

RCVR CONV MODULE, 2-4 MC

MODEL TTRR-1

REV K

TITLE

USED ON
MODEL SECTION
TTR-10

LIST SECTIONS

1. SUPPORTING NOTES
2. SUPPORTING LISTS
3. ELECTRICAL/MECHANICAL
4. SUPP ASSY/REF DWGS
5. SPECIFICATIONS
6. LOOSE ITEMS
7. PARTS PECULIAR

SHEET NO.

SEE BELOW
NONE REQ
1-8
9
10
NONE REQ
NONE REQ

LAST SYMBOLS

C132	S101	XZ101
L106	T105	Y102
Q106	W102	Z101
R121	XY102	

COMPILED	J. FERRERI
CHECKED	L. GABEL JS
APPROVED	T. AALTONEN
FNL APPR	<i>L. Gabel</i>
ISS DATE	9-4-64

MISSING SYMBOLS

C102
R117
L107

NOTE 1. THE FOLLOWING SYMBOL, #, IN THE REMARKS COLUMN INDICATES THAT THE PART NUMBER IMMEDIATELY FOLLOWING IT IS THE TMC PROPRIETARY MANUFACTURING DRAWING FOR THE CORRESPONDING NUMBER IN THE PART NUMBER COLUMN.

NOTE 2. ALL ITEMS REFERENCED TO THIS NOTE SHALL BE USED WHEN XTAL OVENS ARE REQUIRED BY CUSTOMER.

NOTE 3. ALL ITEMS REFERENCED TO THIS NOTE SHALL BE USED WHEN NO XTAL OVENS ARE REQUIRED BY CUSTOMER.

NOTE 4. CARBON FILM CONSISTS OF TWO PARALLEL WIRES. THESE WIRES SHOULD BE MOUNTED AS SHOWN.

**MATERIAL LIST /
NUMERICAL PARTS LIST**

REV.

A B C D E F G H J K

MODEL: TTRR-1

SHEET 1 OF 10

PART NO.	DESCRIPTION	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
A3227-1	PC BD, MKG	A3227-2		1	1		
BS100	SOLDER, TIN ALY	A3223-1 A3223-2 A3223-3 A3223-4 A3227-2					
CC20CK2R2C	CAP., FXD, CER	A3227-2 A3227-2 A3227-2		1 1 1	3	C101 C102 C103	
CC100-15	CAP., FXD, CER	A3227-2		1	1	C113	
CC100-16	CAP., FXD, CER	A3227-2 A3227-2 A3227-2 A3227-2		1 1 1 1	4	C107 C120 C129 C131	
CC100-25	CAP., FXD, CER	A3227-2 A3227-2 A3227-2 A3227-2		1 1 1 1	3	C121 C122 C128	
CC100-33	CAP., FXD, CER	A3227-2 A3227-2 A3227-2 A3227-2 A3227-2 A3227-2 A3227-2 A3227-2		1 1 1 1 1 1 1 1	8	C106 C108 C109 C110 C111 C112 C104 C105	
CI127-1	CORE, TOROID	A3223-1		1	1		
CI127-4	CORE, TOROID	A3223-2		1	1		

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B C D E F G H J K

MODEL: TTRR-1

SHEET 2 OF 10

PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
CI127-5	CORE, TOROID	A3223-3		1	3		
		A3223-3		1			
		A3223-4		1			
CL140-7	COIL, RF, FXD	A3227-2		1	6	L101	.470 MH
		A3227-2		1		L102	.470 MH
		A3227-2		1		L103	.470 MH
		A3227-2		1		L104	.470 MH
		A3227-2		1		L105	.470 MH
		A3227-2		1		L106	.470 MH
CM15C050J03YY	CAP., FXD, MICA	A3227-2		1	1	C124	
CM15F111J03	CAP., FXD, MICA	A3227-2		1	1	C126	
CM15F271J03	CAP., FXD, MICA	A3227-2		1	1	C123	
CM100-14	CAP., FXD, MICA	A3227-2		1	1	C125	
CM111F151J5S	CAP., FXD, MICA	A3227-2		1	1	C132	
CM2CF681G03	CAP., FXD, MICA	A3227-2		1	1	C127	
CM20B561J	CAP., FXD, MICA	A3227-2		1	1	C130	
CR110-1-FREQ	CU, QTZ, OVEN	A2740		1	2	Y101	NOTE 2
		A2740		1		Y102	NOTE 2
OR							
CR110-3-FREQ	CU, QTZ, AMBIENT	A2740		1	2	Y101	NOTE 3
		A2740		1		Y102	NOTE 3
CT103-1	CAP., VAR, AIR	A3227-2		1	4	C115	3.2-50uF
		A3227-2		1		C116	3.2-50uF
		A3227-2		1		C117	3.2-50uF
		A3227-2		1		C118	3.2-50uF
CT103-2	CAP., VAR, AIR	A3227-2		1	1	C114	3.9-75uF

THE TECHNICAL MATERIEL CORPORATION

MAMARONECK, NEW YORK

**MATERIAL LIST /
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REV. **A B C D E F G H J K** MODEL: **TTRR-1** SHEET **3** OF **10**

PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
CV113-10	CAP., VAR, MICA	A3227-2		1	1	C119	
FS118-1	LATCH, SNAPSLIDE	MS3381		2	2		
FS119-2	LATCHGUIDE, SNPSL	MS3381		2	2		
FS120-1	POST, SNAPSLIDE	MS3381		2	2		
FW04HBN	WASH., FLAT	A3227-2		2	2		
FW101-1	WASH., NM, N	A3227-2		10	10		
GL130	ADHESIVE-Q DOPE	A3223-1 A3223-2 A3223-3 A3223-4					
JJ219-18-9	JACK, TIP	MS3414		6	6		
LD1326/MS3379	CHAS, WRPARD	A2740		1	1		
LD1332/MS3381	PNL, FRONT	A2741		1	1		
LD1342/MS3414	BRKT, XTAL SOC	A3227-2		1	1	XY101, 102, XZ101	
LWE04MRN	WASH., LK, EXT	A2739 A3227-2 A2740		2 17 2			
LWI06MRN	WASH., LK, INT	A3227-2		1	1		
LWI08MRN	WASH., LK, INT	A2741		1	1		
LWI37MRN	WASH., LK, INT	A3227-2		1	1		

**MATERIAL LIST /
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REV. **A B C D E F G H J K**

MODEL: TTRR-1

SHEET 4 OF 10

PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
MP126-1	KNOB, THD	A2741		1	1		
MP123-1UB	KNOB	A2739		1	1		
MS3372	BKT, MTG, CAP.	A3227-2		1	1		
MS3377	PL, SD, L/R	A2739		2	2		
MS3379	CHAS, WRPAD	LD1326		1	1		MACH
MS3380	SHIELD, RF	A3227-2		4	4		
MS3381	PNL, FRONT	LD1332		1	1		MACH
MS3414	BRKT, XTAL SOC	LD1342		1	1		MACH
MS3446	PL, XTAL RET.	A2740		1	1		NOTE 3
MS4401	BRKT, RET.	A2739		1	1		
NP559	PL, ID, FREQ	A2739		1	1		
NP562	PL, ID, COMM	A2739		1	1		
NT129-440-4	NUT, PLN, SPLINE	MS3379		12			RD
		MS3414		2			RD
		MS4401		4	18		
NT137-0440	NUT, PLN, HEX, N	A3227-2		10	10		
NTH0440BN6	NUT, PLN, HEX	A3227-2		9	9		
NTH3732BN18	NUT, PLN, HEX	A3227-2		1	1		
OC100-1 OR	OVEN, XTAL, 12VDC	A2740		1	1	Z101	NOTE 2
OC100-2 OR	OVEN, XTAL, 24VDC	A2740		1	1	Z101	NOTE 2
OC100-3 OR	OVEN, XTAL, 115VAC	A2740		1	1	Z101	NOTE 2
OC100-4	OVEN, XTAL, 32VDC	A2740		1	1	Z101	NOTE 2

**MATERIAL LIST /
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SHEET 5 OF 10

PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
PC100-1	PC BD,ETCHING			PC100-2	1	1	
PC100-2	PC BD,MACH			PC100-3	1	1	
PX104-2-022	INS SLVG,SZ 24			A3227-2	2	2	YEL
PX104-3-022	INS SLVG,SZ 24			A3227-2	2	2	RED
PX104-4-022	INS SLVG,SZ 24			A3227-2	2	2	GRN
PX104-6-022	INS SLVG,SZ 24			A3227-2	2	2	BLU
PX104-7-022	INS SLVG,SZ 24			A3227-2	3	3	GY
PC829-1	PAD,TSTR MTG			A3227-2	6	6	
RC20GF102J	RES,FXD,COMP			A3227-2		1	R108
RC20GF103J	RES,FXD,COMP			A3227-2	1		R101
				A3227-2	1		R102
				A3227-2	1	3	R103
RC20GF122J	RES,FXD,COMP			A3227-2	1		R104
				A3227-2	1		R105
				A3227-2	1	3	R106
RC20GF123J	RES,FXD,COMP			A3227-2	1	1	R107
RC20GF222J	RES,FXD,COMP			A3227-2	1		R112
RC20GF392J	RES,FXD,COMP			A3227-2	1	2	R115
				A3227-2	1		R101
				A3227-2	1		R111
RC20GF470K	RES,FXD,COMP			A3227-2	1	2	R114
RC20GF471K	RES,FXD,COMP			A3227-2	1	1	R113
				A3227-2	1		R109
				A3227-2	1		R119
				A3227-2	1		R120
				A3227-2	1	4	R121

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MAMARONECK, NEW YORK

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REV. **A B C D E F G H J K**

MODEL: **TTRR-1**

SHEET **6** OF **10**

PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
RC20GF473J	RES,FXD,COMP	A3227-2		1	1	R118	
RC20GF680K	RES,FXD,COMP	A3227-2		1	1	R110	
RG188/u	CBL,RF	CA418-8		8	8	R116	
RV111-U502A	RES,VAR	A3227-2		1	1		
SC131-0440BN3	SCR,MACH-UNDC	A2739		6			
		A2740		4	10		
SC131-0440BN5	SCR,MACH-UNDC	A2739		2	2		
SC143-0440B10	SCR,MACH-NYLON	A3227-2		5	5		
SCBP0440BN3	SCR,MACH	A2739		2	2		
SCBP0440BN4	SCR,MACH	A2739		4			
		A3227-2		15	19		
SCBP0440BN.6	SCR,MACH	A3227-2		2	2		
SCBP0440BN12	SCR,MACH	A2740		2	2		NOTE 3
SCBP0632BN4	SCR,MACH	A3227-2		1	1		
SCBP0832BN5	SCR,MACH	A2741		1	1		
SCFP0440BN4	SCR,MACH	A2739		2	2		
SW192-12NSJ	SW,ROTARY-TAP	A3227-2		1	1	S101	
TA111-2-2-1.000G	TAPE,URETHANE	MS4401		1	1		
TE164-7	NUT,PLN,CLINCH	PC100-3		4	4		

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PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
WA131-22 WI123-28	WASH.,SPG TENS WIRE,ELEC,MAG,T	MS3381 A3227-2		2	2		NOTE 4
WI123-28	WIRE,ELEC,MAG,HT	A3223-1		24			SZ 28
		A3223-3		42			SZ 28
		A3223-3		42			SZ 28
		A3223-4		48	156		SZ 28
WI123-34	WIRE,ELEC,MAG,HT	A3223-2		102	102		SZ 34
WI149-1	CBL,SP,SHLD/JKT	CA808-1		12	12		2/C
WL100-8	WIRE,ELEC,BUSS	A3227-2		14	14		SZ 24

**MATERIAL LIST/
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MODEL:

TTRR-1

SHEET 8

OF 10

PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
TX113	TRANSISTOR				1	Q102	2ND RF
					1	Q103	3RD RF
					1	Q104	MIXER
					1	Q105	BUFFER
					1	Q106	HF OSC
				A3227-2		1	6

**MATERIAL LIST/
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REV.

A B C D E F G H J K

MODEL: TTRR-1

SHEET 9 OF 10

PART NO.	DESCRIPTION SUPP ASSY/REF DWGS	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
A2739	TTRR-1 FNL ASSY	TTRR-1		1	1		
A2740	PC BD/CHAS ASSY	A2739		1	1		
A2741	PNL ASSY,FR	A2739		1	1		
A3227-2	PC BOARD ASSY	A2740		1	1		
CA418-8	CBL ASSY,RF	A3227-2		1	1	W102	
CA808-1	CBL ASSY,SP,SHLD	A3227-2		1	1	W101	
CH262	CHART,UNIT BKDN	TTRR-1		1	1		
CK665	DIAG,BLOCK	TTRR-1		1	1		
CK683	DIAG,SCHEM	TTRR-1		1	1		
PC100-3	PC BD,MECH ASSY	A3227-1		1	1		
TZ127	COIL,RF	A3227-2		1	1	T105	#A3223-1
TZ128	XFMR,RF	A3227-2		1	1	T101	#A3223-2
TZ129	XFMR,RF	A3227-2		1		T102	#A3223-3
		A3227-2		1	2	T103	#A3223-3
TZ130	XFMR,RF	A3227-2		1	1	T104	#A3223-4

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SHEET 10 OF 10

PART NO.	DESCRIPTION SPECIFICATIONS	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
S114	ZN CHROMATE PRM	MS3381					
S115	ENAM,SMOOTH GY	MS3381					
S404	IRIDITE ,YEL	ALL MS-					
S808	TEST PROC	TTRR-1		1	1		

REVISION SHEET

THE TECHNICAL MATERIEL CORP. MAMARONECK NEW YORK

TTRR-1

LIST NO.

DATE	REV.	SHEET	EMN #	DESCRIPTION	APP.
9/15/64	A	2,3	12349	Revised shts. 2,3 per EMN	<i>WS</i>
10/19/64	B	4	12657	Revised sheet 4 as per EMN	<i>WS</i>
1/28/65	C	-----	13366	Revised sheets 2,3,6 and 8 per EMN	<i>WS</i>
3/23/65	D	-----	13633	Revised sheet 2,4,5,6 per EMN	<i>WS</i>
8/3/65	E	-----	14601	Revised cover sheet and sheets 1,2,6 and 8 per EMN	<i>WS</i>
2/14/66	F	tit1,7	15783	Revised per EMN	<i>WS</i>
7/7/66	G	-----	16487	Revised shts. title,1,2,5,6 per EMN	<i>WS</i>
0/10/66	H	tit5,7	16998	Revised per EMN	<i>AR</i>
1/6/67	J	1	17578	Revised per EMN	<i>al</i>
3/21/67	K	6	18017	Revised per EMN	<i>al</i>