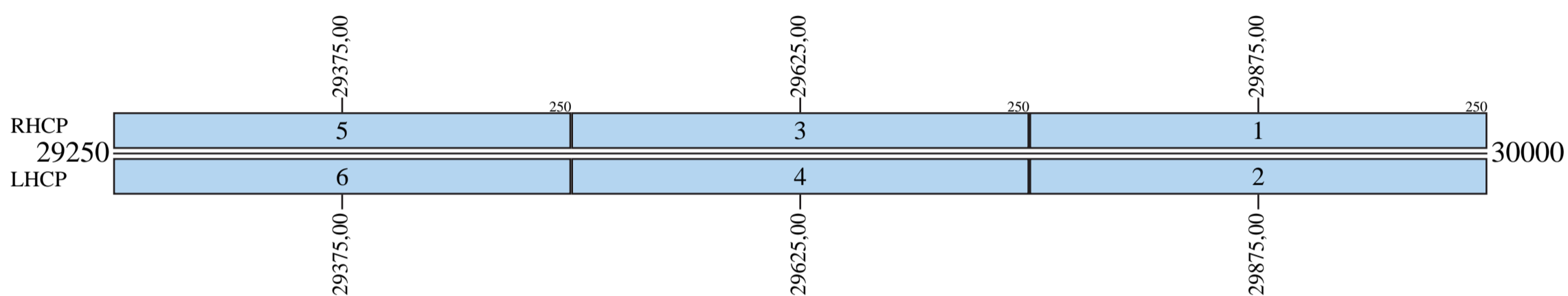
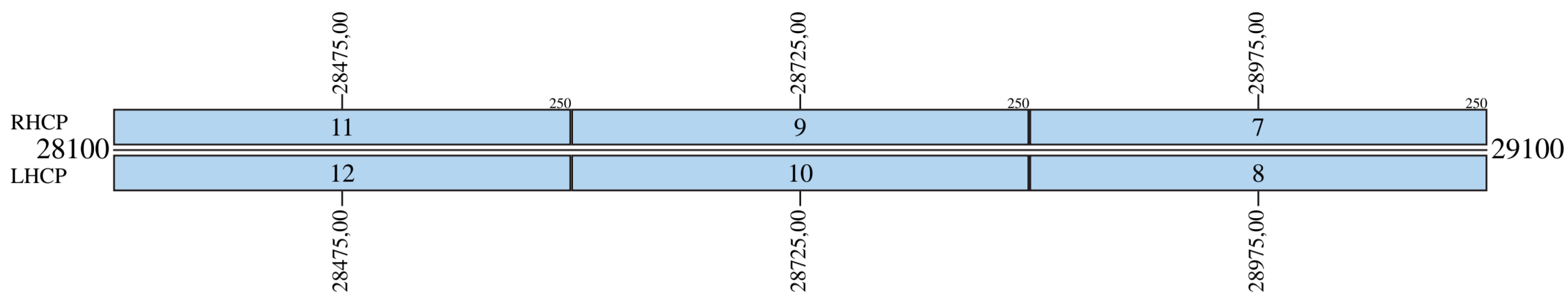


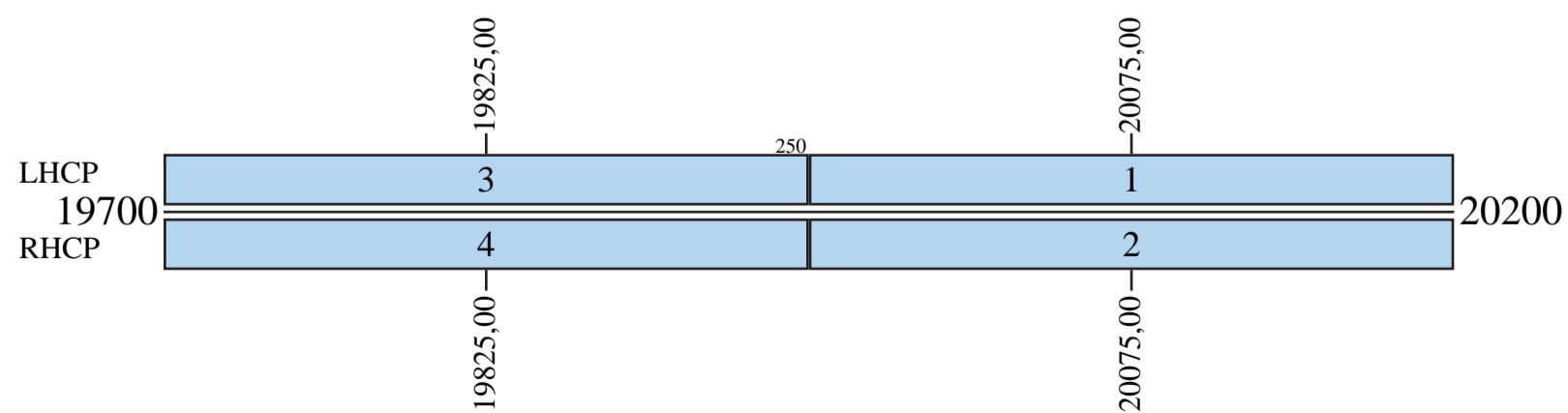
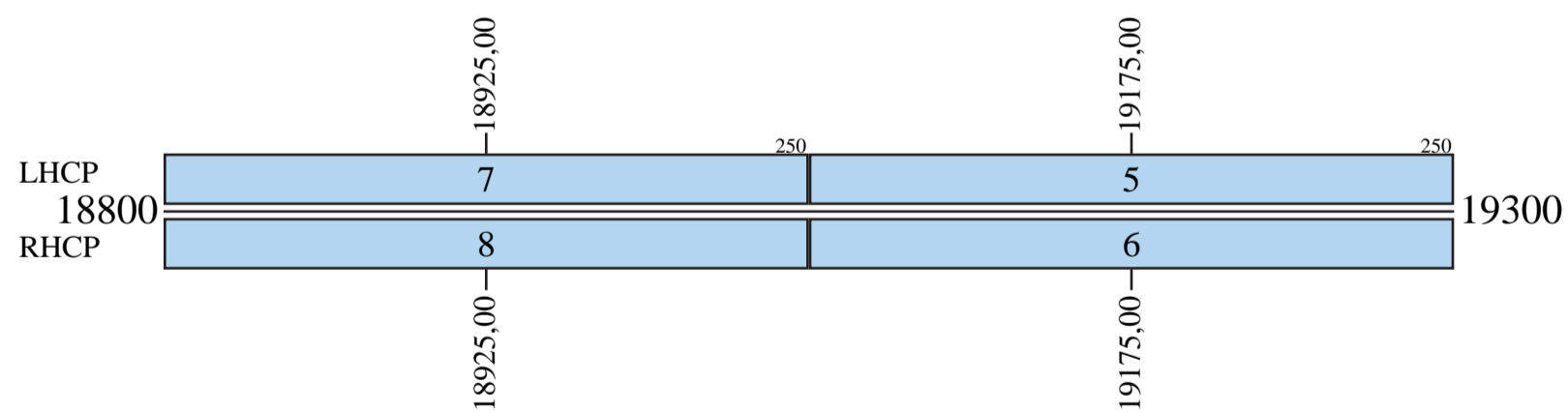
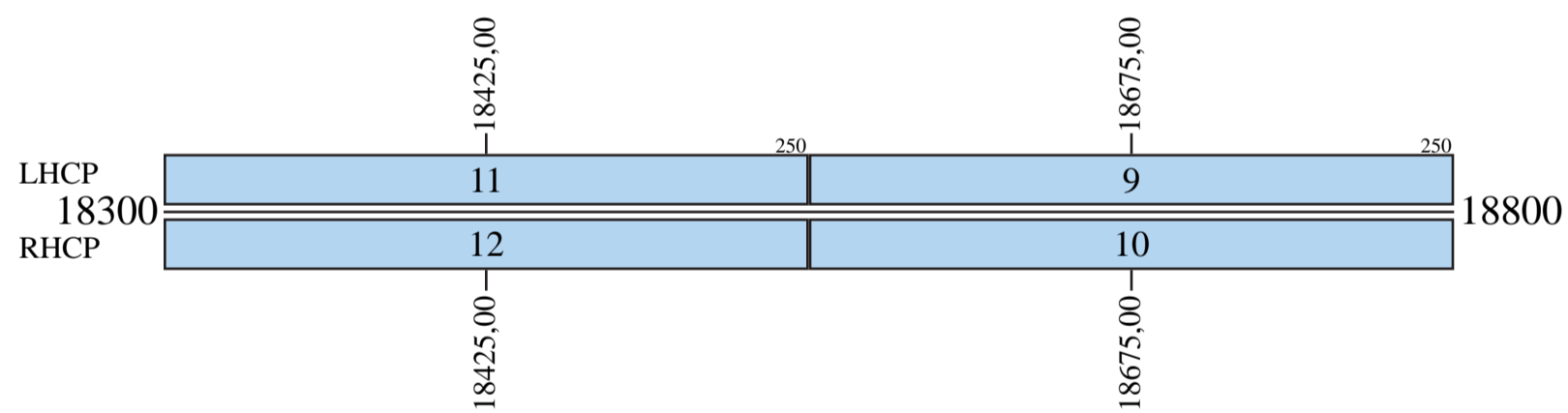
Spaceway 4

Frequency Plan Forward

Uplink



Downlink



Command 1: 28351,00 L Conus
 Command 2: 28353,00 L Conus
 Command 3: 38351,00 L Global
 Command 4: 38353,00 L Global
 Telemetry 1: 19700,50 R Conus
 Telemetry 2: 19702,50 R Conus
 Telemetry 3: 19700,50 R Global
 Telemetry 4: 19702,50 R Global
 RFAT 1: 29998,00 R Conus
 RFAT 2: 29998,00 L Conus
 Beacon : 20199,50 V Conus

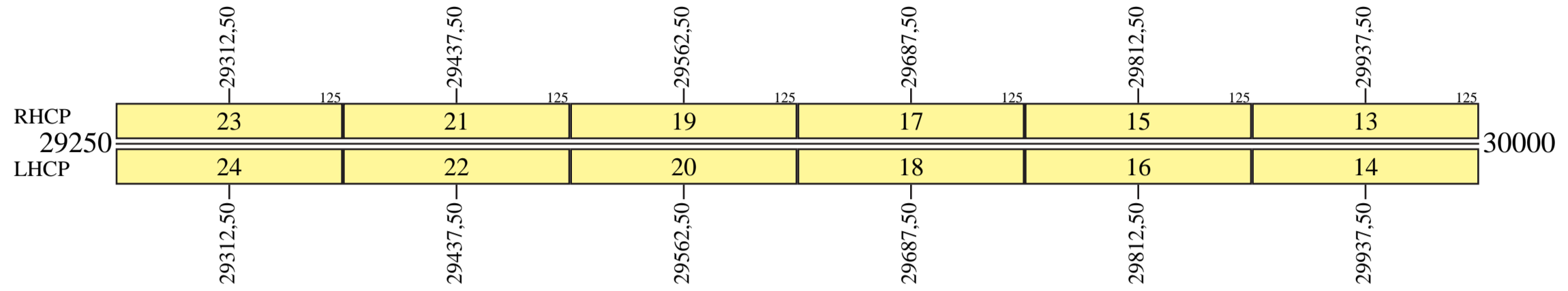
Forward Beam Interconnectivity					
U/L Beam	U/L Ch	U/L Pol	D/L Beam	D/L Ch	D/L Pol
G1	2	L	U34	11	R
G1	12	L	U34	9	R
G1	8	L	U34	5	R
G1	5	R	U39	4	L
G1	3	R	U39	2	L
G1	10	L	U39	8	L
G1	6	L	U40	3	R
G1	4	L	U40	1	R
G1	9	R	U40	7	R
G1	1	R	U46	12	L
G1	11	R	U46	10	L
G1	7	R	U46	6	L
G2	2	L	U14	11	R
G2	12	L	U14	9	R
G2	8	L	U14	5	R
G2	6	L	U23	3	R
G2	4	L	U23	1	R
G2	9	R	U23	7	R
G2	5	R	U26	4	L
G2	3	R	U26	2	L
G2	10	L	U26	8	L
G2	1	R	U12	12	L
G2	11	R	U12	10	L
G2	7	R	U12	6	L
G3	1	R	U19	12	L
G3	11	R	U19	10	L
G3	7	R	U19	6	L
G3	5	R	U22	4	L
G3	3	R	U22	2	L
G3	10	L	U22	8	L
G3	6	L	U25	3	R
G3	4	L	U25	1	R
G3	9	R	U25	7	R
G3	2	L	U32	11	R
G3	12	L	U32	9	R
G3	8	L	U32	5	R
G4	5	R	U24	4	L
G4	3	R	U24	2	L
G4	10	L	U24	8	L
G4	2	L	U28	11	R
G4	12	L	U28	9	R
G4	8	L	U28	5	R
G4	1	R	U31	12	L
G4	11	R	U31	10	L
G4	7	R	U31	6	L
G4	6	L	U38	3	R
G4	4	L	U38	1	R
G4	9	R	U38	7	R
G5	6	L	U27	3	R
G5	4	L	U27	1	R
G5	9	R	U27	7	R
G5	2	L	U30	11	R
G5	12	L	U30	9	R
G5	8	L	U30	5	R
G5	5	R	U41	4	L
G5	3	R	U41	2	L
G5	10	L	U41	8	L
G5	1	R	U48	12	L
G5	11	R	U48	10	L
G5	7	R	U48	6	L
G6	5	R	U6	4	L
G6	10	L	U6	8	L
G6	1	R	U13	12	L
G6	11	R	U13	10	L
G6	7	R	U13	6	L
G6	6	L	U21	3	R
G6	4	L	U21	1	R
G6	9	R	U21	7	R
G6	2	L	U35	11	R
G6	12	L	U35	9	R
G6	8	L	U35	5	R
G7	1	R	U11	12	L
G7	11	R	U11	10	L
G7	2	L	U45	11	R
G7	12	L	U45	9	R
G7	8	L	U45	5	R
G7	6	L	U53	3	R
G7	4	L	U53	1	R
G7	9	R	U53	7	R
G7	7	R	U58	6	L
G7	10	L	U58	8	L
G8	1	R	U29	12	L
G8	11	R	U29	10	L
G8	7	R	U29	6	L
G8	6	L	U36	3	R
G8	4	L	U36	1	R
G8	9	R	U36	7	R
G8	5	R	U54	4	L
G8	3	R	U54	2	L
G8	10	L	U54	8	L

Forward Beam Interconnectivity					
U/L Beam	U/L Ch	U/L Pol	D/L Beam	D/L Ch	D/L Pol
G8	2	L	U59	11	R
G8	12	L	U59	9	R
G8	8	L	U59	5	R
G9	2	L	U10	11	R
G9	12	L	U10	9	R
G9	8	L	U10	5	R
G9	6	L	U42	3	R
G9	4	L	U42	1	R
G9	9	R	U42	7	R
G9	1	R	U44	12	L
G9	11	R	U44	10	L
G9	7	R	U44	6	L
G9	5	R	U52	4	L
G9	3	R	U52	2	L
G9	10	R	U52	8	L
G10	2	L	U47	11	R
G10	12	L	U47	9	R
G10	8	L	U47	5	R
G10	3	R	U56	2	L
G10	6	L	U57	3	R
G10	4	L	U57	1	R
G10	9	R	U57	7	R
G10	7	R	U60	6	L
G10	10	L	U60	8	L
G11	6	L	U3	3	R
G11	4	L	U3	1	R
G11	9	R	U3	7	R
G11	5	R	U37	4	L
G11	3	R	U37	2	L
G11	10	L	U37	8	L
G11	2	L	U49	11	R
G11	12	L	U49	9	R
G11	8	L	U49	5	R
G11	1	R	U51	12	L
G11	11	R	U51	10	L
G11	7	R	U51	6	L
G12	5	R	U4	4	L
G12	10	L	U4	8	L
G12	6	L	U5	3	R
G12	4	L	U5	1	R
G12	9	R	U5	7	R
G12	2	L	U12	11	R
G12	12	L	U12	9	R
G12	8	L	U12	5	R
G12	1	R	U17	12	L
G12	11	R	U17	10	L
G12	7	R	U17	6	L
G13	5	R	U20	4	L
G13	3	R	U20	2	L
G13	10	L	U20	8	L
G13	8	L	U43	5	R
G13	9	R	U43	7	R
G13	1	R	U50	12	L
G13	11	R	U50	10	L
G13	7	R	U50	6	L
G13	6	L	U55	3	R
G13	4	L	U55	1	R
G14	1	R	U1	12	L
G14	11	R	U1	10	L
G14	7	R	U1	6	L
G14	5	R	U2	4	L
G14	3	R	U2	2	L
G14	10	L	U2	8	L
G14	6	L	U7	3	R
G14	4	L	U7	1	R
G14	2	L	U16	11	R
G14	12	L	U16	9	R
G14	8	L	U16	5	R
G15	5	R	U8	4	L
G15	3	R	U8	2	L
G15	10	L	U8	8	L
G15	6	L	U9	3	R
G15	4	L	U9	1	R
G15	9	R	U9	7	R
G15	1	R	U15	12	L
G15	11	R	U15	10	L
G15	7	R	U15	6	L
G15	2	L	U18	11	R
G15	12	L	U18	9	R
G15	8	L	U18	5	R

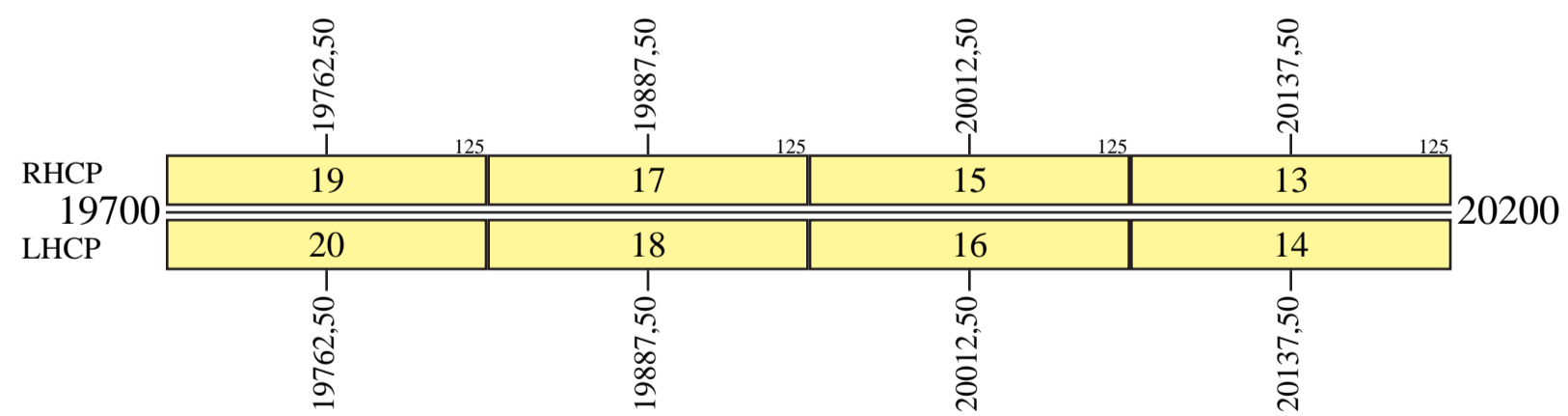
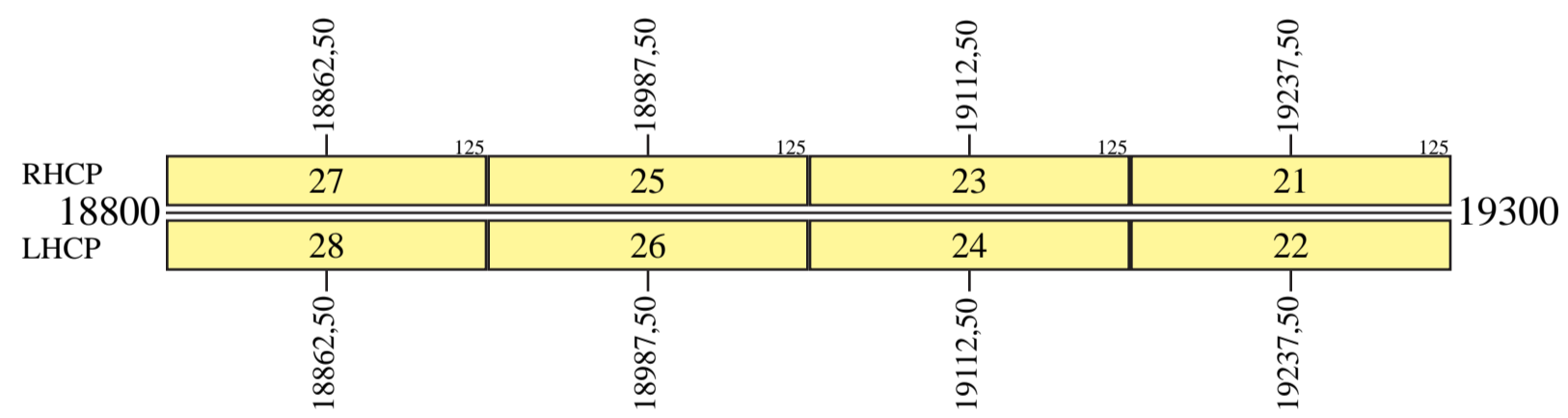
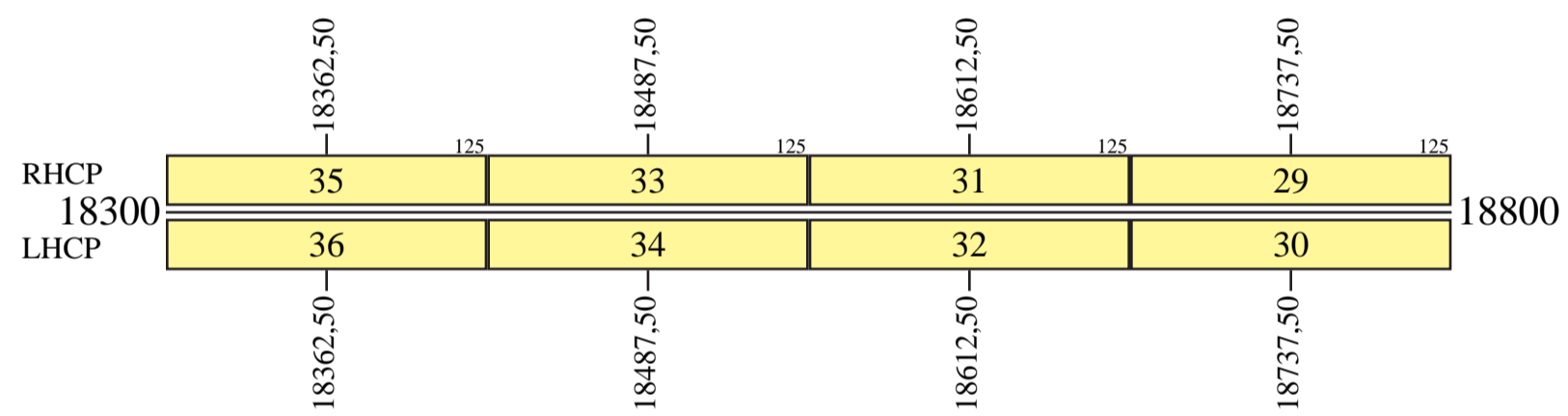
Spaceway 4

Frequency Plan Return

Uplink



Downlink



Gateway Beam Interconnectivity					
U/L Beam	U/L Ch	U/L Pol	D/L Beam	D/L Ch	D/L Pol
U1	23	R	G14	19	R
U1	23	R	G14	20	L
U1	21	R	G14	17	R
U1	21	R	G14	18	L
U1	15	R	G14	23	R
U1	15	R	G14	24	L
U2	19	R	G14	31	R
U2	19	R	G14	32	L
U2	17	R	G14	29	R
U2	17	R	G14	30	L
U2	13	R	G14	25	R
U2	13	R	G14	26	L
U3	20	L	G11	15	R
U3	20	L	G11	16	L
U3	18	L	G11	13	R
U3	18	L	G11	14	L
U3	14	L	G11	21	R
U3	14	L	G11	22	L
U4	19	R	G12	31	R
U4	19	R	G12	32	L
U4	17	R	G12	29	R
U4	17	R	G12	30	L
U4	13	R	G12	25	R
U4	13	R	G12	26	L
U5	20	L	G12	15	R
U5	20	L	G12	16	L
U5	18	L	G12	13	R
U5	18	L	G12	14	L
U5	14	L	G12	21	R
U5	14	L	G12	22	L
U6	19	R	G6	31	R
U6	19	R	G6	32	L
U6	17	R	G6	29	R
U6	17	R	G6	30	L
U7	20	L	G14	15	R
U7	20	L	G14	16	L
U7	18	L	G14	13	R
U7	18	L	G14	14	L
U8	19	R	G15	31	R
U8	19	R	G15	32	L
U8	17	R	G15	29	R
U8	17	R	G15	30	L
U8	13	R	G15	25	R
U8	13	R	G15	26	L
U9	20	L	G15	15	R
U9	20	L	G15	16	L
U9	18	L	G15	13	R
U9	18	L	G15	14	L
U9	14	L	G15	21	R
U9	14	L	G15	22	L
U10	24	L	G9	35	R
U10	24	L	G9	36	L
U10	22	L	G9	33	R
U10	22	L	G9	34	L
U10	16	L	G9	27	R
U10	16	L	G9	28	L
U11	23	R	G7	19	R
U11	23	R	G7	20	L
U11	21	R	G7	17	R
U11	21	R	G7	18	L
U12	24	L	G12	35	R
U12	24	L	G12	36	L
U12	22	L	G12	33	R
U12	22	L	G12	34	L
U12	16	L	G12	27	R
U12	16	L	G12	28	L
U13	23	R	G6	19	R
U13	23	R	G6	20	L
U13	21	R	G6	17	R
U13	21	R	G6	18	L
U14	24	L	G2	35	R
U14	24	L	G2	36	L
U14	22	L	G2	33	R
U14	22	L	G2	34	L
U14	16	L	G2	27	R
U14	16	L	G2	28	L
U15	23	R	G15	19	R
U15	23	R	G15	20	L
U15	21	R	G15	17	R
U15	21	R	G15	18	L
U15	15	R	G15	23	R
U15	15	R	G15	24	L
U16	24	L	G14	35	R
U16	24	L	G14	36	L
U16	22	L	G14	33	R
U16	22	L	G14	34	L
U16	16	L	G14	27	R
U16	16	L	G14	28	L

Gateway Beam Interconnectivity					
U/L Beam	U/L Ch	U/L Pol	D/L Beam	D/L Ch	D/L Pol
U17	23	R	G12	19	R
U17	23	R	G12	20	L
U17	21	R	G12	17	R
U17	21	R	G12	18	L
U17	15	R	G12	23	R
U17	15	R	G12	24	L
U18	24	L	G15	35	R
U18	24	L	G15	36	L
U18	22	L	G15	33	R
U18	22	L	G15	34	L
U18	16	L	G15	27	R
U18	16	L	G15	28	L
U19	23	R	G3	19	R
U19	23	R	G3	20	L
U19	21	R	G3	17	R
U19	21	R	G3	18	L
U19	15	R	G3	23	R
U19	15	R	G3	24	L
U20	19	R	G13	31	R
U20	19	R	G13	32	L
U20	17	R	G13	29	R
U20	17	R	G13	30	L
U20	13	R	G13	25	R
U20	13	R	G13	26	L
U21	20	R	G6	15	R
U21	20	R	G6	16	L
U21	18	R	G6	13	R
U21	18	R	G6	14	L
U22	19	R	G3	31	R
U22	19	R	G3	32	L
U22	17	R	G3	29	R
U22	17	R	G3	30	L
U22	13	R	G3	25	R
U22	13	R	G3	26	L
U23	20	L	G2	15	R
U23	20	L	G2	16	L
U23	18	L	G2	13	R
U23	18	L	G2	14	L
U23	14	L	G2	21	R
U23	14	L	G2	22	L
U24	19	R	G4	31	R
U24	19	R	G4	32	L
U24	17	R	G4	29	R
U24	17	R	G4	30	L
U24	13	R	G4	25	R
U24	13	R	G4	26	L
U25	20	L	G3	15	R
U25	20	L	G3	16	L
U25	18	L	G3	13	R
U25	18	L	G3	14	L
U25	14	L	G3	21	R
U25	14	L	G3	22	L
U26	19	R	G2	31	R
U26	19	R	G2	32	L
U26	17	R	G2	29	R
U26	17	R	G2	30	L
U26	13	R	G2	25	R
U26	13	R	G2	26	L
U27	20	L	G5	15	R
U27	20	L	G5	16	L
U27	18	L	G5	13	R
U27	18	L	G5	14	L
U27	14	L	G5	21	R
U27	14	L	G5	22	L
U28	24	L	G4	35	R
U28	24	L	G4	36	L
U28	22	L	G4	33	R
U28	22	L	G4	34	L
U28	16	L	G4	27	R
U28	16	L	G4	28	L
U29	23	R	G8	19	R
U29	23	R	G8	20	L
U29	21	R	G8	17	R
U29	21	R	G8	18	L
U29	15	R	G8	23	R
U29	15	R	G8	24	L
U30	20	L	G5	15	R
U30	20	L	G5	16	L
U30	18	L	G5	13	R
U30	18	L	G5	14	L
U30	14	L	G5	21	R
U30	14	L	G5	22	L
U31	23	R	G4	19	R
U31	23	R	G4	20	L
U31	21	R	G4	17	R
U31	21	R	G4	18	L
U31	15	R	G4	23	R
U31	15	R	G4	24	L

Gateway Beam Interconnectivity					
U/L Beam	U/L Ch	U/L Pol	D/L Beam	D/L Ch	D/L Pol
U32	24	L	G3	35	R
U32	24	L	G3	36	L
U32	22	L	G3	33	R
U32	22	L	G3	34	L
U32	16	L	G3	27	R
U32	16	L	G3	28	L
U33	23	R	G2	19	R
U33	23	R	G2	20	L
U33	21	R	G2	17	R
U33	21	R	G2	18	L
U33	15	R	G2	23	R
U33	15	R	G2	24	L
U34	24	L	G1	35	R
U34	24	L	G1	36	L
U34	22	L	G1	33	R
U34	22	L	G1	34	L
U34	16	L	G1	27	R
U34	16	L	G1	28	L
U35	24	L	G6	35	R
U35	24	L	G6	36	L
U35	22	L	G6	33	R
U35	22	L	G6	34	L
U36	20	L	G8	15	R
U36	20	L	G8	16	L
U36	18	L	G8	13	R
U36	18	L	G8	14	L
U36	14	L	G8	21	R
U36	14	L	G8	22	L
U37	19	R	G11	31	R
U37	19	R	G11	32	L
U37	17	R	G11	29	R
U37	17	R	G11	30	L
U37	13	R	G11	25	R
U37	13	R	G11	26	L
U38	20	L	G4	15	R
U38	20	L	G4	16	L
U38	18	L	G4	13	R
U38	18	L	G4	14	L
U38	14	L	G4	21	R
U38	14	L	G4	22	L
U39	19	R	G1	31	R
U39	19	R	G1	32	L
U39	17	R	G1	29	R
U39	17	R	G1	30	L
U39	13	R	G1	25	R
U39	13	R	G1	26	L
U40	20	L	G1	15	R
U40	20	L	G1	16	L
U40	18	L	G1	13	R
U40	18	L	G1	14	L
U40	14	L	G1	21	R
U40	14	L	G1	22	L
U41	19	R	G5	31	R
U41	19	R	G5	32	L
U41	17	R	G5	29	R
U41	17	R	G5	30	L
U41	13	R	G5	25	R
U41	13	R	G5	26	L
U42	20	L	G9	15	R
U42	20	L	G9	16	L
U42	18	L	G9	13	R
U42	18	L	G9	14	L
U42	14	L	G9	21	R
U42	14	L	G9	22	L
U43	16	L	G13	27	R
U43	16	L	G13	28	L
U43	14	L	G13	21	R
U43	14	L	G13	22	L
U44	23	R	G9	19	R
U44	23	R	G9	20	L
U44	21	R	G9	17	R
U44	21	R	G9	18	L
U44	15	R	G9	23	R
U44	15	R	G9	24	L
U45	24	L	G7	35	R
U45	24	L	G7	36	L
U45	22	L	G7	33	R
U45	22	L	G7	34	L
U46	23	R	G1	19	R
U46	23	R	G1	20	L
U46	21	R	G1	17	R
U46	21	R	G1	18	L
U46	15	R	G1	23	R
U46	15	R	G1	24	L
U47	24	L	G10	35	R
U47	24	L	G10	36	L
U47	22	L	G10	33	R
U47	22	L	G10	34	L

Gateway Beam Interconnectivity					
U/L Beam	U/L Ch	U/L Pol	D/L Beam	D/L Ch	D/L Pol
U48	23	R	G5	19	R
U48	23	R	G5	20	L
U48	21	R	G5	17	R
U48	21	R	G5	18	L
U48	15	R	G5	23	R
U48	15	R	G5	24	L
U49	24	L	G11	35	R
U49	24	L	G11	36	L
U49	22	L	G11	33	R
U49	22	L	G11	34	L
U49	16	L	G11	27	R
U49	16	L	G11	28	L
U50	23	R	G13	19	R
U50	23	R	G13	20	L
U50	21	R	G13	17	R
U50	21	R	G13	18	L
U50	15	R	G13	23	R
U50	15	R	G13	24	L
U51	23	R	G11	19	R
U51	23	R	G11	20	L
U51	21	R	G11	17	R
U51	21	R	G11	18	L
U51	15	R	G11	23	R
U51	15	R	G11	24	L
U52	19	R	G9	31	R
U52	19	R	G9	32	L
U52	17	R	G9	29	R
U52	17	R	G9	30	L
U52	13	R	G9	25	R
U52	13	R	G9	26	L
U53	20	L	G7	15	R
U53	20	L	G7	16	L
U53	18	L	G7	13	R
U53	18	L	G7	14	L
U54	19	R	G8	31	R
U54	19	R	G8	32	L
U54	17	R	G8	29	R
U54	17	R	G8	30	L
U54	13	R	G8	25	R
U54	13	R	G8	26	L
U55	20	L	G13	15	R
U55	20	L	G13	16	L
U55	18	L	G13	13	R
U55	18	L	G13	14	L
U56	19	R	G10	31	R
U56	19	R	G10	32	L
U56	17	R	G10	29	R
U56	17	R	G10	30	L
U57	20	L	G10	15	R
U57	20	L	G10	16	L
U57	18	L	G10	13	R
U57	18	L	G10	14	L
U58	19	R	G7	31	R
U58	19	R	G7	32	L
U58	17	R	G7	29	R
U58	17	R	G7	30	L
U59	24	L	G8	35	R
U59	24	L	G8	36	L
U59	22	L	G8	33	R
U59	22	L	G8	34	L
U59	16	L	G8	27	R
U59	16	L	G8	28	L
U60	23	R	G10	19	R
U60	23	R	G10	20	L
U60	21	R	G10	17	R
U60	21	R	G10	18	L