

```

1.4          M          ANTEX VERSION /
SYST
A          PCV TYPE / REFANT
This calibration extracted from composite ngs20.atx.  See COMMENT
the composite file ngs20.atx for more information. COMMENT
END OF HEADER
START OF ANTENNA
HEMS631          NONE          TYPE / SERIAL NO
ROBOT          Geo++ GmbH          5          07-SEP-22 METH / BY / # /
DATE
5.0          DAZI
0.0  90.0  5.0          ZEN1 / ZEN2 /
DZEN
4          # OF FREQUENCIES
IGS20_2247          SINEX CODE
# Number of Calibrated Antennas GPS:          005          COMMENT
# Number of Individual Calibrations GPS:          020          COMMENT
# Number of Calibrated Antennas GLO:          005          COMMENT
# Number of Individual Calibrations GLO:          020          COMMENT
# GLONASS PCV (metric)          COMMENT
# derived from Delta PCV per 25.0 MHz          COMMENT
# for frequency channel number k=0          COMMENT
G01          START OF
FREQUENCY
+0.24 +0.19 +70.10          NORTH / EAST / UP
NOAZI +0.00 -0.09 -0.32 -0.62 -0.89 -1.00 -0.88 -0.54 -
0.08 +0.30 +0.43 +0.23 -0.19 -0.56 -0.59 -0.16 +0.52 +0.87
+0.14
0.0 +0.00 -0.10 -0.34 -0.65 -0.92 -1.05 -0.97 -0.66 -
0.24 +0.16 +0.37 +0.35 +0.18 +0.04 +0.11 +0.39 +0.67 +0.52
-0.40
5.0 +0.00 -0.10 -0.34 -0.64 -0.91 -1.04 -0.95 -0.65 -
0.23 +0.15 +0.36 +0.34 +0.19 +0.08 +0.18 +0.48 +0.76 +0.58
-0.36
10.0 +0.00 -0.10 -0.34 -0.64 -0.90 -1.02 -0.92 -0.63 -
0.22 +0.14 +0.34 +0.32 +0.18 +0.10 +0.24 +0.59 +0.89 +0.71
-0.26
15.0 +0.00 -0.10 -0.33 -0.63 -0.88 -1.00 -0.90 -0.61 -
0.22 +0.13 +0.30 +0.27 +0.14 +0.09 +0.29 +0.70 +1.05 +0.91
-0.11
20.0 +0.00 -0.10 -0.33 -0.62 -0.87 -0.98 -0.88 -0.59 -
0.21 +0.11 +0.25 +0.20 +0.06 +0.04 +0.29 +0.79 +1.24 +1.15
+0.09
25.0 +0.00 -0.10 -0.33 -0.62 -0.86 -0.96 -0.85 -0.57 -
0.20 +0.09 +0.19 +0.10 -0.06 -0.07 +0.24 +0.85 +1.43 +1.43
+0.34
30.0 +0.00 -0.10 -0.33 -0.61 -0.85 -0.94 -0.83 -0.54 -
0.19 +0.07 +0.14 -0.01 -0.21 -0.23 +0.13 +0.85 +1.59 +1.72
+0.61
35.0 +0.00 -0.10 -0.33 -0.61 -0.84 -0.93 -0.81 -0.52 -
0.17 +0.07 +0.08 -0.12 -0.39 -0.43 -0.04 +0.79 +1.70 +1.99
+0.89
40.0 +0.00 -0.10 -0.33 -0.61 -0.84 -0.92 -0.79 -0.49 -
0.15 +0.07 +0.04 -0.24 -0.57 -0.67 -0.27 +0.65 +1.73 +2.20
+1.15

```

45.0 +0.00 -0.10 -0.33 -0.61 -0.84 -0.91 -0.78 -0.47 -
0.12 +0.09 +0.02 -0.33 -0.76 -0.93 -0.55 +0.44 +1.68 +2.33
+1.36
50.0 +0.00 -0.10 -0.33 -0.62 -0.84 -0.91 -0.77 -0.45 -
0.09 +0.12 +0.02 -0.39 -0.92 -1.19 -0.86 +0.17 +1.54 +2.37
+1.51
55.0 +0.00 -0.10 -0.33 -0.62 -0.85 -0.92 -0.76 -0.43 -
0.05 +0.16 +0.05 -0.42 -1.04 -1.42 -1.17 -0.14 +1.31 +2.30
+1.59
60.0 +0.00 -0.10 -0.34 -0.63 -0.86 -0.93 -0.77 -0.41 -
0.01 +0.22 +0.10 -0.41 -1.11 -1.60 -1.45 -0.48 +1.01 +2.13
+1.59
65.0 +0.00 -0.10 -0.34 -0.63 -0.87 -0.94 -0.78 -0.41
+0.03 +0.29 +0.17 -0.36 -1.13 -1.73 -1.69 -0.80 +0.68 +1.89
+1.50
70.0 +0.00 -0.10 -0.34 -0.64 -0.89 -0.96 -0.79 -0.40
+0.06 +0.35 +0.26 -0.28 -1.10 -1.78 -1.87 -1.08 +0.35 +1.59
+1.36
75.0 +0.00 -0.10 -0.34 -0.65 -0.90 -0.98 -0.81 -0.40
+0.09 +0.42 +0.36 -0.17 -1.01 -1.77 -1.96 -1.30 +0.04 +1.28
+1.16
80.0 +0.00 -0.10 -0.35 -0.66 -0.92 -1.00 -0.82 -0.40
+0.11 +0.48 +0.46 -0.05 -0.89 -1.69 -1.97 -1.43 -0.20 +0.98
+0.94
85.0 +0.00 -0.10 -0.35 -0.66 -0.93 -1.02 -0.84 -0.41
+0.13 +0.52 +0.54 +0.07 -0.75 -1.57 -1.90 -1.46 -0.36 +0.73
+0.72
90.0 +0.00 -0.10 -0.35 -0.67 -0.94 -1.03 -0.85 -0.42
+0.13 +0.56 +0.61 +0.18 -0.60 -1.40 -1.76 -1.40 -0.42 +0.56
+0.52
95.0 +0.00 -0.10 -0.35 -0.68 -0.95 -1.04 -0.87 -0.43
+0.13 +0.57 +0.66 +0.27 -0.47 -1.22 -1.58 -1.25 -0.38 +0.47
+0.36
100.0 +0.00 -0.10 -0.35 -0.68 -0.96 -1.05 -0.87 -0.43
+0.13 +0.58 +0.68 +0.33 -0.35 -1.05 -1.36 -1.05 -0.25 +0.46
+0.25
105.0 +0.00 -0.10 -0.35 -0.68 -0.96 -1.06 -0.88 -0.44
+0.11 +0.56 +0.68 +0.36 -0.26 -0.89 -1.13 -0.81 -0.06 +0.53
+0.19
110.0 +0.00 -0.10 -0.35 -0.68 -0.96 -1.06 -0.88 -0.45
+0.10 +0.54 +0.65 +0.36 -0.21 -0.76 -0.93 -0.56 +0.16 +0.66
+0.20
115.0 +0.00 -0.10 -0.35 -0.68 -0.96 -1.06 -0.89 -0.46
+0.08 +0.50 +0.62 +0.34 -0.19 -0.66 -0.75 -0.33 +0.40 +0.83
+0.25
120.0 +0.00 -0.09 -0.35 -0.68 -0.96 -1.06 -0.89 -0.47
+0.05 +0.47 +0.57 +0.31 -0.19 -0.60 -0.62 -0.13 +0.62 +1.02
+0.35
125.0 +0.00 -0.09 -0.34 -0.67 -0.96 -1.06 -0.90 -0.49
+0.03 +0.43 +0.53 +0.27 -0.20 -0.58 -0.54 +0.01 +0.80 +1.20
+0.47
130.0 +0.00 -0.09 -0.34 -0.67 -0.95 -1.06 -0.90 -0.50
+0.00 +0.40 +0.50 +0.24 -0.23 -0.58 -0.50 +0.10 +0.94 +1.36
+0.62
135.0 +0.00 -0.09 -0.34 -0.66 -0.95 -1.06 -0.91 -0.52 -
0.02 +0.38 +0.47 +0.21 -0.25 -0.59 -0.50 +0.13 +1.02 +1.48
+0.76

235.0 +0.00 -0.06 -0.26 -0.53 -0.77 -0.85 -0.71 -0.36
+0.09 +0.42 +0.46 +0.13 -0.46 -1.01 -1.18 -0.80 -0.07 +0.39
-0.29
240.0 +0.00 -0.06 -0.26 -0.54 -0.78 -0.87 -0.73 -0.38
+0.06 +0.39 +0.43 +0.09 -0.50 -1.05 -1.23 -0.87 -0.17 +0.23
-0.51
245.0 +0.00 -0.06 -0.27 -0.54 -0.79 -0.88 -0.75 -0.41
+0.02 +0.36 +0.39 +0.06 -0.52 -1.07 -1.25 -0.91 -0.26 +0.08
-0.73
250.0 +0.00 -0.06 -0.27 -0.55 -0.80 -0.90 -0.78 -0.44 -
0.01 +0.33 +0.37 +0.05 -0.52 -1.06 -1.24 -0.92 -0.32 -0.06
-0.95
255.0 +0.00 -0.07 -0.28 -0.56 -0.81 -0.92 -0.80 -0.47 -
0.04 +0.30 +0.36 +0.06 -0.49 -1.01 -1.19 -0.90 -0.37 -0.20
-1.16
260.0 +0.00 -0.07 -0.28 -0.57 -0.82 -0.93 -0.82 -0.50 -
0.07 +0.28 +0.36 +0.08 -0.43 -0.93 -1.11 -0.87 -0.41 -0.33
-1.35
265.0 +0.00 -0.07 -0.28 -0.57 -0.83 -0.95 -0.85 -0.53 -
0.09 +0.26 +0.37 +0.13 -0.34 -0.81 -1.01 -0.82 -0.45 -0.45
-1.52
270.0 +0.00 -0.07 -0.29 -0.58 -0.84 -0.97 -0.87 -0.56 -
0.12 +0.25 +0.39 +0.20 -0.23 -0.67 -0.88 -0.75 -0.47 -0.56
-1.65
275.0 +0.00 -0.07 -0.29 -0.59 -0.86 -0.98 -0.89 -0.59 -
0.15 +0.24 +0.41 +0.28 -0.10 -0.52 -0.74 -0.67 -0.48 -0.65
-1.75
280.0 +0.00 -0.08 -0.30 -0.60 -0.87 -1.00 -0.92 -0.62 -
0.18 +0.23 +0.45 +0.37 +0.04 -0.35 -0.59 -0.58 -0.47 -0.71
-1.80
285.0 +0.00 -0.08 -0.30 -0.60 -0.88 -1.02 -0.94 -0.65 -
0.21 +0.22 +0.48 +0.45 +0.18 -0.19 -0.44 -0.48 -0.45 -0.73
-1.80
290.0 +0.00 -0.08 -0.31 -0.61 -0.89 -1.03 -0.97 -0.68 -
0.24 +0.21 +0.50 +0.53 +0.30 -0.04 -0.30 -0.38 -0.40 -0.71
-1.75
295.0 +0.00 -0.08 -0.31 -0.62 -0.90 -1.05 -0.99 -0.71 -
0.26 +0.20 +0.52 +0.58 +0.40 +0.08 -0.17 -0.27 -0.32 -0.64
-1.65
300.0 +0.00 -0.08 -0.32 -0.62 -0.91 -1.07 -1.02 -0.74 -
0.29 +0.19 +0.53 +0.62 +0.46 +0.18 -0.06 -0.16 -0.21 -0.52
-1.50
305.0 +0.00 -0.09 -0.32 -0.63 -0.92 -1.08 -1.03 -0.76 -
0.31 +0.17 +0.53 +0.63 +0.49 +0.23 +0.01 -0.06 -0.08 -0.37
-1.33
310.0 +0.00 -0.09 -0.32 -0.64 -0.93 -1.09 -1.05 -0.77 -
0.32 +0.16 +0.51 +0.62 +0.49 +0.24 +0.06 +0.04 +0.06 -0.19
-1.13
315.0 +0.00 -0.09 -0.33 -0.64 -0.94 -1.10 -1.06 -0.78 -
0.33 +0.15 +0.49 +0.59 +0.46 +0.23 +0.08 +0.11 +0.20 +0.00
-0.93
320.0 +0.00 -0.09 -0.33 -0.65 -0.94 -1.11 -1.06 -0.78 -
0.34 +0.14 +0.46 +0.55 +0.40 +0.18 +0.08 +0.17 +0.33 +0.18
-0.75
325.0 +0.00 -0.09 -0.33 -0.65 -0.95 -1.11 -1.06 -0.78 -
0.33 +0.13 +0.44 +0.49 +0.33 +0.12 +0.05 +0.21 +0.44 +0.33
-0.60

45.0 +0.00 -0.18 -0.27 -0.30 -0.35 -0.46 -0.58 -0.52 -
0.11 +0.78 +2.02 +3.25 +3.96 +3.71 +2.43 +0.62 -0.72 -0.44
+2.16
50.0 +0.00 -0.19 -0.30 -0.35 -0.44 -0.59 -0.75 -0.74 -
0.34 +0.55 +1.83 +3.14 +3.95 +3.79 +2.59 +0.79 -0.62 -0.53
+1.74
55.0 +0.00 -0.20 -0.32 -0.40 -0.51 -0.71 -0.91 -0.95 -
0.59 +0.28 +1.58 +2.95 +3.84 +3.79 +2.68 +0.94 -0.49 -0.52
+1.51
60.0 +0.00 -0.21 -0.34 -0.44 -0.58 -0.81 -1.06 -1.15 -
0.85 -0.01 +1.28 +2.68 +3.65 +3.70 +2.69 +1.03 -0.37 -0.43
+1.48
65.0 +0.00 -0.22 -0.36 -0.47 -0.63 -0.90 -1.20 -1.35 -
1.11 -0.33 +0.94 +2.35 +3.37 +3.51 +2.60 +1.03 -0.29 -0.30
+1.62
70.0 +0.00 -0.22 -0.37 -0.49 -0.67 -0.97 -1.31 -1.52 -
1.36 -0.64 +0.57 +1.97 +3.02 +3.22 +2.40 +0.94 -0.28 -0.18
+1.88
75.0 +0.00 -0.22 -0.37 -0.51 -0.71 -1.02 -1.41 -1.68 -
1.59 -0.95 +0.20 +1.55 +2.61 +2.86 +2.11 +0.74 -0.37 -0.11
+2.19
80.0 +0.00 -0.22 -0.38 -0.52 -0.73 -1.06 -1.48 -1.81 -
1.80 -1.25 -0.17 +1.13 +2.17 +2.43 +1.74 +0.44 -0.56 -0.12
+2.48
85.0 +0.00 -0.22 -0.37 -0.52 -0.73 -1.09 -1.54 -1.92 -
1.98 -1.51 -0.52 +0.72 +1.72 +1.98 +1.30 +0.05 -0.85 -0.24
+2.69
90.0 +0.00 -0.21 -0.37 -0.51 -0.73 -1.10 -1.58 -2.00 -
2.12 -1.73 -0.82 +0.35 +1.29 +1.52 +0.84 -0.40 -1.24 -0.47
+2.77
95.0 +0.00 -0.21 -0.36 -0.50 -0.73 -1.10 -1.60 -2.06 -
2.23 -1.91 -1.07 +0.03 +0.91 +1.09 +0.37 -0.87 -1.69 -0.81
+2.69
100.0 +0.00 -0.20 -0.34 -0.48 -0.71 -1.10 -1.61 -2.09 -
2.30 -2.03 -1.26 -0.22 +0.59 +0.71 -0.06 -1.34 -2.16 -1.23
+2.44
105.0 +0.00 -0.18 -0.32 -0.46 -0.69 -1.08 -1.60 -2.10 -
2.33 -2.10 -1.37 -0.40 +0.36 +0.41 -0.42 -1.76 -2.63 -1.71
+2.06
110.0 +0.00 -0.17 -0.30 -0.43 -0.66 -1.05 -1.58 -2.08 -
2.32 -2.10 -1.41 -0.49 +0.20 +0.20 -0.70 -2.11 -3.04 -2.18
+1.58
115.0 +0.00 -0.16 -0.27 -0.40 -0.63 -1.02 -1.54 -2.03 -
2.27 -2.06 -1.39 -0.50 +0.14 +0.08 -0.87 -2.35 -3.37 -2.61
+1.05
120.0 +0.00 -0.14 -0.24 -0.36 -0.59 -0.98 -1.49 -1.96 -
2.18 -1.96 -1.30 -0.44 +0.17 +0.07 -0.93 -2.47 -3.59 -2.97
+0.54
125.0 +0.00 -0.12 -0.21 -0.32 -0.54 -0.92 -1.42 -1.87 -
2.06 -1.82 -1.15 -0.31 +0.28 +0.14 -0.89 -2.47 -3.68 -3.21
+0.10
130.0 +0.00 -0.10 -0.17 -0.27 -0.49 -0.86 -1.34 -1.76 -
1.92 -1.65 -0.96 -0.12 +0.45 +0.30 -0.74 -2.36 -3.64 -3.32
-0.24
135.0 +0.00 -0.08 -0.13 -0.23 -0.44 -0.80 -1.25 -1.64 -
1.75 -1.45 -0.74 +0.11 +0.68 +0.53 -0.51 -2.14 -3.49 -3.31
-0.46

140.0 +0.00 -0.06 -0.10 -0.17 -0.37 -0.72 -1.15 -1.50 -
1.57 -1.22 -0.49 +0.37 +0.95 +0.81 -0.21 -1.84 -3.23 -3.18
-0.53
145.0 +0.00 -0.04 -0.05 -0.12 -0.31 -0.64 -1.04 -1.35 -
1.38 -0.99 -0.24 +0.65 +1.24 +1.13 +0.14 -1.47 -2.90 -2.96
-0.48
150.0 +0.00 -0.02 -0.01 -0.06 -0.23 -0.55 -0.92 -1.20 -
1.18 -0.76 +0.03 +0.93 +1.55 +1.47 +0.52 -1.06 -2.51 -2.66
-0.34
155.0 +0.00 +0.01 +0.03 +0.00 -0.16 -0.46 -0.80 -1.04 -
0.99 -0.53 +0.28 +1.21 +1.86 +1.83 +0.92 -0.64 -2.09 -2.32
-0.11
160.0 +0.00 +0.03 +0.08 +0.06 -0.08 -0.36 -0.68 -0.89 -
0.80 -0.31 +0.53 +1.48 +2.16 +2.17 +1.31 -0.21 -1.67 -1.96
+0.15
165.0 +0.00 +0.05 +0.12 +0.12 -0.01 -0.27 -0.56 -0.74 -
0.62 -0.11 +0.76 +1.74 +2.45 +2.50 +1.69 +0.21 -1.26 -1.59
+0.44
170.0 +0.00 +0.08 +0.17 +0.18 +0.07 -0.17 -0.45 -0.60 -
0.46 +0.08 +0.97 +1.97 +2.72 +2.81 +2.04 +0.59 -0.86 -1.22
+0.74
175.0 +0.00 +0.10 +0.21 +0.24 +0.14 -0.09 -0.34 -0.47 -
0.31 +0.25 +1.16 +2.18 +2.95 +3.08 +2.36 +0.95 -0.48 -0.86
+1.04
180.0 +0.00 +0.12 +0.25 +0.30 +0.21 -0.01 -0.25 -0.36 -
0.17 +0.40 +1.32 +2.36 +3.15 +3.31 +2.63 +1.27 -0.13 -0.50
+1.35
185.0 +0.00 +0.14 +0.29 +0.35 +0.27 +0.07 -0.16 -0.26 -
0.06 +0.53 +1.46 +2.51 +3.31 +3.49 +2.85 +1.54 +0.20 -0.13
+1.68
190.0 +0.00 +0.16 +0.32 +0.40 +0.33 +0.13 -0.09 -0.18
+0.04 +0.64 +1.58 +2.62 +3.42 +3.61 +3.00 +1.76 +0.51 +0.24
+2.03
195.0 +0.00 +0.18 +0.36 +0.44 +0.37 +0.18 -0.04 -0.11
+0.12 +0.73 +1.66 +2.70 +3.48 +3.67 +3.10 +1.93 +0.79 +0.61
+2.39
200.0 +0.00 +0.19 +0.39 +0.48 +0.41 +0.22 +0.00 -0.06
+0.17 +0.79 +1.72 +2.73 +3.49 +3.67 +3.13 +2.05 +1.02 +0.96
+2.76
205.0 +0.00 +0.21 +0.41 +0.51 +0.44 +0.25 +0.03 -0.03
+0.21 +0.83 +1.75 +2.73 +3.46 +3.62 +3.09 +2.09 +1.20 +1.28
+3.12
210.0 +0.00 +0.22 +0.43 +0.53 +0.47 +0.26 +0.04 -0.02
+0.22 +0.84 +1.74 +2.70 +3.38 +3.51 +3.00 +2.07 +1.31 +1.53
+3.41
215.0 +0.00 +0.23 +0.45 +0.55 +0.48 +0.27 +0.04 -0.03
+0.21 +0.82 +1.71 +2.63 +3.27 +3.36 +2.85 +1.98 +1.34 +1.68
+3.61
220.0 +0.00 +0.24 +0.47 +0.57 +0.49 +0.26 +0.02 -0.05
+0.18 +0.78 +1.64 +2.53 +3.12 +3.17 +2.65 +1.81 +1.25 +1.69
+3.66
225.0 +0.00 +0.25 +0.48 +0.58 +0.49 +0.25 +0.00 -0.09
+0.13 +0.72 +1.55 +2.40 +2.95 +2.96 +2.41 +1.58 +1.06 +1.54
+3.52
230.0 +0.00 +0.26 +0.49 +0.58 +0.48 +0.24 -0.03 -0.14
+0.07 +0.63 +1.44 +2.26 +2.76 +2.73 +2.13 +1.27 +0.73 +1.21
+3.17

45.0 +0.00 -0.05 -0.22 -0.51 -0.85 -1.11 -1.19 -1.02 -
0.65 -0.27 -0.13 -0.35 -0.82 -1.21 -1.09 -0.23 +1.16 +2.20
+1.62
50.0 +0.00 -0.05 -0.21 -0.50 -0.83 -1.10 -1.18 -1.00 -
0.63 -0.25 -0.12 -0.37 -0.92 -1.41 -1.37 -0.51 +0.96 +2.16
+1.72
55.0 +0.00 -0.04 -0.20 -0.49 -0.83 -1.10 -1.17 -0.99 -
0.60 -0.22 -0.08 -0.38 -1.00 -1.58 -1.64 -0.82 +0.67 +2.00
+1.74
60.0 +0.00 -0.04 -0.20 -0.49 -0.83 -1.10 -1.18 -0.98 -
0.58 -0.17 -0.04 -0.35 -1.04 -1.72 -1.89 -1.16 +0.33 +1.75
+1.65
65.0 +0.00 -0.04 -0.20 -0.48 -0.82 -1.10 -1.19 -0.99 -
0.57 -0.14 +0.01 -0.30 -1.03 -1.82 -2.09 -1.48 -0.03 +1.44
+1.49
70.0 +0.00 -0.03 -0.19 -0.48 -0.83 -1.12 -1.20 -1.00 -
0.56 -0.11 +0.07 -0.24 -1.00 -1.84 -2.25 -1.75 -0.38 +1.10
+1.27
75.0 +0.00 -0.03 -0.18 -0.48 -0.83 -1.13 -1.22 -1.02 -
0.56 -0.07 +0.14 -0.16 -0.92 -1.83 -2.33 -1.96 -0.69 +0.77
+1.03
80.0 +0.00 -0.03 -0.19 -0.48 -0.85 -1.15 -1.23 -1.03 -
0.56 -0.05 +0.19 -0.08 -0.84 -1.78 -2.34 -2.08 -0.91 +0.47
+0.80
85.0 +0.00 -0.03 -0.19 -0.48 -0.86 -1.17 -1.27 -1.05 -
0.57 -0.04 +0.23 +0.00 -0.74 -1.69 -2.28 -2.10 -1.05 +0.25
+0.61
90.0 +0.00 -0.03 -0.19 -0.49 -0.87 -1.18 -1.29 -1.08 -
0.59 -0.04 +0.26 +0.06 -0.63 -1.55 -2.16 -2.04 -1.08 +0.13
+0.46
95.0 +0.00 -0.03 -0.19 -0.50 -0.88 -1.20 -1.32 -1.10 -
0.60 -0.05 +0.29 +0.12 -0.54 -1.41 -2.02 -1.89 -1.02 +0.10
+0.37
100.0 +0.00 -0.03 -0.19 -0.50 -0.90 -1.22 -1.32 -1.10 -
0.61 -0.04 +0.29 +0.15 -0.46 -1.28 -1.83 -1.70 -0.87 +0.14
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105.0 +0.00 -0.03 -0.19 -0.51 -0.91 -1.24 -1.34 -1.12 -
0.62 -0.06 +0.29 +0.17 -0.40 -1.16 -1.63 -1.48 -0.67 +0.25
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0.63 -0.07 +0.27 +0.17 -0.36 -1.05 -1.45 -1.24 -0.44 +0.40
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115.0 +0.00 -0.03 -0.20 -0.52 -0.92 -1.25 -1.36 -1.13 -
0.63 -0.08 +0.26 +0.16 -0.34 -0.96 -1.29 -1.02 -0.21 +0.57
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120.0 +0.00 -0.02 -0.20 -0.53 -0.93 -1.26 -1.36 -1.13 -
0.64 -0.09 +0.23 +0.15 -0.33 -0.91 -1.17 -0.83 +0.00 +0.74
+0.46
125.0 +0.00 -0.02 -0.20 -0.53 -0.94 -1.27 -1.37 -1.14 -
0.64 -0.10 +0.22 +0.13 -0.33 -0.88 -1.09 -0.70 +0.17 +0.88
+0.50
130.0 +0.00 -0.03 -0.21 -0.54 -0.94 -1.27 -1.36 -1.13 -
0.65 -0.11 +0.21 +0.11 -0.35 -0.88 -1.04 -0.60 +0.29 +1.00
+0.56
135.0 +0.00 -0.03 -0.21 -0.54 -0.95 -1.27 -1.36 -1.14 -
0.65 -0.11 +0.19 +0.09 -0.37 -0.88 -1.03 -0.56 +0.37 +1.08
+0.60

140.0 +0.00 -0.03 -0.21 -0.55 -0.94 -1.27 -1.37 -1.14 -
0.65 -0.12 +0.19 +0.09 -0.37 -0.90 -1.04 -0.55 +0.40 +1.12
+0.64
145.0 +0.00 -0.03 -0.21 -0.54 -0.95 -1.27 -1.36 -1.14 -
0.66 -0.12 +0.19 +0.08 -0.39 -0.91 -1.06 -0.57 +0.40 +1.15
+0.68
150.0 +0.00 -0.03 -0.21 -0.54 -0.94 -1.26 -1.35 -1.14 -
0.65 -0.13 +0.19 +0.09 -0.38 -0.92 -1.08 -0.60 +0.38 +1.17
+0.75
155.0 +0.00 -0.03 -0.21 -0.53 -0.93 -1.25 -1.34 -1.14 -
0.65 -0.13 +0.20 +0.11 -0.37 -0.91 -1.10 -0.63 +0.36 +1.19
+0.83
160.0 +0.00 -0.04 -0.21 -0.53 -0.92 -1.24 -1.33 -1.12 -
0.67 -0.13 +0.20 +0.12 -0.35 -0.89 -1.10 -0.65 +0.35 +1.22
+0.91
165.0 +0.00 -0.03 -0.21 -0.52 -0.91 -1.21 -1.31 -1.11 -
0.65 -0.13 +0.20 +0.12 -0.33 -0.87 -1.09 -0.66 +0.34 +1.25
+0.99
170.0 +0.00 -0.04 -0.20 -0.51 -0.88 -1.18 -1.29 -1.09 -
0.65 -0.12 +0.20 +0.14 -0.30 -0.84 -1.06 -0.65 +0.35 +1.27
+1.07
175.0 +0.00 -0.04 -0.22 -0.51 -0.86 -1.16 -1.25 -1.06 -
0.63 -0.11 +0.21 +0.17 -0.27 -0.81 -1.04 -0.63 +0.36 +1.30
+1.13
180.0 +0.00 -0.04 -0.21 -0.50 -0.84 -1.12 -1.22 -1.03 -
0.61 -0.10 +0.22 +0.17 -0.25 -0.77 -1.01 -0.62 +0.36 +1.31
+1.16
185.0 +0.00 -0.04 -0.21 -0.49 -0.82 -1.09 -1.18 -1.00 -
0.59 -0.09 +0.23 +0.19 -0.23 -0.76 -1.00 -0.61 +0.34 +1.29
+1.15
190.0 +0.00 -0.04 -0.21 -0.48 -0.80 -1.05 -1.14 -0.97 -
0.56 -0.08 +0.24 +0.19 -0.22 -0.74 -0.99 -0.63 +0.31 +1.24
+1.10
195.0 +0.00 -0.04 -0.21 -0.48 -0.78 -1.03 -1.10 -0.93 -
0.54 -0.07 +0.23 +0.18 -0.23 -0.75 -1.02 -0.67 +0.24 +1.15
+0.99
200.0 +0.00 -0.05 -0.21 -0.47 -0.77 -1.00 -1.07 -0.90 -
0.51 -0.06 +0.23 +0.17 -0.25 -0.79 -1.06 -0.73 +0.15 +1.03
+0.85
205.0 +0.00 -0.05 -0.22 -0.46 -0.75 -0.99 -1.05 -0.87 -
0.50 -0.06 +0.22 +0.15 -0.30 -0.85 -1.13 -0.82 +0.03 +0.88
+0.67
210.0 +0.00 -0.06 -0.21 -0.47 -0.75 -0.98 -1.03 -0.86 -
0.49 -0.05 +0.20 +0.10 -0.36 -0.92 -1.23 -0.93 -0.11 +0.72
+0.49
215.0 +0.00 -0.06 -0.22 -0.47 -0.75 -0.98 -1.04 -0.85 -
0.49 -0.06 +0.17 +0.04 -0.44 -1.02 -1.34 -1.06 -0.25 +0.55
+0.27
220.0 +0.00 -0.06 -0.22 -0.48 -0.75 -0.98 -1.04 -0.87 -
0.50 -0.09 +0.13 -0.02 -0.53 -1.13 -1.45 -1.19 -0.38 +0.38
+0.07
225.0 +0.00 -0.07 -0.24 -0.49 -0.77 -0.99 -1.05 -0.88 -
0.51 -0.12 +0.08 -0.09 -0.62 -1.24 -1.57 -1.31 -0.51 +0.22
-0.11
230.0 +0.00 -0.07 -0.24 -0.50 -0.79 -1.02 -1.07 -0.89 -
0.54 -0.15 +0.03 -0.17 -0.72 -1.35 -1.68 -1.42 -0.63 +0.09
-0.28

235.0 +0.00 -0.07 -0.25 -0.51 -0.80 -1.03 -1.10 -0.93 -
0.57 -0.20 -0.03 -0.24 -0.80 -1.45 -1.78 -1.50 -0.72 -0.04
-0.45
240.0 +0.00 -0.08 -0.25 -0.53 -0.82 -1.06 -1.12 -0.95 -
0.60 -0.24 -0.07 -0.29 -0.86 -1.50 -1.84 -1.56 -0.79 -0.13
-0.61
245.0 +0.00 -0.08 -0.27 -0.53 -0.84 -1.08 -1.15 -0.99 -
0.64 -0.27 -0.12 -0.33 -0.89 -1.54 -1.86 -1.59 -0.84 -0.23
-0.75
250.0 +0.00 -0.08 -0.27 -0.55 -0.86 -1.11 -1.19 -1.02 -
0.68 -0.30 -0.14 -0.35 -0.90 -1.54 -1.85 -1.59 -0.87 -0.33
-0.93
255.0 +0.00 -0.09 -0.29 -0.57 -0.88 -1.14 -1.21 -1.05 -
0.70 -0.33 -0.15 -0.34 -0.87 -1.49 -1.80 -1.56 -0.90 -0.44
-1.11
260.0 +0.00 -0.09 -0.29 -0.58 -0.89 -1.15 -1.23 -1.08 -
0.73 -0.34 -0.14 -0.31 -0.81 -1.40 -1.71 -1.51 -0.92 -0.55
-1.30
265.0 +0.00 -0.10 -0.30 -0.59 -0.92 -1.18 -1.28 -1.11 -
0.75 -0.35 -0.12 -0.25 -0.71 -1.27 -1.59 -1.45 -0.95 -0.67
-1.49
270.0 +0.00 -0.10 -0.31 -0.60 -0.93 -1.20 -1.30 -1.14 -
0.77 -0.35 -0.09 -0.17 -0.58 -1.12 -1.44 -1.36 -0.96 -0.78
-1.66
275.0 +0.00 -0.10 -0.31 -0.61 -0.96 -1.21 -1.32 -1.17 -
0.79 -0.34 -0.06 -0.08 -0.45 -0.96 -1.29 -1.27 -0.95 -0.88
-1.81
280.0 +0.00 -0.11 -0.32 -0.63 -0.97 -1.23 -1.35 -1.19 -
0.81 -0.34 -0.01 +0.02 -0.30 -0.78 -1.13 -1.15 -0.93 -0.94
-1.92
285.0 +0.00 -0.11 -0.32 -0.63 -0.98 -1.25 -1.35 -1.22 -
0.84 -0.35 +0.02 +0.10 -0.16 -0.62 -0.97 -1.04 -0.89 -0.96
-1.96
290.0 +0.00 -0.11 -0.33 -0.64 -0.99 -1.26 -1.38 -1.24 -
0.87 -0.36 +0.04 +0.17 -0.05 -0.48 -0.84 -0.93 -0.83 -0.93
-1.94
295.0 +0.00 -0.11 -0.33 -0.65 -1.00 -1.28 -1.40 -1.27 -
0.88 -0.37 +0.05 +0.21 +0.03 -0.37 -0.71 -0.82 -0.72 -0.84
-1.84
300.0 +0.00 -0.11 -0.34 -0.65 -1.01 -1.30 -1.42 -1.30 -
0.92 -0.38 +0.05 +0.23 +0.08 -0.29 -0.62 -0.71 -0.60 -0.70
-1.67
305.0 +0.00 -0.12 -0.34 -0.66 -1.02 -1.30 -1.43 -1.32 -
0.94 -0.41 +0.04 +0.23 +0.09 -0.26 -0.56 -0.62 -0.47 -0.53
-1.46
310.0 +0.00 -0.12 -0.34 -0.67 -1.02 -1.31 -1.45 -1.33 -
0.96 -0.44 +0.01 +0.19 +0.06 -0.27 -0.54 -0.54 -0.34 -0.34
-1.22
315.0 +0.00 -0.12 -0.35 -0.66 -1.03 -1.32 -1.46 -1.34 -
0.97 -0.46 -0.03 +0.15 +0.01 -0.29 -0.54 -0.50 -0.23 -0.15
-0.96
320.0 +0.00 -0.11 -0.35 -0.67 -1.03 -1.33 -1.47 -1.35 -
0.99 -0.48 -0.06 +0.10 -0.05 -0.35 -0.55 -0.46 -0.12 +0.02
-0.75
325.0 +0.00 -0.11 -0.34 -0.67 -1.04 -1.33 -1.47 -1.35 -
0.98 -0.50 -0.09 +0.04 -0.12 -0.41 -0.59 -0.44 -0.04 +0.14
-0.59

45.0 +0.00 -0.14 -0.26 -0.34 -0.42 -0.54 -0.70 -0.75 -
0.57 +0.03 +1.02 +2.18 +3.07 +3.17 +2.21 +0.42 -1.32 -1.70
+0.42
50.0 +0.00 -0.15 -0.29 -0.38 -0.51 -0.66 -0.85 -0.95 -
0.78 -0.19 +0.83 +2.05 +3.02 +3.20 +2.33 +0.61 -1.12 -1.63
+0.16
55.0 +0.00 -0.16 -0.31 -0.43 -0.58 -0.78 -1.01 -1.16 -
1.02 -0.44 +0.59 +1.85 +2.87 +3.14 +2.37 +0.74 -0.93 -1.49
+0.06
60.0 +0.00 -0.17 -0.33 -0.47 -0.65 -0.88 -1.16 -1.35 -
1.26 -0.71 +0.31 +1.58 +2.64 +2.99 +2.30 +0.79 -0.80 -1.32
+0.10
65.0 +0.00 -0.18 -0.35 -0.51 -0.70 -0.98 -1.31 -1.55 -
1.51 -1.01 -0.01 +1.25 +2.33 +2.72 +2.11 +0.71 -0.74 -1.17
+0.26
70.0 +0.00 -0.18 -0.36 -0.53 -0.75 -1.07 -1.43 -1.73 -
1.75 -1.30 -0.36 +0.88 +1.95 +2.36 +1.81 +0.51 -0.80 -1.08
+0.47
75.0 +0.00 -0.19 -0.36 -0.55 -0.80 -1.13 -1.54 -1.89 -
1.97 -1.58 -0.70 +0.48 +1.53 +1.94 +1.42 +0.20 -1.00 -1.10
+0.69
80.0 +0.00 -0.19 -0.38 -0.57 -0.83 -1.18 -1.63 -2.04 -
2.18 -1.87 -1.04 +0.08 +1.09 +1.47 +0.96 -0.23 -1.33 -1.23
+0.85
85.0 +0.00 -0.20 -0.37 -0.57 -0.83 -1.22 -1.70 -2.16 -
2.37 -2.11 -1.36 -0.30 +0.65 +0.99 +0.45 -0.73 -1.76 -1.50
+0.91
90.0 +0.00 -0.19 -0.38 -0.57 -0.84 -1.24 -1.76 -2.25 -
2.51 -2.32 -1.63 -0.63 +0.26 +0.54 -0.05 -1.28 -2.28 -1.89
+0.84
95.0 +0.00 -0.20 -0.37 -0.57 -0.84 -1.25 -1.78 -2.32 -
2.62 -2.49 -1.85 -0.90 -0.08 +0.14 -0.53 -1.80 -2.85 -2.38
+0.63
100.0 +0.00 -0.19 -0.35 -0.55 -0.82 -1.25 -1.79 -2.34 -
2.68 -2.59 -2.01 -1.10 -0.33 -0.18 -0.93 -2.30 -3.40 -2.92
+0.28
105.0 +0.00 -0.17 -0.34 -0.53 -0.80 -1.21 -1.77 -2.34 -
2.71 -2.64 -2.08 -1.22 -0.49 -0.41 -1.24 -2.72 -3.93 -3.49
-0.16
110.0 +0.00 -0.17 -0.33 -0.50 -0.76 -1.17 -1.73 -2.30 -
2.67 -2.62 -2.09 -1.26 -0.57 -0.52 -1.44 -3.02 -4.35 -4.01
-0.66
115.0 +0.00 -0.16 -0.31 -0.47 -0.73 -1.12 -1.67 -2.23 -
2.60 -2.56 -2.04 -1.21 -0.55 -0.55 -1.50 -3.20 -4.65 -4.45
-1.17
120.0 +0.00 -0.15 -0.28 -0.43 -0.67 -1.06 -1.59 -2.12 -
2.48 -2.43 -1.91 -1.10 -0.44 -0.46 -1.46 -3.23 -4.82 -4.78
-1.62
125.0 +0.00 -0.13 -0.26 -0.39 -0.61 -0.98 -1.48 -2.00 -
2.32 -2.26 -1.73 -0.93 -0.26 -0.30 -1.32 -3.14 -4.84 -4.96
-1.98
130.0 +0.00 -0.12 -0.23 -0.35 -0.56 -0.90 -1.37 -1.86 -
2.16 -2.07 -1.52 -0.71 -0.05 -0.07 -1.09 -2.93 -4.71 -4.99
-2.23
135.0 +0.00 -0.11 -0.20 -0.31 -0.50 -0.81 -1.25 -1.71 -
1.96 -1.85 -1.28 -0.46 +0.22 +0.21 -0.80 -2.64 -4.48 -4.89
-2.34

140.0 +0.00 -0.10 -0.17 -0.26 -0.43 -0.73 -1.14 -1.54 -
1.76 -1.60 -1.02 -0.19 +0.50 +0.52 -0.45 -2.28 -4.14 -4.65
-2.30
145.0 +0.00 -0.08 -0.14 -0.22 -0.38 -0.64 -1.01 -1.37 -
1.56 -1.37 -0.77 +0.09 +0.78 +0.84 -0.08 -1.87 -3.74 -4.33
-2.14
150.0 +0.00 -0.06 -0.11 -0.17 -0.30 -0.55 -0.89 -1.22 -
1.36 -1.14 -0.51 +0.35 +1.08 +1.17 +0.29 -1.44 -3.29 -3.94
-1.89
155.0 +0.00 -0.04 -0.08 -0.13 -0.24 -0.47 -0.78 -1.07 -
1.18 -0.93 -0.29 +0.60 +1.35 +1.49 +0.67 -1.02 -2.83 -3.51
-1.57
160.0 +0.00 -0.03 -0.05 -0.08 -0.18 -0.39 -0.67 -0.93 -
1.01 -0.74 -0.07 +0.83 +1.61 +1.79 +1.03 -0.59 -2.38 -3.08
-1.22
165.0 +0.00 -0.02 -0.01 -0.04 -0.13 -0.32 -0.57 -0.81 -
0.86 -0.57 +0.11 +1.04 +1.85 +2.07 +1.37 -0.19 -1.95 -2.65
-0.85
170.0 +0.00 +0.01 +0.02 +0.00 -0.07 -0.24 -0.49 -0.70 -
0.73 -0.43 +0.28 +1.22 +2.06 +2.33 +1.68 +0.17 -1.54 -2.24
-0.47
175.0 +0.00 +0.02 +0.05 +0.04 -0.02 -0.19 -0.41 -0.60 -
0.62 -0.30 +0.42 +1.38 +2.25 +2.56 +1.97 +0.51 -1.17 -1.86
-0.12
180.0 +0.00 +0.04 +0.07 +0.09 +0.03 -0.14 -0.34 -0.52 -
0.52 -0.20 +0.53 +1.51 +2.40 +2.75 +2.21 +0.81 -0.84 -1.51
+0.22
185.0 +0.00 +0.05 +0.11 +0.12 +0.06 -0.08 -0.28 -0.45 -
0.44 -0.10 +0.61 +1.60 +2.52 +2.90 +2.41 +1.05 -0.54 -1.17
+0.55
190.0 +0.00 +0.06 +0.13 +0.15 +0.10 -0.03 -0.23 -0.39 -
0.37 -0.04 +0.69 +1.67 +2.60 +3.00 +2.54 +1.24 -0.27 -0.86
+0.89
195.0 +0.00 +0.08 +0.15 +0.18 +0.13 +0.00 -0.19 -0.34 -
0.31 +0.02 +0.73 +1.71 +2.63 +3.04 +2.63 +1.39 -0.06 -0.57
+1.20
200.0 +0.00 +0.09 +0.18 +0.21 +0.15 +0.03 -0.16 -0.30 -
0.29 +0.05 +0.76 +1.71 +2.61 +3.03 +2.64 +1.48 +0.10 -0.33
+1.49
205.0 +0.00 +0.11 +0.20 +0.23 +0.18 +0.04 -0.14 -0.28 -
0.25 +0.08 +0.76 +1.68 +2.56 +2.96 +2.59 +1.47 +0.19 -0.14
+1.74
210.0 +0.00 +0.12 +0.21 +0.24 +0.20 +0.05 -0.14 -0.27 -
0.25 +0.07 +0.74 +1.64 +2.47 +2.85 +2.48 +1.40 +0.20 -0.03
+1.92
215.0 +0.00 +0.13 +0.23 +0.26 +0.20 +0.06 -0.14 -0.28 -
0.26 +0.05 +0.70 +1.56 +2.35 +2.68 +2.30 +1.25 +0.13 -0.02
+1.99
220.0 +0.00 +0.14 +0.25 +0.28 +0.21 +0.05 -0.16 -0.30 -
0.28 +0.01 +0.63 +1.46 +2.19 +2.48 +2.07 +1.02 -0.05 -0.14
+1.91
225.0 +0.00 +0.15 +0.26 +0.29 +0.21 +0.04 -0.18 -0.33 -
0.33 -0.03 +0.56 +1.33 +2.02 +2.25 +1.79 +0.74 -0.32 -0.39
+1.65
230.0 +0.00 +0.16 +0.27 +0.29 +0.20 +0.03 -0.21 -0.38 -
0.38 -0.11 +0.46 +1.21 +1.83 +1.99 +1.47 +0.38 -0.72 -0.79
+1.20

330.0	+0.00	+0.08	+0.17	+0.23	+0.24	+0.21	+0.17	+0.15	
+0.22	+0.39	+0.60	+0.72	+0.54	-0.11	-1.24	-2.56	-3.40	-2.86
-0.09									
335.0	+0.00	+0.07	+0.15	+0.21	+0.24	+0.23	+0.21	+0.21	
+0.27	+0.44	+0.67	+0.83	+0.71	+0.14	-0.90	-2.07	-2.76	-2.01
+0.98									
340.0	+0.00	+0.05	+0.13	+0.19	+0.24	+0.25	+0.23	+0.24	
+0.33	+0.50	+0.75	+0.95	+0.88	+0.39	-0.56	-1.64	-2.18	-1.26
+1.96									
345.0	+0.00	+0.04	+0.10	+0.17	+0.23	+0.25	+0.26	+0.28	
+0.36	+0.56	+0.83	+1.06	+1.05	+0.62	-0.25	-1.26	-1.70	-0.65
+2.81									
350.0	+0.00	+0.03	+0.08	+0.15	+0.21	+0.26	+0.28	+0.31	
+0.39	+0.60	+0.89	+1.17	+1.23	+0.85	+0.01	-0.96	-1.37	-0.20
+3.49									
355.0	+0.00	+0.01	+0.06	+0.13	+0.19	+0.25	+0.28	+0.32	
+0.43	+0.64	+0.98	+1.29	+1.40	+1.05	+0.24	-0.75	-1.16	+0.08
+3.98									
360.0	+0.00	+0.00	+0.03	+0.09	+0.18	+0.23	+0.27	+0.31	
+0.43	+0.68	+1.04	+1.42	+1.58	+1.26	+0.42	-0.61	-1.07	+0.19
+4.26									
R02									

END OF FREQUENCY
 END OF ANTENNA

Viewport

Window

x
 x
 x