ranges on request				
Frequency stability (-20 ° to +60 °C)		$\pm 1/1.5 \times 10^{-5}$ *	$\pm 1/1.5 \times 10^{-5}$ *	$\pm 1.5 \times 10^{-5}$
8 Adjacent RF channels, switchable in the range of		1 Mc/s	1 Mc/s	1 Mc/s
Minimum RF channel spacing		25/50 kc/s	25/50 kc/s	50 kc/s
Transmitter				
RF output:	Battery	5/20 W	5/20 W	4/15 W
	Mains	5/50 W	5/50 W	4/40 W
Frequency deviation	Nominal	$\pm 3.5/10.5$ kc/s*	$\pm 3.5/10.5$ kc/s*	$\pm 10.5$ kc/s
	limited to	$\pm 5/15$ kc/s*	$\pm 5/15$ kc/s*	$\pm 15$ kc/s
AF response:	(300 ... 3000 c/s)	+1/-3 db	+1/-3 db	+1/-3 db
AF input for nominal frequency deviation	(across 600 $\Omega$ )	0.1 V	0.1 V	0.1 V
Distortion at nominal frequency deviation		< 6 %	< 6 %	< 6 %
Attenuation of harmonics		> 60 db	> 60 db	> 60 db
Attenuation of spurious responses		> 80 db	> 80 db	> 80 db
Tube complement		2 x YL 1080	2 x YL 1080	3 x YL 1130
Transistor complement		3 x AF 118 4 x 2 N 527	4 x 2 N 527 2 x 2 N 708 2 x 2 N 1613	4 x 2 N 527 2 x 2 N 708 2 x 2 N 1613
20-W stage:	Tubes	1 x QC 05/35	1 x QC 05/35	1 x YL 1020
50-W stage:	Tubes	1 x QQE 06/40	1 x QQE 06/40	1 x QQE 03/20 1 x QQE 06/40
	Transistors	1 x BCZ 11	1 x BCZ 11	1 x BCZ 11

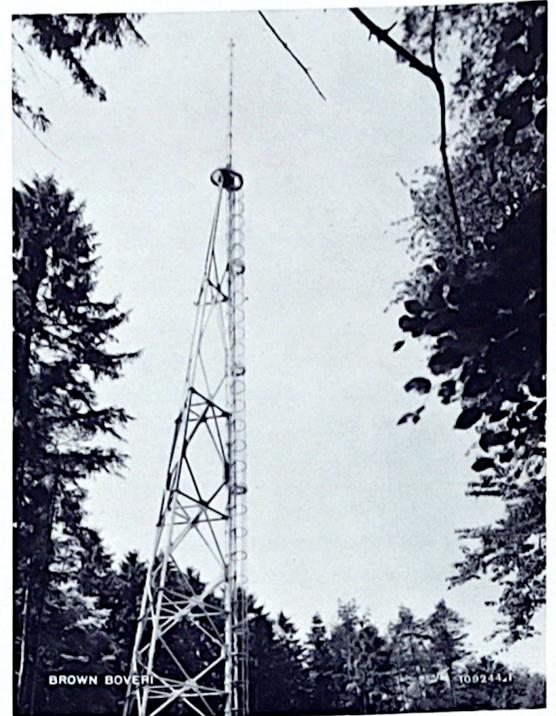
\* for 25 and 50 kc/s channel spacing

All-transistorized  
except for final stage

Receiver	RT 1808/RT 1816	RT 1846
Sensitivity for 20 db S/N	0.5 $\mu$ V	1 $\mu$ V
Squelch sensitivity adjustable to ratio S/N	10 ... 30 db	10 ... 30 db
Selectivity:		
for 6 db attenuation	$\geq \pm 6/12$ kc/s*	$\geq \pm 12$ kc/s
for 90 db attenuation	$\leq \pm 17.5/35$ kc/s*	$\leq \pm 35$ kc/s
Attenuation for out-of-band frequencies	$\geq 85$ db	$\geq 85$ db
AF response: (300 ... 3000 c/s)	+ 1/-3 db	+ 1/-3 db
AF output: (across 600 $\Omega$ )	2.1 V	2.1 V
with additional amplifier (for loudspeaker)	0.5/1.5 W	0.5/1.5 W
Distortion at nominal frequency deviation	< 6 %	< 6 %
Transistor complement	10 x AF 114 11 x 2 N 527 2 x 2 N 2360 1 x 2 N 2398 1 x AFY 11 (RT 1816) 1 x 2 N 708 (RT 1816)	10 x AF 114 2 x AFY 11 1 x BCZ 11 11 x 2 N 527 1 x 2 N 1613 3 x 2 N 2398 1 x 2 N 708
Power Supply	Mains 50/60 c/s	Battery
Supply voltage	110/220 V ~	6/12/24 V =
Permissible fluctuation	$\pm 15$ %	+20/-15 %
Power consumption:		
Stand-by	15 VA	4 W
Transmission 5/4 W	100 VA	75 W
20/15 W		170 W
50/40 W	300 VA	
Transmitter running-in time	0.3 s	0.3 s
for power stage 50 W	20 s	
Dimensions and Weights	Height	Weight
5/4-W set for battery supply (transmitter, receiver, supply unit)	125 mm	8.6 kg
20/15-W stage for battery supply	185 mm	13 kg
5/4-W set for mains supply	230 mm	13 kg
50/40-W stage for mains supply (separate unit)	260 mm	16 kg
Length and breadth of basic units: 200 x 400 mm		

## Applications:

- Public telephone and telegraph networks
- Commercial telecommunication systems
- Production centres and distribution networks for electricity, gas, water and oil
- Radio and television
- Railways, shipping and air transport
- National defence
- Police, fire, civil defence, security and first-aid services
- Transport and road service
- Industrial plants, mines, building sites, agricultural and forestry schemes
- Press and outside broadcasting services



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