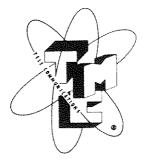
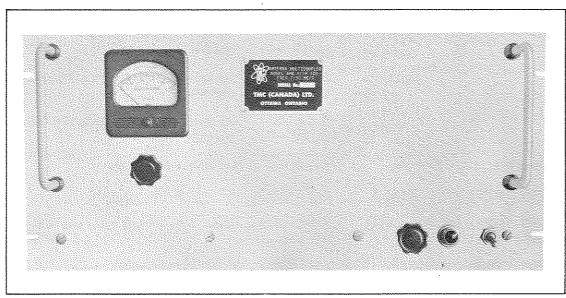
SALES SERVICE BULLETIN NUMBER 155 D



Antenna Multicouplers Models AMC/LMC Series 2, 3 & 5





PH-800

Front View, Antenna Multicoupler AMC-6-5

The TMC series of Antenna Multicouplers are broadbanded electronic coupling devices designed to couple a number of receivers to a single receiving antenna. They cover the frequency range 15 kc to 30 mc and provide an effective match with a minimum of interaction between receivers, and a minimum of intermodulation and cross modulation.

Multicoupler operational requirements are divided into two major catagories, the first requiring maximum sensitivity and low system noise; the second calling for maximum overload and intermodulation characteristics in the face of high intensity RF signals. The Models AMC-6-2 and AMC-6-3 are designed to satisfy the first requirement, and the AMC-6-5 satisfies the second.

All multicouplers in the series feature the use of specially designed wideband transformers, uniform gain, low noise figures, and high attenuation of spurious signals. Cascade operation is frequently used, and any of the units may be used in cascade to get up to 36 outputs from a single antenna without degradation. A switchable broadcast filter is standard in all units with the exception of the Model LMC.

The Series 5 features a new dynamic test circuit which provides a front panel meter check of the input amplifier and each output circuit.

TECHNICAL SPECIFICATIONS:

FREQUENCY RANGE:

Series AMC 2 to 30 megacycles

Series LMC

15 to 500 kilocycles

GAIN:

Series 2 & 3

Nominally 10 db

Series 5

Nominally 3 db

Series LMC

Nominally 3 db

NOISE FACTOR:

Series 2 & 3

Less than 8 db

Series 5

Less than 10 db

Series LMC

Less than 10 db

INTERMODULATION Series 2 & 3 2nd Order

CHARACTERISTICS:

At least 55 db for two 10,000 uv

 $(A \pm B = C)$ signals

3rd Order

At least 55 db for two 10,000 uv

 $(A \pm 2B = C)$ signals

Series 5

2nd Order $(A \pm B = C)$

At least 55 db for two 250,000 uv

signals

3rd Order

At least 55 db for two 250,000 uv

 $(A\pm 2B=C)$

signals

HARMONIC DISTORTION:

Negligible at test levels stated above.

INPUT IMPEDANCE RANGE:

See Table I.

INPUT IMPEDANCE

CHARACTERISTICS:

VSWR of less than 1.8 to 1 when referred to nomi-

nal impedance.

INPUT CONNECTIONS:

UHF SO-239 (NAVY 49194). QDS connectors also

available

INPUT BROADCAST FILTER:

Series 2, 3 & 5

Yes

Series LMC

Special

AVAILABLE OUTPUTS:

6 for all units.

OUTPUT LOCATIONS:

Series 2

Front

Series 3, 5 LMC

Rear

Rear

OUTPUT IMPEDANCE:

Nominally 70 ohms unbalanced.

OUTPUT CONNECTIONS:

UHF SO-239 (NAVY 49194). QDS connectors also

available

BACK TO FRONT RATIO:

Average 70 db.

ISOLATION BETWEEN CONNECTED RECEIVERS:

Average 60 db.

UNIFORMITY OF OUTPUT

SIGNALS:

The minimum signal voltage from any one of the output jacks will not be less than 75% of the output

voltage from any other jack.

OVERLOAD

CHARACTERISTICS:

Series 5 & LMC

A signal of 3 volts will not re-

duce gain of low signal by more

than 1 db.

TUBE COMF	PLEMENT:	Series 2, 3	2 ea. 6J4 6 ea. 6AH6 1 ea. 5U4G 2 ea. OB2	RF preamplifiers Power amplifiers Rectifier Voltage regulators	
	,	Series 5 & LMC	2 ea. 5842 12 ea. 6AM5 1 ea. 5U4G 1 ea. OA2	RF preamplifiers Power amplifiers Rectifier Voltage regulator	
PRIMARY POWER INPUT:		115/230 volts, $50/60$ cps, single phase.			
POWER REQUIREMENTS:		Series 2 & 3 Series 5 LMC	90 watts 150 watts 150 watts		
SIZE:		Series 2 & 3 Series 5 LMC	8-3/4 x 19 x 1 8-3/4 x 19 x 1 8-3/4 x 19 x 1	2 inches o/a.	
WEIGHT:		Series 2 & 3 Series 5 LMC	37 pounds 45 pounds 45 pounds		
MOUNTING:		Standard 19 i	nch relay rack p	panels.	
COMPONENT	ION:			in accordance with rever practicable.	
Figure 1.	70 (I-5 JL V)			;	
RE (36 m/) 8 20 NO NS E (4-2 m/) 1			HIGH LEVEL SPURIOUS RESPONSE OF A SYSTEM EMPLOYING THE AMC 6-2/200 U		
	RELATIVE (STD 04)				
	5,000 10,		O 100,000 ACK OF THE AMC 6-2		
Figure 2.	90				
	60 0 0 0 70		ANTENNA MULTICOUPLER TMC MODEL AMC 8-5 & NO. GROSS MODULATION CHARACT	SO2 ERISTIC	
	00 SS MODUL ATION RECTOR), 2a-b		
	T 50 FREO. 0 - 3	1	G~U		
	% 40 % 30				

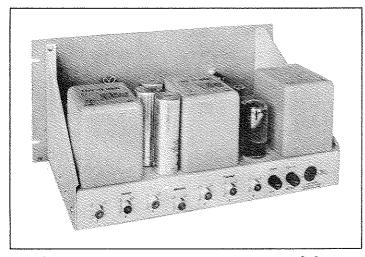
250 300 400 EACH SIGNAL IN MILLIVOLTS RMS

700 800 900 1000

50 .

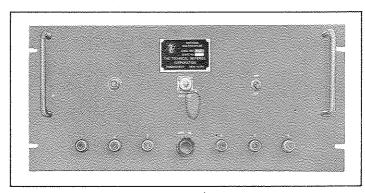
TABLE I
Models Available in AMC-6

Subscript Model No.	Type of Input	Input Impedance
/50B /50U /70B /70U /200B /200U	Balanced Unbalanced Balanced Unbalanced Balanced Unbalanced	50 50 70 70 200 200
/300B /300U	Balanced Unbalanced	300 300



PH-586

Rear View, Antenna Multicoupler AMC 6-3



PH~543

AMC 6-2/70U AN/CU5013()SRR

COPYRIGHT, 1959 THE TECHNICAL MATERIEL CORPORATION

THE TECHNICAL MATERIEL CORPORATION

700 FENIMORE ROAD

MAMARONECK, NEW YORK

IN CANADA: TMC (CANADA) LTD. OTTAWA, ONTARIO