

## Miniverter-F Parts List

W1GHZ 2010

<u>RefDes</u>	<u>Value</u>	<u>Type</u>
C1	22uF (or more for longer delay)	Electrolytic
C2	0.33uF or 1uF	Chip or leads
C3-C10	"C" = 470 to 2000pf	Chip
C11	0.1uF	Chip
D1	1N4148 or 1N914	Axial lead
D2,D3	1N4001 to 1N4007	Axial lead
R1-R3	10K	1/4 watt
R4-R5	560	1/4 watt
R6	22 for PECL osc, 270 for CMOS	Chip
R7	270 for PECL osc, 270 or less for CMOS	Chip
R8,R10,R11,R13	270	Chip
R9,R12	22	Chip
A1,A2	MMIC MAR-6	
Q1-Q3	BS170 FET	TO-92
RL1	DPDT	DIP
FL1	Temwell Filter 144 MHz (or 222 or 432)	3-pole
U1	78L05 Voltage Regulator	TO-92
X1	100 to 133 MHz oscillator	Can or SM
DB9	D-sub connector	mate with Flex-1500

Note: Chip caps and resistors can be 1206 or 0805 size

## Appendix