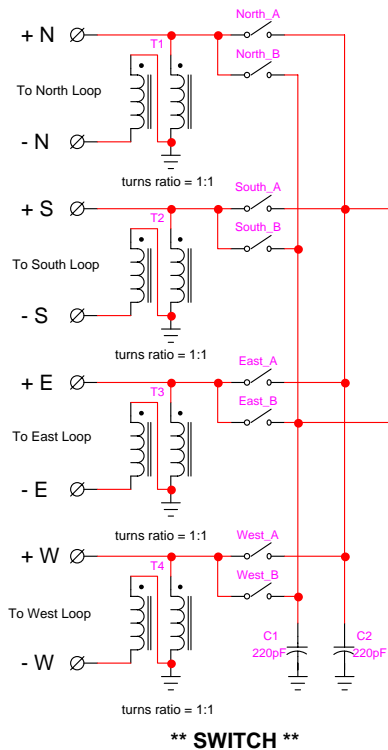
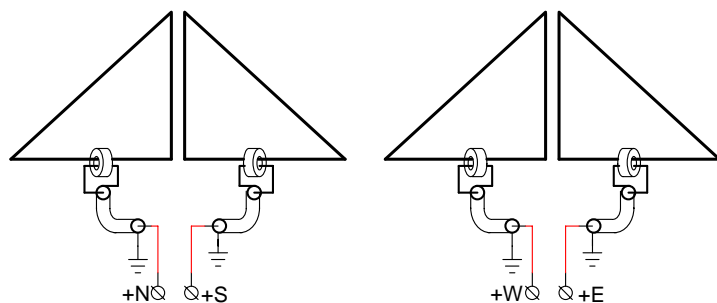
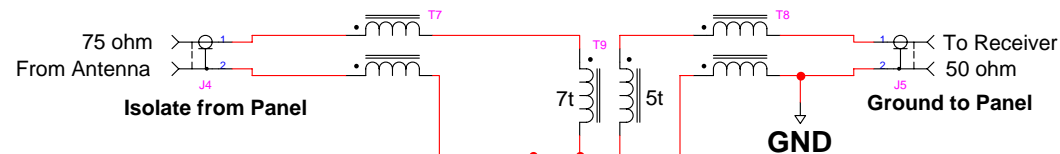
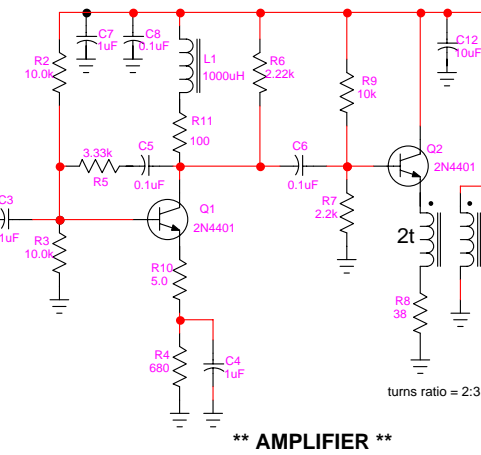


Shared Apex Loop Switch/Combiner/Amplifier & Coupler Schematic

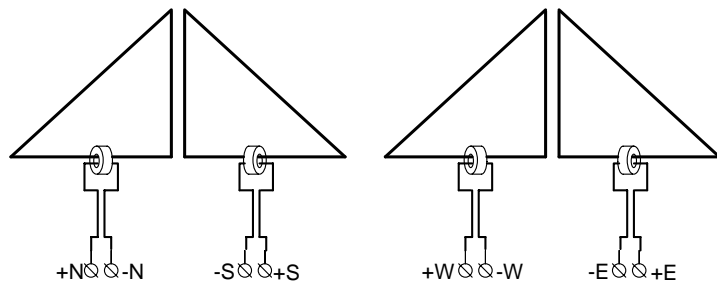


DELAY LINE
75 ohm

**** COMBINER ****



**** LOOP CONNECTIONS FOR COAX FEED ****



**** LOOP CONNECTIONS FOR BALANCED FEED ****

Transformers & Inductors:
 T1, T2, T3, T4, T5, T7, T8, T10, T12 : 8 Bifilar turns on Laird #LFB095051-000 (Digi-Key 240-2277-ND) Core
 T6: 2 turns primary (connected to Q2) and 3 turns secondary on Laird #LFB095051-000 (Digi-Key 240-2277-ND) Core
 T9: 7 turns primary (connected to T7) and 5 turns secondary (connected to T12) on Laird #LFB095051-000 (Digi-Key 240-2277-ND) Core
 L1 L2: 10 turns on Laird #LFB095051-000 (Digi-Key 240-2277-ND) Core

SWITCHING OPERATION:

NORTH:	Close North_B & South_A
EAST:	Close East_B & West_A
SOUTH:	Close South_B & North_A
WEST:	Close West_B & East_A
NORTHEAST:	Close North_B & East_B & South_A & West_A
SOUTHEAST:	Close South_B & East_B & North_A & West_A
SOUTHWEST:	Close South_B & West_B & North_A & East_A
NORTHWEST:	Close North_B & West_B & South_A & East_A

Mark Bauman, KB7GF
 3 November 2012
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