

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
0,0557	1519,5	30,00	5	59,251749	72,7588	99,635215	-29,3694297	0,0557
0,1115	1527,1	30,00	5	65,280142	83,3763	89,017751	-39,9868941	0,1115
0,1672	1532,8	30,00	5	68,79937	89,5745	82,819535	-46,1851093	0,1672
0,223	1539,8	30,00	5	71,300742	93,98	78,414012	-50,5906323	0,223
0,2787	1546,7	30,00	5	73,237384	97,3909	75,003115	-54,0015293	0,2787
0,3345	1545,3	30,00	5	74,822567	100,183	72,211223	-56,7934215	0,3345
0,3902	1549,9	30,00	5	76,16039	102,539	69,854992	-59,1496524	0,3902
0,446	1563	30,00	5	77,321342	104,584	67,810274	-61,1943705	0,446
0,5017	1567,4	30,00	5	78,343527	106,384	66,009959	-62,9946862	0,5017
0,5575	1572,4	30,00	5	79,259542	107,997	64,396633	-64,6080117	0,5575
0,6132	1585,4	30,00	5	80,086688	109,454	62,939829	-66,0648158	0,6132
0,669	1587,7	30,00	5	80,843167	110,787	61,607485	-67,3971597	0,669
0,7247	1590,8	30,00	5	81,53781	112,01	60,38405	-68,6205945	0,7247
0,7805	1595,3	30,00	5	82,182103	113,145	59,249294	-69,7553507	0,7805
0,8362	1605,8	30,00	5	82,780848	114,199	58,194759	-70,8098862	0,8362
0,892	1618,3	30,00	5	83,341942	115,188	57,206536	-71,7981087	0,892
0,9477	1632,1	30,00	5	83,868062	116,114	56,27991	-72,7247347	0,9477
1,0035	1622,9	30,00	5	84,364992	116,989	55,404696	-73,5999489	1,0035
1,0592	1607,3	30,00	5	84,834204	117,816	54,5783	-74,426345	1,0592
1,115	1593,2	30,00	5	85,280142	118,601	53,792895	-75,2117499	1,115
1,1707	1574,4	30,00	5	85,703557	119,347	53,047158	-75,9574866	1,1707
1,2265	1555,7	30,00	5	86,107996	120,059	52,334843	-76,6698013	1,2265
1,2822	1537,4	30,00	5	86,49376	120,739	51,655419	-77,3492261	1,2822
1,338	1522,1	30,00	5	86,863767	121,39	51,003747	-78,0008979	1,338

1,3937	1504,2	30,00	5	87,218031	122,014	50,379802	-78,6248423	1,3937
1,4495	1484	30,00	5	87,559009	122,615	49,779257	-79,2253881	1,4495
1,5052	1463,1	30,00	5	87,886529	123,192	49,202415	-79,80223	1,5052
1,561	1441	30,00	5	88,202703	123,748	48,645556	-80,3590889	1,561
1,6167	1421,5	30,00	5	88,507234	124,285	48,109203	-80,8954414	1,6167
1,6724	1406,2	30,00	5	88,801448	124,803	47,59102	-81,4136244	1,6724
1,7282	1388	30,00	5	89,086525	125,305	47,088931	-81,915714	1,7282
1,7839	1369,5	30,00	5	89,362055	125,79	46,603655	-82,4009893	1,7839
1,8397	1359,2	30,00	5	89,629585	126,262	46,13247	-82,8721747	1,8397
1,8954	1345,8	30,00	5	89,888662	126,718	45,676172	-83,3284729	1,8954
1,9512	1332	30,00	5	90,140681	127,162	45,232307	-83,7723381	1,9512
2,0069	1324,4	30,00	5	90,385159	127,592	44,80172	-84,2029249	2,0069
2,0627	1314,4	30,00	5	90,623366	128,012	44,38218	-84,6224647	2,0627
2,1184	1301,5	32,40	5	90,854804	127,886	44,507849	-84,4967954	2,1184
2,1742	1289,5	39,00	5	91,080635	126,991	45,403253	-83,601392	2,1742
2,2299	1279,4	45,50	5	91,300353	126,291	46,102884	-82,901761	2,2299
2,2857	1272,4	54,72	5	91,515029	125,361	47,033168	-81,9714765	2,2857
2,3414	1268,3	60,89	5	91,724157	124,958	47,435772	-81,568873	2,3414
2,3972	1263,6	66,83	5	91,92873	124,639	47,75547	-81,2491748	2,3972
2,4529	1265,5	75,86	5	92,128242	124,066	48,327646	-80,6769984	2,4529
2,5087	1280,5	80,72	5	92,323619	123,941	48,452713	-80,5519315	2,5087
2,5644	1297,5	84,84	5	92,51436	123,894	48,500246	-80,5043987	2,5644
2,6202	1305,7	88,51	5	92,701334	123,89	48,503548	-80,5010963	2,6202
2,6759	1302,3	92,08	5	92,884042	123,899	48,495341	-80,5093036	2,6759
2,7317	1297	99,67	5	93,063305	123,612	48,781894	-80,2227511	2,7317
2,7874	1306,9	102,75	5	93,238631	123,67	48,723901	-80,2807436	2,7874
2,8432	1337,4	104,91	5	93,410793	123,792	48,602473	-80,4021722	2,8432
2,8989	1368,3	110,39	5	93,579309	123,685	48,708577	-80,296068	2,8989
2,9547	1401,2	110,75	5	93,744913	123,922	48,471738	-80,532907	2,9547
3,0104	1437,7	110,23	5	93,907129	124,213	48,181336	-80,8233086	3,0104
3,0662	1474,8	108,87	5	94,066654	124,556	47,838125	-81,1665196	3,0662
3,1219	1488,4	107,26	5	94,223025	124,913	47,481121	-81,5235235	3,1219
3,1777	1482,2	109,73	5	94,376903	124,987	47,407029	-81,5976157	3,1777
3,2334	1469,3	108,56	5	94,527833	125,305	47,089345	-81,9153001	3,2334
3,2891	1437,3	108,14	5	94,676186	125,568	46,826167	-82,1784778	3,2891
3,3449	1406,3	112,25	5	94,822308	125,519	46,874897	-82,1297482	3,3449
3,4006	1377,9	113,02	5	94,965756	125,693	46,700766	-82,303879	3,4006
3,4564	1353,8	114,27	5	95,107125	125,833	46,560874	-82,4437706	3,4564
3,5121	1333,8	115,87	5	95,245982	125,946	46,447807	-82,5568375	3,5121
3,5679	1321,1	117,66	5	95,382898	126,045	46,349125	-82,6555199	3,5679
3,6236	1325,5	123,26	5	95,51745	125,902	46,491702	-82,5129423	3,6236
3,6794	1330,7	124,69	5	95,650185	126,022	46,371923	-82,6327218	3,6794
3,7351	1333,7	126,00	5	95,780689	126,146	46,248253	-82,7563913	3,7351
3,7909	1320,8	131,72	5	95,909491	126,007	46,387325	-82,6173196	3,7909
3,8466	1296,3	133,58	5	96,036185	126,096	46,29824	-82,7064048	3,8466
3,9024	1271,9	135,82	5	96,16128	126,162	46,232347	-82,7722977	3,9024
3,9581	1259	138,21	5	96,28438	126,217	46,176563	-82,8280816	3,9581
4,0139	1248	140,72	5	96,405976	126,267	46,127479	-82,8771654	4,0139

4,0696	1235,5	147,80	5	96,525679	126,071	46,322828	-82,6818169	4,0696
4,1254	1221,5	150,56	5	96,643966	126,109	46,284658	-82,7199869	4,1254
4,1811	1202,7	153,54	5	96,760456	126,135	46,258848	-82,7457964	4,1811
4,2369	1178,5	161,21	5	96,875609	125,932	46,461914	-82,5427313	4,2369
4,2926	1151,2	164,83	5	96,989053	125,931	46,462913	-82,5417316	4,2926
4,3484	1118,8	168,88	5	97,101235	125,912	46,482178	-82,522467	4,3484
4,4041	1082,2	173,40	5	97,211788	125,873	46,521315	-82,4833297	4,4041
4,4599	1043,2	178,40	5	97,321147	125,815	46,579057	-82,4255879	4,4599
4,5156	1006,1	188,09	5	97,428954	125,561	46,832779	-82,1718659	4,5156
4,5714	970,4	193,93	5	97,535629	125,48	46,913736	-82,0909092	4,5714
4,6271	929,2	200,00	5	97,640822	125,394	46,999562	-82,0050829	4,6271
4,6829	887,8	200,00	5	97,744942	125,55	46,844276	-82,1603687	4,6829
4,7386	846,6	200,00	5	97,847646	125,703	46,691103	-82,3135417	4,7386
4,7944	814,1	200,00	5	97,94933	125,855	46,53945	-82,465195	4,7944
4,8501	785,9	200,00	4,5	98,049659	126,004	45,889819	-83,1148263	4,8501
4,9058	758,5	200,00	4,5	98,148842	126,152	45,741896	-83,2627489	4,9058
4,9616	728	200,00	4,5	98,24708	126,299	45,595382	-83,4092626	4,9616
5,0173	696,7	200,00	4,5	98,344046	126,443	45,450765	-83,5538796	5,0173
5,0731	665,1	200,00	4	98,440113	126,587	44,80749	-84,1971552	5,0731
5,1288	633,5	200,00	4	98,53496	126,728	44,666034	-84,338611	5,1288
5,1846	599,7	200,00	4	98,62895	126,868	44,525856	-84,4787886	5,1846
5,2403	568	200,00	4	98,721768	127,007	44,387426	-84,6172184	5,2403
5,2961	546,1	200,00	4	98,813768	127,144	44,250216	-84,7544291	5,2961
5,3518	521,9	200,00	4	98,904642	127,279	44,114685	-84,8899597	5,3518
5,4076	502,6	200,00	4	98,994736	127,414	43,980318	-85,0243266	5,4076
5,4633	496,2	200,00	4	99,083746	127,546	43,847568	-85,1570769	5,4633
5,5191	487	200,00	4	99,17201	127,678	43,715929	-85,2887154	5,5191
5,5748	470,5	200,00	4	99,259231	127,808	43,585848	-85,4187972	5,5748
5,6306	452,7	200,00	4	99,345738	127,937	43,456829	-85,5478159	5,6306
5,6863	435,6	200,00	4	99,43124	128,065	43,32931	-85,6753345	5,6863
5,7421	422,9	200,00	4	99,51606	128,191	43,202809	-85,8018356	5,7421
5,7978	423,8	200,00	4	99,599909	128,316	43,077755	-85,9268899	5,7978
5,8536	429,8	200,00	4	99,683106	128,44	42,953675	-86,0509698	5,8536
5,9093	457,7	200,00	4	99,765366	128,563	42,830991	-86,1736533	5,9093
5,9651	467,4	200,00	4	99,846999	128,685	42,709242	-86,295403	5,9651
6,0208	476,8	200,00	4	99,927729	128,805	42,588841	-86,4158039	6,0208
6,0766	490,8	200,00	4	100,00786	128,925	42,469336	-86,5353093	6,0766
6,1323	507,3	200,00	4,5	100,08711	129,043	42,851134	-86,153511	6,1323
6,1881	523,5	200,00	4,5	100,16579	129,16	42,733792	-86,2708533	6,1881
6,2438	533,2	200,00	4,5	100,24362	129,276	42,61771	-86,3869347	6,2438
6,2996	537,2	200,00	4,5	100,3209	129,392	42,502454	-86,5021908	6,2996
6,3553	537,4	200,00	4,5	100,39737	129,506	42,388418	-86,6162266	6,3553
6,4111	527,4	200,00	4,5	100,4733	129,619	42,275175	-86,7294695	6,4111
6,4668	509,7	200,00	4,5	100,54843	129,731	42,163114	-86,8415306	6,4668
6,5225	484,1	200,00	4,5	100,62293	129,842	42,052014	-86,9526306	6,5225
6,5783	452,1	200,00	4,5	100,69692	129,952	41,941662	-87,0629829	6,5783
6,634	416,3	200,00	4	100,77015	130,062	41,332437	-87,6722077	6,634
6,6898	377,5	200,00	4	100,84291	130,17	41,223932	-87,780713	6,6898

6,7455	340,5	200,00	4	100,91493	130,278	41,11652	-87,8881249	6,7455
6,8013	307,1	200,00	4	100,98648	130,384	41,009801	-87,994844	6,8013
6,857	277,7	200,00	4	101,05733	130,49	40,904143	-88,1005021	6,857
6,9128	257	200,00	4	101,12772	130,595	40,799152	-88,2054929	6,9128
6,9685	237,2	200,00	4	101,19743	130,699	40,695191	-88,3094537	6,9685
7,0243	217,5	200,00	4	101,26671	130,802	40,591874	-88,4127712	7,0243
7,08	205,9	200,00	4	101,33531	130,904	40,489557	-88,5150883	7,08
7,1358	209,8	200,00	4	101,4035	131,006	40,38786	-88,6167851	7,1358
7,1915	216	200,00	4	101,47103	131,107	40,287135	-88,7175096	7,1915
7,2473	211,3	200,00	4	101,53817	131,207	40,187009	-88,8176357	7,2473
7,303	200,8	200,00	4	101,60467	131,306	40,087828	-88,9168165	7,303
7,3588	186,2	200,00	4	101,67078	131,405	39,989225	-89,0154197	7,3588
7,4145	167,2	200,00	4	101,73628	131,503	39,891541	-89,1131033	7,4145
7,4703	148,9	200,00	4	101,80141	131,6	39,794415	-89,2102293	7,4703
7,526	131,9	200,00	4	101,86593	131,696	39,698184	-89,3064604	7,526
7,5818	122	200,00	4	101,93009	131,792	39,602492	-89,4021527	7,5818
7,6375	111,3	200,00	4	101,99367	131,886	39,507671	-89,4969737	7,6375
7,6933	104	200,00	4	102,0569	131,981	39,413371	-89,5912741	7,6933
7,749	104,5	200,00	4	102,11956	132,074	39,319919	-89,6847258	7,749
7,8048	106,5	200,00	4	102,18188	132,167	39,226971	-89,7776741	7,8048
7,8605	108,8	200,00	4	102,24365	132,259	39,134849	-89,8697955	7,8605
7,9163	94,3	200,00	4	102,30509	132,351	39,043215	-89,96143	7,9163
7,972	79,9	200,00	4	102,36599	132,442	38,952386	-90,0522584	7,972
8,0278	65,7	200,00	4	102,42658	132,532	38,862029	-90,1426158	8,0278
8,0835	50,6	200,00	4	102,48663	132,622	38,772458	-90,232187	8,0835
8,1392	34,3	200,00	4	102,54628	132,711	38,683502	-90,3211432	8,1392
8,195	21,7	200,00	4	102,60562	132,799	38,594994	-90,4096507	8,195
8,2507	19,8	200,00	4	102,66446	132,887	38,507244	-90,4974006	8,2507
8,3065	17,4	200,00	4	102,72301	132,974	38,419929	-90,584716	8,3065
8,3622	14,6	200,00	4	102,78106	133,061	38,333353	-90,671292	8,3622
8,418	12,1	200,00	4	102,83882	133,147	38,247198	-90,757447	8,418
8,4737	9,8	200,00	4	102,89611	133,232	38,161765	-90,84288	8,4737
8,5295	7,6	200,00	4	102,95312	133,317	38,07674	-90,9279051	8,5295
8,5852	5,9	200,00	4	103,00965	133,402	37,99242	-91,0122249	8,5852
8,641	4,2	200,00	4	103,06592	133,486	37,908495	-91,0961493	8,641
8,6967	2,4	200,00	4	103,12173	133,569	37,82526	-91,1793846	8,6967
8,7525	1,4	200,00	4	103,17729	133,652	37,742408	-91,2622365	8,7525
8,8082	0,5	200,00	4	103,23239	133,734	37,66023	-91,3444147	8,8082
8,864	0	200,00	4	103,28724	133,816	37,578424	-91,4262211	8,864
8,9197	0	200,00	4	103,34165	133,897	37,497276	-91,5073689	8,9197
8,9755	0	200,00	4	103,39582	133,978	37,416489	-91,5881558	8,9755
9,0312	0	200,00	4	103,44955	134,058	37,336346	-91,6682986	9,0312
9,087	0	200,00	4	103,50306	134,137	37,256554	-91,7480912	9,087
9,1427	0	200,00	4,5	103,55613	134,217	37,677391	-91,3272537	9,1427
9,1985	0	200,00	4,5	103,60899	134,295	37,598569	-91,4060761	9,1985
9,2542	0	200,00	4,5	103,66142	134,374	37,520363	-91,4842819	9,2542
9,31	0	200,00	4,5	103,71364	134,452	37,442487	-91,5621575	9,31
9,3657	0	200,00	4,5	103,76545	134,529	37,365215	-91,6394294	9,3657

9,4215	0	200,00	4,5	103,81705	134,606	37,288264	-91,7163806	9,4215
9,4772	0	200,00	4,5	103,86825	134,682	37,211904	-91,7927408	9,4772
9,533	0	200,00	4,5	103,91924	134,758	37,135855	-91,8687893	9,533
9,5887	0	200,00	4,5	103,96984	134,834	37,060386	-91,9442589	9,5887
9,6445	0	200,00	4,5	104,02024	134,909	36,985219	-92,0194257	9,6445
9,7002	0	200,00	4,5	104,07026	134,983	36,910619	-92,0940253	9,7002
9,7559	0	200,00	4,5	104,11999	135,058	36,836447	-92,1681978	9,7559
9,8117	0	200,00	4,5	104,16953	135,131	36,762565	-92,24208	9,8117
9,8674	0	200,00	4,5	104,2187	135,205	36,689233	-92,3154119	9,8674
9,9232	0	200,00	4,5	104,26768	135,278	36,616183	-92,3884617	9,9232
9,9789	0	200,00	4,5	104,3163	135,35	36,543673	-92,4609719	9,9789
10,0347	0	200,00	4,5	104,36473	135,423	36,471437	-92,5332077	10,0347
10,0904	0	200,00	4,5	104,41281	135,494	36,39973	-92,6049145	10,0904
10,1462	0	200,00	4,5	104,46071	135,566	36,328291	-92,6763542	10,1462
10,2019	0	200,00	4,5	104,50827	135,637	36,25737	-92,7472752	10,2019
10,2577	0	200,00	5	104,55564	135,707	36,686709	-92,3179363	10,2577
10,3134	0	200,00	5	104,60268	135,777	36,616556	-92,3880884	10,3134
10,3692	0	200,00	5	104,64955	135,847	36,546657	-92,4579876	10,3692
10,4249	0	200,00	5	104,69608	135,917	36,477257	-92,5273874	10,4249
10,4807	0	200,00	5	104,74245	135,986	36,408104	-92,596541	10,4807
10,5364	0	200,00	5	104,78849	136,055	36,33944	-92,6652044	10,5364
10,5922	0	200,00	5	104,83437	136,123	36,271017	-92,7336282	10,5922
10,6479	0	200,00	5	104,87992	136,191	36,203074	-92,8015707	10,6479
10,7037	0	200,00	5	104,92532	136,259	36,135365	-92,8692798	10,7037
10,7594	0	200,00	5	104,97041	136,326	36,068128	-92,9365164	10,7594
10,8152	0	200,00	5	105,01534	136,393	36,001119	-93,0035256	10,8152
10,8709	0	200,00	5	105,05995	136,459	35,934574	-93,0700708	10,8709
10,9267	0	200,00	5	105,10443	136,526	35,86825	-93,1363945	10,9267
10,9824	0	200,00	5	105,14859	136,592	35,802382	-93,2022624	10,9824
11,0382	0	200,00	5	105,19261	136,657	35,73673	-93,2679144	11,0382
11,0939	0	200,00	5	105,23633	136,723	35,671526	-93,3331186	11,0939
11,1497	0	200,00	5	105,27991	136,788	35,606532	-93,3981125	11,1497

### Perfil Topográfico Estación Castillo Negro 40°









