13-22; CX-1525C (Prucnal RWS) at Q367-377, 518; CX-1525.1C (Prucnal RWS Errata) at 3.

The remainder of this element, "such that the power control bits are included on only one of the I pre-spread channel or the Q pre-spread channel," is disputed and is disclosed as explained above. The '775 Provisional discloses "wherein a second radio frequency signal output by the code division multiple access subscriber unit is derived at least in part from the I and Q pre-spread channels." JX-0026 ('775 Provisional) at 42, 43, 131, NK800IDC07356894; CX-1525C (Prucnal RWS) at Q 378-380.

xi. '332 Patent – Claim 9

Claim 9 of the '332 patent depends from claim 8, which is disclosed as stated above. CX-1525C (Prucnal RWS) at Q381-383. The '775 Provisional discloses "wherein the circuit is further configured to combine the I and Q pre-spread channels with a complex sequence." JX-0026 ('775 Provisional) at 42-43, 81-82, 131, NK800IDC07356894, NK800IDC07357590; CX-1525C (Prucnal RWS) at Q384-390.

xii. '332 Patent – Claim 10

Claim 10 of the '332 patent depends from claim 9, which is disclosed as stated previously. CX-1525C (Prucnal RWS) at Q391-393. The '775 Provisional discloses "wherein the combining is by multiplication." JX-0026 ('775 Provisional) at 81-82, NK800IDC07356894, NK800IDC07357590; CX-1525C (Prucnal RWS) at Q394-400.

xiii. '332 Patent – Claim 11

Claim 11 of the '332 patent depends from claim 9, which is disclosed as shown above. CX-1525C (Prucnal RWS) at Q401-403. The '775 Provisional discloses "wherein the complex sequence comprises at least two pseudo noise sequences." JX-0026 ('775 Provisional) at 44, 46, NK800IDC07356897; CX-1525C (Prucnal RWS) at Q404-410.

xiv. '332 Patent – Claim 14

Claim 14 of the '332 patent depends from claim 8, which is disclosed as shown above. CX-1525C (Prucnal RWS) at Q411-413. The '775 Provisional discloses "wherein pilot bits are included on at least one of the I and the Q pre-spread channels." JX-0026 ('775 Provisional) at 42-43, 131, NK800IDC07356894; CX-1525C (Prucnal RWS) at Q414-420.

xv. '332 Patent – Claim 22

The '775 Provisional discloses claim 22 of the '332 patent. CX-1525C (Prucnal RWS) at Q421-445. The '775 Provisional discloses "[a] code division multiple access subscriber unit." JX-0026 ('775 Provisional) at 6, 16, NK800ITC07356861-862; CX-1525C (Prucnal RWS) at Q422-423, Q283-287. The '775 Provisional discloses "circuitry configured to receive a first radio frequency signal and generate power control bits in response to the first radio frequency signal." JX-0026 ('775 Provisional) at 43, 131, NK800IDC07356895; CX-1525C (Prucnal RWS) at Q424-436. The '775 Provisional discloses "wherein the circuit is further configured to establish an in-phase (I) channel and a quadrature (Q) channel." JX-0026 ('775 Provisional) at 42-43, 131, NK800IDC07356895; JX-0002 ('332 patent) at col. 45, lns. 13-22; CX-1525C (Prucnal RWS) at Q437-438, Q367-377. The remainder of this element, "wherein one of the I or the Q channel includes the power control bits" is disputed and is disclosed by the '775 Provisional as explained above. The '775 Provisional discloses "wherein the circuitry is further configured to produce a second radio frequency signal including an I component and a Q component derived from the I channel and the Q channel." JX-0026 ('775 Provisional) at 42, 43, 131, NK800IDC07356894; CX-1525C (Prucnal RWS) at Q439-440, Q378-380. The '775 Provisional discloses "wherein the circuitry is further configured to transmit the second radio frequency signal." JX-0026 ('775 Provisional) at 42-43, 131, NK800IDC07356894; CX-1525C

189

(Prucnal RWS) at Q305-307. The '775 Provisional discloses "wherein the circuitry is further configured to combine the I and Q channels with a complex sequence." JX-0026 ('775 Provisional) at 42-43, 81-82, 131, NK800IDC07356894, NK800IDC07357590; CX-1525C (Prucnal RWS) at Q446-447, Q311-317.

xvi. '332 Patent – Claim 23

Claim 23 of the '332 patent depends from claim 22, disclosed as stated above. CX-1525C (Prucnal RWS) at Q448-450. The '775 Provisional discloses "wherein the combining is performed by multiplication." JX-0026 ('775 Provisional) at 80-81, NK800IDC07356894, NK800IDC07357590; CX-1525C (Prucnal RWS) at Q451-452, Q321-327.

xvii. '332 Patent – Claim 24

Claim 24 of the '332 patent depends from claim 22, disclosed as shown above. CX-1525C (Prucnal RWS) at Q453-455. The '775 Provisional discloses "wherein the complex sequence comprises at least two pseudo noise sequences." JX-0026 ('775 Provisional) at 44, 46, NK800IDC07356897; CX-1525C (Prucnal RWS) at Q456-457, Q331-337.

xviii. '332 Patent – Claim 27

Claim 27 of the '332 patent depends from claim 21, disclosed above. CX-1525C (Prucnal RWS) at Q458-460. The '775 Provisional discloses "wherein the circuitry is further configured to generate pilot bits; wherein the second radio frequency signal is derived at least in part from the pilot bits." JX-0026 ('775 Provisional) at 42-43, 131, NK800IDC07356894; CX-1525C (Prucnal RWS) at Q461-462, Q341-347; CX-1525.1C (Prucnal RWS Errata) at 2.

2. Anticipation and Obviousness

Respondents argue that the asserted claims of the '406 patent are invalid based on three primary references (Andermo-Brismark,[34] Andermo-Ewerbring,[35] and Tiedemann[36]) alone or each in combination with a Dent[37] or Salmasi[38] reference. *See* GR12 Filing at 7, 8. Respondents have failed to show clearly and convincingly that the asserted claims are invalid because, at a minimum, none of these references discloses or renders obvious the limitations (i) "the reverse control channel carries at least one power command" or (ii) "separately adjusting the transmission power level of the traffic channel and the reverse control channel." As an initial matter, all of these references were disclosed during prosecution of the '406 patent, and the Tiedemann reference was cited by the examiner in an office action rejecting claims.[39] JX-0008 ('406 file history) at IDC-ITC-016382231. Respondents do not contend that the primary

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[34] RX-0717 ("Andermo-Brismark") is titled, "CODIT, a Testbed Project Evaluating DS-CDMA for UMTS/FPLMTS," was written by PG Andermo and Gustav Brismark, and was available in 1994 through IEEE. *See* RX-3529C (Williams WS) at Q1486-1488. Since the article was publicly available in 1994, the Andermo-Brismark reference qualifies as prior art under at least 35 U.S.C. § 102(a).

[35] RX-0721 ("Andermo-Ewerbring") is titled, "A CDMA-Based Radio Access Design for UMTS," was written by PG Andermo and Lars-Magnus Ewerbring, and was available in the February 1995 issue of *IEEE Personal Communications*. RX-3529C (Williams WS) at Q1605-1607. The Andermo-Ewerbring reference is therefore prior art under 35 U.S.C. § 102(a).

[36] U.S. Patent No. 5,604,730 to Tiedmann (RX-0731) ("the Tiedemann '730 patent" or "Tiedemann") was filed July 25, 1994.

[37] U.S. Patent No. 5,377,183 (RX-0730) ("Dent" or "Dent 183") is titled, "Calling Channel in CDMA Communications Systems," and was filed by Paul Dent on April 11, 1994.

[38] RX-0718 ("Salmasi") is an article written by Allen Salmasi and Klein Gilhousen titled, "On the System Design Aspects of Code Division Multiple Access (CDMA) Applied to Digital Cellular And Personal Communication Networks," and was published in 1991.

[39] The clear and convincing burden "is especially difficult when the prior art was before the PTO examiner during prosecution of the application." *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1467 (Fed. Cir. 1990).

references disclose the first of these two limitations, relying instead on Dent or Salmasi to fill in the missing piece. Williams Tr. 1232.

Respondents also argue that the asserted claims of the '332 patent are invalid based on two primary references (Lucas[40] and Walton[41]) alone or in combination with each other or Salmasi. Respondents have failed to show clearly and convincingly that the asserted claims are invalid because none of these references discloses or renders obvious the following limitations: (i) including power control bits on only one of an uplink in-phase (I) or quadrature (Q) channel, (ii) including power control bits on only one of a pre-spread in-phase (I) or quadrature (Q) channel, or (iii) combining these channels with a complex sequence. As an initial matter, Walton and Salmasi were disclosed during prosecution of the '332 patent. Walton in particular was made of record in the examiner's first rejection and mentioned explicitly in the examiner's first statement of reasons for allowance in April 2009, which the examiner cross-referenced in every subsequent Notice of Allowability. JX-0009 ('332 file history) at IDC-ITC-016399573, IDC-ITC-016400782, IDC-ITC-016401480. Furthermore, Respondents rely on Lucas for allegedly disclosing the limitation of combining the I and Q [pre-spread] channels with a complex sequence, even though Lucas teaches away from this limitation by advocating replacing complex sequences with real ones. For these reasons, the asserted '332 patent claims are not invalid.

Respondents further argue that asserted claims of both the '406 and '332 patents are invalid based on two Odenwalder patent references that were filed almost a year after the '775

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[40] U.S. Patent 5,544,167 (RX-0696) to Lucas ("Lucas") was filed on August 12, 1994, and is therefore prior art to the '332 patent under 35 U.S.C. § 102(e).

[41] U.S. Patent 5,621,723 (RX-0694) to Walton ("Walton") was filed on June 5, 1995, and is therefore prior art to the '332 patent under 35 U.S.C. § 102(e).

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