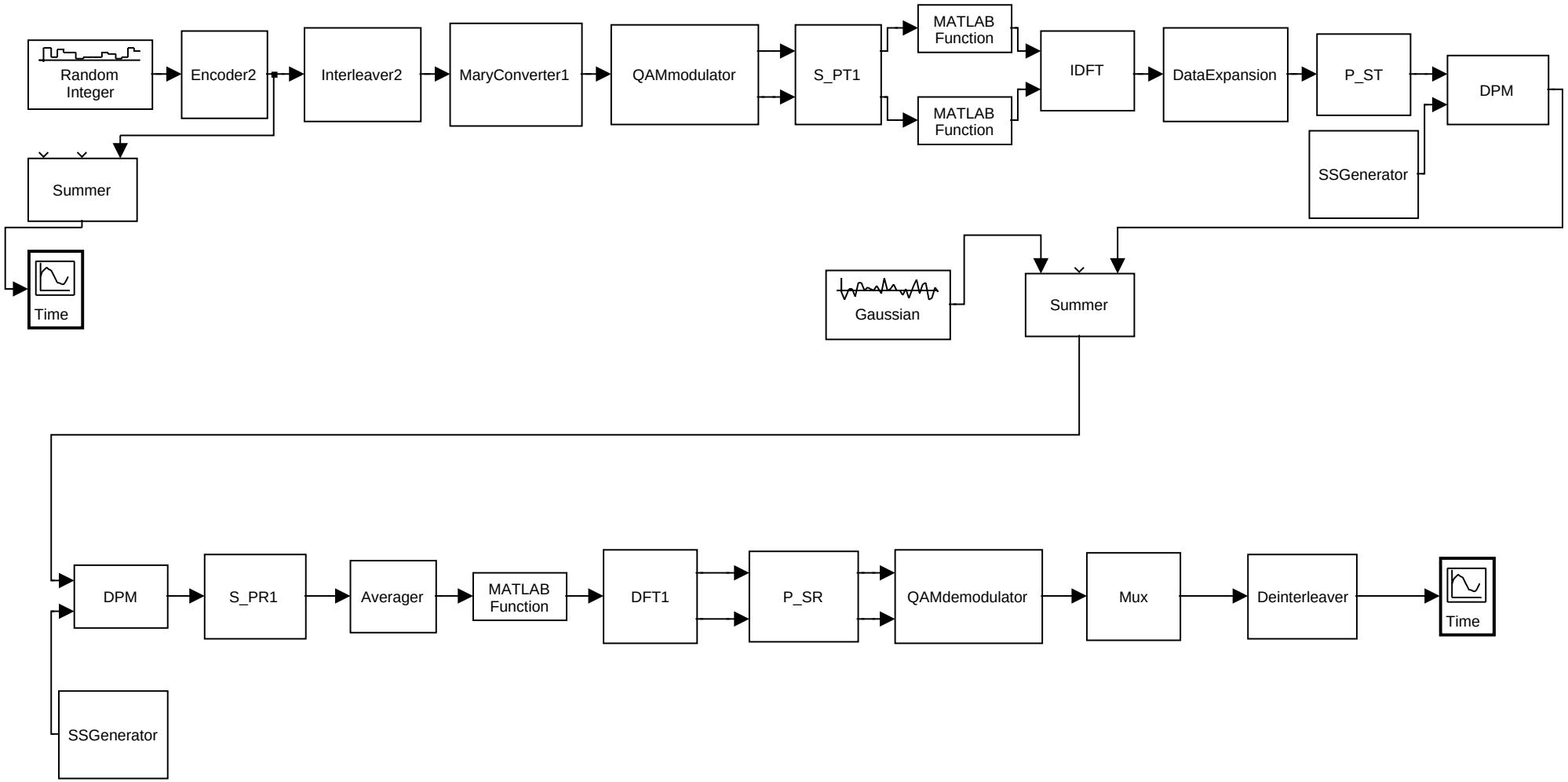
Random Integer
Encoder2
Interleaver2
MaryConverter1
QAMmodulator
S_PT1
MATLAB Function
MATLAB Function
IDFT
DataExpansion
P_ST
DPM
SSGenerator
Summer
Time
Gaussian
Summer
DPM
S_PR1
Averager
MATLAB Function
DFT1
P_SR
QAMdemodulator
Mux
Deinterleaver
Time
SSGenerator

Description of Blocks:

| SI | Block Name | Description |
|---|---|---|
| 1 | Random Integer | Random Bit Generator - Simulink Built In Block |
| 2 | Encoder 2 | Convolutional Encoder Rate 1/3 - Coded Block |
| 3 | Interleaver 2 | Convolutional Interleaver - Coded Block |
| 4 | Mary Converter1 | Mapping bits to M-ary symbols - Coded Block |
| 5 | QAMmodulator | Mapping M-ary symbols to QAM Inphase & Quadrature symbols - Coded Block |
| 6 | S_PT1 | Serial to Parallel Tx: Mapping a set of serial QAM Inphase & Quadrature symbols into a parallel complex conjugate symmetric symbol group - Coded Block |
| 7 | MATLAB Function - BRO | Function for Bit Reverse Ordering the input to the IDFT block which is a Decimation In Frequency based Radix algorithm. - Coded in MATLAB ( not a built-in Matlab function, Simulink does not show the name of a Matlab function included in its model) |
| 8 | IDFT | IFFT block for generating the real time domain OFDM signal, based on Radix 2 DIF algorithm - Coded Block. |
| 9 | Data Expansion | Duplicates the OFDM samples to guard against ISI in the channel - Coded Block |
| 10 | P_ST | Parallel to Serial Tx: Converts the parallel OFDM samples into serial for transmission - Coded Block |
| 11 | SSGenerator | Generates the short spreading sequence - Coded Block |
| 12 | DPM | Discrete Product Modulator – Spreading the OFDM signal by a user sequence - Coded Block. |
| 13 | Gaussian | Gaussian noise generator - Simulink Built In Block |
| 14 | S_PR1 | Serial to Parallel Rx: Converts the serial OFDM samples into a parallel sample group for detection - Coded Block |
| 15 | Averager | Removes the guard against ISI to obtain independent OFDM samples - Coded Block. |
| 16 | DFT1 | FFT block for converting the real time domain OFDM signal into complex conjugate symmetric symbol group based on Radix 2 Decimation In Time algorithm - Coded Block. |
| 17 | P_SR | Parallel to Serial Rx: Mapping a parallel complex conjugate symmetric symbol group into a set of serial QAM Inphase & Quadrature symbols - Coded Block |
| 18 | QAMdemodulator | Mapping QAM Inphase & Quadrature symbols to M-ary symbols - Coded Block |
| 19 | Mux | Mapping M-ary symbols to bits - Coded Block |
| 20 | Deinterleaver | Convolutional Deinterleaver - Coded Block |
| 21 | Summer | Block that adds the input signals - Coded Block |
| 22 | Time | Block used for data display - Simulink Built In Block |