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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, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)
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(54) Title: SYSTEM AND METHOD FOR ACTUATING A LIQUID CRYSTAL DISPLAY

(57) Abstract: A matrix of liquid crystal pixels (22) is provided. A digital-to-analog converter (DAC) (102, 114, and 126) is coupled to the matrix and produces an output voltage that can be applied to one or more pixels in the matrix. The DAC (102, 114, and 126) receives a calibrated multi-bit digital input and generates its output voltage to correspond to the digital input. A reference voltage generator (128) generates at least two reference voltages at an output that is coupled to one input of a comparator (132). Another input of the comparator (132) is coupled to the DAC (102, 114, and 126) output. When the comparator (132) is activated, it outputs one of two signals: a first signal when one input receives a higher voltage; and a second signal when the other input receives a higher voltage. A digital calibrator (100) has at least one output and at least one input. The digital calibrator (100) is adapted to receive an uncalibrated multi-bit digital signal at the input. The digital calibrator (100) is also adapted to modify the uncalibrated multi-bit digital signal based at least in part on the output of the comparator (132) to produce the calibrated digital signal. The digital calibrator (100) applies the calibrated multi-bit digital signal at the output. The output of the digital calibrator (100) is coupled to the input of the DAC (102, 114, and 126).