

LNBF Testing ComparisonLocation: Sacramento, CA
Dish: GEOSATpro 90cmConditions: Clear / 65° F / 10am PDT
Satellite: Galaxy 19 @ 97w

Satellite AV., LLC

April 5/6, 2012

Peaked on 12177

INVACOM SNH031: Universal LO 9750/10600 - 1 Output - DRO

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift mhz	LNB vdc	LNB mA
11706	V	7161	68.1	53	6.7	8.5	8	1.256	13.4	100
11789	V	28125	74.9	81	10.4	11	11.7	0.877	13.4	100
11836	V	20765	74.6	80	10.3	10.4	11.6	0.881	13.4	100
11842	H	22000	76.5	73	9.1	9.2	10.4	0.387	18.4	100
11874	H	22000	76	77	9.8	10.4	11.1	0.387	18.4	100
11898	V	22000	76.8	95	12.8	12.9	14.1	0.889	13.4	100
11929	V	22000	76.7	76	9.5	9.6	10.8	0.886	13.4	100
11936	H	20000	77.8	79	10	10.1	11.3	0.385	18.4	100
11967	H	22000	77	98	14.5	14.6	15.8	0.391	18.4	100
11991	V	22000	77	93	12.4	12.5	13.7	0.89	13.4	95
12022	V	22000	76.1	86	11.3	11.4	12.6	0.889	13.4	100
12028	H	21991	77	84	10.9	11	12.2	0.391	18.4	100
12053	V	22000	77	74	9.3	9.4	10.6	0.889	13.4	100
12060	H	22000	77.5	83	10.7	10.8	12	0.391	18.4	100
12084	V	22000	77.8	86	11.3	11.4	12.6	0.889	13.4	100
12091	H	20000	77.9	89	11.8	11.9	13.1	0.396	18.4	100
12146	V	22000	77.2	89	11.7	11.8	13	0.897	13.4	100
12115	V	22425	76.6	76	9.5	9.6	10.8	0.888	13.4	100
12122	H	20000	77.2	85	11.1	11.2	12.4	0.394	18.4	100
12153	H	20000	77.7	85	11.1	11.2	12.4	0.423	18.4	100
12177	V	23000	76.9	88	11.6	11.7	12.9	0.936	13.4	100

Average 76.40 82.38 10.75 10.98 12.05 0.70

Dish Peaked on 11842

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift	LNB vdc	LNB mA
11706	V	7161	67.8	55	6.9	8.7	8.2	1.438	13.4	100
11789	V	28125	73.8	81	10.4	11	11.7	1.057	13.4	100
11836	V	20765	73.9	79	10.1	10.2	11.4	1.058	13.4	95
11842	H	22000	75.2	90	11.9	12	13.2	1.563	18.4	100
11874	H	22000	75	92	12.2	12.8	13.5	0.562	18.4	100
11898	V	22000	75.9	92	12.2	12.3	13.5	1.061	13.4	100
11929	V	22000	76	83	10.8	10.9	12.1	1.054	13.4	95
11936	H	20000	76.9	96	13.5	13.6	14.8	0.554	18.4	95
11967	H	22000	76.7	94	12.6	12.7	13.9	0.558	18.4	100
11991	V	22000	77	76	9.6	9.7	10.9	1.051	13.4	95
12022	V	22000	76.4	74	9.2	9.3	10.5	1.048	13.4	100
12028	H	21991	77.4	79	10	10.1	11.3	1.55	18.4	100
12053	V	22000	76.8	86	11.3	11.4	12.6	1.044	13.4	100
12060	H	22000	77.3	96	13.3	13.4	14.6	0.544	18.4	100
12084	V	22000	77.4	91	12	12.1	13.3	1.035	13.4	95
12091	H	20000	77.8	96	13.6	13.7	14.9	0.539	18.4	100
12146	V	22000	77.2	88	11.6	11.7	12.9	1.024	13.4	95
12115	V	22425	76.4	76	9.5	9.6	10.8	1.027	13.4	95
12122	H	20000	77.3	80	10.3	10.4	11.6	0.532	18.4	95
12153	H	20000	77.7	80	10.3	10.4	11.6	0.529	18.4	100
12177	V	23000	76.9	82	10.6	10.7	11.9	1.019	13.4	95

76.04 84.10 11.04 11.27 12.34 0.95

GEOSATpro SL1B: Standard LO 10750 / 1 Output - DRO

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift mhz	LNB vdc	LNB mA
11706	V	7161	76.9	46	5.9	7.7	7.2	1.278	13.4	85
11789	V	28125	84.8	82	10.6	11.2	11.9	0.893	13.4	85
11836	V	20765	83	79	10	10.1	11.3	0.893	13.4	85
11842	H	22000	85.1	73	9	9.1	10.3	0.401	18.4	85
11874	H	22000	82.1	76	9.6	10.2	10.9	0.4	18.4	85
11898	V	22000	82.9	91	12	12.1	13.3	0.896	13.4	85
11929	V	22000	79.7	81	10.4	10.5	11.7	0.892	13.4	85
11936	H	20000	84.1	80	10.3	10.4	11.6	0.397	18.4	85
11967	H	22000	81.7	96	13.4	13.5	14.7	0.4	18.4	85
11991	V	22000	82.8	89	11.7	11.8	13	0.892	13.4	85
12022	V	22000	80	85	11	11.1	12.3	0.892	13.4	85
12028	H	21991	82.7	78	9.9	10	11.2	0.401	18.4	85
12053	V	22000	82	78	9.9	10	11.2	0.894	13.4	85
12060	H	22000	83	82	10.5	10.6	11.8	0.402	18.4	85
12084	V	22000	81.7	84	10.9	11	12.2	0.894	13.4	85
12091	H	20000	83.9	86	11.2	11.3	12.5	0.407	18.4	85
12146	V	22000	81.9	83	10.8	10.9	12.1	0.9	13.4	85
12115	V	22425	80.3	74	9.2	9.3	10.5	0.896	13.4	85
12122	H	20000	82.4	77	9.8	9.9	11.1	0.408	18.4	85
12153	H	20000	84	79	10	10.1	11.3	0.412	18.4	85
12177	V	23000	78.7	80	10.3	10.4	11.6	0.9	13.4	80

Average 82.08 79.95 10.30 10.53 11.60 0.70

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift	LNB vdc	LNB mA
11706	V	7161	78.3	55	6.8	8.6	8.1	0.707	13.4	80
11789	V	28125	85.2	80	10.2	10.8	11.5	0.323	13.4	80
11836	V	20765	83.8	75	9.4	9.5	10.7	0.322	13.4	80
11842	H	22000	85.3	87	11.4	11.5	12.7	0.829	18.4	85
11874	H	22000	82.8	88	11.6	12.2	12.9	-0.173	18.4	85
11898	V	22000	83.3	87	11.4	11.5	12.7	0.324	13.4	80
11929	V	22000	80.7	81	10.4	10.5	11.7	0.319	13.4	80
11936	H	20000	84.2	96	12.9	13	14.2	-0.177	18.4	85
11967	H	22000	82.2	85	11.1	11.2	12.4	-0.172	18.4	80
11991	V	22000	83.3	73	9	9.1	10.3	0.32	13.4	80
12022	V	22000	80.3	70	8.6	8.7	9.9	0.321	13.4	80
12028	H	21991	83.6	70	8.6	8.7	9.9	0.828	18.4	80
12053	V	22000	82.3	83	10.7	10.8	12	0.323	13.4	80
12060	H	22000	83.3	93	12.4	12.5	13.7	-0.17	18.4	80
12084	V	22000	82.3	86	11.2	11.3	12.5	0.323	13.4	80
12091	H	20000	84.2	93	12.4	12.5	13.7	-0.166	18.4	80
12146	V	22000	82.5	83	10.7	10.8	12	0.325	13.4	80
12115	V	22425	80.6	72	8.8	8.9	10.1	0.322	13.4	80
12122	H	20000	82.8	72	8.8	8.9	10.1	-0.168	18.4	85
12153	H	20000	84.7	71	8.7	8.8	10	-0.164	18.4	80
12177	V	23000	80	75	9.4	9.5	10.7	0.325	13.4	80

82.65 79.76 10.21 10.44 11.51 0.22

GEOSATpro SL2B: Standard LO 10750 / 2 Output - DRO

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift mhz	LNB vdc	LNB mA
11706	V	7161	69.2	54	6.8	8.6	8.1	-0.373	13.4	115
11789	V	28125	77.1	84	10.9	11.5	12.2	-0.757	13.4	115
11836	V	20765	76.3	81	10.4	10.5	11.7	-0.758	13.4	115
11842	H	22000	78.7	64	7.9	8	9.2	-1.26	18.4	115
11874	H	22000	77	73	8.9	9.5	10.2	-1.264	18.4	115
11898	V	22000	75.7	94	12.6	12.7	13.9	-0.76	13.4	115
11929	V	22000	75.1	81	10.4	10.5	11.7	-0.766	13.4	115
11936	H	20000	76.6	74	9.3	9.4	10.6	-1.272	18.4	115
11967	H	22000	75.1	96	13.3	13.4	14.6	-1.269	18.4	115
11991	V	22000	75.3	93	12.4	12.5	13.7	-0.77	13.4	115
12022	V	22000	74.8	90	11.9	12	13.2	-0.771	13.4	115
12028	H	21991	76.8	78	9.9	10	11.2	-1.273	18.4	115
12053	V	22000	76.2	79	10	10.1	11.3	-0.772	13.4	115
12060	H	22000	77.6	79	10	10.1	11.3	-1.275	18.4	115
12084	V	22000	76.8	88	11.6	11.7	12.9	-0.774	13.4	115
12091	H	20000	78.6	84	10.9	11	12.2	-1.272	18.4	115
12146	V	22000	77.5	88	11.5	11.6	12.8	-0.776	13.4	115
12115	V	22425	76.2	77	9.8	9.9	11.1	-0.777	13.4	115
12122	H	20000	78	76	9.5	9.6	10.8	-1.275	18.4	115
12153	H	20000	78.6	77	9.7	9.8	11	-1.275	18.4	115
12177	V	23000	76.7	86	11.2	11.3	12.5	-0.779	13.4	115

Average 76.38 80.76 10.42 10.65 11.72 -0.97

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift	LNB vdc	LNB mA
11706	V	7161	68.7	56	6.9	8.7	8.2	0.2	13.4	110
11789	V	28125	77.2	82	10.5	11.1	11.8	-0.184	13.4	110
11836	V	20765	76.4	77	9.7	9.8	11	-0.185	13.4	110
11842	H	22000	76.4	87	11.4	11.5	12.7	0.313	18.4	110
11874	H	22000	75.4	88	11.6	12.2	12.9	-0.69	18.4	110
11898	V	22000	75.7	88	11.6	11.7	12.9	-0.187	13.4	110
11929	V	22000	75.8	83	10.8	10.9	12.1	-0.195	13.4	110
11936	H	20000	76.9	95	13	13.1	14.3	-0.7	18.4	110

DMSI Spitfire / GK411-60I: Universal LO 9750/10600 - 1 Output - DRO

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift mhz	LNB vdc	LNB mA
11706	V	7161	70	54	6.8	8.6	8.1	0.253	13.4	80
11789	V	28125	75.3	81	10.4	11	11.7	-0.131	13.4	80
11836	V	20765	75.6	82	10.5	10.6	11.8	-0.132	13.4	80
11842	H	22000	77	72	8.8	8.9	10.1	-0.688	18.4	80
11874	H	22000	77.6	75	9.4	10	10.7	-0.692	18.4	80
11898	V	22000	78.1	95	12.8	12.9	14.1	-0.133	13.4	80
11929	V	22000	78	76	9.6	9.7	10.9	-0.139	13.4	80
11936	H	20000	77.7	77	9.8	9.9	11.1	-0.7	18.4	80
11967	H	22000	78.9	98	14.4	14.5	15.7	-0.697	18.4	80
11991	V	22000	78.7	94	12.6	12.7	13.9	-0.142	13.4	80
12022	V	22000	79.3	83	10.7	10.8	12	-0.145	13.4	80
12028	H	21991	78.6	79	10.1	10.2	11.4	-0.703	18.4	80
12053	V	22000	79.6	74	9.3	9.4	10.6	-0.147	13.4	80
12060	H	22000	79.8	82	10.6	10.7	11.9	-0.706	18.4	80
12084	V	22000	78.9	85	11.1	11.2	12.4	-0.151	13.4	80
12091	H	20000	79.1	88	11.6	11.7	12.9	-0.706	18.4	80
12146	V	22000	78.9	89	11.8	11.9	13.1	-0.155	13.4	80
12115	V	22425	78.8	74	9.3	9.4	10.6	-0.155	13.4	80
12122	H	20000	79.7	77	9.7	9.8	11	-0.71	18.4	80
12153	H	20000	81	77	9.8	9.9	11.1	-0.711	18.4	80
12177	V	23000	78.1	87	11.4	11.5	12.7	-0.159	13.4	80
Average			78.03	80.90	10.50	10.73	11.80	-0.36		

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift	LNB vdc	LNB mA
11706	V	7161	70.1	57	7.2	9	8.5	0.189	13.4	80
11789	V	28125	75.7	79	10.1	10.7	11.4	-0.196	13.4	80
11836	V	20765	76	77	9.7	9.8	11	-0.198	13.4	80
11842	H	22000	77.2	85	11.1	11.2	12.4	0.245	18.4	80
11874	H	22000	77.6	88	11.6	12.2	12.9	-0.758	18.4	80
11898	V	22000	78.6	90	11.9	12	13.2	-0.199	13.4	80
11929	V	22000	78.7	76	9.5	9.6	10.8	-0.208	13.4	80
11936	H	20000	77.8	96	13.5	13.6	14.8	-0.768	18.4	80
11967	H	22000	79.4	83	10.8	10.9	12.1	-0.764	18.4	80
11991	V	22000	79.4	72	8.8	8.9	10.1	-0.211	13.4	80
12022	V	22000	79.9	60	7.5	7.6	8.8	-0.213	13.4	75
12028	H	21991	79	70	8.6	8.7	9.9	0.229	18.4	80
12053	V	22000	79.8	82	10.5	10.6	11.8	-0.215	13.4	80
12060	H	22000	79.8	95	12.8	12.9	14.1	-0.772	18.4	80
12084	V	22000	79.3	85	11.1	11.2	12.4	-0.218	13.4	80
12091	H	20000	79.5	96	13.5	13.6	14.8	-0.771	18.4	80
12146	V	22000	80.2	88	11.5	11.6	12.8	-0.221	13.4	80
12115	V	22425	79.1	73	8.9	9	10.2	-0.222	13.4	80
12122	H	20000	81	62	7.7	7.8	9	-0.775	18.4	80
12153	H	20000	81.1	60	7.5	7.6	8.8	-0.776	18.4	80
12177	V	23000	78.3	76	9.5	9.6	10.8	-0.226	13.4	80
			78.45	78.57	10.16	10.39	11.46	-0.34		

DMSI JSC321S: Standard LO 10750 / 1 Output - DRO

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift mhz	LNB vdc	LNB mA
11706	V	7161	69.6	47	6	7.8	7.3	0.494	13.4	85
11789	V	28125	77.9	77	9.8	10.4	11.1	0.109	13.4	85
11836	V	20765	77.5	79	10.1	10.2	11.4	0.108	13.4	85
11842	H	22000	77.5	72	8.8	8.9	10.1	-0.413	18.4	85
11874	H	22000	76.6	74	9.2	9.8	10.5	-0.419	18.4	85
11898	V	22000	75.7	92	12.3	12.4	13.6	0.102	13.4	85
11929	V	22000	74.9	72	8.8	8.9	10.1	0.097	13.4	85
11936	H	20000	76.2	75	9.4	9.5	10.7	-0.426	18.4	85
11967	H	22000	75.8	96	13.6	13.7	14.9	-0.422	18.4	85
11991	V	22000	75.7	92	12.2	12.3	13.5	0.096	13.4	85
12022	V	22000	75.6	79	10	10.1	11.3	0.096	13.4	85
12028	H	21991	75.9	77	9.8	9.9	11.1	-0.424	18.4	85
12053	V	22000	76.9	71	8.7	8.8	10	0.096	13.4	85
12060	H	22000	77.1	77	9.8	9.9	11.1	-0.425	18.4	85
12084	V	22000	76.7	80	10.3	10.4	11.6	0.094	13.4	85
12091	H	20000	77.3	83	10.7	10.8	12	-0.421	18.3	85
12146	V	22000	77	87	11.4	11.5	12.7	0.096	13.4	85
12115	V	22425	76.4	71	8.7	8.8	10	0.093	13.4	85
12122	H	20000	77.1	76	9.5	9.6	10.8	-0.422	18.4	85
12153	H	20000	77.9	76	9.6	9.7	10.9	-0.42	18.4	85
12177	V	23000	75.5	83	10.7	10.8	12	0.095	13.4	85
Average			76.23	77.90	9.97	10.20	11.27	-0.11		

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift	LNB vdc	LNB mA
11706	V	7161	70	47	6.1	7.9	7.4	-0.244	13.4	80
11789	V	28125	78.6	75	9.4	10	10.7	-0.626	13.4	80
11836	V	20765	79.8	74	9.3	9.4	10.6	-0.625	13.4	85
11842	H	22000	78.1	86	11.3	11.4	12.6	-0.145	18.4	85
11874	H	22000	76.8	89	11.7	12.3	13	-1.149	18.4	85
11898	V	22000	76.2	87	11.4	11.5	12.7	-0.624	13.4	85
11929	V	22000	75.6	73	8.9	9	10.2	-0.629	13.4	85
11936	H	20000	76.8	96	13.4	13.5	14.7	-1.152	18.4	85
11967	H	22000	76.1	85	11.1	11.2	12.4	-1.148	18.4	85
11991	V	22000	76.3	69	8.5	8.6	9.8	-0.628	13.4	85
12022	V	22000	75.9	56	7.1	7.2	8.4	-0.626	13.4	85
12028	H	21991	76.4	71	8.7	8.8	10	-0.146	18.4	85
12053	V	22000	77.1	79	10	10.1	11.3	-0.624	13.4	85
12060	H	22000	77.3	94	12.5	12.6	13.8	-1.145	18.4	85
12084	V	22000	76.9	82	10.6	10.7	11.9	-0.625	13.4	85
12091	H	20000	77.4	95	13.1	13.2	14.4	-1.142	18.4	85
12146	V	22000	77.2	82	10.5	10.6	11.8	-0.623	13.4	85
12115	V	22425	76.5	66	8.2	8.3	9.5	-0.626	13.4	85
12122	H	20000	77.3	64	7.9	8	9.2	-1.143	18.4	85
12153	H	20000	77.9	64	7.9	8	9.2	-1.141	18.4	85
12177	V	23000	75.8	73	8.9	9	10.2	-0.625	13.4	85
			76.67	76.52	9.83	10.06	11.13	-0.74		

WSI ESX521: Standard LO 10750 / 1 Output - DRO

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift mhz	LNB vdc	LNB mA
11706	V	7161	81.1	54	6.8	8.6	8.1	-0.969	13.4	85
11789	V	28125	86.7	81	10.4	11	11.7	-1.354	13.4	85
11836	V	20765	85.7	82	10.5	10.6	11.8	-1.356	13.4	85
11842	H	22000	84.9	55	6.9	7	8.2	-1.905	18.4	85
11874	H	22000	83.8	62	7.7	8.3	9	-1.911	18.4	85
11898	V	22000	85	96	12.9	13	14.2	-1.361	13.4	85
11929	V	22000	84.2	76	9.5	9.6	10.8	-1.368	13.4	85
11936	H	20000	84.7	68	8.4	8.5	9.7	-1.921	18.3	85
11967	H	22000	84.4	97	14.1	14.2	15.4	-1.92	18.3	85
11991	V	22000	85.1	95	12.7	12.8	14	-1.375	13.4	85
12022	V	22000	84.7	81	10.4	10.5	11.7	-1.376	13.4	85
12028	H	21991	85	76	9.5	9.6	10.8	-1.926	18.4	85
12053	V	22000	85.7	73	9	9.1	10.3	-1.38	13.4	85
12060	H	22000	86	72	8.8	8.9	10.1	-1.929	18.4	85
12084	V	22000	85.7	84	10.9	11	12.2	-1.384	13.4	85
12091	H	20000	86	79	10.1	10.2	11.4	-1.928	18.4	85
12146	V	22000	86.3	89	11.7	11.8	13	-1.389	13.4	85
12115	V	22425	85.3	73	9.1	9.2	10.4	-1.388	13.4	85
12122	H	20000	86.4	65	8.1	8.2	9.4	-1.933	18.4	85
12153	H	20000	87.4	65	8	8.1	9.3	-1.935	18.4	85
12177	V	23000	85.9	89	11.7	11.8	13	-1.395	13.4	85
Average			85.24	76.76	9.87	10.10	11.17	-1.59		

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift	LNB vdc	LNB mA
11706	V	7161	81.2	56	7	8.8	8.3	-0.95	13.4	85
11789	V	28125	86.9	79	10	10.6	11.3	-1.336	13.4	85
11836	V	20765	86	76	9.6	9.7	10.9	-1.339	13.4	85
11842	H	22000	85.1	74	9.3	9.4	10.6	-0.898	18.4	85
11874	H	22000	83.8	79	10.1	10.7	11.4	-1.906	18.4	85
11898	V	22000	85.1	90	11.9	12	13.2	-1.349	13.4	85
11929	V	22000	84.8	76	9.5	9.6	10.8	-1.357	13.4	85
11936	H	20000	84.8	88	11.5	11.6	12.8	-1.919	18.4	85
11967	H	22000	84.9	79	10.1	10.2	11.4	-1.919	18.4	85
11991	V	22000	85.5	73	9	9.1	10.3	-1.368	13.4	85
12022	V	22000	85.1	62	7.7	7.8	9	-1.37	13.4	85
12028	H	21991	85.4	65	8	8.1	9.3	-0.928	18.4	85
12053	V	22000	85.9	82	10.5	10.6	11.8	-1.376	13.4	85
12060	H	22000	86.1	85	11.1	11.2	12.4	-1.934	18.4	85
12084	V	22000	85.8	86	11.3	11.4	12.6	-1.383	13.4	85
12091	H	20000	86.1	94	12.6	12.7	13.9	-1.937	18.4	85
12146	V	22000	86.6	85	11.1	11.2	12.4	-1.391	13.4	85
12115	V	22425	85.6	72	8.8	8.9	10.1	-1.389	13.4	85
12122	H	20000	86.6	54	6.8	6.9	8.1	-1.942	18.4	85
12153	H	20000	87.7	53	6.7	6.8	8	-1.945	18.4	85
12177	V	23000	86.3	79	10	10.1	11.3	-1.396	13.4	85
			85.49	75.57	9.65	9.88	10.95	-1.49		

WSI ESX522: Standard LO 10750 / 2 Output - DRO

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift mhz	LNB vdc	LNB mA
11706	V	7161	72.1	49	6.3	8.1	7.6	-0.553	13.4	145
11789	V	28125	78.8	74	9.2	9.8	10.5	-0.938	13.4	145
11836	V	20765	78.2	77	9.7	9.8	11	-0.939	13.4	145
11842	H	22000	82.1	74	9.2	9.3	10.5	-1.443	18.4	145
11874	H	22000	80.2	78	9.9	10.5	11.2	-1.448	18.4	145
11898	V	22000	78.8	91	12	12.1	13.3	-0.942	13.4	145
11929	V	22000	78.5	68	8.4	8.5	9.7	-0.948	13.4	145
11936	H	20000	82.2	79	10.1	10.2	11.4	-1.456	18.4	145
11967	H	22000	80.2	97	13.8	13.9	15.1	-1.453	18.4	145
11991	V	22000	80.6	90	11.9	12	13.2	-0.952	13.4	145
12022	V	22000	80.5	78	9.9	10	11.2	-0.952	13.4	145
12028	H	21991	82.8	80	10.3	10.4	11.6	-1.456	18.3	145
12053	V	22000	82.7	69	8.5	8.6	9.8	-0.953	13.4	145
12060	H	22000	83.3	82	10.6	10.7	11.9	-1.458	18.4	145
12084	V	22000	83.3	79	10.1	10.2	11.4	-0.956	13.4	145
12091	H	20000	83.7	88	11.5	11.6	12.8	-1.456	18.4	145
12146	V	22000	84.3	86	11.3	11.4	12.6	-0.956	13.4	145
12115	V	22425	82.6	70	8.6	8.7	9.9	-0.958	13.4	145
12122	H	20000	83.3	80	10.3	10.4	11.6	-1.458	18.4	145
12153	H	20000	83.9	82	10.5	10.6	11.8	-1.457	18.4	145
12177	V	23000	81.9	83	10.8	10.9	12.1	-0.959	13.4	145
Average			81.14	78.76	10.14	10.37	11.44	-1.15		

Alps Universal: Universal LO 9750/10600 - 1 Output - DRO

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift mhz	LNB vdc	LNB mA
11706	V	7161	68.4	54	6.8	8.6	8.1	1.756	13.4	85
11789	V	28125	74.9	77	9.8	10.4	11.1	1.363	13.4	85
11836	V	20765	74.8	80	10.3	10.4	11.6	1.356	13.4	85
11842	H	22000	75.6	57	7.2	7.3	8.5	0.855	18.4	85
11874	H	22000	76	65	8	8.6	9.3	0.847	18.4	85
11898	V	22000	76.7	96	12.9	13	14.2	1.343	13.4	85
11929	V	22000	76.5	68	8.4	8.5	9.7	1.333	13.4	85
11936	H	20000	76.8	67	8.3	8.4	9.6	0.833	18.4	85
11967	H	22000	77.3	97	13.8	13.9	15.1	0.834	18.4	85
11991	V	22000	77.2	93	12.4	12.5	13.7	1.327	13.4	85
12022	V	22000	77.3	78	9.9	10	11.2	1.324	13.4	85
12028	H	21991	77.1	77	9.8	9.9	11.1	1.826	18.4	85
12053	V	22000	78.2	65	8.1	8.2	9.4	1.32	13.4	85
12060	H	22000	78.2	73	8.9	9	10.2	0.821	18.4	85
12084	V	22000	77.4	78	9.9	10	11.2	1.313	13.4	85
12091	H	20000	77.7	81	10.4	10.5	11.7	0.819	18.4	85
12146	V	22000	77.6	89	11.7	11.8	13	1.307	13.4	85
12115	V	22425	77.1	70	8.6	8.7	9.9	1.309	13.4	85
12122	H	20000	77.4	70	8.6	8.7	9.9	0.814	18.4	85
12153	H	20000	78.5	73	8.9	9	10.2	0.812	18.4	85
12177	V	23000	76.9	85	11.1	11.2	12.4	1.302	13.4	85
Average			76.55	75.86	9.70	9.93	11.00	1.18		

Sample: #1: Standard LO 10750 / 1 Output - PLL

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift mhz	LNB vdc	LNB mA
11706	V	7161	72.2	47	6.1	7.9	7.4	0.258	13.4	160
11789	V	28125	76.8	75	9.4	10	10.7	-0.126	13.4	160
11836	V	20765	76.6	79	10.1	10.2	11.4	-0.127	13.4	160
11842	H	22000	77.8	70	8.6	8.7	9.9	-0.628	18.4	160
11874	H	22000	78.6	74	9.3	9.9	10.6	-0.632	18.4	160
11898	V	22000	76.3	94	12.6	12.7	13.9	-0.129	13.4	160
11929	V	22000	76.2	69	8.5	8.6	9.8	-0.136	13.4	160
11936	H	20000	78.8	76	9.6	9.7	10.9	-0.641	18.4	165
11967	H	22000	79	98	14.3	14.4	15.6	-0.639	18.4	160
11991	V	22000	76.7	92	12.2	12.3	13.5	-0.141	13.4	160
12022	V	22000	77.5	76	9.6	9.7	10.9	-0.142	13.4	160
12028	H	21991	78.6	82	10.6	10.7	11.9	-0.644	18.4	160
12053	V	22000	78.7	69	8.5	8.6	9.8	-0.145	13.4	160
12060	H	22000	81.3	81	10.4	10.5	11.7	-0.647	18.4	160
12084	V	22000	80	79	10	10.1	11.3	-0.149	13.4	160
12091	H	20000	81	89	11.7	11.8	13	-0.647	18.4	160
12146	V	22000	79.9	85	11	11.1	12.3	-0.154	13.4	160
12115	V	22425	79.8	67	8.3	8.4	9.6	-0.153	13.4	160
12122	H	20000	81.3	76	9.5	9.6	10.8	-0.651	18.4	165
12153	H	20000	81.2	76	9.5	9.6	10.8	-0.652	18.4	160
12177	V	23000	78.3	84	10.9	11	12.2	-0.158	13.4	160
Average			78.41	78.00	10.03	10.26	11.33	-0.34		

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift	LNB vdc	LNB mA
11706	V	7161	73.8	50	6.4	8.2	7.7	-0.949	13.4	140
11789	V	28125	80.3	76	9.5	10.1	10.8	-1.333	13.4	140
11836	V	20765	80	76	9.6	9.7	10.9	-1.332	13.4	140
11842	H	22000	83.4	89	11.8	11.9	13.1	-0.835	18.4	140
11874	H	22000	81.8	92	12.2	12.8	13.5	-1.839	18.4	140
11898	V	22000	80.1	88	11.5	11.6	12.8	-1.331	13.4	140
11929	V	22000	80.1	73	9.1	9.2	10.4	-1.337	13.4	140
11936	H	20000	83.4	96	13.7	13.8	15	-1.843	18.4	145
11967	H	22000	82.1	88	11.6	11.7	12.9	-1.84	18.4	140
11991	V	22000	82.9	72	8.8	8.9	10.1	-1.337	13.4	140
12022	V	22000	82.5	60	7.5	7.6	8.8	-1.337	13.4	140
12028	H	21991	84.1	76	9.6	9.7	10.9	-0.841	18.4	145
12053	V	22000	83.8	78	9.9	10	11.2	-1.337	13.4	140
12060	H	22000	84.3	95	13.2	13.3	14.5	-1.841	18.4	145
12084	V	22000	84.4	82	10.6	10.7	11.9	-1.338	13.4	140
12091	H	20000	84.6	95	13.2	13.3	14.5	-1.838	18.4	140
12146	V	22000	85.3	81	10.4	10.5	11.7	-1.337	13.4	140
12115	V	22425	83.7	68	8.4	8.5	9.7	-1.339	13.4	140
12122	H	20000	84.4	75	9.4	9.5	10.7	-1.839	18.4	145
12153	H	20000	85.1	75	9.4	9.5	10.7	-1.838	18.4	145
12177	V	23000	83.6	74	9.3	9.4	10.6	-1.339	13.4	140
			82.56	79.00	10.24	10.47	11.54	-1.44		

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift	LNB vdc	LNB mA
11706	V	7161	68.3	54	6.8	8.6	8.1	1.74	13.4	85
11789	V	28125	76.7	74	9.2	9.8	10.5	1.35	13.4	85
11836	V	20765	76.1	76	9.5	9.6	10.8	1.346	13.4	85
11842	H	22000	77.1	73	9.1	9.2	10.4	1.853	18.4	85
11874	H	22000	77.2	77	9.7	10.3	11	0.849	18.4	85
11898	V	22000	77.9	86	11.3	11.4	12.6	1.341	13.4	85
11929	V	22000	77.4	65	8.1	8.2	9.4	1.334	13.4	85
11936	H	20000	77.2	82	10.6	10.7	11.9	0.839	18.4	85
11967	H	22000	78.1	79	10.1	10.2	11.4	0.842	18.4	85
11991	V	22000	77.8	66	8.2	8.3	9.5	1.329	13.4	85
12022	V	22000	77.8	50	6.4	6.5	7.7	1.329	13.4	85
12028	H	21991	77.4	61	7.6	7.7	8.9	1.837	18.4	85
12053	V	22000	78.1	76	9.6	9.7	10.9	1.326	13.4	85
12060	H	22000	78.2	82	10.6	10.7	11.9	0.834	18.4	85
12084	V	22000	77.5	79	10.1	10.2	11.4	1.323	13.4	85
12091	H	20000	77.8	89	11.8	11.9	13.1	0.835	18.4	85
12146	V	22000	77.8	83	10.7	10.8	12	1.32	13.4	85
12115	V	22425	77.3	66	8.2	8.3	9.5	1.32	13.4	85
12122	H	20000	77.6	52	6.6	6.7	7.9	0.832	18.4	85
12153	H	20000	78.7	53	6.7	6.8	8	0.832	18.4	85
12177	V	23000	77.1	72	8.8	8.9	10.1	1.318	13.4	85
			77.10	71.19	9.03	9.26	10.33	1.23		

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift	LNB vdc	LNB mA
11706	V	7161	72.1	56	7	8.8	8.3	0.219	13.4	160
11789	V	28125	79.2	76	9.6	10.2	10.9	-0.165	13.4	160
11836	V	20765	78.8	77	9.7	9.8	11	-0.166	13.4	160
11842	H	22000	79.2	86	11.2	11.3	12.5	0.332	18.4	160
11874	H	22000	79.5	88	11.5	12.1	12.8	-0.671	18.4	160
11898	V	22000	78.6	89	11.8	11.9	13.1	-0.168	13.4	160
11929	V	22000	78.7	74	9.3	9.4	10.6	-0.175	13.4	160
11936	H	20000	79.6	95	12.7	12.8	14	-0.68	18.4	160
11967	H	22000	80.2	87	11.4	11.5	12.7	-0.677	18.4	160
11991	V	22000	79.2	83	10.8	10.9	12.1	-0.179	13.4	160
12022	V	22000	79.9	60	7.5	7.6	8.8	-0.18	13.4	160
12028	H	21991	81	73	9	9.1	10.3	0.317	18.4	160
12053	V	22000	81.1	79	10.1	10.2	11.4	-0.182	13.4	160
12060	H	22000	82.2	94	12.5	12.6	13.8	-0.684	18.4	160
12084	V	22000	81.1	85	11	11.1	12.3	-0.186	13.4	160
12091	H	20000	81.7	96	13.3	13.4	14.6	-0.683	18.4	160
12146	V	22000	81	82	10.6	10.7	11.9	-0.189	13.4	160
12115	V	22425	80.8	69	8.5	8.6	9.8	-0.189	13.4	160
12122	H	20000	82.4	69	8.5	8.6	9.8	-0.687	18.4	160
12153	H	20000	82.3	66	8.2	8.3	9.5	-0.688	18.4	160
12177	V	23000	80	76	9.6	9.7	10.9	-0.194	13.4	160
			79.93	79.05	10.18	10.41	11.48	-0.28		

Sample: #2: Standard LO 10750 / 1 Output - PLL

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift mhz	LNB vdc	LNB mA
11706	V	7161	73.2	51	6.5	8.3	7.8	0.502	13.4	85
11789	V	28125	77.3	77	9.7	10.3	11	0.116	13.4	90
11836	V	20765	76.9	79	10	10.1	11.3	0.115	13.4	85
11842	H	22000	77.7	67	8.3	8.4	9.6	-0.385	18.4	85
11874	H	22000	78.5	73	9	9.6	10.3	-0.389	18.4	85
11898	V	22000	76.2	93	12.4	12.5	13.7	0.112	13.4	90
11929	V	22000	76.2	69	8.5	8.6	9.8	0.105	13.4	85
11936	H	20000	78.9	76	9.6	9.7	10.9	-0.399	18.4	85
11967	H	22000	78.9	97	14.1	14.2	15.4	-0.397	18.4	85
11991	V	22000	78.3	93	12.4	12.5	13.7	0.1	13.4	85
12022	V	22000	78.9	76	9.5	9.6	10.8	0.098	13.4	85
12028	H	21991	79.4	79	10.1	10.2	11.4	-0.403	18.4	90
12053	V	22000	80.2	72	8.8	8.9	10.1	0.096	13.4	90
12060	H	22000	81.4	82	10.6	10.7	11.9	-0.406	18.4	85
12084	V	22000	80	79	10.1	10.2	11.4	0.091	13.4	85
12091	H	20000	80.6	87	11.4	11.5	12.7	-0.406	18.4	90
12146	V	22000	78.8	84	10.9	11	12.2	0.086	13.4	85
12115	V	22425	78.4	67	8.3	8.4	9.6	0.087	13.4	90
12122	H	20000	80.1	74	9.3	9.4	10.6	-0.41	18.4	85
12153	H	20000	80.2	74	9.3	9.4	10.6	-0.411	18.4	85
12177	V	23000	78	82	10.5	10.6	11.8	0.082	13.4	85
Average			78.48	77.67	9.97	10.20	11.27	-0.10		

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift	LNB vdc	LNB mA
11706	V	7161	72	55	6.9	8.7	8.2	0.482	13.4	85
11789	V	28125	78.2	76	9.5	10.1	10.8	0.097	13.4	85
11836	V	20765	77.9	77	9.7	9.8	11	0.096	13.4	85
11842	H	22000	79	83	10.8	10.9	12.1	0.594	18.4	85
11874	H	22000	79.1	86	11.3	11.9	12.6	-0.409	18.4	85
11898	V	22000	78.4	89	11.7	11.8	13	0.092	13.4	85
11929	V	22000	78.5	74	9.2	9.3	10.5	0.085	13.4	85
11936	H	20000	79.2	94	12.6	12.7	13.9	-0.419	18.4	85
11967	H	22000	79.7	87	11.4	11.5	12.7	-0.417	18.4	85
11991	V	22000	78.9	83	10.8	10.9	12.1	0.08	13.4	85
12022	V	22000	79.6	60	7.5	7.6	8.8	0.078	13.4	85
12028	H	21991	80.5	72	8.8	8.9	10.1	0.576	18.4	85
12053	V	22000	80.7	80	10.3	10.4	11.6	0.076	13.4	85
12060	H	22000	81.7	92	12.3	12.4	13.6	-0.426	18.4	85
12084	V	22000	80.8	84	10.9	11	12.2	0.071	13.4	85
12091	H	20000	81.2	95	13.2	13.3	14.5	-0.425	18.4	85
12146	V	22000	80.6	85	11.1	11.2	12.4	0.067	13.4	85
12115	V	22425	80.4	70	8.6	8.7	9.9	0.067	13.4	85
12122	H	20000	81.7	65	8.1	8.2	9.4	-0.43	18.4	85
12153	H	20000	81.8	65	8	8.1	9.3	-0.431	18.4	85
12177	V	23000	79.8	76	9.5	9.6	10.8	0.062	13.4	85
			79.51	78.48	10.10	10.33	11.40	-0.02		

Sample: #3: Standard LO 10750 / 2 Output - DRO

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift mhz	LNB vdc	LNB mA
11706	V	7161	74	54	6.8	8.6	8.1	-0.427	13.4	150
11789	V	28125	82.1	77	9.7	10.3	11	-0.812	13.4	150
11836	V	20765	80.9	80	10.3	10.4	11.6	-0.813	13.4	150
11842	H	22000	82.5	71	8.7	8.8	10	-1.32	18.4	150
11874	H	22000	80.1	74	9.3	9.9	10.6	-1.324	18.4	150
11898	V	22000	80.2	95	12.8	12.9	14.1	-0.815	13.4	150
11929	V	22000	78.5	67	8.3	8.4	9.6	-0.822	13.4	150
11936	H	20000	79.9	76	9.5	9.6	10.8	-1.332	18.4	150
11967	H	22000	78.4	98	14.7	14.8	16	-1.33	18.4	150
11991	V	22000	79.4	93	12.4	12.5	13.7	-0.826	13.4	150
12022	V	22000	79.1	76	9.6	9.7	10.9	-0.826	13.4	150
12028	H	21991	79.2	80	10.3	10.4	11.6	-1.334	18.4	150
12053	V	22000	81.5	70	8.6	8.7	9.9	-0.829	13.4	150
12060	H	22000	80	81	10.4	10.5	11.7	-1.337	18.4	150
12084	V	22000	82	81	10.4	10.5	11.7	-0.832	13.4	150
12091	H	20000	80.4	88	11.6	11.7	12.9	-1.336	18.4	150
12146	V	22000	81.8	89	11.7	11.8	13	-0.836	13.4	150
12115	V	22425	80.7	70	8.6	8.7	9.9	-0.836	13.4	150
12122	H	20000	80	74	9.3	9.4	10.6	-1.34	18.4	150
12153	H	20000	80.1	74	9.3	9.4	10.6	-1.341	18.4	150
12177	V	23000	80.2	86	11.2	11.3	12.5	-0.841	13.4	150
Average			80.05	78.76	10.17	10.40	11.47	-1.02		

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift	LNB vdc	LNB mA
11706	V	7161	74.7	60	7.5	9.3	8.8	-0.355	13.4	145
11789	V	28125	83.4	78	9.9	10.5	11.2	-0.738	13.4	145
11836	V	20765	83.2	78	9.9	10	11.2	-0.738	13.4	145
11842	H	22000	83.9	86	11.3	11.4	12.6	-0.246	18.4	145
11874	H	22000	82	91	12	12.6	13.3	-1.251	18.4	145
11898	V	22000	81.8	90	11.9	12	13.2	-0.742	13.4	145
11929	V	22000	79.9	73	9.1	9.2	10.4	-0.748	13.4	145
11936	H	20000	81.4	96	13.4	13.5	14.7	-1.259	18.4	145
11967	H	22000	79.4	88	11.5	11.6	12.8	-1.258	18.4	150
11991	V	22000	80.4	83	10.8	10.9	12.1	-0.753	13.4	145
12022	V	22000	80.1	60	7.5	7.6	8.8	-0.754	13.4	145
12028	H	21991	80.2	72	8.8	8.9	10.1	-0.262	18.4	145
12053	V	22000	81.9	80	10.2	10.3	11.5	-0.757	13.4	145
12060	H	22000	80.6	96	12.9	13	14.2	-1.266	18.4	145
12084	V	22000	82.6	85	11.1	11.2	12.4	-0.761	13.4	145
12091	H	20000	81.1	96	13.5	13.6	14.8	-1.265	18.4	145
12146	V	22000	82.8	88	11.5	11.6	12.8	-0.766	13.4	145
12115	V	22425	81.5	73	8.9	9	10.2	-0.766	13.4	145
12122	H	20000	80.8	64	7.9	8	9.2	-1.27	18.4	145
12153	H	20000	80.5	62	7.7	7.8	9	-1.272	18.4	150
12177	V	23000	81	76	9.6	9.7	10.9	-0.771	13.4	145
			81.10	79.76	10.33	10.56	11.63	-0.86		

Sample: #4: Standard LO 10750 / 2 Output - PLL

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift mhz	LNB vdc	LNB mA
11706	V	7161	70.9	52	6.6	8.4	7.9	0.595	13.4	180
11789	V	28125	76.3	78	9.9	10.5	11.2	0.21	13.4	180
11836	V	20765	75.8	82	10.6	10.7	11.9	0.209	13.4	180
11842	H	22000	74.6	70	8.6	8.7	9.9	-0.291	18.4	180
11874	H	22000	74.9	74	9.2	9.8	10.5	-0.296	18.4	180
11898	V	22000	74.9	94	12.5	12.6	13.8	0.206	13.4	180
11929	V	22000	75.1	73	9	9.1	10.3	0.198	13.4	185
11936	H	20000	75	78	9.9	10	11.2	-0.306	18.4	180
11967	H	22000	75.2	98	14.4	14.5	15.7	-0.303	18.4	180
11991	V	22000	75.1	93	12.4	12.5	13.7	0.193	13.4	180
12022	V	22000	75.5	77	9.8	9.9	11.1	0.192	13.4	180
12028	H	21991	75.5	79	10.1	10.2	11.4	-0.309	18.4	180
12053	V	22000	76.5	73	8.9	9	10.2	0.189	13.4	180
12060	H	22000	76.6	81	10.4	10.5	11.7	-0.313	18.4	180
12084	V	22000	76.8	81	10.4	10.5	11.7	0.184	13.4	180
12091	H	20000	76.6	86	11.2	11.3	12.5	-0.312	18.4	180
12146	V	22000	77	90	11.9	12	13.2	0.18	13.4	180
12115	V	22425	76.5	73	8.9	9	10.2	0.18	13.4	180
12122	H	20000	77	77	9.7	9.8	11	-0.317	18.4	180
12153	H	20000	77.3	76	9.5	9.6	10.8	-0.318	18.4	180
12177	V	23000	76.3	86	11.2	11.3	12.5	0.175	13.4	180
Average			75.69	79.57	10.24	10.47	11.54	0.00		

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift	LNB vdc	LNB mA
11706	V	7161	71.4	54	6.8	8.6	8.1	0.55	13.4	175
11789	V	28125	77.4	77	9.8	10.4	11.1	0.164	13.4	180
11836	V	20765	77.3	74	9.2	9.3	10.5	0.164	13.4	180
11842	H	22000	75.7	87	11.4	11.5	12.7	0.663	18.4	180
11874	H	22000	76.3	90	11.9	12.5	13.2	-0.341	18.4	180
11898	V	22000	76.5	88	11.6	11.7	12.9	0.161	13.4	180
11929	V	22000	76.7	72	8.8	8.9	10.1	0.153	13.4	180
11936	H	20000	76.2	96	13.4	13.5	14.7	-0.35	18.4	180
11967	H	22000	76.5	87	11.4	11.5	12.7	-0.348	18.4	180
11991	V	22000	76.5	70	8.6	8.7	9.9	0.148	13.4	180
12022	V	22000	76.8	56	7.1	7.2	8.4	0.147	13.4	180
12028	H	21991	76.8	73	9	9.1	10.3	0.645	18.4	180
12053	V	22000	77.4	80	10.2	10.3	11.5	0.144	13.4	180
12060	H	22000	77.5	95	13.1	13.2	14.4	-0.357	18.4	180
12084	V	22000	77.6	82	10.6	10.7	11.9	0.14	13.4	180
12091	H	20000	77.5	96	13.5	13.6	14.8	-0.356	18.4	180
12146	V	22000	78.1	84	10.9	11	12.2	0.136	13.4	175
12115	V	22425	77.4	71	8.7	8.8	10	0.136	13.4	180
12122	H	20000	78	66	8.2	8.3	9.5	-0.361	18.4	180
12153	H	20000	78.3	65	8	8.1	9.3	-0.362	18.4	180
12177	V	23000	77.4	74	9.3	9.4	10.6	0.131	13.4	180
			76.82	77.95	10.07	10.30	11.37	0.05		

Sample: #5: Standard LO 10750 / 1 Output - PLL

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift mhz	LNB vdc	LNB mA
11706	V	7161	74.1	48	6.2	8	7.5	0.505	13.4	155
11789	V	28125	81.6	82	10.6	11.2	11.9	0.119	13.4	155
11836	V	20765	80.9	82	10.6	10.7	11.9	0.118	13.4	155
11842	H	22000	83	70	8.6	8.7	9.9	-0.382	18.4	155
11874	H	22000	83.1	73	9.1	9.7	10.4	-0.387	18.4	155
11898	V	22000	80.7	95	12.8	12.9	14.1	0.114	13.4	155
11929	V	22000	80.5	77	9.7	9.8	11	0.107	13.4	155
11936	H	20000	83	74	9.3	9.4	10.6	-0.397	18.4	155
11967	H	22000	82	96	13.6	13.7	14.9	-0.395	18.4	155
11991	V	22000	82	95	12.7	12.8	14	0.101	13.4	155
12022	V	22000	82	82	10.5	10.6	11.8	0.1	13.4	155
12028	H	21991	83.2	76	9.5	9.6	10.8	-0.401	18.4	155
12053	V	22000	82.9	74	9.3	9.4	10.6	0.097	13.4	150
12060	H	22000	83.7	77	9.8	9.9	11.1	-0.405	18.4	155
12084	V	22000	83.4	83	10.7	10.8	12	0.092	13.4	155
12091	H	20000	83.8	81	10.4	10.5	11.7	-0.405	18.4	155
12146	V	22000	84.2	89	11.8	11.9	13.1	0.087	13.4	155
12115	V	22425	82.8	73	9.1	9.2	10.4	0.088	13.4	155
12122	H	20000	84.2	76	9.6	9.7	10.9	-0.41	18.4	155
12153	H	20000	84.8	74	9.3	9.4	10.6	-0.411	18.4	155
12177	V	23000	82.3	85	11.1	11.2	12.4	0.082	13.4	155
Average			82.30	79.14	10.20	10.43	11.50	-0.09		

Sample: #6: Standard LO 10750 / 1 Output - DRO

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift mhz	LNB vdc	LNB mA
11706	V	7161	77.5	48	6.2	8	7.5	0.756	13.4	85
11789	V	28125	84.7	78	9.9	10.5	11.2	0.371	13.4	85
11836	V	20765	83.1	80	10.2	10.3	11.5	0.37	13.4	85
11842	H	22000	84.6	70	8.6	8.7	9.9	-0.107	18.4	85
11874	H	22000	80.5	73	9.1	9.7	10.4	-0.11	18.4	85
11898	V	22000	83	93	12.4	12.5	13.7	0.372	13.4	85
11929	V	22000	79.6	74	9.3	9.4	10.6	0.368	13.4	85
11936	H	20000	82.6	76	9.5	9.6	10.8	-0.112	18.4	85
11967	H	22000	79.9	95	13.2	13.3	14.5	-0.107	18.4	85
11991	V	22000	82.4	92	12.2	12.3	13.5	0.369	13.4	85
12022	V	22000	80	78	9.9	10	11.2	0.369	13.4	85
12028	H	21991	81.3	73	9.1	9.2	10.4	-0.108	18.4	85
12053	V	22000	82.2	73	8.9	9	10.2	0.37	13.4	85
12060	H	22000	82.6	77	9.8	9.9	11.1	-0.109	18.4	85
12084	V	22000	82.4	82	10.5	10.6	11.8	0.367	13.4	85
12091	H	20000	83.4	83	10.7	10.8	12	-0.107	18.4	85
12146	V	22000	82.3	88	11.6	11.7	12.9	0.368	13.4	85
12115	V	22425	80.6	73	9	9.1	10.3	0.365	13.4	85
12122	H	20000	82	74	9.2	9.3	10.5	-0.109	18.4	85
12153	H	20000	83.1	74	9.2	9.3	10.5	-0.107	18.4	85
12177	V	23000	79	83	10.8	10.9	12.1	0.365	13.4	85
Average			81.75	77.95	9.97	10.20	11.27	0.18		

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift	LNB vdc	LNB mA
11706	V	7161	74.6	54	6.8	8.6	8.1	0.509	13.4	150
11789	V	28125	83.2	80	10.2	10.8	11.5	0.123	13.4	150
11836	V	20765	83	78	9.9	10	11.2	0.122	13.4	150
11842	H	22000	83.9	86	11.3	11.4	12.6	0.621	18.4	150
11874	H	22000	83.6	89	11.7	12.3	13	-0.383	18.4	155
11898	V	22000	82.6	91	12	12.1	13.3	0.119	13.4	150
11929	V	22000	82.7	78	9.9	10	11.2	0.111	13.4	150
11936	H	20000	83.8	95	13.1	13.2	14.4	-0.393	18.4	150
11967	H	22000	83.6	86	11.3	11.4	12.6	-0.391	18.4	150
11991	V	22000	83.7	73	9	9.1	10.3	0.105	13.4	150
12022	V	22000	83.7	64	7.9	8	9.2	0.104	13.4	150
12028	H	21991	84.3	72	8.8	8.9	10.1	0.602	18.4	150
12053	V	22000	84.1	83	10.8	10.9	12.1	0.101	13.4	150
12060	H	22000	84.5	94	12.5	12.6	13.8	-0.401	18.4	150
12084	V	22000	84.6	87	11.4	11.5	12.7	0.096	13.4	150
12091	H	20000	84.6	95	13.1	13.2	14.4	-0.401	18.4	150
12146	V	22000	85.2	87	11.4	11.5	12.7	0.091	13.4	150
12115	V	22425	84.1	73	9.1	9.2	10.4	0.092	13.4	150
12122	H	20000	84.8	68	8.4	8.5	9.7	-0.406	18.4	150
12153	H	20000	85.7	66	8.2	8.3	9.5	-0.407	18.4	150
12177	V	23000	84.4	78	9.9	10	11.2	0.086	13.4	150
			83.56	79.86	10.32	10.55	11.62	0.00		

TP Freq	Polarity	SR	Level	Quality	C/N	Eb/No	Es/No	LNB Drift	LNB vdc	LNB mA
11706	V	7161	78.6	54	6.8	8.6	8.1	-0.326	13.4	85
11789	V	28125	85.9	78	9.9	10.5	11.2	-0.708	13.4	85
11836	V	20765	84.7	73	9.1	9.2	10.4	-0.705	13.4	85
11842	H	22000	85.2	86	11.2	11.3	12.5	-0.173	18.4	85
11874	H	22000	82	89	11.7	12.3	13	-1.174	18.4	85
11898	V	22000	83.9	88	11.6	11.7	12.9	-0.699	13.4	85
11929	V	22000	82.1	74	9.2	9.3	10.5	-0.704	13.4	85
11936	H	20000	83.8	95	13	13.1	14.3	-1.175	18.4	85
11967	H	22000	81.5	85	11	11.1	12.3	-1.17	18.4	85
11991	V	22000	84	70	8.6	8.7	9.9	-0.7	13.4	85
12022	V	22000	81.8	61	7.6	7.7	8.9	-0.698	13.4	85
12028	H	21991	83.4	70	8.6	8.7	9.9	-0.167	18.4	85
12053	V	22000	83.6	80	10.3	10.4	11.6	-0.695	13.4	85
12060	H	22000	83.4	93	12.4	12.5	13.7	-1.164	18.4	85
12084	V	22000	83.5	83	10.7	10.8	12	-0.693	13.4	85
12091	H	20000	84.2	95	12.8	12.9	14.1	-1.157	18.4	85
12146	V	22000	83.7	83	10.8	10.9	12.1	-0.684	13.4	85
12115	V	22425	81.9	70	8.6	8.7	9.9	-0.69	13.4	85
12122	H	20000	82.8	65	8.1	8.2	9.4	-1.155	18.4	85
12153	H	20000	84.5	65	8	8.1	9.3	-1.149	18.4	85
12177	V	23000	80.3	76	9.6	9.7	10.9	-0.681	13.4	85
			83.09	77.76	9.98	10.21	11.28	-0.78		

LNBF Testing Comparison

Location: Sacramento, CA
Dish: GEOSATpro 90cm

Conditions: Clear / 65° F / 10am PDT
Satellite: Galaxy 19 @ 97w

Satellite AV., LLC

April 5/6, 2012

	Dish Peaked on 12177						Dish Peaked on 11842					
	Level	Quality	C/N	Eb/No	Es/No	LNB Drift mhz	Level	Quality	C/N	Eb/No	Es/No	LNB Drift mhz
INVACOM SNH031 - DRO	76.40	82.38	10.75	10.98	12.05	0.70	76.04	84.10	11.04	11.27	12.34	0.95
GEOSATpro SL1B - DRO	82.08	79.95	10.30	10.53	11.60	0.70	82.65	79.76	10.21	10.44	11.51	0.22
GEOSATpro SL2B - DRO	76.38	80.76	10.42	10.65	11.72	-0.97	76.35	81.19	10.46	10.69	11.76	-0.30
DMSI Spitfire / GK411-60I - DRO	78.03	80.90	10.50	10.73	11.80	-0.36	78.45	78.57	10.16	10.39	11.46	-0.34
DMSI JSC321S - DRO	76.23	77.90	9.97	10.20	11.27	-0.11	76.67	76.52	9.83	10.06	11.13	-0.74
WSI ESX521 - DRO	85.24	76.76	9.87	10.10	11.17	-1.59	85.49	75.57	9.65	9.88	10.95	-1.49
WSI ESX522 - DRO	81.14	78.76	10.14	10.37	11.44	-1.15	82.56	79.00	10.24	10.47	11.54	-1.44
Alps Universal - DRO	76.55	75.86	9.70	9.93	11.00	1.18	77.10	71.19	9.03	9.26	10.33	1.23
Sample #1 - PLL - 1 Output	78.41	78.00	10.03	10.26	11.33	-0.34	79.93	79.05	10.18	10.41	11.48	-0.28
Sample #2 - PLL - 1 Output	78.48	77.67	9.97	10.20	11.27	-0.10	79.51	78.48	10.10	10.33	11.40	-0.02
Sample #3 - DRO - 2 Outputs	80.05	78.76	10.17	10.40	11.47	-1.02	81.10	79.76	10.33	10.56	11.63	-0.86
Sample #4 - PLL - 2 Outputs	75.69	79.57	10.24	10.47	11.54	0.00	76.82	77.95	10.07	10.30	11.37	0.05
Sample #5 - PLL - 1 Output	82.30	79.14	10.20	10.43	11.50	-0.09	83.56	79.86	10.32	10.55	11.62	0.00
Sample #6 - DRO - 1 Output	81.75	77.95	9.97	10.20	11.27	0.18	83.09	77.76	9.98	10.21	11.28	-0.78
Averages	79.19	78.88	10.16	10.39	11.46	-0.21	79.95	78.48	10.12	10.34	11.42	-0.27

