

Ganancia antena tx	5
Campo mínimo Servicio	42,3946448
Campo mínimo proteccion	30,3740449
Limite de Perfil	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)
0,00	1514,50	30,00	5	0	0	172,39404	43,3894001	0
0,0479	1522,6	30,00	5	57,941355	70,4509	101,94314	-27,0615083	0,0479
0,0959	1532,1	30,00	5	63,971017	81,0706	91,323438	-37,6812068	0,0959
0,1438	1539,6	30,00	5	67,489822	87,2681	85,125967	-43,8786778	0,1438
0,1918	1546	30,00	5	69,991617	91,6743	80,7197	-48,284945	0,1918
0,2397	1554,3	30,00	5	71,928005	95,0848	77,309249	-51,6953955	0,2397
0,2877	1558,6	30,00	5	73,513442	97,8771	74,516911	-54,4877342	0,2877
0,3356	1558,4	30,00	5	74,851084	100,233	72,160999	-56,8436462	0,3356
0,3835	1560	30,00	5	76,009952	102,274	70,11995	-58,8846947	0,3835
0,4315	1558,5	30,00	5	77,034261	104,078	68,315894	-60,6887509	0,4315
0,4794	1545,7	30,00	5	77,948605	105,689	66,705511	-62,2991337	0,4794
0,5274	1538,7	30,00	5	78,777447	107,148	65,245719	-63,7589255	0,5274
0,5753	1536,8	30,00	5	79,532532	108,478	63,915831	-65,0888135	0,5753
0,6233	1531,7	30,00	5	80,228587	109,704	62,689909	-66,3147354	0,6233
0,6712	1526,1	30,00	5	80,871684	110,837	61,55726	-67,4473844	0,6712
0,7191	1520,1	30,00	5	81,470431	111,891	60,502722	-68,5019229	0,7191
0,7671	1534,7	30,00	5	82,031684	112,88	59,514218	-69,4904272	0,7671
0,815	1548,1	30,00	5	82,557797	113,806	58,587606	-70,4170391	0,815
0,863	1560,8	30,00	5	83,054861	114,682	57,712156	-71,2924891	0,863
0,9109	1566,8	30,00	5	83,524059	115,508	56,885784	-72,1188609	0,9109
0,9589	1567,6	30,00	5	83,970111	116,294	56,100177	-72,9044673	0,9589
1,0068	1563,9	30,00	5	84,393509	117,04	55,354471	-73,6501736	1,0068
1,0547	1549,1	30,00	5	84,797224	117,751	54,643431	-74,3612133	1,0547
1,1027	1531,2	30,00	5	85,183792	118,431	53,96259	-75,0420544	1,1027
1,1506	1511,9	30,00	5	85,553132	119,082	53,312093	-75,6925517	1,1506

1,1986	1492,7	30,00	5	85,90813	119,707	52,686855	-76,3177895	1,1986
1,2465	1474,5	30,00	5	86,24849	120,307	52,087398	-76,9172464	1,2465
1,2945	1456,4	30,00	5	86,576686	120,885	51,509367	-77,4952783	1,2945
1,3424	1438,6	30,00	5	86,892284	121,441	50,953522	-78,0511226	1,3424
1,3903	1422	30,00	5	87,196815	121,977	50,417168	-78,5874766	1,3903
1,4383	1407,7	30,00	5	87,491634	122,496	49,89792	-79,1067247	1,4383
1,4862	1395,1	30,00	5	87,77619	122,997	49,396749	-79,6078961	1,4862
1,5342	1383,2	30,00	5	88,052284	123,484	48,910479	-80,0941654	1,5342
1,5821	1371,7	30,00	5	88,319323	123,954	48,440159	-80,564486	1,5821
1,6301	1360,1	30,00	5	88,57893	124,411	47,982929	-81,0217158	1,6301
1,678	1346,1	33,65	5	88,830484	124,092	48,302418	-80,702227	1,678
1,7259	1331,4	39,22	5	89,074957	123,496	48,897978	-80,1066671	1,7259
1,7739	1316,4	47,62	5	89,313227	122,604	49,789684	-79,2149609	1,7739
1,8218	1305,6	53,39	5	89,544659	122,225	50,169295	-78,83535	1,8218
1,8698	1294,8	59,15	5	89,770548	121,911	50,483124	-78,5215203	1,8698
1,9177	1283,9	68,00	5	89,990258	121,327	51,067271	-77,9373737	1,9177
1,9657	1269,6	73,91	5	90,20499	121,111	51,28319	-77,7214552	1,9657
2,0136	1255,3	79,88	5	90,414109	120,918	51,475844	-77,5288006	2,0136
2,0616	1240,9	85,94	5	90,618733	120,747	51,647403	-77,3572418	2,0616
2,1095	1220,2	92,23	5	90,818235	120,579	51,815472	-77,1891727	2,1095
2,1574	1198,5	102,15	4,5	91,013258	120,181	51,713312	-77,2913326	2,1574
2,2054	1177,6	109,01	4,5	91,204392	120,031	51,863225	-77,14142	2,2054
2,2533	1163,6	115,87	4,5	91,391025	119,898	51,996452	-77,008193	2,2533
2,3013	1154,5	126,25	4,5	91,57411	119,581	52,312686	-76,6919592	2,3013
2,3492	1147,3	132,91	4,5	91,753045	119,497	52,396715	-76,6079294	2,3492
2,3972	1151,5	139,12	4,5	91,92873	119,446	52,447762	-76,5568833	2,3972
2,4451	1165,9	144,65	5	92,100577	119,434	52,959965	-76,0446796	2,4451
2,493	1181,5	149,54	5	92,26909	119,456	52,937774	-76,0668709	2,493
2,541	1192,1	157,95	5	92,434738	119,319	53,075186	-75,929459	2,541
2,5889	1193,1	162,12	5	92,59695	119,379	53,015172	-75,9894728	2,5889
2,6369	1194,9	166,07	5	92,756518	119,449	52,945363	-76,0592821	2,6369
2,6848	1201,1	173,75	5	92,912884	119,359	53,034874	-75,9697707	2,6848
2,7328	1219,7	176,78	5	93,066802	119,467	52,927219	-76,0774261	2,7328
2,7807	1238,5	179,25	5	93,217728	119,594	52,800354	-76,2042904	2,7807
2,8286	1257	181,21	5	93,366076	119,738	52,656117	-76,3485282	2,8286
2,8766	1271,1	186,75	5	93,512234	119,738	52,656271	-76,3483735	2,8766
2,9245	1285,5	187,91	5	93,655677	119,908	52,486087	-76,5185577	2,9245
2,9725	1300,5	188,70	5	93,797082	120,089	52,304906	-76,6997389	2,9725
3,0204	1304,6	189,38	5	93,935934	120,271	52,123077	-76,8815681	3,0204
3,0684	1310,4	193,66	5	94,072884	120,311	52,082838	-76,9218066	3,0684
3,1163	1317,6	193,96	5	94,20743	120,501	51,893207	-77,1114383	3,1163
3,1642	1322,9	194,15	5	94,339923	120,692	51,702256	-77,3023888	3,1642
3,2122	1324,6	194,30	5	94,470696	120,882	51,512377	-77,4922676	3,2122
3,2601	1320,9	198,41	5	94,599263	120,918	51,476353	-77,5282918	3,2601
3,3081	1297,8	198,98	5	94,726217	121,086	51,30838	-77,6962648	3,3081
3,356	1264,8	200,00	5	94,851084	121,234	51,160214	-77,8444312	3,356
3,404	1228	200,00	5	94,974436	121,418	50,976245	-78,0284	3,404
3,4519	1189,6	200,00	5	95,095809	121,599	50,795227	-78,2094173	3,4519

3,4998	1152	200,00	5	95,215509	121,777	50,616705	-78,38794	3,4998
3,5478	1114,1	200,00	5	95,333827	121,954	50,440244	-78,5644011	3,5478
3,5957	1077,3	200,00	5	95,450314	122,128	50,266514	-78,7381304	3,5957
3,6437	1044,2	200,00	5	95,565497	122,299	50,094729	-78,9099162	3,6437
3,6916	1013,3	200,00	5	95,678938	122,469	49,925542	-79,0791028	3,6916
3,7396	988,1	200,00	5	95,791148	122,636	49,75819	-79,2464546	3,7396
3,7875	973,1	200,00	5	95,901698	122,801	49,593315	-79,411133	3,7875
3,8354	958,4	200,00	5	96,010858	122,964	49,430512	-79,5741332	3,8354
3,8834	943,8	200,00	4,5	96,118887	123,125	48,769395	-80,2352494	3,8834
3,9313	931,4	200,00	4,5	96,225369	123,283	48,610588	-80,3940568	3,9313
3,9793	923,2	200,00	4,5	96,330778	123,441	48,453378	-80,5512665	3,9793
4,0272	916,3	200,00	4,5	96,434709	123,596	48,298375	-80,7062695	4,0272
4,0752	904,5	200,00	4,5	96,537623	123,749	48,144887	-80,8597576	4,0752
4,1231	893	200,00	4,5	96,639122	123,901	47,993511	-81,0111343	4,1231
4,171	881,9	200,00	4,5	96,739449	124,05	47,843882	-81,1607624	4,171
4,219	868,4	200,00	4,5	96,838835	124,198	47,695656	-81,308989	4,219
4,2669	854,2	200,00	4,5	96,936894	124,345	47,54941	-81,4552351	4,2669
4,3149	836,2	200,00	4,5	97,034059	124,49	47,404496	-81,6001488	4,3149
4,3628	814,6	200,00	4,5	97,129951	124,633	47,261482	-81,7431624	4,3628
4,4108	792,3	200,00	4,5	97,224992	124,774	47,119737	-81,8849081	4,4108
4,4587	770,6	200,00	4	97,31881	124,914	46,479816	-82,5248291	4,4587
4,5066	754	200,00	4	97,411625	125,053	46,34139	-82,6632549	4,5066
4,5546	742,1	200,00	4	97,50365	125,19	46,204143	-82,8005015	4,5546
4,6025	732,7	200,00	4	97,594521	125,325	46,068617	-82,9360278	4,6025
4,6505	735	200,00	4	97,684638	125,46	45,934215	-83,0704295	4,6505
4,6984	746,1	200,00	4,5	97,773645	125,593	46,301469	-82,7031753	4,6984
4,7464	754,7	200,00	4,5	97,861931	125,724	46,169797	-82,8348476	4,7464
4,7943	757,6	200,00	4,5	97,949149	125,854	46,03972	-82,9649248	4,7943
4,8422	751,1	200,00	4,5	98,035499	125,983	45,910936	-83,0937088	4,8422
4,8902	741,3	200,00	4,5	98,121177	126,111	45,783155	-83,22149	4,8902
4,9381	726,2	200,00	4,5	98,205842	126,237	45,656884	-83,3477607	4,9381
4,9861	698,5	200,00	4,5	98,289864	126,362	45,531572	-83,4730723	4,9861
5,034	667,4	200,00	4	98,372909	126,486	44,907719	-84,096926	5,034
5,082	637,5	200,00	4	98,455338	126,609	44,784783	-84,2198616	5,082
5,1299	611,1	200,00	4	98,536823	126,731	44,663256	-84,341389	5,1299
5,1778	586	200,00	4	98,61755	126,851	44,542858	-84,4617869	5,1778
5,2258	562,1	200,00	4	98,6977	126,971	44,423321	-84,5813241	5,2258
5,2737	545,7	200,00	4	98,776953	127,089	44,305122	-84,6995226	5,2737
5,3217	531,4	200,00	4	98,855653	127,206	44,187749	-84,8168958	5,3217
5,3696	510	200,00	4	98,933483	127,322	44,071671	-84,9329738	5,3696
5,4176	488,2	200,00	4	99,010784	127,438	43,956385	-85,0482601	5,4176
5,4655	466,6	200,00	4	99,087243	127,552	43,842352	-85,1622924	5,4655
5,5134	444,7	200,00	4	99,163035	127,665	43,729315	-85,2753296	5,5134
5,5614	420,2	200,00	4	99,238327	127,777	43,617023	-85,387622	5,5614
5,6093	395,3	200,00	4	99,312818	127,888	43,505926	-85,4987184	5,6093
5,6573	371,5	200,00	3,5	99,386829	127,998	42,895546	-86,1090991	5,6573
5,7052	351,8	200,00	3,5	99,460062	128,108	42,786325	-86,2183201	5,7052
5,7532	338,8	200,00	3,5	99,532834	128,216	42,677792	-86,3268531	5,7532

5,8011	327,9	200,00	3,5	99,604852	128,324	42,570384	-86,4342611	5,8011
5,849	322,5	200,00	3,5	99,676277	128,43	42,463859	-86,5407858	5,849
5,897	324,3	200,00	3,5	99,747267	128,536	42,357983	-86,6466614	5,897
5,9449	328,9	200,00	4	99,817536	128,641	42,753184	-86,2514608	5,9449
5,9929	334,6	200,00	4	99,887385	128,745	42,64901	-86,3556353	5,9929
6,0408	335,7	200,00	4	99,956534	128,848	42,545881	-86,4587642	6,0408
6,0888	328,8	200,00	4	100,02528	128,951	42,443353	-86,5612915	6,0888
6,1367	318,6	200,00	4	100,09334	129,052	42,341842	-86,6628025	6,1367
6,1847	306,3	200,00	4	100,16102	129,153	42,240911	-86,7637337	6,1847
6,2326	293,5	200,00	4	100,22803	129,253	42,140968	-86,8636768	6,2326
6,2805	280,3	200,00	4	100,29453	129,352	42,04179	-86,9628547	6,2805
6,3285	274,7	200,00	4	100,36066	129,451	41,943161	-87,0614837	6,3285
6,3764	268,9	200,00	4	100,42616	129,549	41,84548	-87,1591643	6,3764
6,4244	254,9	200,00	4	100,4913	129,646	41,748329	-87,2563156	6,4244
6,4723	239	200,00	4	100,55582	129,742	41,652101	-87,3525435	6,4723
6,5203	223,8	200,00	4	100,62	129,838	41,556384	-87,4482605	6,5203
6,5682	208,9	200,00	4	100,68357	129,932	41,461567	-87,5430783	6,5682
6,6161	190,4	200,00	4	100,74669	130,027	41,367438	-87,6372071	6,6161
6,6641	171,3	200,00	4	100,80947	130,12	41,273794	-87,7308512	6,6641
6,712	153,5	200,00	3,5	100,87168	130,213	40,681015	-88,3236303	6,712
6,76	138,6	200,00	3,5	100,93358	130,305	40,588704	-88,4159412	6,76
6,8079	131,4	200,00	3,5	100,99491	130,397	40,497236	-88,5074087	6,8079
6,8559	123	200,00	3,5	101,05593	130,488	40,406221	-88,5984239	6,8559
6,9038	115,7	200,00	3,5	101,11641	130,578	40,316028	-88,6886164	6,9038
6,9517	110,5	200,00	3,5	101,17647	130,668	40,22646	-88,7781852	6,9517
6,9997	104,7	200,00	4	101,23623	130,757	40,637321	-88,3673241	6,9997
7,0476	98,9	200,00	4	101,29547	130,845	40,548975	-88,4556701	7,0476
7,0956	95,3	200,00	4	101,35443	130,933	40,461045	-88,5436001	7,0956
7,1435	96,3	200,00	4	101,41287	131,02	40,373889	-88,630756	7,1435
7,1915	97,4	200,00	4	101,47103	131,107	40,287135	-88,7175096	7,1915
7,2394	97,8	200,00	4	101,5287	131,193	40,201138	-88,8035071	7,2394
7,2873	97	200,00	4	101,58598	131,278	40,115707	-88,8889374	7,2873
7,3353	94,8	200,00	4	101,643	131,363	40,03066	-88,9739847	7,3353
7,3832	84,3	200,00	4	101,69954	131,448	39,946343	-89,0583018	7,3832
7,4312	72,1	200,00	4	101,75582	131,532	39,862397	-89,1422479	7,4312
7,4791	56,9	200,00	4	101,81163	131,615	39,779164	-89,2254804	7,4791
7,5271	40,4	200,00	4	101,8672	131,698	39,696291	-89,3083536	7,5271
7,575	25,1	200,00	4	101,9223	131,78	39,614116	-89,390529	7,575
7,6229	11,2	200,00	4	101,97705	131,862	39,532458	-89,4721864	7,6229
7,6709	5,3	200,00	4	102,03157	131,943	39,451144	-89,5535011	7,6709
7,7188	2,5	200,00	4	102,08564	132,024	39,370504	-89,6341408	7,7188
7,7668	0,5	200,00	4	102,13949	132,104	39,290196	-89,7144485	7,7668
7,8147	0	200,00	4	102,19289	132,183	39,210549	-89,7940955	7,8147
7,8627	0	200,00	4	102,24608	132,263	39,131224	-89,8734206	7,8627
7,9106	0	200,00	4	102,29883	132,341	39,052546	-89,9520992	7,9106
7,9585	0	200,00	4	102,35127	132,42	38,974342	-90,0303028	7,9585
8,0065	0	200,00	4	102,4035	132,498	38,896446	-90,1081989	8,0065
8,0544	0	200,00	4	102,45531	132,575	38,819176	-90,1854686	8,0544

8,1024	0	200,00	4	102,50692	132,652	38,742205	-90,2624399	8,1024
8,1503	0	200,00	4	102,55812	132,728	38,665847	-90,3387977	8,1503
8,1983	0	200,00	4	102,60912	132,804	38,589779	-90,4148661	8,1983
8,2462	0	200,00	4	102,65972	132,88	38,514311	-90,4903333	8,2462
8,2941	0	200,00	4	102,71003	132,955	38,439281	-90,5653634	8,2941
8,3421	0	200,00	4	102,76015	133,03	38,364528	-90,6401167	8,3421
8,39	0	200,00	4	102,80988	133,104	38,290358	-90,7142867	8,39
8,438	0	200,00	4	102,85944	133,178	38,216457	-90,788188	8,438
8,4859	0	200,00	4	102,9086	133,251	38,143127	-90,8615174	8,4859
8,5339	0	200,00	4	102,9576	133,324	38,070059	-90,9345859	8,5339
8,5818	0	200,00	4	103,00621	133,396	37,997551	-91,0070936	8,5818
8,6297	0	200,00	4	103,05456	133,469	37,925447	-91,0791977	8,6297
8,6777	0	200,00	4	103,10274	133,54	37,853593	-91,151052	8,6777
8,7256	0	200,00	4	103,15055	133,612	37,782283	-91,2223615	8,7256
8,7736	0	200,00	4	103,1982	133,683	37,711217	-91,2934282	8,7736
8,8215	0	200,00	4	103,24549	133,753	37,640684	-91,3639603	8,8215
8,8695	0	200,00	4	103,29263	133,824	37,570388	-91,4342566	8,8695
8,9174	0	200,00	4	103,33941	133,893	37,500617	-91,5040281	8,9174
8,9653	0	200,00	4	103,38594	133,963	37,431219	-91,5734259	8,9653
9,0133	0	200,00	4	103,43232	134,032	37,362047	-91,6425976	9,0133
9,0612	0	200,00	4	103,47836	134,101	37,293386	-91,711259	9,0612
9,1092	0	200,00	4	103,52425	134,169	37,224944	-91,7797005	9,1092
9,1571	0	200,00	4,5	103,5698	134,237	37,657004	-91,3476409	9,1571
9,2051	0	200,00	4,5	103,61521	134,305	37,589277	-91,4153676	9,2051
9,253	0	200,00	4,5	103,6603	134,372	37,522043	-91,482602	9,253
9,3009	0	200,00	4,5	103,70514	134,439	37,455156	-91,5494892	9,3009
9,3489	0	200,00	4,5	103,74986	134,506	37,388473	-91,6161715	9,3489
9,3968	0	200,00	4,5	103,79424	134,572	37,32227	-91,6823744	9,3968
9,4448	0	200,00	4,5	103,8385	134,638	37,256267	-91,7483778	9,4448
9,4927	0	200,00	4,5	103,88244	134,703	37,190735	-91,8139102	9,4927
9,5407	0	200,00	4,5	103,92625	134,769	37,125396	-91,8792485	9,5407
9,5886	0	200,00	4,5	103,96975	134,834	37,060521	-91,9441238	9,5886

### Perfil Topográfico Estación Castillo Negro 30°









