618S-1 Crystal and Frequency Calculators

Today, a spreadsheet would be used to do this. These were created back in ancient times when spradsheet software (and most computers) cost so much no one could afford them. They are in the BASIC programming language which is easy to understand.

This program lets you put in a crystal frequency and then tells you what frequency the 618S-1 will be on.

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10 CLS

20 SCREEN 1

30 PRINT"another fine program by Patrick Jankowiak KD5OEI"

40 PRINT"www.bunkerofdoom.com"

50 PRINT"free to public domain - calculator for 618S-1"

55 PRINT""

60 PRINT"OPERATING FREQUENCIES FOR SELECTED CRYSTAL
FREQUENCIES FOR THE 618S-1"

70 PRINT"ENTER CRYSTAL FREQUENCIES FROM 1.75 TO 3.5 IN
MEGAHERTZ"

80 LPRINT"OPERATING FREQUENCIES FOR SELECTED CRYSTALS FOR
THE 618S-1"

90 PRINT"enter 0 to quit"

100 LPRINT"                    by Patrick Jankowiak"

110 PRINT"CRYSTAL","BAND 1","BAND 2","BAND 3","BAND 4"

120 LPRINT"CRYSTAL","BAND 1","BAND 2","BAND 3","BAND 4"

130 INPUT FC

140 IF FC = 0 THEN GOTO 270

150 IF FC < 1.75 THEN GOSUB 240

160 IF FC > 3.5 THEN GOSUB 240
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170 F1 = FC + .25

180 F2 = FC + .25 + FC

190 F3 = FC + .25 + (3 * FC)

200 F4 = FC + .25 + (7 * FC)

210 PRINT FC, F1, F2, F3, F4

220 LPRINT FC, F1, F2, F3, F4

230 GOTO 130

240 PRINT"SPECIFIED OSCILLATOR RANGE IS 1.75 TO 3.5 MHz"

250 LPRINT"specified range is 1.75 to 3.5 MHz"

260 RETURN

270 END
```

This program lets you put in a frequency and tells you what crystal to use.

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10 CLS

20 SCREEN 2

30 PRINT"another fine program by Patrick Jankowiak KD5OEI"

40 PRINT"www.bunkerofdoom.com"

50 PRINT"free to public domain - calculator for 618S-1"

55 PRINT""

60 PRINT"CRYSTAL FREQUENCIES NEEDED FOR SPECIFIC 618S-1
OPERATING FREQUENCIES"

70 PRINT"ENTER OPERATING FREQUENCIES IN MEGAHERTZ"

80 PRINT"ENTER 0 TO QUIT"

90 LPRINT"CRYSTAL FREQUENCIES NEEDED FOR 618S-1 OPERATING
FREQUENCIES"

100 LPRINT"                by Patrick Jankowiak"

110 PRINT"OPERATING FREQUENCY","CRYSTAL FREQUENCY"

120 LPRINT"OPERATING FREQUENCY","CRYSTAL FREQUENCY"

130 INPUT FO

140 IF FO = 0 THEN GOTO 300

150 IF FO<2 THEN GOSUB 240

160 IF FO>25 THEN GOSUB 270

170 IF FO<3.75 THEN FX=(FO-.25)

180 IF FO>3.74999999# THEN FX=(FO-.25)/2

190 IF FO>7.25 THEN FX=(FO-.25)/4

200 IF FO>14.25 THEN FX=(FO-.25)/8
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210 PRINT FO,,FX:LPRINT FO,,FX

220 FO=0

230 GOTO 130

240 IF FO<2 THEN PRINT"the 618S1 Minimum frequency is 2 mhz.

250 IF FO<2 THEN LPRINT FO" MHz is below designed range of 618S1 by
"(100-(100/(2/FO)))" %.

260 RETURN

270 IF FO>25 THEN PRINT"The 618S1 maximum frequency is 25 MHz."

280 IF FO>25 THEN LPRINT FO " MHz is above designed range of 618S1 by
"(((FO/25)*100)-100)" %.

290 RETURN

300 END
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