

1           UNITED STATES PATENT AND TRADEMARK OFFICE  
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4           BEFORE THE BOARD OF PATENT APPEALS  
5           AND INTERFERENCES  
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7           *Ex parte RAVI SUBRAMANIAN, UMA JHA, and JOEL D. MEDLOCK*

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10           Appeal 2007-3205  
11           Application 09/772,584<sup>1</sup>  
12           Technology Center 2100  
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14           Decided: May 5, 2008  
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16           Before JOSEPH L. DIXON, HOWARD B. BLANKENSHIP, and  
17           CAROLYN D. THOMAS, *Administrative Patent Judges*.

18           THOMAS, C., *Administrative Patent Judge*.  
19

20           DECISION ON APPEAL  
21

22           I. STATEMENT OF THE CASE  
23

24           Appellants appeal under 35 U.S.C. § 134 from a Final Rejection  
25           of claims 1-16 and 51-66 entered November 5, 2004. We have jurisdiction  
26           under 35 U.S.C. § 6(b).  
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28           We affirm.

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<sup>1</sup> Application filed January 29, 2001. The real party in interest is Infineon Technologies AG.

1                           A. INVENTION

2         Appellants invented a system and computer readable medium that  
3     provides a wireless spread spectrum communication platform for processing  
4     a communication signal. The wireless communication platform includes a  
5     first computing element, a second computing element, and a reconfigurable  
6     interconnect. (Spec., Abstract.)

7

8                           B. ILLUSTRATIVE CLAIM

9         Claims 1-98 are pending in the application, with claims 1-16 and 51-  
10    66 on appeal. Claims 1 and 51 are independent claims. Claims 17-50 and  
11    67-98 are withdrawn. Claim 1 is illustrative:

12                 1. In a processor having a plurality of kernel planes with a  
13     plurality of kernels for processing data in a communication device, at  
14     least one kernel of the plurality of kernels comprising:

15                           an interface adapted to receive and transmit information  
16     from the at least one kernel;

17                           a satellite kernel coupled to the interface, the satellite  
18     kernel performing a discrete class of operations within a  
19     communications application; and

20                           a local controller coupled to the interface and the satellite  
21     kernel, and the local controller permitting the at least one kernel to  
22     operate autonomously with respect to the other of the plurality of  
23     kernels.

24

25                           C. REFERENCE

26         The single reference relied upon by the Examiner in rejecting the  
27     claims on appeal is as follows:

28             Sharrit                   US 5,999,990                   Dec. 7, 1999  
29

#### D. REJECTION

2 The Examiner entered the following rejection which is before us for  
3 review:

4 Claims 1-16 and 51-66 are rejected under 35 U.S.C. § 102(e) as being  
5 anticipated by Sharrit.

## II. PROSECUTION HISTORY

8           Appellants appealed from the Final Rejection and filed an amended  
9   Appeal Brief (App. Br.) on December 13, 2006. The Examiner mailed an  
10   Examiner's Answer (Ans.) on February 23, 2007. Appellants filed a Reply  
11   Brief (Reply Br.) on March 20, 2007.

### III. ISSUE

14 Whether Appellants have shown that the Examiner erred in rejecting  
15 claims 1-16 and 51-66 as being anticipated by Sharrit.

#### IV. FINDINGS OF FACT

18 The following findings of fact (FF) are supported by a preponderance  
19 of the evidence.

Sharrit

21           1. Sharrit discloses that “[e]ach of RRUs **13** [reconfigurable resource  
22 units] includes signal processing functionality for processing signals on the  
23 signal bus **14**.<sup>10</sup>” (Col. 2, ll. 35-36.)

24           2. Sharrit discloses that “the RRUs **12a-12n** can each include any  
25 type of processing device . . . For example, as illustrated in Fig. 2, an RRU

1       **52** can include a digital signal processor (DSP) **42** coupled to a random  
2 access memory (RAM) **44**. The DSP **42** is coupled to controller **16** for  
3 receiving, among other things, processing commands instructing the DSP **42**  
4 how to process a signal presently on signal bus **14**." (Col. 5, ll. 33-41.)

5              3. Sharrit discloses that "the RRU **52** can include a mass storage unit,  
6 such as a hard disk drive (HDD) **46**, for storing a library of programs that  
7 can be executed in the DSP **42**. When the DSP **42** receives a processing  
8 command from the controller **16**, it can transfer an appropriate program file  
9 from HDD **46** into RAM **44** for use in processing a signal from signal bus  
10 **14**." (Col. 5, ll. 46-52.)

11              4. Sharrit discloses that "an RRU **54** includes a general purpose  
12 processor (GPP) **48** and a field programmable gate array (FPGA) **50**."  
13 (Col. 5, ll. 58-60.)

14

## 15                      V. PRINCIPLES OF LAW

16              "[A]nticipation of a claim under § 102 can be found only if the prior  
17 art reference discloses every element of the claim . . ." *In re King*, 801  
18 F.2d 1324, 1326 (Fed. Cir. 1986) (citing *Lindemann Maschinenfabrik*  
19 *GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458 (Fed. Cir.  
20 1984)). "[A]bsence from the reference of any claimed element negates  
21 anticipation." *Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565, 1571  
22 (Fed. Cir. 1986).

23              "A claim is anticipated only if each and every element as set forth in  
24 the claim is found, either expressly or inherently described, in a single prior  
25 art reference." *Verdegaal Bros., Inc. v. Union Oil Co. of California*, 814

1 F.2d 628, 631 (Fed. Cir. 1987). Analysis of whether a claim is patentable  
2 over the prior art under 35 U.S.C. § 102 begins with a determination of the  
3 scope of the claim. We determine the scope of the claims in patent  
4 applications not solely on the basis of the claim language, but upon giving  
5 claims their broadest reasonable construction in light of the specification as  
6 it would be interpreted by one of ordinary skill in the art. *In re Am. Acad. of*  
7 *Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). The properly  
8 interpreted claim must then be compared with the prior art.

9

## 10 VI. ANALYSIS

### 11 *Grouping of Claims*

12 In the amended Brief, Appellants argue claims 1-16 and 51-66 as a  
13 group (App. Br. 5-8). Thus, the Board selects illustrative claim 1 to decide  
14 the appeal for this group. Accordingly, the remaining claims in this group  
15 stand or fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(vii). *See also In re*  
16 *Young*, 927 F.2d 588, 590 (Fed. Cir. 1991).

17

### 18 *The Anticipation Rejection*

19 Claims are given their broadest reasonable construction “in light of  
20 the specification as it would be interpreted by one of ordinary skill in the  
21 art.” *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir.  
22 2004).

23 To determine whether Sharrit anticipates claims 1-16 and 51-66, we  
24 must first determine the scope of the claims. Our reviewing court stated in  
25 *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005), *cert. denied*,

1    *sub nom. AWH Corp. v Phillips*, 126 S. Ct. 1332 (2006):

2       The claims, of course, do not stand alone. Rather, they are part of “a  
3       fully integrated written instrument,” *Markman*, 52 F.3d at 978,  
4       consisting principally of a specification that concludes with the  
5       claims. For that reason, claims “must be read in view of the  
6       specification, of which they are a part.” *Id.* at 979. As stated in  
7       *Vitronics*, the specification “is always highly relevant to the claim  
8       construction analysis. Usually, it is dispositive; it is the single best  
9       guide to the meaning of a disputed term.” 90 F.3d at 1582.

10      Initially, we note that Appellants in essence argue that Sharrit’s local  
11     controller needs a system processor in conjunction with its general purpose  
12     processor (GPP). In other words, Appellants specifically argue that “[t]here  
13     is no suggestion in Sharrit that the GPP [general purpose processor]  
14     performs local controller functions. All control must be centralized in the  
15     controller 16” (App. Br. 7). For this reason, Appellants contend that Sharrit  
16     fails to disclose “*a local processor that operates autonomously with respect*  
17     *to the other of the plurality of kernels.*”

18      As noted above, during patent prosecution, claims are construed as  
19     broadly as is reasonable. Hence, the claimed “*operate autonomously with*  
20     *respect to the other of the plurality of kernels*” reads on any operation  
21     performed independently from the other plurality of kernels, not necessarily  
22     independently from *any* circuitry outside of the computing element, i.e., not  
23     independently of a system processor. Thus, we find that what is required is  
24     that the local controller in one kernel operates independently from the other  
25     kernels.

1        "Having construed the claim limitations at issue, we now compare the  
2        claims to the prior art to determine if the prior art anticipates those claims."  
3        *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1349 (Fed. Cir. 2002).

4        Appellants contend that "Sharrit does not teach, or even suggest, a  
5        kernel having a local controller that permits the kernel to operate  
6        autonomously with respect to other of a plurality of kernels" (App. Br. 6;  
7        Reply Br. 2).

8        The Examiner found that Sharrit discloses a DSP (digital signal  
9        processor) that processes a signal from the signal bus 14 by executing one or  
10      more software programs stored in RAM 44 (Ans. 6). The Examiner further  
11      found that Sharrit discloses that "the GPP 48 delivers a control signal to  
12      FPGA [field programmable gate array] 50 instructing it to read the signal on  
13      signal bus 14 and to process the signal in an appropriate area of the cell  
14      array. *Id.* Furthermore, the Examiner found that in Sharrit, the signal is  
15      individually processed by separate RRUs [reconfigurable resource units] one  
16      after the other. *Id.* We endorse and adopt the Examiner's findings.

17       As such, we do not find that Appellants have shown error in the  
18      Examiner's rejection of illustrative claim 1. Instead, we find that although  
19      Sharrit's controller 16 is operative for controlling the operation and  
20      configuration of the plurality of RRUs (Sharrit, col. 2, ll. 51-53), Sharrit also  
21      discloses a local controller, i.e., DSP/GPP, that permits a kernel to operate  
22      autonomously with respect to the other of the plurality of kernels.

23       For example, Sharrit further discloses that each RRU includes signal  
24      processing functionality for processing signals on the signal bus, such as a  
25      DSP, a HDD (hard disk drive), a GPP and/or a FPGA (FF 1-4). Thus, we

1 find that Sharrit's RRUs possess the necessary hardware to operate  
2 autonomously with respect to other kernels.

3 Appellants further contend that “[i]n order for the GPP to perform  
4 local controller functions and do resource allocation, it would need to obtain  
5 information from the DSP [digital signal processor] and/or FPGA [field  
6 programmable gate array]. Since information is transmitted only from the  
7 GPP to the DSP and/or the FPGA and not the reverse (as indicated by the  
8 single-headed arrow), the GPP can not know how loaded the DSP is. Only  
9 through the local controller 16 can the GPP know this information” (App.  
10 Br. 7).

11 We remind Appellants that the *claims* measure the invention. *See SRI*  
12 *Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en  
13 banc). Our reviewing court has repeatedly warned against confining the  
14 claims to specific embodiments described in the specification. *Phillips v.*  
15 *AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (en banc). During  
16 prosecution before the USPTO, claims are to be given their broadest  
17 reasonable interpretation, and the scope of a claim cannot be narrowed by  
18 reading disclosed limitations into the claim. *See In re Morris*, 127 F.3d  
19 1048, 1054 (Fed. Cir. 1997); *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989);  
20 *In re Prater*, 415 F.2d 1393, 1404-05 (CCPA 1969). “An essential purpose  
21 of patent examination is to fashion claims that are precise, clear, correct, and  
22 unambiguous. Only in this way can uncertainties of claim scope be  
23 removed, as much as possible, during the administrative process.” *In re*  
24 *Zletz*, 893 F.2d at 322.

The claim terminology of claim 1, under a broad but reasonable interpretation, does not require that the GPP (i.e., local controller) know how loaded the DSP is. Again, what is required is that a local controller permits one kernel to operate autonomously with respect to the others.

As to the other recited elements of claim 1, Appellants provide no argument to dispute that the Examiner has correctly shown where all these claimed elements appear in the prior art. Thus, we deem any such arguments waived. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2004).

9           Therefore, we do *not* find that Appellants have shown error in the  
10 Examiner’s rejection of illustrative claim 1. Since we find the Examiner has  
11 set forth a sufficient initial showing of anticipation, we affirm the rejection  
12 of independent claim 1 and of claims 2-16 and 51-66, which fall therewith.

## VII. CONCLUSIONS

15 We conclude that Appellants have *not* shown that the Examiner erred  
16 in rejecting claims 1-16 and 51-66.

17 Thus, claims 1-16 and 51-66 are not patentable.

## VIII. DECISION

20 In view of the foregoing discussion, we affirm the Examiner's  
21 rejection of claims 1-16 and 51-66.

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Application 09/772,584

1 No time period for taking any subsequent action in connection with  
2 this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv)(2006).

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AFFIRMED

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