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(71) Applicant (for all designated States except US): **AVIAT NETWORKS, INC.** [US/US]; 5200 Great America Parkway, Santa Clara, CA 95054 (US).

(72) Inventors; and

(71) Applicants (for US only): **VANN, Emerick** [US/US]; 11447 Rampart Drive, Dublin, CA 94568 (US). **CHAO, Yen-Fang** [US/US]; 5009 Carducci Drive, Pleasanton, CA 94588 (US). **QIN, Youming** [US/US]; 907 South Bernardo, Sunnyvale, CA 94087 (US). **MATIAN, Roland** [US/US]; 6439 Wellmeadow Court, San Jose, CA 95120 (US).(74) Agents: **KLOKE, Daniel, C.** et al.; Sheppard, Mullin, Richter & Hampton LLP, 379 Lytton Avenue, Palo Alto, CA 94301 (US).

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(54) Title: SYSTEMS AND METHODS FOR ASYNCHRONOUS RE-MODULATION WITH ADAPTIVE I/Q ADJUSTMENT

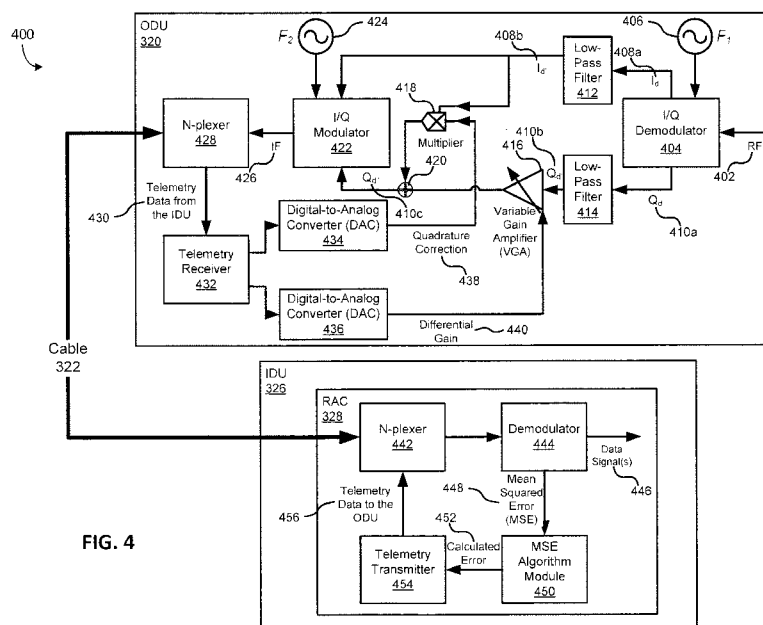


FIG. 4

(57) Abstract: Various embodiments provide for systems and methods for signal conversion of one modulated signal to another modulated signal using demodulation and then re-modulation. According to some embodiments, a signal receiving system may comprise an I/Q demodulator that demodulates a first modulated signal to an in-phase ("I") signal and a quadrature ("Q") signal, an I/Q signal adjuster that adaptively adjusts the Q signal to increase the signal-to-noise ratio (SNR) of a transitory signal that is based on a second modulated signal, and an I/Q modulator that modulates the I signal and the adjusted Q signal to the second modulated signal. To increase the SNR, the Q signal may be adjusted based on a calculated error determined for the transitory signal during demodulation by a demodulator downstream from the I/Q modulator.



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