



NATIONAL OPTICAL
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OBSERVATORY

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MONSOON
Bill of Materials
Clock & Bias Generic Transition
SN011 - SN027

Dwg No.: MNSN-EL-04-4010 Rev: A1
Next Assembly: MNSN-EL-04-0010

LTR	DESCRIPTION	ECR	DATE	BY	APPRVD
-1	ECO items 1.1.2,R 1.1.5 & 2.0	MNSN-0110	12-May-05	dms	PJS,R PCM,R JG
A	ECO complete	MNSN-0110	5-Oct-05	DMS	PCM
A1	voltage divider resistor values, spec changes (temp stable) R42,R43,R45,R52,R53,R58,R124,R129,R135,R136,R137,R138		7-Sep-06	DMS	PCM

NOTES:

Bill of Materials
MONSOON Clock Bias Generic Transition

Dwg#: MNSN-EL-04-4010 Rev A
2/25/2008

1. Parts can be crossed as long as the replacement is the same or an upgrade of the specified part.
2. Resistance values are in ohms, capacitance values are in uF (microfarads).

ITEM	Qty	RefDes	Value	Part Number	MFR	PN Digikey	Description
1	1	NOAO TO SUPPLY		MNSN-EL-04-1010 Rev A	NOAO		PCB Blank, Clock & Bias Generic Transition
2	2	D1, D2		NOT INSTALLED	N/A		Diode, zener ?? V 1A 5W
3	2	D3, D6		NOT INSTALLED	N/A		Diode, zener ?? V 1A 5W
4	2	D4, D5		NOT INSTALLED	N/A		Diode, zener ?? V 1A 5W
5	2	D7, D8		NOT INSTALLED	N/A		Diode, zener ?? V 1A 5W
6	2	D9, D10		NOT INSTALLED	N/A		Diode, zener ?? V 1A 5W
7	2	D11, D12		NOT INSTALLED	N/A		Diode, zener ?? V 1A 5W
8	2	D13, D14		1N4148	Fairchild	1N4148FS-ND	Diode, small signal DO-35
9	1	TB1		55558-4	Tyco/Amp	55558-4-ND	Con, power tap 10 pos with straight screw
10	1	P1		103311-7	Amp / Tyco	A26296-ND	Con, 34 pin RA walled header .1 center
11	1	P2		104130-7	Amp / Tyco	A26309-ND	Con, 40 pin RA walled header latching .1 center
12	1	P3		104130-9	Amp/ Tyco	A26311-ND	Con, 50 pin .1 ctr right angle latching
13	8	C26, C31, C85, C86, C87, C90, C92, C93	0.01uF	ECJ-2VB1H103K	Panasonic	PCC103BCT-ND	Cap, Cerc 0805 0.01uF 50V 10% X7R
14	2	C32, C84	1.0uF	GRM216R61E105KA12D	Murata Electronics	490-1700-1-ND	Cap, Cerc 0805 1.0uF 25V 10% X5R
15	4	C88, C89, C91, C94	0.1uF	ECJ-2YB1H104K	Panasonic	PCC1840CT-ND	Cap, Cerc 0805 0.1uF 50V 10% X7R
16	36	C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C56, C57, C58	SELECT	NOT INSTALLED	N/A		Cap, Cerc 1210 TBD
17	8	C11, C12, C13, C59, C60, C61, C62, C63	SELECT	NOT INSTALLED	N/A		Cap, Cerc 1210 TBD
18	32	C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C64, C65, C66, C67, C68, C69, C70, C71, C72, C73, C74, C75, C76, C77, C78, C79, C80, C81, C82, C83	SELECT	NOT INSTALLED	N/A		Cap, Cerc 1210 TBD
19	4	C27, C28, C29, C30	47uF	T495D476K020ASE175	Kemet	399-3202-2-ND	Cap, Tant 7343-31 47uF 20V 10% Low ESR
20	4	L1, L2, L3, L4	100uH	8532-25L	Delevan	DN3225CT-ND	Inductor, SMT high current power 100uH 1.30 A max, .64 A incremental
21	4	Q1, Q2, Q3, Q4		IRFL4105	International Rectifier	IRFL4105CT-ND	MOSFET, hex/mos N-CH 55V 3.7A fast switching SOT-223
22	4	JP1, JP2, JP3, JP4		4-103185-0	Amp / Tyco	A26513-ND	Jumper, header strip 2 x 1 .1 center .025 sq posts (break to size)
23	2	U1, U2		LT4220IGN	Linear Technology		IC, Dual supply hot swap controller

24	74	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R37, R38, R39, R44, R59, R60, R61, R62, R63, R83, R84, R86, R91, R93, R94, R96, R97, R98, R101, R102, R103, R104, R105, R106, R107, R108, R111, R112, R113, R114, R115, R118, R119, R120, R123, R127, R130, R134	0	ERJ-6GEY0R00V	Panasonic	P0.0ATR-ND	Resistor, 0805 0 ohm 1/10W 5%
25	8	R82, R85, R87, R90, R92, R95, R99, R100	SELECT	NOT INSTALLED	N/A	N/A	Resistor, 0805 OPEN
26							
27	2	R72, R77	OPEN	NOT INSTALLED	N/A	N/A	Resistor, 0805 OPEN
28	2	R67, R68	OPEN	NOT INSTALLED	N/A	N/A	Resistor, 0805 OPEN
29	2	R73, R78	OPEN	NOT INSTALLED	N/A	N/A	Resistor, 0805 OPEN
30	2	R65, R71	OPEN	NOT INSTALLED	N/A	N/A	Resistor, 0805 OPEN
31	2	R76, R81	OPEN	NOT INSTALLED	N/A	N/A	Resistor, 0805 OPEN
32	2	R64, R69	OPEN	NOT INSTALLED	N/A	N/A	Resistor, 0805 OPEN
33	2	R66, R70	OPEN	NOT INSTALLED	N/A	N/A	Resistor, 0805 OPEN
34	2	R74, R79	OPEN	NOT INSTALLED	N/A	N/A	Resistor, 0805 OPEN
35	2	R88, R89	OPEN	NOT INSTALLED	N/A	N/A	Resistor, 0805 OPEN
36	2	R75, R80	OPEN	NOT INSTALLED	N/A	N/A	Resistor, 0805 OPEN
37	2	R109, R110	OPEN	NOT INSTALLED	N/A	N/A	Resistor, 0805 OPEN
38	2	R116, R117	OPEN	NOT INSTALLED	N/A	N/A	Resistor, 0805 OPEN
39	4	R48, R49, R50, R56	0.022	RL3720T-R022-F	Susumu Co.	RL37T.022FCT-ND	Resistor, 0815 0.022 ohm 1/2W 1%

40	76	CR1, CR2, CR3, CR4, CR5, CR6, CR7, CR8, CR9, CR10, CR11, CR12, CR13, CR14, CR15, CR16, CR17, CR18, CR19, CR20, CR21, CR22, CR23, CR24, CR25, CR26, CR27, CR28, CR29, CR30, CR31, CR32, CR33, CR34, CR35, CR36, CR37, CR38, CR39, CR40, CR41, CR42, CR43, CR44, CR45, CR46, CR47, CR48, CR49, CR50, CR51, CR52, CR53, CR54, CR55, CR56, CR57, CR58, CR59, CR60, CR61, CR62, CR63, CR64, CR65, CR66, CR67, CR68, CR69, CR70, CR71, CR72, CR73, CR74, CR75, CR76		BAT54STA	Zetex	BAT54SCT-ND	Diode, Schottky barrier series pair sot-23
41	1	RJ3		064784	ERNI		Con, right angle female cPCI 95 pins RJ3 position
42	1	RJ4		064176	ERNI	N/A	Con, right angle female cPCI 110 pin rJ1, rJ4 position
43	1	RJ5		064785	ERNI	n/a	Con, right angle female cPCI 110 pin rJ2, rJ5 position
44	4	R41, R54, R125, R133	10	ERJ-6ENF10R0V	Panasonic	P10.0CCT-ND	Resistor, 0805 10 1/10W 1%
45	4	R46, R55, R121, R132	1.0K	ERJ-6ENF1001V	Panasonic	P1.00KCCT-ND	Resistor, 0805 1.0K 1/10W 1%
46	2	R51, R57	12.7K	9C08052A1272FKHFT	Yageo	311-12.7KCCT-ND	Resistor, 0805 12.7K 1/8W 1%
47	2	R40, R126	13.0K	MCR10EZHF1302	Rohm	RHM13.0KCCT-ND	Resistor, 0805 13.0K 1/8W 1%
48	2	R47, R122	137K	9C08052A1373FKHFT	Yageo	311-137KCCT-ND	Resistor, 0805 137K 1/8W 1%
49	4	R52, R53, R58, R129	53.6K	RR1220P-5362-B-M-T5	Susumu Co.	RR12P53.6KBCT-ND	Resistor, 0805 53.6K 1/10W 0.1% 25ppm
50	2	R128, R131	36K	9C08052A3602FKHFT	Yageo	311-36.0KCCT-ND	Resistor, 0805 36K 1/8W 1%
51	4	R42, R43, R45, R124	220K	RR1220P-224-B-T5	Susumu Co.	RR12P220KBCT-ND	Resistor, 0805 220K 1/10W 0.1% 25ppm
52	2	R135, R136	39.2K	RR1220P-3922-B-M-T5	Susumu Co.	RR12P39.2KBCT-ND	Resistor, 0805 39.2K 1/10W 0.1% 25ppm
53	2	R137, R138	49.9K	RR1220P-4992-D-M	Susumu Co.	RR12P49.9KDCT-ND	Resistor, 0805 49.9K 1/10W 0.5% 25ppm
54	1	JP5					Jumper, 18 awg solid wire loop

Part Number	MFR	Description	Package Markings	COMMENTS
T495D476K020ASE175	Kemet	Cap, Tant 7343-31 47uF 20V 10% Low ESR	R+ 476 20 k	Low ESR value in pF voltage / kemet id