

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
0,0733	1515,3	30,00	4,5	61,636724	76,9594	94,934694	-34,0699507	0,0733
0,1466	1521,2	30,00	5	67,657324	87,5631	84,830956	-44,1736889	0,1466
0,2199	1524	30,00	5	71,179149	93,7659	78,628167	-50,3764781	0,2199
0,2932	1523	30,00	5	73,677924	98,1668	74,227218	-54,7774271	0,2932
0,3665	1521,5	30,00	5	75,616124	101,58	70,813576	-58,1910683	0,3665
0,4398	1536,9	30,00	5	77,199749	104,37	68,024428	-60,9802163	0,4398
0,513	1558,9	30,00	5	78,536992	106,725	65,669219	-63,3354255	0,513
0,5863	1576,1	30,00	5	79,697043	108,768	63,626089	-65,3785563	0,5863
0,6596	1597,2	30,00	5	80,720258	110,57	61,823958	-67,1806864	0,6596
0,7329	1612,4	30,00	5	81,635539	112,182	60,211925	-68,7927193	0,7329
0,8062	1620,9	30,00	5	82,463501	113,64	58,753684	-70,2509604	0,8062
0,8795	1614,5	30,00	5	83,219362	114,972	57,42243	-71,5822152	0,8795
0,9528	1618,9	30,00	5	83,91468	116,196	56,197806	-72,8068392	0,9528
1,0261	1640	30,00	5	84,558439	117,33	55,06399	-73,9406547	1,0261
1,0994	1665,9	30,00	5	85,157759	118,386	54,00844	-74,9962043	1,0994
1,1727	1660,2	30,00	5	85,718383	119,373	53,021046	-75,983599	1,1727
1,246	1661,2	30,00	5	86,245006	120,301	52,093536	-76,9111088	1,246
1,3193	1646,6	30,00	5	86,741516	121,175	51,219061	-77,7855842	1,3193
1,3925	1613,9	30,00	5	87,210549	122,001	50,39298	-78,6116649	1,3925
1,4658	1576,3	30,00	5	87,656139	122,786	49,608187	-79,3964575	1,4658
1,5391	1554,3	30,00	5	88,079982	123,532	48,861698	-80,1429469	1,5391
1,6124	1537,6	30,00	5	88,484101	124,244	48,149946	-80,8546986	1,6124
1,6857	1529,7	30,00	5	88,870251	124,924	47,469842	-81,5348024	1,6857
1,759	1527,7	30,00	5	89,239962	125,575	46,818691	-82,1859534	1,759
1,8323	1526,9	30,00	5	89,594576	126,2	46,194129	-82,8105162	1,8323
1,9056	1510,6	30,00	5	89,93528	126,8	45,594067	-83,4105773	1,9056
1,9789	1487,8	30,00	5	90,263122	127,377	45,016658	-83,9879869	1,9789

2,0522	1462,2	30,00	5	90,579038	127,934	44,460252	-84,5443929	2,0522
2,1255	1439,9	30,00	5	90,883867	128,471	43,923375	-85,0812699	2,1255
2,1988	1421,6	30,00	5	91,178359	128,989	43,404702	-85,5999425	2,1988
2,272	1413,5	30,00	5	91,462811	129,49	42,903713	-86,1009315	2,272
2,3453	1405,5	30,00	5	91,738613	129,976	42,41796	-86,5866849	2,3453
2,4186	1394,1	30,00	5	92,005926	130,447	41,947157	-87,0574878	2,4186
2,4919	1385,9	30,00	5	92,265257	130,904	41,490412	-87,5142331	2,4919
2,5652	1386,6	30,00	5	92,517069	131,347	41,046909	-87,9577359	2,5652
2,6385	1398,6	30,00	5	92,761787	131,778	40,615902	-88,3887426	2,6385
2,7118	1409,7	30,00	5	92,999798	132,197	40,196707	-88,807938	2,7118
2,7851	1415,7	30,00	5	93,231461	132,605	39,788692	-89,2159523	2,7851
2,8584	1425	30,00	5	93,457105	133,003	39,391278	-89,6133666	2,8584
2,9317	1438,3	30,00	5	93,677035	133,39	39,003927	-90,0007175	2,9317
3,005	1460,5	30,00	5	93,891534	133,768	38,626142	-90,3785023	3,005
3,0783	1495,6	30,00	5	94,100864	134,137	38,257463	-90,7471821	3,0783
3,1516	1533,7	30,00	5	94,305267	134,497	37,897459	-91,1071854	3,1516
3,2248	1573,9	30,00	5	94,5047	134,848	37,546208	-91,4584368	3,2248
3,2981	1610,5	30,00	5	94,699921	135,192	37,202377	-91,8022678	3,2981
3,3714	1643	30,00	5	94,89085	135,528	36,866104	-92,1385406	3,3714
3,4447	1669	30,00	5	95,077673	135,857	36,537064	-92,4675803	3,4447
3,518	1689,3	30,00	5	95,260561	136,179	36,214953	-92,7896916	3,518
3,5913	1683,6	30,00	5	95,439678	136,495	35,899485	-93,1051601	3,5913
3,6646	1663,1	30,00	5	95,615176	136,804	35,59039	-93,4142544	3,6646
3,7379	1641,7	30,00	5	95,787198	137,107	35,287418	-93,7172269	3,7379
3,8112	1624,9	30,00	5	95,95588	137,404	34,990329	-94,0143155	3,8112
3,8845	1603,8	30,00	5	96,121347	137,695	34,6989	-94,3057444	3,8845
3,9578	1576,6	30,00	5	96,283722	137,981	34,41292	-94,591725	3,9578
4,0311	1544,7	30,00	5	96,443116	138,262	34,132187	-94,8724576	4,0311
4,1043	1500,4	30,00	5	96,599427	138,537	33,856886	-95,1477583	4,1043
4,1776	1447,6	30,00	5	96,753182	138,808	33,586086	-95,4185584	4,1776
4,2509	1396	30,00	5	96,904263	139,074	33,319997	-95,6846482	4,2509
4,3242	1352,3	30,00	5	97,05276	139,336	33,058456	-95,9461887	4,3242
4,3975	1310,5	30,00	5	97,198762	139,593	32,801312	-96,2033328	4,3975
4,4708	1273	30,00	5	97,34235	139,846	32,548419	-96,4562259	4,4708
4,5441	1239,5	30,00	5	97,483602	140,094	32,299638	-96,7050063	4,5441
4,6174	1208,3	30,00	5	97,622595	140,339	32,054839	-96,9498056	4,6174
4,6907	1179,4	30,18	5	97,759398	140,534	31,860173	-97,1444715	4,6907
4,764	1142,9	40,64	5	97,89408	138,411	33,983262	-95,0213827	4,764
4,8373	1102,3	48,16	5	98,026705	137,289	35,105281	-93,8993635	4,8373
4,9106	1064,8	56,11	5	98,157336	136,292	36,101855	-92,9027899	4,9106
4,9838	1030,9	64,40	5	98,285857	135,406	36,987734	-92,0169106	4,9838
5,0571	1004	76,78	5	98,412676	134,208	38,185634	-90,8190107	5,0571
5,1304	978,9	85,50	5	98,537669	133,549	38,845007	-90,1596378	5,1304
5,2037	950	94,43	5	98,66089	132,949	39,444762	-89,5598823	5,2037
5,277	930,5	103,39	5	98,782387	132,413	39,980686	-89,0239583	5,277
5,3503	922,1	116,58	5	98,902207	131,633	40,760776	-88,2438684	5,3503
5,4236	919,6	125,19	5	99,020398	131,243	41,151403	-87,8532416	5,4236
5,4969	901,8	133,80	5	99,137002	130,885	41,509132	-87,4955131	5,4969

5,5702	884	146,95	5	99,252061	130,302	42,092431	-86,912214	5,5702
5,6435	863,1	155,70	5	99,365615	130,005	42,389083	-86,6155617	5,6435
5,7168	830,6	164,70	5	99,477705	129,718	42,676395	-86,3282502	5,7168
5,7901	797,7	173,95	5	99,588366	129,439	42,95468	-86,0499652	5,7901
5,8634	766,8	187,84	5	99,697635	128,976	43,418358	-85,5862872	5,8634
5,9366	737	197,54	5	99,805401	128,724	43,669848	-85,3347965	5,9366
6,0099	712,6	200,00	5	99,91199	128,782	43,612314	-85,3923304	6,0099
6,0832	714,9	200,00	5	100,01729	128,939	43,455273	-85,5493717	6,0832
6,1565	724,9	200,00	5	100,12132	129,094	43,300113	-85,7045319	6,1565
6,2298	733,7	200,00	5	100,22413	129,247	43,146789	-85,8578558	6,2298
6,3031	721,4	200,00	5	100,32573	129,399	42,995259	-86,0093861	6,3031
6,3764	713,9	200,00	5	100,42616	129,549	42,84548	-86,1591643	6,3764
6,4497	710,4	200,00	5	100,52544	129,697	42,697414	-86,3072306	6,4497
6,523	701,2	200,00	5	100,62359	129,843	42,551021	-86,4536236	6,523
6,5963	680,1	200,00	5	100,72065	129,988	42,406264	-86,5983808	6,5963
6,6696	626,3	200,00	5	100,81664	130,131	42,263107	-86,7415382	6,6696
6,7429	559,6	200,00	5	100,91158	130,273	42,121514	-86,8831308	6,7429
6,8161	492,4	200,00	4,5	101,00536	130,412	41,481642	-87,5230025	6,8161
6,8894	424,1	200,00	4,5	101,09827	130,551	41,343077	-87,6615681	6,8894
6,9627	401,1	200,00	4,5	101,1902	130,688	41,205978	-87,7986671	6,9627
7,036	396,6	200,00	4,5	101,28116	130,824	41,070314	-87,9343304	7,036
7,1093	375,4	200,00	4,5	101,37118	130,958	40,936057	-88,0685877	7,1093
7,1826	361,1	200,00	4,5	101,46028	131,091	40,803177	-88,2014678	7,1826
7,2559	354,5	200,00	4,5	101,54847	131,222	40,671646	-88,3329987	7,2559
7,3292	324,2	200,00	4,5	101,63578	131,353	40,541437	-88,4632075	7,3292
7,4025	304,5	200,00	4,5	101,72221	131,482	40,412524	-88,5921206	7,4025
7,4758	300,9	200,00	4,5	101,8078	131,609	40,284881	-88,7197633	7,4758
7,5491	326,2	200,00	4,5	101,89255	131,736	40,158484	-88,8461607	7,5491
7,6224	360,4	200,00	4,5	101,97648	131,861	40,033308	-88,9713367	7,6224
7,6957	388,4	200,00	5	102,05961	131,985	40,40933	-88,5953146	7,6957
7,7689	392,1	200,00	5	102,14184	132,107	40,286694	-88,7179506	7,7689
7,8422	398	200,00	5	102,2234	132,229	40,165043	-88,8396016	7,8422
7,9155	416,2	200,00	5	102,30421	132,35	40,044524	-88,9601209	7,9155
7,9888	446,1	200,00	5	102,38428	132,469	39,925116	-89,0795292	7,9888
8,0621	476,4	200,00	5	102,46361	132,587	39,806798	-89,1978469	8,0621
8,1354	485,9	200,00	5	102,54222	132,704	39,689551	-89,3150937	8,1354
8,2087	490,3	200,00	5	102,62013	132,821	39,573356	-89,4312889	8,2087
8,282	484,2	200,00	5	102,69735	132,936	39,458194	-89,546451	8,282
8,3553	467,5	200,00	5	102,77389	133,05	39,344046	-89,6605985	8,3553
8,4286	443,9	200,00	5	102,84975	133,163	39,230896	-89,7737488	8,4286
8,5019	419	200,00	5	102,92496	133,275	39,118725	-89,8859194	8,5019
8,5752	393,6	200,00	5	102,99953	133,387	39,007518	-89,9971271	8,5752
8,6484	366,3	200,00	5	103,07336	133,497	38,897406	-90,1072384	8,6484
8,7217	336,5	200,00	5	103,14667	133,606	38,788075	-90,2165701	8,7217
8,795	308,4	200,00	5	103,21936	133,714	38,679658	-90,3249869	8,795
8,8683	271,3	200,00	5	103,29145	133,822	38,572141	-90,4325038	8,8683
8,9416	229,6	200,00	5	103,36295	133,929	38,465509	-90,5391357	8,9416
9,0149	199,3	200,00	5	103,43386	134,034	38,359748	-90,644897	9,0149

9,0882	171,9	200,00	5	103,5042	134,139	38,254843	-90,7498018	9,0882
9,1615	151,3	200,00	4,5	103,57398	134,243	37,650781	-91,353864	9,1615
9,2348	136,4	200,00	4,5	103,64319	134,346	37,547548	-91,4570968	9,2348
9,3081	154,6	200,00	5	103,71187	134,449	37,945131	-91,0595135	9,3081
9,3814	169	200,00	5	103,78	134,551	37,843518	-91,1611268	9,3814
9,4547	177,5	200,00	5	103,8476	134,651	37,742696	-91,2619493	9,4547
9,5279	173,4	200,00	5	103,91459	134,751	37,642788	-91,3618571	9,5279
9,6012	161,5	200,00	5	103,98116	134,851	37,543509	-91,4611353	9,6012
9,6745	141	200,00	5	104,04722	134,949	37,444986	-91,5596584	9,6745
9,7478	116,4	200,00	5	104,11278	135,047	37,347207	-91,6574378	9,7478
9,8211	96,2	200,00	5	104,17785	135,144	37,25016	-91,7544847	9,8211
9,8944	77,6	200,00	5	104,24243	135,24	37,153835	-91,85081	9,8944
9,9677	60,3	200,00	5	104,30654	135,336	37,05822	-91,9464243	9,9677
10,041	45	200,00	5	104,37018	135,431	36,963307	-92,0413381	10,041
10,1143	29,4	200,00	5	104,43336	135,525	36,869083	-92,1355615	10,1143
10,1876	17,6	200,00	5	104,49608	135,619	36,77554	-92,2291045	10,1876
10,2609	9,1	200,00	5	104,55835	135,711	36,682668	-92,3219769	10,2609
10,3342	1,5	200,00	5	104,62018	135,804	36,590457	-92,4141881	10,3342
10,4075	0,3	200,00	5	104,68157	135,895	36,498897	-92,5057477	10,4075
10,4807	0,2	200,00	5	104,74245	135,986	36,408104	-92,596541	10,4807
10,554	0	200,00	5	104,80299	136,076	36,31782	-92,6868252	10,554
10,6273	0	200,00	5	104,8631	136,166	36,22816	-92,7764844	10,6273
10,7006	0	200,00	5	104,92281	136,255	36,139117	-92,8655274	10,7006
10,7739	0	200,00	5	104,9821	136,343	36,050682	-92,9539625	10,7739
10,8472	0	200,00	5	105,041	136,431	35,962847	-93,041798	10,8472
10,9205	0	200,00	5	105,0995	136,518	35,875603	-93,1290419	10,9205
10,9938	0	200,00	5	105,1576	136,605	35,788943	-93,2157022	10,9938
11,0671	0	200,00	5	105,21532	136,691	35,702858	-93,3017866	11,0671
11,1404	0	200,00	5	105,27266	136,777	35,617342	-93,3873028	11,1404
11,2137	0	200,00	5	105,32962	136,862	35,532387	-93,4722581	11,2137
11,287	0	200,00	5	105,38622	136,946	35,447985	-93,5566598	11,287
11,3602	0	200,00	5	105,44236	137,03	35,364244	-93,6404012	11,3602
11,4335	0	200,00	5	105,49823	137,113	35,280927	-93,7237181	11,4335
11,5068	0	200,00	5	105,55374	137,196	35,198142	-93,8065025	11,5068
11,5801	0	200,00	5	105,60889	137,278	35,115884	-93,8887612	11,5801
11,6534	0	200,00	5	105,6637	137,36	35,034144	-93,9705009	11,6534
11,7267	0	200,00	5	105,71816	137,441	34,952917	-94,051728	11,7267
11,8	0	200,00	5	105,77228	137,522	34,872196	-94,132449	11,8
11,8733	0	200,00	5	105,82607	137,602	34,791975	-94,2126701	11,8733
11,9466	0	200,00	5	105,87953	137,682	34,712247	-94,2923975	11,9466
12,0199	0	200,00	5	105,93266	137,761	34,633008	-94,3716372	12,0199
12,0932	0	200,00	5	105,98547	137,84	34,55425	-94,4503952	12,0932
12,1665	0	200,00	5	106,03796	137,918	34,475968	-94,5286772	12,1665
12,2397	0	200,00	5	106,09006	137,996	34,398262	-94,6063831	12,2397
12,313	0	200,00	5	106,14192	138,073	34,320914	-94,683731	12,313
12,3863	0	200,00	5	106,19348	138,15	34,244025	-94,7606197	12,3863
12,4596	0	200,00	5	106,24473	138,226	34,16759	-94,8370548	12,4596
12,5329	0	200,00	5	106,29568	138,302	34,091603	-94,9130415	12,5329

12,6062	0	200,00	5	106,34633	138,378	34,01606	-94,9885851	12,6062
12,6795	0	200,00	5	106,39669	138,453	33,940954	-95,0636907	12,6795
12,7528	0	200,00	5	106,44676	138,528	33,866281	-95,1383634	12,7528
12,8261	0	200,00	5	106,49654	138,602	33,792037	-95,2126081	12,8261
12,8994	0	200,00	5	106,54603	138,676	33,718215	-95,2864297	12,8994
12,9727	0	200,00	5	106,59525	138,749	33,644812	-95,359833	12,9727
13,046	0	200,00	5	106,64419	138,822	33,571822	-95,4328227	13,046
13,1193	0	200,00	5	106,69286	138,895	33,499241	-95,5054034	13,1193
13,1925	0	200,00	5	106,74119	138,967	33,427163	-95,5774816	13,1925
13,2658	0	200,00	5	106,78931	139,039	33,355386	-95,6492586	13,2658
13,3391	0	200,00	5	106,83718	139,11	33,284005	-95,7206401	13,3391
13,4124	0	200,00	5	106,88477	139,181	33,213014	-95,7916304	13,4124
13,4857	0	200,00	5	106,93211	139,252	33,142411	-95,8622338	13,4857
13,559	0	200,00	5	106,9792	139,322	33,07219	-95,9324545	13,559
13,6323	0	200,00	5	107,02603	139,392	33,002348	-96,0022965	13,6323
13,7056	0	200,00	5	107,07261	139,461	32,932881	-96,0717641	13,7056
13,7789	0	200,00	5	107,11894	139,53	32,863784	-96,1408611	13,7789
13,8522	0	200,00	5	107,16502	139,599	32,795053	-96,2095915	13,8522
13,9255	0	200,00	5	107,21086	139,667	32,726686	-96,2779592	13,9255
13,9988	0	200,00	5	107,25646	139,735	32,658677	-96,345968	13,9988
14,072	0	200,00	5	107,30176	139,803	32,591115	-96,4135295	14,072
14,1453	0	200,00	5	107,34689	139,87	32,523813	-96,480832	14,1453
14,2186	0	200,00	5	107,39178	139,937	32,456858	-96,5477868	14,2186
14,2919	0	200,00	5	107,43644	140,004	32,390248	-96,6143972	14,2919
14,3652	0	200,00	5	107,48088	140,07	32,323978	-96,6806669	14,3652
14,4385	0	200,00	5	107,52509	140,136	32,258046	-96,7465992	14,4385
14,5118	0	200,00	5	107,56907	140,202	32,192447	-96,8121977	14,5118
14,5851	0	200,00	5	107,61283	140,267	32,127179	-96,8774657	14,5851
14,6584	0	200,00	5	107,65638	140,332	32,062238	-96,9424065	14,6584

### Perfil Topográfico Estación Castillo Negro 50°









