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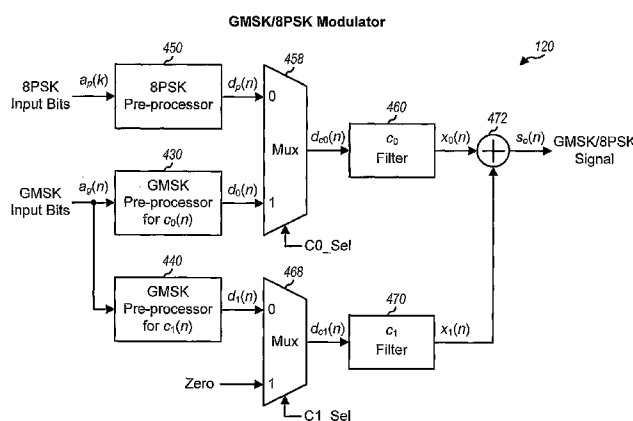
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(54) Title: UNIFIED MODULATOR FOR CONTINUOUS PHASE MODULATION AND PHASE-SHIFT KEYING



(57) Abstract: A "unified" modulator for multiple modulation schemes (e.g., GMSK and 8PSK) is described. The waveform for each modulation scheme is generated based on a set of one or more pulse shaping functions. The waveforms for all supported modulation schemes may be generated based on a composite set of all the different pulse shaping functions. The unified modulator includes a filter for each pulse shaping function in the composite set. To generate the waveform for a selected modulation scheme, the set of one or more filters for this modulation scheme is enabled and all other filters are disabled. The outputs from all enabled filters are summed to generate a modulator output. When switching between modulation schemes, a smooth transition may be obtained by (1) providing a suitable data pattern for each filter to be enabled or disabled and (2) generating symbols for the new modulation scheme with an appropriate initial phase.

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