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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte PAUL D. BROOKS

Appeal 2015-006452
Application 12/789,961
Technology Center 2400

Before CAROLYN D. THOMAS, JEFFREY S. SMITH, and TERRENCE W. McMILLIN, *Administrative Patent Judges*.

SMITH, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is an appeal under 35 U.S.C. § 134(a) from the rejection of claims 1–26 and 28. Claim 27 has been canceled, and claim 29 has been allowed. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Representative Claim

1. A method for providing enhanced broadband services over a communications network, the method comprising the steps of:

receiving from the communications network at least first signals in a first downstream frequency band having a first minimum frequency defining at least a portion of a first upstream/downstream split point;

translating one or more of the first signals from the first downstream frequency band to one or more translated first signals in a second downstream frequency band having a second minimum frequency less than the first minimum frequency, the first and second downstream frequency bands being non-overlapping; and

combining the one or more translated first signals in the second downstream frequency band with one or more of the first signals in the first downstream frequency band to generate combined programming material having the second minimum frequency defining at least a portion of a second upstream/downstream split point for reception by receiving location equipment.

Prior Art

Helms	US 2005/0125841 A1	June 9, 2005
Purchase	US 5,432,838	July 11, 1995
Weinstein	US 2005/0155082 A1	July 14, 2005
McMullin	US 2009/0165070 A1	June 25, 2009
Kostreski	US 5,610,916	Mar. 11, 1997
Kliger	US 2002/0069417 A1	June 6, 2002

Examiner's Rejections

Claims 1–3, 7, 13, 14, 16–18, 23, and 28 stand rejected[1] under 35 U.S.C. § 103(a) as being unpatentable over Helms and Purchase.

Claims 4, 9, and 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Helms, Purchase, and Weinstein.

Claims 5, 6, 15, and 24 stand rejected[2] under 35 U.S.C. § 103(a) as being unpatentable over Helms, Purchase, and McMullin.

Claims 8, 12, 15, 20, 21, 25, and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Helms, Purchase, and as well known in the art.

Claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Helms, Purchase, and Kostreski.

Claim 22 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Helms, Purchase, as well known in the art, and Kliger.

Claim 19 stands objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

ANALYSIS

We adopt the findings of fact made by the Examiner in the Final Rejection and Examiner's Answer as our own. We concur with the conclusions reached by the Examiner for the reasons given in the Examiner's Answer. We address the following points for emphasis.

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[1] The statement of rejection on page 2 of the Final Action does not list claim 7, but the Final Action addresses claim 7 on pages 5 and 6.
[2] The statement of rejection on page 10 of the Final Action does not list claim 24, but the Final Action addresses claim 24 on page 12.

Appellant contends that according to the present invention, split migration involves moving the upstream/downstream split point. Reply Br. 9. However, claim 1 does not recite split migration, nor moving the upstream/downstream split point. *See* Ans. 4. Appellant's contention is not commensurate with the scope of claim 1.

Appellant contends that the Examiner does not explain how the prior art frequency translation teaches "defining at least a portion of a second upstream/downstream split point." Reply Br. 10. According to Appellant, frequency translating from one frequency band to another frequency band, without more, has no bearing on a split point. *Id.* Claim 1 recites the "portion of a second upstream/downstream split point" is defined by combining one or more translated first signals in the second minimum frequency band with one or more first signals in the first frequency band. Claim 1 does not require "defining at least a portion of a second upstream/downstream split point" to be anything more than combining a signal translated to a lower frequency band with a signal in the untranslated higher frequency band.

Here, the Examiner relies on Figure 5 and paragraphs 39–41 of Helms to teach translating a signal from frequency band 489 to a higher frequency band 378, and combining the translated signal with the original signal. Ans. 5. Although Helms teaches translating to a higher, rather than lower, frequency band, the Examiner relies on Purchase to teach translating from a higher frequency to a lower frequency was within the level of ordinary skill. Ans. 6. Appellant does not persuasively rebut the Examiner's findings.

Appellant contends that Helms does not teach moving a defined portion of the downstream frequency band. Reply Br. 11. Appellant's contention is inconsistent with Figure 5 and paragraphs 39–43 of Helms.

Appellant contends that Purchase is not concerned with defining split points. Reply Br. 11. According to Appellant, Purchase's teaching of translating a signal in a band of 210-216 MHz to a band of 150-156 MHz is completely contained in the downstream frequencies and above the upstream frequencies. *Id.* Appellant's contention is inconsistent with column 8, lines 15-17 of Purchase, which teach an inbound spectrum of 5-186 MHz, and an outbound spectrum of 222-450 MHz. Appellant's contention is also inconsistent with column 15, lines 32-34 of Purchase, which teach that frequency use is not restricted to inbound or outbound.

Appellant contends the claim term "upstream/downstream split point" means that a downstream radio frequency signal is above a frequency, such as 105 MHz, and an upstream signal is below a frequency, such as 85 MHz. Reply Br. 12, 13. According to Appellant, one edge of a frequency band is not a split point. Reply Br. 13. Appellant's contention is inconsistent with Appellant's Specification.

Appellant's Specification discloses that the band of frequencies between the maximum upstream range and the minimum downstream range may be referred to as the crossover point. Spec. 9:28–30. Appellant's Specification gives an example of moving a maximum upstream frequency from 42 to 200 MHz, and moving a minimum downstream frequency range from 54 to 258 MHz. Spec. 13:7–19. A frequency band of downstream signals is translated from 258-454 MHz to 54-258 MHz, and combined with signals having a frequency greater than 258 MHz. Spec. 15:10–21; Fig. 3A.

In this example from Appellant's Specification, the translated downstream signals are within the upstream frequency band, and there is no band of frequencies between the maximum upstream range and the minimum downstream range. Appellant's contention that one edge of a frequency band does not define a portion of a second split point is inconsistent with Appellant's Specification. The scope of "defining a portion of a second upstream/downstream split point," when read in light of Appellant's Specification, encompasses changing an edge of either the upstream or downstream frequency band, without necessarily having a band of frequencies between the upstream and downstream bands. *See* App. Br. 4 (citing Spec. 15:10–20 and Fig. 3A).

Further, as noted by Appellant, Purchase discloses a split point. *See* Reply Br. 13. Helms teaches changing the frequency edge of the received composite signal, or "downstream frequency band." Fig. 5; ¶¶ 39-43. Lowering the frequency edge of a downstream frequency band in a communication system having a split point as taught by the combination of Helms and Purchase yields the predictable result of "defining a portion of a second upstream/downstream split point" within the meaning of claim 1.

We sustain the rejection of claim 1 under 35 U.S.C. § 103. Appellant does not present arguments for separate patentability of claims 2–26 and 28, which fall with claim 1.

DECISION

The Examiner's rejections of claims 1–26, and 28 are affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv). *See* 37 C.F.R. § 41.50(f).

AFFIRMED