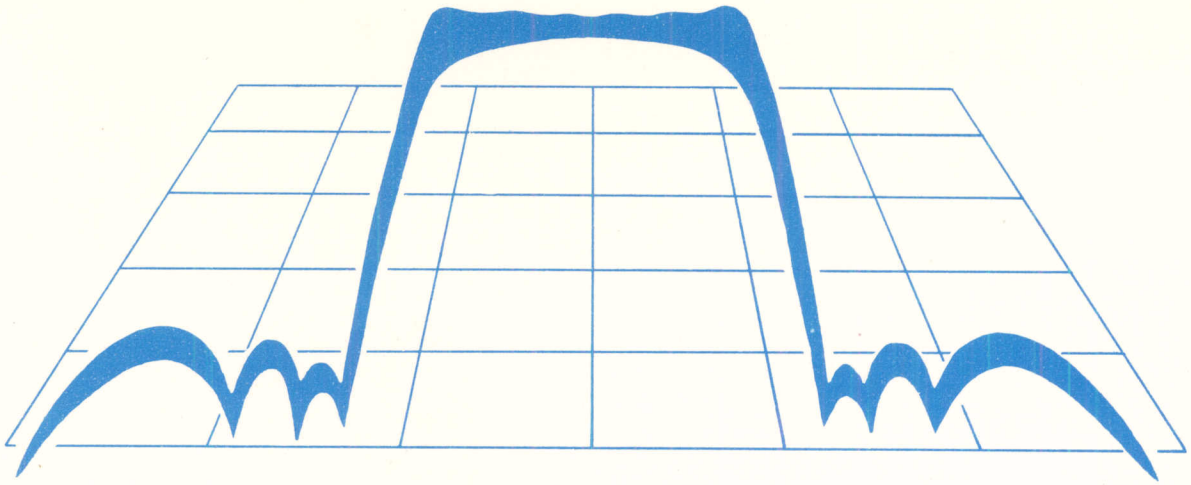


TMC SYSTEMS (ARIZ) INC

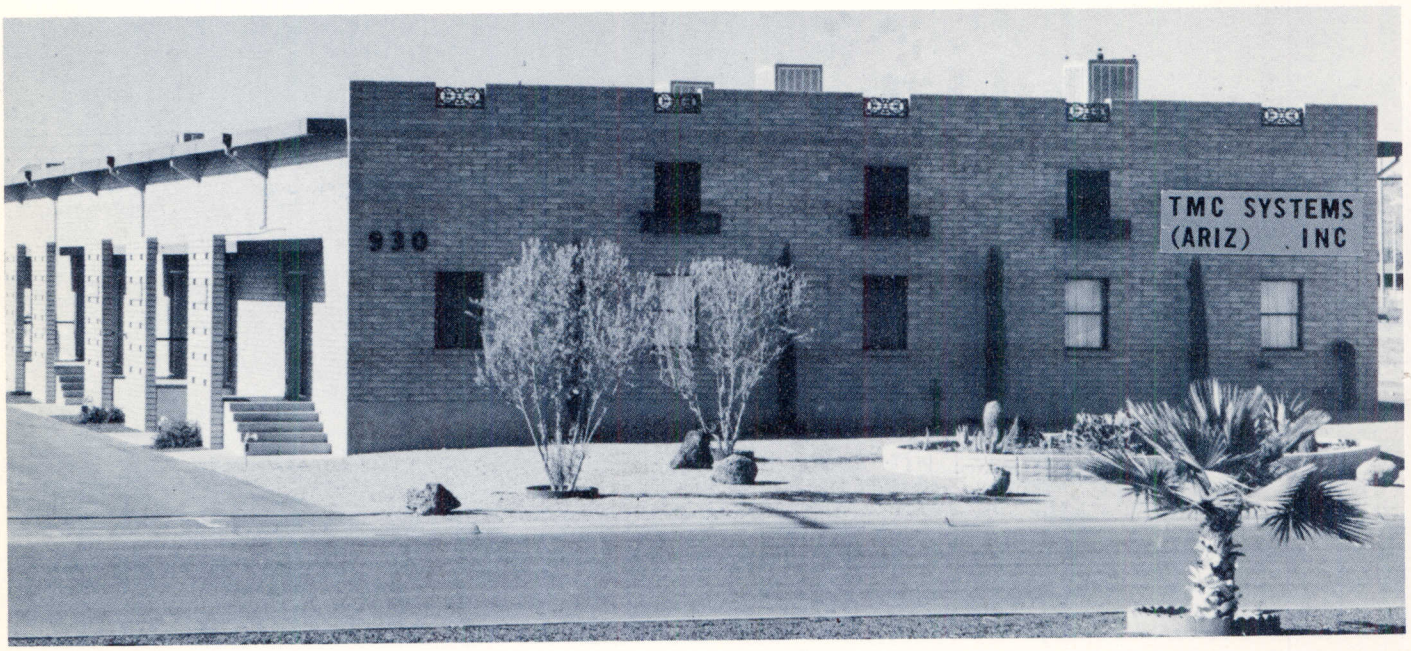
MANUFACTURER OF

- CRYSTALS
- CRYSTAL FILTERS
- CRYSTAL OSCILLATORS
- L C FILTERS

A SUBSIDIARY OF

THE TECHNICAL MATERIEL CORPORATION

We of TMC SYSTEMS (ARIZ), INC., welcome this opportunity to take you on a brief tour of our FACILITIES. We are proud of our PEOPLE, PRODUCTS AND PROCESSES and look forward to putting them to WORK FOR YOU.

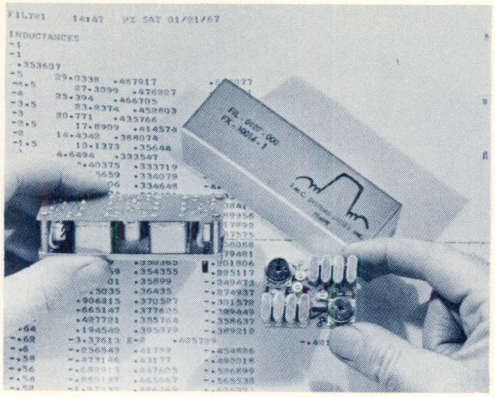


from COMPUTERIZED DESIGNS to FINISHED PRODUCTS

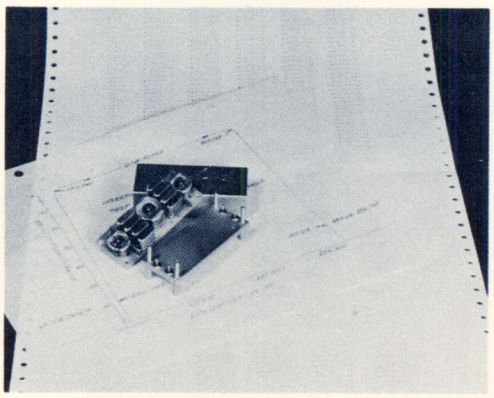
for FREQUENCY CONTROL

and FREQUENCY SELECTIVITY

by SPECIALISTS in POLE-ZERO NETWORKS



● Design of crystal filters at TMC Systems (Ariz), Inc., encompasses both image parameter and modern network theory and all computations are performed on a G.E. 235 computer. Use of this computer allows heretofore disregarded elements (loss, stray capacitance, etc.) to be incorporated into the design resulting, in the majority of cases, in production items without the necessity of building a physical prototype. The use of modern network theory in crystal filter design yields a wider variety of characteristics than was previously obtained with image parameter theory alone. Tchebyscheff, Butterworth and linear phase or time domain filters can be produced with less insertion loss and the particular advantage of each function (maximally sharp cut-off, maximally flat passband, and linear phase). In addition, low power loss comb filters can be obtained without the need of the input isolation as required by image parameter design.



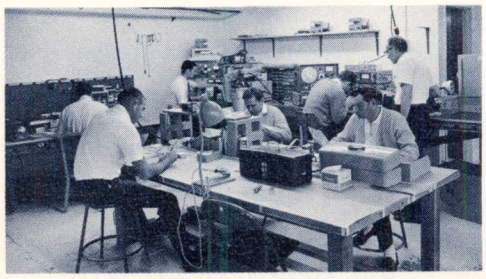
● ● ●

THESE PEOPLE SUPPORT OUR PRODUCTION DEPARTMENTS

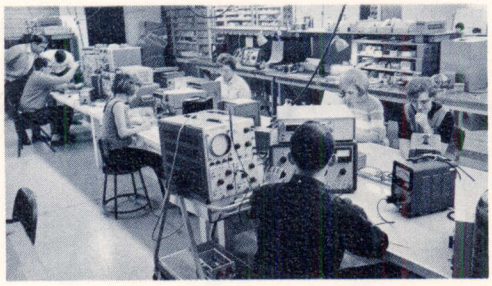
FRONT OFFICE RECEPTIONISTS

STOCKROOM

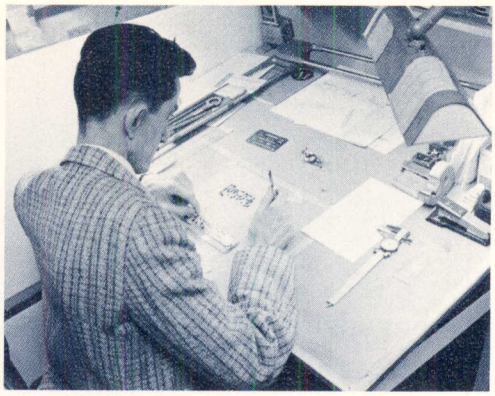
TMC Systems (Ariz), Inc., is in the business of designing and producing quartz crystal resonators, crystal filters and crystal oscillators. Our management and engineering team possess in excess of 70 years experience in this highly specialized component field. Engineering and manufacturing facilities utilize the most modern processing equipments and techniques known to the industry. Extensive use of computers in design



ENGINEERING

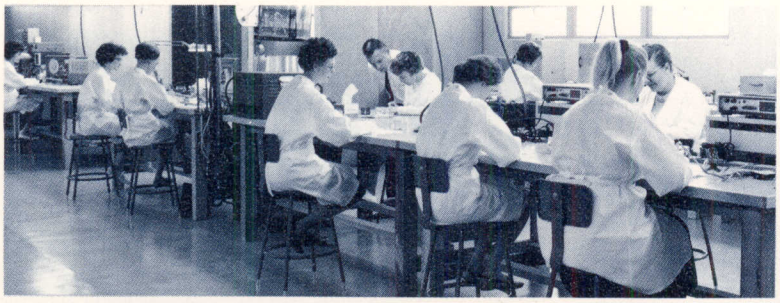


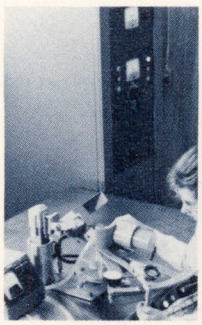
PRODUCTION PLANNING

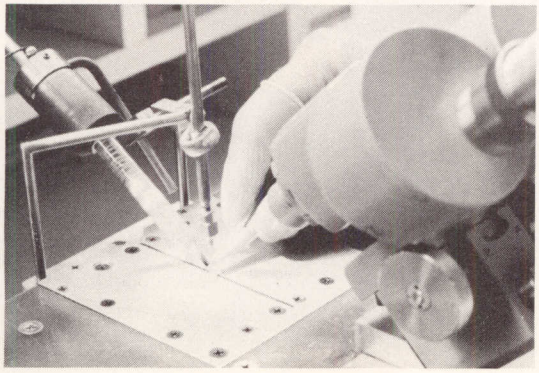


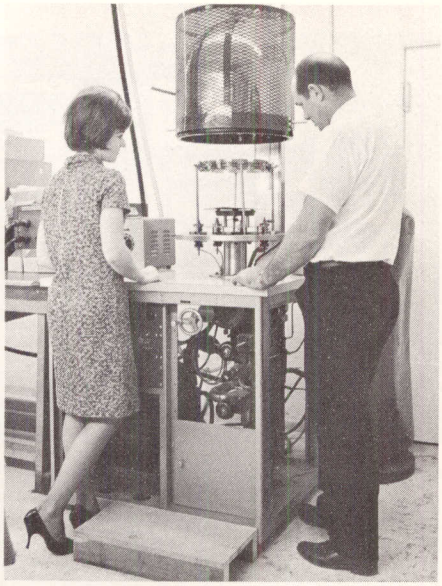
DRAFTING

and development enables TMC Systems (Ariz), Inc., to provide their customers an optimum designed unit of the highest quality. Excellent correlation exists between the computer theoretical characteristics and the physical prototype. Since it is rarely necessary to build a physical model to confirm a design, the customer realizes rapid response to his requests, cost savings at time of procurement and assurance that TMC can provide production quantities of high quality on schedule.





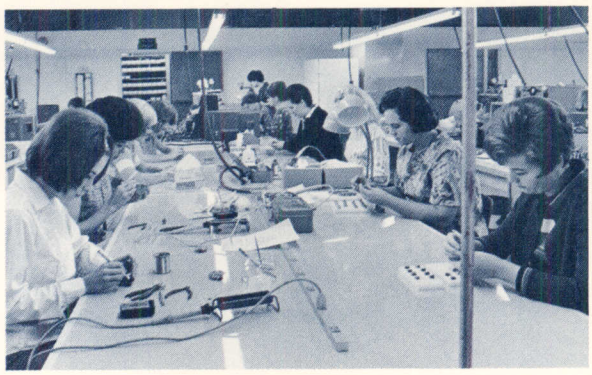




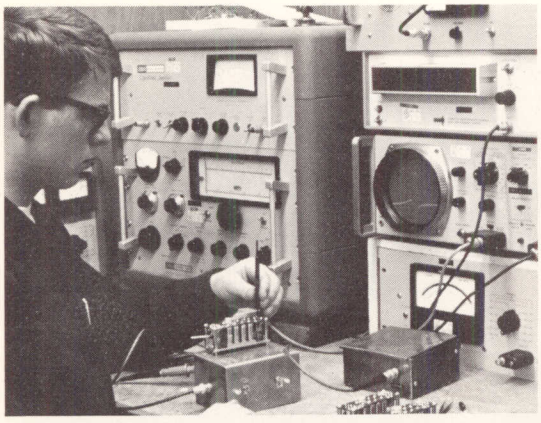
CRYSTAL PRODUCTION

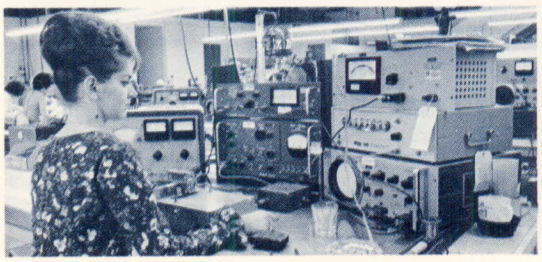
CRYSTAL FREQUENCY ADJUSTMENT

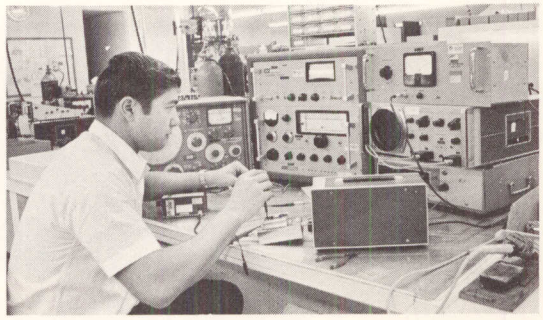
FILTER ASSEMBLY



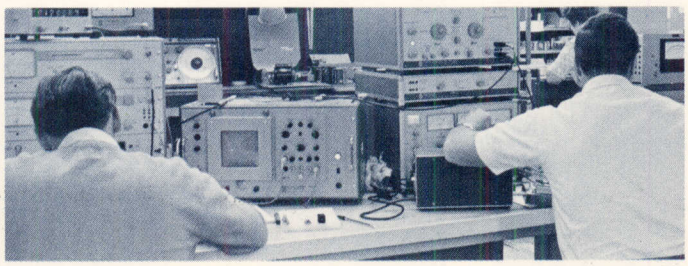
Complete processing from raw quartz to the finished crystal allows rapid delivery of small quantities and prototypes. "In line" inspection of production processing assures a high level of quality capable of meeting the most stringent requirements. Quality assurance and quality control manuals conforming to military requirements are strictly adhered to.





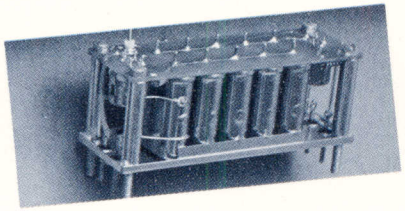


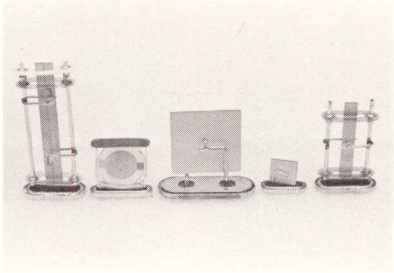
PRODUCTION TEST

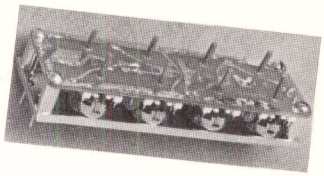


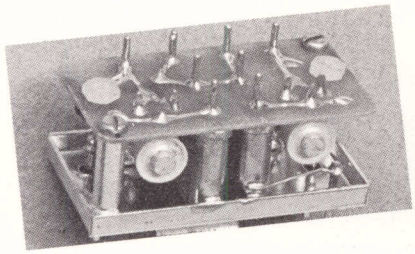
FINAL TEST

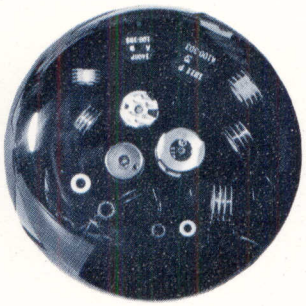
A FEW OF OUR PRODUCTS AND COMPONENTS





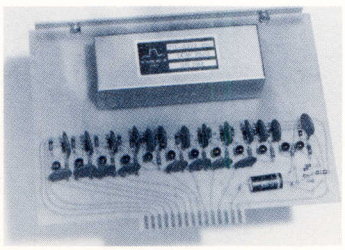


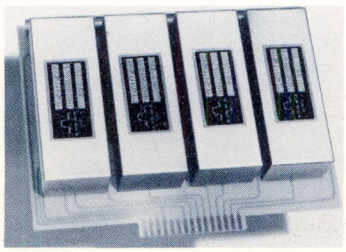


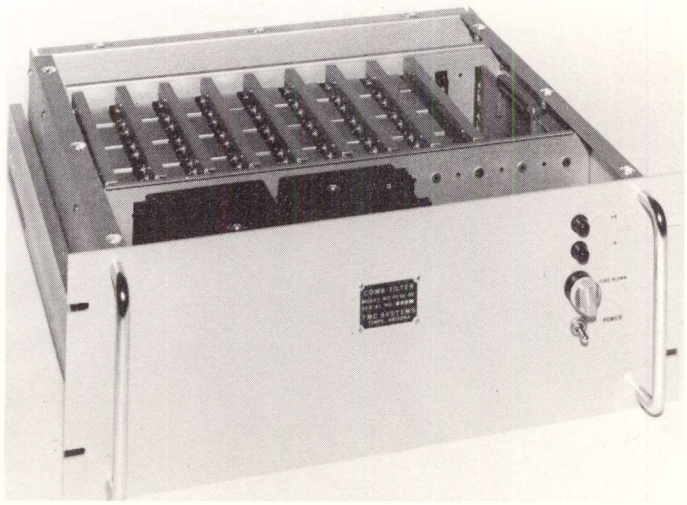


We take special pride in our ability to design and produce crystals to specified equivalent circuit or motional parameters for filter and VCXO applications. Every process in the fabrication of these designs is controlled with the utmost exactness resulting in motional parameter variations of five percent (5%) or less.

COMB FILTER ASSEMBLY, 32 CHANNELS







THE TECHNICAL MATERIEL CORPORATION

MAMARONECK, NEW YORK
TEL 914 OW 8-4800

AND SUBSIDIARIES

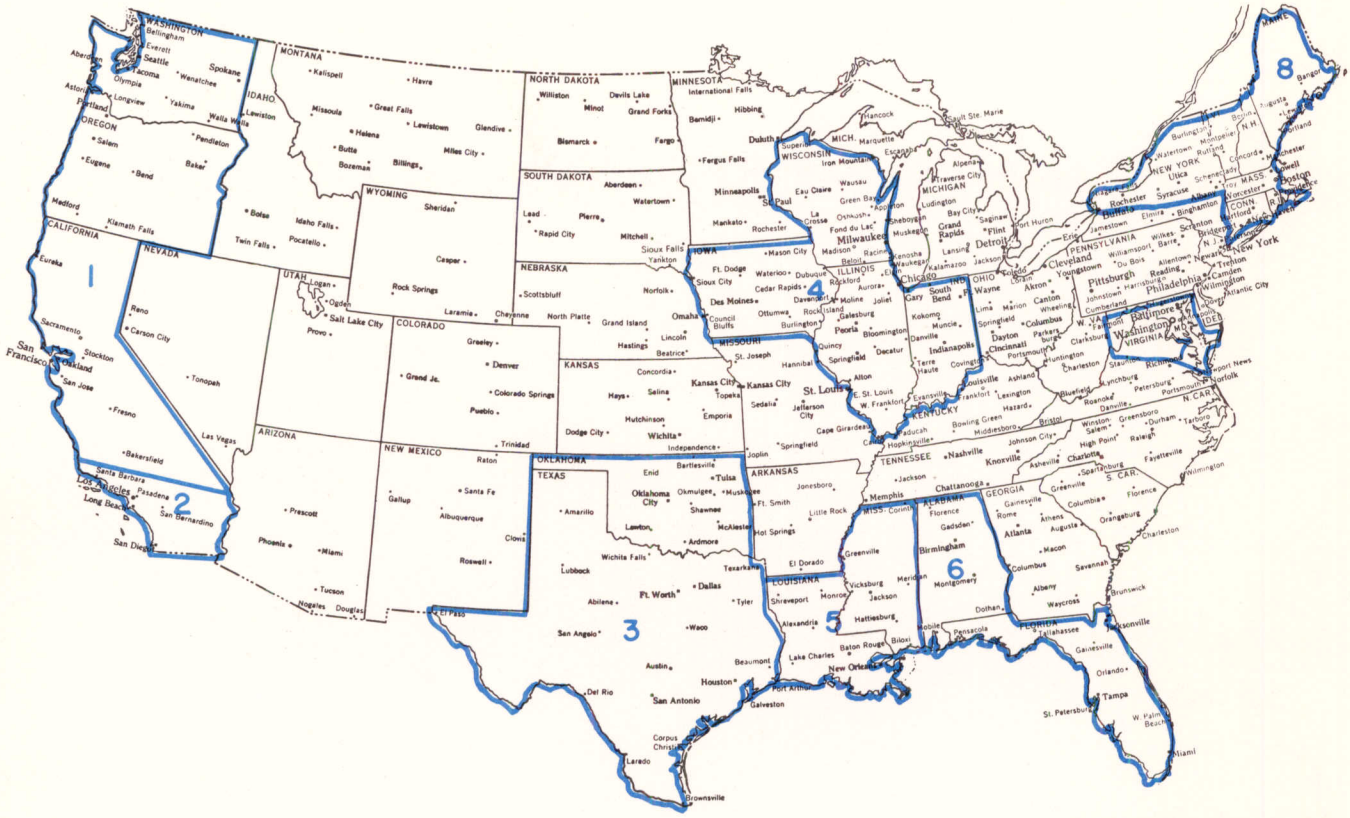
OTTAWA, CANADA • SPRINGFIELD, VIRGINIA • TEMPE, ARIZONA

LUZERN, SWITZERLAND • POMPANO BEACH, FLORIDA • MAMARONECK, NEW YORK

T.M.C. SYSTEMS (ARIZ.) INC.
930 WEST 23RD STREET
TEMPE, ARIZONA 85281
PHONE (602) 967-7875 TWX 910-950-1943

REPRESENTATIVES SERVING YOUR AREA

PLEASE CONTACT THE REPRESENTATIVE LISTED BELOW FOR SERVICES REQUIRED



1. WESTEC ELECTRONICS
   4117 El Camino Way
   Palo Alto, California 94306
   514-327-5850
   Contact: Mr. Tom Collins

2. HOMER & ASSOCIATES
   14436 Sherman Way
   Van Nuys, California 91405
   213-781-1236
   Contact: Mr. Richard J. Homer

3. DYNA-REPS
   200 South Grants Lane
   P. O. Box 5154
   Fort Worth, Texas 76108
   817-732-6621
   Contact: Mr. James S. Neely

4. GASSNER & CLARK
   6644 Northwestern Avenue
   Chicago, Illinois 60645
   312-764-6121
   Contact: Mr. Frank Gassner

5. AEROMARINE CORPORATION
   1112 Magazine Street
   New Orleans, Louisiana 70130
   504-522-0217
   Contact: Mr. Robert Levi

6. LYNCH-GENTRY ASSOCIATES, INC.
   P. O. Box 13248
   St. Petersburg, Florida 33733
   813-347-5131
   Contact: Mr. Richard Gentry

7. FAUST ASSOCIATES
   606 Edmondson Avenue
   Baltimore, Maryland 23228
   301-744-6403
   Contact: Mr. Ben Faust

8. TECHCOM ASSOCIATES
   P. O. Box 71
   Chelmsford, Massachusetts 01824
   617-256-3431
   Contact: Mr. William Young

. . . . . OR CONTACT OUR FACTORY DIRECT . . . . . .

WORLD WIDE SUPPLIERS OF ELECTRONIC COMMUNICATIONS EQUIPMENT

A SUBSIDIARY OF THE TECHNICAL MATERIEL CORPORATION

PRINTED IN U.S.A.

From:_____

_____

_____

_____

To: TMC Systems (Ariz.), Inc.
930 W. 23rd Street, Unit 26
Tempe, Arizona 85281
Attn: Crystal Sales Department

Please submit a quotation on the following crystal unit.

CRYSTAL SPECIFICATION

1. NOMINAL FREQUENCY: _____

2. STANDARD MIL TYPE CR-_____

If standard MIL type does not fully describe your requirements, please fill in detail information below.

A. Calibration Tolerance:_____

B. Holder Type: ☐ HC-6/U ☐ HC-18/U ☐ Wire Lead
☐ HC-12/U ☐ HC-25/U ☐ Pin Type
☐ HC-13/U (____)

Modifications:

C. Resonance: ☐ Series ☐ Anti-Resonant
With_____ ± _____Load Capacity

D. Operating Temperature Range:_____

E. Frequency Tolerance Over Operating Temperature Range ± _____

F. Maximum Equivalent Series Resonant Resistance:_____ohms

G. Pin-To-Pin Capacitance _____ pf ± _____pf

H. Operating Drive Level: _____milliwatts

I. Shock and Vibration:

J. Aging:

K. Special Requirements:

3. QUANTITY REQUIRED: _____Immediate _____Future

4. DELIVERY REQUIRED:

From:_____
_____
_____
_____

To: TMC Systems (Ariz.) Inc.
930 West 23rd Street, Unit 26
Tempe, Arizona 85281
Attn: Filter Sales Department

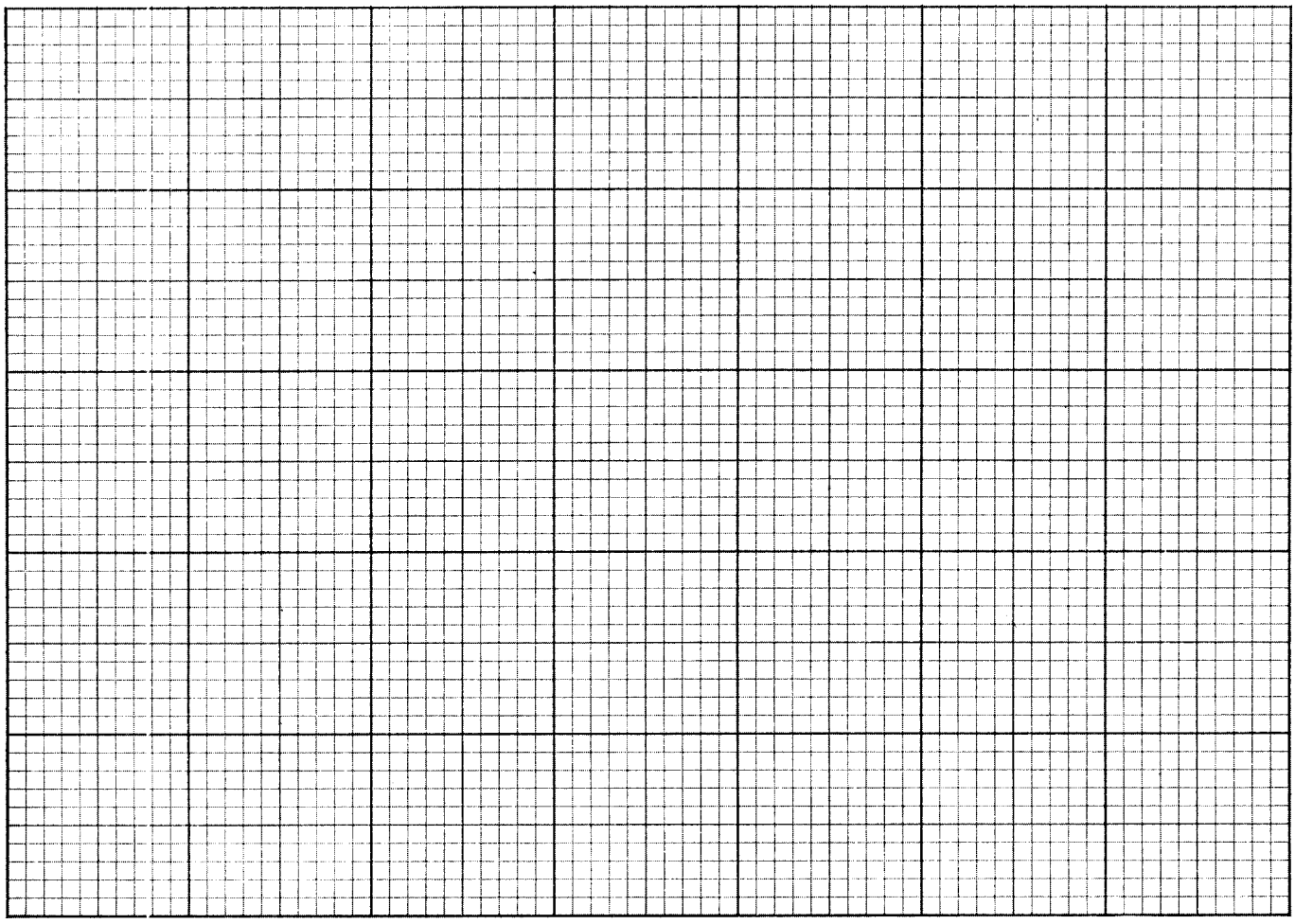
Please submit a quotation on the following filter unit.

FILTER SPECIFICATION

Center Frequency_____ Bandwidth_____Hz _____db
Bandwidth_____Hz _____db
Bandwidth_____Hz _____db

Source Impedance_____ Resistive_____ Reactive _____
Load Impedance_____ Resistive_____ Reactive _____
Passband Ripple_____ db Insertion Loss Maximum_____db
Operating Temperature Range _____ Storage Temp._____
Phase or Delay Requirements_____
_____
Environmental Requirements (Shock, Vibration, Etc.)_____
_____
Quantity_____ Immediate_____ Future_____
Delivery Requirements_____
_____
Remarks_____
_____
_____

**NOTE: Please use the graph below for sketching your package requirements and the filter attenuation requirements.



From:_____

To: TMC Systems (Ariz.) Inc.
930 West 23rd Street Unit 26
Tempe, Arizona 85281
Attn: Oscillator Sales Department

Please submit a quotation on the following oscillator unit.

OSCILLATOR SPECIFICATION

Fixed Frequency		Variable Frequency	
Frequency (f_o)	_____	Center Frequency (f_c)	_____
Frequency Stability	_____	Frequency Stability (f_c)	_____
Frequency Adjust Range	_____	Modulation	
		Total Deviation (f_c) ± _____	
		Control Signal _____ to _____ VDC	
		Sensitivity _____ Hz/Volts	
		Linearity ± _____ % from BSL	
		Frequency Range: DC to _____	
		Input Impedance _____ Min.	

OUTPUT: _____ V ☐p/p ☐rms into _____ Load

Wave Shape _____ Max. Distortion _____ % Spurious - _____ db

OSCILLATOR SUPPLY: _____ VDC ± _____ % _____ M.A. (Max.)
_____ VDC ± _____ % _____ M.A. (Max.)

OVEN SUPPLY: _____ ☐VDC ☐VAC ± _____ % _____ M.A. (Max.)

Warm-up Time _____

ENVIRONMENTAL

Temperature: Operate _____ °C to _____ °C
Storage _____ °C to _____ °C
Humidity: _____
Shock: _____
Vibration: _____
Altitude: _____

Size _____ Terminals _____ Drawing _____
Weight _____ Max. Quantity Required: _____ Immediate _____ Future

Other Details _____

T.M.C. SYSTEMS (ARIZ.) INC.
930 WEST 23RD STREET
TEMPE, ARIZONA 85281
PHONE (602) 967-7875 TWX 910-950-1943

CRYSTAL FILTER DATA SHEET
BANDPASS-SYMMETRICAL
100KHZ — 250KHZ

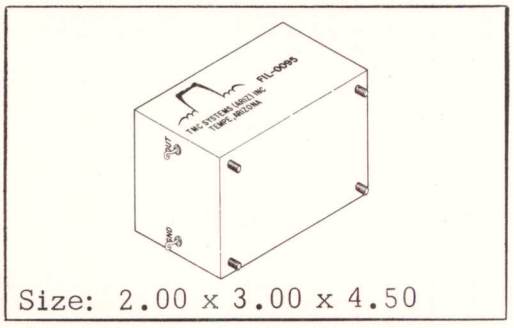
Complies with Defense Communications Agency Circular 175 Requirements

GENERAL DESCRIPTION

TMC Systems (Ariz.), Inc., has designed and produced these filters to satisfy the selectivity requirements prescribed by Defense Communications Agency Circular 175. The prescribed maximum differential delay requirement is satisfied when these filters are used in conjunction with the appropriate crystal equalizer. See reverse side for Computergraphic presentations of attenuation, delay, VSWR and phase.

SPECIFICATIONS

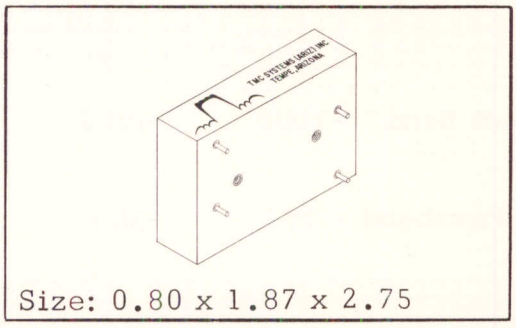
Passband Ripple	.25 db maximum
Insertion Loss	3.5 db ± .5 db
Source and Load Impedance	500 ohms ± 5%
Operative Temperature Range	-30°C to 75°C
Non-operative Temperature Range	-60°C to +100°C
Max. Envelope Delay Distortion	1.5 msecs over the .25 db Bw
1 db Bandwidth	2.8 KHz
Carrier Suppression	> 60 db
Ultimate Stop-band Reject	> 80 db



Size: 2.00 x 3.00 x 4.50

100 KHz

Reference Frequency KHz	Channel	Part No.
95.355	B-2	FIL-0098
98.355	B-1	FIL-0097
101.645	A-1	FIL-0095
104.645	A-2	FIL-0096

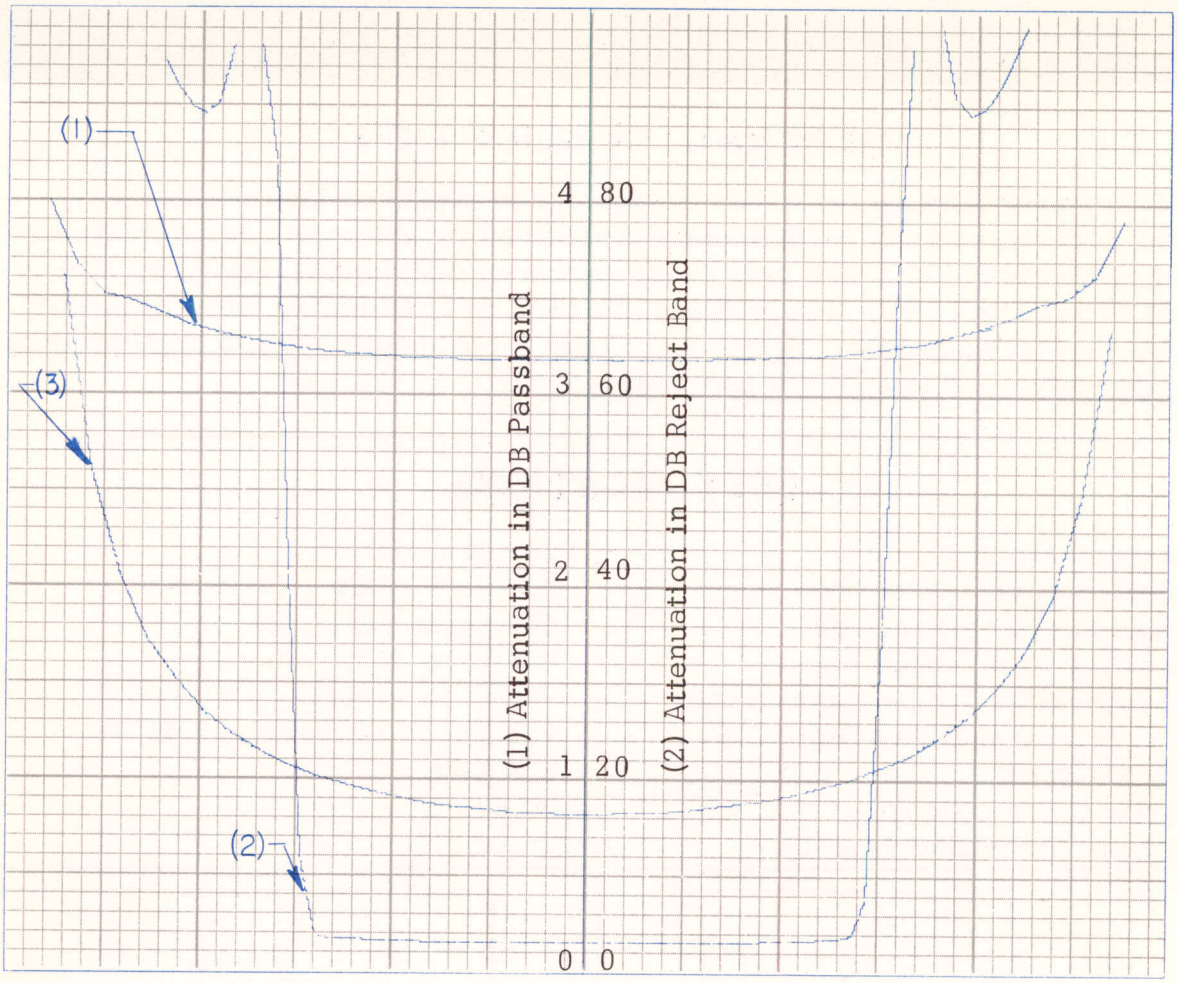


Size: 0.80 x 1.87 x 2.75

250 KHz

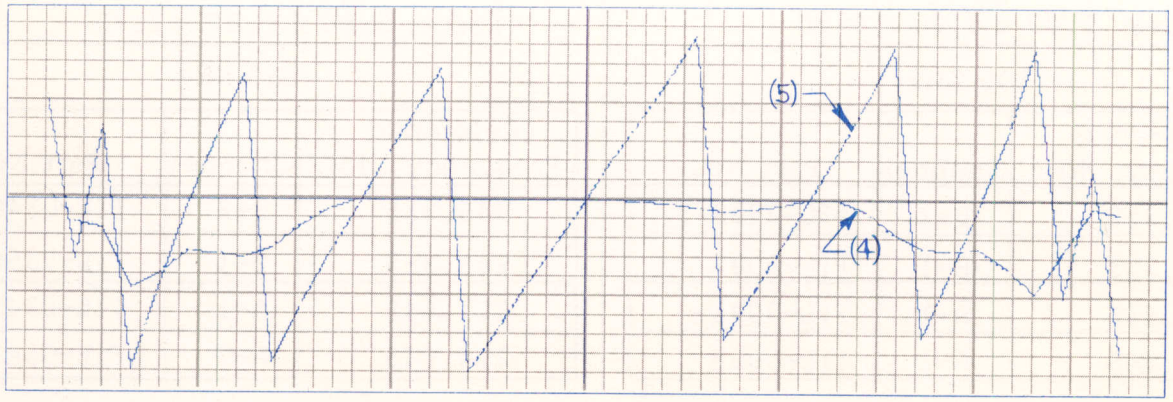
Reference Frequency KHz	Channel	Part No.
245.355	B-2	FIL-0348
248.355	B-1	FIL-0350
251.645	A-1	FIL-0349
254.645	A-2	FIL-0347

(OVER)



(2) Reject Band -2000 -1000 0 +1000 +2000

(1)(3)(4)(5) Passband -1000 -500 0 +500 +1000



T.M.C. SYSTEMS (ARIZ.) INC.
930 WEST 23RD STREET
TEMPE, ARIZONA 85281
PHONE (602) 967-7875 TWX 910-950-1943

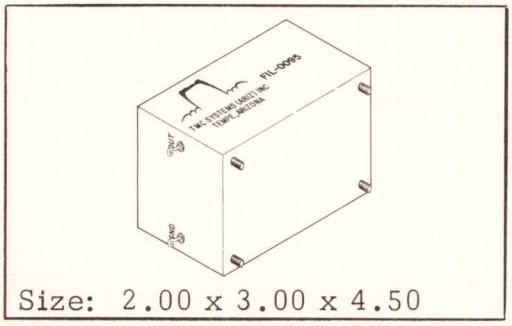
CRYSTAL EQUALIZER DATA SHEET FOR USE WITH APPROPRIATE DCA BANDPASS FILTER 100 KHZ — 250 KHZ

GENERAL DESCRIPTION

Differential delay distortion in the passband of highly selective crystal filters is best equalized with crystal equalizer networks. TMC Systems (Ariz.), Inc., has designed and produced these equalizers for use in conjunction with bandpass filters resulting in compliance with Defense Communications Agency Circular 175 requirements. See reverse side for Computergraphic presentations of attenuation, delay, VSWR and phase.

SPECIFICATIONS

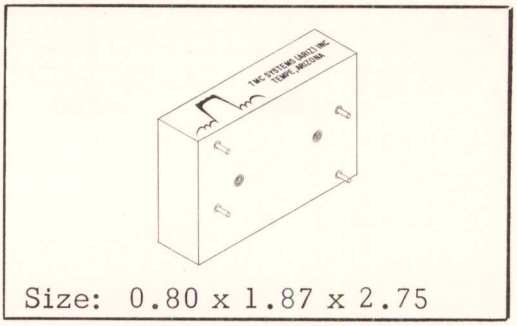
Passband Ripple	.25 db maximum
Insertion Loss	4.0 db ± .5 db
Source and Load Impedance	500 ohms ± 5%
Operative Temperature Range	-30°C to +75°C
Non-operative Temperature Range	-60°C to +100°C
Max. Envelope Delay Distortion	500 μsecs when used in conjunction with appropriate channel filter.



Size: 2.00 x 3.00 x 4.50

100 KHz

Reference Frequency KHz	Channel	Part No.
95.355	B-2	FIL-0446
98.355	B-1	FIL-0445
101.645	A-1	FIL-0443
104.645	A-2	FIL-0444



Size: 0.80 x 1.87 x 2.75

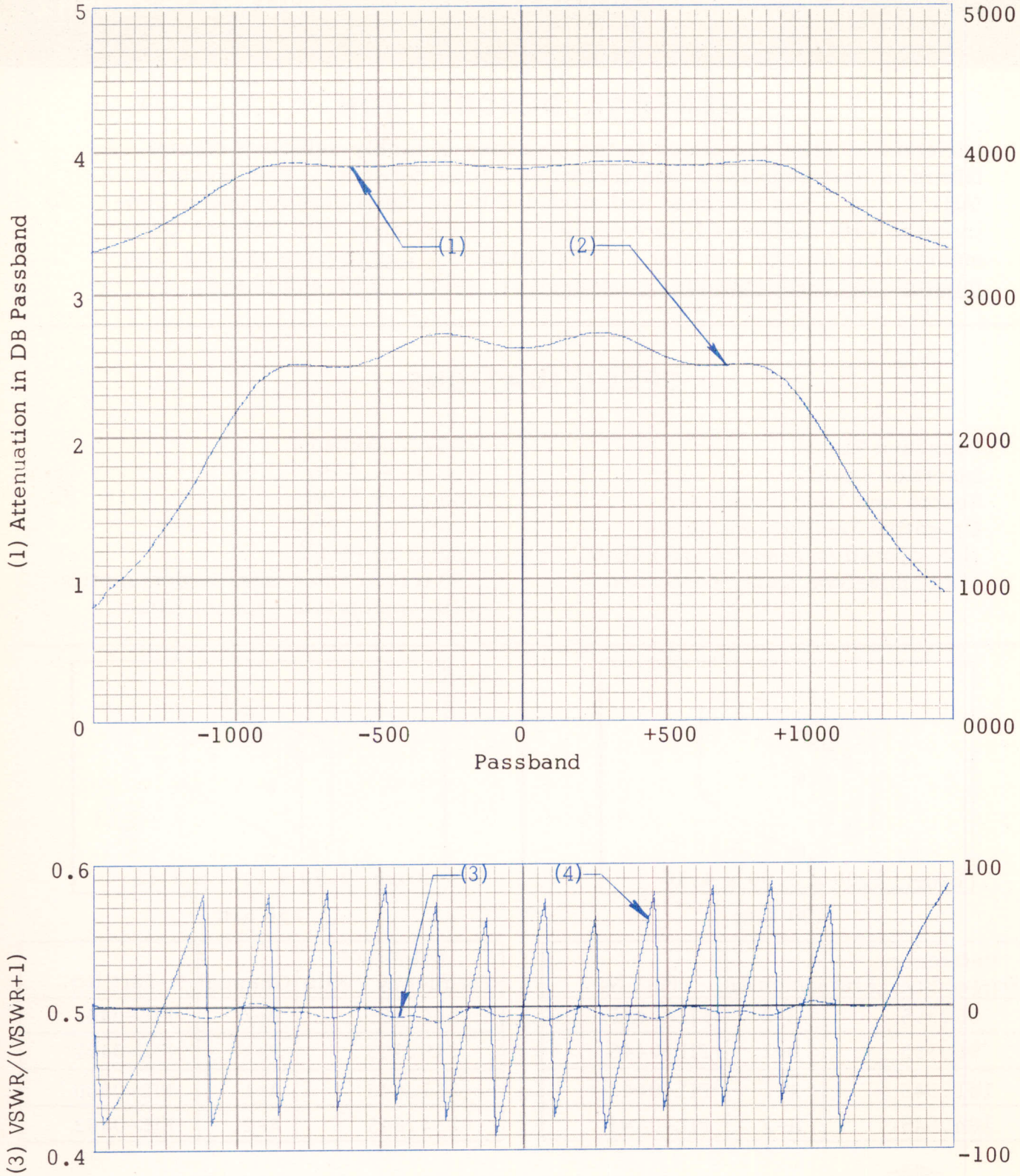
250 KHz

Reference Frequency KHz	Channel	Part No.
245.355	B-2	FIL-0403
248.355	B-1	FIL-0401
251.645	A-1	FIL-0400
254.645	A-2	FIL-0402

(OVER)

A SUBSIDIARY OF THE TECHNICAL MATERIEL CORPORATION

PRINTED IN U.S.A.


(1) Attenuation in DB Passband
5
4
3
2
1
0
(2) Delay in Micro-Seconds
5000
4000
3000
2000
1000
0000
(1)
(2)
-1000
-500
0
+500
+1000
Passband
(3) VSWR/(VSWR+1)
0.6
0.5
0.4
(4) Phase in Degrees
100
0
-100
(3)
(4)

T.M.C. SYSTEMS (ARIZ.) INC.
930 WEST 23RD STREET
TEMPE, ARIZONA 85281
PHONE (602) 967-7875 TWX 910-950-1943

EQUALIZED CHANNEL BANDPASS CRYSTAL FILTER AND CRYSTAL EQUALIZER CASCADED 100 KHZ—250KHZ

Complies with Defense Communications Agency Circular 175 Requirements

GENERAL DESCRIPTION

The highly selective attenuation requirements and extremely small differential delay distortion prescribed by Defense Communications Agency Circular 175 are realized when TMC bandpass crystal filters are used in conjunction with TMC crystal equalizer networks. See reverse side for Computergraphic presentations of passband/stopband attenuation, differential delay, VSWR and phase.

SPECIFICATIONS

Passband Ripple	.5 db maximum
Insertion Loss	12.0 db maximum (includes 3 db pad coupling filter and equalizer)
Source and Load Impedance	500 ohms ± 5%
Operative Temperature Range	-30°C to +75°C
Non-operative Temperature Range	-60°C to +100°C
Max. Envelope Delay Distortion	500 μ secs over .25 db Bw
1 db Bandwidth	2.8 KHz
Carrier Suppression	> 60 db
Ultimate Stopband Suppression	> 80 db

*Part numbers and package configuration are shown on applicable Filter and Equalizer Data Sheets

100 KHz

Reference Frequency KHz	Channel	Part No.
95.355	B-2	*
98.355	B-1	*
101.645	A-1	*
104.645	A-2	*

*Part numbers and package configuration are shown on applicable Filter and Equalizer Data Sheets

250 KHz

Reference Frequency KHz	Channel	Part No.
245.355	B-2	*
248.355	B-1	*
251.645	A-1	*
254.645	A-2	*

(OVER)

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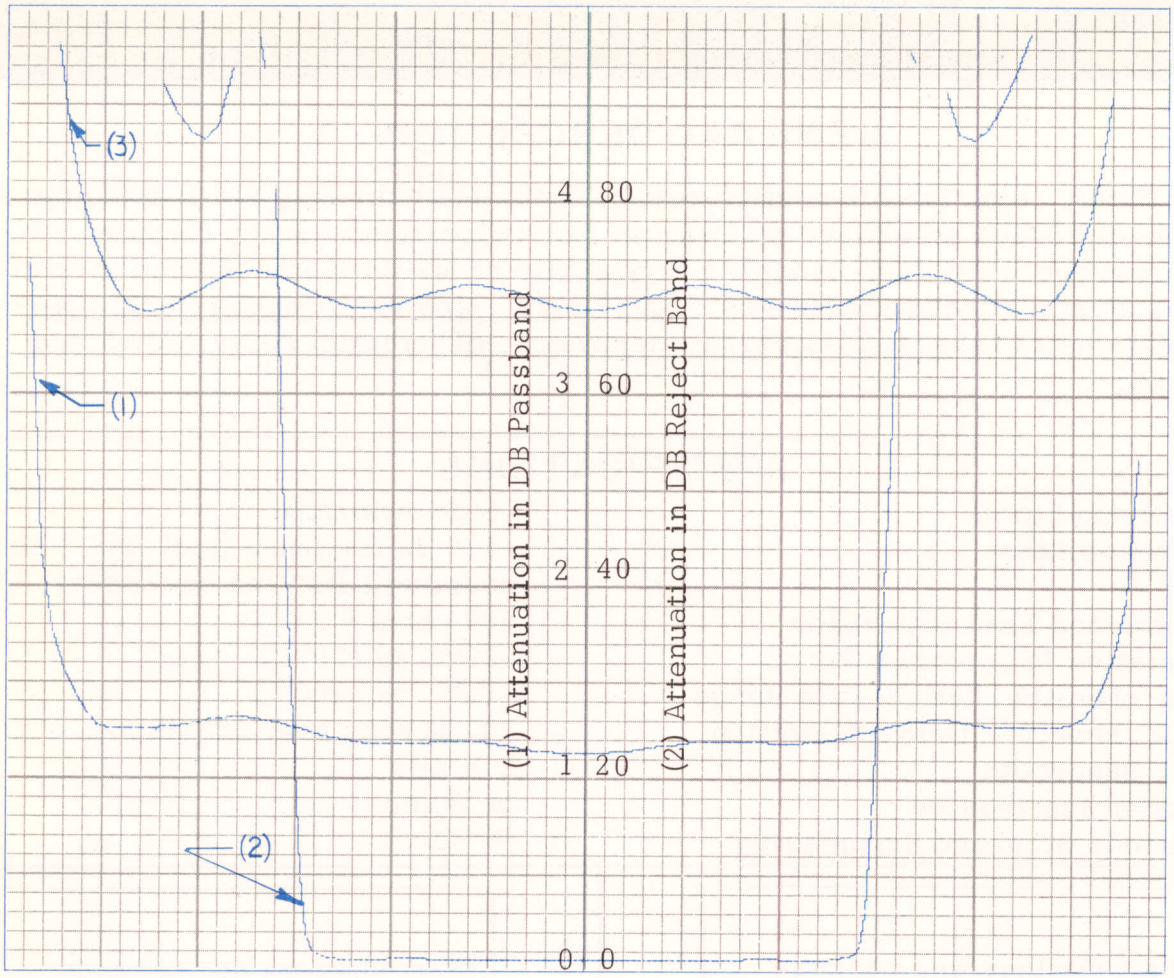
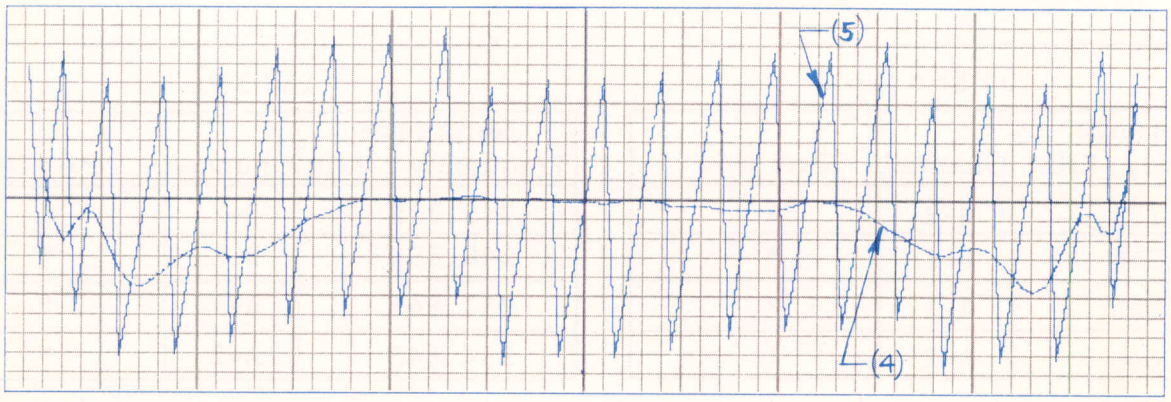


(2) Reject Band -2000 -1000 0 +1000 +2000

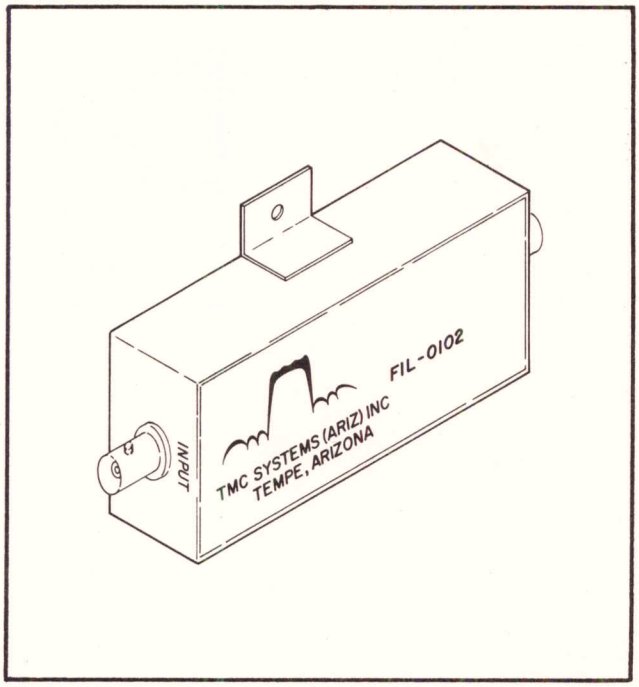
(1)(3)(4)(5) Passband -1000 -500 0 +500 +1000



T.M.C. SYSTEMS (ARIZ.) INC.
930 WEST 23RD STREET
TEMPE, ARIZONA 85281
PHONE (602) 967-7875 TWX 910-950-1943

CRYSTAL FILTER DATA SHEET
BAND PASS-SYMMETRICAL
2003 KC CENTER FREQUENCY
FIL-0102

SYMMETRICAL BAND PASS CRYSTAL FILTER



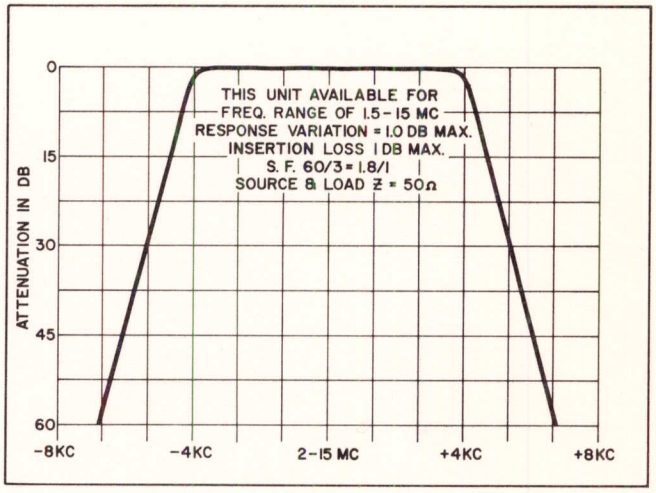
GENERAL DESCRIPTION

T.M.C. Systems (Ariz.), Inc. has developed this filter for use between the 50 ohm terminations of an antenna and fixed frequency receiver. Low insertion loss and ripple characteristics combined with 60 db stop band suppression insure an interference free channel for USBSC, LSBSC or AM communications.

SPECIFICATIONS

Size	1 1/4 x 1 3/4 x 3 3/4
Center Frequency	See Curve
3 db bandwidth	7.0 Kc min.
60 db bandwidth	17.5 Kc max.
Insertion Loss	1.5 db max. for CF ≤ 5 mc
	2.0 db max. for CF >5 mc <15 mc
Passband Ripple	1.5 db max. for CF ≤ 5 mc
	2.0 db max. for CF >5 mc <15 mc

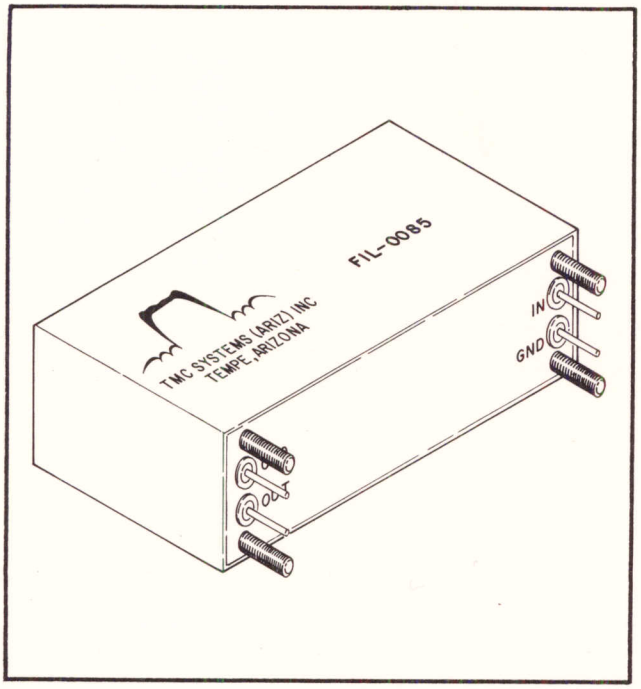
Source and Load Impedance 50 ohm resistive.



T.M.C. SYSTEMS (ARIZ.) INC.
930 WEST 23RD STREET
TEMPE, ARIZONA 85281
PHONE (602) 967-7875 TWX 910-950-1943

CRYSTAL FILTER DATA SHEET
BAND PASS-SYMMETRICAL
100KC CENTER FREQUENCY
FIL-0085

SYMMETRICAL BAND PASS CRYSTAL FILTER

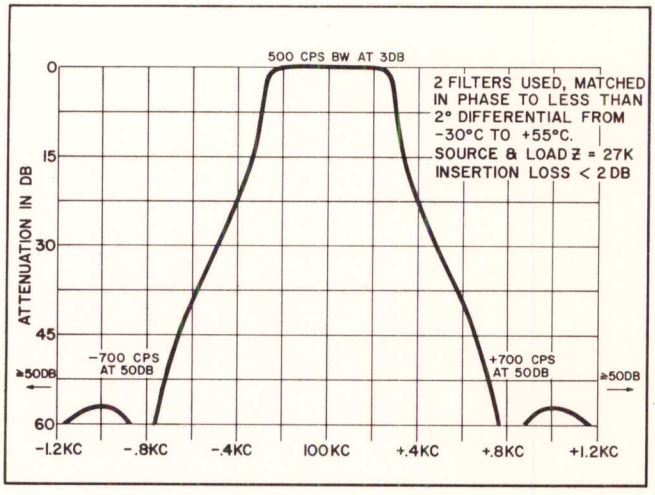


GENERAL DESCRIPTION

T.M.C. Systems (Ariz.), Inc. has developed this filter design for use in a system requiring two filters of identical phase characteristics over their 3 db bandwidth. Typical phase differential at 25°C is from 0 to 30 minutes.

SPECIFICATIONS

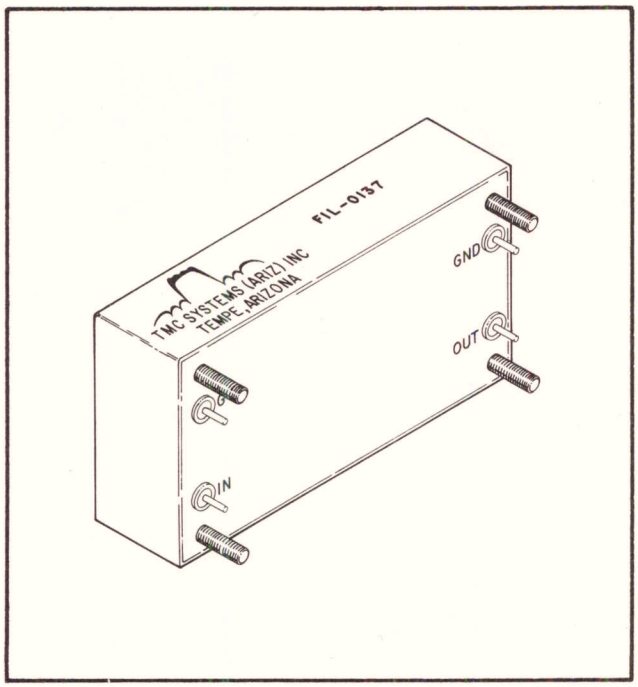
Size (max.) 1.34 x 2.19 x 4.0
3 db Bandwidth 450 cps min.
50 db Bandwidth 1500 cps max.
Insertion loss 2.0 db max.
Passband Ripple .2 db
Matched Pairs: Track in phase within 2° from fo-250 cps to fo +250 cps.



T.M.C. SYSTEMS (ARIZ.) INC.
930 WEST 23RD STREET
TEMPE, ARIZONA 85281
PHONE (602) 967-7875 TWX 910-950-1943

CRYSTAL FILTER DATA SHEET
BAND PASS - SYMMETRICAL
256 KC CARRIER FREQUENCY
FIL-0137

SYMMETRICAL BAND PASS CRYSTAL FILTER

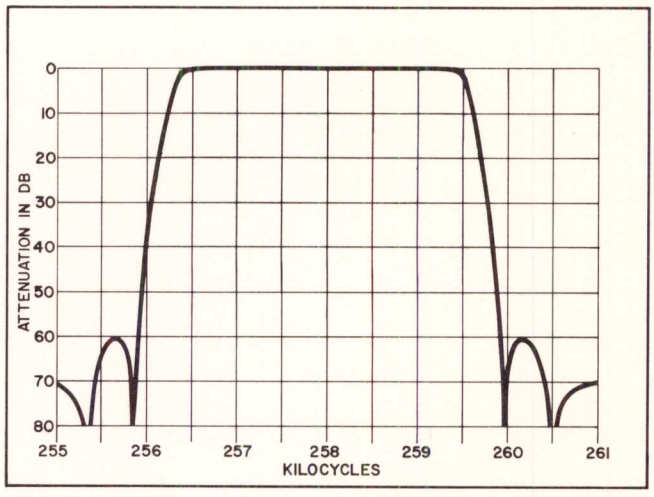


GENERAL DESCRIPTION

T.M.C. Systems (Ariz.), Inc. has developed this filter for use in multiplex equipment. This design exhibits excellent stability of the passband and stop band characteristics and can be engineered to meet widely varied environmental conditions.

SPECIFICATIONS

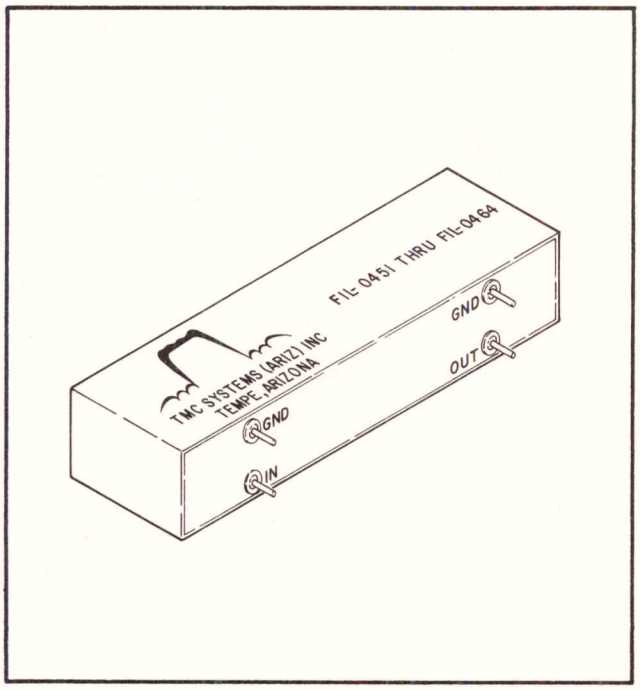
Size	.75 x 1.6 x 3.0
1.4 db bandwidth	3200 cps min.
60 db bandwidth	4000 cps max.
Insertion Loss	4.0 db max.
Passband Ripple	± .25 db max.
Shape Factor 60/1.4=	1.22/1
Source and Load Impedance	2K ohm



T.M.C. SYSTEMS (ARIZ.) INC.
930 WEST 23RD STREET
TEMPE, ARIZONA 85281
PHONE (602) 967-7875 TWX 910-950-1943

CRYSTAL FILTER DATA SHEET
BAND PASS-SYMMETRICAL
64 TO 108 KC COMB SET
FIL-0451 THRU FIL-0464

TWELVE CHANNEL COMB SET

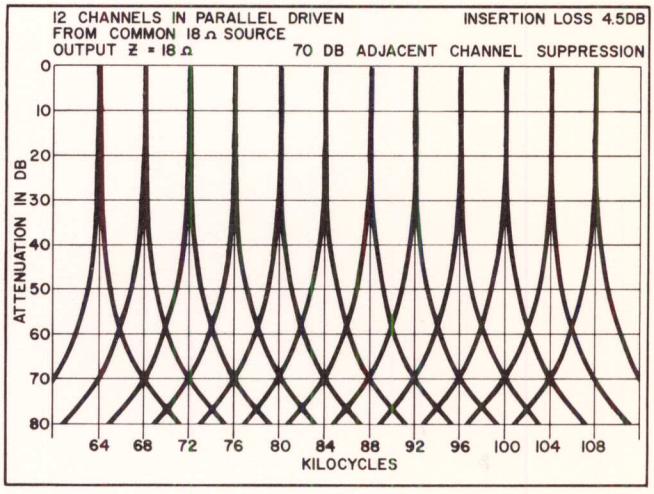


GENERAL DESCRIPTION

T.M.C. Systems (Ariz.), Inc. has designed this comb set for use in multiplex equipment. All twelve units may be driven from a common source without isolation. Insertion loss variation over the temperature range -40° to $+71^{\circ}$C is less than 0.5 db.

SPECIFICATIONS

Size 0.9 x 1 1/4 x 4 1/4
0.2 db bandwidth 20 cps min.
3.0 db bandwidth 200 cps nom.
fc ± N4 Kc: -40 db min. when N is odd
-65 db min. when N is even
Mil Type: FR4QX22YY
Meets MIL-F-18327 and Mil. Std. 202

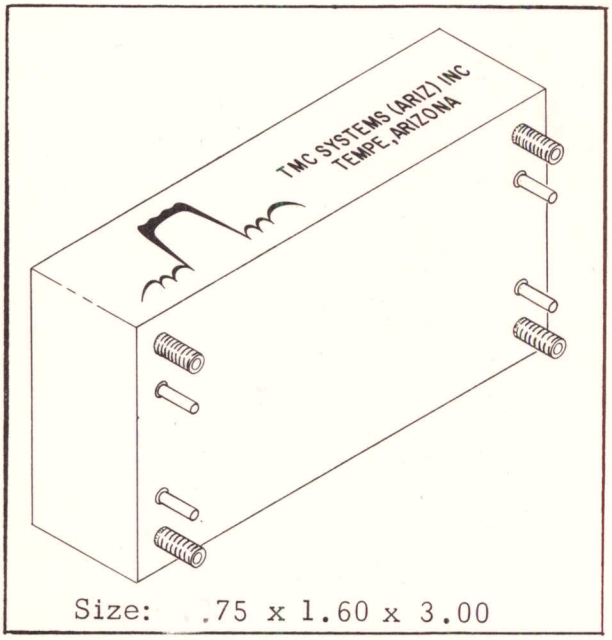


WORLD WIDE SUPPLIERS OF ELECTRONIC COMMUNICATIONS EQUIPMENT

T.M.C. SYSTEMS (ARIZ.) INC.
930 WEST 23RD STREET
TEMPE, ARIZONA 85281
PHONE (602) 967-7875 TWX 910-950-1943

TEMPERATURE COMPENSATED CRYSTAL OSCILLATOR (TCXO)

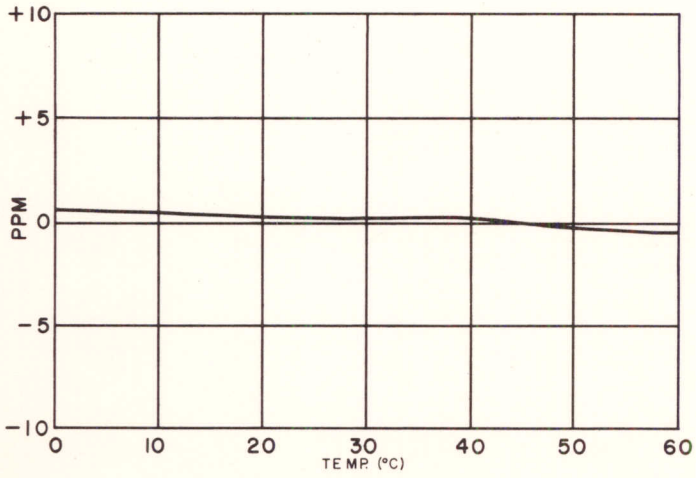
TX 200 SERIES



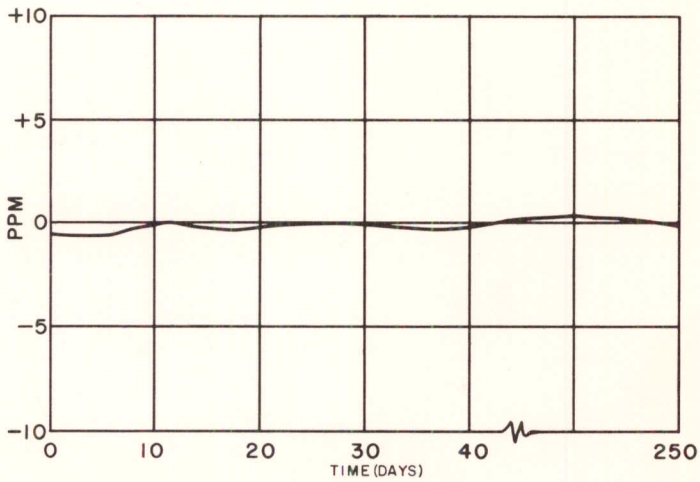
Size: .75 x 1.60 x 3.00

GENERAL DESCRIPTION

Frequency range 1 to 20 MHz
1 part per million stability
0 to 60°C temperature range
12 or 24 VDC supply at 10 MA
Silicon semiconductor design
for long term reliability
Zener regulator on oscillator supply
Packaged for printed circuit board mounting.



TEMP TEST DATA
(TYPICAL)



AGE TEST DATA
(TYPICAL)

WORLD WIDE SUPPLIERS OF ELECTRONIC COMMUNICATIONS EQUIPMENT

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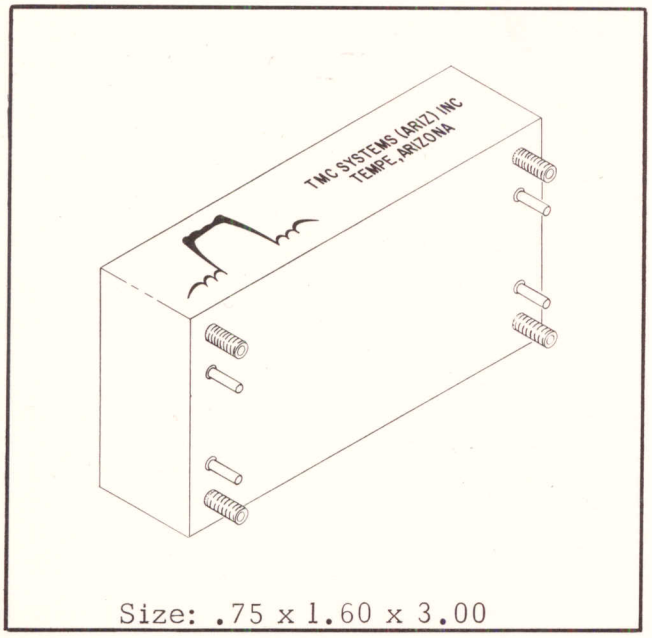
930 WEST 23RD STREET
TEMPE, ARIZONA 85281
PHONE (602) 967-7875 TWX 910-950-1943

MINI-PROPORTIONAL CONTROL OVEN CRYSTAL OSCILLATOR (OXO)

OXO 200 OXO 300 SERIES

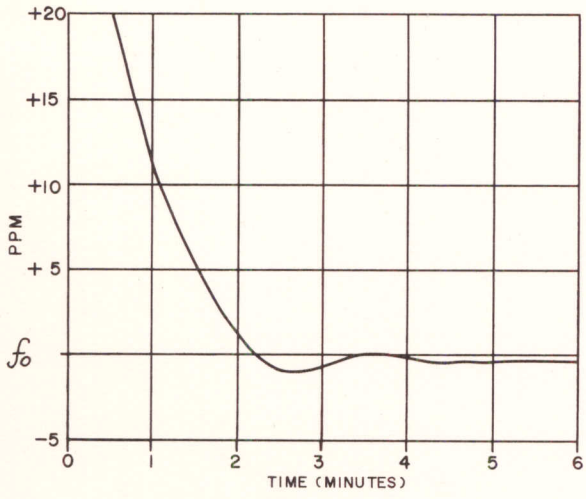
FCC Reg. Article 2.5777 for Marine and Aircraft SSB Equipment met upon request.



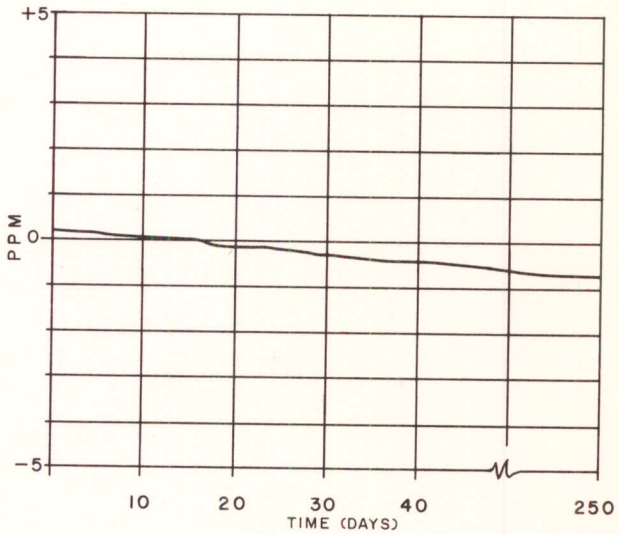
Size: .75 x 1.60 x 3.00

GENERAL DESCRIPTION

- Frequency range 1 to 30 MHZ
- Warm-up 2 to 5 minutes
- 1 part per million stability
- -30°C to +50°C temperature range
- 12VDC supply at 130MA (25°) or
- 24 VDC supply at 60MA (25°)
- 100MVRMS output to 50 ohm load
- Silicon semiconductor design for long term dependability
- Zener regulator on oscillator and oven supply
- Packaged for P.C. board mounting



TYPICAL WARM-UP DATA

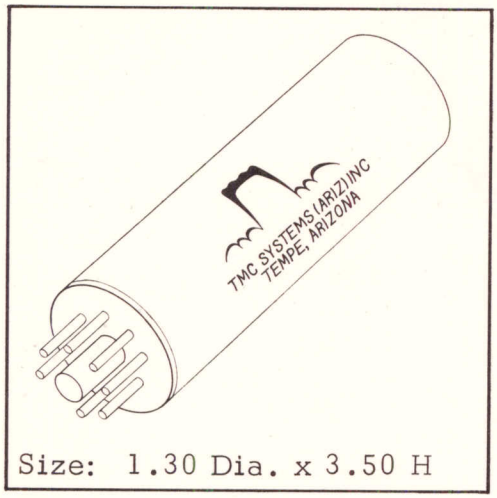


TYPICAL AGE TEST DATA

T.M.C. SYSTEMS (ARIZ.) INC.
930 WEST 23RD STREET
TEMPE, ARIZONA 85281
PHONE (602) 967-7875 TWX 910-950-1943

VOLTAGE CONTROLLED CRYSTAL OSCILLATOR (VCXO)

VCOXO SERIES

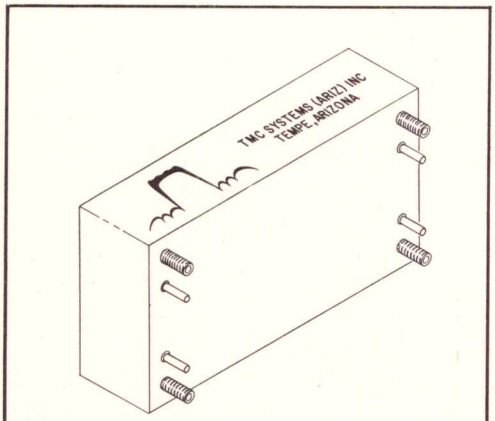


Size: 1.30 Dia. x 3.50 H

GENERAL DESCRIPTION

Frequency range 2 to 20 MHz
1 part per million stability
0 to 60°C temperature range
Typical total deviation ± 300 PPM
85 PPM deviation per volt
Linearity with 16 PPM
Modulation frequency DC to 10 KHz
Input impedance 50K ohms
Oscillator supply 12 VDC 10 MA
Oven supply 26 VDC 10 Watts
100 MV RMS output to 250 ohm load

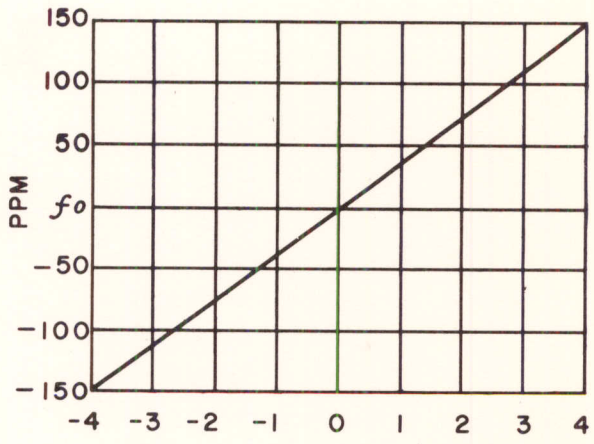
TC-VCXO SERIES



Size: .75 x 1.60 x 3.00

GENERAL DESCRIPTION

Temperature compensated voltage controlled crystal oscillator designed for printed circuit board mounting.



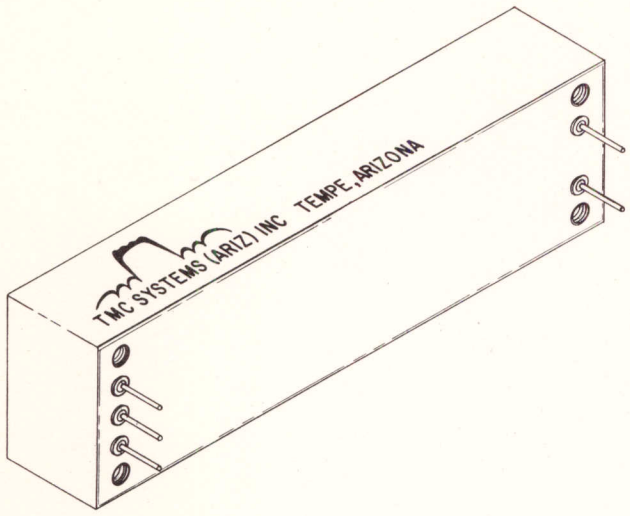
CONTROL VOLTAGE
(VCOXO & TC-VCXO SERIES)

T.M.C. SYSTEMS (ARIZ.) INC.
930 WEST 23RD STREET
TEMPE, ARIZONA 85281
PHONE (602) 967-7875 TWX 910-950-1943

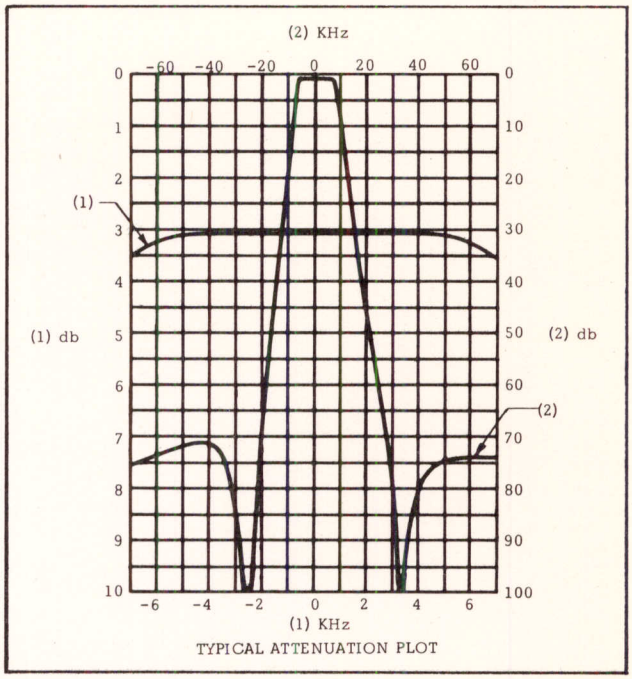
L C FILTER DATA SHEET
BANDPASS - SYMMETRICAL
AVAILABLE FROM
250 KHz TO 5 MHz

GENERAL DESCRIPTION

This filter was designed for use with FET balanced mixers and presents a very flat 12 KHz passband. Typically the response variation is less than .1 db. The filter can be supplied to be driven by a single ended source with a resistive impedance between 50 ohms and 5K ohms.



Size: .66 x 1.10 x 3.50



TYPICAL ATTENUATION PLOT

SPECIFICATIONS

Passband Ripple	.2 db max. (.1 db in any 3 KHz segment in region $f_o \pm 6$ KHz)
Insertion Loss	10 db maximum
Source and Load Impedance	50 ohms to 5K ohms (specify)
Operative Temperature Range	-0^{o} to $+50^{o}C$
Non-operative Temp. Range	$-20^{o}C$ to $+75^{o}C$
Max. Envelope Delay Distortion	30 sec. over the ± 6 KHz BW
.2 db Bandwidth	12 KHz minimum
1 db Bandwidth	16 KHz minimum
60 db Bandwidth	60 KHz maximum
Ultimate Stopband Reject	65 db minimum