Output table

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_output\_PAM\_out = -PAM4-

# clk\_in = 0: rst\_in = 1: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 1: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 0: rst\_in = 1: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 1: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 1: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 1: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 1

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 3

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 2

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 0: rst\_in = 0: output\_PAM\_out = 0

# clk\_in = 1: rst\_in = 0: output\_PAM\_out = 0

Summary

* This design takes in Manchester code and converts it to PAM4 data.
* There are 2 modules inside the design.
* The first module converts the Manchester to NRZ
* The second module converts the NRZ data to PAM4 data.