

Corner Station Controls Chassis 6		Left Rail						
Name	Color	Rail	Module	Number	Channel	Type	Adapter	Pin
Power								
24V	violet	L	OMRON	DC_1	24V	P	TBLOCK	
0V	gray	L	OMRON	DC_1	0V	P	TBLOCK	
24V	violet	L	EK1101	0	24V	P	TBLOCK	
0V	gray	L	EK1101	0	0V	P	TBLOCK	
5V_1	red	L	EK1101	0	+	P	DC_1	+V
5VRET_1	black	L	EK1101	0	-	P	DC_1	-V
24V	violet	L	EL9410	7	24V	P	TBLOCK	
0V	gray	L	EL9410	7	0V	P	TBLOCK	
5V_2	red	L	EL9410	7	+	P	DC_2	+V
5VRET_2	black	L	EL9410	7	-	P	DC_2	-V
24V	violet	L	EL9410	17	24V	P	TBLOCK	
0V	gray	L	EL9410	17	0V	P	TBLOCK	
5V_3	red	L	EL9410	17	+	P	DC_3	+V
5VRET_3	black	L	EL9410	17	-	P	DC_3	-V
24V	violet	L	OMRON	DC_2	24V	P	TBLOCK	
0V	gray	L	OMRON	DC_2	0V	P	TBLOCK	
24V	violet	L	OMRON	DC_3	24V	P	TBLOCK	
0V	gray	L	OMRON	DC_3	0V	P	TBLOCK	
Coupler								
Input	CAT5	L	EK1101	0	X1	Comm.	IN	
Output	CAT5	L	EK1101	0	X2	Comm.	M/0	X1
RF Amp 3								
Monitor 1 +	green	L	EL3104	1	+1	AI	11	12
Monitor 1 -	white	L	EL3104	1	-1	AI	11	31
Monitor 2 +	green	L	EL3104	1	+2	AI	11	11
Monitor 2 -	white	L	EL3104	1	-2	AI	11	30
Monitor 3 +	green	L	EL3104	1	+3	AI	11	10
Monitor 3 -	white	L	EL3104	1	-3	AI	11	29
Monitor 4 +	green	L	EL3104	1	+4	AI	11	9
Monitor 4 -	white	L	EL3104	1	-4	AI	11	28
Monitor 5 +	green	L	EL3104	2	+1	AI	11	8
Monitor 5 -	white	L	EL3104	2	-1	AI	11	27
Monitor 6 +	green	L	EL3104	2	+2	AI	11	7
Monitor 6 -	white	L	EL3104	2	-2	AI	11	26
Monitor 7 +	green	L	EL3104	2	+3	AI	11	6
Monitor 7 -	white	L	EL3104	2	-3	AI	11	25
Monitor 8 +	green	L	EL3104	2	+4	AI	11	5
Monitor 8 -	white	L	EL3104	2	-4	AI	11	24
Monitor 9 +	green	L	EL3104	3	+1	AI	11	4
Monitor 9 -	white	L	EL3104	3	-1	AI	11	23
Monitor 10 +	green	L	EL3104	3	+2	AI	11	3
Monitor 10 -	white	L	EL3104	3	-2	AI	11	22
Monitor 11 +	green	L	EL3104	3	+3	AI	11	2
Monitor 11 -	white	L	EL3104	3	-3	AI	11	21
Monitor 12 +	green	L	EL3104	3	+4	AI	11	1
Monitor 12 -	white	L	EL3104	3	-4	AI	11	20
5VRET_1	black	L	EL1124	4	-	P	11	19
OK1	brown	L	EL1124	4	I1	BI	11	37
OK2	brown	L	EL1124	4	I2	BI	11	17
OK3	brown	L	EL1124	4	I3	BI	11	34
OK4	brown	L	EL1124	4	I4	BI	11	14
OK5	brown	L	EL1124	5	I1	BI	11	18
OK6	brown	L	EL1124	5	I2	BI	11	35
OK7	brown	L	EL1124	5	I3	BI	11	15
OK8	brown	L	EL1124	5	I4	BI	11	32
OK9	brown	L	EL1124	6	I1	BI	11	36
OK10	brown	L	EL1124	6	I2	BI	11	16
OK11	brown	L	EL1124	6	I3	BI	11	33
OK12	brown	L	EL1124	6	I4	BI	11	13
Low Noise VCO w/ PLL B								
Monitor 1 +	green	L	EL3104	8	+1	AI	10	1
Monitor 1 -	white	L	EL3104	8	-1	AI	10	14

Monitor 2 +	green	L	EL3104	8	+12	AI	10	2
Monitor 2 –	white	L	EL3104	8	-12	AI	10	15
Monitor 3 +	green	L	EL3104	8	+13	AI	10	3
Monitor 3 –	white	L	EL3104	8	-13	AI	10	16
Temp 1 +	green	L	EL3104	8	+14	AI	10	4
Temp 1 –	white	L	EL3104	8	-14	AI	10	17
PLL error signal +	green	L	EL3104	9	+11	AI	9	1
PLL error signal –	white	L	EL3104	9	-11	AI	9	14
PLL control signal +	green	L	EL3104	9	+12	AI	9	2
PLL control signal –	white	L	EL3104	9	-12	AI	9	15
Tune monitor +	green	L	EL3104	9	+13	AI	10	10
Tune monitor –	white	L	EL3104	9	-13	AI	10	23
Spare +	green	L	EL3104	9	+14	AI	10	12
Spare –	white	L	EL3104	9	-14	AI	10	25
Tune adjust +	blue	L	EL4132	10	O1	AO	10	11
Tune adjust –	yellow	L	EL4132	10	COM	AO	10	24
PLL Offset adjust +	blue	L	EL4132	10	O2	AO	9	3
PLL Offset adjust –	yellow	L	EL4132	10	COM	AO	9	16
SVRET_2	black	L	EL1124	11	-	P	10	20
SVRET_2	black	L	EL1124	11	-	P	9	13
Excitation switch	brown	L	EL1124	11	I1	BI	10	9
OK	brown	L	EL1124	11	I2	BI	10	7
PLL OK	brown	L	EL1124	11	I3	BI	9	25
	brown	L	EL1124	11	I4	BI		
Excitation enable	orange	L	EL2124	12	O1	BO	10	8
	orange	L	EL2124	12	O2	BO		
PLL input enable	orange	L	EL2124	12	O3	BO	9	4
PLL sign	orange	L	EL2124	12	O4	BO	9	17
PLL first compensation	orange	L	EL2124	13	O1	BO	9	5
PLL second compensation	orange	L	EL2124	13	O2	BO	9	18
PLL gain slider input 2 bit 0	orange	L	EL2124	13	O3	BO	9	6
PLL gain slider input 2 bit 1	orange	L	EL2124	13	O4	BO	9	19
PLL gain slider input 2 bit 2	orange	L	EL2124	14	O1	BO	9	7
PLL gain slider input 2 bit 3	orange	L	EL2124	14	O2	BO	9	20
PLL gain slider input 2 bit 4	orange	L	EL2124	14	O3	BO	9	8
PLL gain slider input 2 bit 5	orange	L	EL2124	14	O4	BO	9	21
PLL option	orange	L	EL2124	15	O1	BO	9	9
PLL output enable	orange	L	EL2124	15	O2	BO	9	22
PLL integrator	orange	L	EL2124	15	O3	BO	9	10
PLL generic filter	orange	L	EL2124	15	O4	BO	9	23
PLL VCO filter	orange	L	EL2124	16	O1	BO	9	11
PLL Low pass	orange	L	EL2124	16	O2	BO	9	24
PLL Excitation enable	orange	L	EL2124	16	O3	BO	9	12
	orange	L	EL2124	16	O4	BO		
Low Noise VCO w/ PLL A								
Monitor 1 +	green	L	EL3104	18	+11	AI	8	1
Monitor 1 –	white	L	EL3104	18	-11	AI	8	14
Monitor 2 +	green	L	EL3104	18	+12	AI	8	2
Monitor 2 –	white	L	EL3104	18	-12	AI	8	15
Monitor 3 +	green	L	EL3104	18	+13	AI	8	3
Monitor 3 –	white	L	EL3104	18	-13	AI	8	16
Temp 1 +	green	L	EL3104	18	+14	AI	8	4
Temp 1 –	white	L	EL3104	18	-14	AI	8	17
PLL error signal +	green	L	EL3104	19	+11	AI	7	1
PLL error signal –	white	L	EL3104	19	-11	AI	7	14
PLL control signal +	green	L	EL3104	19	+12	AI	7	2
PLL control signal –	white	L	EL3104	19	-12	AI	7	15
Tune monitor +	green	L	EL3104	19	+13	AI	8	10
Tune monitor –	white	L	EL3104	19	-13	AI	8	23
Spare +	green	L	EL3104	19	+14	AI	8	12
Spare –	white	L	EL3104	19	-14	AI	8	25
Tune adjust +	blue	L	EL4132	20	O1	AO	8	11
Tune adjust –	yellow	L	EL4132	20	COM	AO	8	24
PLL Offset adjust +	blue	L	EL4132	20	O2	AO	7	3
PLL Offset adjust –	yellow	L	EL4132	20	COM	AO	7	16
SVRET_3	black	L	EL1124	21	-	P	8	20

SVRET_3	black	L	EL1124	21	-	P	7	13
Excitation switch	brown	L	EL1124	21	I1	BI	8	9
OK	brown	L	EL1124	21	I2	BI	8	7
PLL OK	brown	L	EL1124	21	I3	BI	7	25
	brown	L	EL1124	21	I4	BI		
Excitation enable	orange	L	EL2124	22	O1	BO	8	8
	orange	L	EL2124	22	O2	BO		
PLL input enable	orange	L	EL2124	22	O3	BO	7	4
PLL sign	orange	L	EL2124	22	O4	BO	7	17
PLL first compensation	orange	L	EL2124	23	O1	BO	7	5
PLL second compensation	orange	L	EL2124	23	O2	BO	7	18
PLL gain slider input 2 bit 0	orange	L	EL2124	23	O3	BO	7	6
PLL gain slider input 2 bit 1	orange	L	EL2124	23	O4	BO	7	19
PLL gain slider input 2 bit 2	orange	L	EL2124	24	O1	BO	7	7
PLL gain slider input 2 bit 3	orange	L	EL2124	24	O2	BO	7	20
PLL gain slider input 2 bit 4	orange	L	EL2124	24	O3	BO	7	8
PLL gain slider input 2 bit 5	orange	L	EL2124	24	O4	BO	7	21
PLL option	orange	L	EL2124	25	O1	BO	7	9
PLL output enable	orange	L	EL2124	25	O2	BO	7	22
PLL integrator	orange	L	EL2124	25	O3	BO	7	10
PLL generic filter	orange	L	EL2124	25	O4	BO	7	23
PLL VCO filter	orange	L	EL2124	26	O1	BO	7	11
PLL Low pass	orange	L	EL2124	26	O2	BO	7	24
PLL Excitation enable	orange	L	EL2124	26	O3	BO	7	12
	orange	L	EL2124	26	O4	BO		

Corner Station Controls Chassis 6			Middle Rail					
Name	Color	Rail	Module	Number	Channel	Type	Adapter	Pin
Power								
24V	violet	M	OMRON	DC_4	24V	P	TBLOCK	
0V	gray	M	OMRON	DC_4	0V	P	TBLOCK	
24V	violet	M	EK1100	0	24V	P	TBLOCK	
0V	gray	M	EK1100	0	0V	P	TBLOCK	
24V	violet	M	EK1100	0	+	P	TBLOCK	
0V	gray	M	EK1100	0	-	P	TBLOCK	
5V_4	red	M	EL9190	3	+	P	DC_4	+V
5VRET_4	black	M	EL9190	3	-	P	DC_4	-V
24V	violet	M	EK1100	9	24V	P	TBLOCK	
0V	gray	M	EK1100	9	0V	P	TBLOCK	
5V_5	red	M	EK1100	9	+	P	DC_5	+V
5VRET_5	black	M	EK1100	9	-	P	DC_5	-V
24V	violet	M	OMRON	DC_5	24V	P	TBLOCK	
0V	gray	M	OMRON	DC_5	0V	P	TBLOCK	
Coupler								
Output	CAT5	L	EK1101	0	X2	Comm.	R/O	X1
Fast Shutter (see T1400687 for details)								
High Voltage Ready Monitor	brown	M	EL1098	1	I1	BI	6	1
Status Monitor	brown	M	EL1098	1	I2	BI	6	2
Composite Fault	brown	M	EL1098	1	I3	BI	6	3
Spare 1	brown	M	EL1098	1	I4	BI	6	4
Spare 2	brown	M	EL1098	1	I5	BI	6	5
Spare 3	brown	M	EL1098	1	I6	BI	6	6
Spare 4	brown	M	EL1098	1	I7	BI	6	7
Spare 5	brown	M	EL1098	1	I8	BI	6	8
Shutter Up Command (Block Beam)	orange	M	EL2004	2	O1	BO	6	9
0V	grey	M	EL2004	2	-	P	6	14
Shutter Down Command (Unblock Beam)	orange	M	EL2004	2	O2	BO	6	10
		M	EL2004	2	-	P	6	15
Spare 1	orange	M	EL2004	2	O3	BO	6	11
		M	EL2004	2	-	P	6	16
Spare 2	orange	M	EL2004	2	O4	BO	6	12
		M	EL2004	2	-	P	6	17
EOM Driver B								
Bias 1 +	green	M	EL3104	4	+11	AI	5	10
Bias 1 -	white	M	EL3104	4	-11	AI	5	23
Bias 2 +	green	M	EL3104	4	+12	AI	5	11
Bias 2 -	white	M	EL3104	4	-12	AI	5	24
SlowControl +	green	M	EL3104	4	+13	AI	5	12
SlowControl -	white	M	EL3104	4	-13	AI	5	25
SP0 +	green	M	EL3104	4	+14	AI	5	1
SP0 -	white	M	EL3104	4	-14	AI	5	22
5VRET_4	black	M	EL1124	5	-	P	5	13
Excitation enabled	brown	M	EL1124	5	I1	BI	5	16
RF On	brown	M	EL1124	5	I2	BI	5	4
Internal/External	brown	M	EL1124	5	I3	BI	5	17
OK	brown	M	EL1124	5	I4	BI	5	5
Excitation switch	orange	M	EL2124	6	O1	BO	5	15
Value enable	orange	M	EL2124	6	O2	BO	5	3
SP1	orange	M	EL2124	6	O3	BO	5	14
SP2	orange	M	EL2124	6	O4	BO	5	2
Value bit 0	orange	M	EL2124	7	O1	BO	5	18
Value bit 1	orange	M	EL2124	7	O2	BO	5	6
Value bit 2	orange	M	EL2124	7	O3	BO	5	19
Value bit 3	orange	M	EL2124	7	O4	BO	5	7
Value bit 4	orange	M	EL2124	8	O1	BO	5	20
Value bit 5	orange	M	EL2124	8	O2	BO	5	8
Value bit 6	orange	M	EL2124	8	O3	BO	5	21
Value bit 7	orange	M	EL2124	8	O4	BO	5	9
EOM Driver B								
Bias 1 +	green	M	EL3104	10	+11	AI	4	10
Bias 1 -	white	M	EL3104	10	-11	AI	4	23

Bias 2 +	green	M	EL3104	10	+12	AI	4	11
Bias 2 -	white	M	EL3104	10	-12	AI	4	24
SlowControl +	green	M	EL3104	10	+13	AI	4	12
SlowControl -	white	M	EL3104	10	-13	AI	4	25
SP0 +	green	M	EL3104	10	+14	AI	4	1
SP0 -	white	M	EL3104	10	-14	AI	4	22
SVRET_4	black	M	EL1124	11	-	P	4	13
Excitation enabled	brown	M	EL1124	11	I1	BI	4	16
RF On	brown	M	EL1124	11	I2	BI	4	4
Internal/External	brown	M	EL1124	11	I3	BI	4	17
OK	brown	M	EL1124	11	I4	BI	4	5
Excitation switch	orange	M	EL2124	12	O1	BO	4	15
Value enable	orange	M	EL2124	12	O2	BO	4	3
SP1	orange	M	EL2124	12	O3	BO	4	14
SP2	orange	M	EL2124	12	O4	BO	4	2
Value bit 0	orange	M	EL2124	13	O1	BO	4	18
Value bit 1	orange	M	EL2124	13	O2	BO	4	6
Value bit 2	orange	M	EL2124	13	O3	BO	4	19
Value bit 3	orange	M	EL2124	13	O4	BO	4	7
Value bit 4	orange	M	EL2124	14	O1	BO	4	20
Value bit 5	orange	M	EL2124	14	O2	BO	4	8
Value bit 6	orange	M	EL2124	14	O3	BO	4	21
Value bit 7	orange	M	EL2124	14	O4	BO	4	9

Corner Station Controls Chassis 6		Right Rail						
Name	Color	Rail	Module	Number	Channel	Type	Adapter	Pin
Power								
24V	violet	R	OMRON	DC_6	24V	P	TBLOCK	
0V	gray	R	OMRON	DC_6	0V	P	TBLOCK	
24V	violet	R	EK1100	0	24V	P	TBLOCK	
0V	gray	R	EK1100	0	0V	P	TBLOCK	
5V_6	red	R	EK1100	0	+	P	DC_6	+V
5VRET_6	black	R	EK1100	0	-	P	DC_6	-V
5V_7	red	R	EL9190	7	+	P	DC_7	+V
5VRET_7	black	R	EL9190	7	-	P	DC_7	-V
24V	violet	R	EK1100	10	24V	P	TBLOCK	
0V	gray	R	EK1100	10	0V	P	TBLOCK	
5V_8	red	R	EK1100	10	+	P	DC_8	+V
5VRET_8	black	R	EK1100	10	-	P	DC_8	-V
5V_9	red	R	EL9190	13	+	P	DC_9	+V
5VRET_9	black	R	EL9190	13	-	P	DC_9	-V
24V	violet	R	EL9190	16	+	P	TBLOCK	
0V	gray	R	EL9190	16	-	P	TBLOCK	
24V	violet	R	OMRON	DC_7	24V	P	TBLOCK	
0V	gray	R	OMRON	DC_7	0V	P	TBLOCK	
24V	violet	R	OMRON	DC_8	24V	P	TBLOCK	
0V	gray	R	OMRON	DC_8	0V	P	TBLOCK	
24V	violet	R	OMRON	DC_9	24V	P	TBLOCK	
0V	gray	R	OMRON	DC_9	0V	P	TBLOCK	
Coupler								
Output	CAT5	R	EK1100	0	X2	Comm.	OUT	
RF Amp 4								
Monitor 1 +	green	R	EL3104	1	+11	AI	3	12
Monitor 1 -	white	R	EL3104	1	-11	AI	3	31
Monitor 2 +	green	R	EL3104	1	+12	AI	3	11
Monitor 2 -	white	R	EL3104	1	-12	AI	3	30
Monitor 3 +	green	R	EL3104	1	+13	AI	3	10
Monitor 3 -	white	R	EL3104	1	-13	AI	3	29
Monitor 4 +	green	R	EL3104	1	+14	AI	3	9
Monitor 4 -	white	R	EL3104	1	-14	AI	3	28
Monitor 5 +	green	R	EL3104	2	+11	AI	3	8
Monitor 5 -	white	R	EL3104	2	-11	AI	3	27
Monitor 6 +	green	R	EL3104	2	+12	AI	3	7
Monitor 6 -	white	R	EL3104	2	-12	AI	3	26
Monitor 7 +	green	R	EL3104	2	+13	AI	3	6
Monitor 7 -	white	R	EL3104	2	-13	AI	3	25
Monitor 8 +	green	R	EL3104	2	+14	AI	3	5
Monitor 8 -	white	R	EL3104	2	-14	AI	3	24
Monitor 9 +	green	R	EL3104	3	+11	AI	3	4
Monitor 9 -	white	R	EL3104	3	-11	AI	3	23
Monitor 10 +	green	R	EL3104	3	+12	AI	3	3
Monitor 10 -	white	R	EL3104	3	-12	AI	3	22
Monitor 11 +	green	R	EL3104	3	+13	AI	3	2
Monitor 11 -	white	R	EL3104	3	-13	AI	3	21
Monitor 12 +	green	R	EL3104	3	+14	AI	3	1
Monitor 12 -	white	R	EL3104	3	-14	AI	3	20
5VRET_6	black	R	EL1124	4	-	P	3	19
OK1	brown	R	EL1124	4	I1	BI	3	37
OK2	brown	R	EL1124	4	I2	BI	3	17
OK3	brown	R	EL1124	4	I3	BI	3	34
OK4	brown	R	EL1124	4	I4	BI	3	14
OK5	brown	R	EL1124	5	I1	BI	3	18
OK6	brown	R	EL1124	5	I2	BI	3	35
OK7	brown	R	EL1124	5	I3	BI	3	15
OK8	brown	R	EL1124	5	I4	BI	3	32
OK9	brown	R	EL1124	6	I1	BI	3	36
OK10	brown	R	EL1124	6	I2	BI	3	16
OK11	brown	R	EL1124	6	I3	BI	3	33
OK12	brown	R	EL1124	6	I4	BI	3	13

RF Frequency Difference Mixer								
Monitor 1 +	green	R	EL3104	8	+11	AI	2	1
Monitor 1 -	white	R	EL3104	8	-11	AI	2	14
Monitor 2 +	green	R	EL3104	8	+12	AI	2	2
Monitor 2 -	white	R	EL3104	8	-12	AI	2	15
Monitor 3 +	green	R	EL3104	8	+13	AI	2	3
Monitor 3 -	white	R	EL3104	8	-13	AI	2	16
Temp 1 +	green	R	EL3104	8	+14	AI	2	4
Temp 1 -	white	R	EL3104	8	-14	AI	2	17
SVRET_7	black	R	EL1124	9	-	P	2	20
	brown	R	EL1124	9	I1	BI	2	
OK	brown	R	EL1124	9	I2	BI	2	7
	brown	R	EL1124	9	I3	BI	2	
	brown	R	EL1124	9	I4	BI	2	
Fixed Ratio Frequency Source								
Monitor 1 +	green	R	EL3104	11	+11	AI	1	1
Monitor 1 -	white	R	EL3104	11	-11	AI	1	14
TuneMon +	green	R	EL3104	11	+12	AI	1	2
TuneMon -	white	R	EL3104	11	-12	AI	1	15
Alarm +	green	R	EL3104	11	+13	AI	1	3
Alarm -	white	R	EL3104	11	-13	AI	1	16
Temp 1 +	green	R	EL3104	11	+14	AI	1	4
Temp 1 -	white	R	EL3104	11	-14	AI	1	17
SVRET_8	black	R	EL1124	12	-	P	1	20
	brown	R	EL1124	12	I1	BI	1	
OK	brown	R	EL1124	12	I2	BI	1	7
	brown	R	EL1124	12	I3	BI	1	
	brown	R	EL1124	12	I4	BI	1	
3.125 MHz Squeezer Pickoff								
Monitor 1 +	green	R	EL3104	14	+11	AI	1	1
Monitor 1 -	white	R	EL3104	14	-11	AI	1	14
TuneMon +	green	R	EL3104	14	+12	AI	1	2
TuneMon -	white	R	EL3104	14	-12	AI	1	15
Alarm +	green	R	EL3104	14	+13	AI	1	3
Alarm -	white	R	EL3104	14	-13	AI	1	16
Temp 1 +	green	R	EL3104	14	+14	AI	1	4
Temp 1 -	white	R	EL3104	14	-14	AI	1	17
SVRET_9	black	R	EL1124	15	-	P	1	20
	brown	R	EL1124	15	I1	BI	1	
OK	brown	R	EL1124	15	I2	BI	1	7
	brown	R	EL1124	15	I3	BI	1	
	brown	R	EL1124	15	I4	BI	1	
DCPD Relays								
Relay 1A	orange	R	EL2004	17	O1	BO	6	1
0V	grey	R	EL2004	17	-	P	6	20
Relay 2A	orange	R	EL2004	17	O2	BO	6	2
0V	grey	R	EL2004	17	-	P	6	21
Relay 1B	orange	R	EL2004	17	O3	BO	6	3
0V	grey	R	EL2004	17	-	P	6	22
Relay 2B	orange	R	EL2004	17	O4	BO	6	4
0V	grey	R	EL2004	17	-	P	6	23
Relay 1A	orange	R	EL2004	18	O1	BO	6	5
0V	grey	R	EL2004	18	-	P	6	24
Relay 2A	orange	R	EL2004	18	O2	BO	6	6
0V	grey	R	EL2004	18	-	P	6	25
Relay 1B	orange	R	EL2004	18	O3	BO	6	7
0V	grey	R	EL2004	18	-	P	6	26
Relay 2B	orange	R	EL2004	18	O4	BO	6	8
0V	grey	R	EL2004	18	-	P	6	27