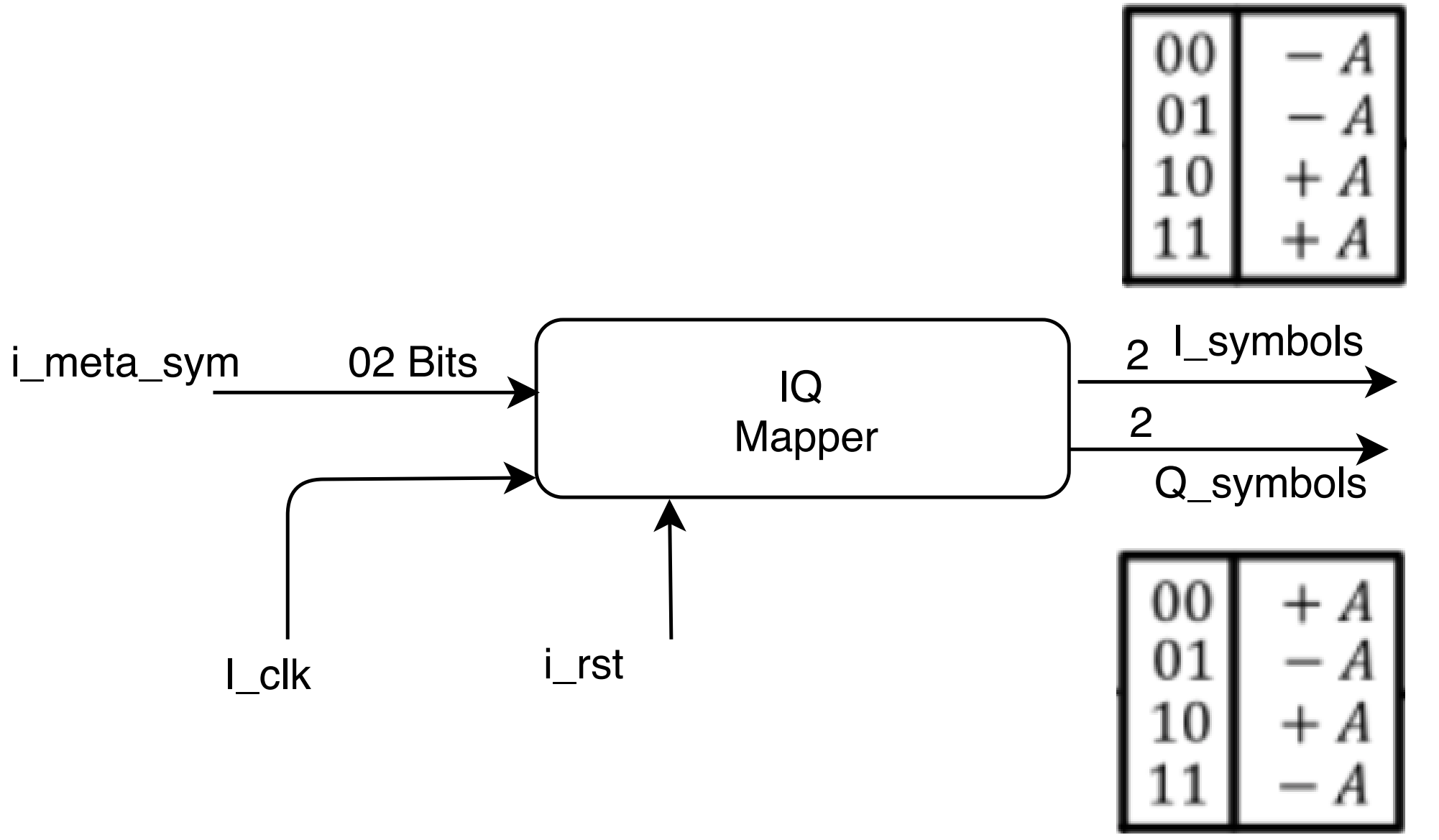
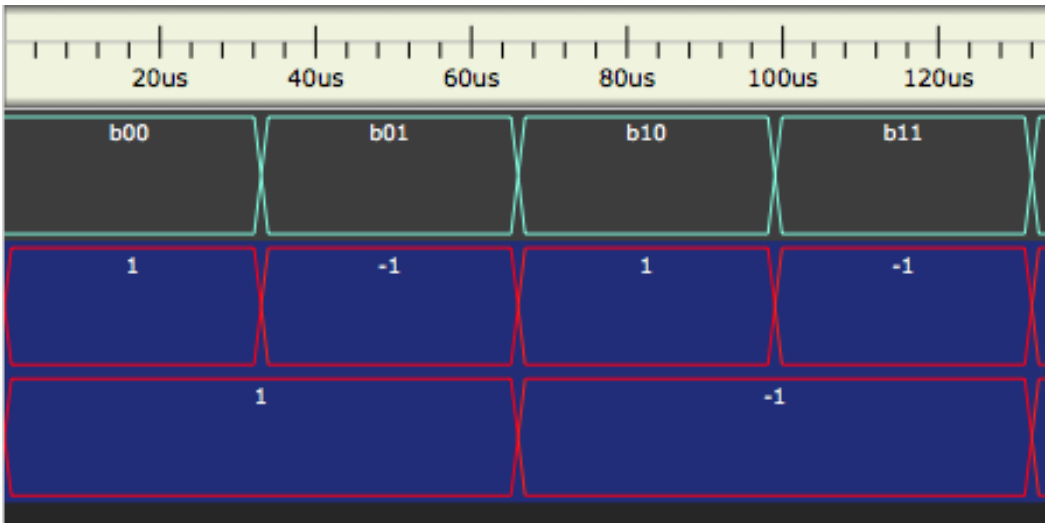
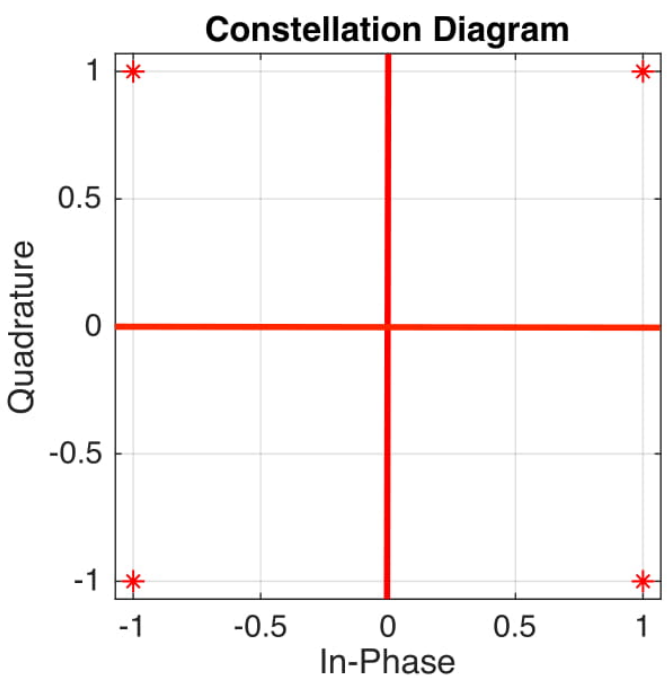
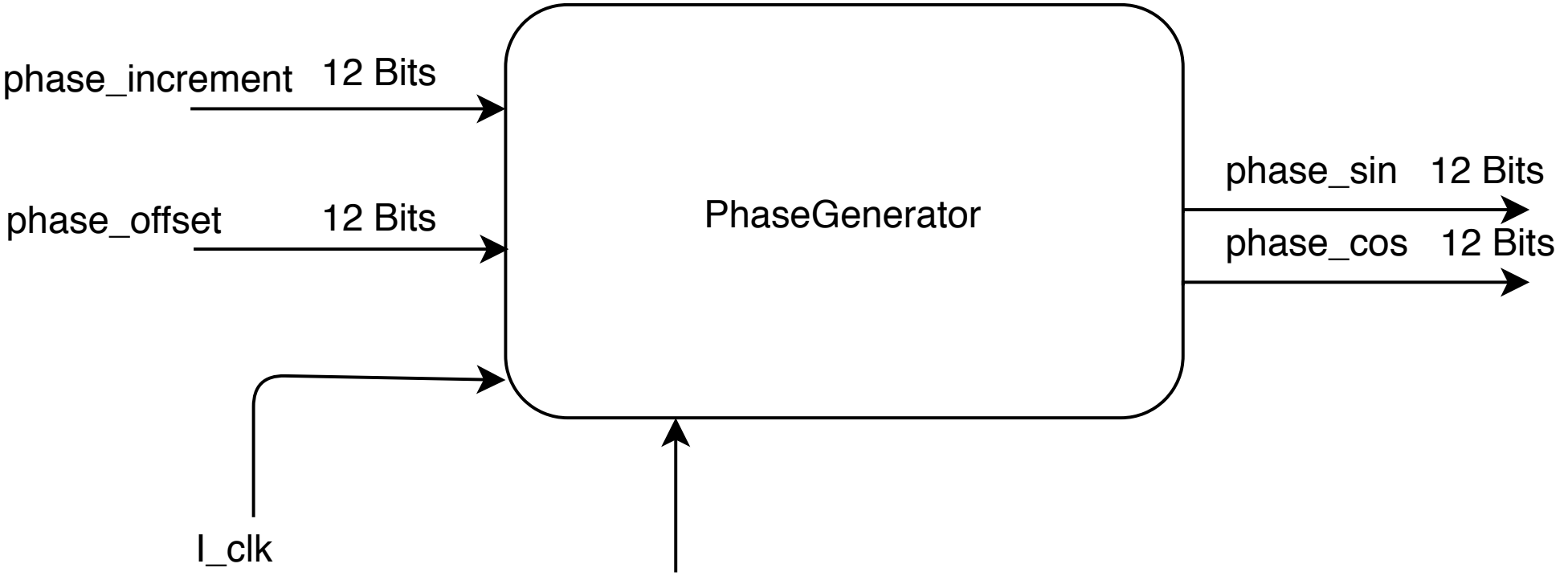

00 −A
01 −A
10 +A
11 +A
i_meta_sym
02 Bits
IQ
Mapper
2 I_symbols
2
Q_symbols
I_clk
i_rst
00 +A
01 −A
10 +A
11 −A

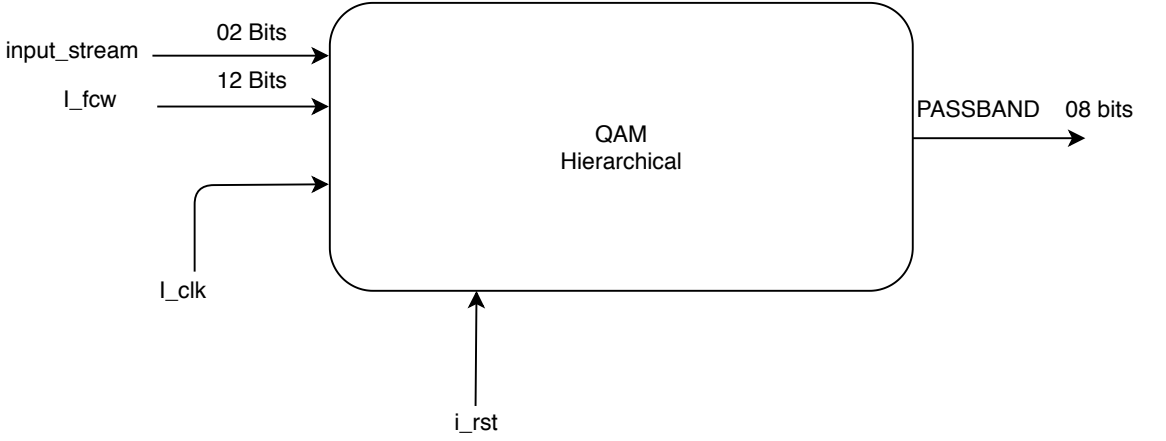


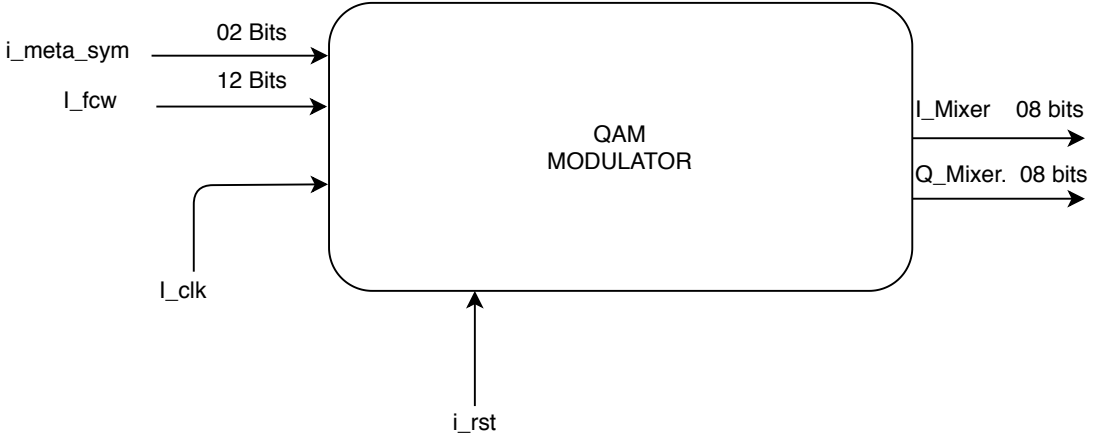
[SCANSION]: Constellation of 4-QAM Mapper Signal
TESTBENCH verification of the Mapping the input bit sequence into 4-QAM Symbols i.e each 2 bits

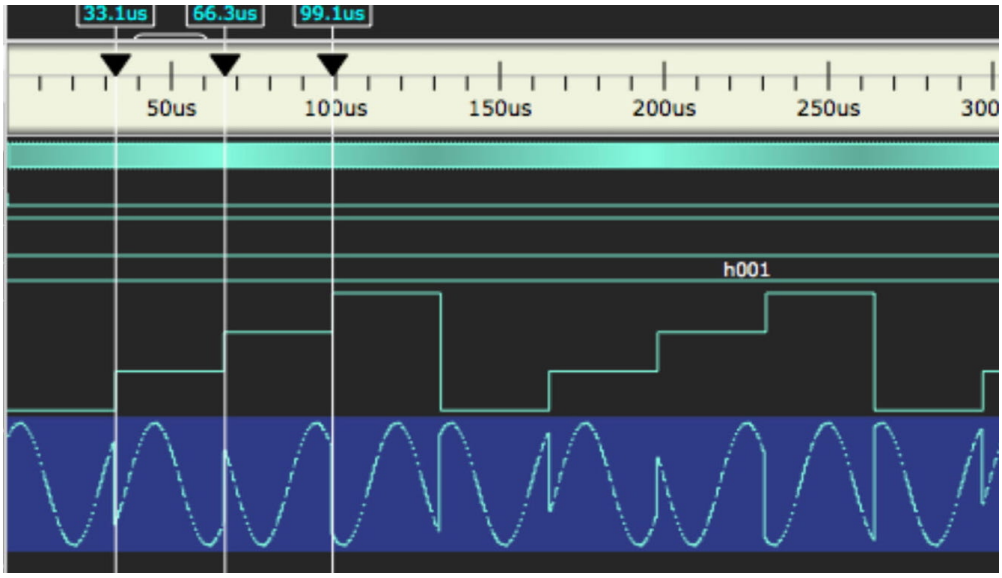


[MATLAB]: Constellation Scatter Plot
Behaviour Verification of Constellation based on the input bit sequence

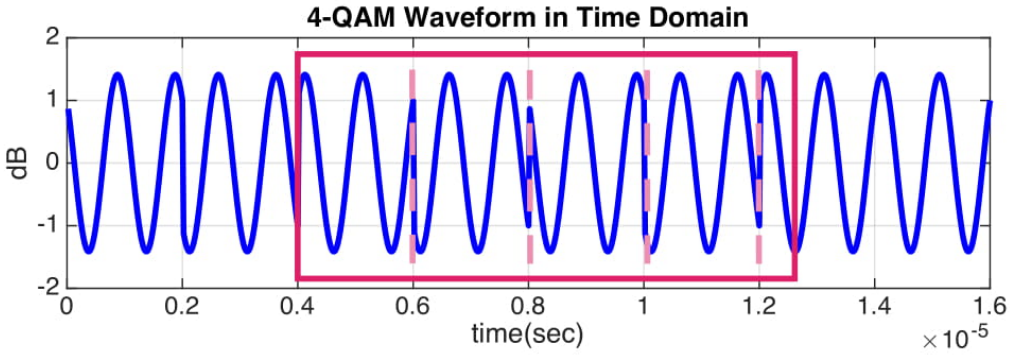

phase_increment
12 Bits
phase_offset
12 Bits
PhaseGenerator
phase_sin
12 Bits
phase_cos
12 Bits
I_clk


input_stream
02 Bits
I_fcw
12 Bits
QAM
Hierarchical
PASSBAND
08 bits
I_clk
i_rst


i_meta_sym
02 Bits
I_fcw
12 Bits
QAM
MODULATOR
I_Mixer 08 bits
Q_Mixer. 08 bits
I_clk
i_rst



[SCANSION]: PassPand Signal
TESTBENCH verification of the Waveform transition behaviour w.r.t input symbols



[MATLAB]: PassPand Signal
Behaviour Verification of Waveform transition in the final stages