

RF modules need to be mounted on rear mounting plate.

Mount stops on coarse dBm rotary switch to prevent switching between 10 dBm and 32 dBm.

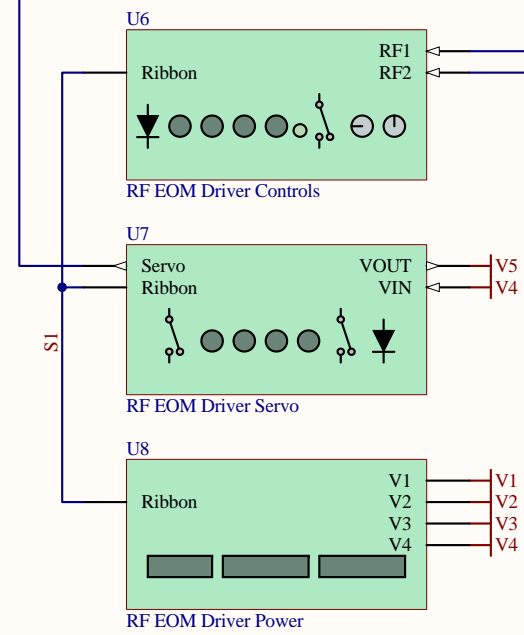
Mount rear panel first, then continue with heatsink and rear mounting plate.  
Mount RF couplers to power board with brass nuts at bottom.  
Solder nuts to board. (Remove couplers again if necessary.)  
Next, assemble front panel with controls, servo, power boards and cables S1 and S2. Use a SMA knee to attach S2.  
Fasten front panel assembly.  
Mount TO-220 packages from power board to rear mounting plate using insulation hardware. Check for shorts.  
Finish with power cables V1-V5, servo cable S2 and RF cables C1 and C6-C8.

RF cables C1-C8 are (flexible) semi-rigid RG405.  
Cables require SMA connectors on both ends.

Cable S1 is 50-pin flat-ribbon. Add two additional connectors and shorten.

Cables V1 to V5 are twisted pair and soldered to the amplifiers.  
Solder 10nF across each power terminal.

Mount A1 at the output of U1.  
Adjust power level by replacing A1 with fixed attenuator:  
Pasternack PE7161/PE7001 instead of PE9103.



- PN1 Stand-alone chassis LIGO D0901991-v1
- PN2 Front Panel LIGO D0900762-v1
- PN3 Heatsink Wakefield 510-3M
- PN4 Rear Mounting Plate LIGO D0900764-v1
- PN5 Rear Panel LIGO D0900763-v1
- PN6 Thermal grease Digi-Key 345-1011-ND

board height at 0.5" (top) and 1.2" (top) and 2.2" (top)

**Make sure output load is connected before turning driver on!**

Title <b>EOM/AOM Driver</b>		
Size B	Number <b>D0900760</b>	Revision <b>A</b>
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### Covers

E1	#4-40 3/16" flat	E13	#4-40 3/16" flat
E2	#4-40 3/16" flat	E14	#4-40 3/16" flat
E3	#4-40 3/16" flat	E15	#4-40 3/16" flat
E4	#4-40 3/16" flat	E16	#4-40 3/16" flat
E5	#4-40 3/16" flat	E17	#4-40 3/16" flat
E6	#4-40 3/16" flat	E18	#4-40 3/16" flat
E7	#4-40 3/16" flat	E19	#4-40 3/16" flat
E8	#4-40 3/16" flat	E20	#4-40 3/16" flat
E9	#4-40 3/16" flat	E21	#4-40 3/16" flat
E10	#4-40 3/16" flat	E22	#4-40 3/16" flat
E11	#4-40 3/16" flat	E23	#4-40 3/16" flat
E12	#4-40 3/16" flat	E24	#4-40 3/16" flat

McMaster-Carr  
91771A111

### Heatsink

E25	#6-32 3/16" flat
E26	#6-32 3/16" flat
E27	#6-32 3/16" flat
E28	#6-32 3/16" flat
E29	#6-32 3/16" flat
E30	#6-32 3/16" flat
E31	#6-32 3/16" flat
E32	#6-32 3/16" flat
E33	#6-32 3/16" flat
E34	#6-32 3/16" flat
E35	#6-32 3/16" flat
E36	#6-32 3/16" flat
E37	#6-32 3/16" flat
E38	#6-32 3/16" flat
E39	#6-32 3/16" flat

McMaster-Carr  
91771A143

### Rack Mounting

H1	Handle, 3"	H3	Ferrule
H2	Handle, 3"	H4	Ferrule
Mouser 534-9109		Mouser 534-9121	
M1	#6-32 1/4" flat	M2	#6-32 1/4" flat
M3	#6-32 1/4" flat	M4	#6-32 1/4" flat
M5	#6-32 1/4" flat	M6	#6-32 1/4" flat
M7	#6-32 3/8" flat	M8	#6-32 3/8" flat
M9	#6-32 3/8" flat	M10	#6-32 3/8" flat

McMaster-Carr  
91099A215

### Front Panel

E40	#6-32 1/4" flat
E41	#6-32 1/4" flat
McMaster-Carr 91099A205	
E42	BNC lock washer
E43	BNC nut
E44	BNC lock washer
E45	BNC nut
E46	BNC lock washer
E47	BNC nut
E48	BNC lock washer
E49	BNC nut
E50	BNC lock washer
E51	BNC nut
E52	BNC lock washer
E53	BNC nut
E54	BNC lock washer
E55	BNC nut
E56	BNC lock washer
Digi-Key A97567-ND	
E57	BNC nut
Digi-Key A97566-ND	

PN29	Flat ribbon cable, 50pin
Digi-Key C3CCG-5006G-ND	
PN30	Flat ribbon connector
PN31	Flat ribbon connector
Digi-Key AKC50B-ND	

S1 cable

### TO-220

H5	#4 -40 3/16" pan/washer
H6	insulator
H7	insulating shoulder washer
H8	#4 -40 3/16" pan/washer
H9	insulator
H10	insulating shoulder washer
H11	#4 -40 3/16" pan/washer
H12	insulator
H13	insulating shoulder washer
H14	#4 -40 3/16" pan/washer
H15	insulator
H16	insulating shoulder washer
H17	#4 -40 3/16" pan/washer
H18	insulator
H19	insulating shoulder washer
H20	#4 -40 3/16" pan/washer
H21	insulator
H22	insulating shoulder washer
H23	#4 -40 3/16" pan/washer
McMaster-Carr 90403A104	
H24	insulator
Mouser 532-53-77-4ACG	
H25	insulating shoulder washer
Mouser 532-7721-7PPS	

PN32	SMA cable
Digi-Key J4006-ND	
PN33	SMA knee
Digi-Key J632-ND	

S2 cable

### Board Standoffs

H26	Standoff, 16mm, M3	H36	Standoff, 24mm, M3
H27	Standoff, 16mm, M3	H37	Standoff, 24mm, M3
Mouser 728-FM2111-3005-A		Mouser 728-FM2119-3005-A	
H28	M3 nut	H38	M3 lock washer
H29	M3 nut	H39	M3 lock washer
H30	M3 lock washer	H40	M3 lock washer
H31	M3 lock washer	H41	M3 lock washer
H32	M3 lock washer	H42	M3 nut
H33	M3 lock washer	H43	M3 nut
McMaster-Carr 93925A240		McMaster-Carr 90591A121	
H34	M3 screw, 8mm	H44	M3 screw, 8mm
H35	M3 screw, 8mm	H45	M3 screw, 8mm
McMaster-Carr 92005A118			

### RF Couplers

H46	brass #6 nut	H60	#6-32 5/16" pan/washer
H47	brass #6 nut	H61	#6-32 5/16" pan/washer
H48	brass #6 nut	H62	#6-32 5/16" pan/washer
H49	brass #6 nut	H63	#6-32 5/16" pan/washer
H50	brass #6 nut	H64	#6-32 5/16" pan/washer
H51	brass #6 nut	H65	#6-32 5/16" pan/washer
H52	brass #6 nut	H66	#6-32 5/16" pan/washer
H53	brass #6 nut	H67	#6-32 5/16" pan/washer
McMaster-Carr 92671A007		McMaster-Carr 91771A105	

### RF Amplifer

H54	#2-56 flat head, 3/8"	H68	#2-56 pan head, 5/16"
H55	#2-56 flat head, 3/8"	H69	#2-56 pan head, 5/16"
H58	#2-56 flat head, 3/8"	H56	#2-56 pan head, 5/16"
H59	#2-56 flat head, 3/8"	H57	#2-56 pan head, 5/16"
McMaster-Carr 91771A105			

PN7	Cable, 1 pair, shielded
Mouser 566-9501-100	
V1-V5 cables	
PN8	Header connector
PN9	Header connector
PN10	Header connector
PN11	Header connector
Digi-Key 281-1243-ND	

PN12	Belden 1671A
Newark 15B1936	

PN13	Connector SMA/RG405
Digi-Key ACX1177-ND	
PN14	Connector SMA/RG405
PN15	Connector SMA/RG405
PN16	Connector SMA/RG405
PN17	Connector SMA/RG405
PN18	Connector SMA/RG405
PN19	Connector SMA/RG405
PN20	Connector SMA/RG405
PN21	Connector SMA/RG405
Digi-Key ACX1181-ND	
PN22	Connector SMA/RG405
PN23	Connector SMA/RG405
PN24	Connector SMA/RG405
PN25	Connector SMA/RG405
PN26	Connector SMA/RG405
PN27	Connector SMA/RG405
PN28	Connector SMA/RG405

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