United States District Court,
W.D. Wisconsin.

**JOHN MEZZALINGUA ASSOCIATES, INC., d/b/a PPC, Inc,**
Plaintiff.
v.
**ARRIS INTERNATIONAL, INC,**
Defendant.

No. 03-C-0353-C

**July 25, 2003.**

**Background:** Owner of patent for coaxial cable connector sued competitor for infringement. Owner moved for preliminary injunction.

Holding: The District Court, Crabb, J., held that owner was likely to prevail on claim that patent was valid and infringed.

Motion granted.

6,558,194. Construed.

John Skilton, David L. Debruin, Milwaukee, WI, Colin G. Sandercock, Washington, DC, James Muldoon, for Plaintiff.

Gregory T. Everts, Quarles & Brady, Madison, WI; Lindley J. Brenza, Bartlit, Beck, Herman & Palenchar, Chicago, IL; and Douglas D. Salyers, Troutman Sanders LLP, Atlanta, GA, for Defendant.

## OPINION AND ORDER

CRABB**, District Judge.**

This is an action arising under the federal patent laws in which plaintiff John Mezzalingua Associates, Inc., d/b/a PPC, Inc., alleges that defendant Arris International, Inc. has committed acts of patent infringement in this judicial district by selling or offering to sell infringing products in violation of 35 U.S.C. s. 271(a). The case is before the court on plaintiff's motion for a preliminary injunction to bar defendant from selling its allegedly infringing coaxial cable connectors during the pendency of this litigation. I conclude that plaintiff has made a sufficiently strong showing of ultimate likelihood of success on the merits to entitle it to a presumption of irreparable harm. Further, although the harm to plaintiff if the injunction does not issue may

be no greater than the harm that defendant will suffer if the injunction does issue, this issue is not dispositive because plaintiff has made a strong showing that it will prevail on the merits. Finally, the public interest will not be disserved by the issuance of a preliminary injunction.

From the facts proposed by the parties, I find that the following are material and undisputed.

**FACTS**

Plaintiff PPC, Inc. competes in the cable connector market with defendant Arris International, Inc., Corning Gilbert, LRC and PCT. Coaxial cable connectors come in multiple types. The connectors at issue are "drop" connectors that are used to pass a signal along a coaxial cable from a distribution box to a subscriber's site. They are designed to accomplish two goals: shielding radiation to prevent signal leakage and preventing water seepage to protect signal integrity and the devices to which the connector is attached. The connector must withstand enough force to prevent the cable from being pulled out of the connector; it must be easy to install; and it must be long lasting and competitively priced.

Cable connectors are designed to be installed by inserting the coaxial cable into one end of the connector, causing the cable and connector to be mechanically engaged. Historically, the connector was "crimped" onto the cable, typically through the use of a hexagonal crimping tool that permanently deformed the connector. Such crimp-type connectors do not provide a uniform 360 water-tight seal between the connector and the cable.

Noah Montena is a mechanical engineer working for plaintiff. In April 1997, he conceived a new kind of compression connector. Plaintiff labeled this invention the EX(R) connector. It made a prototype in May 1997. On August 2, 1997, it applied for a patent that issued eventually as U.S. Patent No. 6,153,830 on October 28, 2000. Before that patent issued, plaintiff filed a continuation application that claimed priority on the basis of the previous application. This patent issued as U.S. Patent No. 6,558,194 on May 6, 2003. Claim 1 of the '194 patent is the only claim in dispute in this proceeding. (Initially, plaintiff asserted a contention that defendant infringed claim 2 as well. However, plaintiff has withdrawn this claim for the purpose of its motion for a preliminary injunction.) Claim 1 reads as follows:

A connector for coupling an end of a coaxial cable to a threaded port, the coaxial cable having a center conductor surrounded by a dielectric, the dielectric being surrounded by a conductive grounding sheath, and the conductive grounding sheath being surrounded by a protective outer jacket, said connector comprising:

a. a tubular post having a first end adapted to be inserted into an exposed end of the coaxial cable around the dielectric thereof and under the conductive grounding sheath thereof, said tubular post having an opposing second end;

b. a nut having a first end for rotatably engaging the second end of said tubular post and having an opposing second end with an internally threaded bore for threadedly engaging the threaded port;

c. a cylindrical body member having a first end and second end, the first end of said cylindrical body member including a cylindrical sleeve having an outer wall of a first diameter and an inner wall, the inner wall bounding a first central bore extending about said tubular post, the second end of said cylindrical body member engaging said tubular post proximate the second end thereof, said cylindrical sleeve having an open rear end portion for receiving the outer jacket of the coaxial cable, said open rear end portion being

deformable;

d. a compression ring having first and second opposing ends and having a central passageway extending therethrough between the first and second ends thereof, the first end of said compression ring having a first non-tapered internal bore of a diameter commensurate with the first diameter of the outer wall of said cylindrical sleeve for allowing the first end of said compression ring to extend over the first end of said cylindrical body member, the central passageway of said compression ring including an inwardly tapered annular wall leading from the first internal bore and narrowing to a reduced diameter as compared with the first diameter; and

e. said inwardly tapered annular wall causing said rear end portion of said cylindrical sleeve to be deformed inwardly toward said tubular post and against the jacket of the coaxial cable as said compression ring is advanced axially over the cylindrical body member toward the second end of said cylindrical body member.

Plaintiff has not licensed the '194 patent. Since plaintiff first shipped its EX(R) connectors in November 1997, its sales of the connectors have increased every year. Since 1997, compression-type connectors have taken a larger share of the connector market in relation to crimp-type connectors. In 1997, they made up 25% of the total sales (by dollar) of drop connectors in the United States; in 2002, they made up approximately 75% of the total sales.

The majority of coaxial cable connectors are sold through a two-step process, in which the first step involves customers generally identified as multiple systems operators. These include companies such as AOL Time Warner, Charter Communications, etc. These operators own thousands of local cable providers around the country. Cable hardware manufacturers like plaintiff must submit their products to the multiple systems operators before they can take the second step of trying to sell the products directly to the local providers. Operator approval does not guarantee sales to a local provider because the operators usually approve more than one product for a given application. Connector manufacturers can also sell directly to businesses or municipalities or to consumers through retail outlets.

Once a local cable provider selects a supplier of coaxial connectors, it does not like to change the supplier because of the resulting need to retrain installation technicians and provide them with new tools. When a provider does indicate it will switch suppliers, connector manufacturers compete vigorously for the new sales.

In May 1997, MediaOne made a request for proposal for compression style connectors. After considering both the two-piece Snap-N-Seal(R) connector made by LRC and what became plaintiff's EX(R) connector, it entered into a three-year exclusive, sole-source contract with plaintiff.

In 1998, Corning Gilbert, Inc. introduced a compression connector similar to plaintiff's. In 1999, defendant introduced its own version, selling it as the Digiton(R) "S" connector. Believing that the competing products copied its protected designs, plaintiff initiated design patent infringement cases against both competitors. In September 1998, defendant filed a continuation in part application on its U.S. Patent No. 5,863,220 that issued on July 18, 2000, as U.S. Patent No. 6,089,913.

Early in 2003, Time Warner Milwaukee began evaluating different coaxial cable connectors. Although it has been using LRC's Snap-N-Seal(R) connector, it sent out requests for proposals to several companies to supply approximately 350,000 subscribers in the Milwaukee area. Defendant submitted a bid based on its

Digicon(R) "S" connector and has advanced through the first round in the bidding. The winner of this bid will have increased visibility in Wisconsin. Plaintiff is competing with defendant's product for projects in San Francisco, Atlanta, Washington state and Minneapolis.

Plaintiff and its competitors use trade shows or conventions held around the country as a prime marketing tool for their connectors. The industry has three national trade shows that are attended by senior representatives of the multiple systems operators to learn about new technologies and new products. Manufacturers tend to make more sales at the regional and local trade shows that allow one-on-one contacts with representatives of the local cable providers. This is an opportunity for manufacturers to obtain approval from local cable providers to meet with technicians and gain trial runs for their products, both of which are important entryways into broader business agreements.

Defendant's representatives attend regional and local shows to promote the Digicon(R) "S" products. It was present at a trade show in Wisconsin held on June 18 and 19 and had a booth featuring numerous products, including the Digicon(R) "S" connectors.

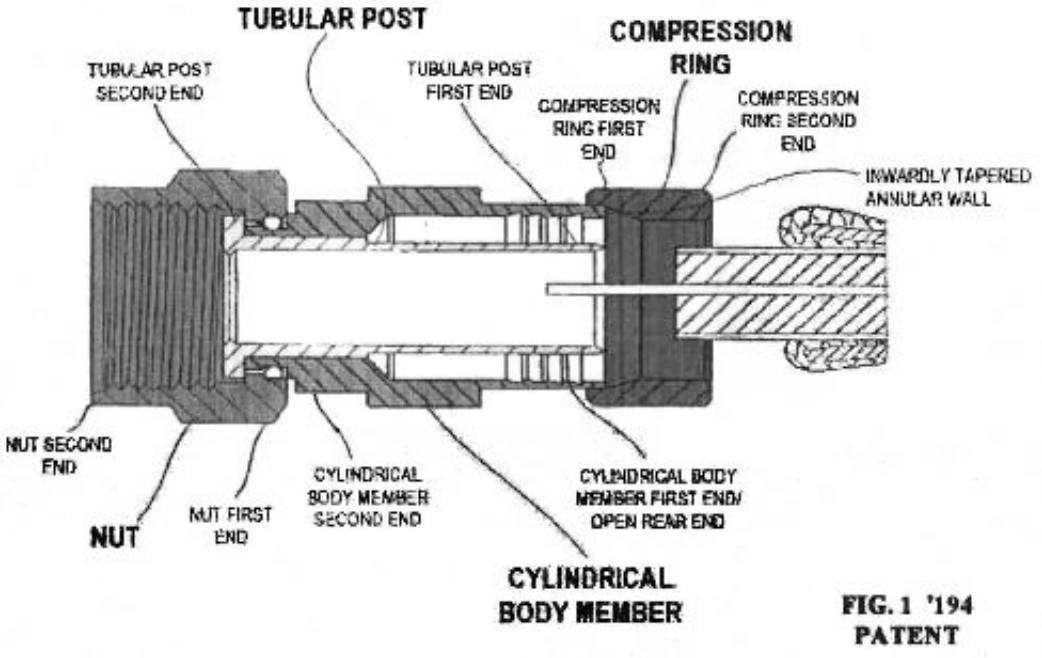
**OPINION**

[1] [2] To obtain a preliminary injunction, the movant must show that it has a likelihood of success on the merits, that it will suffer irreparable harm if an injunction does not issue, that the harm it will suffer without an injunction is greater than the harm the opponent will suffer if the injunction is granted and that the public interest will not be disserved by the issuance of the injunction. Reebok, Int'l v. J. Baker, Inc., 32 F.3d 1552, 1555 (Fed.Cir.1994). If the opponent bases its opposition to the motion on its contention that the movant will not be able to show that the accused product infringes, as defendant does in this case, the determination of likelihood of success can be fairly complex. It is necessary to make a preliminary or tentative construction of the patent's terms and then to decide whether it is likely that, as construed, the terms cover the accused product. Cybor Corp. v. FAS Technologies, Inc., 138 F.3d 1448, 1454 (Fed.Cir.1998) (citations omitted).

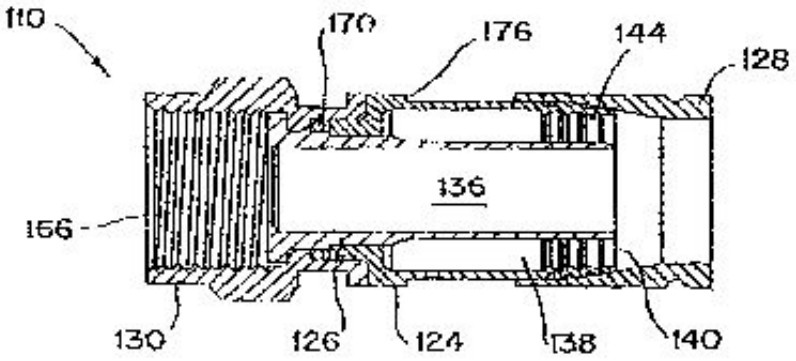
[3] [4] Claim construction is the first step because "the language of the claim defines the scope of the protected invention." Bell Communications Research, Inc. v. Vitalink Communications Corp., 55 F.3d 615, 619 (Fed.Cir.1995) (citing Yale Lock Mfg. Co. v. Greenleaf, 117 U.S. 554, 559, 6 S.Ct. 846, 29 L.Ed. 952 (1886), and Autogiro Co. of Am. v. United States, 181 Ct.Cl. 55, 384 F.2d 391, 396 (1967) ("Courts can neither broaden nor narrow the claims to give the patentee something different than what he set forth [in the claim]."). Accordingly, " 'resort must be had in the first instance to the words of the claim,' words to which we ascribe their ordinary meaning unless it appears the inventor used them otherwise." Vitalink, 55 F.3d at 619 (quoting Envirotech Corp. v. Al George, Inc., 730 F.2d 753, 759 (Fed.Cir.1984)). It is equally "fundamental that claims are to be construed in the light of the specifications and both are to be read with a view to ascertaining the invention." United States v. Adams, 383 U.S. 39, 49, 86 S.Ct. 708, 15 L.Ed.2d 572 (1966); *see also* Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed.Cir.1995) (en banc), *aff'd,* 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996) ("Claims must be read in view of the specification, of which they are a part.... For claim construction purposes, the [specification's] description may act as a sort of dictionary, which explains the invention and may define terms used in the claims."). The specification is " 'necessary to give life, meaning, and vitality' " to the terms of a claim. Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1306 (Fed.Cir.1999) (quoting Kropa v. Robie, 38 C.C.P.A. 858, 187 F.2d 150, 152 (C.C.P.A.1951)).

[5] In this case, the parties dispute the meaning of "rotatably engaging," "proximate" and "commensurate." It is obvious from the patent that the term "rotatably engaging" describes the relationship between the first end of the nut and the second end of the tubular post, which are locked together in a way that allows the nut to rotate around the post, without allowing the post to move through the nut. At this stage of the proceedings, I construe "rotatably engaging" as used in plaintiff's claim 1 to mean "holding the tubular post fast in place, while allowing the tube to rotate."

[6] Claim 1(c) refers to "the second end of said cylindrical body member engagingsaid tubular post *proximate* the second end thereof." According to the dictionary, "proximate" means "very near" or "immediately preceding or following." Merriam-Webster Dictionary online at http://www.m-w.com/cgi.bin/dictionary. "Immediately preceding or following" makes little sense as a definition when the referent is a tubular member encased by a cylinder for most of its length. As the drawings show, the second end of the cylindrical body member cannot engage the post at its very end because of the post's lip that projects slightly beyond the cylindrical body member. *See* Fig. 1, below.



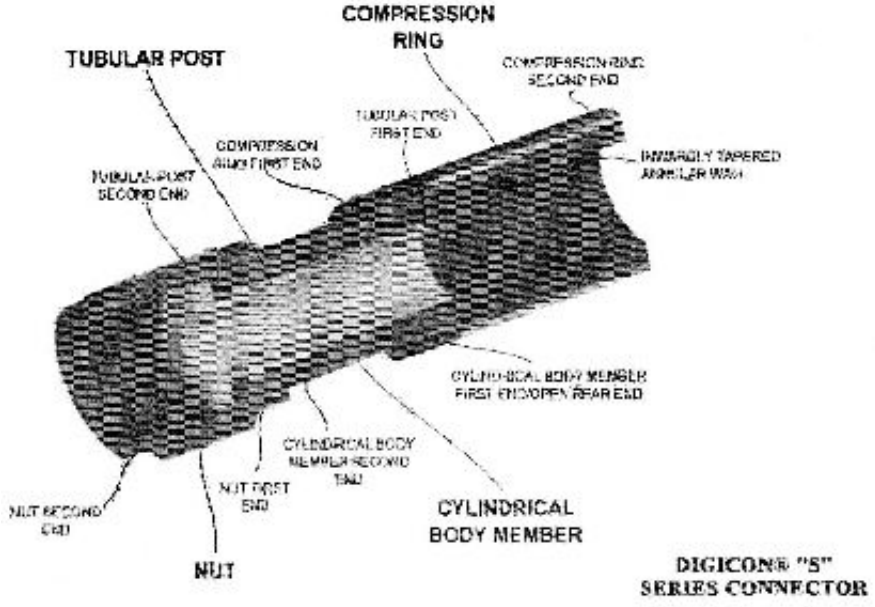

That the patent applicant intended the meaning to be "very near" is shown in Fig. 7, where the cylindrical body member is depicted as slightly farther from the very end of the tubular post than in Fig. 1, with an O-ring and a small portion of the nut separating it from the end of the post, as shown.




In both instances, the second end of the cylindrical body member is closer to the second end of the tubular post than to the first end or to the middle of the tubular post. From this, I am persuaded that the patent applicant used proximate to mean "very near" and used the term to identify the place along the tubular post at which the second end of the cylindrical body member engages the second end of the tubular post.

[7] "Commensurate" means "equal in measure or extent" or "corresponding in size, extent, amount or degree," Merriam Webster Dictionary online, and "proportionate" or "adequate," Oxford English Dictionary online. The first end of the compression ring has a non-tapered internal bore of a diameter *commensurate* with the diameter of the cylindrical sleeve. It is obvious that the patentee is describing a generally cylindrical compression ring that can slide over the cylindrical sleeve encasing the tubular post. To do this, the diameter of the compression ring must be just slightly larger than the cylindrical sleeve, a concept captured by the use of the word commensurate.

[8] As construed preliminarily, the claims of the '194 patent cover the accused Digicon(R) "S" connector manufactured by defendant. The Digicon(R) "S" has each of the elements of claim 1, including a nut, a tubular post, a cylindrical body member and a compression ring.



The nut rotatably engages the tubular post, the second end of the cylindrical sleeve engages the tubular post proximate the second end of the post and the compression ring has a non-tapered internal bore with a diameter commensurate with the first diameter of the outer wall of the cylindrical sleeve so as to allow the first end of the compression ring to extend over the cylindrical sleeve.

Defendant argues that its connector has a detent that creates a taper to the internal bore of the compression ring at the end of that bore and that the existence of the detent creates different diameters for the internal bore at the first end, making its connector non-infringing. First, the detent does not create a taper, in the sense of a chamber that gradually diminishes in one direction. By nature and design, it creates a sudden stop, fulfilling its function of serving as a catch. Therefore, it does not turn a non-tapered end into a tapered end. Moreover, contrary to defendant's representation, the compression ring does extend over the cylindrical body.

The close correspondence of the elements suggests that plaintiff has a strong likelihood of succeeding on its claims of infringement against defendant.

[9] Defendant argues that even if infringement looks likely, plaintiff cannot prevail in this suit because the '194 patent is invalid for obviousness. Defendant maintains that the differences between the subject matter of the '194 patent and two previous patents issued to Holliday and Saba are of such a nature that the subject matter as a whole would have been obvious to a person of ordinary skill in the art at the time the patentee applied for the patent. The Holliday '220 patent discloses many of the elements of the patent at issue with an important exception: the internal bore of the compression ring does not have a "non-tapered" "constant diameter" internal bore at its first end. The Saba '043 patent discloses a compression ring with a constant diameter. According to defendant, it would have been obvious to combine the teachings of the two patents. Setting aside the interesting but irrelevant point that Holliday himself did not think of using the Saba constant diameter compression ring, although the patent issued before he applied for his own patent, defendant has not adduced any evidence of a teaching or motivation in the prior art for combining the two patents. In re Vaeck, 947 F.2d 488, 493 (Fed.Cir.1991) ("[b]oth the suggestion and the reasonable expectation of success must be founded in the prior art").

On a motion for preliminary injunction, the patent owner bears the burden of persuading the court that it can withstand a challenge to the validity of its patent. At trial, defendant will have the burden of proof of proving invalidity by clear and convincing evidence. However, at this stage, plaintiff bears the burden of showing that defendant likely will not prove that the patent is invalid. Purdue Pharma L.P. v. Boehringer Ingelheim GMBH, 237 F.3d 1359, 1365 (Fed.Cir.2001). It would be difficult for plaintiff to prove the non-existence of any suggestion or reason to combine Saba and Holliday, but it has shown that Saba is a patent relating to a connector for rigid hard-line cable rather than a connector for flexible drop cable and defendant has come forward with no evidence of any suggestion for combining the two. According to plaintiff's expert, Saba discloses a connector that effects a solid mechanical attachment to a rigid coaxial cable. It is probable that persons of ordinary skill in the art would not think to combine elements from two such different products. In addition, plaintiff relies on the fact that the patent office had both Saba and Holliday before it when it issued the '194 patent. Therefore, plaintiff has the benefit of the deference due the patent office in defending against the charge of invalidity.

Finally, plaintiff cites secondary indicia of non-obviousness, starting with the improbable (but not wholly unlikely) coincidence that defendant developed its Digicon(R) "S" connector within 18 months of the EX(R) connector's arrival on the market, suggesting that copying was involved; the increase in sales that plaintiff's connector has enjoyed; and the fact that the EX(R) connector and the similar products made by defendant and Corning Gilbert garnered 75% of the connector market share in 2002. This suggests strongly that claim 1 of the '194 patent was not obvious. Defendant's evidence of invalidity is not sufficiently persuasive to overcome the presumption of validity that attaches to the '194 patent. PPG Industries, Inc. v. Guardian Industries Corp., 75 F.3d 1558, 1566 (Fed.Cir.1996).

I am persuaded that plaintiff has shown a likelihood of ultimate success on its claims against defendant. With respect to irreparable harm, plaintiff is entitled to a presumption that it will suffer such harm once it has made a clear showing of patent validity and infringement. Oakley, Inc. v. Sunglass Hut Int'l, 316 F.3d 1331, 1345 (Fed.Cir.2003). A "clear showing" does not have to be a slam dunk showing. In *Oakley,* the court of appeals acknowledged that the questions of infringement and invalidity were "close," *id.,* but the fact that they favored the plaintiff warranted giving the plaintiff the benefit of the presumption.

[10] Defendant argues that the presumption of irreparable harm is undermined by plaintiff's failure to prepare to file its suit immediately upon learning that the '194 patent would issue but waited instead to file until two months after it did issue. I cannot find that a two-month delay in filing suit is such undue delay that it defeats plaintiff's claim of irreparable harm.

None of the other factors for overcoming the presumption of irreparable harm is present. Defendant has not shown that it is going to stop its allegedly infringing activities so that no injunction is needed and it has not shown that plaintiff has a practice of granting licenses, thereby making it reasonable to think that the infringement can be cured with royalties. Polymer Technologies, Inc. v. Bridwell, 103 F.3d 970, 974 (Fed.Cir.1996).

In addition to the presumption of harm, plaintiff has adduced evidence to show that it would be irreparably damaged if defendant can continue to sell the Digicon(R) "S" connector in the next few months. Important contracts are out for bidding; many trade shows will take place at which defendant would be able to demonstrate the competing product; and every sale for defendant increases its place in the market. Money damages are not sufficient because of the difficulty of determining not just the lost sales over the next few months before this case is resolved but determining the economic effect of breaking into new markets. As defendant's counsel stated at the hearing on the motion, defendant's "damages would be incalculable" if it is enjoined from selling its connector. Plaintiff's damages would be at least as difficult to determine.

It is in part because money damages are so difficult to calculate in many cases that the law presumes harm when the moving party can show validity and infringement. Hybritech Inc. v. Abbott Laboratories, 849 F.2d 1446, 1456-57 (Fed.Cir.1988) ("because the principal value of a patent is its statutory right to exclude, the nature of the patent grant weighs against holding that monetary damages will always suffice to make the patentee whole")

With the rapid changes in connector technology, the market for plaintiff's EX(R) connector will not last forever, or even necessarily for the entire term of its patent. If plaintiff is going to be able to extract its bargained for benefit from its patented invention, it needs to be able to sell its product freely, unimpeded by infringers.

[11] The balance of harms is a difficult question. Each party asserts quite plausibly that it will suffer great harm if the decision on the motion for an injunction does not fall in its favor. Plaintiff will be deprived of the advantages of its patent rights because it will be competing with infringers and defendant will be able to continue to exploit its infringing products and obtain business that might have gone to plaintiff; defendant will be unable to market a connector it contends is both non-infringing and highly desirable to customers. Neither party has a clear advantage. That does not mean that plaintiff's motion should be denied, however. An injunction can issue even if the court does not find that the balance of harms factor favors the movant, if the other three factorsare sufficient to tip the scales in the movant's favor. Bell & Howell Document Management v. Altek Systems, 132 F.3d 701, 708 (Fed.Cir.1997); Hybritech, 849 F.2d at 1457. Because defendant will be harmed by the issuance of this injunction, I will make every effort to expedite the trial on the merits to shorten the period of uncertainty as much as possible.

[12] The public interest is served by enforcing the rights of persons who have been issued patents by the United States government. No other public interests are at stake. The public will not be denied a product it needs. *Cf.* Hybritech, 849 F.2d at 1458 (district court refused to enjoin defendant from producing cancer and hepatitis test kits after finding that it was in public interest to keep kits available).

**ORDER**

IT IS ORDERED that the motion of plaintiff John Mezzalingua Associates, Inc., d/b/a PPC, Inc. for a preliminary injunction is GRANTED. FURTHER, IT IS ORDERED that defendant Arris International, Inc. is ENJOINED PRELIMINARILY from selling its Digicon(R) "S" connector or offering it for sale.

W.D.Wis.,2003.
John Mezzalingua Associates, Inc. v. Arris Intern., Inc.