Box: OM1 | Operating Condition Mode: **Idle/Eng./Cal./Science** | Table 1

Optical Monitor Telescope | **MAXIMUM AVERAGE** | Measured over 5 mins.

	Supply (mA)	Blue Gp1					Gp2			Remarks	Assumption
Sub-system	MAIN	+25V	+15V	+11V	+5.3V	-5.3V	-15V	+28V	+7V		Code
Blue active										14.3 W	blue total
Camera Head		11	10	187	257	490				6.4 W	MS
Processing Electronics					1200					6.4 W	MS
High Voltage		25	15	50			9			1.5 W	MS
Motors								12		0.3 W	DS
Heaters	929									26.0 W	ES
											ES
TMPSU									220	1.5 W	ES
Total Current	929	36	25	237	1457	490	9	12	220		
Total Power	26.0	0.9	0.4	2.6	7.7	2.6	0.1	0.3	1.5	42.2 W	
Regulator Loss											
Total BOL Secondary Power										42.2 W	
Convertor Efficiency	n/a	72%	72%	72%	72%	72%	72%	72%	72%		
Convertor Power		0.4	0.1	1.0	3.0	1.0	0.1	0.1	0.6	6.3 W	
Total BOL 28 V Supply Power (BASIC POWER supported by measurement where possible)										48.5 W	
Contingency										2.4 W	
Identified Changes											
Total BOL 28 V Supply Power (Estimated Power)										50.9 W	
EOL Alocated Power										50.9 W	
Power Margin (Alowable increase from BOL to EOL)										0.0 W	

Box: OM1	Operating Condition Mode:			**Idle/Eng./Cal./Science**							Table 2
Optical Monitor Telescope				**LONG PEAK**		Measured over 100 ms, may last up to 5 mins.					
	Supply	Blue G					Gp2			Remarks	Assumption
Sub-system	MAIN	+25V	+15V	+11V	+5.3V	-5.3V	-15V	+28V	+7V		Code
Blue active										14.3 W	blue total
Camera Head		11	10	187	257	490				6.4 W	MS
Processing Electronics					1200					6.4 W	MS
High Voltage		25	15	50			9			1.5 W	ES
											ES
											ES
Motors		Note: Motors driven 1 at a time and while heaters are off.									DS
Heaters	1464									41.0 W	ES
											ES
TMPSU									220	1.5 W	ES
Total Current	1464	36	25	237	1457	490	9		220		
Total Power	41.0	0.9	0.4	2.6	7.7	2.6	0.1		1.5	56.9 W	
Regulator Loss											
Total BOL Secondary Power										56.9 W	
Convertor Efficiency	n/a	72%	72%	72%	72%	72%	72%	72%	72%		
Convertor Power		0.4	0.1	1.0	3.0	1.0	0.1		0.6	6.2 W	
Total BOL 28 V Supply Power (BASIC POWER supported by measurement where possible)										63.1 W	
Contingency (Design Maturity Code = SP 10%)										3.2 W	
Identified Changes											
Total BOL 28 V Supply Power (Estimated Power)										66.2 W	
EOL Alocated Power										66.2 W	
Power Margin (Alowable increase from BOL to EOL)										0.0 W	

Box: OM1	Operating Condition Mode:	**Safe**									Table 3
Optical Monitor Telescope		**MAXIMUM AVERAGE**		Measured over 5 mins.							
	Supply	Blue G					Gp2			Remarks	Assumption
Sub-system	MAIN	+25V	+15V	+11V	+5.3V	-5.3V	-15V	+28V	+7V		Code
Blue active										10.7 W	blue total
Camera Head		11	10	187	257	490				6.4 W	MS
Processing Electronics					700					3.7 W	MS
High Voltage		10	5	10			5			0.5 W	ES
											ES
											ES
Motors								12		0.3 W	DS
Heaters	929									26.0 W	ES
											ES
TMPSU									220	1.5 W	ES
Total Current	929	21	15	197	957		5	12	220		
Total Power	26.0	0.5	0.2	2.2	5.1		0.1	0.3	1.5	38.5 W	
Regulator Loss											
Total BOL Secondary Power										35.9 W	
Convertor Efficiency	n/a	72%	72%	72%	72%	72%	72%	72%	72%		
Convertor Power		0.2	0.1	0.8	2.0		0.0	0.1	0.6	3.9 W	
Total BOL 28 V Supply Power (BASIC POWER supported by measurement where possible)										39.8 W	
Contingency										2.0 W	
Identified Changes											
Total BOL 28 V Supply Power (Estimated Power)										41.8 W	
EOL Alocated Power										50.9 W	
Power Margin										9.1 W	

Box: OM1	Operating Condition Mode:	**Safe**									Table 4
Optical Monitor Telescope		**LONG PEAK**		Measured over 100 ms, may last up to 5 mins.							

	Supply	Blue G						Gp2		Remarks	Assumption
Sub-system	MAIN	+25V	+15V	+11V	+5.3V	-5.3V	-15V	+28V	+7V		Code
Blue active										10.7 W	blue total
Camera Head		11	10	187	257	490				6.4 W	MS
Processing Electronics					700					3.7 W	MS
High Voltage		10	5	10			5			0.5 W	ES
											ES
											ES
Motors											DS
Heaters	1464									41.0 W	ES
											ES
TMPSU									220	1.5 W	ES
Total Current	1464	21	15	197	957		5		220		
Total Power	41.0	0.5	0.2	2.2	5.1		0.1		1.5	53.2 W	
Regulator Loss											
Total BOL Secondary Power										50.6 W	
Convertor Efficiency	n/a	72%	72%	72%	72%	72%	72%	72%	72%		
Convertor Power		0.2	0.1	0.8	2.0		0.0		0.6	3.7 W	
Total BOL 28 V Supply Power (BASIC POWER supported by measurement where possible)										54.3 W	
Contingency										2.7 W	
Identified Changes											
Total BOL 28 V Supply Power (Estimated Power)										57.1 W	
EOL Alocated Power										66.2 W	
Power Margin										9.1 W	

Box: OM2 active Optical Digital Electronics	Operating Condition Mode: **All** **MAXIMUM AVERAGE** Measured over 5 mins.				Table 5
Sub-system	Supply (mA) MAIN +6.0V	 +5.3V	KEEP ALIVE +3.2V	Remarks	Assumption Code
Digital Processing Unit		793	1	4.2 W	MS
Instrument Control Unit		421	1	2.2 W	MS
DEM-Power Supply Unit		40		0.2 W	ES
Digital Bus Unit	128			0.8 W	ES
Total Current	128	1254	2		
Total Power	0.8	6.6	0.0	3.2 W	
Regulator Loss					
Total BOL Secondary Power				7.4 W	
Convertor Efficiency	77%	77%	50%		
Convertor Power	0.2	2.0	0.0	2.2 W	
Total BOL 28 V Supply Power (BASIC POWER supported by measurement where possible)				9.6 W	
Contingency				0.5 W	
Identified Changes					
Total BOL 28 V Supply Power (Estimated Power)				10.1 W	
EOL Alocated Power				11.81 W	
Power Margin (Alowable increase from BOL to EOL)				1.69 W	

Box: OM2 active/inactive Optical Digital Electronics	Operating Condition Mode:	**OFF** **MAXIMUM AVERAGE**	Measured over 5 mins.		Table 6
	Supply (mA)	MAIN	KEEP ALIVE	Remarks	Assumption
Sub-system	+6.0V	+5.3V	+3.2V		Code
Digital Processing Unit			30	0.1 W	MS
Instrument Control Unit			30	0.1 W	MS
DEM-Power Supply Unit					ES
Digital Bus Unit					ES
Total Current			60		
Total Power			0.2	0.1 W	
Regulator Loss					
Total BOL Secondary Power				0.2 W	
Convertor Efficiency	77%	77%	50%		
Convertor Power			0.2	0.2 W	
Total BOL 28 V Supply Power (BASIC POWER supported by measurement where possible)				0.4 W	
Contingency				0.0 W	
Identified Changes					
Total BOL 28 V Supply Power (Estimated Power)				0.40 W	
EOL Alocated Power				0.50 W	
Power Margin (Alowable increase from BOL to EOL)				0.10 W	

Box: OM2 active Optical Digital Electronics	Operating Condition Mode:	**Switch-on** **MAXIMUM AVERAGE**	Measured over 5 mins.		Table 7
Sub-system	Supply (mA) MAIN +6.0V	+5.3V	KEEP ALIVE +3.2V	Remarks	Assumption Code
Digital Processing Unit		793	1	4.2 W	MS
Instrument Control Unit		1052	1	5.6 W	MS
DEM-Power Supply Unit		40		0.2 W	ES
Digital Bus Unit	128			0.8 W	ES
Total Current	128	1885	2		
Total Power	0.8	10.0	0.0	6.6 W	
Regulator Loss					
Total BOL Secondary Power				10.8 W	
Convertor Efficiency	77%	77%	50%		
Convertor Power	0.2	3.0	0.0	3.2 W	
Total BOL 28 V Supply Power (BASIC POWER supported by measurement where possible)				14.0 W	
Contingency				0.7 W	
Identified Changes					
Total BOL 28 V Supply Power (Estimated Power)				14.7 W	
EOL Alocated Power				17.00 W	
Power Margin (Alowable increase from BOL to EOL)				2.32 W	