

LTE Uplink transmitter model

Transport
block
Payload
bits
0100010011...

*ULSCH
processing*

CRC attachment

Subblock
segmentation

Channel coding
(turbo encoder)

Rate matching

Codeword
reconstruction

MIMO

OFDM

*PUSCH
processing*

Scrambling

Modulation
Mapper

DFT

Precoding

Layer
Mapping

Resource
element
Mapping

OFDM
signal
generation

*SC-FDM
Symbols
for multiple
transmit
antennas*

