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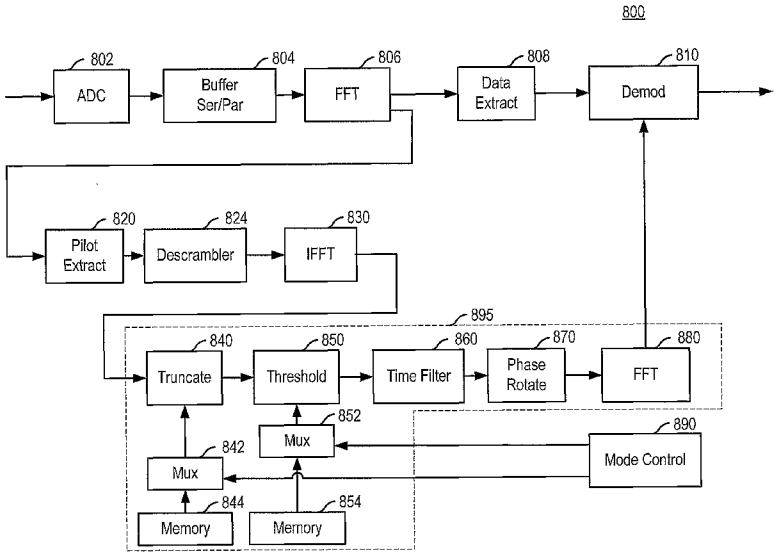
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Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU,*

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(54) Title: CHANNEL ESTIMATE OPTIMIZATION FOR MULTIPLE TRANSMIT MODES



(57) Abstract: Channel estimation in a spectrally shaped wireless communication system in which an initial frequency response estimate is obtained for a first set of P uniformly spaced subbands (1) based on a second set of non uniformly spaced subbands carrying pilots and (2) using extrapolation and/or interpolation. A channel impulse response estimate is obtained by performing an IFFT on initial frequency response estimate. The number of taps in the channel impulse response can be truncated to a estimate predetermined number of taps and/or thresholded.The predetermined threshold can be determined based on an operating mode. A final frequency response estimate for each mode within each OFDM symbol is derived by zero padding the processed channel impulse response and FFT transforming it.

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