

ABSTRACT**PARSER AND PUNCTURING FOR MULTIPLE DATA STREAMS IN A
COMMUNICATION SYSTEM**

Techniques to parse data into multiple (M) streams with selectable data rates are described. The modulation scheme and code rate for each stream are determined based on the data rate selected for that stream. The modulation schemes and code rates for all M streams are used to determine a parse cycle and the number of puncture cycles for each stream in the parse cycle. A sequence of puncture cycles is formed for the M streams such that the puncture cycle(s) for each stream are distributed as evenly as possible across the sequence. An encoder encodes traffic data in accordance with a base code (e.g., a rate 1/2 binary convolutional code) and generates code bits. A parser then parses the code bits into the M streams based on the sequence of puncture cycles, one puncture cycle at a time and in the order indicated by the sequence.

Figure 2