

|                                |           |
|--------------------------------|-----------|
| <b>Ganancia antena tx</b>      | 5         |
| <b>Campo minimo Servicio</b>   | 42,395757 |
| <b>Campo minimo proteccion</b> | 30,375157 |
| <b>Limite de Perfil</b>        | 15,00     |

| Distancia (d) | Altura (h) | Altura de tx efectiva valida | Ganancia real (Gi) | Atenuación de Espacio Libre (Ael) | Lb Hata (LbH) | E (LbH)   | Potencia Rx (LbH) | Distancia (d) |
|---------------|------------|------------------------------|--------------------|-----------------------------------|---------------|-----------|-------------------|---------------|
| 0             | 2056,9     | 45                           | 5                  | 0                                 | 0             | 171,32266 | 42,3169           | 0             |
| 0,1453        | 2016,4     | 85,5                         | -4                 | 67,58106886                       | 83,638132     | 78,684525 | -50,32123         | 0,1453        |
| 0,2905        | 2001,4     | 100,5                        | 1                  | 73,59867931                       | 92,616898     | 74,705758 | -54,3             | 0,2905        |
| 0,4358        | 1838,7     | 200                          | -5                 | 77,12150109                       | 94,791503     | 66,531154 | -62,4746          | 0,4358        |
| 0,5811        | 1710,1     | 200                          | -7                 | 79,62077408                       | 98,51895      | 60,803706 | -68,20205         | 0,5811        |
| 0,7263        | 1625,6     | 200                          | -7                 | 81,55807746                       | 101,40827     | 57,914387 | -71,09137         | 0,7263        |
| 0,8716        | 1512,3     | 200                          | -7                 | 83,142101                         | 103,7707      | 55,551955 | -73,4538          | 0,8716        |
| 1,0169        | 1498,6     | 200                          | -5                 | 84,48132152                       | 105,76803     | 55,554624 | -73,45113         | 1,0169        |
| 1,1621        | 1462,3     | 200                          | -4                 | 85,6406266                        | 107,49703     | 54,825622 | -74,18013         | 1,1621        |
| 1,3074        | 1450,6     | 200                          | -2                 | 86,66392619                       | 109,0232      | 55,29946  | -73,7063          | 1,3074        |
| 1,4527        | 1465,6     | 200                          | -1                 | 87,5792753                        | 110,38836     | 54,934297 | -74,07146         | 1,4527        |
| 1,5979        | 1497,6     | 200                          | 0                  | 88,40674851                       | 111,62246     | 54,700193 | -74,30556         | 1,5979        |
| 1,7432        | 1578,6     | 200                          | 1,5                | 89,16270092                       | 112,7499      | 55,072756 | -73,933           | 1,7432        |
| 1,8885        | 1649,9     | 200                          | 3,5                | 89,85809636                       | 113,78702     | 56,035634 | -72,97012         | 1,8885        |
| 2,0337        | 1668,4     | 200                          | 3,5                | 90,50149435                       | 114,74659     | 55,076062 | -73,92969         | 2,0337        |
| 2,179         | 1664,2     | 200                          | 4                  | 91,10090118                       | 115,64056     | 54,682099 | -74,32366         | 2,179         |
| 2,3243        | 1627,5     | 200                          | 3,5                | 91,66160022                       | 116,47679     | 53,345866 | -75,65989         | 2,3243        |
| 2,4695        | 1592       | 200                          | 3,5                | 92,18793718                       | 117,26178     | 52,56088  | -76,44488         | 2,4695        |
| 2,6148        | 1593,8     | 200                          | 4                  | 92,6845261                        | 118,0024      | 52,320261 | -76,6855          | 2,6148        |
| 2,7601        | 1652       | 200                          | 4,5                | 93,15425291                       | 118,70295     | 52,119704 | -76,88605         | 2,7601        |
| 2,9053        | 1694,8     | 200                          | 5                  | 93,59957625                       | 119,36711     | 51,955543 | -77,05021         | 2,9053        |
| 3,0506        | 1673,7     | 200                          | 5                  | 94,02346189                       | 119,9993      | 51,323355 | -77,6824          | 3,0506        |
| 3,1959        | 1636,1     | 200                          | 5                  | 94,42762021                       | 120,60207     | 50,720588 | -78,28517         | 3,1959        |
| 3,3411        | 1571,8     | 200                          | 4,5                | 94,81354606                       | 121,17764     | 49,645014 | -79,36074         | 3,3411        |
| 3,4864        | 1491,9     | 200                          | 4                  | 95,18330083                       | 121,7291      | 48,593557 | -80,4122          | 3,4864        |
| 3,6317        | 1427,7     | 200                          | 4                  | 95,53795589                       | 122,25804     | 48,06462  | -80,94114         | 3,6317        |
| 3,7769        | 1441,5     | 200                          | 4                  | 95,8784663                        | 122,76588     | 47,556778 | -81,44898         | 3,7769        |

|         |        |     |     |             |           |           |           |         |
|---------|--------|-----|-----|-------------|-----------|-----------|-----------|---------|
| 3,9222  | 1460,2 | 200 | 4,5 | 96,20635128 | 123,25489 | 47,567766 | -81,43799 | 3,9222  |
| 4,0675  | 1418,2 | 200 | 4   | 96,52230781 | 123,72611 | 46,596545 | -82,40921 | 4,0675  |
| 4,2127  | 1351,9 | 200 | 4   | 96,82696723 | 124,18048 | 46,142172 | -82,86358 | 4,2127  |
| 4,358   | 1272,9 | 200 | 4   | 97,12150109 | 124,61976 | 45,7029   | -83,30286 | 4,358   |
| 4,5033  | 1222   | 200 | 4   | 97,40637417 | 125,04462 | 45,278037 | -83,72772 | 4,5033  |
| 4,6485  | 1230,7 | 200 | 4   | 97,68201328 | 125,45571 | 44,866945 | -84,13881 | 4,6485  |
| 4,7938  | 1233,5 | 200 | 4   | 97,94935479 | 125,85443 | 44,468229 | -84,53753 | 4,7938  |
| 4,9391  | 1174,4 | 200 | 4   | 98,20871296 | 126,24124 | 44,081419 | -84,92434 | 4,9391  |
| 5,0843  | 1105,5 | 200 | 4   | 98,46037994 | 126,61658 | 43,706079 | -85,29968 | 5,0843  |
| 5,2296  | 1076,4 | 200 | 4   | 98,70512601 | 126,98159 | 43,341062 | -85,66469 | 5,2296  |
| 5,3749  | 1079,8 | 200 | 4   | 98,94316435 | 127,33661 | 42,986048 | -86,01971 | 5,3749  |
| 5,5201  | 1100,5 | 200 | 4   | 99,17469548 | 127,68192 | 42,64074  | -86,36502 | 5,5201  |
| 5,6654  | 1086,7 | 200 | 4   | 99,40036814 | 128,01849 | 42,304169 | -86,70159 | 5,6654  |
| 5,8107  | 1062,9 | 200 | 4   | 99,62032565 | 128,34654 | 41,976122 | -87,02964 | 5,8107  |
| 5,9559  | 1044,4 | 200 | 4   | 99,83470452 | 128,66626 | 41,656394 | -87,34936 | 5,9559  |
| 6,1012  | 1007,2 | 200 | 4   | 100,0440618 | 128,9785  | 41,344156 | -87,6616  | 6,1012  |
| 6,2465  | 981,5  | 200 | 4   | 100,2484915 | 129,28339 | 41,039267 | -87,96649 | 6,2465  |
| 6,3917  | 970,8  | 200 | 4   | 100,4480842 | 129,58106 | 40,741592 | -88,26416 | 6,3917  |
| 6,537   | 963,7  | 200 | 4   | 100,6433263 | 129,87225 | 40,450405 | -88,55535 | 6,537   |
| 6,6823  | 949,8  | 200 | 4   | 100,834276  | 130,15704 | 40,165621 | -88,84014 | 6,6823  |
| 6,8275  | 936    | 200 | 4   | 101,0209907 | 130,4355  | 39,887152 | -89,1186  | 6,8275  |
| 6,9728  | 924,9  | 200 | 4   | 101,2039007 | 130,7083  | 39,614358 | -89,3914  | 6,9728  |
| 7,1181  | 922,1  | 200 | 4,5 | 101,3830383 | 130,97547 | 39,84719  | -89,15857 | 7,1181  |
| 7,2633  | 921,8  | 200 | 4,5 | 101,5584362 | 131,23706 | 39,585599 | -89,42016 | 7,2633  |
| 7,4086  | 927,2  | 200 | 4,5 | 101,7304795 | 131,49365 | 39,329011 | -89,67675 | 7,4086  |
| 7,5539  | 933,6  | 200 | 4,5 | 101,8991812 | 131,74525 | 39,077407 | -89,92835 | 7,5539  |
| 7,6991  | 938,2  | 200 | 4,5 | 102,0645558 | 131,99189 | 38,830766 | -90,17499 | 7,6991  |
| 7,8444  | 945,1  | 200 | 5   | 102,2269512 | 132,23409 | 39,088567 | -89,91719 | 7,8444  |
| 7,9897  | 941,7  | 200 | 5   | 102,386366  | 132,47184 | 38,850814 | -90,15494 | 7,9897  |
| 8,1349  | 935,6  | 200 | 5   | 102,5428009 | 132,70515 | 38,617505 | -90,38825 | 8,1349  |
| 8,2802  | 927,2  | 200 | 5   | 102,6965731 | 132,93449 | 38,388167 | -90,61759 | 8,2802  |
| 8,4255  | 914,8  | 200 | 5   | 102,8476702 | 133,15984 | 38,162819 | -90,84294 | 8,4255  |
| 8,5707  | 907    | 200 | 5   | 102,9960824 | 133,38118 | 37,941475 | -91,06428 | 8,5707  |
| 8,716   | 901,9  | 200 | 5   | 103,142101  | 133,59896 | 37,723701 | -91,28206 | 8,716   |
| 8,8613  | 899,2  | 200 | 5   | 103,2857054 | 133,81313 | 37,509528 | -91,49623 | 8,8613  |
| 9,0065  | 891,7  | 200 | 5   | 103,4268776 | 134,02368 | 37,298982 | -91,70677 | 9,0065  |
| 9,1518  | 887,7  | 200 | 5   | 103,565887  | 134,231   | 37,091661 | -91,9141  | 9,1518  |
| 9,2971  | 883,4  | 200 | 5   | 103,7027066 | 134,43505 | 36,887607 | -92,11815 | 9,2971  |
| 9,4423  | 874,5  | 200 | 5   | 103,8373125 | 134,6358  | 36,686854 | -92,3189  | 9,4423  |
| 9,5876  | 868,8  | 200 | 5   | 103,9699547 | 134,83363 | 36,48903  | -92,51673 | 9,5876  |
| 9,7329  | 871,8  | 200 | 5   | 104,1006018 | 135,02848 | 36,294181 | -92,71158 | 9,7329  |
| 9,8781  | 879,5  | 200 | 5   | 104,2292249 | 135,22031 | 36,102351 | -92,90341 | 9,8781  |
| 10,0234 | 896,6  | 200 | 5   | 104,3560578 | 135,40947 | 35,913191 | -93,09257 | 10,0234 |
| 10,1687 | 923,2  | 200 | 5   | 104,4810653 | 135,5959  | 35,726753 | -93,279   | 10,1687 |
| 10,3139 | 929    | 200 | 5   | 104,6042149 | 135,77957 | 35,543086 | -93,46267 | 10,3139 |
| 10,4592 | 919,9  | 200 | 5   | 104,7257259 | 135,96079 | 35,361863 | -93,64389 | 10,4592 |
| 10,6045 | 915,8  | 200 | 5   | 104,8455605 | 136,13952 | 35,18314  | -93,82262 | 10,6045 |
| 10,7497 | 919,6  | 200 | 5   | 104,9636835 | 136,31569 | 35,00697  | -93,99879 | 10,7497 |

|         |        |     |   |             |           |           |           |         |
|---------|--------|-----|---|-------------|-----------|-----------|-----------|---------|
| 10,895  | 905,5  | 200 | 5 | 105,0803013 | 136,48961 | 34,833045 | -94,17271 | 10,895  |
| 11,0403 | 931,6  | 200 | 5 | 105,1953741 | 136,66123 | 34,661424 | -94,34433 | 11,0403 |
| 11,1855 | 927,7  | 200 | 5 | 105,3088646 | 136,83049 | 34,492162 | -94,51359 | 11,1855 |
| 11,3308 | 927,4  | 200 | 5 | 105,4209681 | 136,99769 | 34,32497  | -94,68079 | 11,3308 |
| 11,4761 | 946,5  | 200 | 5 | 105,5316431 | 137,16275 | 34,159908 | -94,84585 | 11,4761 |
| 11,6213 | 969,7  | 200 | 5 | 105,6408508 | 137,32562 | 33,997034 | -95,00872 | 11,6213 |
| 11,7666 | 983,3  | 200 | 5 | 105,7487764 | 137,48658 | 33,836072 | -95,16968 | 11,7666 |
| 11,9119 | 1003,2 | 200 | 5 | 105,8553774 | 137,64557 | 33,677086 | -95,32867 | 11,9119 |
| 12,0571 | 1043,5 | 200 | 5 | 105,9606138 | 137,80252 | 33,520135 | -95,48562 | 12,0571 |
| 12,2024 | 1077,5 | 200 | 5 | 106,0646617 | 137,9577  | 33,364957 | -95,6408  | 12,2024 |
| 12,3477 | 1083,1 | 200 | 5 | 106,167478  | 138,11104 | 33,211616 | -95,79414 | 12,3477 |
| 12,4929 | 1095,3 | 200 | 5 | 106,2690218 | 138,26248 | 33,060172 | -95,94558 | 12,4929 |
| 12,6382 | 1099,3 | 200 | 5 | 106,369461  | 138,41228 | 32,910375 | -96,09538 | 12,6382 |
| 12,7835 | 1083,5 | 200 | 5 | 106,4687521 | 138,56037 | 32,762292 | -96,24347 | 12,7835 |
| 12,9287 | 1073,9 | 200 | 5 | 106,5668537 | 138,70668 | 32,615981 | -96,38978 | 12,9287 |
| 13,074  | 1072,8 | 200 | 5 | 106,6639262 | 138,85145 | 32,471206 | -96,53455 | 13,074  |
| 13,2193 | 1074,4 | 200 | 5 | 106,7599257 | 138,99463 | 32,328031 | -96,67773 | 13,2193 |
| 13,3645 | 1077,2 | 200 | 5 | 106,8548109 | 139,13614 | 32,186519 | -96,81924 | 13,3645 |
| 13,5098 | 1059   | 200 | 5 | 106,948735  | 139,27622 | 32,046439 | -96,95932 | 13,5098 |
| 13,6551 | 1053,7 | 200 | 5 | 107,0416543 | 139,4148  | 31,907858 | -97,0979  | 13,6551 |
| 13,8003 | 1034,7 | 200 | 5 | 107,1335271 | 139,55182 | 31,770838 | -97,23492 | 13,8003 |
| 13,9456 | 1051   | 200 | 5 | 107,2245007 | 139,6875  | 31,635159 | -97,3706  | 13,9456 |
| 14,0909 | 1069,4 | 200 | 5 | 107,3145312 | 139,82177 | 31,500886 | -97,50487 | 14,0909 |
| 14,2361 | 1073,9 | 200 | 5 | 107,4035772 | 139,95458 | 31,368082 | -97,63768 | 14,2361 |
| 14,3814 | 1070,6 | 200 | 5 | 107,4917799 | 140,08612 | 31,236535 | -97,76922 | 14,3814 |
| 14,5267 | 1074,7 | 200 | 5 | 107,5790959 | 140,21635 | 31,106311 | -97,89945 | 14,5267 |
| 14,6719 | 1090,6 | 200 | 5 | 107,6654837 | 140,34519 | 30,977471 | -98,02829 | 14,6719 |
| 14,8172 | 1110,4 | 200 | 5 | 107,7510794 | 140,47284 | 30,849812 | -98,15594 | 14,8172 |
| 14,9625 | 1094,9 | 200 | 5 | 107,8358398 | 140,59926 | 30,7234   | -98,28236 | 14,9625 |
| 15,1077 | 1082,3 | 200 | 5 | 107,9197236 | 140,72436 | 30,598294 | -98,40746 | 15,1077 |
| 15,253  | 1089,9 | 200 | 5 | 108,002862  | 140,84836 | 30,474301 | -98,53146 | 15,253  |
| 15,3983 | 1094,2 | 200 | 5 | 108,0852121 | 140,97117 | 30,351483 | -98,65427 | 15,3983 |
| 15,5435 | 1102,8 | 200 | 5 | 108,1667329 | 141,09276 | 30,229901 | -98,77586 | 15,5435 |
| 15,6888 | 1093,5 | 200 | 5 | 108,2475511 | 141,21329 | 30,109368 | -98,89639 | 15,6888 |
| 15,8341 | 1080,4 | 200 | 5 | 108,3276242 | 141,33271 | 29,989946 | -99,01581 | 15,8341 |
| 15,9793 | 1103,8 | 200 | 5 | 108,4069116 | 141,45096 | 29,871696 | -99,13406 | 15,9793 |
| 16,1246 | 1125,6 | 200 | 5 | 108,4855356 | 141,56822 | 29,754435 | -99,25132 | 16,1246 |
| 16,2699 | 1132,5 | 200 | 5 | 108,5634542 | 141,68443 | 29,638226 | -99,36753 | 16,2699 |
| 16,4151 | 1148,6 | 200 | 5 | 108,6406272 | 141,79953 | 29,523129 | -99,48263 | 16,4151 |
| 16,5604 | 1174,9 | 200 | 5 | 108,717173  | 141,91369 | 29,408968 | -99,59679 | 16,5604 |
| 16,7057 | 1191,3 | 200 | 5 | 108,7930501 | 142,02685 | 29,295804 | -99,70995 | 16,7057 |
| 16,8509 | 1210,7 | 200 | 5 | 108,8682186 | 142,13896 | 29,183697 | -99,82206 | 16,8509 |
| 16,9962 | 1206,3 | 200 | 5 | 108,9427932 | 142,25018 | 29,072475 | -99,93328 | 16,9962 |
| 17,1415 | 1192,6 | 200 | 5 | 109,016733  | 142,36046 | 28,9622   | -100,0436 | 17,1415 |
| 17,2867 | 1183,6 | 200 | 5 | 109,0899985 | 142,46973 | 28,852931 | -100,1528 | 17,2867 |
| 17,432  | 1174,2 | 200 | 5 | 109,1627009 | 142,57815 | 28,744502 | -100,2613 | 17,432  |
| 17,5773 | 1143,4 | 200 | 5 | 109,2347999 | 142,68568 | 28,636973 | -100,3688 | 17,5773 |
| 17,7225 | 1102,6 | 200 | 5 | 109,3062563 | 142,79225 | 28,530402 | -100,4754 | 17,7225 |

|         |        |     |   |             |           |           |           |         |
|---------|--------|-----|---|-------------|-----------|-----------|-----------|---------|
| 17,8678 | 1067,5 | 200 | 5 | 109,3771782 | 142,89803 | 28,424628 | -100,5811 | 17,8678 |
| 18,0131 | 1041,8 | 200 | 5 | 109,4475258 | 143,00295 | 28,319711 | -100,686  | 18,0131 |
| 18,1583 | 1023,6 | 200 | 5 | 109,5172603 | 143,10695 | 28,215708 | -100,79   | 18,1583 |
| 18,3036 | 1019,9 | 200 | 5 | 109,5864869 | 143,21019 | 28,112462 | -100,8933 | 18,3036 |
| 18,4489 | 1025,4 | 200 | 5 | 109,6551661 | 143,31262 | 28,010033 | -100,9957 | 18,4489 |
| 18,5941 | 1034,8 | 200 | 5 | 109,7232598 | 143,41418 | 27,908477 | -101,0973 | 18,5941 |
| 18,7394 | 1099,5 | 200 | 5 | 109,7908702 | 143,51501 | 27,807642 | -101,1981 | 18,7394 |
| 18,8847 | 1157,2 | 200 | 5 | 109,8579584 | 143,61507 | 27,707586 | -101,2982 | 18,8847 |
| 19,0299 | 1171,1 | 200 | 5 | 109,9244867 | 143,71429 | 27,608365 | -101,3974 | 19,0299 |
| 19,1752 | 1163,1 | 200 | 5 | 109,9905546 | 143,81283 | 27,509831 | -101,4959 | 19,1752 |
| 19,3205 | 1143,2 | 200 | 5 | 110,0561238 | 143,91062 | 27,41204  | -101,5937 | 19,3205 |
| 19,4657 | 1122,6 | 200 | 5 | 110,1211571 | 144,00761 | 27,315048 | -101,6907 | 19,4657 |
| 19,611  | 1083,2 | 200 | 5 | 110,1857514 | 144,10394 | 27,218712 | -101,787  | 19,611  |
| 19,7563 | 1051,4 | 200 | 5 | 110,2498688 | 144,19957 | 27,123086 | -101,8827 | 19,7563 |
| 19,9015 | 1020,4 | 200 | 5 | 110,3134728 | 144,29443 | 27,028226 | -101,9775 | 19,9015 |
| 20,0468 | 1002,1 | 200 | 5 | 110,3766577 | 144,38867 | 26,933992 | -102,0718 | 20,0468 |
| 20,1921 | 982,2  | 200 | 5 | 110,4393863 | 144,48222 | 26,840437 | -102,1653 | 20,1921 |
| 20,3373 | 965,8  | 200 | 5 | 110,5016225 | 144,57504 | 26,747618 | -102,2581 | 20,3373 |
| 20,4826 | 953    | 200 | 5 | 110,5634582 | 144,66726 | 26,655395 | -102,3504 | 20,4826 |
| 20,6279 | 933,5  | 200 | 5 | 110,6248569 | 144,75883 | 26,563824 | -102,4419 | 20,6279 |
| 20,7731 | 909,6  | 200 | 5 | 110,6857828 | 144,8497  | 26,472958 | -102,5328 | 20,7731 |
| 20,9184 | 886,7  | 200 | 5 | 110,7463258 | 144,93999 | 26,382664 | -102,6231 | 20,9184 |
| 21,0637 | 886,1  | 200 | 5 | 110,8064498 | 145,02966 | 26,292994 | -102,7128 | 21,0637 |
| 21,2089 | 905,1  | 200 | 5 | 110,8661195 | 145,11865 | 26,204002 | -102,8018 | 21,2089 |
| 21,3542 | 926,9  | 200 | 5 | 110,9254227 | 145,2071  | 26,115556 | -102,8902 | 21,3542 |
| 21,4995 | 946,8  | 200 | 5 | 110,9843238 | 145,29495 | 26,027711 | -102,978  | 21,4995 |
| 21,6447 | 942,2  | 200 | 5 | 111,042788  | 145,38214 | 25,940516 | -103,0652 | 21,6447 |
| 21,79   | 927,4  | 200 | 5 | 111,1009012 | 145,46881 | 25,853846 | -103,1519 | 21,79   |
| 21,9353 | 910,7  | 200 | 5 | 111,1586281 | 145,55491 | 25,767751 | -103,238  | 21,9353 |
| 22,0805 | 881,4  | 200 | 5 | 111,2159346 | 145,64037 | 25,682283 | -103,3235 | 22,0805 |
| 22,2258 | 862,5  | 200 | 5 | 111,2729046 | 145,72534 | 25,597318 | -103,4084 | 22,2258 |
| 22,3711 | 845,2  | 200 | 5 | 111,3295034 | 145,80975 | 25,512905 | -103,4929 | 22,3711 |
| 22,5163 | 843    | 200 | 5 | 111,3856971 | 145,89356 | 25,429097 | -103,5767 | 22,5163 |
| 22,6616 | 834,5  | 200 | 5 | 111,441568  | 145,97689 | 25,345771 | -103,66   | 22,6616 |
| 22,8069 | 800,1  | 200 | 5 | 111,4970817 | 146,05968 | 25,262977 | -103,7428 | 22,8069 |
| 22,9521 | 787,4  | 200 | 5 | 111,5522051 | 146,14189 | 25,180765 | -103,825  | 22,9521 |
| 23,0974 | 765,5  | 200 | 5 | 111,6070185 | 146,22364 | 25,099016 | -103,9067 | 23,0974 |
| 23,2427 | 770,7  | 200 | 5 | 111,6614881 | 146,30488 | 25,017779 | -103,988  | 23,2427 |
| 23,3879 | 758,1  | 200 | 5 | 111,7155811 | 146,38555 | 24,937104 | -104,0687 | 23,3879 |
| 23,5332 | 733,4  | 200 | 5 | 111,7693763 | 146,46578 | 24,856873 | -104,1489 | 23,5332 |
| 23,6785 | 728,1  | 200 | 5 | 111,8228403 | 146,54552 | 24,777136 | -104,2286 | 23,6785 |
| 23,8237 | 775,2  | 200 | 5 | 111,8759408 | 146,62471 | 24,697942 | -104,3078 | 23,8237 |
| 23,969  | 800,2  | 200 | 5 | 111,9287549 | 146,70348 | 24,619174 | -104,3866 | 23,969  |
| 24,1143 | 831,2  | 200 | 5 | 111,9812498 | 146,78177 | 24,540883 | -104,4649 | 24,1143 |
| 24,2595 | 882,7  | 200 | 5 | 112,0333935 | 146,85954 | 24,463115 | -104,5426 | 24,2595 |
| 24,4048 | 899,7  | 200 | 5 | 112,0852616 | 146,9369  | 24,385758 | -104,62   | 24,4048 |
| 24,5501 | 913    | 200 | 5 | 112,1368219 | 147,0138  | 24,30886  | -104,6969 | 24,5501 |
| 24,6953 | 928,5  | 200 | 5 | 112,1880427 | 147,09019 | 24,232469 | -104,7733 | 24,6953 |

|         |        |     |   |             |           |           |           |         |
|---------|--------|-----|---|-------------|-----------|-----------|-----------|---------|
| 24,8406 | 954,6  | 200 | 5 | 112,2389982 | 147,16618 | 24,156473 | -104,8493 | 24,8406 |
| 24,9859 | 984,1  | 200 | 5 | 112,2896565 | 147,24174 | 24,080921 | -104,9248 | 24,9859 |
| 25,1311 | 949,2  | 200 | 5 | 112,3399865 | 147,3168  | 24,005858 | -104,9999 | 25,1311 |
| 25,2764 | 904,1  | 200 | 5 | 112,390061  | 147,39148 | 23,931176 | -105,0746 | 25,2764 |
| 25,4217 | 906,5  | 200 | 5 | 112,4398484 | 147,46573 | 23,856923 | -105,1488 | 25,4217 |
| 25,5669 | 881,9  | 200 | 5 | 112,489318  | 147,53951 | 23,783143 | -105,2226 | 25,5669 |
| 25,7122 | 860,8  | 200 | 5 | 112,5385413 | 147,61293 | 23,709731 | -105,296  | 25,7122 |
| 25,8575 | 887,7  | 200 | 5 | 112,5874872 | 147,68592 | 23,636732 | -105,369  | 25,8575 |
| 26,0027 | 916,2  | 200 | 5 | 112,6361255 | 147,75846 | 23,564193 | -105,4416 | 26,0027 |
| 26,148  | 943    | 200 | 5 | 112,6845261 | 147,83065 | 23,492007 | -105,5137 | 26,148  |
| 26,2933 | 980    | 200 | 5 | 112,7326585 | 147,90243 | 23,420222 | -105,5855 | 26,2933 |
| 26,4385 | 1009,8 | 200 | 5 | 112,7804928 | 147,97378 | 23,348881 | -105,6569 | 26,4385 |
| 26,5838 | 1012,8 | 200 | 5 | 112,8280978 | 148,04477 | 23,277883 | -105,7279 | 26,5838 |
| 26,7291 | 989,1  | 200 | 5 | 112,8754433 | 148,11539 | 23,207271 | -105,7985 | 26,7291 |
| 26,8743 | 994    | 200 | 5 | 112,9224998 | 148,18557 | 23,13709  | -105,8687 | 26,8743 |
| 27,0196 | 1019,4 | 200 | 5 | 112,9693349 | 148,25542 | 23,06724  | -105,9385 | 27,0196 |
| 27,1649 | 1044,5 | 200 | 5 | 113,0159188 | 148,32489 | 22,997764 | -106,008  | 27,1649 |
| 27,3101 | 1068,8 | 200 | 5 | 113,0622224 | 148,39395 | 22,928706 | -106,0771 | 27,3101 |
| 27,4554 | 1060,9 | 200 | 5 | 113,1083121 | 148,46269 | 22,859968 | -106,1458 | 27,4554 |
| 27,6007 | 1039,4 | 200 | 5 | 113,1541585 | 148,53107 | 22,791592 | -106,2142 | 27,6007 |
| 27,7459 | 1018,4 | 200 | 5 | 113,1997329 | 148,59904 | 22,723621 | -106,2821 | 27,7459 |
| 27,8912 | 1009,4 | 200 | 5 | 113,2451006 | 148,6667  | 22,655959 | -106,3498 | 27,8912 |
| 28,0365 | 999,3  | 200 | 5 | 113,2902325 | 148,73401 | 22,588649 | -106,4171 | 28,0365 |
| 28,1817 | 1009,1 | 200 | 5 | 113,3351003 | 148,80092 | 22,521733 | -106,484  | 28,1817 |
| 28,327  | 1008,7 | 200 | 5 | 113,3797682 | 148,86754 | 22,455114 | -106,5506 | 28,327  |
| 28,4723 | 992,3  | 200 | 5 | 113,4242076 | 148,93382 | 22,388837 | -106,6169 | 28,4723 |
| 28,6175 | 981,2  | 200 | 5 | 113,4683904 | 148,99971 | 22,322942 | -106,6828 | 28,6175 |
| 28,7628 | 989,2  | 200 | 5 | 113,5123798 | 149,06532 | 22,257336 | -106,7484 | 28,7628 |
| 28,9081 | 990,9  | 200 | 5 | 113,5561475 | 149,1306  | 22,19206  | -106,8137 | 28,9081 |
| 29,0533 | 1008,8 | 200 | 5 | 113,5996659 | 149,1955  | 22,127156 | -106,8786 | 29,0533 |

### Perfil Topográfico Estación Avila-5 130°









