

RF modules need to be mounted on mounting plate.

RF cables are semi-rigid RG405.  
RF cables require SMA connectors on both ends.

Cable S1 is 14-pin twisted-pair flat-ribbon.  
Cable S2 is 26-pin twisted-pair flat-ribbon.

Cables for V1 and V2 are twisted pair and soldered to the amplifiers.  
Solder a 10nF capacitor across each power terminal.

Adjust power levels by replacing attenuators values:  
Pasternack PE7161/PE7001.

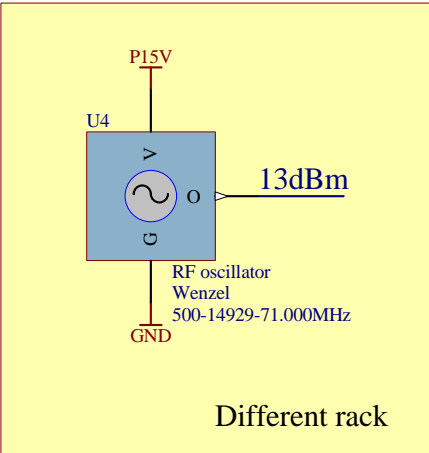
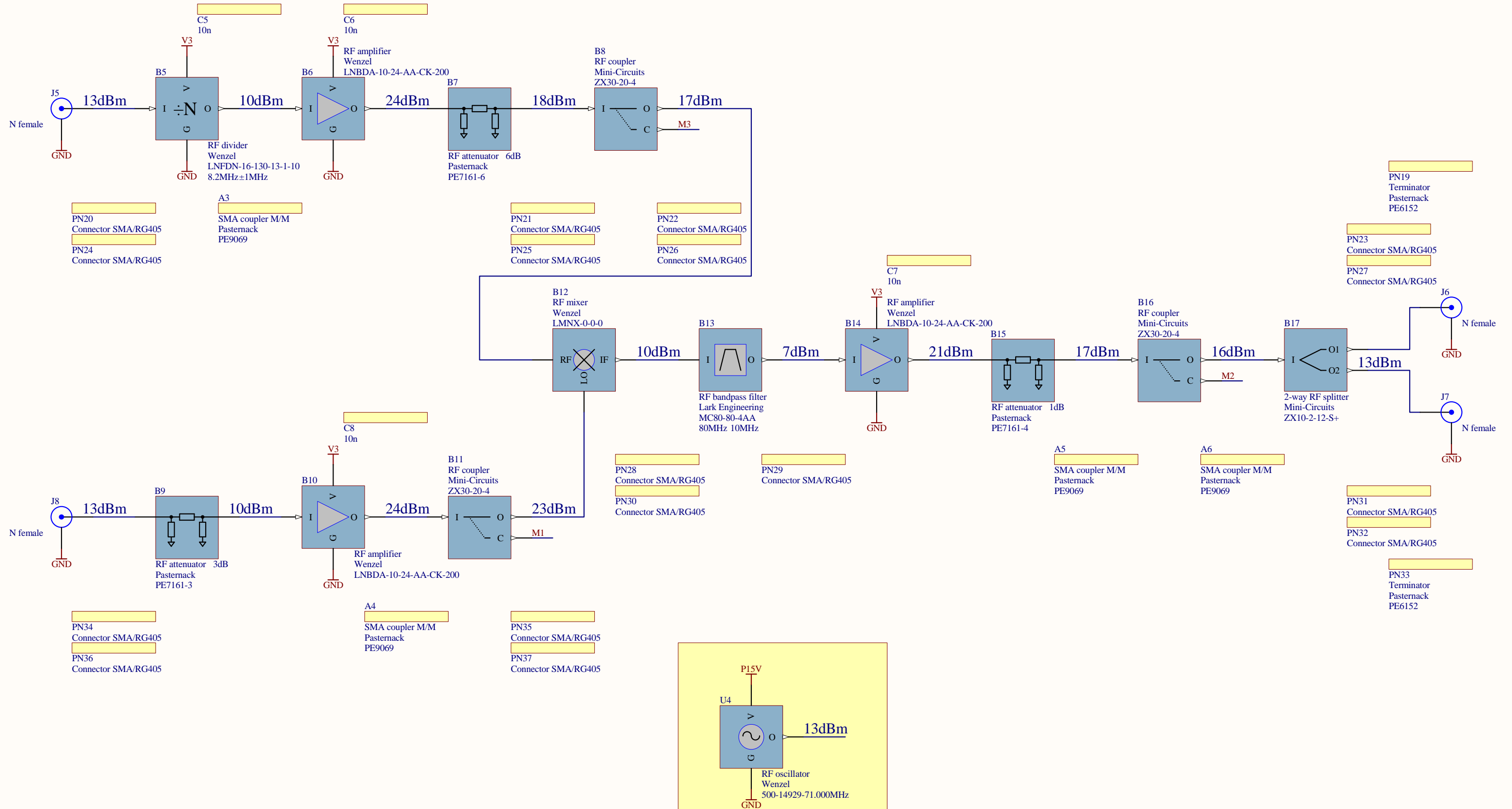
PN7  
Cable, 1 pair, shielded  
Mouser  
566-9501-100  
V2/V3 cables

PN8  
RG405 cable semi-rigid  
Pasternack  
PE-SR405AL-STRAIGHT

PN9 Connector SMA/RG405  
PN10 Connector SMA/RG405  
PN11 Connector SMA/RG405  
PN12 Connector SMA/RG405  
PN13 Connector SMA/RG405  
PN14 Connector SMA/RG405  
M1-3 cables

PN15 2U chassis LIGO D0900142-v2  
PN16 Mounting Plate LIGO D0900608-v1  
PN17 Front Panel LIGO D0900606-A  
PN18 Rear Panel LIGO D0900607-A

Title <b>Low Noise VCO</b>		
Size B	Number <b>D0900605</b>	Revision <b>A</b>
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File: C:\Users\...\VCO1.SchDoc	Drawn By: Daniel Sigg	



Title <b>Frequency Difference Divider</b>		
Size B	Number <b>D0900605</b>	Revision <b>A</b>
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H1 Handle, 3"  
H2 Handle, 3"  
Mouser 534-9109  
H11 Ferrule  
H12 Ferrule  
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  
McMaster-Carr 91099A205  
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

E1 #4-40 3/16" flat  
E4 #4-40 3/16" flat  
E7 #4-40 3/16" flat  
E9 #4-40 3/16" flat  
E12 #4-40 3/16" flat  
E15 #4-40 3/16" flat  
E17 #4-40 3/16" flat  
E20 #4-40 3/16" flat  
E23 #4-40 3/16" flat  
E26 #4-40 3/16" flat  
E29 #4-40 3/16" flat  
E32 #4-40 3/16" flat  
E35 #4-40 3/16" flat  
E37 #4-40 3/16" flat  
E39 #4-40 3/16" flat  
E42 #4-40 3/16" flat  
E44 #4-40 3/16" flat  
E47 #4-40 3/16" flat  
E50 #4-40 3/16" flat  
E53 #4-40 3/16" flat  
E56 #4-40 3/16" flat  
E59 #4-40 3/16" flat

E2 #4-40 3/16" flat  
E5 #4-40 3/16" flat  
E8 #4-40 3/16" flat  
E10 #4-40 3/16" flat  
E13 #4-40 3/16" flat  
E16 #4-40 3/16" flat  
E18 #4-40 3/16" flat  
E21 #4-40 3/16" flat  
E24 #4-40 3/16" flat  
E27 #4-40 3/16" flat  
E30 #4-40 3/16" flat  
E33 #4-40 3/16" flat  
E36 #4-40 3/16" flat  
E38 #4-40 3/16" flat  
E40 #4-40 3/16" flat  
E43 #4-40 3/16" flat  
E45 #4-40 3/16" flat  
E48 #4-40 3/16" flat  
E51 #4-40 3/16" flat  
E54 #4-40 3/16" flat  
E57 #4-40 3/16" flat  
E60 #4-40 3/16" flat

E3 #4-40 3/16" flat  
E6 #4-40 3/16" flat  
E11 #6-32 1/4" flat  
E14 #6-32 1/4" flat  
E19 BNC lock washer  
E22 BNC nut  
E25 BNC lock washer  
E28 BNC nut  
E31 BNC lock washer  
E34 BNC nut  
E41 standoff, 1", f/m  
Digi-Key 8418K-ND  
E46 standoff, 1", f/m  
E49 standoff, 1", f/m  
E52 standoff, 1", f/m  
E55 standoff, 1", f/m  
E58 standoff, 1", f/m  
E61 standoff, 1", f/m  
E62 standoff, 1", f/m

H3 #2-56 flat head, 3/8"  
McMaster-Carr 91771A105  
H13 #2-56 flat head, 3/8"  
H21 #2-56 flat head, 3/8"  
H29 #2-56 flat head, 3/8"  
H37 #2-56 flat head, 3/8"  
H39 #2-56 flat head, 3/8"  
H47 #2-56 flat head, 3/8"  
H49 #2-56 flat head, 3/8"  
H51 #2-56 flat head, 3/8"  
H59 #2-56 flat head, 3/8"  
H67 #2-56 flat head, 3/8"  
H75 #2-56 flat head, 3/8"  
H83 #2-56 flat head, 3/8"  
H90 #2-56 flat head, 3/8"  
H97 #2-56 flat head, 3/8"  
H104 #2-56 flat head, 3/8"  
H111 #2-56 flat head, 3/8"  
H118 #2-56 flat head, 3/8"  
H125 #2-56 flat head, 3/8"  
H133 #2-56 flat head, 3/8"  
H134 #2-56 flat head, 3/8"  
H135 #2-56 flat head, 3/8"  
H139 #2-56 flat head, 3/8"  
H142 #2-56 flat head, 3/8"

H4 #2-56 pan head, 1/4"  
McMaster-Carr 90272A077  
H14 #2-56 pan head, 1/4"  
H22 #2-56 pan head, 1/4"  
H30 #2-56 pan head, 1/4"  
H38 #2-56 pan head, 1/4"  
H40 #2-56 pan head, 1/4"  
H48 #2-56 pan head, 1/4"  
H50 #2-56 pan head, 1/4"  
H52 #2-56 pan head, 1/4"  
H60 #2-56 pan head, 1/4"  
H68 #2-56 pan head, 1/4"  
H76 #2-56 pan head, 1/4"  
H126 #0-80 flat head, 1/4"  
McMaster-Carr 91771A055  
H136 #0-80 flat head, 1/4"  
H140 #0-80 flat head, 1/4"  
H143 #0-80 flat head, 1/4"

H5 M2.5 flat head, 10mm  
McMaster-Carr 91420A020  
H15 M2.5 flat head, 10mm  
H23 M2.5 flat head, 10mm  
H31 M2.5 flat head, 10mm  
H41 M2.5 pan head, 8mm  
McMaster-Carr 92005A069  
H53 M2.5 pan head, 8mm  
H61 M2.5 pan head, 8mm  
H69 M2.5 pan head, 8mm  
H77 M2.5 pan head, 8mm  
H84 M2.5 pan head, 8mm  
H91 M2.5 pan head, 8mm  
H98 M2.5 pan head, 8mm  
H105 M2.5 pan head, 8mm  
H112 M2.5 pan head, 8mm  
H119 M2.5 pan head, 8mm  
H127 M2.5 pan head, 8mm  
H137 #6-32 pan, lock washer, 5/16"  
McMaster-Carr 96909A445  
H145 #6-32 pan, lock washer, 5/16"  
H147 #6-32 pan, lock washer, 5/16"  
H149 #6-32 pan, lock washer, 5/16"  
H151 #6-32 pan, lock washer, 5/16"  
H153 #6-32 pan, lock washer, 5/16"  
H155 #6-32 pan, lock washer, 5/16"  
H157 #6-32 pan, lock washer, 5/16"  
H159 #6-32 pan, lock washer, 5/16"  
H161 #6-32 pan, lock washer, 5/16"  
H163 #6-32 pan, lock washer, 5/16"  
H164 #6-32 pan, lock washer, 5/16"  
H165 #6-32 pan, lock washer, 5/16"

H6 M2.5 washer  
McMaster-Carr 93475A196  
H16 M2.5 washer  
H24 M2.5 washer  
H32 M2.5 washer  
H42 M2.5 washer  
McMaster-Carr 93475A196  
H54 M2.5 washer  
H62 M2.5 washer  
H70 M2.5 washer  
H78 M2.5 washer  
H85 M2.5 washer  
H92 M2.5 washer  
H99 M2.5 washer  
H106 M2.5 washer  
H113 M2.5 washer  
H120 M2.5 washer  
H128 M2.5 washer  
H138 #6-32 pan, lock washer, 5/16"  
H141 #6-32 pan, lock washer, 5/16"  
H144 #6-32 pan, lock washer, 5/16"  
H146 #6-32 pan, lock washer, 5/16"  
H148 #6-32 pan, lock washer, 5/16"  
H150 #6-32 pan, lock washer, 5/16"  
H152 #6-32 pan, lock washer, 5/16"  
H154 #6-32 pan, lock washer, 5/16"  
H156 #6-32 pan, lock washer, 5/16"  
H158 #6-32 pan, lock washer, 5/16"  
H160 #6-32 pan, lock washer, 5/16"  
H162 #6-32 pan, lock washer, 5/16"

H7 M2.5 lock washer  
McMaster-Carr 93925A220  
H17 M2.5 lock washer  
H25 M2.5 lock washer  
H33 M2.5 lock washer  
H43 M2.5 lock washer  
McMaster-Carr 93925A220  
H55 M2.5 lock washer  
H63 M2.5 lock washer  
H71 M2.5 lock washer  
H79 M2.5 lock washer  
H86 M2.5 lock washer  
H93 M2.5 lock washer  
H100 M2.5 lock washer  
H107 M2.5 lock washer  
H114 M2.5 lock washer  
H121 M2.5 lock washer  
H129 M2.5 lock washer  
H8 M2.5 nut  
McMaster-Carr 90591A113  
H18 M2.5 nut  
H26 M2.5 nut  
H34 M2.5 nut  
H44 M2.5 nut  
McMaster-Carr 90591A113  
H56 M2.5 nut  
H64 M2.5 nut  
H72 M2.5 nut  
H80 M2.5 nut  
H87 M2.5 nut  
H94 M2.5 nut  
H101 M2.5 nut  
H108 M2.5 nut  
H115 M2.5 nut  
H122 M2.5 nut  
H130 M2.5 nut

H9 #4 washer, 62mil  
McMaster-Carr 98370A005  
H19 #4 washer, 62mil  
H27 #4 washer, 62mil  
H35 #4 washer, 62mil  
H45 #4 washer, 62mil  
H57 #4 washer, 62mil  
H65 #4 washer, 62mil  
H73 #4 washer, 62mil  
H81 #4 washer, 62mil  
H88 #4 washer, 62mil  
H95 #4 washer, 62mil  
H102 #4 washer, 62mil  
H109 #4 washer, 62mil  
H116 #4 washer, 62mil  
H123 #4 washer, 62mil  
H131 #4 washer, 62mil  
H10 #4 washer, 62mil  
McMaster-Carr 98370A005  
H20 #4 washer, 62mil  
H28 #4 washer, 62mil  
H36 #4 washer, 62mil  
H46 #4 washer, 62mil  
H58 #4 washer, 62mil  
H66 #4 washer, 62mil  
H74 #4 washer, 62mil  
H82 #4 washer, 62mil  
H89 #4 washer, 62mil  
H96 #4 washer, 62mil  
H103 #4 washer, 62mil  
H110 #4 washer, 62mil  
H117 #4 washer, 62mil  
H124 #4 washer, 62mil  
H132 #4 washer, 62mil

Title <b>Mounting Hardware</b>		
Size B	Number <b>D0900605</b>	Revision <b>A</b>
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