

THIS IS A FAIRLY COMPLETE PARTS LIST. SOME KITS MAY HAVE FEWER PARTS BECAUSE OF ORDER (some might not have boxes, or crystal, connectors, cables, etc)							
REFERENCE	Value	Comments	Markings	Quantity	Notes	Part Number	Comments
<b>VCXO Circuit Board Parts</b>							
Resistors have standard markings							
R1	180			1		180EBK-ND	Digikey
R2	750			1			
R3	150	Modified value		1			Modified value
R4,R5, R15	10K			3			
R6	820	Modified value		1			Modified value
R7, R8, R9	27K			3			
R10	330			1			
R11	18			1			
R12	300			1			
R13	1500			1			
R14	1K			1			
R16 - NOTE this is	10	This R16 on VCXO		1			This R16 on VCXO
the R16 for the VCXO board							
C1	Var 2-10			1		24AA072	Mouser
C2	10 NPO		10,Black top	1			
C3 - There is NO C3 -		There is NO C3		0			There is NO C3
C4, C5	470		CK05BX471K	2		539-CK05471K	Mouser
C6	47		470J	1		581-UEC470J1	Mouser
C7, C9, C10	0.0018		182J	3			
C8,C11, extra 0.1 uF near heater	0.1		CK06BX104K	3		539-CK06104K	Mouser
C12	10		10,Black top	1		140-50N5-100J	Mouser
D1	HP 5082	HP 5082-2835	various markings, glass	1			HP 5082-2835
D2	BB204	Var Cap Diode Pair, Philips	B204B	1			Var Cap Diode Pair, Philips
Q1	J310	J310 JFET	J310	1			J310 JFET
Q2	2N5179	2N5179, metal, 4 leads	2n5170	1			2N5179, metal, 4 leads
Y1	XTAL	ICM	"TWO" series	1 *			
L1	T-30-12	This item is included ONLY if you ordered it hand wound on Toroid	"#12 formula" toroid is Green and White	1		"TWO" series	ICM
L2	.39 uH		Silv,Wht, Rd, Gry ?	1		70-IM2-.39	Mouser
T1	T9-1 X65	Minicircuits	T9-1	1			Minicircuits
RFC1	1 uH		Silv, Blk, Silv, Brn?	1		70-IM2-1.0	Mouser
RFC2	18 uH		Gld, Blk, Gry, Brn	1		M7828-ND	DigiKey
ZR78L10C	ZR78L10C	10V regulator, added to circuit	ZR78L10	1		ZR78L10C-ND	DigiKey
two 10 uF, 25V input and output	10u, 25V	Space on board for these tantalums is marked "10u"	10+25	2			0.1 spacing, Tant
Regulator Protection Diode	1N4004	To be soldered directly to the regulator	1N4004	1			
Misc	TO-5	Socket, not needed in some cases		1		ED2150-ND	DigiKey
Misc	PTC	Heater, not needed in some cases	YQS5745PTO <a href="#">YQS5749PTO</a>	1	43 C 80C +/- 7	235-1256-ND 235-1241-ND	DigiKey
REFERENCE	Value	Comments	Markings	Quantity	Notes	Part Number	Comments
<b>MAV 11 Buffer Amp Circuit</b>							
Mounting of all or some of these parts is optional depending on desired output level							
MAV11	MAV11	Minicircuits	A, raised dot on output	1			Minicircuits
220 pF	220 pF		221J	1		581-UEC221J1	Mouser
470 pF	470 pF		471J	1		581-UEC471J1	Mouser
180 Ohm 1/2 W	180, 1/2W		Brn, Gry, Brn 1/2 watt	1		180H-ND	DigiKey
"18 uH RFC" for MAV 11 REALLY A 1 uH.	1 uH	Board says "18 uH" Use a 1 uH instead	Silv,Blk,Silv,Brn?	1			
10 pf SMT	10 pf	Surface mount	1206 smd	1		140-CC502N100	Mouser
0.1 uF smt	0.1 u	Surface mount	1206 smd	1		140-CC502B104	Mouser
0.047 u Bypass	0.047		473K	1			

REFERENCE	Value	Comments	Markings		Part Number	Comments
<b>PLL Board Parts</b>						
R16 NOTE, This is The R16 on the PLL Board	62K	R16 on PLL board		1		R16 on PLL board
R18	51			1		
R17, R19	100K			2		Total 100K
R20, R21, R21B, R22	10K	there are 2 R21s, same value		4		there are 2 R21s, same value
NOTE 2 R21s same value						
C13, C19	0.1	C19 modified value to 0.1 uF	CK06BX104K	2		C19 modified value to 0.1 uF
C13 B	1 u	Added optional component	CK06BX105K	1	539-CK06105K	Added optional component
C14, C15	0.001		102J	2	581-UEC102J1	Mouser
C16, and the C23 near C20	0.01	Check ckt for this C23	103K	2	581-UEZ103K1	Mouser
C17, C18, C24, 10 u	10u, 25V	Place for extra tantalum is marked "10u" on board	10+25	4	80-T350E-106K0	Mouser
C22	68	Modified from 62 to 68 pF	680	1	581-UEC680J1	Modified from 62 to 68 pF
C20, C21, and the C23 near C21	0.047	Check ckt for this C23	473K	3	581-UEZ473K1	Mouser
U1	MC145158P2		MC14158P2	1		MC145158P Newark
U2	MC12019P	substitute a 12015 per article for other prescaling	MC12019P	1		MC12019P Newark
U3	LM358P		LM358N	1	511-LM358N	Mouser
U4	16F84	Must program this chip for PLL divide factors	16F84	1	PIC16F84-10/P-I	DigiKey
U5	78L05		ZR78L05	1	ZR78L05C-ND	DigiKey
Regulator Protection Diode	1N4004	To be soldered directly to the regulator 78L05	1N4004	1		
Q3	2N5089		2N5089	1	610-2N5089	Mouser
18 pin Dip Socket	18 pin soc	make sure that socket fits into holes in board OK		1	575-393318	Mouser
<b>Misc Both Boards</b>						
Misc	Box	HH 1509BF, Hammond Mfg		2	1590BF	HH 1509BF
Misc	BNC Con			4	523-31-221-RFX	Mouser
Misc	feed-through	4/40 DO NOT over tighten!		2	4-40FT	Down East Microwave
RCA Jack	RCA			2		
Terminal Solder Lgs for 4/40 bolt	lug	put one one inside and one outside of each feed thru		4	534-909	Mouser
BNC Cable	BNC Cable	aprox 1 ft		1		
RCA Cable	RCA Cable	aprox 1 ft		1		