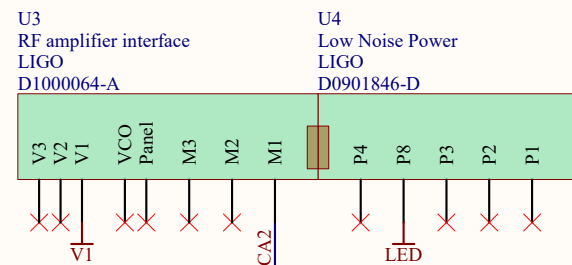
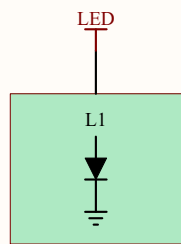


A1  
SMA 0dB attenuator  
Pasternack  
PE9103

A2  
SMA male-male  
Pasternack  
PE9069



U4  
Low Noise Power  
LIGO  
D0901846-D



U5  
Snap-in LED  
Digi-Key  
350-2127-ND

CA1 SMA cable 7"  
EAM  
SMA cable 7"; S-RA  
CA2 SMA cable 6"  
EAM  
SMA cable 6"; S-RA  
CA3 SMA cable 6"  
EAM  
SMA cable 6"; S-RA

H1 #2-56 flat head, 3/8"  
H2 #2-56 flat head, 3/8"  
H3 #2-56 flat head, 3/8"  
H4 #2-56 flat head, 3/8"  
H5 #6-32 pan, lock washer, 5/16"  
H6 #6-32 pan, lock washer, 5/16"  
H7 #6-32 pan, lock washer, 5/16"  
H8 #6-32 pan, lock washer, 5/16"  
H9 #6-32 pan, lock washer, 5/16"  
H10 #6-32 pan, lock washer, 5/16"  
H11 Handle, 1.25"  
H12 Handle, 1.25"  
H13 Ferrule  
H14 Ferrule  
H15 Ferrule  
H16 Ferrule  
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  
E1 #4-40 3/16" flat  
E2 #4-40 3/16" flat  
E3 #6-32 1/4" flat  
E4 #6-32 1/4" flat  
E5 #6-32 1/4" flat  
E6 BNC lock washer  
E7 BNC nut  
E8 BNC lock washer  
E9 BNC nut  
E10 BNC lock washer  
E11 BNC nut  
McMaster-Carr  
91771A105  
McMaster-Carr  
93405A145  
McMaster-Carr  
91099A205  
McMaster-Carr  
91099A215

E1 #4-40 3/16" flat  
E2 #4-40 3/16" flat  
E3 #6-32 1/4" flat  
E4 #6-32 1/4" flat  
E5 #6-32 1/4" flat  
E6 BNC lock washer  
E7 BNC nut  
E8 BNC lock washer  
E9 BNC nut  
E10 BNC lock washer  
E11 BNC nut  
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  
E1 #4-40 3/16" flat  
E2 #4-40 3/16" flat  
E3 #6-32 1/4" flat  
E4 #6-32 1/4" flat  
E5 #6-32 1/4" flat  
E6 BNC lock washer  
E7 BNC nut  
E8 BNC lock washer  
E9 BNC nut  
E10 BNC lock washer  
E11 BNC nut  
McMaster-Carr  
91099A205  
McMaster-Carr  
91099A215

H11 Handle, 1.25"  
H12 Handle, 1.25"  
H13 Ferrule  
H14 Ferrule  
H15 Ferrule  
H16 Ferrule  
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  
E1 #4-40 3/16" flat  
E2 #4-40 3/16" flat  
E3 #6-32 1/4" flat  
E4 #6-32 1/4" flat  
E5 #6-32 1/4" flat  
E6 BNC lock washer  
E7 BNC nut  
E8 BNC lock washer  
E9 BNC nut  
E10 BNC lock washer  
E11 BNC nut  
McMaster-Carr  
91099A205  
McMaster-Carr  
91099A215

E12 #4-40 3/16" flat  
E13 #4-40 3/16" flat  
E14 #4-40 3/16" flat  
E15 #4-40 3/16" flat  
E16 #4-40 3/16" flat  
E17 #4-40 3/16" flat  
E18 #4-40 3/16" flat  
E19 #4-40 3/16" flat  
E20 #4-40 3/16" flat  
E21 #4-40 3/16" flat  
E22 #4-40 3/16" flat  
E23 #4-40 3/16" flat  
E24 #4-40 3/16" flat  
E25 #4-40 3/16" flat  
E26 #4-40 3/16" flat  
E27 #4-40 3/16" flat  
E28 #4-40 3/16" flat  
E29 #4-40 3/16" flat  
E30 #4-40 3/16" flat  
E31 #4-40 3/16" flat  
E32 #4-40 3/16" flat  
E33 #4-40 3/16" flat  
E34 #4-40 3/16" flat  
E35 #4-40 3/16" flat  
E36 #4-40 3/16" flat  
E37 #4-40 3/16" flat  
E38 #4-40 3/16" flat  
E39 #4-40 3/16" flat  
E40 #4-40 3/16" flat  
E41 #4-40 3/16" flat  
E42 #4-40 3/16" flat  
E43 #4-40 3/16" flat  
E44 #4-40 3/16" flat  
E45 #4-40 3/16" flat  
E46 #4-40 3/16" flat  
E47 #4-40 3/16" flat  
E48 #4-40 3/16" flat  
E49 #4-40 3/16" flat  
E50 #4-40 3/16" flat  
E51 #4-40 3/16" flat  
E52 #4-40 3/16" flat  
E53 #4-40 3/16" flat  
E54 #4-40 3/16" flat  
E55 #4-40 3/16" flat  
Mouser  
534-9106  
Mouser  
534-9121  
McMaster-Carr  
91771A111  
McMaster-Carr  
91771A105  
McMaster-Carr  
91099A205  
McMaster-Carr  
91099A215

RF modules need to be mounted on mounting plate.

Cables CA1 to CA3 are flexible semi-rigid RG405.  
Cables require SMA connectors on both ends. Red dot marks R/A connector.

Cables V1 is twisted pair and soldered to the amplifier.  
Solder 10nF across each power terminal.

The position A1 at the inside of J1 is used to adjust power levels by adding a fixed attenuators:  
Pasternack PE7161/PE7001 instead of PE9103, or Mini-Circuits BW-SxW2+ series.

CA1: L=7", Belden 1671A with SMA Male and SMA Male  
CA2/CA3: L=6", Belden 1671A with SMA Male and SMA Male

PN1  
Cable, 1 pair, shielded  
Mouser  
566-9501-100  
V1 cables

PN2  
Mounting Plate  
LIGO  
D1100975-v1

PN3  
IU chassis  
LIGO  
D1001098-v1

PN4  
Front Panel  
LIGO  
D1600501-v1

PN5  
Back Panel  
LIGO  
D1600502-v1

Title <b>RF Frequency Multiply by 5</b>		
Size B	Number <b>D1600498</b>	Revision <b>1</b>
Date: 1/31/2017	Sheet 1 of 1	
File: C:\Users\...\RFFrequencyMultiply-By-5.SchDoc	Drawn By: Daniel Sigg / Marc Pirello	