

DATE 6/15/56  
SH. 1 OF 2  
COMPILED BY

TMC SPECIFICATION NO. S-299

TITLE: MODIFICATION OF GPT-750 FOR USE BETWEEN

JOB

APPROVED

*AJS*

1.8 AND 2 MEGACYCLES Page Issue A

The Model GPT-750 has been slightly modified to permit Crystal Operation in the frequency range of 1.8 and 2 megacycles. This added range in no way compromises the original transmitter specifications, which permit operation from 2 to 32 megacycles. The changes, both technical and operational, are outlined below.

1. OPERATIONAL:

a. Oscillator Tuning:

Since the MO range is between 2 to 4 megacycles it is not possible to use the MO in the extended area. Crystal Operation must, therefore, be substituted. See Note

b. Multiplier Tuning:

The Multiplier is tuned in the manner prescribed in the GPT-750 Instruction Manual. It will be found that tuning the Multiplier slightly below the two megacycle marking will produce sufficient drive in the final, even when the excitation is at 1.8 megacycles.

c. P.A. Tuning:

P.A. Tuning follows exactly the procedure outlined in the GPT-750 Instruction Manual with the addition of a new tuning position (1.8 mcs.) The complete tuning chart is a part of this specification.

NOTE: In FS operation the MO may be used down to 1.8 megacycles because 200 Kc is either subtracted from or added to the MO frequency in passing through the Model XFK.

Output f (MCS)	P.A. Band (MCS)	POWER INPUT APPX. 1200 W.			POWER INPUT APPX. 750 W.		
		Load Impedance 52 non-reactive	Load Impedance 150 non-reactive	Antenna Loading No. (appx)	Load Impedance 52 non-reactive	Load Impedance 150 non-reactive	Antenna Loading No. (appx)
Frequency		P.A. Tuning (appx)	P.A. Tuning (appx)		P.A. Tuning (appx)	P.A. Tuning (appx)	
1.8	2.0-2.5	02.4	01.1	30	02.3	01.9	00
2.0	2.0-2.5	07.0	05.8	50	06.9	06.6	10
2.5	2.0-2.5	12.9	11.7	90	12.5	12.4	50
2.5	2.5-3.0	07.3	05.1	20	07.7	06.6	15
3.0	2.5-3.0	11.9	10.7	50	12.1	11.6	10
3.0	3.0-4.0	07.4	06.2	10	07.9	07.1	10
4.0	3.0-4.0	13.8	12.8	55	14.0	13.4	55
4.0	4.0-6.0	05.8	04.6	00	06.5	05.6	00
6.0	4.0-6.0	14.7	14.1	60	14.9	14.5	55
6.0	6.0-8.0	11.7	10.5	40	12.0	11.1	30
8.0	6.0-8.0	16.0	15.4	65	16.1	15.7	70
8.0	8.0-12	14.1	13.5	50	14.3	13.9	60
12	8.0-12	18.2	17.7	80	18.3	17.9	80
12	12-16	17.4	16.9	50	17.5	17.1	50
16	12-16	20.1	20.0	75	20.3	20.1	75
16	16-24	16.7	16.2	40	16.9	16.4	45
24	16-24	20.0	19.9	75	20.4	20.1	75
24	24-32	17.8	17.5	60	17.9	17.7	65
32	24-32	20.1	20.0	80	20.5	20.1	85

The Antenna Loading switch is set in position # 2 except when indicated by \* when position #1 is used

