

Cband10 – an EXCEL macro to convert ArtemiS line numbers to Hz

Sub Cband10()

'Written by: Richard J. Fridrich 06AU08

' For %-ile Freq's from ArtemiS Data which uses 10 lines per band for a total of 240 lines per pattern

' Replaces line numbers (integers from 1 to 240) with frequency values (kHz)

Dim Msg

Dim Cb240(240)

cb240(1)= 9.417342186
cb240(2)= 19.58385658
cb240(3)= 29.74574089
cb240(4)= 39.90169144
cb240(5)= 50.05033112
cb240(6)= 60.19025421
cb240(7)= 70.31999969
cb240(8)= 80.43810272
cb240(9)= 90.54311371
cb240(10)= 100.6335907
cb240(11)= 110.708168
cb240(12)= 120.765564
cb240(13)= 130.8046112
cb240(14)= 140.8243103
cb240(15)= 150.8238525
cb240(16)= 160.8026428
cb240(17)= 170.7603912
cb240(18)= 180.6970825
cb240(19)= 190.6130981
cb240(20)= 200.5091705
cb240(21)= 210.3864746
cb240(22)= 220.2466583
cb240(23)= 230.0918427
cb240(24)= 239.9246674
cb240(25)= 249.7483063
cb240(26)= 259.5665283
cb240(27)= 269.3835754
cb240(28)= 279.2042847
cb240(29)= 289.0340881
cb240(30)= 298.8788757
cb240(31)= 308.7450256
cb240(32)= 318.6394653
cb240(33)= 328.5694275
cb240(34)= 338.5426025
cb240(35)= 348.566925
cb240(36)= 358.6505737
cb240(37)= 368.8018799
cb240(38)= 379.0292053
cb240(39)= 389.3409729
cb240(40)= 399.7454529
cb240(41)= 410.2507019
cb240(42)= 420.8645325
cb240(43)= 431.5943604

cb240(44)= 442.4471741
cb240(45)= 453.4293823
cb240(46)= 464.5468445
cb240(47)= 475.804718
cb240(48)= 487.207428
cb240(49)= 498.758667
cb240(50)= 510.4613342
cb240(51)= 522.3175049
cb240(52)= 534.3284302
cb240(53)= 546.4945068
cb240(54)= 558.8154907
cb240(55)= 571.2902222
cb240(56)= 583.9169922
cb240(57)= 596.6931763
cb240(58)= 609.6159058
cb240(59)= 622.6815186
cb240(60)= 635.8859863
cb240(61)= 649.2250366
cb240(62)= 662.6939697
cb240(63)= 676.2880859
cb240(64)= 690.0025024
cb240(65)= 703.8323364
cb240(66)= 717.7728882
cb240(67)= 731.8195801
cb240(68)= 745.9682007
cb240(69)= 760.2147217
cb240(70)= 774.5556641
cb240(71)= 788.987915
cb240(72)= 803.5089111
cb240(73)= 818.1166992
cb240(74)= 832.8097534
cb240(75)= 847.5873413
cb240(76)= 862.4492188
cb240(77)= 877.395752
cb240(78)= 892.4280396
cb240(79)= 907.5476074
cb240(80)= 922.7567749
cb240(81)= 938.0582886
cb240(82)= 953.4554443
cb240(83)= 968.9520874
cb240(84)= 984.5525513
cb240(85)= 1000.261597
cb240(86)= 1016.084351
cb240(87)= 1032.026245
cb240(88)= 1048.093384
cb240(89)= 1064.291626
cb240(90)= 1080.627441
cb240(91)= 1097.107666
cb240(92)= 1113.738892
cb240(93)= 1130.52832
cb240(94)= 1147.48291
cb240(95)= 1164.610107
cb240(96)= 1181.917236
cb240(97)= 1199.411865
cb240(98)= 1217.101563
cb240(99)= 1234.994019

cb240(100)= 1253.096802
cb240(101)= 1271.417969
cb240(102)= 1289.96521
cb240(103)= 1308.746582
cb240(104)= 1327.77002
cb240(105)= 1347.043701
cb240(106)= 1366.575806
cb240(107)= 1386.374512
cb240(108)= 1406.448364
cb240(109)= 1426.805664
cb240(110)= 1447.455078
cb240(111)= 1468.405518
cb240(112)= 1489.665527
cb240(113)= 1511.244507
cb240(114)= 1533.151367
cb240(115)= 1555.39563
cb240(116)= 1577.986816
cb240(117)= 1600.934692
cb240(118)= 1624.249146
cb240(119)= 1647.94043
cb240(120)= 1672.018921
cb240(121)= 1696.495361
cb240(122)= 1721.380493
cb240(123)= 1746.685547
cb240(124)= 1772.421997
cb240(125)= 1798.60144
cb240(126)= 1825.23584
cb240(127)= 1852.337769
cb240(128)= 1879.919434
cb240(129)= 1907.994141
cb240(130)= 1936.574829
cb240(131)= 1965.675293
cb240(132)= 1995.309448
cb240(133)= 2025.491455
cb240(134)= 2056.236084
cb240(135)= 2087.558105
cb240(136)= 2119.473389
cb240(137)= 2151.997314
cb240(138)= 2185.146484
cb240(139)= 2218.9375
cb240(140)= 2253.386963
cb240(141)= 2288.512939
cb240(142)= 2324.333252
cb240(143)= 2360.866211
cb240(144)= 2398.130859
cb240(145)= 2436.14624
cb240(146)= 2474.932617
cb240(147)= 2514.510498
cb240(148)= 2554.900391
cb240(149)= 2596.124023
cb240(150)= 2638.203369
cb240(151)= 2681.160889
cb240(152)= 2725.02002
cb240(153)= 2769.804443
cb240(154)= 2815.53833
cb240(155)= 2862.246826

cb240(156)= 2909.955566
cb240(157)= 2958.690918
cb240(158)= 3008.479736
cb240(159)= 3059.349609
cb240(160)= 3111.329346
cb240(161)= 3164.447266
cb240(162)= 3218.733887
cb240(163)= 3274.219727
cb240(164)= 3330.935791
cb240(165)= 3388.914795
cb240(166)= 3448.189209
cb240(167)= 3508.793213
cb240(168)= 3570.761719
cb240(169)= 3634.129639
cb240(170)= 3698.934326
cb240(171)= 3765.212646
cb240(172)= 3833.003174
cb240(173)= 3902.345215
cb240(174)= 3973.279297
cb240(175)= 4045.84668
cb240(176)= 4120.089844
cb240(177)= 4196.052734
cb240(178)= 4273.779297
cb240(179)= 4353.31543
cb240(180)= 4434.708496
cb240(181)= 4518.006348
cb240(182)= 4603.258789
cb240(183)= 4690.515625
cb240(184)= 4779.829102
cb240(185)= 4871.25293
cb240(186)= 4964.84082
cb240(187)= 5060.648926
cb240(188)= 5158.734863
cb240(189)= 5259.157715
cb240(190)= 5361.977051
cb240(191)= 5467.254883
cb240(192)= 5575.054688
cb240(193)= 5685.441895
cb240(194)= 5798.482422
cb240(195)= 5914.244629
cb240(196)= 6032.798828
cb240(197)= 6154.216309
cb240(198)= 6278.571289
cb240(199)= 6405.939453
cb240(200)= 6536.396973
cb240(201)= 6670.024414
cb240(202)= 6806.901855
cb240(203)= 6947.11377
cb240(204)= 7090.744629
cb240(205)= 7237.882813
cb240(206)= 7388.617676
cb240(207)= 7543.041504
cb240(208)= 7701.248535
cb240(209)= 7863.335449
cb240(210)= 8029.401367
cb240(211)= 8199.547852

cb240(212)= 8373.879883
cb240(213)= 8552.50293
cb240(214)= 8735.527344
cb240(215)= 8923.06543
cb240(216)= 9115.231445
cb240(217)= 9312.144531
cb240(218)= 9513.924805
cb240(219)= 9720.696289
cb240(220)= 9932.585938
cb240(221)= 10149.72363
cb240(222)= 10372.24316
cb240(223)= 10600.28125
cb240(224)= 10833.97852
cb240(225)= 11073.47852
cb240(226)= 11318.92773
cb240(227)= 11570.47754
cb240(228)= 11828.2832
cb240(229)= 12092.50293
cb240(230)= 12363.29883
cb240(231)= 12640.83887
cb240(232)= 12925.29199
cb240(233)= 13216.83398
cb240(234)= 13515.64453
cb240(235)= 13821.9082
cb240(236)= 14135.81152
cb240(237)= 14457.54883
cb240(238)= 14787.31738
cb240(239)= 15125.32031
cb240(240)= 15471.7666

```
Msg = Msg & Chr$(10) & "The macro (Cband10) REPLACES the Percentile Frequency line number  
integers with frequency values (Hz) "  
Msg = Msg & Chr$(10) & "for results from Patterns using 10 lines per band (240 lines per  
Pattern)[ArtemiS]. "  
Msg = Msg & Chr$(10) & "IT IS RECOMMENDED that this conversion only be done on copies of the %-  
ile Freq. line number results."  
Msg = Msg & Chr$(10) & " "  
Msg = Msg & Chr$(10) & "Do you want to continue?"
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Response = MsgBox(Msg, vbYesNo, "Cband10: Conversion of Line Numbers to Frequency Values")  
If Response = vbYes Then
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'Identify the Calculation Range  
startcol = Selection.Column  
numcols = Selection.Columns.Count  
startrow = Selection.Row  
numrows = Selection.Rows.Count
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'Convert Line Number (Integer) to Frequency (kHz)  
For R = startrow To startrow + numrows - 1  
  For C = startcol To startcol + numcols - 1  
    ActiveSheet.Cells(R, C).Value = Cb240(ActiveSheet.Cells(R, C).Value)  
  Next C  
Next R
```

End If

End Sub