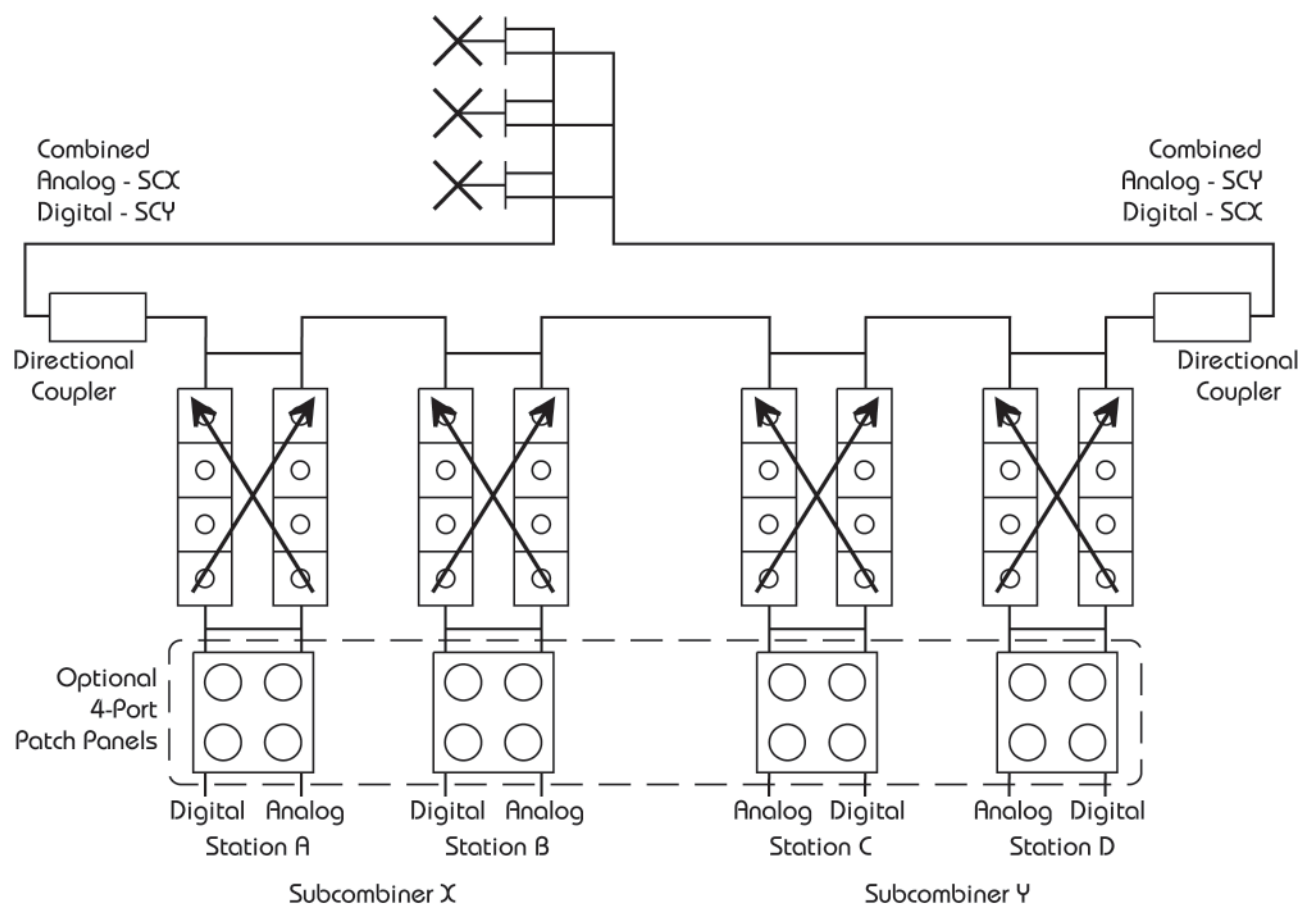


## Split-Feeding Balanced Combiner Systems



- A balanced combiner is used to combine digital and analog signals over common transmission lines. The antenna is fed with dual, parallel feed systems. The separate feeds are combined in the antenna and fed into the bay using a 4-port hybrid.
- This system has the advantage of distributing combined digital and analog signals over two medium-sized transmission lines rather than one large analog and one small digital line (Examples H & I). This power distribution scheme can be used to avoid the use of 9" components.
- The antenna in the example can only be operated in a "full array configuration." Power dividers and additional transmission lines can be added to allow the antenna to be operated as a full array, or on the top or bottom half independently.
- If the stations are configured with patch panels, the option exists to swap the digital and analog feeds in the event of a transmission line failure.

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