TMC SPECIFICATION NO. S 229

COMPILED BY
A.J.J. TITLE: PURCHASING SPEC., FILTER, BANDPASS FX 140 JOB

APPROVED A.J.J. A JJ. Page
LETTER BANDPASS FX 140 JOB

1. ELECTRICAL:

A. CHARACTERISTICS:

(a). PASS BAND - The frequency Vs. attenuation curve must be flat within a total of 3 db between the limits of +50 cps from the specified center frequency.

(b). REJECTION BAND - The frequency Vs. attenuation curve must be down not less than 36 db at points which are +1100 cps from the specified center frequency. The attenuation shall never fall below 40 db at all points outside ±170 cps and from 2 to 30,000 cps

(c). INSERTION LOSS - The insertion loss shall not exceed 6.5 db at the specified center frequency.

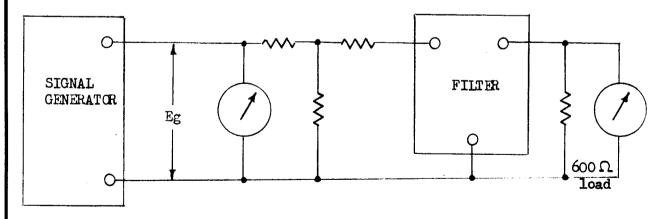
(d). TEMPERATURE RANGE - The filter shall be constructed so that within th temperature range of 0 to 80° C, the specifications (a) and (b) above, shall remain in full force relative to the original specified center frequency. (c) shall not incr. more than 1.5 db.

(e). DRIFT - The long term drift shall be such that specifications (a), (b), and (c), above, shall remain in full force when measured at an ambient temperature of approximately 25° C at the end of a six months period beyond the date of delivery.

After a two year period has expired the 3 db and 36 db points shall not have shifted more than +3 cps from their original +50 cps and +140 cps positions relative to the specified center frequency when measured at approximately 25° C. In addition, the insertion loss shall not have increased by more than 1.5 db.

(f). TEST CONDITIONS - The conditions under which all the foregoing tests shall be made are as follows:

10 db pad



Eg shall be maintained constant at one volt RMS throughout the tests.

The insertion loss shall be measured by reading the voltag across the load with the filter in the circuit and at center frequency. Another measurement shall then be made with the filter removed and the load connected directly at the pad output terminals. The ratio of these two levels shall constitute the insertion loss.

DATE 10/20/54 SH. 2 OF 3		TMC	SP	ECIFI	CATION	NO.	S 229
COMPILED BY	TITLE:	PURCHASING	SPEC.,	FILTER,	BANDPASS FX	140	JOB
APPROVED A.J.J	• A.	J. J. Page	Ā				-

(g). INTERCONNECTION - The filters shall be so constructed that the input terminals of the entire FX 140 series may be connected in parallel without deteriorating the performance of any one unit.

These units shall also be so constructed that the output terminals of the type FX 140 may be connected directly to the input terminals of the type FX 139 of like center frequency withou deteriorating the individual performance of either unit.

(h). IMPEDANCE - The input and output impedances within the bandpass shall be 600 ohms, unbalanced.

B. COMPONENTS:

(a). All toroids shall be vacuum impregnated after winding.

(b). All completed filter cans shall be hermetically sealed and vacuum filled.

(c). All capacitors in all filters designed for center frequencies of 1105 cps and above shall be "D" or "E" temperature characteristic silver micas.

(d). Where possible, all capacitors in all filters designed for center frequencies of 935 cps or below shall be "D" or "E" temperature characteristic silver micas.

(e). Torroid cores shall be stabilized and shall have temperature coefficient characteristics at least as good as The Armold Engineering Company D-671157-3.

(f). All components shall be rigidly mounted before potting.

C. DESIGNATION:

The filters shall be designated as follows:

Center Frequency (cps)	Part Number
425 595 765 935 1105 1275 1445 1615 1785 1955 2125 2295	FX 140 - 425 FX 240 - 595 FX 140 - 765 FX 140 - 935 FX 140 - 1105 FX 140 - 1275 FX 140 - 1445 FX 140 - 1615 FX 140 - 1955 FX 140 - 2125 FX 140 - 2295
2405 26 3 5 2805	FX 140 - 246 FX 140 - 263 FX 140 - 280

TMC SPECIFICATION NO. S 229

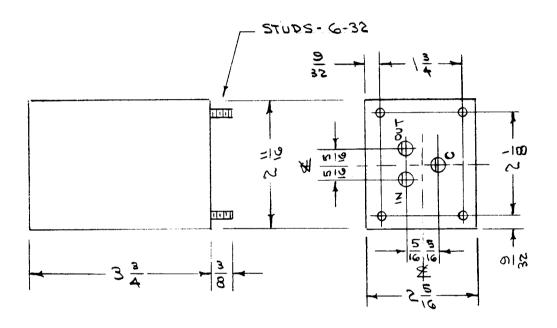
COMPILED BY
A.J.J. APPROVED A.J.J. A.J.J. Page
Issue

APPROVED A.J.J. A.J.J. Issue

2. PHYSICAL:

A. DIMENSIONS:

The unit shall be enclosed in a can having the following dimensions, mounting system, and terminal placement:



This is a catalog item of the Hudson Tool and Die Company and bears the number HU-158

B. PRINTING:

(a). The following lettering shall appear on each can top and shall be stamped in paint to prevent easy removal:

THE TECHNICAL MATERIEL CORP.
MAMARONECK, NEW YORK

PART	NO.	FX	1710	

where the assigned center frequency shall appear in the blank space.

- (b). No designation relating the finsihed product to the original manufacturer shall appear anywhere on the can.
- (c). The appropriate terminals on the can bottom shall be marked IN and OUT, and C.

C. PAINTING:

(a). The unit shall be painted TMC grey according to TMC specification S - 115 but using, instead, a paint which requires baking at a temperature not to exceed 240° F.

	1 18		11			
MODEL		FX-140		REVISION SHEET	S-229	
			1	经基础 医阴影 医阴影的 医阴影的 医阴影的 医阴影的 医阴影的	The transport of the second of	
DATE	REV.	PAGE	ITEM	DESCRIPTION .	REMARKS	APP
11/16/54	A	1	A(b)	Was - less than 400B at points which	LINE 2	AJJ
				are ± 120 cps from the		ATT
"	A	-1		was outside these freg limits and	- LINE 4	ATT
11	A	1	AC)	was not exceed 5 DB at the	LINEI	AJJ
rl .	A	1	A (d)	Was spee. (a), (b), and (c), above	LINE 2+3	AS:
"	A	1	A(e)	Was 3DB and 40DB points	LINE 5	AJ
11	A	1	A(e)	was and ±120 eps positions	LINE 7	AJ
			A(b)	Was and from 2 to 30 KC3.	LINE 4	AJ
9/21	B.	1		FX-140 was FX-144		AI
11	A	2 & 3	GD 400 GD	ti n n	在这些是是为是特殊	
				THE RESERVE OF THE PARTY OF THE	No. of the second	
				The second secon	MARKET STATE OF THE STATE OF TH	
				建筑建筑设置的设施设施设施设施设施设施设施设施		
				The second secon		
				ESTABLISHED FOR THE PARTY OF TH		
				TO A STATE OF THE PARTY OF THE	THE REPORT OF THE PARTY OF THE	
					to the same of the same of the	
						-
	1					
				CONTRACTOR OF THE PARTY OF THE		
				THE RESERVE AND ADDRESS OF THE PARTY OF THE		
				The state of the s	See Mark Tolke Washing	
				(2) 10 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	等于分型性的	
				是一种。在1965年,1965年中的1965年,1965年	国家基本区域的	
				利息的 1.15 · 16 · 16 · 16 · 16 · 16 · 16 · 16 ·		
				CONTRACTOR CONTRACTOR OF THE PROPERTY OF THE PARTY OF THE	Martin Color of the Color of th	
				等等的 1965年 1	THE RESERVE OF THE PARTY OF THE	1