

7.11 Determine all the FIR filters which are specified by the lattice parameters $K_1 = \frac{1}{2}$, $K_2 = 0.6$, $K_3 = -0.7$, and $K_4 = \frac{1}{3}$. $K_4 = 1/3$

7.15 Determine the parameters $\{K_m\}$ of the lattice filter corresponding to the FIR filter described by the system function

$$H(z) = A_2(z) = 1 + 2z^{-1} + z^{-2}$$

7.16 (a) Determine the zeros and sketch the zero pattern for the FIR lattice filter with parameters

$$K_1 = \frac{1}{2}, \quad K_2 = -\frac{1}{3}, \quad K_3 = 1$$

- (b) The same as in part (a) but with $K_3 = -1$.
- (c) You should have found that all the zeros lie exactly on the unit circle. Can this result be generalized? How?
- (d) Sketch the phase response of the filters in parts (a) and (b). What did you notice? Can this result be generalized? How?