

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
0,0484	1529,3	30,00	5	58,031552	70,6098	101,78428	-27,2203671	0,0484
0,0968	1544,2	30,00	4	64,052152	81,2135	90,18054	-38,8241053	0,0968
0,1451	1553,8	30,00	4	67,567993	87,4058	83,98829	-45,0163551	0,1451
0,1935	1561,9	30,00	4	70,068264	91,8093	79,584705	-49,4199396	0,1935
0,2419	1570,3	30,00	4	72,007362	95,2246	76,169483	-52,8351619	0,2419
0,2903	1558,6	30,00	5	73,591585	98,0148	74,379281	-54,6253638	0,2903
0,3386	1545,2	30,00	5	74,928384	100,369	72,024854	-56,9797903	0,3386
0,387	1532,1	30,00	5	76,088864	102,413	69,980967	-59,0236777	0,387
0,4354	1506	30,00	5	77,112413	104,216	68,178248	-60,8263964	0,4354
0,4838	1480,3	46,20	5	78,027962	103,624	68,769969	-60,2346763	0,4838
0,5321	1455,8	70,70	5	78,85451	102,807	69,586974	-59,417671	0,5321
0,5805	1438,5	88,00	4,5	79,610689	102,88	69,01406	-59,9905849	0,5805
0,6289	1421,3	105,20	4,5	80,306277	103,029	68,864647	-60,1399976	0,6289
0,6773	1410,6	115,90	4	80,950266	103,514	67,880095	-61,1245495	0,6773
0,7256	1414,2	112,30	4,5	81,54859	104,63	67,264436	-61,7402085	0,7256
0,774	1418,1	108,40	5	82,109464	105,713	66,680944	-62,3237006	0,774
0,8224	1424,9	101,60	5	82,636307	106,918	65,476124	-63,5285212	0,8224
0,8708	1434,4	92,10	5	83,133013	108,279	64,115057	-64,8895879	0,8708
0,9192	1444	82,50	5	83,602845	109,681	62,713308	-66,2913372	0,9192
0,9675	1444,8	81,70	5	84,047664	110,458	61,935787	-67,0688575	0,9675
1,0159	1439,2	59,54	5	84,471664	113,05	59,344341	-69,660304	1,0159
1,0643	1433,1	61,42	5	84,875926	113,533	58,860828	-70,1438172	1,0643
1,1127	1426,3	63,46	5	85,262207	113,974	58,420367	-70,5842782	1,1127
1,161	1419,2	65,66	5	85,631289	114,374	58,019709	-70,9849362	1,161

1,2094	1412,3	73,55	5	85,986044	114,251	58,143045	-70,8616001	1,2094
1,2578	1403,2	75,92	5	86,326877	114,609	57,785457	-71,2191881	1,2578
1,3062	1393,3	78,53	5	86,654838	114,929	57,464635	-71,5400096	1,3062
1,3545	1383,2	86,50	5	86,970225	114,825	57,568955	-71,4356899	1,3545
1,4029	1374,8	89,33	5	87,275179	115,109	57,284816	-71,7198287	1,4029
1,4513	1366,2	92,29	5	87,569789	115,372	57,022086	-71,9825592	1,4513
1,4997	1356,4	95,40	5	87,854733	115,613	56,781444	-72,223201	1,4997
1,548	1337,1	103,73	5	88,130064	115,505	56,889055	-72,1155902	1,548
1,5964	1318,1	107,75	5	88,397479	115,678	56,715798	-72,2888466	1,5964
1,6448	1295,8	112,31	5	88,656907	115,814	56,579932	-72,4247125	1,6448
1,6932	1262	117,74	4,5	88,90881	115,896	55,997985	-73,0066594	1,6932
1,7415	1228,7	123,95	4	89,153114	115,935	55,458871	-73,5457743	1,7415
1,7899	1193,4	135,63	4	89,39122	115,701	55,692767	-73,3118773	1,7899
1,8383	1154,4	143,51	4	89,622973	115,678	55,715865	-73,2887795	1,8383
1,8867	1115,5	152,14	3,5	89,848702	115,629	55,264774	-73,7398707	1,8867
1,9351	1076,5	161,45	3,5	90,068713	115,561	55,332923	-73,6717218	1,9351
1,9834	1037,9	176,08	3	90,282851	115,293	55,100974	-73,9036711	1,9834
2,0318	999,2	186,72	3	90,492264	115,206	55,188506	-73,8161387	2,0318
2,0802	970,1	197,59	3	90,696747	115,122	55,272456	-73,7321891	2,0802
2,1286	946,4	200,00	3	90,896526	115,336	55,058091	-73,9465535	2,1286
2,1769	923	200,00	3	91,091414	115,627	54,767432	-74,2372126	2,1769
2,2253	906,6	200,00	2,5	91,282416	115,911	53,98257	-75,022075	2,2253
2,2737	892,2	200,00	2,5	91,469308	116,19	53,703837	-75,3008079	2,2737
2,3221	877,5	200,00	2,5	91,652263	116,463	53,430975	-75,5736695	2,3221
2,3704	877	200,00	3	91,831078	116,73	53,664289	-75,3403556	2,3704
2,4188	878,5	200,00	3	92,006644	116,992	53,402447	-75,6021976	2,4188
2,4672	881,7	200,00	3	92,178732	117,248	53,145793	-75,8588517	2,4672
2,5156	901,6	200,00	3	92,347477	117,5	52,894125	-76,1105195	2,5156
2,5639	921,4	200,00	3,5	92,512666	117,746	53,147759	-75,8568859	2,5639
2,6123	941,4	200,00	3,5	92,675106	117,989	52,905495	-76,09915	2,6123
2,6607	959	200,00	3,5	92,834563	118,226	52,667678	-76,3369665	2,6607
2,7091	976,7	200,00	4	92,991146	118,46	52,934149	-76,0704957	2,7091
2,7575	990,3	200,00	4	93,144955	118,689	52,704755	-76,2998894	2,7575
2,8058	994,5	200,00	4	93,295779	118,914	52,479815	-76,5248299	2,8058
2,8542	997,8	200,00	4	93,444333	119,136	52,25826	-76,746385	2,8542
2,9026	994,2	200,00	4	93,590389	119,354	52,04043	-76,9642144	2,9026
2,951	981,9	200,00	4	93,734029	119,568	51,826203	-77,1784415	2,951
2,9993	969,4	200,00	4	93,875043	119,778	51,615893	-77,3887515	2,9993
3,0477	956,5	200,00	4	94,014089	119,986	51,408518	-77,5961267	3,0477
3,0961	943,9	200,00	4	94,150944	120,19	51,20441	-77,8002344	3,0961
3,1445	931,7	200,00	4	94,285677	120,391	51,003469	-78,001176	3,1445
3,1928	930,7	200,00	4	94,418079	120,588	50,806002	-78,1986425	3,1928
3,2412	934,4	200,00	4	94,548761	120,783	50,611101	-78,3935437	3,2412
3,2896	938,1	200,00	4	94,677507	120,975	50,419089	-78,585556	3,2896
3,338	950,2	200,00	4	94,804371	121,164	50,229881	-78,7747638	3,338
3,3863	963,8	200,00	4,5	94,929153	121,35	50,54378	-78,4608652	3,3863
3,4347	977,4	200,00	4,5	95,052421	121,534	50,359937	-78,644708	3,4347
3,4831	991,6	200,00	4,5	95,173964	121,715	50,178666	-78,8259783	3,4831

3,5315	1006,1	200,00	5	95,293829	121,894	50,499898	-78,504747	3,5315
3,5799	1017,4	200,00	5	95,412063	122,07	50,323563	-78,6810822	3,5799
3,6282	1004,4	200,00	5	95,528469	122,244	50,149952	-78,8546923	3,6282
3,6766	991,5	200,00	5	95,643572	122,416	49,978286	-79,0263588	3,6766
3,725	978	200,00	5	95,75717	122,585	49,808865	-79,1957801	3,725
3,7734	960,7	200,00	4,5	95,869302	122,752	49,141631	-79,8630143	3,7734
3,8217	943,6	200,00	4,5	95,979777	122,917	48,976867	-80,027778	3,8217
3,8701	924,8	200,00	4,5	96,089089	123,08	48,813838	-80,1908071	3,8701
3,9185	902,5	200,00	4,5	96,197042	123,241	48,652835	-80,35181	3,9185
3,9669	880,3	200,00	4,5	96,30367	123,4	48,493808	-80,5108364	3,9669
4,0152	859	200,00	4,5	96,408788	123,557	48,337033	-80,6676116	4,0152
4,0636	839	200,00	4	96,512864	123,712	47,681814	-81,322831	4,0636
4,112	818,6	200,00	4	96,615707	123,866	47,528432	-81,4762125	4,112
4,1604	802,7	200,00	4	96,717347	124,017	47,376846	-81,6277991	4,1604
4,2087	789	200,00	4	96,817604	124,167	47,22732	-81,7773246	4,2087
4,2571	774,9	200,00	4	96,916922	124,315	47,079197	-81,9254482	4,2571
4,3055	756,1	200,00	4	97,015117	124,461	46,932748	-82,0718972	4,3055
4,3539	735,7	200,00	4	97,112214	124,606	46,787936	-82,2167091	4,3539
4,4022	715,1	200,00	4	97,20804	124,749	46,645019	-82,3596258	4,4022
4,4506	692,5	200,00	4	97,303016	124,891	46,503371	-82,5012741	4,4506
4,499	669,9	200,00	4	97,396965	125,031	46,363255	-82,6413902	4,499
4,5474	647,3	200,00	4	97,489908	125,169	46,224638	-82,780007	4,5474
4,5958	626,1	200,00	4	97,581867	125,307	46,087489	-82,9171562	4,5958
4,6441	604,8	200,00	4	97,672676	125,442	45,952055	-83,0525896	4,6441
4,6925	587,1	200,00	4	97,76273	125,576	45,817747	-83,1868979	4,6925
4,7409	585,7	200,00	4	97,851861	125,709	45,684817	-83,3198279	4,7409
4,7893	585,2	200,00	4	97,940086	125,841	45,553237	-83,4514077	4,7893
4,8376	579,1	200,00	4	98,027244	125,971	45,423248	-83,5813966	4,8376
4,886	560	200,00	4	98,113714	126,1	45,294285	-83,7103593	4,886
4,9344	540,5	200,00	4	98,199332	126,227	45,166594	-83,8380508	4,9344
4,9828	513,5	200,00	4	98,284114	126,354	45,040149	-83,9644958	4,9828
5,0311	477,7	200,00	3,5	98,367904	126,479	44,415184	-84,5894611	5,0311
5,0795	442,2	200,00	3,5	98,451064	126,603	44,291157	-84,7134874	5,0795
5,1279	412,2	200,00	3,5	98,533436	126,726	44,168307	-84,8363376	5,1279
5,1763	386	200,00	3,5	98,615034	126,847	44,046611	-84,9580336	5,1763
5,2246	360,2	200,00	3,5	98,695706	126,968	43,926296	-85,078349	5,2246
5,273	335,7	200,00	3,5	98,7758	127,087	43,806842	-85,197803	5,273
5,3214	312,1	200,00	3,5	98,855163	127,206	43,688479	-85,3161655	5,3214
5,3698	288,4	200,00	3,5	98,933807	127,323	43,571188	-85,4334563	5,3698
5,4182	271,5	200,00	3,5	99,011745	127,439	43,45495	-85,5496947	5,4182
5,4665	255,8	200,00	3,5	99,088832	127,554	43,339982	-85,6646623	5,4665
5,5149	240,6	200,00	3,5	99,165398	127,668	43,225791	-85,7788535	5,5149
5,5633	225	200,00	3,5	99,241294	127,781	43,112598	-85,8920469	5,5633
5,6117	209,4	200,00	3,5	99,316534	127,894	43,000385	-86,0042598	5,6117
5,66	195,5	200,00	3,5	99,390973	128,005	42,889365	-86,1152801	5,66
5,7084	191,6	200,00	3,5	99,464933	128,115	42,779061	-86,225584	5,7084
5,7568	187,7	200,00	3,5	99,538268	128,224	42,669688	-86,3349566	5,7568
5,8052	183,9	200,00	3,5	99,610989	128,333	42,561231	-86,4434134	5,8052

5,8535	180,4	200,00	3,5	99,682957	128,44	42,453896	-86,5507485	5,8535
5,9019	176,2	200,00	3,5	99,754482	128,547	42,347224	-86,657421	5,9019
5,9503	165,5	200,00	3,5	99,825422	128,653	42,241422	-86,7632223	5,9503
5,9987	144,6	200,00	3,5	99,895788	128,758	42,136478	-86,8681665	5,9987
6,047	123,6	200,00	3,5	99,965444	128,861	42,032592	-86,9720531	6,047
6,0954	99,5	200,00	3,5	100,03469	128,965	41,929319	-87,0753257	6,0954
6,1438	72,9	200,00	3,5	100,10339	129,067	41,826863	-87,1777815	6,1438
6,1922	46,2	200,00	3,5	100,17154	129,169	41,725211	-87,2794334	6,1922
6,2406	29,7	200,00	3,5	100,23917	129,27	41,624351	-87,3802938	6,2406
6,2889	18,6	200,00	3,5	100,30614	129,37	41,524476	-87,480169	6,2889
6,3373	7,2	200,00	3,5	100,37273	129,469	41,42516	-87,5794845	6,3373
6,3857	4,6	200,00	3,5	100,43882	129,567	41,3266	-87,6780444	6,3857
6,4341	4,5	200,00	3,5	100,5044	129,665	41,228785	-87,77586	6,4341
6,4824	4,3	200,00	3,5	100,56936	129,762	41,131902	-87,8727428	6,4824
6,5308	3,9	200,00	3,5	100,63397	129,859	41,03554	-87,9691047	6,5308
6,5792	3,5	200,00	3,5	100,69811	129,954	40,93989	-88,0647551	6,5792
6,6276	3,3	200,00	3,5	100,76177	130,049	40,84494	-88,1597044	6,6276
6,6759	3,2	200,00	3,5	100,82484	130,143	40,750876	-88,2537688	6,6759
6,7243	3,1	200,00	3,5	100,88759	130,237	40,657297	-88,3473477	6,7243
6,7727	2,7	200,00	3,5	100,94988	130,33	40,564389	-88,4402555	6,7727
6,8211	1,4	200,00	3,5	101,01173	130,422	40,472143	-88,5325017	6,8211
6,8694	0	200,00	3,5	101,07302	130,513	40,380738	-88,6239071	6,8694
6,9178	-0,8	200,00	3,5	101,134	130,604	40,289786	-88,7148593	6,9178
6,9662	-0,5	200,00	3,5	101,19456	130,695	40,199467	-88,8051773	6,9662
7,0146	-0,2	200,00	3,5	101,2547	130,784	40,109775	-88,8948701	7,0146
7,0629	0	200,00	3,5	101,31431	130,873	40,020882	-88,9837626	7,0629
7,1113	0	200,00	3,5	101,37362	130,962	39,932413	-89,0722315	7,1113
7,1597	0	200,00	3,5	101,43254	131,05	39,844544	-89,1601003	7,1597
7,2081	0	200,00	3,5	101,49106	131,137	39,757268	-89,2473771	7,2081
7,2565	0	200,00	3,5	101,54919	131,223	39,670575	-89,3340699	7,2565
7,3048	0	200,00	3,5	101,60681	131,309	39,584636	-89,420009	7,3048
7,3532	0	200,00	3,5	101,66417	131,395	39,499087	-89,5055578	7,3532
7,4016	0	200,00	3,5	101,72116	131,48	39,414099	-89,5905455	7,4016
7,45	0	200,00	3,5	101,77777	131,564	39,329666	-89,6749792	7,45
7,4983	0	200,00	3,5	101,8339	131,648	39,245951	-89,7586933	7,4983
7,5467	0	200,00	4	101,88979	131,731	39,662603	-89,3420416	7,5467
7,5951	0	200,00	4	101,94531	131,814	39,579788	-89,4248571	7,5951
7,6435	0	200,00	4	102,00049	131,897	39,497498	-89,5071465	7,6435
7,6918	0	200,00	4	102,0552	131,978	39,415897	-89,5887481	7,6918
7,7402	0	200,00	4	102,10969	132,059	39,334639	-89,6700062	7,7402
7,7886	0	200,00	4	102,16383	132,14	39,253887	-89,7507577	7,7886
7,837	0	200,00	4	102,21764	132,22	39,173636	-89,8310091	7,837
7,8853	0	200,00	4	102,27101	132,3	39,094043	-89,910602	7,8853
7,9337	0	200,00	4	102,32416	132,379	39,014773	-89,9898722	7,9337
7,9821	0	200,00	4	102,37699	132,458	38,935985	-90,0686602	7,9821
8,0305	0	200,00	4	102,4295	132,536	38,857673	-90,146972	8,0305
8,0789	0	200,00	4	102,48169	132,614	38,779832	-90,2248132	8,0789
8,1272	0	200,00	4	102,53346	132,691	38,702615	-90,30203	8,1272

8,1756	0	200,00	4	102,58504	132,768	38,625697	-90,3789478	8,1756
8,224	0	200,00	4	102,63631	132,845	38,549233	-90,4554115	8,224
8,2724	0	200,00	4	102,68728	132,921	38,473218	-90,5314265	8,2724
8,3207	0	200,00	4	102,73784	132,996	38,397802	-90,6068425	8,3207
8,3691	0	200,00	4	102,78822	133,071	38,322668	-90,6819766	8,3691
8,4175	0	200,00	4	102,83831	133,146	38,247967	-90,7566776	8,4175
8,4659	0	200,00	4	102,88811	133,22	38,173695	-90,8309502	8,4659
8,5142	0	200,00	4	102,93752	133,294	38,099998	-90,9046472	8,5142
8,5626	0	200,00	4	102,98676	133,367	38,026566	-90,9780787	8,5626
8,611	0	200,00	4	103,03572	133,44	37,953549	-91,0510963	8,611
8,6594	0	200,00	4	103,0844	133,513	37,88094	-91,1237046	8,6594
8,7077	0	200,00	4	103,13271	133,585	37,808885	-91,1957594	8,7077
8,7561	0	200,00	4	103,18086	133,657	37,737081	-91,2675636	8,7561
8,8045	0	200,00	4	103,22874	133,728	37,665673	-91,338972	8,8045
8,8529	0	200,00	4	103,27636	133,799	37,594656	-91,4099889	8,8529
8,9012	0	200,00	4	103,32362	133,87	37,524172	-91,4804731	8,9012
8,9496	0	200,00	4	103,37072	133,94	37,453924	-91,5507206	8,9496
8,998	0	200,00	4	103,41756	134,01	37,384056	-91,6205892	8,998
9,0464	0	200,00	4	103,46416	134,079	37,314562	-91,690083	9,0464
9,0948	0	200,00	4	103,51051	134,149	37,245439	-91,759206	9,0948
9,1431	0	200,00	4,5	103,55651	134,217	37,676824	-91,3278204	9,1431
9,1915	0	200,00	4,5	103,60237	134,286	37,608431	-91,3962143	9,1915
9,2399	0	200,00	4,5	103,64799	134,354	37,540396	-91,4642489	9,2399
9,2883	0	200,00	4,5	103,69337	134,421	37,472717	-91,5319281	9,2883
9,3366	0	200,00	4,5	103,73842	134,489	37,405528	-91,5991168	9,3366
9,385	0	200,00	4,5	103,78333	134,555	37,338548	-91,6660969	9,385
9,4334	0	200,00	4,5	103,82801	134,622	37,271912	-91,7327324	9,4334
9,4818	0	200,00	4,5	103,87246	134,688	37,205618	-91,7990269	9,4818
9,5301	0	200,00	4,5	103,91659	134,754	37,139797	-91,8648479	9,5301
9,5785	0	200,00	4,5	103,96059	134,82	37,074173	-91,9304715	9,5785
9,6269	0	200,00	4,5	104,00437	134,885	37,008881	-91,9957642	9,6269
9,6753	0	200,00	4,5	104,04793	134,95	36,943915	-92,0607296	9,6753

Perfil Topográfico Estación Castillo Negro 10°



