

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LG ELECTRONICS INC.,

Petitioner,

v.

PARKERVISION, INC.,

Patent Owner.

Case IPR2022-00246

U.S. Patent No. 7,292,835

PETITION FOR *INTER PARTES* REVIEW

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1. Claim 149

(a) Element [1 preamble]: “A cable modem for down-converting *an electromagnetic signal having complex modulations*, comprising”49

(b) Element [1A]: “an *oscillator* to generate an in-phase oscillating signal”51

(c) Element [1B]: “a *phase shifter* to receive said in-phase oscillating signal and to create a quadrature-phase oscillating signal”51

(d) Element [1C]: “a *first frequency down-conversion module* to receive the electromagnetic signal and said in-phase oscillating signal”54

(e) Element [1D]: “a *second frequency down-conversion module* to receive the electromagnetic signal and said quadrature-phase oscillating signal”55

(f) Element [1E]: “wherein said first frequency down-conversion module further comprises a *first frequency translation module*”56

(g) Element [1F]: “and a *first storage module*”57

(h) Element [1G]: “wherein said first frequency down-conversion module samples the electromagnetic signal at a rate that is a function of said in-phase oscillating signal, thereby creating a *first sampled signal*”58

(i) Element [1H]: “said second frequency down-conversion module further comprises a *second frequency translation module*”60

(j) Element [1I]: “and a second storage module”60

(k)	Element [1J]: “wherein said second frequency down-conversion module samples the electromagnetic signal at a rate that is a function of said quadrature-phase oscillating signal, thereby creating <i>a second sampled signal</i> ”	61
2.	Claim 12: “The cable modem of claim 1, wherein said sampled signal is a first information output signal, and said second sampled signal is a second information output signal.”	62
3.	Claim 15: “The cable modem of claim 1, further comprising a first filter receiving said first sampled signal and outputting a first filtered signal, and a second filter receiving said second sampled signal and outputting a second filtered signal.”	62
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